The Major BBS®

Version 6.2

System Operations Manual

Galacticomm, Inc. • 4101 SW 47th Avenue • Suite 101 • Fort Lauderdale, FL • 33314
Voice: (305) 583-5990 • U.S. Sales (800) 328-1128 • Fax: (305) 583-7846
BBS: (305) 583-7808 • Technical Support: (305) 321-2404

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Dear Customer,

Thanks for choosing Galacticomm and The Major BBS! We're pleased to welcome you to the great "connectivity explosion," and we are 110% dedicated to your success online.

This latest release has some exciting features:

- a brand new "file library" with a full-screen browser that makes it easier than ever for you to exchange and manage a huge number of files;
- integrated support for QWK offline mail — your users can download all their E-mail and Forum messages in a single packet to read later;
- a new polls and questionnaires facility that is easy to configure for marketing surveys, data collection, and "expert system" applications;
- and built-in RIP graphics, that let your callers use a RIP-compatible terminal program such as RIP*term* (which is included) to access your BBS in a friendly, graphical way.

With all this and more, we think you'll discover that operating a BBS is a really fun experience. You get to interact with other people and exchange ideas, all while playing with the most advanced technology on the planet. This *is* the electronic superhighway, and you are now a co-architect of it.

We have fun here at Galacticomm too, and we take great pride in providing you with the finest BBS software available and supporting you to the hilt in your use of it. We really enjoy our work, and you'll discover our zest for winning your business every time you contact us for any reason.

A wonderful journey of awakening and discovery awaits you in your newfound role as Sysop. We wish you the best of success, and we look forward to working with you in the future!

Warmest regards,

Scott Brinker
President/CEO
Galacticomm, Inc.

The Development Team for Version 6.2 of The Major BBS:

Scott Brinker	Richard Skurnick
Bill Hyatt	Tim Stark
Bert Love	Bob Stein
Don Pitchford	Brian Stephens
Chris Robert	Tim Stryker

The Documentation Team for Version 6.2:

Bob Stein (with help from the Development Team) ..... Author
Bert Love ..... Editing & Indexing
Sheri Robert, Scott Brinker ..... Additional Editing
Cindy Korman ..... Typesetting
Jeff Torello, Dihan Rosenburg ..... Screen Displays
Barnum Design ..... Additional Graphics
Richard Skurnick, Helen Ryan ..... Proofreading

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1

OVERVIEW OF BULLETIN BOARDS

Congratulations for purchasing The Major BBS! At Galacticomm we've put a lot into this product, and we want you to get the most out of it.

WHAT IS A BBS?

A bulletin board system is a centralized service that users with computers and modems dial up over telephone lines. A user can download information, answer questionnaires, and exchange messages or files with other users.

A BBS is usually a computer hooked up to a bunch of modems and telephone lines. Typically, the user's side is one computer and one modem on a phone line. When users connect to the BBS, they could be across the street or across the ocean — almost anywhere in the world — and the BBS services appear on their screens.

The key to the power of a BBS is its software. In addition to the software that handles users who call in, you will use lots of special programs to install, set up, customize, and operate your BBS.

The Major BBS is a communications tool that can support many users simultaneously. Users can leave messages for each other, conference in small or large groups, or contribute to long-running debates on issues that you define. Your BBS could be an electronic post office, a file library, a forum for public debate, or an electronic town meeting.

On the lighter side, you could use a BBS as a social gathering place, where people can mingle without leaving their homes. A BBS could be an online nightclub, where users could visit for hours at a time or for just a few minutes.

You may be familiar with such services as America Online, CompuServe, GEnie, the Internet, Prodigy, MCI Mail, and Delphi. Many online services are available today. What's different about running your own BBS is this: you are in the driver's seat. You design it, you operate it, and you grow it into a system that's useful and absorbing for you and your users.

In preparing your BBS to go on the air, you work with utilities designed for customizing menus and other configuration aspects to determine how your BBS presents its services to users. You create classes of users, decide how to limit and keep track of their connect

time, and choose what online services they can use. You can charge according to time online or by service.

When your BBS is running, users will be turning to you with their questions, requests, ideas, complaints, and compliments. Whatever you are hoping to achieve with your BBS, it will be your attention as the System Operator, or Sysop (sĭs-op), that will make it a success.

WHAT IS THE MAJOR BBS?

The Major BBS is a multiuser bulletin board system that can be licensed to support up to 256 users simultaneously over modems, serial connections, local area network (LAN) circuits, or X.25 packet-switching networks, at data rates from 300 to 57,600 bits per second (much higher on a LAN).

The Major BBS runs on an IBM PC or compatible with a 386 processor or better and at least 4 megabytes of memory (see page 10 for exact requirements and restrictions).

USING A BBS

Online vs. Offline

To use a BBS, users have to connect their terminals to it — usually by means of modems and telephone lines. When users are connected, they are online. When the connection is broken, they are offline.

You also might say your BBS is online when it is ready to take calls. You might shut it down — go offline — to perform maintenance or make design changes.

Online Features for Users

- Forums — up to 3,500 pools of messages, announcements, debates, and more:
  - Read the latest messages you haven't read yet
  - Search by content of messages
  - Scan through a conversation thread
  - Quickscan only the Forums and subjects that interest you
  - Add file attachments
- Electronic Mail — an electronic mailbox that lets you send and receive messages from other users, reply to their messages, exchange disk files:
  - Name search, for when you don't know someone's User-ID
  - Return receipts, to notify you that the recipient read your message
  - Carbon copies, to send a copy of your message to someone else
  - Distribution lists, to send a message to a group of people
  - Mailbox preference, to set how to handle your new mail (view at log-on? see Forum messages directed to you?); how to reply to messages (automatically erase the original message? excerpt quotations from the original?)
  - File attachments, to add a computer file to your message

- File Libraries — large file bases for uploading and downloading:
  - File search by name, words in description, upload chronology, popularity
  - CD-ROM or alternate-path support
- File transfer protocols — ZMODEM, YMODEM-g, YMODEM Batch, XMODEM-1K, XMODEM, Kermit, Super Kermit, ASCII:
  - Tag files one at a time or download all at once
  - Optional automatic log-off after a long transfer completes
  - Sysop file import/export
- Online Full Screen Editor for messages:
  - Full-screen message writing and editing
  - Paragraph reflow
  - Automatically reverts to line editor for users without ANSI terminals
  - Message and file import
- Teleconference — multiuser, multichannel conferencing or socializing
- Polls and Questionnaires — custom questions, analysis of answers
- Registry of Users — information exchange for users
- QWK-mail — offline mail capability
- Doors — external programs for users to run
- RIP*scrip* graphics — ready-made images for display on user terminals

DESIGNING YOUR BBS

Security

The Major BBS gives you several ways to control access to information on your system.

Locks and Keys

On The Major BBS, you use locks and keys to control which users have access to what files. For example, Joe can look at one set of files, but cannot add any files of his own; Sally can contribute to one set of files, but does not know that another set of files is online at all; Ralph, whom you trust, can get at just about everything. You can put an upload lock called CREW on one set of files and give the key named CREW to Sally and Ralph. You might not put a download lock on the files, so everybody can see them. You can put a visibility lock called STAFF on the other set of files and give the STAFF key to Joe and Ralph.

You can lock many features and give out keys in many ways. We have started you off with five preconfigured BBS models, with several locks and keys already in place (see page 98).

User-IDs and Passwords

A major part of security is knowing whom you're dealing with. That is why, when you call a BBS, nothing happens until you enter your User-ID and password. Everyone who uses The Major BBS must supply a User-ID and password. The User-ID is the unique name by which the BBS recognizes the user. It can be the user's own name, as long as it is unique and not too exotic (see page 300 for the possible constraints and page 288 for how to implement these constraints).

A password makes sure the user is whom he says he is. If users keep their passwords secret, then at least you know that what User-ID `Sam Collette` did one day and what User-ID `Sam Collette` did another day were done by the same person.

You may wish to voice verify your callers when they sign up, so you can be even more sure of who `Sam Collette` is. That means that before you give a new user any special access, you dial the phone number he gave you and see if everything seems on the level. You do not have to do this: The Major BBS is set up to allow you to make your BBS very open or very private — you decide.

Signing Up and Logging On

The first time a user calls into your BBS, he has to sign up. First, he dials your BBS number with his computer and modem. He doesn't have a User-ID at that point, so he identifies himself as a `NEW` user. The BBS will ask him several questions, such as address and phone number, and record his answers for you to review. The user will pick his own User-ID and password. Now he is signed up on your BBS.

After signing up, a user can call back any time and use your BBS. He calls your BBS, types in his User-ID and password, and gets to the `TOP` menu. This is called logging on.

The Sysop User-ID

As the Sysop, you can do a lot of work online. You can set Forum access levels, switch user classes, get account information on users. The User-ID `Sysop` grants such privileged access. The BBS already has this User-ID on file. The first thing you will do after bringing up your BBS is to log on as the `Sysop` user. (The password also is `Sysop` — you should change it right away.)

Accounting and Statistics

You may want the BBS to keep track of how long each user stays online and nothing more. Or you may want to charge users for time online or for the services they use. You may want users to pay first and, if they stay on too long, hang up on them or reduce their privileges. Perhaps you want to require new users to pay an advance on the charges, but then let them go into debt and bill them monthly.

All the while, the BBS can track how many people are doing what and when in the day they tend to do it.

Features for Designing Your BBS

- Installation — getting you on the air fast (you can customize later):
  - Five BBS models — preconfigured user class structures (choose one)
- Menus — lists of options for your users:
  - 25 menu selections at a time
  - Design a Menu Tree with nearly unlimited levels of menus
  - A different menu structure for each user
  - A different menu structure for each channel or group of channels
- Locks and Keys — secure the services on your BBS:
  - Put locks on services
  - Issue keys to users
- Credits — when to charge users:
  - Connect time — the amount of time they stay online
  - Sending mail
  - Downloading files from File Libraries
  - Uploading to Forums
- Classes of users — accounting and access decisions:
  - Online time limits per call, per day
  - Scheduled expiration or change in status
  - Whether to charge for using the system
  - Debt limits
  - Class keyring for common access privileges
  - Five preconfigured BBS models
- Change the design while staying on the air:
  - Remote Menu Tree design
  - Design new user classes
  - Edit Polls and Questionnaires online

RUNNING YOUR BBS

The fun is just beginning when you receive your first call.

You might put your BBS to any number of uses. But in most cases, it is the Sysop that will make a BBS succeed. A BBS rarely works as a machine you can place off in a corner and ignore. It is most useful as a communications tool. It is an enhancement of communication among people, not a replacement.

Many of the great functions that a BBS can serve are already approximated in some other way: people send papers or files by overnight mail, make notes to themselves to call you back during the normal hours for your time zone, type up a business letter, fax you a request for literature and an order form....

With a BBS, all those tasks take minutes instead of days. But people need time to adjust to the convenience of a BBS before they use it regularly. You will find that a long-term cultivation of interest pays off.

You could print your BBS number in advertisements and literature. You might encourage people to leave a message for you on your BBS if they cannot reach you by phone. If you publish a list or information that is constantly changing, keep it up to date on your BBS and let people know it's there. Maybe it's your latest products, your latest prices, a membership directory, or a cross-reference of some kind. (On Galacticomm's Demo System, we keep a list of public BBSes; see page 395 for instructions.) This could reduce the number of routine voice phone calls you have to take.

If you want to get discussions going in your online Forums, you could seed debate with a question like "What does everyone think about...?". You can prune the thread of the conversation if it gets out of hand or off track. You might find that the more people who get online regularly, the more valuable the BBS becomes to everyone.

Features for Operating Your BBS

- Local log-in — from the BBS machine, simulate a user's terminal and log on as if you were a user dialing in
- Screens — the view from the console of the BBS:
  - Audit trail record of important system events
  - User account information display and editing
  - User channel emulation (look over his shoulder at his terminal)
  - Channel input and status monitoring
  - Real-time statistics and graphs
- Softkeys — quick commands from the console:
  - Online help
  - Broadcast messages to users online
  - Post access credits
  - Set log-on messages
  - System shutdown, channel shutdown
- Online accounting:
  - Post credits for paid connect time or demonstration connect time
  - Switch a user to a different class
  - Issue keys to users or to classes of users
- Security against hostile users:
  - Quick disconnect
  - Account suspension, deletion
  - Remote disabling/enabling of menus
- Statistics:
  - System usage tracked by time of day, by channel group, by online service
  - Demographics

- Remote Sysop Menu — operate the BBS from a remote location:
  - Almost all console information available: user accounts, who is online doing what, view statistics
  - Almost all console commands available: emulate a channel, broadcast messages, suspend accounts, even shut down the BBS

Connectivity: Modems, Serial Ports, X.25 Packet-Switching Networks, LANs

The Major BBS has many connectivity modes.

Modems are still the most popular way to connect to a BBS. Phone connections exist in almost every country, and the quality of phone transmission has increased significantly just in the last decade.

You will probably start with a few modems and phone lines on your BBS. Modems are ideal if your company has a field sales staff or other employees working offsite. They can dial into your BBS when they are on the road and get their messages, upload reports, or download detailed product information for a customer.

A BBS with serial ports could pass data among computers without a LAN. You could wire computers around the office to serial ports on your BBS. Those computers can log into the BBS at any time by running terminal emulation software such as PROCOMM or Telix. Then you can maintain libraries of files for computer users to exchange.

If you have a Novell LAN, you can make even more use of your BBS. Set up IPX direct circuits (see page 35) to link your BBS and several other computers in your office, depending on user-count licensing. Add the Advanced LAN Option, so you do not have to set up the circuits in advance — just run our terminal emulation software from any computer on the network and log on.

If you add the X.25 Software Option and special hardware, your BBS can be a service on a packet-switching network. Packet-switching networks are like phone companies for computer communications. They can significantly cut costs for high-volume systems, with eight users or more online at once, or for systems that require worldwide access. You can order these and other add-on options from Galacticomm's sales department at (800) 328-1128 or (305) 583-5990 or from your nearest authorized Galacticomm dealer.

In these ways, your BBS can be a unifying communications hub in your organization: fast access around the office, universal access around the world. Whichever method — modem, serial port, LAN, packet-switching network — the interface is the same: straightforward interactive menus, ANSI-coded colors and graphics, RIP graphics, and full-screen message editing.

Support from Galacticomm

At Galacticomm, our job is to get you started with reliable, high-performance software and hardware. But our involvement doesn't end there. Galacticomm is committed to giving you top quality support throughout the life of your BBS: setup, operation, customization, and expansion. We hope your BBS is so successful that you will soon want to upgrade with more telephone lines, more communications hardware, and more software add-on options (see page 394 for more information about services from Galacticomm).

Upgrading Your BBS

There are a number of ways you can upgrade your BBS as your needs grow. You can support more phone lines or other types of circuits by purchasing User Six-Packs. Each User Six-Pack expands your BBS to handle six additional simultaneous users.

Moreover, you can add whole new services to your BBS: The Major Database, for designing your own online databases and entering, searching for, and reporting data; the Dial-Out facility, for using your modems to dial out to other services; Fax/Online, for online faxing of text messages and documents; Search and Retrieve, for an online text file database; and many more. You can purchase interface options such as the Advanced LAN Option, for enhanced access over a Novell network, and the X.25 Software Option and PC XNet interface package for putting your BBS on a packet-switching network.

We've tried to make purchasing as quick and convenient as possible. You can buy add-on options from a software dealer or directly from Galacticomm at (800) 328-1128 or (305) 583-5990. When you get the software, insert the first floppy disk in your drive, type `A:INSTALL` or `B:INSTALL`, as the case may be, and follow the instructions.

WHAT YOU CAN DO WITH YOUR BBS

We designed The Major BBS to serve a lot of different purposes. From locating used helicopter parts to tracking east European stock exchanges, people are finding new ways to rely on BBSes all the time. Here are a few ideas for the future of your BBS:

Building Contacts

In traditional businesses, sales people deal with customers and purchasing people deal with vendors. Today, these divisions have become fuzzy. Lots of people in your organization probably need to communicate directly with lots of people on the outside. Pleasing the customer is everyone's job. In the information age, you may discover the BBS is a new tool for streamlining data transactions with a network of contacts.

Idea-Base: A Database of Ideas

With a bulletin board, you might get new ideas that would otherwise lie fallow in the minds of your customers. Now late at night when a customer thinks, "Wouldn't it be great if they...?", he or she can call your BBS and leave you a quick note. Those ideas can be pretty valuable.

Think of all the great ideas your company has had in the last two years and imagine if you had thought of them a year or even a few months earlier. If your company is like most growing companies today, keeping up with your customers and your markets is a way of life. A bulletin board can help you collect new ideas.

Customer Support

A BBS is an ideal customer-support vehicle. Sometimes you just need to exchange a file with a customer. Your BBS also can take orders, display product literature, show the latest press releases and magazine articles, organize answers to customer questions, and

provide a forum for customers to share tips and ideas. All these services benefit your customers. This means you can be more competitive with a customer-support BBS.

Electronic Publishing

If you are a government agency, standards organization, research group, or any company that regularly publishes large documents, you could save money and trees by publishing electronically. Instead of shipping boxcars full of paper with each new printing, put your information online. You can be very specific about who has access to what on your BBS. Your customers also will save money if they can use your BBS as their library and download only what they need when they need it.

A Profitable Info-tainment BBS

Information and entertainment are worth money to people. What a BBS adds is variety: put a good mix of interesting and useful information online, keep up an assortment of online activities, promote your BBS in a number of ways, and you are sure to get an outrageous group of people on your system.

You could set up a special-interest BBS. Keep members of a local club or organization in touch with each other. Give students a safe way to socialize after hours. Get parents involved in the school system. Host trivia contests. Become an MHS network mail post office. Start a new political party. Combine the best of video arcades (social) with home video games (convenient). Host special gatherings, so online acquaintances can become friends in person. Moderate real-time debates on the latest hot topic in the news. Be a reliable source for antivirus shareware. Encourage local merchants to sell or advertise online. Publish news service reports, weather reports, stock prices, tide tables, newsletters, astronomy events, lottery numbers, almanac data, sports scores, airline schedules. Collect book reviews, magazine reviews, music reviews, movie reviews, software reviews, car reviews, travel reviews, fishing hole reviews, restaurant reviews, BBS reviews....

There is something special about bringing people together on a BBS, too. Your BBS could start a number of rewarding personal and professional contacts and enable them to keep in touch indefinitely with electronic mail (E-mail). With the right promotion, some distinction in your online activity, and a little electronic charisma, you can bring together thousands of people on a BBS.

There are entertaining BBS add-on options galore to keep your users calling back. Several are from Galacticomm; hundreds more are from third-party companies.

AUDIENCE

This manual is an operator's manual and a user's manual. Most of this book is intended for operators of The Major BBS. You own the license, you've set up the system, and you keep it running. In Chapter 15, "At the User's Terminal," we talk directly to the users.

2

INSTALLATION

See the checklist "Getting ON-THE-AIR Fast" for brief instructions on installing your BBS for the first time and Galacticomm's *Quick Start* booklet for tips on optimizing your system. This chapter describes setting up your bulletin board in a different way and in more detail. First of all, installation has four phases:

1. Preparations: get a computer, phone lines, modems.
2. Hardware setup: connect devices, select initialization strings.
3. Software installation: install the software from Galacticomm with `A:INSTALL`. Put your BBS on-the-air.
4. Customization: make a few or a thousands changes in the way your BBS operates and presents services to users.

PREPARATIONS

System Requirements

Computer:	IBM PC or 100% compatible with a 386, 486, or Pentium processor. Running Doors requires a separate computer	
Operating System:	Recommended:	MS-DOS 5 or higher
Memory:	Minimum RAM:	4 megabytes (1 MB real, 3 MB extended)
	Recommended:	8 megabytes (1 MB real, 7 MB extended), or more
	Maximum usable:	16 MB
Hard Disk:	Minimum recommended:	30 MB

Installing The Major BBS — with no add-on options, empty databases, and no files online for downloading — requires 10 MB of disk space.

- Total disk space requirements depend entirely on what you will do with your BBS. Huge libraries of files can take up a lot of disk space. So can message databases with lots of activity and with long message lifetimes.
- Software or hardware disk caches can increase performance significantly; however, we strongly discourage the use of disk-write caching.
- If you are using Adaptec's 1740A SCSI Controller, you may need to run it in standard, rather than enhanced, mode. You can change this with the ECU utility and by putting `DEVICE=ASPI4DOS.SYS` at the top of your `CONFIG.SYS` file.
- The Major BBS is compatible with most LAN-based file servers. You can put some or all of its directories on the network.

Communications interface hardware you may want:

- Hayes-compatible modems on serial ports COM1, COM2, COM3, and COM4 (we strongly recommend 16550 UART devices)
- GalactiBoxes, each with up to 16 internal modems or serial ports
- GalactiBoards, each with up to 8 external modems or serial ports
- A Novell-compatible local area network with NetWare Version 2.15 or higher for DOS, for online access from PC workstations running Galacticomm's SPXTALK LAN terminal program
- A PC XNet card from OST (requires the X.25 Software Option)

Communications services you may require:

- Telephone lines from your phone company. You will need one line for each simultaneous user.
- For LANs, you need the network itself. A file server is not required.
- For packet-switching networks, you need the connection service from such networks as CompuServe, SprintNet, BT Tymnet, Minitel, Infonet, and ADP/Autonet. This may include a synchronous modem and leased phone lines. You do not need a PAD (packet assembler/disassembler).
- For Doors, serial connections require a null-modem cable (see page 33).

Running The Major BBS under DOS

The Major BBS is designed to run under DOS, and it blends well with DOS 5 or 6 with a few precautions.

DOS 5's ability to load DOS into higher memory may be incompatible with The Major BBS; some of our customers have had conflicts, others have not. You may wish to leave the lines `DEVICE=HIMEM.SYS` and `DOS=HIGH` out of your `CONFIG.SYS` file until you get your BBS up and running well.

When running the BBS under DOS 6, don't use the DoubleSpace disk-compression software — or, more accurately, don't store any BBS files on disk partitions that have been compressed with the `DBLSPACE` program. We have run into unresolvable errors doing this, and our experience with disk-compression software shows that it can lead to serious loss of hard-disk data. Besides the reliability issues, which are reason enough, disk com-

pression can affect a BBS's efficiency where it hurts most: the hard disk. A multiuser BBS really needs as much hard-disk speed as it can get.

The other precaution is to disable write-caching if you use the SMARTDrive program that comes with DOS 6 and Windows 3.1 (see "Running under Windows 3.1" below). You can do this by specifying explicitly the disk drives to cache — for example, SMARTDRV C. The SMARTDRV.EXE that comes with DOS 5 is compatible with The Major BBS.

Running the BBS in Different Environments

You should remember that The Major BBS will always perform best under DOS. Supporting a large number of channels at high data rates with complete accuracy and adequate efficiency is only possible when The Major BBS has the complete attention of the computer and is not competing with computation-hungry applications or operating systems. With that caveat in mind, you can run The Major BBS under OS/2 Version 2.1 or Windows 3.1 with just a little tweaking. The following sections explain the adjustments you will need to make as you install your system.

Running under OS/2 Version 2.1

To run under OS/2 Version 2.1, install The Major BBS in a DOS Window and follow Windows installation step 11 in the next section for using the interrupt multitasker method. Depending on your BBS computer's power, this will support one or two channels at 2400 to 9600 baud.

Running under Windows 3.1

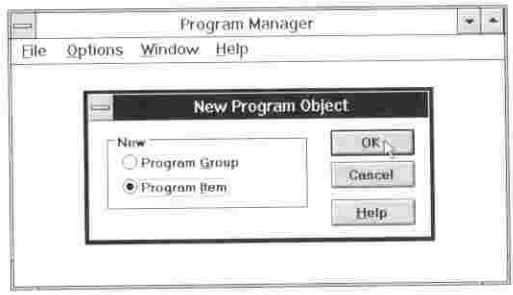
The Major BBS has a limited ability to run under Windows 3.1 in 386 enhanced mode. If all you need is a small BBS with one or two channels, then you may be able to run it under Windows.

To run The Major BBS under Windows 3.1:

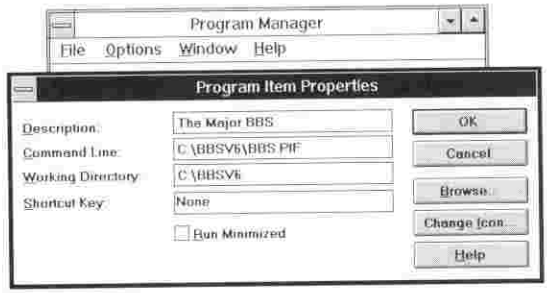
1. Make sure you've installed The Major BBS and have it up and running (see pages 20-21 or follow the Installation Checklist). Install Windows 3.1 according to its instructions.

2. Choose a Program Group where you'll want to put the icon for your BBS. For example, click on the Applications Program Group.

3. From the Program Manager File menu select New, choose Program Item, and click OK.



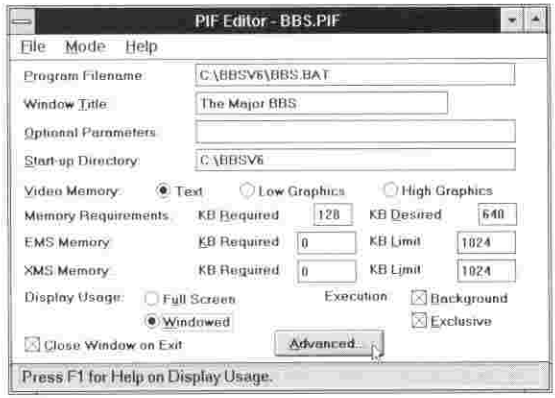
4. Now you should see the Program Item Properties dialog box. Choose a name for your BBS and enter this into the Description field. Your Command Line should be something like `C:\BBSV6\BBS.PIF`. We have created this `.PIF` (Program Information File) for you and it should already be in your `BBSV6` directory. Your `BBSV6` directory should also be your Working Directory, in Program Manager terminology.



5. Hit the Change Icon... button. You'll probably get a warning that no icons are available. This is fine. Choose OK, so you can "choose an icon from those available for Program Manager." Specify the icon we've made for you by typing in the file name `C:\BBSV6\BBS.ICO`. You should see a little CRT-screen icon in the icon viewing box. Select OK from the Change Icon dialog box, then OK again from the Program Item Properties dialog box. Now you should see the icon for your BBS in the program group where you put it (from step 2). You are almost ready to run.

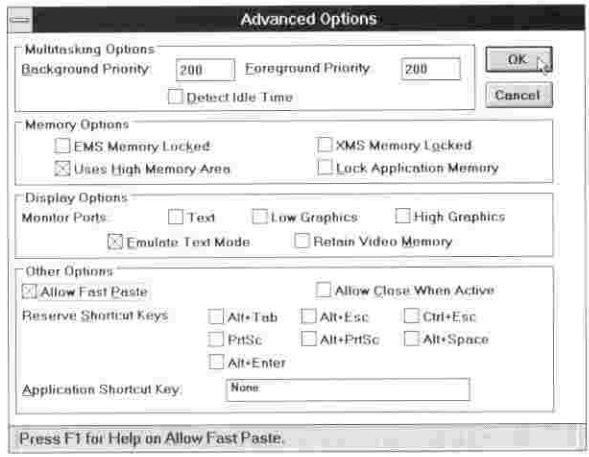
6. Examine the `BBS.PIF` file using the PIF Editor from the Main Program Group: from the PIF Editor File menu, choose Open and enter the Filename `C:\BBSV6\BBS.PIF`. (You will need to change the `BBSV6` path name here if you've installed your BBS in some other path.) Put the name of your BBS in the Window Title field. The .PIF file already includes the following settings we recommend, which differ from the default .PIF settings:

Execution: [X] Background
[X] Exclusive



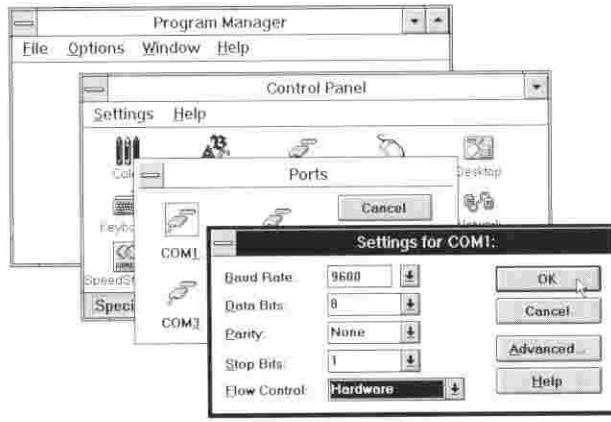
We also recommend these nondefault settings among the Advanced Options:

Background Priority: 200
Foreground Priority: 200
Detect Idle Time *(unchecked)*



Don't forget to Save your PIF Editor settings back into `C:\BBSV6\BBS.PIF`, under the File menu.

7. From the Main Program Group, double-click on the Control Panel icon and then double-click on Ports. Configure your port settings and advanced settings as appropriate. You should start at a baud rate of 2400 to get your BBS running; increase it later, if you wish. Select Hardware under Flow Control. From the Advanced Settings, you'll probably be happy with the default I/O Port Address and Interrupt Request Line. Save these settings by clicking on OK and Close, and so on.



8. From the Control Panel, also bring up the 386 Enhanced options. For each COM port that you are going to use, select `Never Warn under Device Contention`. From Virtual Memory options, change to a Permanent swap file for best performance. Click on OK, etc., to save.

9. After finishing these COM port settings under the Windows Control Panel, you need to edit the `SYSTEM.INI` file in your `\WINDOWS` directory to put in some finishing touches. You can use any ASCII text editor, or the Notepad accessory in Windows. The `SYSTEM.INI` file is broken into sections with several *option=value* settings in each section. In the section titled `[386Enh]`, you will need these settings:

```
MinTimeslice=10
WinExclusive=0
COMBoostTime=40
COM1Buffer=8192
COM1FIFO=on
device=\bbsv6\galvit.386
```

   Include a `COMnBuffer` and `COMnFIFO` line for each COM port you are using. If any of these options appear already in the `[386Enh]` section, make sure the values above are used — do not add a new line.

10. Click on your BBS icon to bring up the introductory menu that says `The Major BBS` in big letters. Type `1` to do some Hardware Setup.

11. To get your BBS up and running under Windows, configure one or two ports at 2400 baud. Later you can add more ports or increase the baud rate if you find your computer can handle it (see pages 25-34 for how to tell The Major BBS what hardware you'll be using).

    Also in Hardware Setup, use the down-arrow key to scroll down towards the bottom of the list of options. Change the offline Hardware Setup option `MULTSK` to `YES`, and you will see a few more options come up below it. Here are some example settings:

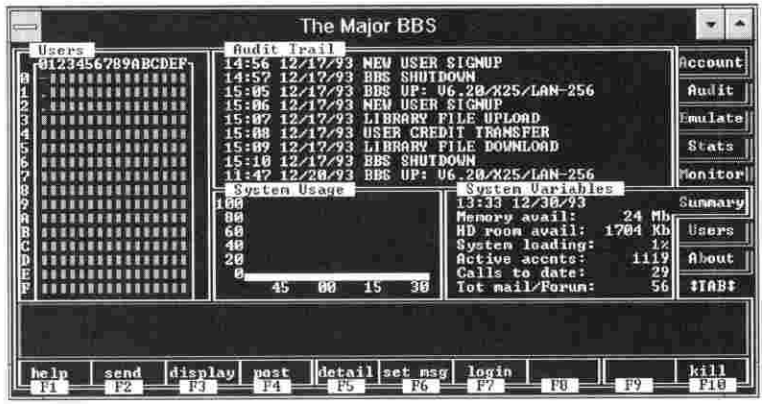
```
MULTSK   Need to run BBS under Windows, DESQview, etc.? ..... YES
MLTMTH   Method to use when using a multitasker: ......... INTER
IRPSRC1  First communications interrupt: ..................... 4
IRPSRC2  Second communications interrupt: .................... 3
```

For best performance, we recommend the `INTER` multitasker method. It requires each modem and serial port to use a separate interrupt — so you will probably be limited to two ports, such as COM1 and COM2 using interrupts 4 and 3. (You also could use COM3 on interrupt 4 and COM4 on interrupt 3 or any two ports on different interrupts.)

If you have two interrupt sources, you can specify them in either order with the `IRPSRC1` and `IRPSRC2` options. There is no need to match the interrupts with the channels here — just specify which interrupts will be used. If you have only one interrupt, specify it in `IRPSRC1` and set `IRPSRC2` to 0.

Hit *<F10>* to save these settings and exit. Now your BBS is ready to run under Windows.

12. Hit *<F5>* = `Go!` to bring up the BBS.



Congratulations, your BBS is up and running under Windows.

Running The Major BBS with NetWare or LANtastic

If you are running your BBS from a Novell network drive on your computer, you'll need to tell NetWare to support a large number of file handles. This would be the case if, for example, you install The Major BBS into the `M:\BBSV6` directory and M: on your BBS computer is a network drive on the file server. When you run IPX/IPXODI or NETX to log on the network, the `SHELL.CFG` file must reside in the current directory and contain the line:

```
FILE HANDLES=127
```

where the sum of the `FILES=m` in `CONFIG.SYS` and the `FILE HANDLES=n` in `SHELL.CFG` is less than or equal to 255. Usually, `FILES=127` and `FILE HANDLES=127`.

If you are running LANtastic/AI Networking Software, rest assured that The Major BBS Version 6 has passed all Artisoft's tests for compatibility.

UARTs

If you do not have 16550 UARTs and you are having problems with modem initialization or uploads, try increasing the offline Hardware Setup option POLRATE to at least 9600 or twice the baud rate of your non-16550 channels, whichever is faster. If you set POLRATE too high, your BBS console might become sluggish or your BBS might stop functioning.

Number of Simultaneous Users

Your BBS has two different kinds of restrictions on how many users it will support simultaneously, imposed by:

- How many User Six-Packs you have purchased
- Computer performance

Here are some examples of what User Six-Packs can do:

Number of User Six-Packs	Maximum number of simultaneous users
0	2
1	8
2	14
3	20
4	26
5	32
6	38
7	44
8	50
13	80
21	128
33	200
42	256

Computer Performance

We recommend a fast hard disk. Disk-caching software or hardware can help. Again, we strongly discourage the use of write caching.

The practical requirements for computer performance depend on many factors:

- Computer CPU
- Clock speed
- Disk access time
- BIOS efficiency
- Disk cache
- MAXBPS value: the maximum bits-per-second rate of all modem and serial channels on your BBS
- Number of simultaneous users
- Number of modem or serial channels
- User activities
- User expectations

Not all these factors are easy to quantify. But you can use this table as a rule-of-thumb guide (some systems may be able to support more channels on LANs or X.25 networks):

CPU	Clock	Hard-disk access time	Maximum number of channels at various MAXBPS values: 2400	4800	9600	19200	38400	57600
80386SX	16 MHz	28 ms	48	24	16	8	4	2
80386	33 MHz	28 ms	128	64	32	16	8	4
80486	33 MHz	18 ms	256	128	64	32	16	8
80486	50 MHz	10 ms	256	256	128	64	32	24
80486	66 MHz	4 ms	256	256	192	96	48	32

A few notes on the table:

- It assumes that all modem and serial channels use 16550-type UART devices.
- The maximum bps rate for any modem or serial channel is more important than the average bps. This means that a BBS with nine channels at 2400 bps and one channel at 9600 bps will have performance requirements more like a BBS with ten 9600 bps channels than one with ten 2400 bps channels.
- Modem and serial channels count whether or not they are in use. Even non-hardware modem or serial channels should be counted. LAN or X.25 channels do not load the system if no users are online.
- These numbers assume you are not using a software memory manager. We have found that memory managers can reduce protected mode performance. In general, we don't recommend you use memory manager software with The Major BBS. These programs may give you more real-mode memory at the expense of extended memory, but they can slow down the BBS computer. With The Major BBS, they have no advantage, except perhaps in some very large systems with many LAN channels if you are running out of real-mode memory (look on the About screen).
- If you exceed the limits in the above table when setting up your BBS — for example, by configuring 256 modem channels at 38400 bps for a 16-MHz 386SX — you may get the Phar Lap error message `Out of interrupt stacks` at the bottom of your screen.
- If you don't see the maximum bps rate you want to use, use the column with the next higher rate.

Many factors besides those in the table can influence how many users your BBS can support before you need to upgrade your computer hardware. Heavy processing or CD-ROM usage could reduce your capacity.

The Telephone Company

Each Phone Line Supports One Modem, One User at a Time

When you order a new phone line for your BBS, what you will probably get is a new connector, or jack, on your wall. If you are starting with multiple lines, you'll get several phone jacks. Modems plug into your phone jacks just like a telephone would.

One Phone Number for Many Phone Lines

This feature is sometimes referred to as having your phone lines on a "hunt group," or on a "rotary." Here is what it does: one user calls your BBS and gets online. Then another user calls the same phone number. Instead of a busy signal, he is routed automatically to the next line. That second line probably does have its own separate number. But both users got online by dialing the number of the first line. That's the number you can put in print and distribute as your BBS number.

Order the hunt group feature from your phone company. No special hardware will be required.

Tone vs. Pulse Service

You may be able to save a few dollars by not requesting tone service from your phone company. You will probably be using your BBS phone lines just to receive calls. In that case, you won't miss tone service. If you do any dialing out, you'll need to use the pulse dialing method instead of the tone method.

If you are dialing out with a modem on your BBS lines, for example, you could use these Hayes-compatible modem commands:

ATDT <*number*>	tone dialing method
ATDP <*number*>	pulse dialing method

Reliability of Phone Lines

The quality and reliability of your phone lines are critical to the success of your BBS. In the U.S., we take this for granted, but in some places it is hard to get a line at all, let alone one that is noise free. Sometimes a problem with your local telephone equipment can give your remote users a lot of grief. We've found that it can take some extra effort to get these problems corrected. It is worth your special attention in the beginning to make sure your BBS is convenient for all users.

HARDWARE SETUP

This may be as simple as plugging in your modems and phone lines and installing the BBS software. Part of software installation is running a program called BBSetup. BBSetup finds modems on COM ports 1, 2, 3, and 4 and configures them for you.

See Chapter 3 for details on hardware setup, starting on page 23.

page 25 Modems
page 32 Serial ports
page 34 LAN setup and operation
page 182 Installing MHS capability on your BBS.
page 277 Using Doors

SOFTWARE INSTALLATION

Software installation can be summed up like this:

> Insert the first disk in your floppy drive and type `A:INSTALL`. Or put the disk in your `B:` drive and type `B:INSTALL`. Follow the instructions.

By the way, we will use this same procedure for all these tasks:

- Installing The Major BBS for the first time
- Installing add-on options for The Major BBS, including upgrades to more users, more interfaces, or more online services
- Updating your software to the latest version

Here are some details about what will happen when installing The Major BBS software for the first time:

1. You confirm the directory on your hard disk where you want to run the BBS software. (The install program will create `\BBSV6` for you if you wish.)
2. The contents of the floppy disks will be copied onto your hard disk.
3. The install program will check that your `CONFIG.SYS` file will support enough file handles. If it won't, you'll get instructions for putting `FILES=127` in that file. Continue the startup process by changing back to your BBS directory and typing `BBS` <*Enter*>. Note that for large systems — for example, one with lots of add-ons that open lots of files — 127 might be insufficient: either you will get an error message when bringing up the system or you'll be able to bring up the system but not upload or download. In both cases, use `FILES=254`.
4. At this point, you will see displayed `BBSMAIN.RLN`, a file of release notes that highlights undocumented and new features and information for this version of the BBS. This is a good time to read it.
5. When asked, enter the activation code from inside the front cover of this manual.
6. BBSetup will automatically detect modems on COM ports 1, 2, 3, and 4 and then ask you whether to include each device.
7. Choose one of the five BBS models to start your system. Each model comes with a set of user classes and privileges preconfigured. You can change that information later from the Remote Sysop Account menu (see page 111).
8. Choose option `5` from the introductory menu to bring your BBS up and on the air. Now it is ready to take calls over your phone lines.
9. Hit the <*F7*> softkey to log in locally from the console. You will immediately get a language prompt and then a log-on prompt asking you for your User-ID.
10. You can use the User-ID `Sysop` and the password `sysop`. You will be notified that there is new mail waiting for you. You will also be prompted for your birth-date. After entering these, you will get the `TOP` menu (see page 294).
11. Type `A` <*Enter*> to choose `A ... Account Display/Edit`.
12. Type `A` <*Enter*> again to bring up your account information.
13. Keep hitting <*Enter*> until you've highlighted the password field: `Password: *****`.

14. Choose a new password for the Sysop account. This is very important so that users can't call in and have Sysop privileges.
15. Choose the SAVE option at the bottom or hit <*Ctrl-G*> to save this information.
16. Hit X <*Enter*> to exit Account Display/Edit.
17. Hit X <*Enter*> to log off of the BBS. Answer Y <*Enter*> to confirm.
18. Hit <*Esc*> to switch the BBS console from the local log-in screen back to the summary screen.
19. It is a good idea to try logging on your BBS using all your interfaces: call in over a modem, log in over the LAN with SPXTALK, and so on.
20. Shut down the BBS by hitting <*F10*> <*F9*> <*F10*> <*F9*>.

CUSTOMIZATION

After your BBS is operational, you may want to customize a few features before users start getting online very much. As you use your BBS, your needs will probably become clearer or change. Here is a brief cross reference of ways to customize your BBS:

- Designing your Menu Tree page 59
- Creating or editing user classes page 111
- Switching users from one class to another page 121
- Creating Forums page 243
- Setting Forum access levels page 240
- Creating distribution lists page 250
- Creating File Libraries page 255
- Applying locks to Library features page 259
- Controlling access to the Remote Sysop Menu page 137
- Configuration options page 147
- Editing text blocks: menus, prompts, help messages page 177
- Changing colors of the menus, prompts, help messages page 387
- Editing the Registry of Users page 268
- Creating new Polls and Questionnaires page 270

Editing BBSUSER.DOC

This file describes how to use The Major BBS from the user's terminal. It gets sent automatically via E-mail from user Sysop to all new users when they sign up on your BBS. Attached to that message is BBSUSER.DOC, which is a synthesis of all doc files and not an independent text file for editing purposes. BBSUSER.DOC has brief tutorials and tips on using the various services on The Major BBS.

BBSUSER.DOC describes the default BBS out of the box. As you make adjustments to your BBS, you may want to keep in mind the impact your changes will make on the instructions to users and change them accordingly. Remember: you can customize just about anything on the BBS.

But: ***Do not edit BBSUSER.DOC directly.***

Because BBSUSER.DOC is constructed from several other .DOC files, you modify it by editing those files. Use either your favorite word-processing program in nondocument mode or EDIT, a standard DOS-editing program. Some of these files may come from add-on options or third-party products you purchase separately. Here are the files that come with The Major BBS:

BBSMAI.DOC	Main documentation
GALTLC.DOC	Teleconference
GALP&Q.DOC	Polls and Questionnaires
GALMS.DOC	Electronic Mail and Forums
GALREG.DOC	Registry of Users
GALFIL.DOC	File Libraries
GALGLO.DOC	Global Commands
GALMJD.DOC	Doors
GALQWK.DOC	QWK-mail
GALUIE.DOC	User Information Editing

If you edit any of the files listed, you also should delete BBSINT.REF, which is an internal table of all the modules your system uses. The next time the BBS comes up, it will generate a new BBSUSER.DOC automatically from these .DOC files.

You could also change the offline Configuration option E2UATT to refer to a different file besides BBSUSER.DOC; then you could edit that file directly.

Preparing the Registry

It is a good idea to finish customizing your registry as soon as possible, because changing it usually will mean asking users who had filled out their entry already to do it again (see page 268 for complete instructions).

Uninstall

To remove The Major BBS from your hard disk, type: UNINSTAL.

The UNINSTAL utility will remove the entire C:\BBSV6 directory, plus all files and subdirectories. UNINSTAL will give you a chance to specify a different directory if you didn't use C:\BBSV6.

Calling Galacticomm

Please have your registration number in hand before you call us for technical support or to place an order. This helps us serve you more efficiently. You can find this eight-digit number inside the front cover of your *System Operations Manual*, on the online About screen, or in the welcoming message when you call your BBS.

See page 396 for more information that will help you to diagnose your problem if you call for technical support. There's also a handy feedback form on page 397 for your comments and suggestions.

3

HARDWARE SETUP

The biggest step in getting your BBS up and online is getting the hardware configured correctly. Your modems will have to answer calls, interact with the users, and support file transfers. Your LAN channels will have to use the proper network addresses. Your serial ports need the right cabling. Getting all this to work reliably means you'll get a lot of use out of your bulletin board.

CONFIGURING YOUR HARDWARE

Hardware setup has two parts, hardware and software:

1. Hardware Setup, Hardware Part: set the switches and jumpers on your modems, install them or connect them to your computer.
2. Hardware Setup, Software Part: the BBS has to know what communication devices you are using and how to handle them properly. This includes I/O addresses and initialization strings.

Hardware Part

The biggest job here is to make sure that no two devices on your system compete for the same I/O address. To be absolutely sure, you would check the technical manuals for your computer and for every card you've plugged into it. If you don't get this right, strange things might happen:

- Certain ports may not work quite right sometimes
- Modems or other devices may appear to be defective
- The system may crash

In practice, you can try this:

1. Remove all cards that are not essential.
2. Pick reasonable addresses.
3. Try it out.

If you suspect I/O addressing conflicts, just move the modem to a different address. Problems usually are not hard to isolate this way.

Most computers today come standard with one or two serial ports, so the COM3 or COM4 address setting is often a good choice. It also may be a good idea to:

4. Remove everything from your AUTOEXEC.BAT and CONFIG.SYS files that you can possibly live without.

You can try adding things back later, but let's get the system up first.

Technical Note: No Interrupt Conflicts

You won't need to worry about which interrupts are used by which modems. Normally, The Major BBS does not use DOS hardware interrupts. We use an advanced hybrid interrupt-driven/polling software approach for modem and serial channels. One result: no IRQ conflicts.

Software Part

The idea is for the BBS to know which devices you've plugged into your system and the specific needs of each.

Alternatives:

1. BBSetup will help you configure modems on COM ports 1, 2, 3, and 4. You will see this happen during initialization.
2. You could manually specify what hardware you have in the offline Hardware Setup mode. Pages 26-28 list the initialization strings for many popular modems. In addition, BBSMREF, in the Basic Utilities menu, will give you recommended configurations for many modems.
3. You may have to refer to your modem manual and construct your own initialization string, using guidelines on page 28.

All multichannel hardware sold by Galacticomm comes with instructions for use with The Major BBS.

Next we will explain several different ways to get your modems or other devices to work with The Major BBS, from the quickest to the most thorough.

BBSetup – How The Major BBS Determines What Hardware You Have

BBSetup will scan COM ports 1 through 4 for the presence of a modem unless you choose to bypass certain ports.

Detection phase:	BBSetup scans COM ports 1 through 4.
Verification phase:	When it finds a modem, BBSetup asks you if you are going to use that modem. If you answer NO, it goes on to the next port. If you answer YES, it displays a modem pick list, from which you choose your modem's type or the closest match.

Once BBSetup has scanned your system for modems and you've told it what types of modems are where, it writes this information to the Level 1 Hardware Configuration file. Note that you always can go into Level 1 and change these settings later.

Manual Hardware Setup – How You Tell The Major BBS What Hardware You Have

Here is an example of the Hardware Setup information for a common 2400-bps modem, connected to COM1, without data compression or other frills:

```
GROUP1   Channel group #1: ..................................... MODEM
START1     Starting channel number (hexadecimal): ..................... 1
NUMBR1     Number of channels (decimal): ............................... 1
ADDR1      I/O base address: ..................................... 3F8
BAUD1      Maximum baud rate: ................................... 2400
LOCK1      "Lock" these ports at this baud rate? ..................... NO
DUPLX1     Echo keystrokes to these channels? ....................... YES
MULTI1     Use multi-port hardware for this group? ................... NO
INIT1      Init string ..................... AT&FE0S0=0S2=255Q0V1X1&C1&D2
```

These Hardware Setup options are used in all types of channel groups:

GROUPn — channel group, type of interface:

<NONE>	this channel group is not being used
MODEM	modems
SERIAL	EIA-232-D serial ports
X.25	X.25 packet switching network interface
LAN	LAN interface

STARTn — starting channel number, 01 to FF in hexadecimal (see page 211 for how all 256 channels are displayed in a matrix)

NUMBRn — number of channels in this channel group

Modems

These Hardware Setup options are used in modem channel groups:

ADDRn — I/O base address of the first modem in the channel group
Some examples:

3F8	for a modem on COM1
2F8	for a modem on COM2
3E8	for a modem on COM3
2E8	for a modem on COM4

BAUDn — bits per second rate of the physical modem-to-BBS connection

LOCKn — should the modem-to-BBS rate stay constant even when the modem-to-modem connection is at a different baud rate? Usually, error-correcting modems are locked

DUPLXn — echo keystrokes to users on these channels? Usually yes

MULTIn — answer YES if you are using multiuser hardware such as a GalactiBoard

CHOFFn — Galacticomm multiport hardware uses an offset of hex 400 between channels. Other vendors probably use a different offset, usually 8. Check the manual for the hardware you are using

INITn — initialization string to prepare modem for use on the BBS

Modem quality and throughput have increased steadily over the years and prices have kept dropping, while the number of modem manufacturers keeps jumping. We'd guess they number close to one thousand.

Here are some initialization strings that we or our customers have found to work well:

Manufacturer	Model	Initialization String
Generic	2400	AT&FE0S0=0S2=255X1&C1&D2
Generic	2400 with error correction	AT&FE0S0=0S2=255X1&C1&D2
Generic	9600	AT&FE0S0=0S2=255X1&C1&D2
Generic	14400	AT&FE0S0=0S2=255X1&C1&D2
Accex	Designer Modem	AT&FE0S0=0S2=255X1Y0&C1&D2&T5%C1\N3\Q3
Applied Engineering Datalink Express	2400/MNP-5	AT&FE0S0=0S2=255X1\J0\N3\Q3&C1&D2
AT&T Paradyne	Comsphere	AT&FE0S0=0S2=255X1\D1&R0\Q3&C1&D2M0H0
AT&T Paradyne	Dataport	AT&FE0S0=0S2=255X1V1Q0Y0&C1&D2\Q3
ATI Technologies	2400etc/i	AT&FE0S0=0S2=255X1&B1&C1&D2&K3&Q5&U1
ATI Technologies	9600etc	AT&FE0S0=0S2=255X1&B1&C1&D2&K3&O1Q6&U0Y0W2
Avatex	2400	AT&FE0S0=0S2=255X1&C1&D2
Boca Research	Bocamodem 14400	AT&F&C1&D2&K3%C3%E1S95=46S0=0&W0&W1&Y0
CalCom	14400	AT&FE0S0=0S2=255X1&C1&D2\Q3\N6
Cardinal	9650/V.32	AT&FE0S0=0S2=255X1&J1
Compucom	Speedmodem	AT&F2*H2E0S0=0S2=255Q0V1X1&C1&D2S25=2&W
Compudyne	9642i	AT&FE0S0=0S2=255Q0V1X1&C1&D2
CUI	2400I	AT&FE0S0=0S2=255Q0V1X1&C1&D2
Designer Modem	V.32, V.42bis 9600	AT&FE0S0=0S2=255Q0V1X1&C1&D2\J0\Q3
Digicom	9624PC	AT&FE0S0=0S2=255Q0V1X1&C1&D2*F3*S1
Digicom	Eagle Plus	AT&F&C1*S1S0=2S2=255X1S9=6M0H
Digicom	Scout 14.4	AT&FE0S0=0S2=127X4
Digicom	Scout Plus	AT&FE0S0=0S2=255X1S9=6M0H
Digitan	HI-IQ	AT&FE0S0=0S2=255X1&C1&D2
Direct	2400PC	AT&FE0S0=0S2=255X1&C1&D2
Forval	9600	AT&FE0S0=0S2=255X1&C1&D2&R0*E1*F0*S0
Galacticomm	Model 2408 (multimodem)	AT&FE0S0=0S2=255Q0V1X1\N3&C1&D2
General Datacomm	Desktop 596	AT&FE0S0=0S2=255X1\Q3\T5\V1&C1&D2
GVC Technologies	SM-96	AT&FE0S0=0S2=255X1&C1&D2%C1\N6\Q3
Hayes	Accura 24 EC	AT&FE0S0=0S2=255V1X1&C1&D2&K3&Q5&T5
Hayes	Accura 96	AT&FE0S0=0S2=255X1&C1&D2&K3&Q5&T5
Hayes	Accura 144	AT&FE0S0=0S2=255X1&C1&D2&K3&Q5&T5
Hayes	Smartmodem 2400	AT&FE0S0=0S2=255Q0V1X1&C1&D2
Hayes	V-Series Ultra Smartmodem 9600	AT&FE0S0=0S2=255Q0V1X1&C1&D2&Q5
Hayes	V-Series Ultra Smartmodem 14400	AT&FE0S0=0S2=255Q0V1X1&C1&D2&K3&Q5N2
IBM	IBM 5853	AT&FE0S0=0Q0V1X1

Incomm	PC 9605	AT&FE0S0=0S2=255X1&C1&D2\J0\N3\Q3
Infotel	9600 v.32	AT&FE0S0=0S2=255Q0V1X1&C1&D2&K3&R0
Infotel	1441	AT&FE0S0=0S2=255Q0V1X1&C1&D2
Intel	2400EX	AT&FE0S0=0S2=255X1&C1&D2
Intel	9600EX	AT&FE0S0=0S2=255X1&C1&D2
Lightcom	144F 144/550 96F 96/550	AT&FE0S0=1S2=1X1&C1&D2&Q9&T5
Maestro	2400ZXR	AT&FE0S0=0S2=255X1&C1&D2
MICC	Series 9600 V.32/V.42bis	AT&FE0S0=0S2=255X1\Q3&C1&D2
Microcom	3296	AT&FE0S0=0S2=255X1\J0\Q3\N3&C1&D2
Motorola	Fastalk V.32/V.42bis	AT&FE0S0=0S2=255X1&C1&D2\Q3
Motorola	Fastalk 32x	AT&FE0S0=1S2=255X1&C1&D2&R0&T5\Q3S10=7
Motorola	UDS 9600	AT&FE0S0=0S2=255X1&C1&D2\J0\Q3
MultiTech	224E	AT&FE0S0=0S2=255Q0V1X1&C1&D2
MultiTech	MT932EA MultiModem V32	AT&FE0S0=0X1&C1&E1&E4&E7&E13&E15$BA0
MultiTech	V32EC Multimodem	AT&FE0S0=0S2=255X1&C1&D2&E1&E4&R0$BA0
PC Logic	14400	AT&FE0S0=0S2=255Q0V1X1&C1&D2&K3&Q5N1W2
Practical Peripherals	9600SA	AT&FE0S0=0S2=255Q0V1X1&C1&D2&Q5
Practical Peripherals	PM2400 MNP-5	AT&FE0S0=0S2=255Q0V1X1\Q3\J0\N3&C1&D2
Practical Peripherals	PM14400 FXSA	AT&FE0S0=0S2=255X1&C1&D2W2S95=0
Premier Innovations	P2400E	AT&FE0S0=0S2=255X1&C1&D2
Racal-Milgo	RMD 3296	AT&FE0S0=0S2=255X1
Series	14400 Standalone Modem	AT&FE0S0=0S2=255X1&C1&D2\Q3
Supra	2400i	AT&FE0S0=0S2=255X1&C1&D2
Supra	2400 Plus	AT&F2E0S0=0S2=255X1\Q3\N3&C1&D2
Supra	Fax Modem V.32bis	AT&F2E0S0=0S2=255X1W2
Telebit	T-1000	AT&FE0S0=0S2=255X1&C1&D2
Telebit	T-2500 Trailblazer	AT&FE0S0=0S2=255X3S52=4S58=2S66=1S95=2S131=1
Telebit	Worldblazer	AT&FE0S0=1S2=255Q0V1X1&R0S51=6S58=2
Telenet	2400	AT&FE0S0=0S2=255X1&C1&D2
Twincom	96/42i	AT&FE0S0=0S2=255X1&K3
Unisys	V.32 MNP-5	AT&FE0S0=0S2=255X1\Q3\J0\N3&C1&D2
U.S. Robotics	Courier HST	AT&FE0S0=0S2=255Q0V1X1B1&B1&H1&R2
U.S. Robotics	Courier HST Dual Standard	AT&FE0S0=0S2=255Q0V1X1B0&B1&H1&R2
U.S. Robotics	Sportster 9600	AT&FE0S0=0S2=255Q0V1X1&B1&H1&R2&T5&A0
U.S. Robotics	Sportster 14400	AT&FE0S0=0S2=255Q0V1X1&B1&H1&R2&T5&A0
Ven-Tel	9600Plus	AT&FE0S0=0S2=255X1&C1&D2\N3\Q3
Viva	2400im	AT&FE0S0=0S2=255X1\V0
Viva	2442i	AT&FE0S0=0S2=255\V0&K3\Q3\J0X1&C1&D2
Viva	14.4i	AT&FE0S0=0S2=255W2X1&C1&D2&K3

Zoom	2400i	AT&FEØSØ=ØS2=255X1&C1&D2
Zoom	2400 MNP-5/V.42bis	AT&FEØSØ=ØS2=255X1&C1&D2&Q5
Zoom	14400	AT&FEØSØ=ØS2=255QØV1X1&C1&D2&Q5
Zyxel	U-1496B	AT&FEØSØ=ØS2=255X6&RØB1
Zyxel	U-1496E	AT&FEØSØ=ØS2=255X6&RØB1

You might also check the /Inits Forum on our Demo System at (305) 583-7808 and BBSMREF, a guide to configuring modems, in your BBS's Basic Utilities menu.

When you are configuring your setup manually, BBSMREF is the equivalent of BBSetup's modem list. When you scroll through the list and select a modem, BBSMREF displays detailed configuration information. You can then use this setup information by selecting Hardware Setup from the BBS introductory menu.

If you do not see your modem model, you might need to build an initialization string.

Modem Initialization String Cookbook

You will need to build your own initialization string if you find that the stock initialization strings do not work: if your modem is not handling the beginning and ending of sessions well, if you are losing data, if file transfers report excessive errors, and so on.

Get your modem manual in hand and check each one of the following commands to see which is correct or which one you need. Most modem manufacturers either emphasize the ampersand (&) in their lingo or the backslash (\). There are many other variations, too. Below are two good starting points for initialization strings plus an explanation of each individual command and why it is there. Be aware that for your modem these features could have a different coding.

```
AT&FEØSØ=ØS2=255X1&C1&D2&K3&Q5&B1
```

or

```
AT&FEØSØ=ØS2=255X1&C1&D2\Q3\N3\JØ
```

These commands are relatively universal:

AT&F	put the modem into factory default conditions
EØ	disable command echo
SØ=Ø	disable auto answer
S2=255	disable the +++ communicate-mode escape sequence
X1	respond with plain CONNECT, RING, and NO CARRIER messages
&C1	turn carrier detect on only during the connection session
&D2	when the data terminal ready signal goes low, terminate the phone connection and return to command mode

These commands may have different names:

&K3 or \Q3 or &RØ

Enable the RTS/CTS hardware handshaking scheme. This allows the modem to switch the BBS-to-modem data flow on and off using CTS and allows the BBS to control the modem-to-BBS data flow using RTS.

`&Q5` or `\N3` or `\N9`

Enable automatic use of V.42 or MNP-5 data compression and error correction. This is often called auto-reliable mode, because the modem negotiates the most advanced possible connection with the calling party.

`&B1` or `\J0`

Lock the baud rate. This feature goes by many different names, such as rate adjust or speed conversion. To the modem, it means that whatever communication mode is established with the caller, the modem-to-BBS baud rate should remain the same. Both the BBS and modem have to agree on this, of course; that is why you also set `LOCKn` (the option in Hardware Setup to lock the baud rate) to `YES` (see page 25).

`W2`

Reports DCE (actual connect speed), instead of DTE (locked baud rate) speed.

The sections that follow briefly describe what The Major BBS does with modems. You might be able to use this information in preparing your initialization string, or avoiding or correcting modem problems.

Resetting a Modem

The Major BBS uses the Data Terminal Ready (DTR) signal to reset the modem. The sequence is:

1. Lower DTR for two seconds, then raise it again;
2. Wait a tenth of a second;
3. Send an `ATZ` command to reset the modem. Wait for an `OK` to come back.
4. Wait a half second;
5. Send the initialization string (specified in Hardware Setup for the channel group). Wait for an `OK` to come back.

You can see most of this happening on the Summary screen (see page 211). The final result should be a dot (.) appearing on the console for each modem channel. If you toggle to the User screen, you'll see the message:

```
Modem awaiting incoming call
```

Many things can go wrong with this, of course:

- The modem might not respond to anything. The pound symbol # will appear on the user matrix and you may see either of two message:

  ```
  ERROR: No response to ATZ!
  ```

  ```
  ERROR: Bad Status during Init.
  ```

  In both instances, check connections, addressing conflicts, baud rate.

- The modem might respond `OK` to the `ATZ`, but respond to the initialization string with the word `ERROR`. The pound symbol # will appear on the user matrix, and you may see one of the error messages shown above. Make sure the initialization string is appropriate for your modem.

Answering Calls

The Major BBS supports two methods of answering calls:

BBS Setting	Modem Setting	
OUTATA=YES	S0=0	the BBS decides when a call is coming in and tells the modem to answer it.
OUTATA=NO	S0=1	the modem answers by itself when the phone rings.

In the default OUTATA=YES method, after a modem has been reset, the BBS sits and waits for a RING to come in from the modem. Then it sends an ATA command (answer call in answer mode), and waits for a CONNECT message.

In the OUTATA=NO method, the modem is told (by the S0=1 command in the init string) to answer on the very first ring. The BBS listens for the CONNECT message.

The kinds of things that can go wrong when a call comes in include:

- The modem answers an incoming call, but hangs up on it right away. Make sure you don't have OUTATA=YES and S0=1 at the same time.
- The call never gets answered and just rings and rings. Make sure you do not have OUTATA=NO and S0=0. Check that the modem was reset successfully. Check cabling.
- If the issue of locked baud rate is not in agreement between modem and BBS, the user might get a connection, but then see garbage on his screen without losing the connection.

Beginning a Session

Once the modems have negotiated the connection, the CONNECT message to the BBS usually contains the bps rate of the session, as in:

```
CONNECT 9600
```

If you have your baud rate locked and the BBS is reporting all calls at the locked rate, check your modem's manual for the init-string option to report the actual rate (called the DCE rate) instead of the locked rate (called the DTE rate) in the CONNECT message.

Note to experts: The issue of locked baud rate in Hardware Setup concerns what to do with that "9600" bit of information. The question is: now that we have a connection, what should the baud rate be between modem and BBS? If the baud rate is not locked, then this 9600 instantly converts the modem-to-BBS connection to 9600 baud (limited by the maximum baud rate for the channel group). On the other hand, when the baud rate is locked, the 9600 is used to record the user's bps rate for this session — the actual bit rate of the port remains at the maximum configured for the channel group. Locking a port does not affect callers who use lower speeds.

Data Compression and Error Correction

Many of today's modems claim high throughput. Several methods for achieving this take advantage of the repetition and patterns in most data. The methods try to represent more bytes of information with fewer bytes across the phone lines.

Actual throughput may be influenced by many factors, including:

- The type of data being transmitted. Text files are very compressible; archive `ZIP` files may not be.
- The way the data is being transmitted. XMODEM is often slower in a data compression mode because of buffering delays.

The problems with data compression are usually a result of the packetization that these schemes require. Because the modem is recruited to do this compression without any cooperation from the computer itself, the modem software must buffer the data for retransmission and compression.

Advantages to Data Compression during a session

- File transfers may be significantly faster

Disadvantages to Data Compression

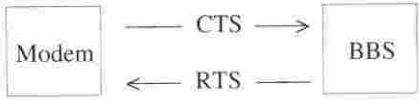
- Keystroke echo may be slow, making typing difficult
- Some types of file transfers may actually be slower

Hardware Flow Control

Hardware flow control means that extra wires are used for the modem and BBS to tell each other to start and stop the flow of data. It is as if there were red and green traffic lights for the data flowing between modem and BBS. Each may need to tell the other, "Hold on, don't send me any more data right now.... OK, now you can send again."

In nearly every instance, hardware flow control will be required if you are using data compression or baud rate locking, with a high baud rate between BBS and modem. In general, only error-correcting modems support hardware flow control.

The Major BBS supports RTS/CTS hardware flow control for all modem and serial ports. This is not an EIA-232-D standard, but a de facto standard used by most modem manufacturers to control bi-directional data flow.



CTS ON: BBS can transmit data to modem
CTS OFF: BBS should wait

RTS ON: Modem can send data to BBS
RTS OFF: Modem should wait

The modem should use CTS and respond to RTS for file transfers to work. If the modem does not use CTS, then during a download, for example, the BBS may stuff characters into the modem faster than the modem can send them. The modem's buffer will fill up and, especially with a streaming protocol with no feedback (such as Y-MODEM-g), transmission errors will occur eventually.

If the modem ignores RTS, then during a file upload the modem may send characters into the BBS faster than the BBS can process them. The BBS's input buffer will fill up and characters will get lost, resulting in retries.

Terminal – to – Modem Flow Control

Hardware flow control also may be required between the user's computer and its modem. Terminal modems or software that do not use CTS are a common cause of upload problems during sessions with data compression.

Ending a Session

Either party can end a session simply by hanging up the phone line. The BBS does this by resetting the modem. The modem is configured so that lowering DTR will break the connection and return the modem to its command state.

If the other party hangs up, then the carrier-detect signal should turn off. That will appear as a status `11` in the input monitor screen, and the session will end immediately. Sometimes, severe line noise can terminate a connection.

Serial Ports

With serial ports, you can connect a terminal in your office to The Major BBS with just a cable — no modems, no phone company. You will need a null-modem cable or adapter to get the right signals hooked together; an ordinary serial cable won't do. (A null-modem simulates a connection between two modems by rerouting the appropriate control signals.) Remember: most problems with serial connections are cable or adapter related, so check our wiring diagram on the right.

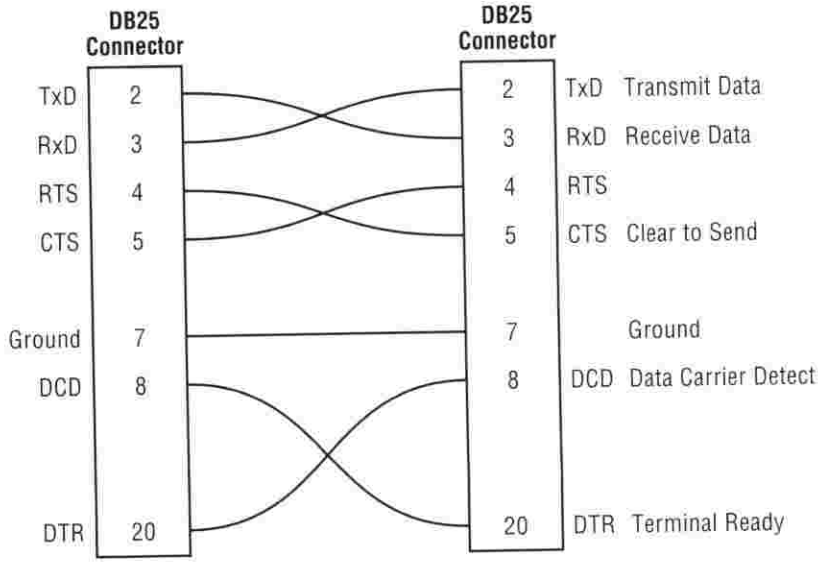
Here is an example of the Hardware Setup information for a 9600-baud serial connection on COM2:

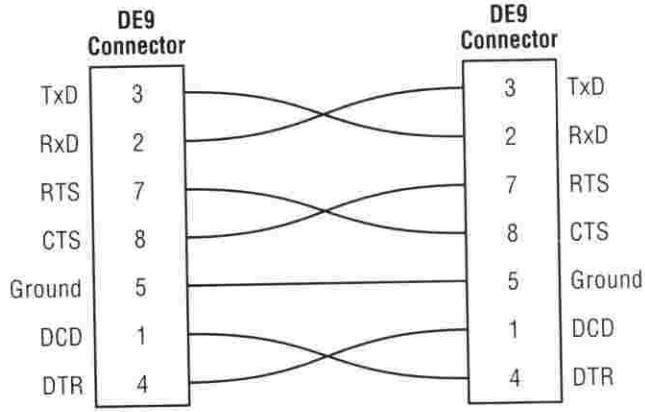
```
GROUP2   Channel group #2: ..................................... SERIAL
START2     Starting channel number (hexadecimal): ................ 2
NUMBR2     Number of channels (decimal): ......................... 1
ADDR2      I/O base address: ..................................... 2F8
BAUD2      Maximum baud rate: .................................. 9600
DUPLX2     Echo keystrokes to these channels? ..................... YES
MULTI2     Use multi-port hardware for this group? ................ NO
INIT2      Init string ....................... PRESS RETURN TO LOG ON
```

These Hardware Setup options are used in serial channel groups:

`ADDRn`	I/O base address of the first port in the channel group, such as: `3F8` for COM1 `2F8` for COM2 `3E8` for COM3 `2E8` for COM4
`BAUDn`	baud rate of the serial port
`DUPLXn`	echo keystrokes to the users on these channels?
`MULTIn`	answer `YES` if you are using multiuser hardware such as a GalactiBoard

Null-Modem Cable





CHOFFn	Galacticomm multiport hardware uses an offset of hex 400 between channels (other vendors tend to use a different offset, usually 8; check your hardware's manual).
INITn	initialization string to send out to this port whenever resetting or restarting the channel (you will probably want this blank).

When you bring up the BBS, hit <*Enter*> on the terminal and you will get the log-on prompt, asking for your language preference and your User-ID.

The kinds of things that can go wrong on serial channels:

- The serial channel might come up as a non-hardware channel (in which case, the minus symbol, –, will appear on the console). Check addressing and user-count limits. (If no minus symbol appears, then the most basic component of the interface, the UART, has been detected. You should see a dot ".")
- If you hit <*Enter*> on the terminal and nothing happens, check that both BBS and terminal are using the same baud rate. Also check cabling. Try emulating the channel and hitting <*Enter*>; if the serial port's CTS signal is inactive, you won't see anything on either screen.

Here are some technical aspects of how serial sessions work:

- Resetting a serial channel is similar to resetting a modem channel (see page 29): lower DTR for two seconds, wait 0.1 seconds, send the init string. There is no ATZ step.
- A session begins when <*Enter*> is received at the right baud rate.
- The session ends immediately if the other party lowers the carrier-detect signal. This appears as a status `11` on the input activity monitor screen.
- When the BBS ends a session, it resets the channel.

LAN Access

Setting up your BBS on a Novell LAN will require these steps:

- Choose the terminal computers
- Find out the network addresses of these terminals and the BBS
- Configure the BBS (telling it the terminal addresses)
- Configure the terminals (telling them the BBS address)

These are the steps for setting up IPX direct circuit channels on The Major BBS. All versions of The Major BBS support this type of interface. You will need to choose which computers on your network are to have access to the BBS and assign a separate channel to each one. This works like serial ports, where the connections are relatively permanent.

The Advanced LAN Option avoids this restriction by supporting virtual-circuit channels (IPX virtual and SPX). These channels can be used by any computer on the network on an as-needed basis.

Note: Another advantage of SPX circuits is automatic error correction and flow control. A nonstop display or download on an IPX channel may lose data.

Instructions for setting up your BBS on the LAN appear a little later in this chapter. First, let's review a few concepts.

Network Addresses

For each terminal connected to your BBS via the LAN, there will be a terminal network address and a BBS channel group network address. Each of these 24-digit hexadecimal addresses consists of a network, node, and socket. For example:

	NETWORK	NODE	SOCKET
BBS Channel Group Network Address:	C04AB61A	0000C0A61018	80BF
Terminal Network Address:	C030F117	0000C0D64E1B	4008

The network and node are permanently assigned to each machine. You can run SPXTALK on any machine to find its network and node. Or you can run the NetWare utility:

```
USERLIST /A
```

If the node is reported to be less than 12 digits long, just add zeros on the left to make it 12 digits. (The same goes for the network address: add zeros on the left to fill all 8 digits.)

The socket numbers on the BBS side are permanently assigned and registered with Novell for each of the 16 channel groups:

```
Channel Group 1-Socket 80BB      Channel Group 9-Socket  86D0
Channel Group 2-Socket 80BC      Channel Group 10-Socket 86D1
Channel Group 3-Socket 80BD      Channel Group 11-Socket 86D2
Channel Group 4-Socket 80BE      Channel Group 12-Socket 86D3
Channel Group 5-Socket 80BF      Channel Group 13-Socket 86D4
Channel Group 6-Socket 80C0      Channel Group 14-Socket 86D5
Channel Group 7-Socket 80C1      Channel Group 15-Socket 86D6
Channel Group 8-Socket 80C2      Channel Group 16-Socket 86D7
```

You can use 4008 for the socket number on the terminal computers. That is the default socket that SPXTALK uses.

Configuring IPX Direct Circuits

Here is an example of the hardware setup for 16 IPX direct LAN channels:

```
GROUP5   Channel group #5: ..................................... LAN
LANTYP5     Local Area Network communication type: ............. IPXD
START5      Starting channel number (hexadecimal): ............. 2
NUMBR5      Number of channels (decimal): ...................... 1
IPXADR5     IPX Direct list of net addresses for this group .. (hit <F2>)
NUMECB5     Number of ECBs per channel for this group: ......... 2
```

LANTYPn – Type of LAN Channel

You have the following alternatives for connecting your BBS to terminals via your Novell LAN:

IPX direct	assign specific machines to channels
IPX virtual	channels accept calls from any machine
SPX	has automatic error correction

IPXD is available with all versions of The Major BBS. IPXV and SPX are available only with the Advanced LAN Option; see the documentation that comes with the Advanced LAN Option for more details.

Direct circuits are like serial ports in that they are relatively permanent connections between The Major BBS and the computers you have specified as terminals.

IPXADRn – IPX Direct Circuit Net Addresses

Here you need to specify the connecting network, node, and socket number for each terminal. Each channel will be assigned to one terminal. You do this by specifying a string of 24 hexadecimal digits consisting of:

8-digit network
12-digit node
4-digit socket
} be sure to "right-justify, zero-fill" these fields.

Here's an example of a 24-digit hexadecimal net address:

```
00000001000C0A61018400 8
```

Here's what it means:

network	00000001
node	000C0A61018
socket	4008

This is for network 1, node C0A61018, socket 4008. The Major BBS will assign each of these remote net addresses to the group's channels. This means that you must designate machines and cannot change them without shutting down the BBS and changing the Hardware Setup offline.

You can actually fit up to 64 network addresses in IPXADRn using <*F2*>-invoked BBSDRAW to edit them (see page 84).

Warning: Using a nonexistent network number will hang your BBS for several seconds. After this pause, a status 39 will appear on the input monitor screen.

When you first edit the IPXADRn option, you will find a bunch of explanatory text and numerous examples of net addresses. At run time, the BBS only looks for strings of 24 hexadecimal digits surrounded by nonhexadecimal digits. If you specify more than NUMBRn net addresses, only the first NUMBRn will be used. If less, then the remaining channels will display pound signs (#) on the user matrix. From the preceding example, IPXADR5 needs one 24-digit address.

NUMECBn – Number of ECBs to Allocate per Channel

The more event control blocks (ECBs) you define for a channel group, the more real memory is consumed (about 640 bytes per ECB per channel) and the more data can be received at a time. IPXD channels with too few ECBs may lose data. (IPX direct channels may lose data anyway if it comes nonstop.) Moreover, with a smaller NUMECBn value, there may be less data backlog (data transmitted to the BBS that it does not know about yet).

The ECBs in a channel group are shared among all channels in the group. Each channel must have at least two ECBs available for it. If you are short of memory, it is possible to define one ECB per channel in a group with more than one channel.

Warning: Defining a channel group of one channel with one ECB per channel will have undefined results.

Preparing for BBS Access over the LAN Using IPX Direct

To prepare for BBS access over your Novell network:

1. Choose which computers on your network should have access to your BBS and allocate one channel on the BBS for each computer.
2. Note the 8-digit hexadecimal network and the 12-digit hexadecimal node number of each terminal and of the BBS computer itself. A good way to do this is to run SPXTALK on each computer, including the BBS, and note the local address from the Directory of Services screen.
3. Configure the IPXD circuits on the BBS, using the offline Hardware Setup. Make a channel group with as many channels as there are terminal computers. Enter in the network address of each terminal computer. Remember which channel group you use — this will determine what socket to tell the terminal program to use in the BBS network address.
4. After bringing up the BBS, run SPXTALK on each terminal computer.
5. Use the `I` option to enter in the network address for the BBS computer.
6. Choose `A` to go online with that address.
7. Hit *<Enter>* to start each session.

You may want to make a batch file to log on quickly. Use the `/D` option of SPXTALK:

```
SPXTALK /DC04AB61A:0000C0A61018:80BF
```

Remember that the network address for the BBS channel group is used here, not the terminal network address. This same command can be used from all the terminal computers that you have configured to run on the channel group.

The kinds of things that can go wrong with IPXD circuits:

- The LAN channel might come up as a non-hardware channel (the minus symbol, –, will appear on the console). Check your user count limit and that the IPX driver is loaded properly.
- It won't connect. Several things can cause this (assuming your channel does not appear with a minus symbol, –, on the console):
  - Wrong network, node, or socket specified to the BBS for the terminal
  - Wrong network, node, or socket specified to the terminal for the BBS
  - Either system is not connected to the network
  - You forgot to hit *<Enter>* after you start the connection with SPXTALK
  - You did not make sure that each channel has at least two ECBs

Inactivity Log-off

This offline Configuration option tells The Major BBS what to do when there is no activity on IPXD LAN channels.

```
ZAPDLAN   Apply inactivity-logoff to Direct LAN channels? ..... NO
```

When a modem user leaves his channel idle for too long, his session gets terminated. You may not want this to happen on IPXD channels. It is not necessary to keep the lines free, as it is with modem channels, because you assign all the IPXD channels offline. This is why ZAPDLAN defaults to NO.

LAN Setup – Disable SEND Commands

If your BBS computer is logged into a file server on a Novell LAN, include in your boot-up procedure the command:

```
CASTOFF ALL
```

This prevents other nodes on the network from sending those pesky SEND-command messages to the BBS screen, freezing the BBS until someone types <*Ctrl-Enter*>.

Using SPXTALK

SPXTALK is the Galacticomm terminal program for network access to The Major BBS.

These are the keystrokes for the Directory of Services screen:

A	connect to the BBS using the IPXD circuit
I	type in an IPXD circuit address (used to change A)
J	change the local socket number
X	exit to DOS

These are the terminal mode keystrokes:

<*Alt-D*>	return to Directory of Services
<*Alt-X*>	exit to DOS
<*Alt-B*>	view the scroll-back buffer of recent terminal output
<*Alt-J*>	shell out to DOS
<*Alt-L*>	turn on/off capturing terminal output to disk
<*Alt-Z*>	online help, macro definition for <*F1*> through <*F10*>
<*Alt-=*>	toggle doorway mode
<*PgUp*>	initiate a file upload
<*PgDn*>	initiate a file download

Other SPXTALK features apply only to the IPXV or SPX circuits available with the Advanced LAN Option.

SPXTALK under Windows

To run the LAN terminal program SPXTALK under Windows 3.1, use a Windows PIF with these settings:

PIF Editor – SPXTALK.PIF

Program Filename:	SPXTALK.EXE
Window Title:	SPXTALK
Start-up Directory:	<as required>
Display usage:	Windowed

Background execution	[X]
Exclusive execution	[X]
Close on exit:	[X]
Advanced Options	
Background priority:	100
Detect Idle Time:	[ ]
Lock Appl Memory:	[X]

You can use SPXTALK.PIF, which is in the \BBSV6 directory.

Non-hardware Channels

A non-hardware channel has no live communication hardware on it. It is a bit like an airplane simulator: you can learn a lot about flying, but you will not get off the ground.

A channel could be a non-hardware channel for two reasons:

- The hardware is missing or defective, or your I/O base address is incorrect
- Your user count limit has been exceeded

A non-hardware channel will appear as a dash (-) in the user matrix (on the Summary screen and Online User Information screen): a user cannot call in via a modem, serial port, LAN connection, or any other interface. But you can log on from the console. Just go to the Online User Information screen (*<Alt-U>*), move the highlight bar to the channel, and hit *<Enter>*.

In the offline Hardware Setup mode, where you define the 16 channel groups, the order of definition is very important. If you have an eight-user license, then only the first eight channels in the definition sequence can support live communications hardware. If you define more channels, those will be non-hardware. For example, say you define two modems on COM1 and COM2 and eight modems on a GalactiBoard. COM1, COM2, and six of the eight GalactiBoard channels will work — the last two GalactiBoard channels will be non-hardware channels.

You may want to define non-hardware channels, however, to give you more channels to use from the console. Just define a group of modems and pick an I/O address that is not being used for communication hardware, such as 2F0 or 270. Be sure to use the last channel group for this.

Offline Hardware Setup Options

This section describes the offline Hardware Setup options. A sample hardware configuration for the 16 channel groups is shown next. Your system will have a different hardware configuration.

To change these settings, shut down the BBS and select option 1 from the Introductory menu (see page 141 for instructions on using CNF).

```
CRT      Display type: ..................................... AUTO
GROUP1   Channel group #1: ................................. MODEM
START1     Starting channel number (hexadecimal): ..................... 1
NUMBR1     Number of channels (decimal): ............................... 1
ADDR1      I/O base address: ..................................... 3F8
BAUD1      Maximum baud rate: ................................... 19200
LOCK1      "Lock" these ports at this baud rate? ..................... YES
```

```
DUPLX1      Echo keystrokes to these channels? ..... YES
MULTI1      Use multiport hardware for this group? ..... NO
INIT1       Init string ..... AT&FE0S0=0S2=255X1&C1&D2
GROUP2    Channel group #2: ..... MODEM
START2      Starting channel number (hexadecimal): ..... 2
NUMBR2      Number of channels (decimal): ..... 1
ADDR2       I/O base address: ..... 2F8
BAUD2       Maximum baud rate: ..... 19200
LOCK2       "Lock" these ports at this baud rate? ..... YES
DUPLX2      Echo keystrokes to these channels? ..... YES
MULTI2      Use multiport hardware for this group? ..... NO
INIT2       Init string ..... AT&FE0S0=0S2=255X1&C1&D2
GROUP3    Channel group #3: ..... MODEM
START3      Starting channel number (hexadecimal): ..... 3
NUMBR3      Number of channels (decimal): ..... 4
ADDR3       I/O base address: ..... 3E8
BAUD3       Maximum baud rate: ..... 2400
LOCK3       "Lock" these ports at this baud rate? ..... NO
DUPLX3      Echo keystrokes to these channels? ..... YES
MULTI3      Use multiport hardware for this group? ..... YES
CHOFF3      Offset between channels (hexadecimal): ..... 400
INIT3       Init string ..... AT&FE0S0=0S2=255X1&C1&D2
GROUP4    Channel group #4: ..... SERIAL
START4      Starting channel number (hexadecimal): ..... 7
NUMBR4      Number of channels (decimal): ..... 4
ADDR4       I/O base address: ..... 240
BAUD4       Maximum baud rate: ..... 9600
DUPLX4      Echo keystrokes to these channels? ..... YES
MULTI4      Use multiport hardware for this group? ..... YES
CHOFF4      Offset between channels (hexadecimal): ..... 400
INIT4       Init string ..... (BBS is up, hit <Enter> to login)
GROUP5    Channel group #5: ..... SERIAL
START5      Starting channel number (hexadecimal): ..... 0B
NUMBR5      Number of channels (decimal): ..... 5
ADDR5       I/O base address: ..... 2240
BAUD5       Maximum baud rate: ..... 19200
DUPLX5      Echo keystrokes to these channels? ..... YES
MULTI5      Use multiport hardware for this group? ..... YES
CHOFF5      Offset between channels (hexadecimal): ..... 400
INIT5       Init string ..... (BBS is up, hit <Enter> to login)
GROUP6    Channel group #6: ..... LAN
LANTYP6     Local Area Network communication type: ..... IPXD
START6      Starting channel number (hexadecimal): ..... 10
NUMBR6      Number of channels (decimal): ..... 4
IPXADR6     IPX Direct list of net addresses for this group .... (hit F2)
NUMECB6     Number of ECBs per channel for this group: ..... 2
GROUP7    Channel group #7: ..... LAN
LANTYP7     Local Area Network communication type: ..... SPX
START7      Starting channel number (hexadecimal): ..... 14
NUMBR7      Number of channels (decimal): ..... 2
SAPNAM7     Server name: ..... BBS Server
NUMECB7     Number of ECBs per channel for this group: ..... 2
GROUP8    Channel group #8: ..... X.25
START8      Starting channel number (hexadecimal): ..... 16
NUMBR8      Number of channels (decimal): ..... 6
CARD8       X.25 card number: ..... 0
LINE8       X.25 card line number: ..... 1
LCN8        X.25 starting Logical Channel Number: ..... 1
ECHO8       Echo method: ..... PLEX
X3PAR8      X.3 parameters: ..... 1:0 2:0 3:0 4:1 5:0 9:0 10:0 12:0
X3MOR8      More X.3 parms: ..... 13:4 14:0 15:0 16:0 17:0 18:0
KCHAR8      Credits consumed per Kilo-character: ..... 0
KPAK8       Credits consumed per Kilo-packet: ..... 0
KSEC8       Credits consumed per minute (on top of MMUCRR): ..... 30
```

```
GROUP9    Channel group #9: ..... LAN
LANTYP9     Local Area Network communication type: ..... IPXD
START9      Starting channel number (hexadecimal): ..... 1C
NUMBR9      Number of channels (decimal): ..... 4
IPXADR9     IPX Direct list of net addresses for this group .... (hit F2)
NUMECB9     Number of ECBs per channel for this group: ..... 2
GROUP10   Channel group #10: ..... MODEM
START10     Starting channel number (hexadecimal): ..... 20
NUMBR10     Number of channels (decimal): ..... 4
ADDR10      I/O base address: ..... 2E8
BAUD10      Maximum baud rate: ..... 9600
LOCK10      "Lock" these ports at this baud rate? ..... YES
DUPLX10     Echo keystrokes to these channels? ..... YES
MULTI10     Use multiport hardware for this group? ..... YES
CHOFF10     Offset between channels (hexadecimal): ..... 400
INIT10      Init string ..... AT&FE0S0=0S2=255X1&C1&D2
GROUP11   Channel group #11: ..... MODEM
START11     Starting channel number (hexadecimal): ..... 24
NUMBR11     Number of channels (decimal): ..... 1
ADDR11      I/O base address: ..... 7E8
BAUD11      Maximum baud rate: ..... 9600
LOCK11      "Lock" these ports at this baud rate? ..... YES
DUPLX11     Echo keystrokes to these channels? ..... YES
MULTI11     Use multiport hardware for this group? ..... NO
INIT11      Init string ..... AT&FE0S0=0S2=255X1&C1&D2
GROUP12   Channel group #12: ..... MODEM
START12     Starting channel number (hexadecimal): ..... 25
NUMBR12     Number of channels (decimal): ..... 1
ADDR12      I/O base address: ..... BE8
BAUD12      Maximum baud rate: ..... 9600
LOCK12      "Lock" these ports at this baud rate? ..... YES
DUPLX12     Echo keystrokes to these channels? ..... YES
MULTI1      Use multiport hardware for this group? ..... NO
INIT12      Init string ..... AT&FE0S0=0S2=255X1&C1&D2
GROUP13   Channel group #13: ..... MODEM
START13     Starting channel number (hexadecimal): ..... 26
NUMBR13     Number of channels (decimal): ..... 1
ADDR13      I/O base address: ..... FE8
BAUD13      Maximum baud rate: ..... 9600
LOCK13      "Lock" these ports at this baud rate? ..... YES
DUPLX13     Echo keystrokes to these channels? ..... YES
MULTI13     Use multiport hardware for this group? ..... NO
INIT13      Init string ..... AT&FE0S0=0S2=255X1&C1&D2
GROUP14   Channel group #14: ..... MODEM
START14     Starting channel number (hexadecimal): ..... 27
NUMBR14     Number of channels (decimal): ..... 1
ADDR14      I/O base address: ..... 13E8
BAUD14      Maximum baud rate: ..... 9600
LOCK14      "Lock" these ports at this baud rate? ..... YES
DUPLX14     Echo keystrokes to these channels? ..... YES
MULTI14     Use multiport hardware for this group? ..... NO
INIT14      Init string ..... AT&FE0S0=0S2=255X1&C1&D2
GROUP15   Channel group #15: ..... MODEM
START15     Starting channel number (hexadecimal): ..... 28
NUMBR15     Number of channels (decimal): ..... 16
ADDR15      I/O base address: ..... 43F8
BAUD15      Maximum baud rate: ..... 19200
LOCK15      "Lock" these ports at this baud rate? ..... YES
DUPLX15     Echo keystrokes to these channels? ..... YES
MULTI15     Use multiport hardware for this group? ..... YES
CHOFF15     Offset between channels (hexadecimal) ..... 400
INIT15      Init string ..... AT&FE0S0=0S2=255X1&C1&D2
```

```
GROUP16   Channel group #16: ..................................... MODEM
START16     Starting channel number (hexadecimal): ................ 38
NUMBR16     Number of channels (decimal): ......................... 16
ADDR16      I/O base address: ..................................... 83F8
BAUD16      Maximum baud rate: .................................... 9600
LOCK16      "Lock" these ports at this baud rate? ................. YES
DUPLX16     Echo keystrokes to these channels? .................... YES
MULTI16     Use multiport hardware for this group? ................ YES
CHOFF16     Offset between channels (hexadecimal) ................. 400
INIT16      Init string ....................... AT&FE0S0=0S2=255X1&C1&D2
OUTATA    Send "ATA" command to modems to answer calls? ........... YES
AUXIST    Activate secondary CRT support: ......................... NO
GPHDLR    Continue operation after "GP" errors? ................... YES
GPSLMT    Number of attempts to recover from a "GP": ............. 2000
GPBOOT    Reboot computer after unrecoverable "GP"? ............... YES
LOCALP    I/O base address for local session: ..................... 2F6
USPMOD    Special UART polling mode? ............................... YES
POLRATE   System polling rate: ................................... AUTO
MULTSK    Need to run BBS under Windows, DESQview, etc.? ......... NO
```

The 16 channel groups are shown as if your BBS were configured with:

Channel Group 1	A 2400-bps modem on COM1 with V.42bis data compression
Channel Group 2	A 9600-bps modem on COM2 with V.42bis data compression
Channel Group 3	Four 2400-bps modems in a GalactiBox
Channel Group 4	Four 9600-bps serial ports in a GalactiBoard
Channel Group 5	Five 19200-bps serial ports in a GalactiBoard
Channel Group 6	Four IPXD LAN channels
Channel Group 7	Two SPX LAN channels
Channel Group 8	Six X.25 virtual circuits
Channel Group 9	Four IPXD LAN channels
Channel Group 10	Four 9600-bps modems in a GalactiBox
Channel Group 11	A 9600-bps modem in a GalactiBox
Channel Group 12	A 9600-bps modem in a GalactiBox
Channel Group 13	A 9600-bps modem in a GalactiBox
Channel Group 14	A 9600-bps modem in a GalactiBox
Channel Group 15	Sixteen 9600-bps modems in a GalactiBox
Channel Group 16	Sixteen 9600-bps modems in a GalactiBox

(Channel groups 6, 7, and 8 require special software options; you would need 12 User Six-Packs to support this many simultaneous users.)

Details on Hardware Setup Options

```
CRT       Display type: ..................................... AUTO
```

The CRT configuration option identifies your system video hardware as either color or monochrome. Usually the BBS can tell by itself (*<F5>* = AUTO). But if your screen appears hard to read, press *<F3>* for color or *<F4>* for black & white.

Most of the offline Hardware Setup options have already been discussed:

GROUPn	Channel type	page 25
STARTn	Starting channel number	page 25
NUMBRn	Number of channels	page 25
ADDRn	Base I/O address	page 25
BAUDn	Maximum bits per second	page 25
LOCKn	Fixed modem baud rate	page 25
DUPLXn	Echo keystrokes or not	page 25
MULTIn	Using multiport hardware	page 25
CHOFFn	Offset between channels	page 25
INITn	Modem initialization string	page 25
LANTYPn	Type of LAN channel	page 35
IPXADRn	IPX Direct Circuit addresses	page 36
NUMECBn	Number of ECBs per channel	page 36

There is one of these options for each of the 16 channel groups.

Note: SAPNAMn applies only to LAN channels that support IPXV or SPX circuits; you will need the Advanced LAN Option to use these features. The options CARDn through KSECn apply only to X.25 channels; to use X.25 channels, you will need the X.25 Software Option.

OUTATA Send "ATA" command to modems to answer calls? ..... YES

We recommend that you turn off your modems' auto-answer feature (by setting S0=0 in your init strings), and that the BBS issue ATA commands to the modems to answer incoming calls. If you have set S0=0 in your modems, as recommended, then answer YES to this question.

If, on the other hand, you prefer to set S0 to a nonzero value in your modem init strings, then be sure to answer this question NO — otherwise the BBS will appear to disconnect each caller spontaneously when answering.

AUXIST Activate secondary CRT support: ..... NO

The Major BBS can support both a color and monochrome video adapter simultaneously to allow two full screens of information to be displayed at once. If you answer YES to this option, you can use the *<F3>* softkey to select what is shown on the second CRT. Do not answer YES if you have only one video card in your system!

GPHDLR Continue operation after "GP" errors? ..... NO

Your 386 or higher CPU can check all code for possible errors. If a possible error is detected and this option is set to NO, the BBS shuts down. If this option is set to YES, the BBS generates an Audit Trail record indicating when and where the error occurred, and it continues to service users as best it can.

GPSLMT Number of attempts to recover from a "GP": 2000

If your computer detects a possible error, it may not be able to recover from the error on the first attempt. This option will determine how many times the BBS

will attempt to recover from a GP before stopping and generating a GP.OUT file. The larger the number, the longer the system will appear to be stopped while attempting to recover from a GP, but the better the chance a recovery can occur.

```
GPBOOT    Reboot computer after an unrecoverable "GP": ..... YES
```

Should the BBS encounter an unrecoverable GP, this option will determine whether your system should attempt to reboot itself. A YES response will cause the system to reboot after generating the file GP.OUT. The system will generate E-mail to Sysop with GP.OUT attached. A NO response will halt your system after generating GP.OUT. The system must then be rebooted manually.


```
LOCALP    I/O base address for local session: ..... 2F6
```

Channel 00 in your user matrix grid of channels on the Summary screen is always a non-hardware channel used for local logons. It's important to pick an I/O base address for this channel that does not conflict with any other hardware in your machine. If you don't have a strong reason to change this value, please leave it at 2F6. If you must change it, try a value such as C240 or C270.

```
USPMOD    Special UART polling mode? ..... YES
```

Leave this option YES to insure fast accurate polling of the UARTs in your serial ports and internal modems, especially if you are using GalactiBoards on a very fast computer.

Set this option to NO for a more conservative UART polling method. This may be required with some older brands of UARTs or devices with nonstandard interrupt methods.

For technical types: YES means LSR bit 0 polling (data ready), and NO means IIR bit 0 polling (interrupt pending).

```
POLRATE   System polling rate: ..... AUTO
```

Set this option to AUTO to let The Major BBS determine the optimum polling rate for the modem and serial hardware on your system. For faster local sessions, but a greater burden on your computer, choose a polling rate of 4800 to 38400 bps. Set this option to at least 19200 if you have a Model 16 or Model 4 multimodem card or to 38400 for a Model 2408.

```
MULTSK    Need to run BBS under Windows, DESQview, etc.? ..... NO
```

The Major BBS has a limited ability to run under a multitasking operating system such as Microsoft Windows or Quarterdeck's DESQview. If you plan to run under one of these environments set this option to YES. The next option will permit you to select which method the BBS should use to deal with the multitasker.

Many of the following options show only if MULTSK is set to YES:

```
MLTMTH    Method to use when using a multitasker: ..... INTER
```

The Major BBS is able to support two methods of facilitating I/O when running under a multitasking operating system. The TIMER method requires that you

dedicate a COM port to provide a timing source. This is provided for compatibility with earlier versions of The Major BBS. The INTER method uses interrupts directly from each COM port you have defined in the channel group configuration.

```
IRPSRC1  First communications interrupt: ..... 4
IRPSRC2  Second communications interrupt: ..... 0
```

If you have specified the INTER method for facilitating I/O when running in a multitasking DOS environment, you will need to specify the interrupts that are associated with the COM ports you have defined in your channel group settings.

Specify the interrupts you wish to use. Valid interrupts are 2 through 7. Specify 0 for IRPSCR2 if you are using a single interrupt source. Any other values will be ignored. You will probably want to use one of these:

4 — for interrupt 4 with COM1 or COM3
3 — for interrupt 3 with COM2 or COM4

```
RNG3HD   Should software accelerator routine be activated? ..... YES
```

Usually, this option should be set to YES. When set to YES, this will generally improve system performance. However, on a small number of systems, when this option is set to YES the BBS will not load or may lock up.

4

CONVERSION UTILITIES

If you have an earlier Version 6 of The Major BBS, you will want to update your system files to the formats used by Version 6.2. If you are converting from Version 5.*x*, you will have received a conversion kit with your upgrade order.

CONVERTING FROM VERSION 6.*x* TO VERSION 6.2

Converting from Version 6.*x* to 6.2 requires that you run `GALFILC.EXE`. This utility will convert your Version 6.*x* Libraries into V6.2 format. In addition, you must update your Menu Tree to include references to the new File Libraries plus add a reference to QWK-mail, which now is a standard part of The Major BBS.

Changing V6.*x* Library of Files Data to V6.2 File Libraries Data

`GALFILC.EXE` takes Library data in a pre-V6.2 format and converts it to work with V6.2. The conversion modifies only the data format and doesn't change any of the properties of the Libraries. You can edit the properties of the Libraries once data conversion is done.

The V6.2 installation procedure will attempt to automatically perform the necessary File Libraries data conversion. If there is insufficient drive space to perform the conversion, however, the BBS will tell you so and the conversion process will stop. If space is available, you will be able to proceed with the conversion now or bypass it until later.

If you did not have sufficient disk space to perform the conversion or decided not to run it at install time, you may run it manually from the DOS prompt by typing `GALFILCV`.

Updating Your Menu Tree

The name of the old Library of Files module has been changed to File Libraries. If you have not made any structural changes to your Menu Tree, the following steps will describe the process you will need to follow to activate the new File Libraries module.

Starting at the BBS introductory screen, select option `2` to bring up the main Menu Tree screen. Highlight `Library` and hit *<Enter>* to get the Edit Module window. Hit *<Enter>* enough times until the Select a Module window opens; then highlight `File`

Libraries and hit <*Enter*>. Continue to hit <*Enter*> until you return to the main Menu Tree screen. Your BBS will access the new File Libraries.

If you have customized your Menu Tree, you will want to find all instances where the Library of Files module is invoked and select File Libraries as the replacement.

Also, you will want to add an & as the first character of all File Libraries command strings, see page 70.

Adding QWK-mail to Your Menu Tree

If you have previously installed the Major QWK-mail Add-on Option, then you can skip this section.

Otherwise, on the main Menu Tree screen highlight the TOP option and hit <*Enter*> to get the Edit Menu screen. Continue to hit <*Enter*> till you get to an empty line in Menu Select Options. There, choose a Select Character to use for QWK-mail. When you have answered the prompts and the window has closed, hit <*Esc*>.

Now highlight the option that contains the page name you just created and hit <*Enter*>. Choose Module Page from the Page Selection window and hit <*Enter*>. Continue to hit <*Enter*> until the Select a Module window opens. Find and highlight QWK-mail. Hit <*Enter*> to select it, then respond to the remaining prompts. Once you return to the main menu screen, hitting <*Esc*> or <*F10*> will save your changes and return you to the BBS introductory menu.

RIP Considerations

You should read this section if you have the RIP*scrip* Add-on Option installed on your BBS. Otherwise, you can go to Chapter 5.

During installation, you had to choose whether to update all your existing English/RIP text blocks with those that come with Version 6.2 or to update only any new RIP text blocks that come with Version 6.2 and leave your old RIP text blocks untouched. If you chose to update all your RIP text blocks, read the next section, "The Menu Tree," and skip "Mixing Old and New RIP Text Blocks." If you chose to update only new RIP text blocks, skip the next section and read the one on mixing RIP text blocks.

The Menu Tree

Several services on your BBS were made into menu pages in your Menu Tree when you installed RIP*scrip*. Under Version 6.2, you should make these module pages again:

Menu page to change to a module page	Module to choose from Select a Module List
FORUMS	Forums
EMAIL	Electronic Mail
LIBRARY	File Libraries
DOORS	Doors

Note that when you change these pages back to module pages, the pages to which they had pointed will become orphan pages — ones that users cannot access from any menu selection. You should delete them all.

Previous versions of The Major BBS would automatically display the text block MPGHDR (under BBSMAJOR.MSG) when a user entered a module from a menu page. Under V6.2, you can turn this option on or off for any module page (see page 68 for more details). By default, this will be set to YES for all your module pages. It is OK to leave them set to YES, but your users will see an extra display, which will be erased by the first screen of the module they are entering. To avoid this, you should select 2 (Design Menu Tree) from the BBS's introductory menu and set this option for each of your module pages as follows:

```
TELE          NO
FORUMS        NO
EMAIL         NO
LIBRARY       NO
ACCOUNT       NO
POLLS         NO
DOORS         NO
REGISTRY      NO
QWK           NO
REMOTE        YES
EXIT          NO
```


Mixing Old and New RIP Text Blocks

If you updated only new RIP text blocks, the resulting mix of old and new RIP text blocks will cause problems in several areas of the BBS. This section explains how to resolve these conflicts.

New User Sign-up

This makes heavy use of pop-up boxes, a number of which have OK buttons in them. Error messages also appear as pop-ups with OK buttons. A number of text blocks with OK buttons need to have the buttons' command strings changed to send an H (a backspace), instead of a C. The new way the BBS handles screen pause for RIP users makes this necessary (see page 95).

The text blocks to change (under BBSSUP.MSG options) are:

```
INTRO2        SMLUID        NUMOOR
ANSDEF        BIGUID        MRFPLS
NAAUID        UIDINI        BADPSW1
PL1UID        TOOBIG        BADPSW2
PL2UID        UINPFN        BADNAM
PL3UID        UINPFN2
```

Special Log-on Message

If you have a special log-on message, this appears inside a pop-up box with an OK button at the bottom. This OK button is contained in the text block LONTRL under BBSMAJOR.MSG options. Change the command string of this button to send an H (a backspace) instead of a C (keep the rest of the command string the same). The change in the way the BBS handles screen pause for RIP users makes this necessary.

5

MULTILINGUAL CAPABILITY

The Major BBS can support up to 50 user-languages simultaneously. This feature has a lot of uses rolled into one. For instance, a German-speaking user could be online on channel 02 seeing prompts and menus in German while an English-speaking person on channel 05 sees his prompts and menus in English. Likewise, one user could be online with an ANSI terminal while another is online using RIP*term* graphics terminal software (see pages 93-94 for more on RIP*term*).

LANGUAGES ON THE BBS

Two user-languages come standard with The Major BBS — English/ANSI and English/RIP. But unless you have the RIP*aint* Add-on Option, you will not be able to edit RIP messages and the RIP versions of Menu Pages. To order RIP*aint*, call TeleGrafix at (714) 379-2131, Galacticomm's sales department at (800) 328-1128 or (305) 583-5990, or your nearest authorized Galacticomm dealer.

Language Names

The first part of a user-language name tells how to communicate with each user, the second part how to communicate with the user's terminal: "English/ANSI" means that an English-speaking person is using the BBS on an ANSI-compatible terminal.

Here are more possible languages:

German/ANSI	German-speaking person, ANSI terminal
English/RIP	English-speaking person, RIP*term* graphics terminal
Spanish/RIP	Spanish-speaking person, RIP*term* graphics terminal
Staff/ANSI	English-speaking BBS support staff, on ANSI terminals
Tutorial/ANSI	Menus and prompts oriented to new users on ANSI terminals

Look for alternate-language add-on options from third-party developers in the latest issue of *The Major News* and on the Galacticomm Demo System at (305) 583-7808.

Language Names That End in ANSI

There is more to that ANSI suffix than meets the eye. ANSI includes not only terminals with or without IBM's extended ASCII characters but also terminals with or without ANSI color and cursor-control capability:

ANSI-BBS	ASCII characters with color and cursor control
IBM-ANSI	IBM's extended ASCII with color and cursor control
TTY	ASCII characters on a dumb terminal

Three Ways To Choose a Language

There are three strategies for deciding which language each user sees online:

- Users decide when they sign up
- Users decide each time they log on
- You decide from the Sysop console

Users Decide When They Sign Up

If the offline Configuration option LANGSUP is set to YES, then each user who signs up will choose a language preference from the entire list of languages defined on your BBS. This setting is stored on disk. If LANGOP is set to AUTO, this preference will figure in the language selection for the user each time he logs on.

Procedure

Set these offline Configuration options:

```
LANGOP    Ask users their language/protocol before logging on? ..... AUTO
LANGSUP   Ask new user's language/protocol preference? ............. YES
```

Then users will get to choose their language when they sign up:

```
Which language/protocol would you prefer to use on this BBS?

     1. English/ANSI      The English version of RIPscrip graphics
     2. German/ANSI       Die deutsche Version von BBS-ANSI
     3. Spanish/ANSI      La versión Española de BBS-ANSI
     4. German/RIP        Die deutsche Version von RIPscrip
     5. Spanish/RIP       La versión Española con gráficos de RIPscrip
     6. English/RIP       The English version of RIPscrip graphics
     7. Italian/ANSI      La versione Italiana della BBS-ANSI
     8. Expert/ANSI       Abbreviated prompts and messages
     9. Staff/ANSI        Includes specific instructions for the field staff
    10. Tutorial/ANSI     A guided tour of the BBS

Choose a number from 1 to 10: _
```

From then on, every time the user logs on, this language choice will take effect after he enters his User-ID and password. One exception would be if the auto-sensing capability of certain protocols were to override the language preference. For example, a user with a Spanish/ANSI language preference who logs on with RIP*term* would get a RIP language instead.

Users Decide Every Time They Log On

If LANGOP is set to ASK, the BBS attempts to sense the user's protocol. If it cannot narrow the possibilities down to one language, it displays a list of all defined languages and asks the user to choose one. On the other hand, if auto-sensing can determine that one of the languages is clearly the best choice, then the BBS selects that language without asking the user, even though LANGOP is set to ASK.

For example, suppose a BBS supports all four combinations of English and Spanish languages with RIP and ANSI protocols. If one user calls in with an ANSI-only terminal program, then all four choices will be presented to him. If another user calls in with RIP*term*, then only two choices will be presented: English/RIP and Spanish/RIP. On a BBS with just the two standard languages (English/ANSI and English/RIP), a RIP*term* caller will automatically get English/RIP.

Procedure

Set these offline configuration options:

```
LANGOP    Ask users their language/protocol before logging on? ........ ASK
LANGSUP   Ask new user's language/protocol preference? ................. NO
```

Certain terminal protocols might be able to automatically omit possible choices. If only one choice is left, the BBS will use that language for the session. Otherwise, the user will have to respond to the following prompt as soon as he connects to your BBS:

```
Auto-sensing ...

Please choose one of these languages:

     1. English/ANSI      The English version of RIPscrip graphics
     2. German/ANSI       Die deutsche Version von BBS-ANSI
     3. Spanish/ANSI      La versión Española de BBS-ANSI
     4. German/RIP        Die deutsche Version von RIPscrip
     5. Spanish/RIP       La versión Española con gráficos de RIPscrip
     6. English/RIP       The English version of RIPscrip graphics
     7. Italian/ANSI      La versione Italiana della BBS-ANSI
     8. Expert/ANSI       Abbreviated prompts and messages
     9. Staff/ANSI        Includes specific instructions for the field staff
    10. Tutorial/ANSI     A guided tour of the BBS

Choose a number from 1 to 10: _
```

You, the Sysop, Decide from the Console

As the Sysop, you can change a user's language from the User Account Detail Screen (see page 196). This will affect the user's language preference on disk, if there is one, or his current session, if he is online at the time. You also can blank out his language, to erase the preference on disk.

Procedure

Set these offline Configuration options:

```
LANGOP    Ask users their language/protocol before logging on? ....... AUTO
LANGSUP   Ask new user's language/protocol preference? ................. NO
```

In this scheme, users won't get to choose their language at log-on or at sign-up. As the Sysop, you can set user languages from the User Account Detail screen:

```
  Name: Jen Hoover
 Addr1: Spontechnico                    Acct Created: 06/24/91
 Addr2: 8930 West Creek Blvd            Last call on: 05/02/93
 Addr3: Huntsville, AL  40332           Used today:   0:22:15
 Addr4:
 Phone: (205) 406-3117
  Born: 08/31/58  Sex: F       Default Editor: FSE
System: IBM-PC
Screen: 80 x 24
 Class: CUSTOMER              Language: English/ANSI
Passwd: geopeach
Credit Avail:          0
Credits Totl:          0
Credits Paid:          0
```

As Sysop, you always can change the language from the console, even in methods 1 and 2. In method 1 (log-on choice), it makes a difference only if the user is online at the time. In method 2 (sign-up choice), the language will take effect the next time the user logs on.

Enabling Users To Change Their Language

Whatever method you choose for deciding each user's language, you also can permit users to change their language online, from the Account Display/Edit menu (see page 375). The offline Security & Accounting option LANGCHG defaults to DEMO, which means that users with the DEMO key can change their language. By default, everyone has the DEMO key. To restrict this ability, you can either take the DEMO key away from some users or user classes, or you can set LANGCHG to a different key name.

Here is an example of a user changing his language:

```
Main System Menu (TOP)
Make your selection (T,I,F,E,L,A,P,D,R,Q,S,? for help, or X to exit): A

    User-ID: Sysop
    Credits: 718405 (No bottom limit) (Exempt from charges)
   Language: English/ANSI

   S ... Display statistics on your account
   A ... Display or edit account information (address/phone/password)
   T ... Transfer credits to another user
   L ... Change language/protocol preference

Your choice (or X to exit): L

Which language/protocol would you prefer to use on this BBS?

   1 ... English/ANSI      The standard English language version
   2 ... German/ANSI       Die deutsche Version von BBS-ANSI
   3 ... Spanish/ANSI      La versión Española de BBS-ANSI
   4 ... German/RIP        Die deutsche Version von RIPscrip
   5 ... Spanish/RIP       La versión Española con gráficos de RIPscrip
   6 ... English/RIP       The English version of RIPscrip graphics
   7 ... Italian/ANSI      La versione Italiana della BBS-ANSI
   8 ... Expert/ANSI       Abbreviated prompts and messages
   9 ... Staff/ANSI        Includes specific instructions for the field staff
  10 ... Tutorial/ANSI     A guided tour of the BBS
   A ... Automatic         (no preference)

Choose a number from 1 to 10, or A: 8
```

```
Do you want to record Expert/ANSI as your preferred language for future
sessions on this BBS?

   Y ... Yes, record this language preference so I can use it when I call
         this BBS in the future.

   N ... No, just let me use this language until I log off.

Record this language preference? N

   User-ID: Sysop
   Credits: 718360 (No bottom limit) (Exempt from charges)
   Language: Expert/ANSI

   S ... Statistics
   A ... Account info
   T ... Transfer credits
   L ... Language choice

Your choice (or X=exit): _
```

CNF — Alternate Language Versions of Text Blocks

When you have multiple languages on your BBS, each block of text may have multiple versions. This section describes how to make changes to these different versions of the text blocks using CNF. Note, however, that you cannot edit RIP text blocks or menus without RIP*aint* (see page 92).

When you're running CNF, (see pages 141-146) the *<F3>* softkey will appear as CHOOSE LANG whenever you're pointing to a text block (as long as you have more than one language defined on your BBS). Use *<F3>* to pick a new current language; the name of the current language will appear in the format area on the left side of the screen, along with the editor you will use to edit that option.

Not every option is translated into every language: there are too many obscure messages to make a complete translation necessary. When this is the case, the option will look dim in that language. This brings up the subject of language subsets.

Language Subsets

The English/ANSI language must be complete — every prompt and text block on your BBS must have an English/ANSI version. Yet none of the alternate languages needs to be complete, because the BBS always has an alternative to any omitted message. For example, if the French/ANSI language is defined on your BBS, but not all your text blocks are translated into French, the BBS will find a way to present that option to the user. If all else fails, French users will have to settle for the English/ANSI version of a text block.

Say there is a prompt `Who is this message to?` on your BBS. If there is a French version of this message, then English users will see `Who is this message to?` and French users will see `À qui est-ce message?`. If there isn't a French version of this prompt, then French users will see `Who is this message to?`.

In more complicated cases, the BBS first will try to talk to the user in his chosen language. Second, it will try for the ANSI version with the same spoken language; third, the English version with the same terminal protocol; and last, the English/ANSI version.

For example, a Spanish/RIP user would get the version of the prompt in this priority:

First choice:	Spanish/RIP version
Second:	Spanish/ANSI version
Third:	English/RIP version
Last resort:	English/ANSI version

To make a new version of an option when there isn't one already, just hit the *<F2>* = EDIT softkey. (This may bring up the standard editor BBSDRAW or some custom editor that the language developer has included.) You'll start off with the most logical alternate version of the text. Then you can customize that text for the current language.

To do the opposite — to unmake the version of an option under the current language, point to the option and use the *<F4>* CLEAR OPTION softkey. The option will dim again.

You can edit most text blocks from selection 6 of the introductory menu and the rest from selection 4, Configuration Options. Remember, only text options can have multiple versions under multiple languages.

Also note that the multilingual feature does not translate user messages. A Spanish teleconference user could get prompts and help messages in Spanish, but if he is trying to talk to a teleconference user who speaks only Italian, he will get those messages in Italian — the two users will be on their own trying to understand each other.

Menu Tree — Alternate Language Versions of Menus

You may already have discovered how you can design customized menu screens for your BBS. Each menu can have an ANSI version, an ASCII version, and an IBM version (see page 66 for more details). What's more, some languages may support additional versions of menu screens. For example, the English/RIP language allows you to have RIP*scrip* versions of your menus. (To edit RIP versions of your menus you will need the RIP*aint* Add-on Option; see page 92 for more information.)

To edit the various versions of your custom menus, answer Yes to this question on the Menu Page design screen:

```
Edit the way this menu looks? Yes
```

Then, if you haven't already, choose to create your own menu:

```
Use default menu
Create your own
```

Finally, choose which version of your menu to edit.

```
Use default menus
Edit TOP.IBM using BBSDRAW
Edit TOP.ANS using BBSDRAW
Edit TOP.ASC using BBSDRAW
Edit TOP.RIP using RIPAINT
Use different file name(s)
```

Chapter 6, Menu Tree Design, covers the mechanics of customizing your menus — putting the ANSI-BBS version of the menu in an .ANS file, the IBM-ANSI version in an .IBM file, and the ASCII-only version into an .ASC file (see page 66 for more on cus-

tomized BBSDRAW menu files). New languages, especially those with different terminal protocols or different editors, may come with new file extensions — for example:

<name>.RIP RIP*scrip* graphics file, designed with RIP*aint*

The .RIP extension may be associated with multiple languages, such as English/RIP and Greek/RIP. Users online with a /RIP language would get the file *<name>*.RIP displayed on their terminal when they get to the *<name>* menu. To have a completely different English/RIP menu from the Greek/RIP menu, you have two alternatives. You can use the _LANG=GREEK language pseudo-key and auto-select menus (see pages 72-73), or you can define a file extension other than .RIP for the Greek/RIP language — for example, .GRP — while keeping the defined editor as RIP*aint*.

BBSLANG — LANGUAGE DEFINING, EXPORTING, AND REMOVING

The result of defining a new language is an .MDF text file with the language information in it. The *Developer's Guide* has more detail on .MDF files, but a sample .MDF file for the Italian/ANSI language looks like this:

```
; ITALIAN.MDF (language file created by BBSLANG.EXE)

Module Name: Italian/ANSI language


Developer: Sysop

Internal

Unconditional

Language: Italian/ANSI
Language Description: La versione Italiana della BBS-ANSI
Language File Extension: .ANS, .ASC, .IBM
Language Editor: BBSDRAW %s
Language Yes/No: SI/NO
```

The BBS includes the architecture for multiple simultaneous languages. This makes it possible for developers to create alternate language add-on options that Sysops of The Major BBS can purchase and install on their BBS.

Not all languages are available. For information on the ones that are, call Galacticomm at (305) 583-5990. And call us about license agreements if you want to sell translated versions of the text in The Major BBS: all text stored in .MSG files for The Major BBS is copyrighted.

Sysop translations are distinct from user translations. Sysop translations are developed for selling The Major BBS in markets where the Sysops speak a language other than English. These translations include all text that The Major BBS displays to users plus the words on the screens at the Sysop's console and the entire *System Operations Manual*.

User translations involve only the text that BBS users see on their terminals. On any one BBS, many user-languages may be available simultaneously. The Sysop console remains in the BBS's native language, which depends on where you bought your BBS — it's in English from Galacticomm, for example. User translations may be packaged and sold to any Sysop of The Major BBS (Version 6.1 or later) for integration into his BBS.

Another set of multilingual possibilities include talking to different types of users in different ways. You might want to create such languages as Tutorial, Expert, Staff, or Novice to make things easier or more efficient for these special groups.

Because an alternate language does not have to be complete, you could, for example, design a language for certain customers, so that a few prompts in the E-mail service appear with special suggestions. All other prompts would appear in standard English/ANSI.

Other possibilities for alternate language add-on options include whimsical variations on English, such as trekkie, valley-girl, English-butler, jive, R2D2, new-yawkuh, southern-drawl, strine (Australian), four-year-old-child, medieval, or pig-latin.

How To Make an Alternate Language Add-on Option

Here are the four steps to making an alternate language add-on option:

1. Define the new language (use BBSLANG to create an .MDF file).
2. Edit the text blocks (use the CNF CHOOSE LANG and EDIT softkeys).
3. Export the text (use BBSLANG to export from .MSG to .MLX files).
4. Package the .MDF and .MLX files and make an install batch file.

That's all there is to it. You'll notice that you don't need a Developer's C Source Kit, though you might find the *Developer's Guide* helpful with the details on the .MDF file format.

1. Define the Language

Shut down the BBS and select 7, Basic Utilities, from the introductory menu. Choose BBSLANG from the list of utilities. Type <*Alt-N*> to define a new language. Here's an example of the choices you could make:

```
Language Properties
   Language name:    Tutorial/ANSI (usually spoken language/protocol)
     Description:    Extra simple instructions for first-time callers
  File Extension:    IBM with ANSI: .IBM  ANSI:  .ANS  ASCII: .ASC
 Language Editor:    BBSDRAW %s
    Translations:    Yes: YES   No: NO

  .MDF file name:    WCOTUTOR (nondevelopers: begin this with ZZZ)
```

There's more about these choices in the *Developer's Guide* that comes with the C source code under the subject of .MDF file format.

2. Edit the Text Blocks

This is where translators get to work. You will be able to start with the English/ANSI version of each prompt or help message and convert it into your new language.

Under option 6, Edit Text Blocks, in the introductory menu, you will find thousands of text blocks that you can edit with CNF. Under option 4, Configuration Options, you'll find a few more. Not all CNF options can have multiple versions in multiple languages — only text options. When you are pointing to a text option, you will see these softkeys appear at the bottom of the screen:

<F3> CHOOSE LANG
<F2> EDIT

Use <F3> to pick your language from all the languages now defined on your BBS. Then use <F2> to edit the text and translate it into your language. If you chose BBSDRAW as your editor, you can use <Pg Up> and <Pg Dn> to scroll through the text options.

3. Export the Text

When all text translation is done, it will be stored in the .MSG files on your BBS. This is where CNF stores all text and options for all languages. To extract the text for your language, you'll use BBSLANG's Export option. Run BBSLANG again, but this time point to your language using <up arrow> and <down arrow>. Hit <Enter> and then choose:

```
Export .MSG file text for this language
```

You will get to name a few specific .MSG files from which to extract your language, or you can just specify *.MSG to include them all. You can specify a different directory for the .MLX files, or just hit <Enter> to put them in your BBSV6 directory. (If you've already exported another language here, you'll overwrite any existing .MLX files.)

When you have completed this step, the .MLX files will contain the text for your language from the corresponding .MSG files. For example, GALTLC.MSG might contain teleconference prompts for four languages, but GALTLC.MLX would contain only the prompts for Tutorial/ANSI or whatever language you are exporting.

You need .MLX files only for the corresponding .MSG files that have alternate versions for your language. For example, if you create a Tutorial language Add-on Option with an alternate set of prompts for the Shopping Mall, then you only need to export from GALORD.MSG (the Shopping Mall .MSG file) into GALORD.MLX. (Note that if you try to export from other .MSG files that do not have Tutorial versions, then no .MLX file will be created.)

4. Package the Language

To package your language into a module for Sysops to install, you will need:

- The .MDF file created in step 1
- The .MLX files created in step 3
- An installation program or batch file that:
  - Copies the above files into the Sysop's BBSV6 directory
  - Runs BBSILANG * OLD to import that language into the BBS (the Sysop's original .MSG files will be backed up in .OLD files)

BBSILANG.EXE comes standard with The Major BBS Version 6.1 and higher, and your customer should already have it in his BBSV6 directory.

If you want to use Galacticomm's INSTALL.EXE program to help with the installation of your language, call us at (305) 583-5990 about a license agreement (there is no charge for that agreement).

Removing a Language

Should you wish to remove a language from your BBS, use BBSLANG to point to the language, hit <*Enter*>, and choose:

```
Remove .MSG file text for this language
```

Only then should you attempt to use BBSDMOD (see page 388) to disable the language .MDF file. If you disable the .MDF file without removing the language from the .MSG files, then CNF will give you an error message.

6

MENU TREE DESIGN

Designing a Menu Tree means deciding these issues:

- How the services on your system are presented to users. For example:
  - Which services need to be easy, available, and obvious to users?
  - How should the services be grouped together?
  - Should Menu Tree lay out simple default menus for you, or do you want to draw your own?
- Who can access which services?

There are two important concepts that should be clear before you start designing menus for your system.

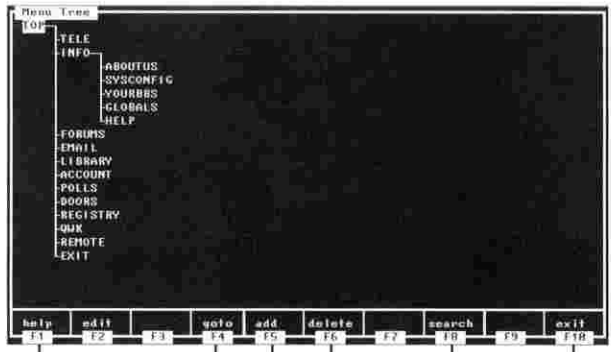
- A menu is a tree of "pages."
- There are three types of pages:
  - Menu page
  - Module page
  - File page

CREATING A TREE OF PAGES

A menu is a list of options. A Menu Tree is a bunch of those lists, arranged for your BBS users' convenience.

We call it a Menu Tree because each menu selection can lead to another menu, which branches into more selections, which in turn can lead to more menus and more branches. All branches eventually end. These leaves are module pages or file pages. As in most trees, branches never join other branches and never loop back onto themselves. And there is always a root: all users start at the TOP menu page when they log on.

Ancestry is another good metaphor. A menu's choices lead to its "child" pages. Then we call that menu the "parent" of those pages. Obviously, only menu pages can have children. Module and file pages are endings.



Menu Tree Design

Edit the page you're pointing to

Enter ↵ or F2

F10 Exit

F8 Search for a string

F6 Delete a page

F5 Add a new root page

F4 Go to a page by name

Menu Page

Module Page

File Page

On the Menu Tree Design screen, you can see the name of each page. The lines connect menu pages to their child pages. Parents are toward the left, children on the right.

By the way, a page will never have more than one parent. Say you want a menu selection in one menu to have the same function as another menu selection in another menu. Menu Tree makes it easy to duplicate the same function in two different menus. Even if the function is a complex branching menu, Menu Tree will copy the whole structure for you.

Three Types of Pages

Think of a page as an image on a user's screen.

A menu page shows a list of choices, each identified by a unique character. When a user makes a choice, he switches to a different page. Three things could happen, depending on what type of page it is:

Menu page:	another menu comes up
Module page:	some service in the BBS begins
File page:	a text file is displayed on the user's terminal

A module page invokes a particular service in the BBS. It can start broadly:

```
Enter the Forums
Enter the File Library
```

or narrowly:

```
Go into the /Support Forum and start downloading the file attached to
message #401933 using ZMODEM.

Enter the UTILITY LIB and tag for download all .EXE and .COM files and the
READ.ME file.
```

See pages 69-72 for examples of command strings.

A file page displays a text file on the user's terminal. It is up to the user whether the information pauses when his screen fills up or continues nonstop.

Pages are color coded in the tree diagram:

White	menu page
Yellow	auto-select menu page (see page 72)
Green	module page
Purple	file page

The /GO Command

If you put some thought into what you name your pages, you can give your users a handy set of /GO commands for the services on your system. For example:

/GO TOP	go to the TOP menu
/GO FORUMS	go to a menu of available Forums
/GO MAIL	read your incoming mail
/GO FEEDBACK	write feedback to the Sysop
/GO SUPPORT	enter the /Support Forum

In this example, these are all page names: TOP, FORUMS, MAIL, FEEDBACK, SUPPORT.

/GO *<menu page name>*	leads you to that menu
/GO *<module page name>*	invokes the services you specified when you created the module page
/GO *<file page name>*	displays the file

Users can enter the /GO command from almost any menu or prompt. (Two exceptions: from the full-screen editor or during full-screen data entry; there are others.)

You will want to write instructions for all your /GO commands and put them in the file named GALGIC.TXT, which as shipped contains this hint:

```
<< INSERT HELP ABOUT GLOBAL COMMANDS HERE >>
```

CREATING A NEW PAGE

> To create a new page, create a new menu selection on a menu page.

1. Enter Menu Tree and highlight the item that will become the parent page.
2. Hit *<Enter>* to edit the page.
3. Keep hitting *<Enter>* until you skip down to one of the empty 25 menu selections for the menu page.
4. Type the select character, or *<Alt-E>* to edit the selection.
5. Answer the questions about the selection. The destination page is the name of your new page. Page names can have up to 15 characters.

At first, the new page is also a menu page. To make it a different type of page, you must:

6. Hit *<Esc>* to exit the parent menu.
7. You'll notice your new page as a branch off of the parent page. Move the cursor to the new page.
8. Hit *<Enter>* to edit the page.
9. Now use the up and down arrows to turn it into a module or file page and hit *<Enter>*.

Now you are looking at your new page. After choosing the type of page, you will see the following two questions:

Allow GO command on this menu/module/file page name? *Yes/No*
Key required for GO

Here are the possibilities for these options:

Allow GO	Key required	
NO		no user can enter /GO *<page name>*
YES	*<blank>*	all users can enter /GO *<page name>*
YES	*<key name>*	only users with the key *<key name>* may enter the command /GO *<page name>*

DESIGNING A MENU PAGE

Here's the unique information you have to give for each menu page:

- Auto-select menu page? *Yes/No*
- Edit how this page looks? *Yes/No*
  (decide how you want the menu to appear to users)
- Page Title
  (displayed if Sysop uses text variable TITLE in menu page file; see page 89)
- Up to 25 menu selections, for each one:
  - Select character (A-Z, 0-9, and so on)
  - Short description (up to 30 characters)
  - Key required
  - If the user has no key, hide/dim/show the option
  - Destination page

Duplicating Menu Pages

If you wish to duplicate the same functions of one menu branch in another branch, follow the steps in "Creating a New Menu Page," but in step 5 enter the name of the existing page you want as the destination. Menu Tree will rename and copy that page and the whole structure under it to the new branch. You now can modify any pages in the new branch.

Deleting a Menu Page

Follow the steps in "Creating a New Page," but in step 3 skip to the menu selection you wish to delete. Enter *<Alt-D>*.

BBS-Constructed or Custom-Edited Menus

BBS-Constructed Menus for ANSI Users

Either you can have the BBS construct a default menu for you, or you can create your own. Here's the way a BBS-constructed menu looks for ANSI users:

```
Please select one of the following:

T ... Teleconference
I ... Information Center
F ... Forums (Public Message Bases)
E ... Electronic Mail
L ... File Libraries
A ... Account Display/Edit
P ... Polls and Questionnaires
D ... Doors
R ... Registry of Users
Q ... QWK-mail
X ... Exit System (Logoff)

Main System Menu (TOP)
Make your selection (T,I,F,E,L,A,P,D,R,Q,? for help, or X to exit): _
```

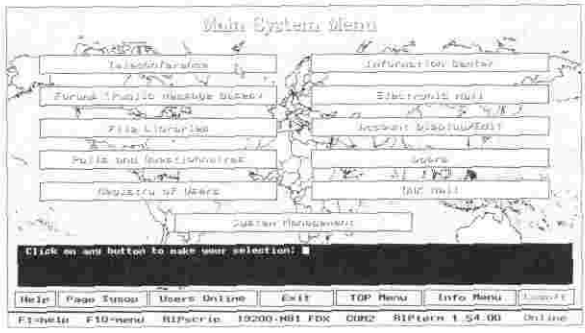
The letters in the left column are the select characters. The short descriptions follow the dots. For ANSI users, there is a shorter version of a BBS-constructed menu:

```
Main System Menu (TOP)
Make your selection (T,I,F,E,L,A,P,D,R,Q,? for help, or X to exit): _
```

In this example, MAIN SYSTEM MENU is the title of the menu page; TOP is the name of the menu page . A user can hit *<Enter>* or ? to redisplay the full menu.

BBS-Constructed Menus for RIP Users

An auto-constructed menu for RIP users looks like this:



To control the physical size, placement, and style of the buttons on the menu, you use a number of offline configuration options in BBSRIP.MSG as well as several features that can vary from menu to menu. You'll be able to view and change certain options only if you have installed RIP*aint*, the RIP drawing tool from TeleGrafix Communications Inc. (see page 92 for more on RIP*aint*). To purchase a copy of this program, call TeleGrafix at (714) 379-2131, Galacticomm's sales department at (800) 328-1128 or (305) 583-5990, or your nearest authorized Galacticomm dealer.

Customizing Auto-Generated Menus without RIP*aint*

If you do not have RIP*aint*, you can use only three options to control the appearance of your auto-generated menus. These are:

DSPXIT — When the BBS generates a RIP menu, it displays a button for each option specified for a menu page in the Menu Tree. On your BBS's main system menu, this includes the option to log off. Because RIP menus by default have a global command bar (contained in the text block DFSEND2) at the bottom and this bar has an EXIT button, displaying an additional button for logging off may be redundant. If this option is set to NO, the BBS won't display a button for logging off the system; your users will use the EXIT button from your menu. If this option is set to YES, the BBS will display a button for logging off.

XITPGE — With DSPXIT set to NO, the BBS needs to know what module page calls the module Logoff (End Session) or it will display a button for a log-off option. Most often, this page is named EXIT. If you've changed that page name, you would enter the new name in this option.

MAXLGE — When automatically generating a RIP menu, the BBS uses either of two button and text style combinations: a button and text style for larger buttons (specified in the text blocks ENALGE and DIMLGE) or a button and text style for smaller buttons (specified in the text blocks ENASML and DIMSML). This option tells the BBS the maximum number of options a menu can have and still be displayed using the styles for larger buttons. If a menu has more options than specified here, the BBS will display those options using the styles for smaller buttons instead. Set this option to 25 to always use the larger styles. Set this option to 0 to always use the smaller styles.

Customizing Auto-Generated Menus with RIP*aint*

If you have installed RIP*aint*, edit the text block DFLHDR to modify the background and top title bar. To place the title of the menu on the title bar, you use the text variable TITLE (see page 89). You also work with the global command bar and text window in the text block DFSEND2. Moreover, you can work with five options, plus the three already discussed, to control the appearance of a menu. These are:

DEF1 through DEF25 — These options act as templates to specify the locations of the buttons for each menu option on the screen when the BBS automatically generates a RIP menu. DEF1 specifies the location of a button for a menu with one option, DEF2 specifies the locations of buttons for a menu with two options, and so on. The BBS is concerned only with the *location* of the buttons in these options—that is, their X0, Y0 – X1, Y1 coordinates. It will ignore other aspects (style, labels, and so on) as well as any other objects within these scenes. To set the *style* of the buttons for the BBS as well as the font of the buttons' labels, use the options ENALGE, DIMLGE, ENASML, and DIMSML.

ENALGE — This option tells the BBS what button style and what text font to use for LARGE/ENABLED buttons. The BBS will display an option using this button style if the number of options to be displayed for the current menu is less than or equal to the value set in MAXLGE and:

- It has no key required, or
- It has a key required and the user has that key, or
- It has a key required but you chose Show Option for it in the Menu Tree

The BBS will use the style of the first button it finds here and will use the font style of that button's label. (It ignores anything else in this option.)

DIMLGE — This option tells the BBS what button style and what text font to use for LARGE/DIMMED buttons. The BBS will display an option using this button style if the number of options to be displayed for the current menu is less than or equal to the value set in MAXLGE, and:

- You've specified a key required for this option
- The user does not have that key, and
- You chose Dim Option for it in the Menu Tree

The BBS will use the style of the first button it finds here along with the font style of that button's label. It will ignore anything else in this option.

ENASML — This option tells the BBS what button style and what text font to use for SMALL/ENABLED buttons. The BBS will display an option using this button style if the

number of options to be displayed for the current menu is more than the value set in MAXLGE and:

- It has no key required, or
- It has a key required, and the user has that key, or
- It has a key required, but you chose Show Option for it in the Menu Tree

The BBS will use the style of the first button it finds here along with the font style of that button's label. It ignores anything else in this option.

DIMSML — This option tells the BBS what button style and what text font to use for SMALL/DIMMED buttons. The BBS will display an option using this button style if the number of options to be displayed for the current menu is more than the value set in MAXLGE and:

- You have specified a key required for this option, and
- The user does not have that key, and
- You chose Dim Option for it in the Menu Tree

The BBS will use the style of the first button it finds here along with the font style of that button's label. It ignores anything else in this option.

Editing the Way Menus Look

When you create your menus, you can create four versions, for users whose terminals:

<name>.IBM	support ANSI and IBM's extended ASCII
<name>.ANS	support ANSI, but not IBM's extended ASCII (box outlines, international characters, other symbols)
<name>.ASC	do not support ANSI (colors, cursor positioning, and so on)
<name>.RIP	support RIP (these users also automatically support ANSI and IBM's extended ASCII)

The *<name>* part of the file is usually the page name, but you may use a different name. For the .ASC, .ANS and .IBM versions, you will use BBSDRAW. To create or modify a .RIP version of a menu, you need to install RIP*aint* (see page 92). You can purchase a copy of this software from TeleGrafix at (714) 379-2131, from our Sales Department at (800) 328-1128 or (305) 583-5990, or from your nearest authorized Galacticomm dealer.

Usually, when a menu page is set to display a file, the BBS will first attempt to display the appropriate file specified in the Menu Tree (for example, *<name>*.RIP for RIP users, *<name>*.IBM for users who support ANSI and Extended ASCII, and so on). If it can't find the first file, it will attempt to display the first alternate file it can find (for example, if the BBS could not find *<name>*.IBM, it will attempt to display *<name>*.ANS, and so on).

If you have a menu page set to display a file, but you have not created a .RIP version of the menu, you may not want the BBS to try to display any menu files having .IBM, .ANS, or .ASC extensions to RIP users. The reason is that users would see these files displayed in RIP*term*'s ANSI window, which could lead to confusing displays (see page 93 for more on RIP*term*).You can control this with the Level 4 option DSPOEXT in BBSRIP.MSG. If you set this option to NO, then when a RIP user is on a menu page and that menu page is set to display a file, the BBS will only look for a menu file with a

.RIP extension and will ignore any other files. If it cannot find a file with a .RIP extension, it will display an auto-generated menu. If you set this option to YES, then the BBS will try each extension in turn after .RIP, as usual. If you do not own a copy of RIP*aint*, keep DSPOEXT set to NO.

Using Your Own Editor to Edit Custom Menu Tree Menus

Menu Tree can be made to run your own favorite text or ANSI editor when you create your custom menus. Just change the editor command line in BBSMAI.MDF:

```
Language Editor: BBSDRAW %s
```

to run another editor:

```
Language Editor: ZAPEDIT %s
```

In these cases, %s represents the file where the menu will be stored, such as INFOMENU.ANS. See page 146 for more on the language-editor command line.

Menu Selections

Menu selections are the choices users get when the BBS displays a menu. A user makes his choice by typing a single character and hitting <*Enter*>.

For each of the up to 25 menu selections you can have in a menu, you need to specify:

Select Character

This is the single character that the user will enter to make his choice. This can be a letter, a single digit (0–9), or almost any punctuation symbol.

Short Description

This describes the menu selection. If the BBS is constructing this menu for you, this will appear on the user's screen next to the select character.

Key Required

Are you going to require a user to have a certain key to use this menu selection? If not, just leave this blank. If so, enter the key name here.

If the User Does Not Have a Key

If you're requiring a key, and the user doesn't have it, you can:

Show option	choice is displayed anyway
Hide option	choice is hidden from the user
Dim option	choice is displayed at low intensity

This choice applies whether the BBS is constructing the menu for you or you are laying it out with BBSDRAW. (In BBSDRAW, you mark where each option appears in your menu using the <*Alt-M*> key.)

Destination Page

What do you want to call the new child page that you are about to create?

Whenever you specify a new menu selection, you're also creating a new page. That page's name has to be unique. If you use the name of a page that already exists, Menu Tree offers to make a copy of that page and give the copy a new name. If the page is a menu page with children of its own, the children will also be copied and given new names.

This destination page is the page a user will branch to when he makes the selection. It's important to give the page a meaningful name. That is because, if you wish, your users can use this name with the /GO command from almost anywhere online.

Page names can be 1 to 15 characters long and have capital letters, digits or the underscore (_) character.

DESIGNING A MODULE PAGE

A module page invokes some service inside the BBS. You will specify:

- The module name
- The command string
- Whether to display the module page header (MPGHDR). This special text block in BBSMAJOR.MSG can be displayed as a header whenever a user selects a module page from a menu page. This is mainly for RIP users. Set it to YES if a choice on a menu page leads to a module that hasn't had RIP added to it. This will clear away any RIP graphics on the screen and set up a suitable frame for that module's ANSI output. Set this to NO for modules that do have RIP. For example, the module page ACCOUNT calls the module Account Display/Edit, which does have its own RIP graphics; therefore, Display Module Page Header? is set to NO. The module page REMOTE calls the module Remote Sysop Menu, which has minimal RIP graphics; therefore, Display Module Page Header? is set to YES. By default, the English/ANSI version of MPGHDR has nothing in it: for your ANSI users, you might put text in MPGHDR if, for instance, you would like to clear the screen every time a user goes into a module.

Choose the module name from a scrolling menu of choices. At a minimum, you should get these choices:

```
Account Display/Edit
Doors
Electronic Mail
File Libraries
Forums
Logoff (end session)
Menu-ize Global Commands
Polls and Questionnaires
QWK-mail
Registry of Users
Remote Sysop Menu
Teleconference
```

When you install add-on options on your BBS, additional names will appear automatically in this list. Many add-ons are available from Galacticomm and third-party developers. See our latest product catalog or newsletter for details.

Remember that when you create a module page you can create two paths to the same service. A single menu selection can bring up the service. If you've allowed the /GO command for your module page, you can invoke it from almost anywhere. You can create an orphan module page for a service you want accessible *only* through the /GO command.

Some of the following examples bring up privileged services, such as writing to Forums or writing to mass-mailing lists. Just keep in mind that if you give everyone access to a module page that invokes a privileged service, some users might get turned away with messages that may not be clear to them. You may want to take some steps to make sure these options aren't even presented to them.

You can use command strings instead of typing commands from the module's main menu. Before entering your command strings in the module page, you can test them from the module's menu. Here is a brief guide for The Major BBS's standard modules:

Some example command strings for Forums

<blank>	enter the current Forum, see the Forum menu
RSF	scan from the first message
RS.	scan starting from the next message you haven't read yet
RS38501	scan from message number 38501
RSL	scan from the last message
RLBF	list brief titles of all messages
RLTF	list four-line titles of all messages
RLFF	list all messages fully
RLB.	list brief titles starting with the next unread message
RLT.	list four-line titles starting with the next unread message
RLF.	list full messages starting with the next unread message
FSF	filescan from the first file
FS.	filescan starting from the next file you haven't seen yet
FS38501	filescan from the file attached to message number 38501
FSL	filescan from the last file
FLBF	filescan list brief titles of all files
FLTF	filescan list four-line titles of all files
FLFF	filescan list all file descriptions fully
FLB.	filescan list brief titles starting with the next file
FLT.	filescan list four-line titles starting with the next file
FLF.	filescan list full file descriptions starting with the next file
QS	quickscan
W	write a message in the Forum

W.	write a message in the Forum to all users
W CoSysop	write a message in the Forum to the CoSysop user
S?	display a list of Forums and choose one
S/Support	select the /Support Forum
T	enter the Forum Teleconference

Some example command strings for Electronic Mail

<blank>	enter the E-mail menu
RTF	read all your incoming mail, starting with the earliest
RT.	read your incoming mail, starting with mail you have not read yet
RTL	read your latest piece of incoming mail
RFF	read the earliest piece of outgoing mail that is still in your out box
RFL	read your latest piece of outgoing mail
W Linda Bowman	write mail to Linda Bowman
W /Legal	write a message to the /Legal Forum
W @group3	write mail to distribution list @group3
W !quick	write mail to your individual distribution list
W !mass	write mail to every user on the system
SC	configure your personal distribution list (or if the user has the SUPER key, configure a named distribution list)
SA	auto-forward incoming mail to another user-ID
SS	Set personal preferences for E-mail

Some example command strings for the File Libraries

<blank>	enter the current Library, see the Library menu
&F	find files
&S?	display a list of Libraries and choose one
&S *<Library name>*	select a Library and return to the parent menu without displaying anything
&S *<Library name>*	select a Library and leave the user at the main Library menu
&D	download a file
&T *	download all tagged files
&T * Z	download all tagged files using ZMODEM
&D *.C	download all files with the .C extension
&T -ALL	untag all tagged files
&U TEST.TXT	upload TEST.TXT to the current Library, if allowed
&O	select operations menu (if Sysop or Library Operator)

Note: An & in the first position of a File Libraries command string overrides user preferences and should always be used.

Some example command strings for Account Display/Edit

<blank>	enter the Account Display/Edit menu
S	display statistics
A	display and, if desired, edit account information
T	transfer credits to another user
L	change language or protocol preference

Some example command strings for Polls and Questionnaires

<blank>	enter the Polls and Questionnaires menu
R	view results for a poll
R BBSPOLL	poll name for viewing results

Some example command strings for Doors

<blank>	get the generic Doors menu
L	get a list of doors
E *<door name>*	enter a specific door

Some example command strings for the Registry of Users

<blank>	enter the Registry menu
DA	get a directory of all users in the Registry, starting with A
Y	create or edit your entry
L Sysop	display registry information on the Sysop user
L	look up any user

Some example command strings for the Remote Sysop menu

<blank>	enter the Remote Sysop menu
USERS	display statistics of users online
SYSTATS	view overall statistics
MODSTATS	view module usage
DEMSTATS	view system demographics
CLSSTATS	view class statistics
ACCOUNT POST	post credits to a user's account

Some examples command strings for QWK-mail

<blank>	enter the QWK-mail menu
DZ!	download packet using ZMODEM, then log off

Some example command strings for Menu-ized Global Commands

/GO *<page name>*	jump to a menu, module, or file page
/#	get a list of users online
/RECENT	get a list of users recently logged off
/P *<User-ID>* *<message>*	page a specific user with a message
/R *<User-ID>*	look up a specific user in the registry

And some more command strings for Sysops only (see page 291):

/INVIS	toggle Sysop invisible mode

The /GO <*page name*> command string can be extremely useful. With it you can create multiple paths to the same menu. Suppose you wanted to make two different menu selections from two different menus do the same thing for a user. For example, suppose you have one tree of menus for expert users and another for new users. In the tree for new users, you have a very helpful master help menu with all kinds of information on your service. Expert users can always type /GO HELPMENU to get there, but suppose you wanted to give them a menu option somewhere in their menu structure that leads them directly to the master help menu. The answer: create a module page in the expert-user tree for the Menu-ize Global Commands module, with a command string of /GO HELPMENU.

The only other way to do this would be to try to create a child menu page, also named HELPMENU, and let Menu Tree make a duplicate copy of the HELPMENU page and all its child pages. Choosing between these methods might not be simple for you. In the one method, you can end up with a lot of extra pages to maintain. In the other, your expert users will be subtly teleported to the new-user menu tree when they choose this special menu selection.

DESIGNING A FILE PAGE

A file page will display the contents of a text file to a user's screen. Here, you will see a list of prompts that includes:

```
Display File Page Header?
File Name (with path, if not default):
```

The text block FPGHDR, in BBSMAJOR.MSG, can be displayed as a header whenever a user selects a file page from a Menu Tree menu. This is mainly for your RIP users. Set this to YES for most file pages, to clear away the previous RIP screen and set up a suitable frame for displaying the file. Only if the file itself is a RIP scene would you consider setting this to NO. For your ANSI users, you might put text in this option if, for instance, you'd like to clear the screen every time a user chooses to display a file.

You can specify the entire DOS path to the file if you like. Otherwise, the file should reside in the main BBS directory, typically \BBSV6. To edit a file page, use your favorite word-processor or EDIT, a standard DOS editing program.

AUTO-SELECT MENU

This feature is simple in form, but complex in possibilities. You don't have to be a programmer to use it, but it would be a good idea to get thoroughly familiar with operating The Major BBS before you try to design auto-select menus.

> An auto-select menu automatically and instantly takes the first choice a user is allowed to make, without waiting for the user to type anything.

So what is the point of that? Well, different users can't always make the same menu choices, since some selections require a key. This is how you make your BBS work differently for different users.

For example, to handle users with the OPERATIONS key differently:

1. Make the TOP menu an auto-select menu;
2. Have the first selection require the OPERATIONS key and branch to a special menu;
3. Have the next selection require no key and branch to the menu for everyone else.

In practice, you must make all the menu selections in an auto-select menu require a key, except the last one, because any selections after one that required no key would never be used. That last selection is your default or catch-all, for users who don't have any of the keys.

Your system will crash if it does not have a valid branch for every user.

PSEUDO-KEYS

Pseudo-keys are not like standard keys, which you explicitly give to users or to user class keyrings. Users get a pseudo-key implicitly, by virtue of some other privilege you grant them on the BBS.

Using the _PORT# and _GROUP# Pseudo-Keys

Each user always has a port pseudo-key and a group pseudo-key. You can use them, along with auto-select menus, to bring up different menus, depending on the user's port or channel group:

_PORT#00 to _PORT#FF	Channel 00 to FF hexadecimal
_GROUP#1 to _GROUP#16	Channel Group 1 to 16

For example, a user calling on channel 2C (hexadecimal) has the pseudo-key _PORT#2C. When you log in from the console using <*F7*>, you are on channel 00, so you have the _PORT#00 pseudo-key. If your Hardware Setup defines channel group 3 as a GalactiBox with 16 modems, then all users that call through those modems have the pseudo-key _GROUP#3.

If you add a selection to an auto select menu that requires one of these pseudo-keys, then users on that channel or group can get a different menu than everyone else.

Using Language Pseudo-Keys

These two classes of pseudo-keys allow you to handle users differently based on the spoken language and terminal protocol portions of their user-language:

_LANG=<*spoken language*>, such as _LANG=ENGLISH, or _LANG=GERMAN
_PROT=<*terminal protocol*>, such as _PROT=ANSI or _PROT=RIP

For example, users online in the Spanish/ANSI language automatically have both the _LANG=SPANISH and _PROT=ANSI pseudo-keys.

One use for these pseudo-keys might be to display a different main menu for each user-language. Consider a BBS that is well stocked with spoken languages and terminal protocols. Here pseudo-keys differentiate spoken languages, and Menu Tree differentiates terminal protocols. (Menu Tree has a great way to handle multiple terminal protocols,

because the different protocols usually have different file extensions, as in INFOMENU.ANS, INFOMENU.IBM, and INFOMENU.RIP.)

The first step is to create an auto-select menu with pseudo-keys to split the different spoken languages into different submenu pages:

```
TOP menu page, an auto-select menu

Menu selection 1 is the TOPENGL page and requires the _LANG=ENGLISH key
Menu selection 2 is the TOPSPAN page and requires the _LANG=SPANISH key
Menu selection 3 is the TOPGMAN page and requires the _LANG=GERMAN key
Menu selection 4 is the TOPELSE page and requires no key
```

Use Menu Tree to create the TOPENGL, TOPSPAN, TOPGMAN, and TOPELSE menu pages. (As is always a good practice with auto-select menus, TOPELSE handles any leftover cases.)

The final step is to customize each submenu page with different menus for the different file extensions associated with each terminal protocol. For the TOPENGL page, set `Change the way this menu looks?` to YES; then design the TOPENGL.ANS file for ANSI users, the TOPENGL.RIP file for RIP users, and so forth.

Special-Privilege Pseudo-Keys

These pseudo-keys are most useful when creating menus that have a mix of common user options and privileged options reserved for the Sysop or for Sysop-designated helpers. For example, if you created a menu page full of the standard Forums services (read, write, and so on, as on pages 321-323) plus the special Forum-Op services (approve, modify, erase, and so on, as on page 239), you would probably want to require the _FORUMOP pseudo-key for the privileged `A = Approve files for download` menu selection.

_FORUMOP Pseudo-Key

This key is possessed at all times by the designated Sysop for Forums (that is, any user who possesses the key specified by offline Security and Accounting option SIGSYS) and by any Forum-Op when that user has selected the corresponding Forum. All Forum-Ops are appointed by the Forum Sysop (see page 238). Again, you might use the _FORUMOP pseudo-key if you wanted to include privileged Forum-Op commands on a custom Forum menu you were creating — just add menu selections for each of the Forum-Op commands and enter _FORUMOP as the key required (see page 67 about specifying keys required for menu selections).

_LIBOP! Pseudo-Key

This key is possessed by the designated Library Sysop, which is any user possessing the key specified by option FLSYSOP (see page 254 about the Library Sysop).

_LIBOP Pseudo-Key

This key is possessed by the Library Sysop and by any Library Operator when that user has selected the corresponding Library (see page 254 about Library Operators).

ORPHAN PAGES

An orphan page is one that users cannot reach from any menu selection. They start at the orphan page named TOP when they log on your BBS. The only way to get to any other orphan page is with the /GO command.

In Menu Tree design, orphan pages appear on the far left side of your screen. The TOP page appears in the top left corner. To create another orphan page, hit the *<F5>* key.

EMERGENCY ONLINE MENU DISABLE/ENABLE

If you are having some problem with a menu or access to a menu you can disable it online. This feature is intended for emergency operations, especially in cases where you can't get to the BBS console computer right away, but you can call it up remotely. For example:

- You forgot to lock a menu option — it is available to everyone and you do not want that
- You need to shut down a module or service for any reason

You must have the MASTER key to use these commands. They are valid from any menu page.

DISABLE *<page name>* Command

This command takes a page out of commission. To use it, either specify the name of the page or go to the parent menu page and specify the select character.

```
Make your selection (A,B,C,D,? for help, or X to exit): DISABLE ALPHA

OK, the "ALPHA" page has been disabled (use the ENABLE command to enable it)

(JUMBO)
Make your selection (A,B,C,D,? for help, or X to exit): _
```

Now if users try to select that page, they'll get the message:

```
Sorry, that option is temporarily unavailable.
```

ENABLE *<page name>* Command

To enable a menu page again, use the global ENABLE command. The syntax is the same as that of the DISABLE command:

```
Make your selection (A,B,C,D,? for help, or X to exit): ENABLE ALPHA

OK, the "ALPHA" page has been enabled again!

(JUMBO)
Make your selection (A,B,C,D,? for help, or X to exit):
```

MENU TREE DESIGN EXAMPLES

Most of the pages described in these Menu Tree examples allow the /GO command and require no keys to use it. Moreover, in most cases no key is required for a menu selection option. Only the exceptions to these rules are noted.

The Default Menu Tree

The Major BBS comes with this TOP Edit Menu:

```
Menu Select Options:

1   T   Teleconference
2   I   Information Center
3   F   Forums (Public Message Bases)
4   E   Electronic Mail
5   L   File Libraries
6   A   Account Display/Edit
7   P   Polls and Questionnaires
8   D   Doors
9   R   Registry of Users
10  Q   QWK-mail
    -   ------------------------

24  S   System Management
25  X   Exit System (Logoff)

Return to Menu Tree?
```

See pages 294-295 for a diagram of the default TOP menu.

Implementation of the TOP menu page

Auto-select page? NO
Selections:

Select character: T
Short description: Teleconference
Destination page: TELE

Select character: I
Short description: Information Center
Destination page: INFO

Select character: F
Short description: Forums (Public Message Bases)
Destination page: FORUMS

Select character: E
Short description: Electronic Mail
Destination page: EMAIL

Select character: L
Short description: File Libraries
Destination page: LIBRARY

Select character: A
Short description: Account Display/Edit
Destination page: ACCOUNT

Select character: P
Short description: Polls and Questionnaires
Destination page: POLLS

Select character: D
Short description: Doors
Destination page: DOORS

Select character: R
Short description: Registry of Users
Destination page: REGISTRY

Select character: Q
Short description: QWK-mail
Destination page: QWK

Select character: S
Short description: System Management
Key required: SYSOP
If user has no key: Hide option
Destination page: REMOTE

Select character: X
Short description: Exit System (Logoff)
Destination page: EXIT

Implementation of the TELE module page

Module Name: Teleconference
Command String: *<none>*

Implementation of the INFO menu page

Auto-select page? NO
Selections:

Select character: A
Short description: About Our company...
Destination page: ABOUTUS

Select character: C
Short description: System Configuration
Destination page: SYSCONFIG

Select character: S
Short description: How to Set Up Your Own BBS
Destination page: YOURBBS

Select character: G
Short description: Using Global Commands
Destination page: GLOBALS

Select character: H
Short description: Help (BBSUSER.DOC)
Destination page: HELP

Implementation of the ABOUTUS file page

File name: GALAIC.TXT

Implementation of the SYSCONFIG file page

File name: GALSIC.TXT

Implementation of the YOURBBS file page

File name: GALHIC.TXT

Implementation of the GLOBALS file page

File name: GALGIC.TXT

Implementation of the HELP file page

File name: BBSUSER.DOC

Implementation of the FORUMS module page

Module Name: Forums
Command String: *<none>*

Implementation of the EMAIL module page

Module Name: Electronic Mail
Command String: *<none>*

Implementation of the LIBRARIES module page

Module Name: File Libraries
Command String: *<none>*

Implementation of the ACCOUNT module page

Module Name: Account Display/Edit
Command String: *<none>*

Implementation of the POLLS module page

Module Name: Polls and Questionnaires
Command String: *<none>*

Implementation of the DOORS module page

Module Name: Doors
Command String: *<none>*

Implementation of the REGISTRY module page

Module Name:	Registry of Users
Command String:	*<none>*

Implementation of the QWK module page

Module Name:	QWK-mail
Command String:	*<none>*

Implementation of the REMOTE module page

Allow GO to this module?	YES
Key required to use GO:	SYSOP
Module Name:	Remote Sysop Menu
Command String:	*<none>*

Implementation of the EXIT module page

Module Name:	Logoff (end session)
Command String:	*<none>*

You can see how the Remote Sysop Menu appears as menu option S from the TOP menu for users with the SYSOP key. Users without the SYSOP key do not even see this option, because for them it is hidden. What's more, it takes the SYSOP key to use the /GO REMOTE command.

The Information Center provides access to informative text files. It is implemented as a menu leading to file pages.

Two Bulletin Boards on One Computer

Let's say you have eight phone lines supporting two BBSes, a Customer Support BBS and a Games BBS. Let's keep these systems as distinct as possible.

The strategy is to make the top menu an auto-select menu that will decide which main menu a user logging on should see.

All new users can sign up online. But they can't use either system until the Sysop approves them. (This is achieved by configuring the log-on class to allow only 0 minutes online per day, as in the Sign-up model BBS on page 101.)

All users of the Support BBS are in classes that have the SUPPORT key on their keyring. Users of the Games BBS have the GAMES key.

The initial connect message (named HELLO; see page 179) should give a message suitable to either system, just asking for user-ID and password.

Implementation of the TOP menu page

Auto-select page?	YES
Selections:	
Select character:	A
Short description:	GAMES BBS

Key required: GAMES
Destination page: GAMES

Select character: B
Short description: SUPPORT BBS
Key required: SUPPORT
Destination page: SUPPORT

Select character: C
Short description: DEFAULT
Key required: *<none>*
Destination page: DEFAULT

Implementation of the GAMES menu page

Allow GO to this menu? YES
Key required for using GO: GAMES
Auto-select page? NO
Selections:
.... (games menu selections) ....

Implementation of the SUPPORT menu page

Allow GO to this menu? YES
Key required for using GO: SUPPORT
Auto-select page? NO
Selections:
.... (customer support menu selections)....

Implementation of the DEFAULT menu page

Allow GO to this menu? YES
Auto-select page? NO
Selections:

Select character: F
Short description: Feedback to Sysop
Destination page: FEEDBACK

Select character: X
Short description: Exit (log off)
Destination page: EXIT

Implementation of the EXIT module page

Module Name: Logoff (end session)
Command String: *<none>*

Implementation of the FEEDBACK module page

Module Name: Electronic Mail
Command String: W.

If a user with the GAMES key logs on, he is immediately and seamlessly routed to the GAMES menu page. A user with the SUPPORT key instead is sent to the SUPPORT menu page.

Users with both the GAMES and SUPPORT keys will end up in the GAMES BBS, because the TOP menu lists it first. Perhaps you could make a special entry in the games menu for users with the SUPPORT key.

The DEFAULT page is designed to catch users with neither the GAMES key nor the SUPPORT key. These users only get to write a message to the Sysop.

These features do not apply to an auto-select menu page: select characters, descriptions, and display options when the user has no key. Auto-select menus are never displayed to anyone, so this information is never used.

Separate Forum Menus

Suppose we wanted a BBS that had one Forums selection menu leading to a different menu for each Forum. The menu for the /Support Forum would present all the options in the standard Forum menu. But the /BetaTest Forum would allow only reading and downloading of files by users with the BETA key. Users with the SYSOP key could write to the /BetaTest Forum. And the /Report Forum would allow only writing of messages and uploading of files that were directed to a user named Hal.

In the implementation list that follows, note that when you use a command string to access a Forums or File Libraries module from a menu page, you can control where a user goes after he exits. For example, when you use S /Support R, with a space between the S and the module name, the user will stay in the module. When you use S/Support R, with no space between the S and the name, the user will return to the initial menu page.

Implementation of the FORUMMENU menu page

Auto-select page?	NO
Selections:	
Select character:	S
Short description:	Support Forum
Destination page:	SUPPORT
Select character:	B
Short description:	Beta Testing Forum
Key required:	BETA
If user has no key:	Hide option
Destination page:	BETA
Select character:	R
Short description:	Write to the Report Forum
Destination page:	REPORT
Select character:	F
Short description:	Forum Maintenance
Key required:	SYSOP

If user has no key: Hide option
Destination page: FORUMS

Implementation of the SUPPORT menu page

Auto-select page? NO
Selections:

Select character: R
Short description: Read messages
Destination page: SUPREAD

Select character: W
Short description: Write a message
Destination page: SUPWRITE

Implementation of the SUPREAD module page

Module Name: Forums
Command String: S /Support R

Implementation of the SUPWRITE module page

Module Name: Forums
Command String: S /Support W

Implementation of the BETA menu page

Allow GO to this menu? YES
Key required to use GO: BETA
Auto-select page? NO
Selections:

Select character: R
Short description: Read messages
Destination page: BETAREAD

Select character: W
Short description: Write a message
Key required: STAFF
If user has no key: Hide option
Destination page: BETAWRITE

Implementation of the BETAREAD module page

Allow GO to this module? YES
Key required to use GO: BETA
Module Name: Forums
Command String: S /BetaTest R

Implementation of the BETAWRITE module page

Allow GO to this module?	YES
Key required to use GO:	STAFF
Module Name:	Forums
Command String:	S /BetaTest W

Implementation of the REPORT module page

Module Name:	Forums
Command String:	S /Report W Hal

Implementation of the FORUMS module page

Allow GO to this module?	YES
Key required to use GO:	SYSOP
Module Name:	Forums
Command String:	*<none>*

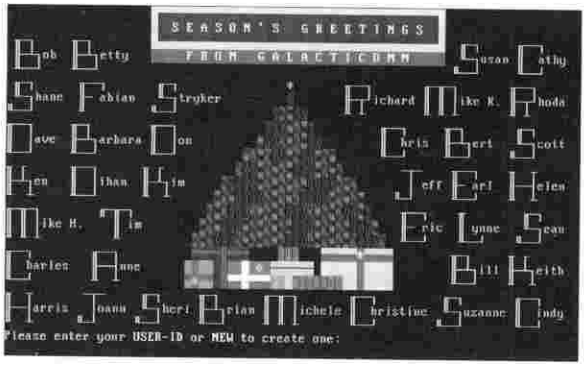
It is not necessary to define an explicit exit command for each of these menus — entering X from a menu always gets you back to the parent menu, even if X is not a choice in the menu.

The standard Forum menu is never available to users through these menus, only to the Sysop. The Sysop should probably always have a way into the standard Forums menu so he can maintain Forums.

Users with the STAFF key can write to the /BetaTest Forum to put new messages and files online there. The only way to read from the /Report Forum is for user Hal to log on, enter E-mail, and read the Forum messages directed to him. Why not implement the /Report Forum as private mail to Hal? This way, users writing a report will not be able to request a return receipt. Moreover, the messages and any files attached will remain on the system for the message lifetime in the /Report Forum, and all attached files will reside in the REPORT subdirectory.

7

USING BBSDRAW



CUSTOM DESIGNING MENUS

BBSDRAW is a full-screen editor used by the offline Menu Tree Design program to help you design your own custom menus (see page 66). We call this creating a BBSDRAW menu. BBSDRAW also is used by the offline CNF Configuration Facility to edit messages that go out to online users. We call this editing a BBSDRAW text block. In addition, you can use BBSDRAW from DOS on a stand alone ASCII/ANSI file.

Features of a BBSDRAW Menu and a BBSDRAW Text Block

- 80 by 25 text screen
- ANSI colors
- Extended ASCII characters
- Optional initial clear-screen
- Optional final cursor position and color
- Text variables
- Menu selection markers (BBSDRAW Menu only)

Moving the Cursor

Use the four arrow keys to move the cursor around on the screen. In addition:

<Home>	moves the cursor to the beginning of the line
<End>	moves the cursor to one character beyond the last character on the line
<Ctrl-Home>	moves the cursor to the upper left corner
<Ctrl-End>	moves the cursor to the lower right corner

BBSDRAW Commands

<Alt-A>	sets the current color (see page 86)
<Alt-B>	block move/copy/erase/fill (see page 87 about block fill)
<Alt-C>	chops one line into two lines
<Alt-E>	removes all ANSI codes on the screen — go to pure ASCII
<Alt-F>	sets the final cursor position and color (see page 87)
<Alt-I>	inserts a new line above the current one
<Alt-J>	joins two lines into one
<Alt-K>	reveals all menu selection markers by making them blink; *<Esc>* stops the blinking (see page 90)
<Alt-L>	loads in the contents of a file
<Alt-M>	adds or removes markers (see page 90)
<Alt-N>	new screen — clear everything
<Alt-O>	simulates an online display of the information (does not work when BBS is running under Windows)
<Alt-Q>	turns on/off the quick reference bar at the bottom, so that you can have a full 80-by 25- screen in view
<Alt-R>	restores a line you just deleted
<Alt-S>	saves the current file
<Alt-U>	gets the colors from where the cursor is pointing and makes them the current colors.
<Alt-V>	adds or edits a text variable (see page 88)
<Alt-W>	sets the initial clear-screen on or off (see page 87)
<Alt-X>	exits BBSDRAW, with option to save your changes
<Alt-Y>	deletes the current line (can be undone with *<Alt-R>*)
<Alt-Z>	deletes a text variable (see page 88)
<Del>	deletes the character under the cursor
<Backspace>	deletes the character to the left of the cursor
<Ins>	toggles character insert mode on/off
<Pg Up>	saves this text block and moves up to the next one (only available when editing a text block in CNF)
<Pg Dn>	saves this text block and moves down to the next one (only available when editing a text block in CNF)
<Esc>	quits BBSDRAW — you get a warning if you've made changes
<F1> – *<F10>*	uses extended character set, as seen on bottom of screen
<Alt-F1> – *<Alt-F10>*	changes extended character set on bottom of screen to a different character set

Storage of BBSDRAW Menus

When you replace the plain menu that Menu Tree creates for you with a zingy, whiz-bang BBSDRAW menu, you will create at least one of these files, where *<page>* is usually the name of the menu page:

<page>.ANS for ANSI users
<page>.ASC for non-ANSI users
<page>.IBM for ANSI users with IBM's extended character set

If only one file exists, then it is used in all three cases. If all three exist, then each case gets a different menu. When there are only two of these files:

- Non-ANSI users get *<page>*.ANS as their second choice, if there is one
- ANSI users get *<page>*.ASC as their second choice
- Users of IBM's extended ASCII get *<page>*.ANS as their second choice

Colors

Use the *<Alt-A>* menu to choose the current foreground and background colors. For example, to pick white on red, like the original Coca-Cola cans, choose:

```
foreground=15     (bright white)
background=4      (red)
```

From then on, whatever you type will be white on red. The current colors also have an effect on the block-fill function of the *<Alt-B>* command and on the *<Alt-F>* final position and color command.

If you want to use colors you already see somewhere else on the screen, move the cursor to that spot and hit *<Alt-U>*. Now those colors will be the current colors.

Extended ASCII Characters

The function keys *<F1>* through *<F10>* each represent a single extended ASCII character. The lower right corner of the BBSDRAW screen shows which ten characters. You can actually choose from 100 different extended ASCII characters using the function keys. *<Alt-F1>* through *<Alt-F10>* are for choosing which set of extended characters you want. Try holding down *<Alt>* and hitting the function keys one after another. You will see the set of extended characters change. Put any one of them up on the screen by hitting the appropriate function key without the *<Alt>* key held down.

You can also insert any character you want using *<Alt>* and the numeric key pad. Hold down *<Alt>*, type out the ASCII or extended ASCII sequence of the character, and release *<Alt>*. To insert the ASCII ESC character, hold down *<Alt>* and type 27 on the numeric keypad, then release *<Alt>*. Or use *<Alt>* 219 for a big rectangle and so on. You can use *<Alt>* 12 to insert a form feed.

Block Fill Function of <*Alt-B*>

There are five ways you can fill in a rectangular region:

`Character`	fill it full of a specific character. The colors are not changed in the region.
`Attribute`	set the region to the current color. The characters that are there remain.
`Foreground`	change only the foreground color to the current foreground color.
`Background`	change only the background color to the current background color.
`Everything`	fill it full of a specific character at the current color.

Initial Clear-Screen

This feature makes the file clear the user's screen every time the file is displayed. That way, the file paints down from the top instead of scrolling up from the bottom. Turn this feature on or off with <*Alt-W*>. Note that any file with 80-column lines always will be saved with a clear screen, regardless of your <*Alt-W*> setting. This has to do with the way 80-column lines wrap on the user's screen.

Final Cursor Position and Color

Sometimes you want the cursor to end up somewhere other than the last character of the last line in your customized menu. You may want to paint the whole screen and then leave the cursor in the middle of a box somewhere. And what about the final color? Whatever the user types from that point on will be in the final color.

These questions are answered with the <*Alt-F*> command. What final color do you want? Set that as the current color with <*Alt-A*>. Then move the cursor to the final position and hit <*Alt-F*>.

Final position and color is indicated by a smiley face on top of whatever is at the location you designated as the final position. The color of the face is the final color.

To delete this feature, move to the smiley face and hit <*Del*>. Whatever was under the smiley face comes back into view (it is not deleted).

TEXT VARIABLES

The Major BBS has several text variables that you can embed into menus or text blocks. A text variable is a field that your system fills automatically every time it is output to a user — for example, if you use the text variable `DATE` to stand for today's date, users always will see the current date in that field. This section tells you how to use a text variable and what text variables are available with the basic platform for The Major BBS.

Page 267 lists more text variables, which you can use in certain text block prompts in the File Libraries. Additional text variables may become available when you add modules to The Major BBS.

To embed a text variable using BBSDRAW, move to where you want the left end of the item to be and hit <*Alt-V*>.Then enter the name of the text variable and choose justification — <*Spacebar*> toggles these options:

None	value is displayed with no truncation or blank padding
Left	value is displayed on the left with extra blanks on the right if it is shorter than the format length; value is chopped off on the right if it is too long
Right	value is displayed on the right with blank padding on the left
Center	value is displayed in the center of the field with spaces around it

Then you choose format length, which is applicable only if Justification: is Left, Right, or Center. Text variables are visible on the BBSDRAW screen. They show up with the name of the text variable in them and asterisks (*) surrounding the name. To edit a text variable, point to it and hit <*Alt-V*> again. To delete a text variable, point to it and hit <*Alt-Z*>.

Text Variables That Are Always Valid

You can use these text variables in any BBSDRAW menu and in any BBSDRAW text block.

DATE	today's date
TIME	current time
PORT	port index, based on channel definition sequence
CHANNEL	channel number
SYSTEM_NAME	offline configuration option BBSTTL
SYSTEM_COMPANY	offline configuration option COMPANY
SYSTEM_ADDRESS1	offline configuration option ADDRES1
SYSTEM_ADDRESS2	offline configuration option ADDRES2
SYSTEM_PHONE	offline configuration option DATAPH
RESTRICTED_PHO	offline configuration option LIVEPH
CHARGE_PER_HOUR	offline configuration option CHGHOUR
MINIMUM_CHARGE	offline configuration option CHGMIN
REG_NUMBER	your software registration number
NUMBER_OF_LINES	the total number of channels defined
OTHERS_ONLINE	the number of other users who are online at the moment
TOTAL_CALLS	total number of calls the BBS has ever received
DOWNLOADS	total downloads
UPLOADS	total uploads
TOTAL_MESSAGES	total E-mail or Forum messages written
OPEN_FORUM_MSGS	total Forum messages still on file
OPEN_EMAIL_MSGS	total E-mail messages still on file
TOTAL_ACCOUNTS	total number of user-IDs on file
TOTAL_MALE	total number of male users on file
TOTAL_FEMALE	total number of female users on file
TOTAL_CORP	total number of corporate users on file

CALL_TIME_LIMIT	number of minutes user can stay online (e. g., 30 minutes or UNLIMITED)
DAY_TIME_LIMIT	number of minutes user gets per day (e. g., 90 minutes or UNLIMITED)
TIME_TODAY	Number of minutes user has been online today (e. g,. 34 minutes)
DAYS_LEFT	number of days user has left in current class (e. g., 14 or UNLIMITED)
DEBT_LIMIT	maximum debt allowed for this user (e. g., 36000 or UNLIMITED or None)
CREDIT_RATE	user's current credit consumption rate (per minute)
TITLE	for the current menu page a user is on, the text specified in the Page Title option in the Menu Tree
CURRENT_FORUM	last Forum the user selected
TOTAL_ANSI	total number of users on file with ANSI terminals
BAUD	baud rate for the current user's session

See "Text Variables in the Library," pages 266-267.

User Account or User Session Text Variables

These text variables can be used in any BBSDRAW menu and in any BBSDRAW text block that is displayed to users who have gotten to the TOP menu already. (Do not use these variables in log-on or sign-up text block prompts.)

PAGE	name of the current menu, module, or file page
PARENT	name of the parent menu page
USERID	User-ID
NAME	full name
COMPANY	company
ADDRESS1	address line 1 (street)
ADDRESS2	address line 2 (city, state, ZIP)
ADDRESS3	address line 3 (country)
PHONE	telephone number
SYSTEM_TYPE	system type (such as IBM-PC or Macintosh)
ANSI	ANSI ON/ANSI OFF (manual), or ANSI/non-ANSI (auto)
SCREEN_WIDTH	width of screen
SCREEN_LENGTH	length of screen (or 2=continuous)
AGE	age of user
SEX	Male or Female
CREATION_DATE	date user signed up
LAST_ON	date user last logged on
CLASS	user's class
CREDITS	total number of credits user has
CREDITS_EVER	total number of credits ever posted to user's account
PAID_EVER	total number of PAID credits posted to user
TIME_ONLINE	number of minutes user has been online (e. g., 3 minutes)

MENU SELECTION MARKERS

This feature allows you to mark a portion of a menu and tie it to one of the menu selection options defined in the menu page. That way, the option can be hidden or dimmed for users who do not have access to it. (This is the only BBSDRAW feature that you can use on a menu but not elsewhere.)

To mark part of a line, point to the left edge and then hit *<Alt-M>*. You will need to specify the menu select character to which this marker is to be tied. Then BBSDRAW will display a column indicator line. Use *<right arrow>* to sweep the marker across and include the region you want. Then hit *<Enter>*.

Hiding a Menu Selection in your BBSDRAW Menu

You can use a menu selection marker to completely hide a selection in a BBSDRAW menu from users who should not see it. The Remote Sysop menu off the `TOP` menu is an example. You must have the `SYSOP` key to see, much less use, that menu selection.

The `TOP` menu of The Major BBS as shipped does not use a BBSDRAW menu. It uses the default, off-the-rack, Menu Tree-created menu. If you wanted to create a BBSDRAW menu for the `TOP` menu, you could make a `TOP.ANS` file, for example. Then you would have to put a menu selection marker there. The visibility of the option `S = REMOTE SYSOP MENU`, or whatever is in that menu, would need to be tied to the `S` menu selection. In the definition of `TOP`, that selection requires the SYSOP key.

Here are the steps to remember:

1. When you define the menu selection, require users to have a certain key to use the selection (do that in the menu page definition; see page 67).
2. Choose to `Hide` the option if the user does not have the key (also done in the menu page definition).
3. Mark the piece of your menu that is to be hidden using *<Alt-M>* in BBSDRAW. To remove it, hide all 80 characters of a line; this will clip out the entire line, leaving no evidence that it was ever there. If you hide less, only that section will be blanked out; the user will see the rest of the line.
4. Give keys to users or classes of users who should have access to the selection.

Dimming a menu selection goes much the same way, except you choose `Dim option`.

Editing Menu Selection Markers

To see where a menu selection marker is, hit *<Alt-K>*. All marked areas will start flashing. Hit *<Esc>* to stop them from flashing. To change a marker, point the cursor anywhere inside it and hit *<Alt-M>*. You can change the right margin by using *<left arrow>* and *<right arrow>* and hitting *<Enter>*. Delete the marker by hitting *<Del>*.

Note that marked areas cannot overlap or include one another.

Combining Text Variables with Menu Selection Markers

To put a text variable inside a marked area, place the text variable first. Then put the marked region on top of it. If you did the marker first, just delete it and start over. You cannot mark part of a text variable — you must mark all or nothing.

THE SPECIAL IF-ANSI CONSTRUCT

You can code in some special strings to display one thing for an ANSI user and something else for a non-ANSI user. These strings are not supported by any ANSI terminal, and they don't need to be: the BBS recognizes them, strips them out of the text stream, and sends one thing to a user if he has ANSI enabled and another thing if he doesn't. The BBS already strips out all the ANSI commands when sending a menu or prompt to a non-ANSI user.

You can enter your own IF-ANSI constructs using BBSDRAW by typing in the *<Esc>* [[...|...] coding. To get an *<Esc>* code into the text, hold down *<Alt>*, type 27 on the numeric keypad, then release the *<Alt>* key.

BBSDRAW does not try to display the IF-ANSI construct in any fancy way, so you see it in its raw form, which consists of a three-character prefix:

<Esc> (looks like a little left-pointing arrow)
[
[

followed by the string to send to ANSI users, and then a divider:

| (the vertical bar character)

followed by the string to send to non-ANSI users, followed by a terminator:

]

which ends the IF-ANSI construct. Whatever follows the terminator of the construct goes out to either type of user, just like all the other text. If you do not terminate the IF-ANSI construct, it automatically terminates at the end of BBSDRAW text.

Sign-up Questions

The sign-up questions use the IF-ANSI construct to display a white box in which users type their answers. This is done by coding a sequence like this for the user's name entry:

<Esc>
[
[*<set inverse video>*
<29 spaces>
<set the final cursor position back to the beginning of the field>

The final cursor position looks like a smiley face on top of the *<Esc>*. When this is displayed on the user's screen, however, the *<Esc>* [[doesn't appear.

USING BBSDRAW FROM DOS

You can create or edit files offline with BBSDRAW. Type in the following command from DOS:

BBSDRAW *<file name>*

When you are done, use *<Alt-X>* to exit. You'll get the option of saving your new file.

8

RIP GRAPHICS

The Major BBS has built-in RIP*scrip* support for online applications. This graphics standard, based on the Remote Imaging Protocol, was developed by TeleGrafix Communications. By default, the language English/RIP is defined on the BBS: users who have the RIP*term* terminal program will see RIP images displayed on their terminal.

If you want to do more with RIP than just display the ready-made images in the BBS's `.MSG` files — for example, if you want to modify the English/RIP language or to create your own graphics screens — you will need the RIP*aint* Add-on Option, which includes:

`RIPAINT.EXE` A graphics design program with which you create full-screen images, mouse buttons, menus, icons, and more.

`RIPAINT.DLL` A form of RIP*aint* designed to work with The Major BBS so you can create and edit RIP versions of your text blocks within CNF and RIP versions of your menu page files within the Menu Tree.

If you do not have RIP*aint* and you try to change a RIP option or screen, you will get a warning message. You can order both programs from Galacticomm at (800) 328-1128 or (305) 583-5990, or from your nearest authorized Galacticomm dealer.

RIP ON THE MAJOR BBS

Even if you don't have RIP*aint*, you should read this chapter to become familiar with how RIP's presence affects The Major BBS and with the RIP*term* freeware, which you can make available for download to users who want to display RIP graphics.

Note that for now, RIP*scrip* graphics are not available over LANs using the BBS's LAN access capabilities. Nor can you view RIP*scrip* graphics at the Sysop's console. (If you try to emulate an English/RIP user, you'll see only the raw RIP*scrip* codes flying by.)

RIP*term*

System Requirements

To run RIP*term*, the user will need the following at minimum:

- IBM AT-compatible computer
- 512 KB available memory
- DOS 3.0 or later
- EGA or VGA graphics
- One modem or serial port on COM1 – COM4
- Hard disk (RIP*term* installed occupies less than 2 MB)

We also recommend that the user's system include:

- Color monitor
- Mouse, two buttons
- Extended (XMS) or expanded (EMS) memory (to improve performance)

Downloading RIP*term*

You may want to put a RIP*term* package on your BBS for your users to download. The more convenient you make it, the more users will start calling your BBS in graphics mode. You can modify `RIPTMxxx.ZIP` (where *xxx* is the current version in your `\BBSV6` directory) if you want to include your own BBS in the `RIPTERM.PHO` dialing directory or if you want to include any custom icons. You can use PKWARE's PKZIP and PKUNZIP utilities to work on `RIPTMxxx.ZIP`.

You can give your users these instructions for installing RIP*term*:

1. Make a `\RIPTERM` directory on your hard disk.
2. Call into the BBS, using a standard ANSI terminal program such as Telix or PROCOMM PLUS.
3. Go into File Libraries and type `D RIPTMxxx.ZIP` to download the `RIPTMxxx.ZIP` file.
4. Download `RIPTMxxx.ZIP` into your `\RIPTERM` directory. If you do not have PKUNZIP, download that as well.
5. Log off the BBS and change to the `\RIPTERM` directory.
6. Type `PKUNZIP RIPTMxxx -D` to extract the RIP*term* files.
7. Type `RIPTERM` to install RIP*term*. Answer the questions about your modem.
8. Use <*Alt-O*> to bring up your modem settings and turn on RTS/CTS flow control. Then use <*Alt-V*>or click <*Save*> to save the settings.
9. Use the <*Alt-D*> dialing directory to dial up the BBS again.
10. Log on and choose `English/RIP` as your preferred language.

Remember to provide instructions on your BBS for downloading PKUNZIP.

Auto-sensing RIP*term*

If the only languages defined on your BBS are English/ANSI and English/RIP, then it is probably a good idea to set the offline Configuration option LANGOP to AUTO (instead of the default ASK). This helps users who do not have RIP*term* — otherwise, they would have to choose a language as soon as they connect.

If LANGOP is ASK, users without RIP*term* may have to answer this question:

```
Auto-sensing...

Please choose one of these languages:

   1. English/ANSI      The standard English language version
   2. English/RIP       The English version of RIPscrip graphics

Choose a number from 1 to 2: _
```

Setting LANGOP to AUTO means users without RIP*term* will skip this question: they will always start online with the English/ANSI language.

RIP*term* users, however, always will start their BBS session using a RIP language — RIP*scrip*'s auto-sensing capability will see to that. If LANGOP is set to ASK and your BBS has only one RIP language, the BBS chooses that language automatically.

If more languages are defined on your BBS, you might need to keep LANGOP set to its default value (ASK) or to change LANGSUP to YES so users can register a language preference when they sign up.

If users have registered a language preference on your BBS, then they will default to that language as soon as they enter their User-ID and password, with a message like:

```
Switching to your chosen language, German/RIP...
```

There are three ways to register a language preference for a user:

- User answers the sign-up question `Which language/protocol would you prefer to use on this BBS?` (asked if Configuration option LANGSUP is set to YES). They reply by choosing a language that is not already current (that has not been auto-selected or chosen already).
- User changes his language preference from the Account Display/Edit menu. Users that have the DEMO key can do this. (You can require a different key by changing the offline Security & Accounting option LANGCHG).
- From the console, the Sysop enters a language name on the user's Account Detail record.

There are two ways to remove a user's language preference from disk:

- A user with the key specified in LANGCHG can select L from the Account Display/Edit Menu and choose A, for Automatic, from the list that appears.
- The Sysop can change the language on the user's Account Detail screen to blank.

Screen Pause in RIP

When The Major BBS pauses its output, a RIP user will see this message:

```
Click text area to continue, CTRL-X to quit, or CTRL-N for nonstop ...
```

The user will be able to click his mouse in the currently defined text window or hit *<Enter>* to continue to the next screen — just as an ANSI user would hit C. The RIP user would hit *<Ctrl-X>* to stop the output and return to the previous menu — just as an ANSI user would hit Q. The RIP user would hit *<Ctrl-N>* to scroll without pausing — just as an ANSI user would hit N.

Recommended CNF Settings

You can set two Configuration options to get the best performance under RIP. Both are in BBSMAJOR.MSG:

- OUTBSZ: your output buffer size is 8,192 bytes by default. Keep this setting to allow for the increased size of many of the RIP text blocks. If you disable RIP on your BBS, you can set this to 4096 to save memory.
- SOPAUD: set this to NO. This prevents a Sysop from receiving too many messages for Audit Trail entries while online, which can be disruptive in a full-screen environment.

DISABLING AND RE-ENABLING RIP

Before you begin either disabling or re-enabling RIP, we strongly urge you to back up your system.

DISABLING RIP

If you wish to disable RIP on your BBS, follow these steps:

1. Go to DOS and create a temporary directory (use any name you wish) under your \BBSV6 directory.
2. From the introductory menu, choose 7 (Basic Utilities).
3. From the Basic Utilities menu, select BBSLANG.
4. From the list of languages that appears on your screen, select English/RIP.
5. Select Export .MSG file text for this language. In response to the next prompt, type in *.MSG. In response to the prompt that follows, type in the name of the temporary subdirectory you created in step 1.
6. Reselect 7 from the introductory menu. Reselect BBSLANG. Reselect English/RIP.
7. Select Remove .MSG file text for this language.
8. In response to the prompt, type in *.MSG. Wait till processing is finished.

9. Reselect 7 from the introductory menu. Select BBSDMOD. Select The English/RIP language from the Available Modules column and hit <*Enter*>. English/RIP language will appear in the Expressly Disabled column. Hit <*Alt-X*> to exit.

RIP is now disabled.

RE-ENABLING RIP

1. Type BBS and hit <*Enter*> to return to the introductory screen. Select 7 (Basic Utilities).

2. Select BBSDMOD. Hit <*Tab*> to move the highlight bar to the Expressly Disabled column. Select The English/RIP language and hit <*Enter*>. English/RIP language will appear in the Available Modules column. Hit <*Alt-X*> to exit.

3. From the DOS prompt within your BBSV6 directory, type BBSILANG <*name of your export directory*>*.mlx ttt<*Enter*>. This re-imports the RIP text blocks that you saved in your temporary directory. All the .MSG files into which RIP was re-imported will have back ups with the extension .TTT; you can erase these if you wish.

RIP is now re-enabled.

9

SECURITY AND ACCOUNTING

Here are some of the internal mechanisms you can use to accomplish security and accounting on your BBS:

- **Classes** – for answering a wide range of questions about large groups of users all at once:
  - How long users can stay online
  - Whether to charge them for their time online
  - Whether to allow them to go into debt, and how much debt
  - When to delete their accounts
  - When the user should be switched to another class
  - What to tell a user when you switch his class while he is online
- **Locks and Keys** – apply locks to features and issue keys to users
- **Class Keyring** – a set of keys belonging to all users in that class
- **Credits** – meter each user's connect time in seconds or other units
- **Debt** – allow a user's balance of credits to go negative and periodically report and reset to 0
- **Forum Access Levels** – assign message read/write privileges and file upload/download privileges to users
- **Library Locks** – control access to the File Libraries by applying locks to privileges such as visibility, uploading, and downloading
- **Remote Sysop Menu** – dozens of powerful online commands and utilities that you can make available to trusted assistants or Co-Sysops
- Various offline Security & Accounting options (choose 3 from the introductory menu)

THE FIVE BBS MODELS

To get your bulletin board operational fast, we've prepared five BBS models from which you can choose:

Public Model	Anyone can call and get full access immediately
Customer-Service Model	Support your customers and get their feedback
Sign-up Model	New callers can sign up, you approve them later
Private Model	You specify exactly who can log on
For-Profit Model	Users pay for using your service

These are like model homes, fully furnished and ready for you to move in. You aren't constraining your system at all when you choose one. (In fact, you can change to another model later, and reasonable things will happen.) If you'd rather start with bare floors, pick the Public Model. It's the simplest, with only two classes.

Each model is simply a preconfigured set of user classes, plus a few other option settings. Once you are up and running you'll probably want to do some customizing and to define your own classes and locks and keys. There are many ways you can customize this system. Many of your options regarding user access are configurable from the offline Security & Accounting service (page 123). You can access many more from the online Remote Sysop Menu (page 230).

Here we'll discuss what life on your system will be like if you just choose a BBS model and change nothing else. Keep in mind as you read this that you can adjust almost everything. And, if you're working on a system that someone else has set up, it probably has been adjusted, and the information here could be off a little or a lot. (Most of this adjusting is available as options 2, 3, and 4 from the offline Introductory Menu and in the online Account Class Editor.)

Public Model

This is the simplest model to understand and operate.

If you want to set up a free, open-access bulletin board that anyone can use, the Public Model is the way to go. You might use this model if you are offering a public service of some kind.

If you want tighter controls on your system or if you want more levels of access, you might take a look at the Customer-Service Model.

In the Public Model BBS, anyone can call your BBS and sign up by typing in his name, address, phone number, and other information. All these users are in the class called USER. They can call as many times as they want and stay online as long as they want. The system automatically deletes only those users who haven't logged on for two years.

The User-ID Sysop has broad sweeping powers online, especially in the Remote Sysop Menu. That's because the Sysop User-ID is in the class called SYSOP. You could also appoint Co-Sysops and grant them similar powers, by switching them to the SYSOP class (using the SWITCH command from the Remote Sysop's ACCOUNT submenu, page 121).

Class Name: USER (initial class for new sign-ups)

```
Number of minutes users can spend online per call: Unlimited
Number of minutes users can spend online per day: Unlimited
Users in this class are exempt from credit charges.
Users in this class are allowed to go into debt (for unlimited credits).
Debts will never be cleared.
Users in this class will switch to another class if:
    They haven't logged on for 730 days (switch to DELETE_ACCOUNT).
Keys held by class (USER keyring):
DEMO            NORMAL
```

Class Name: SYSOP

```
Number of minutes users can spend online per call: Unlimited
Number of minutes users can spend online per day: Unlimited
Users in this class are exempt from credit charges.
Users in this class are allowed to go into debt (for unlimited credits).
Debts will never be cleared.
Keys held by class (SYSOP keyring):
DEMO            NORMAL          MODERATE        MASS_MAILING
SUPER           SYSOP
```

Offline Security & Accounting settings

```
SAMPLN   Number of lines on which to allow anyone to log on ...........256
SUPCLS   Start users off in what account "class"? ..................... USER
SHWCRD   Show users how many credits they have? ........................ NO
```

Customer-Service Model

This model was designed to help a company keep in touch with customers or an organization keep in touch with its members. If you're trying to provide a forum for questions, suggestions, and complaints, or any other contributions, this model is ideal. It's probably the most versatile model if you aren't going to charge for using your BBS.

The Customer-Service Model isn't as open as the Public Model. That's because you might not want anonymous callers, such as your competitors, to have access to too much information. On the other hand, it's not as restrictive as the Sign-up Model. You may want to make it very convenient for new prospects to get information, prices, or ordering instructions, 24 hours a day.

A customer-service BBS is also a great way to start a users' group, where your customers start sharing ideas with each other. This happens a lot on the Galacticomm Demo System. Someone will throw out a question on one of the Forums, and someone else will come back with an answer.

Besides the SYSOP class, which has sweeping powers, users under the Customer-Service Model are graded into three levels:

PROSPECT	Anyone from anywhere can get online and look around
CUSTOMER	Unlimited time restrictions, write Electronic Mail
STAFF	Help in system management

Anyone who calls up your system out of the blue (perhaps you've included your BBS number in ads or product literature), becomes a user in the PROSPECT class. Each time a PROSPECT user calls, he gets up to 30 minutes online. But he can call back as many times as he wants. This offers some protection against hackers tying up all your phone lines, but is still hospitable to your prospects. A PROSPECT user's privileges are limited: for example he can write electronic messages, but only to the Sysop. A PROSPECT user gets deleted if you leave him in that class and he doesn't call back for two months.

Switching a user to the CUSTOMER class allows him to stay online as long as he wants without getting disconnected. He also can write electronic messages to anyone and usually can contribute to the Forums. CUSTOMER accounts will survive up to two years between logons. To switch a user to the CUSTOMER class, go into the Remote Sysop Menu and choose ACCOUNT and then SWITCH (more on page 121).

The CUSTOMER class keyring allows CUSTOMER users to write E-mail, upload files to Forums, download from the File Libraries' main Library, and many other privileges. Whereas PROSPECTs get only the DEMO key, CUSTOMER users get both the DEMO and NORMAL keys. You can see what features are unlocked by these keys on page 108.

Users in the STAFF class have no time restrictions, and their accounts stay on your system forever. STAFF users can create distribution lists and send mass mailings, among other things. As you can see, the STAFF keyring has all the keys on it except the dangerous-in-the-wrong-hands SYSOP key (be careful with that one).

Implementation of the Customer-Service Model BBS:

Class Name: PROSPECT (initial class for new sign-ups)

```
Number of minutes users can spend online per call: 30 Minutes
Number of minutes users can spend online per day: Unlimited
Users in this class are exempt from credit charges.
Users in this class are allowed to go into debt (for unlimited credits).
Debts will never be cleared.
Users in this class will switch to another class if:
    They haven't logged on for 60 days (switch to DELETE_ACCOUNT)
Keys held by class (PROSPECT keyring):
DEMO
```

Class Name: CUSTOMER

```
Number of minutes users can spend online per call: Unlimited
Number of minutes users can spend online per day: Unlimited
Users in this class are exempt from credit charges.
Users in this class are allowed to go into debt (for unlimited credits).
Debts will never be cleared.
Users in this class will switch to another class if:
    They haven't logged on for 730 days (switch to DELETE_ACCOUNT)
Keys held by class (CUSTOMER keyring):
DEMO            NORMAL
```

Class Name: STAFF

```
Number of minutes users can spend online per call: Unlimited
Number of minutes users can spend online per day: Unlimited
Users in this class are exempt from credit charges.
Users in this class are allowed to go into debt (for unlimited credits).
Debt will never be cleared.
```

```
Keys held by class (STAFF keyring):
DEMO            NORMAL          MODERATE        MASS_MAILING
SUPER
```

Class Name: SYSOP

```
Number of minutes users can spend online per  call: Unlimited
Number of minutes users can spend online per day: Unlimited
Users in this class are exempt from credit charges.
Users in this class are allowed to go into debt (for unlimited credits).
Debts will never be cleared.
Keys held by class (SYSOP keyring):
DEMO            NORMAL      MODERATE            MASS_MAILING
SUPER           SYSOP
```

Offline Security & Accounting settings

```
SAMPLN   Number of lines on which to allow anyone to log on ..... 256
SUPCLS   Start users off in what account "class"? ..... PROSPECT
SHWCRD   Show users how many credits they have? ..... NO
```

Sign-up Model

The Sign-up Model is more restrictive than the Customer-Service Model and less restrictive than the Private Model. You would use it if all you want to allow strangers to do is to leave their name, address, and phone number; if you want new callers to able to access *at least some services, the Customer-Service Model might be preferable. The idea is that* the caller does the work of entering his information and picking a User-ID and password. Then the BBS hangs up, and the caller goes in the APPLICATION class. You have 60 *days to switch the caller from the* APPLICATION *class to the* USER *class, allowing him* to get online; otherwise the account will be deleted.

Members of the USER class can log on and use the system as long as they like. After two years without logging on, however, a USER account would get deleted.

Members of the SUPERVISOR class have broad powers. They have no time restrictions, and the accounts stay on your system forever. *SUPERVISORs* can create distribution lists and send mass mailings, among other things. They can even switch other users' classes if you enable this feature in the Remote Sysop Menu.

As always, users in the SYSOP class can do just about anything online. *Be very careful whom you switch to this class.*

Implementation of the Sign-up Model BBS:

Class Name: APPLICATION (initial class for new sign-ups)

```
Number of minutes users can spend online per call: 0 Minutes
Number of minutes users can spend online per day: 0 Minutes
If the time limit for the day is reached, the system will disconnect them.
  (Class transition message used: the default.)
Users in this class are NOT exempt from credit charges.
Users in this class are allowed to go into debt. (for unlimited credits)
Debts will never be cleared.
Users in this class will switch to another class if:
    They haven't logged on for 60 days (switch to DELETE_ACCOUNT).
Keys held by class (APPLICATIONS keyring):
DEMO
```

Class Name: SUPERVISOR

```
Number of minutes users can spend online per call: Unlimited
Number of minutes users can spend online per day: Unlimited
Users in this class are exempt from credit charges.
Users in this class are allowed to go into debt (for unlimited credits).
Debts will never be cleared.
Keys held by class (SUPERVISOR keyring):
DEMO            NORMAL                  MODERATE        MASS_MAILING
SUPER
```

Class Name: SYSOP

```
Number of minutes users can spend online per call: Unlimited
Number of minutes users can spend online per day: Unlimited
Users in this class are exempt from credit charges.
Users in this class are allowed to go into debt (for unlimited credits).
Debts will never be cleared.
Keys held by class (SYSOP keyring):
DEMO            NORMAL          MODERATE            MASS_MAILING
SUPER           SYSOP
```

Class Name: USER

```
Number of minutes users can spend online per call: Unlimited
Number of minutes users can spend online per day: Unlimited
Users in this class are exempt from credit charges.
Users in this class are allowed to go into debt (for unlimited credits).
Debts will never be cleared.
Users in this class will switch to another class if:
    They haven't logged on for 730 days (switch to DELETE_ACCOUNT).
Keys held by class (USER keyring):
DEMO            NORMAL
```

Offline Security & Accounting settings

```
SAMPLN   Number of lines on which to allow anyone to log on ..... 256
SUPCLS   Start users off in what account "class"? ..... APPLICATION
SHWCRD   Show users how many credits they have? ..... NO
```

Private Model

This is the most restrictive type of BBS. You would use the Private Model to specify exactly who is to get online before they call. You pick the User-IDs and passwords. If you're setting up a system for use only by employees or special customers or if you have any reason to want maximum restrictions, this model is appropriate.

On the Private Model BBS, callers cannot sign up; you install all the new accounts from the console. You can do this by logging on with the <*F7*> key and typing new in place of a User-ID. You pick the User-IDs and passwords and notify the users; they call up and log on in the MEMBER class.

Members of the COORDINATOR class have broad powers. They have no time restrictions, and the accounts stay on your system forever. COORDINATORs can create distribution lists and and send mass mailings, among other things. They can even switch other users' classes, if you enable this feature in the Remote Sysop Menu.

As always, users in the SYSOP class can do just about anything online. *Be very careful whom you switch to this class.*

Class Name: COORDINATOR

```
Number of minutes users can spend online per call: Unlimited
Number of minutes users can spend online per day: Unlimited
Users in this class are exempt from credit charges.
Users in this class are allowed to go into debt (for unlimited credits).
Debts will never be cleared.
Keys held by class (COORDINATOR keyring):
DEMO            NORMAL          MODERATE          MASS_MAILING
SUPER
```

Class Name: MEMBER (initial class when you sign up a user's account from the console)

```
Number of minutes users can spend online per call: Unlimited
Number of minutes users can spend online per day: Unlimited
Users in this class are exempt from credit charges.
Users in this class are allowed to go into debt (for unlimited credits).
Debts will never be cleared.
Users in this class will switch to another class if:
    They haven't logged on for 730 days (switch to DELETE_ACCOUNT).
Keys held by class (MEMBER keyring):
DEMO            NORMAL
```

Class Name: SYSOP

```
Number of minutes users can spend online per call: Unlimited
Number of minutes users can spend online per day: Unlimited
Users in this class are exempt from credit charges.
Users in this class are allowed to go into debt (for unlimited credits).
Debts will never be cleared.
Keys held by class (SYSOP keyring):
DEMO            NORMAL          MODERATE          MASS_MAILING
SUPER           SYSOP
```

Offline Security & Accounting Settings

```
SAMPLN   Number of lines on which to allow anyone to log on ..... 0
SUPCLS   Start users off in what account "class"? ..... MEMBER
SHWCRD   Show users how many credits they have? ..... NO
```

For-Profit Model

This is the most complicated of the model BBSes, with six predefined classes. To digress for a second, here are a few of the features we've found are important in getting users to call and stay online:

- Ease of use
- Lots and lots of options
- Interesting, useful, and entertaining things online
- Convenience of payment
- New stuff coming online all the time

That's why in this model we've tried to get you started with six different payment options and access privileges. We think you'll want to have multiple strategies for getting your customers to keep calling back.

Besides the SYSOP class, which has sweeping powers, users in the For-Profit Model BBS are categorized as:

DEMO	Brand new callers with access to enough features to get their interest
PAYING	These users are paying by the hour for their connect time
MONTHLY	Users can get online for up to three hours a day for a month
WEEKLY	Users can get online for up to three hours a day for seven days
BILLED	Users stay online as long as they like and you bill them monthly

Any anonymous caller can sign up by typing in his name, address, phone number, and other information. He immediately goes into the DEMO class. Each time he calls, he can stay online for up to 10 minutes. He can call back as often as he likes. This helps keep your non-paying callers enticed and helps keep your phone lines turning over so paying callers can get through. If a DEMO user doesn't log on for two months, his account is automatically deleted.

When you've gotten a new user interested in your system and he's ready to pay for more privileges, one option is to charge him by the hour. This is done with credits: you give a user credits, which he uses at the rate of one per second when he's online. That means you'll want to post 3,600 credits for each hour he pays for (see page 226 to post credits).

If you post credits to a DEMO user, he automatically switches into the PAYING class. There he can stay online for as long as his credits last. Besides steadily consuming credits for each second of online time, the user pays credits for various services, such as 95 credits for writing an electronic message or 50 credits for requesting a return receipt.

If a PAYING user uses up his credits, he reverts to the DEMO class, and DEMO rules apply again.

You could also offer monthly subscriptions to your system. When your customer pays the subscription fee, you manually switch him to the MONTHLY class using the Remote Sysop `ACCOUNT SWITCH` command (see page 121). Now he is exempt from most charges on your system. But he can stay online for no more than 3 hours per day. If he's online past the three-hour mark, he gets popped back to the PAYING class, if he has any credits left, or to the DEMO class if he has none. His MONTHLY status is restored the next morning (after the next auto-cleanup around 3:00 a.m.).

You can specify any number of days for a user to stay in this MONTHLY class if you manually switch him to that class, but the default is 30 days. In the WEEKLY class, the default is 7 days — otherwise the MONTHLY and WEEKLY classes are the same.

The great thing about subscriptions is the motivation to keep calling every day — if you don't use those three hours, they're gone. There's no problem accommodating a combination of subscription and pay-for-play usage. A user might want to buy a few credits in addition to subscribing. That way he can stay online past his three-hour curfew whenever he likes. When a MONTHLY user's month is up, credits allow him to remain online as a PAYING user. Otherwise, he's back to the DEMO class.

If you want to bill your users, you can switch them to the BILLED class. Here they get to use just about all the services online. They build up debt, and each month the credits they have "borrowed" that month are reported into a text file called `BBSDBT.RPT` (see page 122).

Our accountant friends might frown at the liberties we've taken with the terminology of their trade here: this debt we speak of acts just like a negative quantity of credits. In the BILLED class, credits are allowed to fall below the zero point. (By default there's no limit to how much debt a user can build up except the numeric limit around minus two billion). Each debt report cancels a user's debt by setting his credits back to zero.

As always, users in the SYSOP class can do just about anything online. *Be very careful whom you switch to this class.*

Reserving Some of Your Phone Lines for Paying Customers

If you're running a For-Profit BBS, you may want to offer free sample time on a few of your phone lines and reserve the rest for paying customers. This way, your DEMO callers can't tie up all the phone lines, and they're even more enticed to buy time on your system. To do this:

1. Set the offline Security & Accounting option `SAMPLN` to the number of free sample lines. (Under the For-Profit model, it starts out at 256, allowing all users to log onto any channel.)
2. Set the `SAMPKY` as the key required to log onto the reserved lines. Under the For-Profit model, it's already the NORMAL key. All classes have that key on their keyring except the DEMO class, so new signups and DEMO users would be the ones restricted to the free sample lines.
3. Under `Hardware Setup`, you'll need to define the channels for your free sample lines first, then those for your reserved lines.

Implementation of the For-Profit Model BBS:

Class Name: BILLED

```
Number of minutes users can spend online per call: Unlimited
Number of minutes users can spend online per day: Unlimited
Users in this class are NOT exempt from credit charges.
Users in this class are allowed to go into debt (for unlimited credits).
All debts on this account will be cleared on the 1st of each month and
will be reported.
Users in this class will switch to another class if:
     They haven't logged on for 730 days (switch to DELETE_ACCOUNT).
Keys held by class (BILLED keyring):
DEMO              NORMAL              MODERATE
```

Class Name: DEMO (initial class for new sign-ups)

```
Number of minutes users can spend online per call: 10 Minutes
Number of minutes users can spend online per day: Unlimited
Users in this class are NOT exempt from credit charges.
Users in this class are NOT allowed to go into debt.
Users in this class will switch to another class if:
     They are posted credits (switch to PAYING).
        (Class transition message used: the default.)
     They haven't logged on for 60 days (switch to DELETE_ACCOUNT).
Keys held by class (DEMO keyring):
DEMO
```

Class Name: MONTHLY

```
Number of minutes users can spend online per call: Unlimited
Number of minutes users can spend online per day: 180 Minutes
If the time limit for the day is reached, the system will switch them
     to the PAYING class.
Class transition message used: the default.
Users in this class are exempt from credit charges.
Users in this class are NOT allowed to go into debt.
Users in this class will switch to another class if:
     They have been in the class for 30 days (switch to PAYING)
     They haven't logged on for 730 days (switch to DELETE_ACCOUNT)
Keys held by class (MONTHLY keyring):
DEMO              NORMAL              MODERATE
```

Class Name: PAYING

```
Number of minutes users can spend online per call: Unlimited
Number of minutes users can spend online per day: Unlimited
Users in this class are NOT exempt from credit charges.
Users in this class are not allowed to go into debt.
Users in this class will switch to another class if:
     They run out of credits (switch to DEMO).
       (Class transition message used: the default).
     They haven't logged on for 730 days (switch to DELETE_ACCOUNT).
Keys held by class (PAYING keyring):
DEMO              NORMAL              MODERATE
```

Class Name: SYSOP

```
Number of minutes users can spend online per call: Unlimited
Number of minutes users can spend online per day: Unlimited
Users in this class are exempt from credit charges.
Users in this class are allowed to go into debt (for unlimited credits).
Debts will never be cleared.
Keys held by class (SYSOP keyring):
DEMO              NORMAL              MODERATE        MASS_MAILING
SUPER             SYSOP
```

Class Name: WEEKLY

```
Number of minutes users can spend online per call: Unlimited
Number of minutes users can spend online per day: 180 Minutes
If the time limit for the day is reached, the system will switch them
     to the PAYING class.
  (Class transition message used: the default.)
Users in this class are exempt from credit charges.
Users in this class are NOT allowed to go into debt.
Users in this class will switch to another class if:
     They have been in the class for 7 days (switch to PAYING).
     They haven't logged on for 730 days (switch to DELETE_ACCOUNT).
Keys held by class (WEEKLY keyring):
DEMO              NORMAL              MODERATE
```

Offline Security & Accounting settings

```
SAMPLN  Number of lines on which to allow anyone to log on ..... 256
SUPCLS  Start users off in what account "class"? ................ DEMO
SHWCRD  Show users how many credits they have? ..................... YES
```

Switching from One BBS Model to Another

If you change your mind after your system gets up and running, you could change to a different BBS model. (This option is called BBSSETCL and is available from the offline Basic Utilities menu.) Then in most cases, the BBS will automatically switch old users into the most logical new class the next time they log on.

Switching All the Users in One Class to Another

There is an offline utility that achieves this called BBSSWTCL. It is available from the Basic Utilities menu.

CUSTOMIZING YOUR SECURITY AND ACCOUNTING

Locks and Keys

Throughout the BBS, you'll be able to control who can access what by putting locks on features and issuing keys.

On The Major BBS, these very high-tech keys open doors without ever leaving your pocket. In fact, your users may never need to know what keys they have or how features are locked. You can customize the entire look of your bulletin board and even make it operate differently for every user.

Creating New Locks and Keys

Here's how to create a new lock: make up a name. That's all there is to it. Lock names and key names are 1 to 15 characters long. We use the terms *key name* and *lock name* interchangeably. That's because:

> A key with the same name as a lock opens the lock.

To make use of your lock, you'll want to apply the lock to features and give keys with the same name to users. The BBS automatically keeps track of what locks there are and who has the keys to them.

Applying Locks and Giving Keys

Locks can be placed on several things:

- Features defined in the offline Security & Accounting service (see pages 123-125).
- Menu selections: you can make a restricted menu option appear dim or disappear entirely; you can make entirely different menus appear depending on what keys a user has, or what channel he is on using Auto-Select menus.
- Various features for each separate Library in the File Libraries.

You can distribute keys to users in two ways:

- Put the key on the class keyring for the class of users you want to have it.
- Give the key directly to specific users.

You use the Remote Sysop ACCOUNT Menu to do either.

You can distribute up to 1,024 bytes worth of keys to each user or to each class. The name of each key plus one byte counts toward this limit. For example, if all your keys were nine letters long, you could distribute no more than 102 keys to any one class keyring or to any one user.

Tips on Using Locks and Keys

To get the most use out of locks and keys, you will want to keep a few things in mind:

- Don't make too many locks. You'll probably want to use the same lock name for many different features. That means that one key is all a user needs to access all of those features. If you define one lock for every feature, you're going to have a huge number of keys to keep track of.
- Use class keyrings whenever you can. Instead of just giving a key to a user (or taking one away) whenever need arises, place that user in a category with other users who also need the same access privileges and restrictions. Work on the class keyring.
- Each feature can have only one lock, but users can have many keys. We've started you off with keys that unlock a range of privileges, from basic to highly privileged. The most basic classes have only one or a few keys. The SYSOP class is the most privileged class; it has all the keys.

Default Locks

The Major BBS starts out with the following lock names already in use:

DEMO	The minimal lock – everyone gets the DEMO key by default
NORMAL	Access to most standard features
MODERATE	Allows a user to moderate teleconferences
MASS_MAILING	Allows a user to send electronic messages to everyone
SUPER	For a trusted assistant with broad powers
SYSOP	Sweeping powers across all BBS services

You can see from the five BBS models who automatically gets the keys to these locks, by virtue of what class they're in and what's on the class's keyring.

These locks mean nothing in themselves — one lock is much like any other. What matters is what feature you apply it to. For example all that matters about the NORMAL lock is what features you apply it to and who has the NORMAL key.

The following list shows you where we've distributed the locks on your brand-new out-of-the-box system. This list should also give you an idea what features you can restrict with locks. The name given to each feature is the name you'll find under offline option 3 from the introductory menu (pages123-127). You can find it using the *<F8>* search command.

Some features are never locked:

- Reading messages in the Forum named /Hello.
- Reading E-mail

- Looking up other users in the Registry
- Viewing and editing a user's own account information
- Entering the teleconference and listening to other users' conversations
- Viewing the system information

Features under the DEMO lock:

- REGKEY — entering yourself into the User Registry
- LANGCHG — user allowed to change language preference
- FLVKEY — *default key required to see files in a Library*

The DEMO key is required for upload and download access to each file transfer protocol (XMODEM, ZMODEM, Kermit, and others). This is not a security feature but a way for you to limit your users' protocol options.

Features under the NORMAL lock:

- SIGPRV — having privileged access to the Forums by default (see page 240)
- UNLKEY — unlimited use of the teleconference *(all 65,535 channels, and as many messages as you like)*
- SAMPKY — logging onto reserved channels
- RLGKEY — the re-log option to log on again without disconnecting
- EMLKEY — writing E-mail messages to any user, not just the Sysop
- EATKEY — uploading attached files with your E-mail messages
- RRRKEY — requesting return receipts with your electronic messages
- PRSKEY — using personal distribution lists
- MHSKEY — *writing messages that are dispatched over MHS*
- DEFDL — downloading files from a Library
- LISTKEY — downloading lists of files
- DEFUL — uploading files to a Library
- QDLKEY — downloading QWK packets (for offline mail reading)
- QULKEY — uploading reply packets
- FLDKEY — downloading files from a Library

Features under the MODERATE lock:

- MODKEY — moderating channels in the teleconference

Features under the MASS_MAILING lock:

- MSSKEY — sending E-mail simultaneously to every other user on the system

Features under the SUPER lock:

- SYSKEY — exemption from:
  - being disconnected after 20 minutes of inactivity
  - most restrictions on profanity
  - recording online time in the system usage statistics
- DSTKEY — creating distribution lists

Features under the SYSOP lock:

- SIGSYS — sweeping powers in Forums
- GLBKEY — from most prompts online:
  - look up another users account (with the /1 command, page 291)
  - become invisible to other users online (/invis command, page 291)
- FIMLOCK — use file import transfer protocol
- FEXLOCK — use file export transfer protocol
- BYPSKY — bypass forced RIP (icons) download
- DEFAPP — pre-approval power of uploads
- DEFOVR — overwrite existing files
- NOCHGKEY — never get charged per-K or per-file for downloads
- SYSAPP — Sysop access in Doors module
- DEFLOP — default Library Operator lock whenever a new Library is created
- FLSYSOP — sweeping powers in the File Libraries
- PLLOPKEY — access to the Poll-Op menu
- SUPKEY — Sysop privileges

The Master Key

The master key is not a key named MASTER. It is the key that goes with the User-ID Sysop and is the most powerful key on the BBS. If you delete the SYSOP account by accident, then signing up under the Sysop User-ID gives you the master key again. Possession by other User-IDs is indicated with a little => indicator on the SYSOP privilege from the Editing Access Menu (page 137). Anyone with the master key can give it to another user.

Features of the master key:

- Locks don't stop you; you possess all keys by implication
- You can give the master key to any user, or take it away
- You can decide other users' access to the Remote Sysop Menu commands
- Electronic messages can have unlimited carbon copies
- You can use the ENABLE and DISABLE commands for emergency online menu maintenance (page 75)
- In the teleconference, you can see unlisted users in a SCAN
- You have no restrictions on switching teleconference channels
- You can squelch or unsquelch any other user in the teleconference

ONLINE SECURITY AND ACCOUNTING

To get to this menu, log on as the Sysop, enter the Remote Sysop Menu, and type ACCOUNT. The Remote Sysop ACCOUNT menu presents the following options:

```
Select one of the following accounting functions:

     ? ... Redisplay this menu
  SHOW ... Show current list of account classes
  LIST ... List the keys in the keyring for a class
 CLASS ... Maintain account classes
SWITCH ... Switch a user to another class
  EDIT ... Edit a user's individual keys
  POST ... Post credits to a user's account
     X ... Return to main Remote Sysop Menu

Select an option: _
```

Most of these functions are self-explanatory. The CLASS command is for creating new user classes or for editing the characteristics of an existing class.

Creating Your Own New Class

The CLASS command is in the Remote Sysop ACCOUNT menu (log on as Sysop, enter the Remote Sysop Menu, and type ACCOUNT). If you enter the name for a class that doesn't exist yet, you get the chance to create it. The major issues involved in creating a class are:

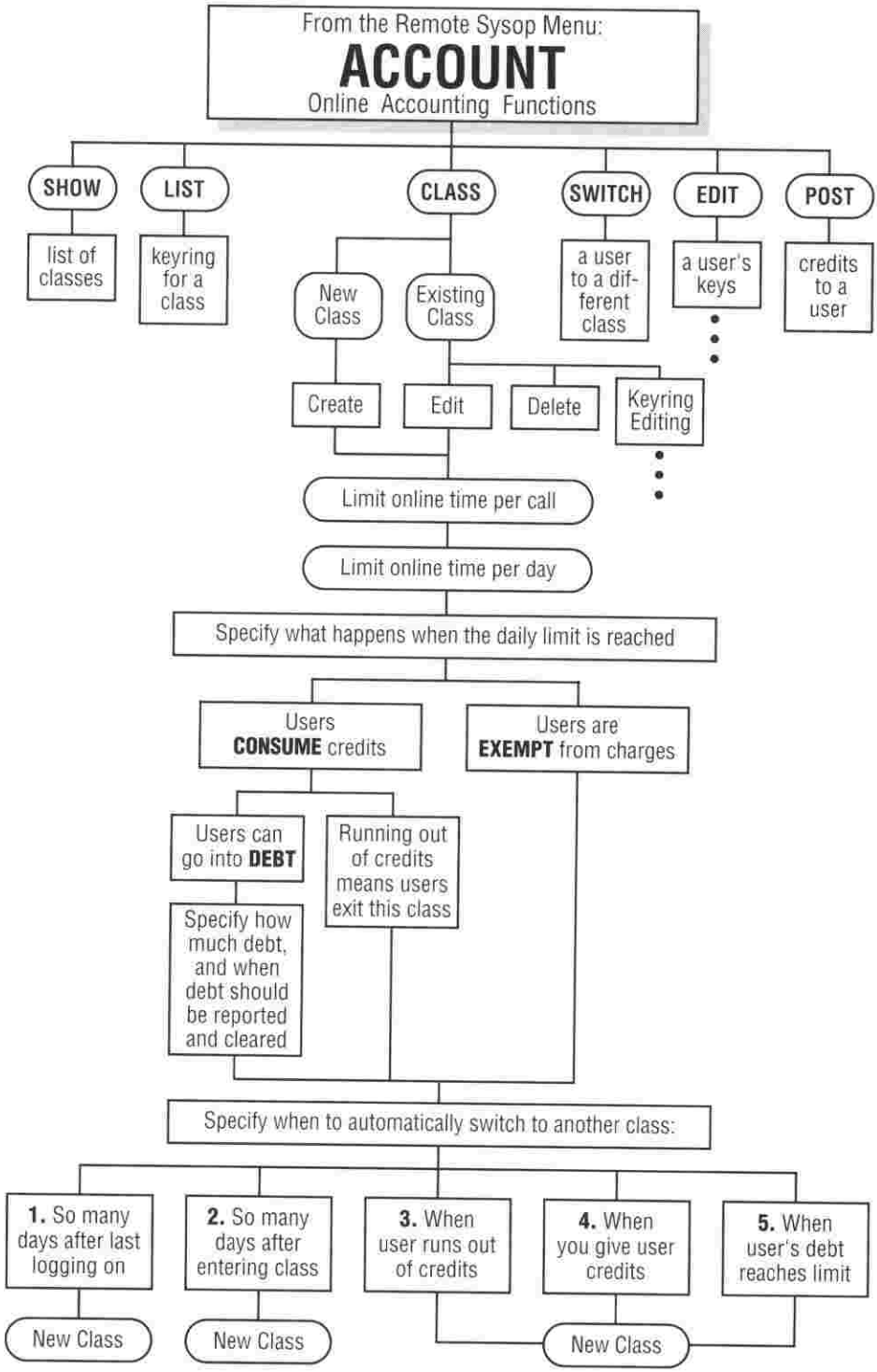
- Limitations on online time per call and per day;
- Credit consumption (online usage metering);
- Debt (a negative balance of credits);
- Under what circumstances to switch this user to another class;
- Putting keys on the class keyring.

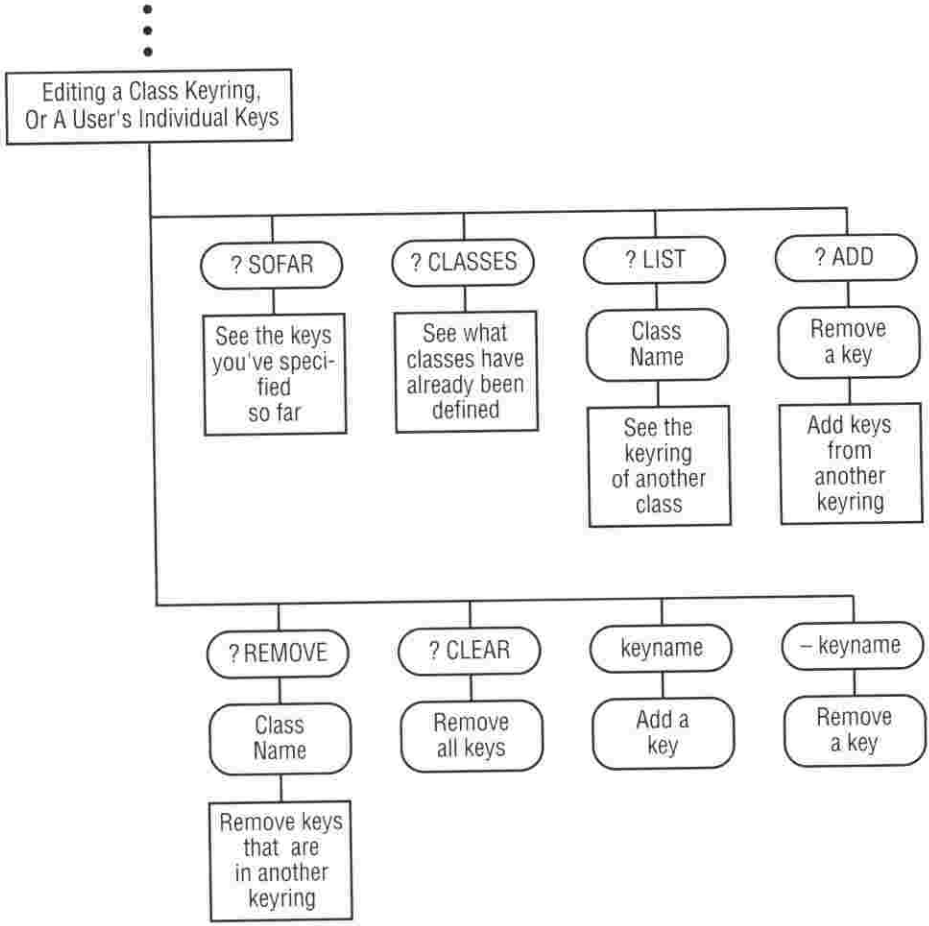
Limitations on Online Time

The first question is: how long do we allow users to stay online each time they call? You can make this unlimited, or you can restrict it to a certain number of minutes to make this particular class of users roll over more often and free up phone lines.

The class that is named in the SUPCLS offline Security & Accounting option is the one that all users enter after they sign up. If you set the time-per-call limit to zero in this class, new users will be forced offline immediately after they sign up. This is the scheme used in the Sign-up Model to get users to key in their name, address, and phone number, but giving the Sysop complete authority to determine who gets to use the system.

Limitations on time per day are handy for subscriptions to profit-oriented systems. (The MONTHLY and WEEKLY classes in the For-Profit Model use this feature to limit users to three hours of online time per day.) What happens when this limit is reached? Users can be switched temporarily to another class for the remainder of the day. (Limiting online time to zero in that class effectively disconnects them at this point.)


From the Remote Sysop Menu:
ACCOUNT
Online Accounting Functions
SHOW
LIST
CLASS
SWITCH
EDIT
POST
list of classes
keyring for a class
New Class
Existing Class
a user to a different class
a user's keys
credits to a user
Create
Edit
Delete
Keyring Editing
Limit online time per call
Limit online time per day
Specify what happens when the daily limit is reached
Users CONSUME credits
Users are EXEMPT from charges
Users can go into DEBT
Running out of credits means users exit this class
Specify how much debt, and when debt should be reported and cleared
Specify when to automatically switch to another class:
1. So many days after last logging on
2. So many days after entering class
3. When user runs out of credits
4. When you give user credits
5. When user's debt reaches limit
New Class
New Class
New Class



Example: Creating a New Class

```
REMOTE SYSOP

Select an option (or ? for menu): ACCOUNT

Select one of the following accounting functions:

     ? ... Redisplay this menu
  SHOW ... Show current list of account classes
  LIST ... List the keys in the keyring for a class
 CLASS ... Maintain account classes
SWITCH ... Switch a user to another class
  EDIT ... Edit a user's individual keys
  POST ... Post credits to a user's account
     X ... Return to main Remote Sysop Menu

Select an option: CLASS

Maintain which class (or ? for list): HOURADAY

"HOURADAY" does not exist, create it? Y
```

```
Every user on your system belongs to a particular "class" of users. You
will now be prompted for answers to several questions. Based on your
answers, a new class of users will be created. You have the ability to
place all sorts of restrictions on the users that are in this class, the
first of which being the amount of time a user in this class will be
allowed to remain online per call. You may limit users to anywhere from
0 to 1440 minutes per call.

If you wish users in this class to have no limit on the amount of time
they may spend on each call, simply answer UNLIMITED.

How many minutes may a user in this class stay online per call? UNLIMITED

You have just selected the amount of time a user in this class may stay
online per call. Now, you may set a limit on the total amount of time a
user may stay online per day, no matter how many times he calls. You
may limit users to anywhere from 0 to 1440 minutes per day.

If you wish users in this class to have no limit on the amount of time
they may spend on each call, simply answer with the word UNLIMITED.

How many minutes may a user in this class stay online per day? 60

You have placed a limit on the amount of time a user in this class may
spend online per day. When a user in this class runs into this limit,
you may have the system do one of two things:

1 ... Inform the user he is out of time for the day and disconnect him.
2 ... Switch the user to a different class until the end of the day, and
      then switch him back.

Select one of the above two actions: 1
```

In the example, the session time is not limited, but the daily time is limited to one hour. Users who exceed the hour are disconnected.

Note: Whenever you set up a user to automatically switch to a different class under some condition, be sure that you get the name of the class right. You can use the name of a class that doesn't exist yet, but if you don't create a class by that name later, the user will be deleted when it comes time to switch him to the nonexistent class.

Credit Consumption

Credits are a BBS commodity for metering online time. Credits can be posted to a user's account and consumed as he uses the system. Typically, each second of connect time consumes one credit (3,600 per hour). Other features, such as writing an E-mail message or downloading from the File Libraries, cost the user additional credits.

When a user runs out of credits for any reason, he can (1) be automatically switched to a different class, (2) be deleted, or (3) go into debt. Users who are exempt from credit charges are not affected by these issues and these questions will be skipped.

```
Your system may consume credits for time and services used online. If a
user runs out of credits, he will not be able to use any of the services
on your system that have credits. (In Level 3 CNF, there are many ques-
tions dealing with whether or not you want to charge credits for different
services.)

By answering YES to this question, you make all users currently in this
class exempt from any credit charges. If you still want users in this
class to be charged for online time and/or services, answer NO to this
question.
```

```
Are users in this class exempt from credit charges? N

Since you've specified that users in this class are subject to credit
charges, you may allow users in this class to go into "debt", which
means that when they run out of credits, they may still be able to use
services that charge credits. This very much allows the user to act as
if he still has credits even after he runs out. If you answer
YES to this question, you will be allowed to specify exactly how far
you wish to allow users to go into debt and how often to automatically
reset their debt to 0.
```

Debt

Users who are not exempt from credit charges may be allowed to run up a tab and accumulate charges as they use your system. This is tracked as a negative balance of credits in their account. Debt can have a limit or it can be unlimited.

There are many options for reporting user debt:

```
1 ... On the 1st of each month
2 ... Every Monday
3 ... Every so many days (prompted for next)
4 ... When they hit their debt limit
5 ... Never report users in this class (and never reset debt to 0)
```

At those times, the debt information is output to (actually appended to the end of) the text file called BBSDBT.RPT (see page 122). Then the debt is reset to zero (zero credit balance).

```
Do you wish to allow users in this class to go into debt? Y

You have opted to allow users in this class to go into debt. Now you may
specify how far into debt you will allow them to go. You may allow a user
to go into debt for anywhere from 1 credit to 9999999 credits.

If you wish to allow a person unlimited debt, simply enter UNLIMITED
here.

What is the "debt limit" for users in this class? 360000

Since users in this class can go into debt, you may want to place them on
a report every so often... When a user is placed on a report, his debt
is automatically cleared out to 0. If you do wish to put users on a
report, the report can be found in the file "BBSDBT.RPT" in your main BBS
directory. Please select how often you would like to report users' debt:

1 ... On the 1st of each month
2 ... Every Monday
3 ... Every so many days (prompted for next)
4 ... When they hit their debt limit
5 ... Never report users in this class (and never reset debt to 0)

Select one of the above options: 3

You have specified that users in this class that go into debt will be
reported every x number of days. When reported, users' debts are reset
back to 0.

Reset users' debt to 0 every how many days? 14
```

In this example, debts are allowed to accumulate up to 360,000 credits (roughly one hundred hours of online time) and are reported and reset every two weeks.

Automatic Switching to Another Class

Here are the conditions under which users could be *permanently* switched to a separate class (recall that switching due to the daily time limit is temporary):

```
1 ... If they haven't logged on for a certain number of days
2 ... If they have been in the class for a certain number of days
3 ... If they run out of credits
4 ... If they are posted credits (so that they have more than 0)
5 ... If they reach their debt limit
```

The last three are mutually exclusive, so you can pick only one of them. Other than that, you can pick a separate destination class for any of these reasons.

```
There may be several reasons why you would want users in this class to
switch to a different class. You will now receive a list of possible rea-
sons, and be asked to select one. After selecting one of the reasons,
you will be allowed to enter in which class users will switch to in
that case, and then be given the exact same list to pick another reason.
When done selecting reasons, simply select 0 to finish.

Please select one of the following:

0 ... All done selecting reasons
1 ... If they haven't logged on for a certain number of days
2 ... If they have been in the class for a certain number of days
3 ... If they run out of credits
4 ... If they are posted credits (so that they have more than 0)
5 ... If they reach their debt limit

Select one of the above: 1

You have selected to switch a user in this class to another class in the
event that he has not logged on for a specific number of days.

How many days since a user logged on should pass before this happens? 60

You have selected a reason that a user in this class be switched to
another. Now you must select what class the user is to be switched
to when this happens.

If you simply wish to delete the account of the user in this case,
simply enter "DELETE_ACCOUNT" as the answer to the following question.

In this instance, what class should users go to?
(? for list): DELETE_ACCOUNT

Please select one of the following:

0 ... All done selecting reasons
1 ... If they haven't logged on for a certain number of days
2 ... If they have been in the class for a certain number of days
3 ... If they run out of credits
4 ... If they are posted credits (so that they have more than 0)
5 ... If they reach their debt limit

Select one of the above: 5

You have selected a reason that a user in this class be switched to
another. Now you must select what class the user is to be switched
to when this happens.

If you simply wish to delete the account of the user in this case,
simply enter "DELETE_ACCOUNT" as the answer to the following question.
```

```
In this instance, what class should users go to?
(? for list): DEADBEAT

Warning: The "DEADBEAT" class does not yet exist. If a user expires to
         this nonexistent class, his account will be deleted. Please
         create the class when you get a chance if this is not your
         intention.

By default, when a user is switched from one class to another, he is
given a message telling him the class name he's leaving, and the new class
name he is entering. The message also, by default, informs the
user of his new limitations as being part of the new class.
This message can be found in CNF Level 6 under the option name of NEWCLS.

You may over-ride that message, and display a message of your own to the
user in the event that he is switched to another class as a result of this
reason. Your message (that will appear instead of the default message) may
be up to 640 characters long (or 8 lines if you are in full-screen edit
mode).

Do you want to specify your own class transition message? N

Ok, in the event that a user exits the class in this manner, he will
be given the default message that tells him about the new class he is
entering.
```

In this example, users are deleted when they haven't logged in for 60 days or they are switched to the DEADBEAT class when they reach their debt limit. Notice the helpful warning message about classes that don't exist?

Editing the Class Keyring or the Individual Keys for a User

Each class has one keyring for all users in the class. You edit the keyring when creating or editing a class. In addition, each user can have his own set of keys. It's the same process to edit a keyring as to edit a user's individual keys. Here are the options from the key editing prompt:

```
Enter a key name, '?' for help, or '.' to end:
```

? SOFAR	see the keys you've specified so far
? CLASSES	see what other classes have already been defined
? LIST *<class name>*	see what keys are on a class's keyring
? ADD *<class name>*	add the keys from another class's keyring to this set of keys
? REMOVE	if any of the keys you have so far are also in another class's keyring, remove them from this set of keys
? CLEAR	remove all keys from this set
<key name>	add a key to this set
–*<key name>*	remove a key from this set
.	done editing keys

Here's an example of editing a class's keyring:

```
Please select one of the following:

0 ... All done selecting reasons
1 ... If they haven't logged on for a certain number of days
2 ... If they have been in the class for a certain number of days
3 ... If they run out of credits
4 ... If they are posted credits (so that they have more than 0)

Select one of the above: 0

In CNP Level 3, as well as when creating Forums and LIBs, you are given
the opportunity to require that a user have a certain key to use a certain
feature, "locking" that feature. In addition to being able to give keys
to individual users, you may specify a "keyring" that every user currently
in this class holds. This is simply a list of keys that users in this
class have in addition to the ones you have individually given them.

Enter key names one at a time, followed by a RETURN. Each key name can be
from 3 to 15 characters, but can not contain spaces. When you are done
entering keys, simply enter a dot "." followed by a RETURN. Enter a "?" to
get help on importing keyrings from other classes, or just listing the
contents of keyrings from other classes. To remove a key you have already
added to the list, put a minus sign "-" in front of the key name (just as
if you were adding the key, but with a "-" in front). There should be no
space between the "-" and the key name you want to remove.

Enter a key name, '?' for help, or '.' to end: ?

When entering/removing keys, just enter a key name followed by a RETURN to
insert it into the list. To remove a key already in the list, just enter a
minus sign "-" followed immediately by the key name you wish to remove (also
followed by a RETURN). Just enter "X" here to return to entering/removing
keys, or else choose one of the additional functions on this menu...

Please choose one of the following:

SOFAR ..... List keys so far in this keyring
CLEAR ..... Clear out (delete) all keys in this keyring
LIST ...... List all keys in a different keyring
CLASSES .... List all classes (keyrings) available
ADD ....... Add all keys in another keyring to this one
REMOVE ..... Remove all keys in another keyring from this one
X ......... Go back to entering/removing keys from this class

Please enter your selection: CLEAR

OK, all the keys have been cleared!

Enter a key name, '? for help, or '.' to end: ? ADD USER

OK, the selected keyring has been successfully imported!

Enter a key name, ? for help, or '.' to end: ? SOFAR

Keys in the HOURADAY class:

DEMO              NORMAL

Enter a key name, ? for help, or '.' to end: SUBSCRIBER

OK, that key has been added.

Enter a key name, ? for help, or '.' to end: SPECIAL

OK, that key has been added.
```

```
Enter a key name, ? for help, or '.' to end: ? SOFAR

Keys in the HOURADAY class:

DEMO            NORMAL          SUBSCRIBER      SPECIAL

Enter a key name, ? for help, or '.' to end: .

You've now answered all the questions required to define a new class.
If you've made any mistakes during creation, you can always edit the
class. If you've changed your mind about creating this class, select
NO now.

Proceed and create? Y

The class has been successfully created. It has been saved to disk
and added to the online class table so that you may begin to use it
immediately.
```

In this example, the old set of keys was first cleared out. Then the keys from the USER class were imported and the keys named SUBSCRIBER and SPECIAL were added.

In special cases, you might like to give one specific user a specific key. Do this with the EDIT command from the Remote Sysop ACCOUNT menu. Then go through this same procedure, but you'll be dealing with a user's individual keys. For example:

```
REMOTE SYSOP

Select an option (or ? for menu): ACCOUNT

Select one of the following accounting functions:

? ........ Redisplay this menu
SHOW ..... Show current list of account classes
LIST ..... List the keys in the keyring for a class
CLASS .... Maintain account classes
SWITCH ... Switch a user to another class
EDIT ..... Edit a user's individual keys
POST ..... Post credits to a user's account
X ........ Return to main Remote Sysop Menu

Select an option: EDIT

Edit the keys for which users? LOUISE R. MILLER

In CNF Level 3, as well as when creating Forums and LIBs, you are given
the opportunity to require that a user have a certain key to use a certain
feature, "locking" that feature. In addition to being able to specify
a keyring of keys for users in particular classes, you may also give users
individual keys. This is simply a list of keys that this user has in
addition to those specified in the keyring for the class he happens to
be in.

Enter key names one at a time, followed by a RETURN. Each key name can be
from 3 to 15 characters, but can not contain spaces. When you are done
entering keys, simply enter a dot "." followed by a RETURN. Enter a "?" to
get help on importing keys from keyrings, or just listing the contents
contents of keyrings from existing classes. To remove a key you have
already added to the list, put a minus sign "-" in front of the key name
(just as if you were adding the key, but with a "-" in front). (There
should be no space between the "-" and the key name you want to remove.)

Enter a key name, ? for help, or '.' to end:  ? SOFAR
```

```
Louise R. Miller holds the following keys (plus the keys in his/her class
keyring):

UTILITY          GROUP8

Enter a key name, ? for help, or '.' to end:  -GROUP8

OK, that key has been removed.

Enter a key name, ? for help, or '.' to end:  GROUP9

OK, that key has been added.

Enter a key name, ? for help, or '.' to end:  MAINTLIB

OK, that key has been added.

Enter a key name, ? for help, or '.' to end:  ? SOFAR

Louise R. Miller holds the following keys (plus the keys in his/her class
keyring):

UTILITY          GROUP9          MAINTLIB

Enter a key name, '?' for help, or '.' to end:  .

Select one of the following accounting functions:

? ........ Redisplay this menu
SHOW ..... Show current list of account classes
LIST ..... List the keys in the keyring for a class
CLASS .... Maintain account classes
SWITCH ... Switch a user to another class
EDIT ..... Edit a user's individual keys
POST ..... Post credits to a user's account
X ........ Return to main remote sysop menu

Select an option: _
```

Editing or Deleting an Existing Class

Editing an existing class starts off the same way as creating a new class: enter CLASS *<class name>* from the Remote Sysop ACCOUNT submenu. Then your choices are:

```
The "<class name>" class currently exists. You have four options:

E ... Edit this class
D ... Delete this class
K ... Edit only the keyring for this class
N ... Do nothing

Please select an option: _
```

You pass through the same questions you do when creating a class (see page 111), but the defaults are the current parameters for the class.

The DELETE_ACCOUNT Class

A DELETE_ACCOUNT class does not exist. In a few cases, using the phrase DELETE_ACCOUNT in place of a class name indicates you want a user's account deleted under the circumstances. Using the name of any nonexistent class would also end up

deleting the user. Note: if the user has the protected flag, he will not be able to log on if he is set to a nonexistent class, but his account will not be erased.

Class Transition Message

When a user is online and he is being automatically switched to a different class, he usually gets a message informing him of the old and new class names, and the rules and parameters of the new class. But you can replace this message with one of your own in several instances: when either the user has run out of credits or is posted credits (and so has more than zero).

Right after answering which class to switch to (when editing or creating a user class) you'll get a chance to supply one of these custom transition messages. The message can be up to eight lines long.

Here's an example of a custom class transition message:

```
Sorry, you've used up your hour for today. If you have any credits,
you can stay online in the PAYING class. Otherwise, please call
back tomorrow.
```

Switching a User's Class

There are several ways a user can get into a class.

- After sign-up, a user is in the class specified by the SUPCLS offline Security & Accounting option.
- Some classes specify conditions under which a user automatically switches to another class. For example, in the For-Profit model, a PAYING user switches to the DEMO class when he runs out of credits.
- You can manually switch classes from the Remote Sysop Menu using the ACCOUNT menu SWITCH command (see below).
- From the User Account Detail screen on the BBS console, you can change a user's class (page 196).

Here's an example of switching a user's class from the Remote Sysop Menu:

```
REMOTE SYSOP
Select an option (or ? for menu): ACCOUNT

Select one of the following accounting functions:

? ........ Redisplay this menu
SHOW ..... Show current list of account classes
LIST ..... List the keys in the keyring for a class
CLASS .... Maintain account classes
SWITCH ... Switch a user to another class
EDIT ..... Edit a user's individual keys
POST ..... Post credits to a user's account
X ........ Return to main Remote Sysop Menu

Select an option: SWITCH

Which user do you want to switch? IRA POND

Ira Pond is currently in the PAYING class.
```

```
Switch user to what class name (? for list): MONTHLY

Enter # of days the user should remain in this class (RETURN for 30): 90

OK, Ira Pond has been switched to the MONTHLY class.
```

In this example, Ira was switched from the PAYING class to the MONTHLY class. Notice that the default duration of that class is 30 days. Ira paid for a 90-day subscription, so he can stay in the MONTHLY class for three months.

You do not need to type an exact match for the User-ID.

```
REMOTE SYSOP

Select an option (or ? for menu): ACCOUNT

Select one of the following accounting functions:

? ........ Redisplay this menu
SHOW ..... Show current list of account classes
LIST ..... List the keys in the keyring for a class
CLASS .... Maintain account classes
SWITCH ... Switch a user to another class
EDIT ..... Edit a user's individual keys
POST ..... Post credits to a user's account
X ........ Return to main Remote Sysop Menu

Select an option: SWITCH

Which user do you want to switch? TOM

No exact match found. Perhaps you meant one of these:

  1. Tom Hobbs
  2. Tom Shimoda
  3. Tomas Santiago

Enter one of these digits (or another User-ID) at the following prompt …

Which user do you want to switch? 2

Tom Shimoda is currently in the PROSPECT class.

Switch user to what class name (? for list): CUSTOMER

Ok, Tom Shimoda has been switched to the CUSTOMER class.
```

Debt Reports

The text file BBSDBT.RPT accumulates the debt reports for members of classes that you have specified should have debt and should report debt. You should periodically process the file and delete it so that it doesn't grow too large.

A debt report will be generated when credits are deducted from a user's account and the debt limit is crossed. A report may also be generated during the nightly auto-cleanup for user classes that you have scheduled for periodic reporting.

Here is an example of a debt report in BBSDBT.RPT:

```
User-ID                                Debt (in credits)
-------------------------------------------------------
Alex Dowty                             2043
Deserie Puccio                         1855
Dr. Elwood Grant                       72340
Griff Boyer                            346
Isabel E. Adler                        72347
Ira Pond                               71246
V. Conway                              17650
Allen R. Wilson                        2275
Charlie Cook                           8732
Henry Schmidt Jr.                      27854
```

BBSDBT.RPT is a flat ASCII text file with variable-length fields. Its field positions are:

Columns 1-29	User-ID
Columns 36-45	number of credits in debt

Other Reports on Security and Accounting

These reports are available from the offline Report menu:

Forum Access Report	shows who has specially assigned access to which Forums, as set from the Forum Operator menu configure-users command (see page 240).
User Key Report	shows each user's class and what keys you have given him individually.
Remote Access Report	shows who has access to Remote Sysop Menu commands and which exact commands.
User Class Report	shows the parameters of each user class: time limits, credits, debt, when to transition to another class, when to delete the user's account, and so on.

See pages 383-386 for examples of these reports.

OFFLINE SECURITY AND ACCOUNTING OPTIONS

Default Settings

Security & Accounting Options in BBSMAJOR.MSG

```
MMUCRR    Credits per minute consumed at the Main menu ..............  60
SAMPLN    Number of lines on which to allow anyone to log on ........ 256
SAMPKY    Key required to log on reserved channels ..................  NORMAL
RLGKEY    Key required to re-logon at logoff ........................  NORMAL
GLBKEY    Key required to use Sysop global commands ..................  SYSOP
SYSKEY    Key required for exemption from rules ......................  SUPER
VISPSW    Make passwords visible in "detail info" displays? ......... YES
CHGHOUR   Connect time charge per hour, if any ....................... $0.75
CHGTIME   Minimum connect time purchase ..........................  10 hours
CHGMIN    Charge for minimum purchase ............................. $7.50
```

Security & Accounting Option in BBSACCT.MSG

```
PESTER    Advertise credit-buying procedure to users? ..... NO
```

Security & Accounting Options in BBSSUP.MSG

```
PRESUP    Give all users how many free credits upon sign-up? ..... 0
SUPCLS    Start users off in what account "class"? ..... DEMO
SHWCRD    Show users how many credits they have? ..... YES
LANGCHG   Key required for changing language preference ..... DEMO
```

Security & Accounting Option in BBSFTF.MSG

```
ASULOCK   Key required for A ASCII file uploads: ..... DEMO
XMULOCK   Key required for M,C,1 XMODEM file uploads: ..... DEMO
YMULCK    Key required for B YMODEM-Batch file uploads: ..... DEMO
YGULOCK   Key required for G YMODEM-g file uploads: ..... DEMO
ZMULOCK   Key required for Z ZMODEM file uploads: ..... DEMO
KMULOCK   Key required for K KERMIT file uploads: ..... DEMO
FIMLOCK   Key required for F upload (file import): ..... SYSOP
ASDLOCK   Key required for A ASCII file downloads: ..... DEMO
LSDLOCK   Key required for L Listing file downloads: ..... DEMO
XMDLOCK   Key required for M,C,1 XMODEM file downloads: ..... DEMO
YMDLOCK   Key required for B YMODEM-Batch file downloads: ..... DEMO
YGDLOCK   Key required for G YMODEM-g file downloads: ..... DEMO
ZMDLOCK   Key required for Z,ZR ZMODEM file downloads: ..... DEMO
KMDLOCK   Key required for K KERMIT file downloads: ..... DEMO
VEWLOCK   Key required for V Compressed file viewing: ..... DEMO
FEXLOCK   Key required for F download (file export): ..... SYSOP
```

Security & Accounting Options in BBSRIP.MSG

```
BYPSKY    Key required to bypass forced downloads ..... SYSOP
```

Security & Accounting Options in GALMS.MSG

```
EMLKEY    Key required to write E-mail messages ..... NORMAL
EMLTCK    How many credits to charge for each message? ..... 95
EATKEY    Key required to upload "attachments" ..... NORMAL
EATTCK    Charge for uploading an attachment: ..... 200
RRRKEY    Key required to request "return receipts" ..... NORMAL
RRRTCK    Charge for requesting a return receipt? ..... 50
SIGCCR    Forum default credit consumption rate, per min: ..... 60
SIGTCK    Default charge for posting a Forum message: ..... 95
SATTCK    Default charge for uploading a file to a Forum: ..... 200
SOPMHD    Allow Forum-Ops to modify Forum headers? ..... YES
QRCHRG    Charge (per-message) for distribution list use: ..... 1000
SIGPRV    Key required for privileged default access ..... NORMAL
SIGSYS    Key required for Sysop access in Forums ..... SYSOP
PRSKEY    Key required to use personal dist lists ..... NORMAL
DSTKEY    Key required to edit Sysop-defined lists ..... SUPER
MSSKEY    Key required to send "mass" mailings ..... MASS_MAILING
MHSKEY    Key required to write MHS messages ..... NORMAL
TAGLOCK   Key required to tag files for download .....
```

Security and Accounting Options in GALTLC.MSG

```
TLCCCR    Teleconference credit consumption rate, per min: ..... 60
TLCOVR    Charge Forum tele users the above rate? ..... YES
SWTFRM    Allow users to switch to and from Forum channels? ..... NO
MODKEY    Key required to moderate channels in tele ..... MODERATE
UNLKEY    Key required for unlimited use of tele ..... NORMAL
NPAYMX    Max times a limited user can speak per session: ..... 10
MAXFRE    Top channel number allowed to limited users: ..... 32767
```

Security & Accounting Options in GALP&Q.MSG

```
MAINKEY   Key required in order to enter module: ..... <blank>
SUPKEY    Key required in order to have super powers ..... SYSOP
PLLOPKEY  Key required in order to have Poll-Op powers .....SYSOP
```

Security & Accounting Option in GALREGIS.MSG

```
REGKEY    Key required to create registry entries ..... DEMO
```

Security & Accounting Option in GALFIL.MSG

```
FLSYSOP   Key required for Library Sysop access ..... SYSOP
FLVKEY    Default visibility key ..... DEMO
FLDKEY    Default download key ..... NORMAL
DEFUL     Default key required to upload files ..... NORMAL
DEFAPP    Default preapproval key ..... SYSOP
DEFOVR    Default overwrite key ..... SYSOP
DEFLOP    Default Lib-Op key ..... SYSOP
DEFPLOP   Default primary Lib-Op ..... SYSOP
NOCHGKEY  Key to not charge extra for downloads ..... SYSOP
LISTKEY   Key required to download list of files ..... NORMAL
```

Security & Accounting Options in GALMJD.MSG

```
SYSAPP    Key required for Sysop access ..... SYSOP
```

Security & Accounting Options in GALQWK.MSG

```
QDLKEY    Key required to download QWK packets ..... NORMAL
QULKEY    Key required to upload reply packets ..... NORMAL
```

What the Settings Do and How To Change Them

Security & Accounting Options in BBSMAJOR.MSG

```
MMUCRR    Credits per minute consumed at the Main menu ..... 60
```

The first configurable option at this level determines how quickly your users will consume credits, by default. Typically, credits are consumed at a rate of 1 per second, or 60 per minute.

```
SAMPLN    Number of lines on which to allow anyone to log on ..... 256
```

You have the option to restrict your demo or prospect class of users to the low end of your telephone rotary, if you wish. Your more privileged classes of users will be able to call in on any lines they like. The name of the key that distinguishes these users from each other is defined in the next option (SAMPKY).

What this option controls is the number of lines on which you want to accept new signups and nonprivileged users. Enter 256 to enable free use of all lines.

```
SAMPKY   Key required to log on reserved channels ..... NORMAL
```

The above option (SAMPLN) defines the number of lines on which to allow anyone to log on. Lines above that number are reserved (meaning that not just anyone can log on to them).

This option defines the name of the key the user will need in order to log on lines above the number contained above in SAMPLN.

```
RLGKEY   Key required to re-logon at logoff ..... NORMAL
```

When a user chooses to log off the system, they are always prompted for whether or not they are sure. Only users that hold the key named in this option will have the additional choice to re-logon — to actually go back to the logon prompt, and log on as another User-ID.

To allow all users to re-logon, leave this option blank.

```
GLBKEY   Key required to do Sysop global commands ..... SYSOP
```

There are two global commands offered to Sysops only: /l (looking up another account) and /invis (turning invisible). This option should contain the name of the key required to use these global commands.

Anyone holding this key will be able to look up anyone else's account and run about your system invisible to all users, so beware to whom you give this key.

```
SYSKEY   Key required for exemption from rules ..... SUPER
```

Normally, the option IDLZAP limits the amount of time a user can remain online without typing anything and the option PFCEIL limits the wording a user may use. Users who possess the key you name here will not be affected by these restrictions.

```
VISPSW   Make passwords visible in "detail info" displays? ..... YES
```

You may not wish to have user passwords visible in the "detail account" display on the master console, or when using the DETAIL command from the Remote Sysop Menu. Answer NO to this question to suppress the display of user passwords in both of these places.

NOTE: USER PASSWORDS WILL ALWAYS BE VISIBLE IN THE "USER REPORT," WHICH IS GENERATED IN AN OFFLINE UTILITY.

```
CHGHOUR  Connect time charge per hour, if any ..... $0.75
```

How much are you going to charge users for each hour of connect time — that is, for 3600 credits? (If you will not be charging your users for connect time, then the setting of this option does not matter.)

```
CHGTIME  Minimum connect time purchase ..... 10 hours
```

What is the minimum amount of connect time that users may purchase? (If you will not be charging your users for connect time, then the setting of this option does not matter.)

CHGMIN Charge for minimum purchase $7.50

What is the charge for the minimum amount of connect time that users may purchase? This figure should be the product of the previous two. (If you will not be charging your users for connect time, then the setting of this option does not matter.)

Security & Accounting Options in BBSACCT.MSG

PESTER Advertise credit-buying procedure to users? ..... NO

At various points, the BBS can charge credits for services. This option controls whether, when denying a user access to a service due to lack of credits (or when the user runs out of credits), it tells the user in detail where to send money to, how much to send, etc. (The message actually sent is Level 6 configuration variable HOWBUY, with filled-in data from Level 4.)

If you answer NO to this question, the BBS will not bring up the issue of how to obtain credits when denying a user access to a service because of lack of credits.

Security & Accounting Options in BBSSUP.MSG

FRESUP Give all users how many free credits upon sign-up? 0

If you specify a number other than zero here, all users, immediately upon signing up, will be granted this number of free credits, entitling them to that amount of online time and services.

Specify zero if, on the other hand, you only want users to have credits upon your direct approval — by crediting their accounts from the Sysop console of The Major BBS or from the Remote Sysop Menu online.

SUPCLS Start users off in what account "class"? ..... DEMO

This is the class name that all new users will automatically be placed in. The class itself contains information about how much time the user may stay online per call and per day, as well as all kinds of other settings. To create or edit classes, select ACCOUNT from the Remote Sysop Menu (when logged on the BBS as Sysop).

Warning: Do not change this without first creating the class online. Doing so will prevent new users from logging on and may cause the BBS to crash when they log on.

SHWCRD Show users how many credits they have? ..... YES

If you want users to be aware of how many credits they have, answer YES to this question; users will be told at log-on and when editing their account information how many credits (or how much debt) they have.

If you are running a free system, though, and do not want your users to be concerned about how many credits they have, answer NO to this question. If you turn this option off, users will not be able to (T)ransfer credits.

LANGCHG Key required for changing language preferences ..... DEMO

Do you want to restrict the ability of users to change their language preference from the Account Display/Edit menu?

If not, set this option to blank, allowing everyone to change their language preference. If so, set this option to the name of a key, and give that key to the users (or classes of users) you want to be able to change their language preference.

Security & Accounting Options in BBSFTF.MSG

ASULOCK Key required for A ASCII file uploads ..... DEMO

To limit access to the A = ASCII file upload protocol, set this option to a key name, and only give that key to users, or to user classes, whom you wish to be able to use the protocol.

To allow all users to use this protocol, either set this option to a key all users have, or set it to blank.

XMULOCK Key required for M, C, 1 XMODEM file uploads ..... DEMO

To limit access to the M, C, and 1 = XMODEM file upload protocols, set this option to a key name, and only give that key to users, or to user classes, whom you wish to be able to use the protocol.

To allow all users to use these protocols, either set this option to a key all users have, or set it to blank.

YMULOCK Key required for B YMODEM file uploads ..... DEMO

To limit access to the B = YMODEM file upload protocol, set this option to a key name, and only give that key to users, or to user classes, whom you wish to be able to use the protocol.

To allow all users to use this protocol, either set this option to a key all users have, or set it to blank.

YGULOCK Key required for G YMODEM-g file uploads ..... DEMO

To limit access to the G = YMODEM-g file upload protocol, set this option to a key name, and only give that key to users, or to user classes, whom you wish to be able to use the protocol.

To allow all users to use this protocol, either set this option to a key all users have, or set it to blank.

ZMULOCK Key required for Z ZMODEM file uploads ..... DEMO

To limit access to the Z = ZMODEM file upload protocol, set this option to a key name, and only give that key to users, or to user classes, whom you wish to be able to use the protocol.

To allow all users to use this protocol, either set this option to a key all users have, or set it to blank.

KMULOCK Key required for K Kermit file uploads ..... DEMO

To limit access to the K = Kermit/Super-Kermit file upload protocol, set this option to a key name, and only give that key to users, or to user classes, whom you wish to be able to use the protocol.

To allow all users to use this protocol, either set this option to a key all users have, or set it to blank.

FIMLOCK Key required for F upload (file import) ..... SYSOP

The F import protocol allows a user to import a file from your local hard disk or floppy drive as an alternative to any file upload.

WARNING: This command can crash your machine (by copying from an empty floppy drive, for example), so you want to allow only your most trusted users to use it.

ASDLOCK Key required for A ASCII file downloads ..... DEMO

To limit access to the A = ASCII file download protocol, set this option to a key name, and give that key only to users, or to user classes, whom you wish to be able to use the protocol.

To allow all users to use this protocol, either set this option to a key all users have, or set it to blank.

LSDLOCK Key required for L Listing file downloads ..... DEMO

To limit access to the L = ASCII file download protocol, set this option to a key name, and give that key only to users, or to user classes, whom you wish to be able to use the protocol.

To allow all users to use this protocol, either set this option to a key all users have, or set it to blank. Note: if users do not have the key to fit this lock, they will not be able to use the (F)ile List command in the File Libraries.

XMDLOCK Key required for M, C, 1 XMODEM file downloads ..... DEMO

To limit access to the M, C, or 1 = XMODEM file download protocols, set this option to a key name, and give that key only to users, or to user classes, whom you wish to be able to use the protocol.

To allow all users to use these protocols, either set this option to a key all users have or set it to blank.

YMDLOCK Key required for B YMODEM-Batch file downloads ..... DEMO

To limit access to the B = YMODEM-Batch file download protocol, set this option to a key name, and give that key only to users, or to user classes, whom you wish to be able to use the protocol.

To allow all users to use this protocol, either set this option to a key all users have, or set it to blank.

YGDLOCK Key required for G YMODEM-g file downloads ..... DEMO

To limit access to the G = YMODEM-g file download protocol, set this option to a key name, and give that key only to users, or to user classes, whom you wish to be able to use the protocol.

To allow all users to use this protocol, either set this option to a key all users have, or set it to blank.

ZMDLOCK Key required for Z,ZR ZMODEM file downloads ..... DEMO

To limit access to the Z = ZMODEM-Batch file download protocol, set this option to a key name, and give that key only to users, or to user classes, whom you wish to be able to use the protocol.

To allow all users to use this protocol, either set this option to a key all users have, or set it to blank.

KMDLOCK Key required for K Kermit/Super-Kermit file downloads ... DEMO

To limit access to the K = Kermit/Super-Kermit file download protocol, set this option to a key name, and give that key only to users, or to user classes, whom you wish to be able to use the protocol.

To allow all users to use this protocol, either set this option to a key all users have, or set it to blank.

VEWLOCK Key required for V Compressed file viewing ..... DEMO

To limit access to the V = View compressed file contents protocol, set this option to a key name, and give that key only to users, or to user classes, whom you wish to be able to use the protocol.

To allow all users to use this protocol, either set this option to a key all users have, or set it to blank.

FEXLOCK Key required for F download (file export) ..... SYSOP

The F export protocol allows a user to export a file to and your local hard disk or floppy drive as an alternative to any file download.

WARNING: This command can crash your machine (by copying to an empty floppy drive, for example), so you want to allow only your most trusted users to use this.

Security & Accounting Options in BBSRIP.MSG

BYPSKY Key required to bypass forced downloads ..... SYSOP

Users who have this key will never be forced to download your custom Library at logon or logoff. If you set the Level 4 options ODONACTN and ODOFACTN to FORCE, the BBS will treat users who have this key as if ODONACTN and ODOFACTN were set to CHOOSE. This also applies to users who have either the MASTER key or who have the key specified in option SYSKEY. (If ODONACTN or ODOFACTN are set to WARN, then users with this key will only get a warning message, like all other users.)

EMLKEY Key required to write E-mail messages ..... NORMAL

You may want to limit the ability to write Electronic Mail messages to certain users. If this is the case, fill this option in with the name of a key. Only users holding the key named in this option will be allowed to write E-mail messages.

If you wish everyone to be able to write E-mail, leave this option blank.

EMLTCK How many credits to charge for each message? 95

You may charge users for the privilege of leaving Electronic Mail messages by choosing here the number of credits to deduct from their account each time they write or copy a message. Users with less than this many credits available will only be allowed to leave E-mail for the Sysop.

EATKEY Key required to upload "attachments" ..... NORMAL

You may want to limit the ability to attach files to E-mail messages. Attachments are files that the E-mail sender uploads, and the receiver downloads. If you want to limit this ability, fill this option in with the name of a key. Only users holding this key will be able to attach files to messages.

If you wish everyone to be able to attach files to messages, leave this option blank.

EATTCK Charge for uploading an attachment: 200

You may wish to charge users a certain amount of "credits" to upload an attachment to an E-mail message. If so, set this option to the number of credits you wish to be charged to each user that uploads an attachment.

Set this number to 0 if you want attachments to be free of charge.

RRRKEY Key required to request "return receipts" ..... NORMAL

You may want to limit the ability to request "return receipts" on E-mail messages to certain users. If so, fill this option in with the name of a key. Only users holding this key will be able request return receipts.

If you wish everyone to be able to request return receipts, leave this option blank.

RRRTCK Charge for requesting a return receipt? 50

You may want to charge users a certain amount of credits for requesting return receipts on E-mail messages. If so, set this option to the number of credits to be deducted from a user's account each time he requests a return receipt on a message.

Set this number to 0 if you want return receipts to be free of charge.

SIGCCR Forum default credit consumption rate, per min: 60

By default, at what rate do you want users to consume credits when in the Forums? (Your Forum-Ops will have the ability to override this default, on a Forum-by-Forum basis). The standard rate is 60 per minute. Select a higher

number to place a premium on Forum usage, or a lower one to encourage it (zero means FREE usage!).

```
SIGTCK   Default charge for posting a Forum message: ..... 95
```

How much do you want to charge a user, by default, for posting a Forum message? (Your Forum-Ops can override this default on a Forum-by-Forum basis.) This many credits will be deducted from a user's account each time he posts a message.

Type 0 if you want Forum messages to be posted for free. Type a negative number if you want to ADD credits to a user's account for posting a message.

```
SATTCK   Default charge for uploading a file to a Forum: ..... 200
```

How much do you want to charge a user, by default, for uploading a file to a Forum? (Your Forum-Ops can override this default on a Forum-by-Forum basis.) This many credits will be deducted from a user's account each time he uploads a file to a Forum.

Type 0 if you want users to be able to upload for free. Type a negative number if you want to ADD credits to a user's account for uploading a file.

```
SOPXHD   Allow Forum-Ops to modify Forum headers? ..... YES
```

The Forum header record of each Forum can contain options for overriding the cost (or bonus credits) for uploading attachments, writing messages, and even basic connect time. In most environments, Forum-Op privileges are not granted to anyone but persons of the utmost integrity; however, if you have a problem in this area, you may wish to disable the feature whereby Forum-Ops are allowed to change these parameters. Answer NO here to prevent Forum-Ops from abusing their privileges, at least to the extent of granting themselves and their friends credits.

```
QKCHRG   Charge (per-message) for distribution list use: ..... 1000
```

This question defines the charge applied to users for each message they send out using distribution lists. This applies to each message sent out using a personal list, and each message sent out using the mass-mailing feature.

Note that this charge does not apply to use of Sysop-defined lists — each of those has its own per-use (not per-message) charge.

```
SIGPRV   Key required for privileged default access ..... NORMAL
```

In the Forums, you may edit each user individually and give access (or remove access) to reading, writing, uploading and downloading. If you don't edit a user, though, then the access he has, by default, is the default access you assign to that Forum.

Each Forum has two settings for default access: privileged and nonprivileged. Users holding the key named in this option will have the privileged default access, while all others will have the nonprivileged default access.

SIGSYS Key required for Sysop access in Forums ..... SYSOP

Sysop users have access to modify Forums, create Forums, and edit users' access levels. In addition, people with this access have full access to any and all Forums. Only users holding the key named in this option have Sysop access in the Forums.

(Be careful who you give this key to — they will be able to do all the things you can do in the Forums: editing any user's access, changing charges in the Forums, etc.)

PRSKEY Key required to use personal dist lists ..... NORMAL

On the E-mail "special function" menu, the option L will only appear to users holding this key. This option will allow them to edit their personal distribution list, which they can then send messages to.

DSTKEY Key required to edit Sysop-defined lists..... SUPER

On the E-mail "special functions" menu, a user selecting C will either get 1) a chance to modify his personal distribution list or 2) a chance to create/modify any Sysop-defined list, depending on whether or not they have the key named in this option. Users holding the key named here will be given option #2, while users who don't will be given option #1.

MSSKEY Key required to send "mass" mailings ..... MASS_MAILING

When writing or copying a message, only users holding the key named in this option will be able to make use of the mass-mailing feature. This is the feature that allows one to write or copy a message to every single user in the user database.

Because mass mailings tend to create huge message databases on large systems that lead to longer delays when reading and writing messages, you may want to limit this feature to use by special users.

MHSKEY Key required to write MHS messages ..... NORMAL

This option can be ignored if you have the Level 4 option ALWMHS set to NO.

You may want to limit the ability to send MHS messages to certain users. If this is the case, fill this option in with the name of a key. Only users holding the key named in this option will be allowed to send MHS messages.

If you wish everyone to be able to send MHS messages, leave this option blank.

TAGLOCK Key required to tag files for download ..... <blank>

For E-mail and Forum attachments, to restrict the ability to tag attached files for download, set this option to a key name and then give that key to the users you want to be able to tag files.

Tagging files allows you to specify files one at a time and then download them all at once later.

```
TLCCCR   Teleconference credit consumption rate, per min: ..... 60
```

By default, at what rate do you want users to consume credits when in the teleconference? The standard rate is 60 per minute. Select a higher number to place a premium on teleconference usage, or a lower one to encourage it (zero means FREE usage!).

```
TLCOVR   Charge Forum tele users the above rate? ..... YES
```

In the Forums, users can be charged different credit rates depending on what Forum they are currently in. When a user selects to enter the teleconference from the main Forum menu, should they continue to be charged the same rate (as if they were still in the Forum), or should they be charged the teleconference rate (configured above)?

Answer YES to this question if you want everyone in teleconferencing to be charged the same amount, no matter how they got in.

```
SWTFRM   Allow users to switch to and from Forum channels? ..... NO
```

Since users entering the teleconference through the Forums may be charged a different rate from others, do you want to allow users to enter the teleconference through a Forum, and then switch to another channel? Answer NO if you do not want your users to able to switch freely to and from Forum channels.

```
MODKEY   Key required to moderate channels in tele ..... MODERATE
```

Filling this option in with a key name will result in only people holding that key being able to moderate channels in the teleconference.

Leave this option blank to allow anyone to moderate teleconference channels.

```
UNLKEY   Key required for unlimited use of tele ..... NORMAL
```

Filling this option in with a key name will have the effect that people holding that key will not be limited in number of statements or in channel number while they are in teleconference. These limits are set in the two following options, and will apply only to people without this key.

To allow anyone unlimited use of the teleconference, leave this option blank.

```
NFAYMX   Max times a limited user can speak per session: ..... 10
```

To restrict the number of "statements" made by people in teleconference, set this option. This limit will only be placed on people not holding the key named in the above option (UNLKEY). After a limited user has made this many statements in the teleconference, he is "muted" until he logs off and logs back on again.

Make this number 0 to prohibit any statements from limited users at all. (So that they will be allowed to listen, but listen only).

MAXFRE Top channel number allowed to limited users: 32767

The teleconference of The Major BBS has 65,535 channels. (Imagine — more radio stations than listeners!) To allow unlimited users (users with the key named in option UNLKEY above) to hold conferences that are free from intrusion by the limited users (users without the key named in UNLKEY), use this option. Limited users will not be able to select channels above this number.

Type 65535 to allow limited users access to all teleconference channels.

Security & Accounting Options in GALP&Q.MSG

MAINKEY Key required in order to enter module ..... <blank>

This is the key required for a user to be able to enter into the Polls and Questionnaires module. Leave this field blank to allow all users to enter.

SUPKEY Key required in order to have SUPER powers ..... SYSOP

This is the key required for a user to have SYSOP access to the Polls and Questionnaires module. Users who have this key will be able to perform all Poll-Op options as well as have the ability to grant credits, class, keys and a file via Polls and Questionnaires. ***Never leave this field blank.***

PLLOPKEY Key required to have Poll-Op powers ..... SYSOP

This is the key required for a user to have access to the Poll-Op menu. Users who have this key will be able to add, edit, and delete Polls and Questionnaires. ***Never leave this field blank.***

Security & Accounting Options in GALREGIS.MSG

REGKEY Key required to create Registry entries ..... DEMO

If you want to "screen out" certain users from the Registry, fill this option in with the name of a key. Only users holding this key will be able to create Registry entries. Users not holding this key will then only be able to read others' entries, not write their own.

Leave this option blank if you want all users to be able to list themselves in the Registry.

Security & Accounting Options in GALFIL.MSG

FLSYSOP Key required for Library Sysop access ..... SYSOP

Any user with this key will have full Sysop powers throughout all Libraries. In most cases, you will want to leave this as SYSOP and instead assign other users as Lib-Ops, giving them only localized control in certain Libraries.

FLVKEY Default visibility key ..... DEMO

This is the default key assigned to a Library when it is created, which is required for a user to see or select a Library or see files in a Library. If a user has no access to any Libraries, the user will not be allowed into the File Libraries.

FLDKEY Default download key ..... NORMAL

This is the default key assigned to a Library when it is created, which is required for a user to be able to download files from a Library.

DEFUL Default upload key ..... NORMAL

This is the default key assigned to a Library when it is created, which is required for a user to be able to upload files to a Library.

If the Library is a Library on CD or a Read-only Library, users will not be able to upload to it, regardless of this setting.

DEFAPP Default preapproval key ..... SYSOP

This is the default key assigned to a Library when it is created, which is required for a user to have the ability to upload files that do not need approval to that Library.

If the Library is a Library on CD or a Read-only Library, users will not be able to upload to it, regardless of this setting.

DEFOVR Default overwrite key ..... SYSOP

This is the default key assigned to a Library when it is created, which is required for a user to have the ability to overwrite files he uploaded that already have been approved.

DEFLOP Default Lib-Op key ..... SYSOP

This is the default key assigned to a Library when it is created, which is required for a user to be a Lib-Op in that Library.

DEFPLOP Default primary Lib-Op ..... SYSOP

This is the default primary Lib-Op assigned to a Library when it is created.

NOCHGKEY Key to not charge extra for downloads ..... SYSOP

A user possessing this key will never be charged any more than connect time, if applicable, for downloading files.

LISTKEY Key required to download lists of files ..... NORMAL

A user possessing this key will be able to request that lists of files be built for him to download.

Security & Accounting Options in GALMJD.MSG

SYSAPP Key required for Sysop access ..... SYSOP

This is the key required for a user to be able to add, modify, or delete a door from the database that can be accessed through Doors.

QDLKEY Key required download QWK packets ..... SYSOP

If you don't want everyone on your system able to freely download QWK-mail packets, set this option to the name of the key users must have in order to download packets.

To freely allow downloading of QWK-mail packets, clear out this option with the <*F2*> key (or set it to DEMO).

QULKEY Key required to upload reply packets ..... NORMAL

If you don't want everyone on your system able to freely upload QWK-mail reply packets (.REP files), set this option to the name of the key users must have in order to upload packets.

To freely allow uploading of QWK-mail reply packets, clear out this option with the <*F2*> key (or set it to DEMO).

SECURITY OF ONLINE SERVICES

These online services have elaborate security mechanisms:

- Remote Sysop Menu
- Forums
- File Libraries

You can manage the security of these services by logging on as the Sysop User-ID.

Remote Sysop Menu Access — the Editing Access Menu

The user named Sysop manages access to the Remote Sysop Menu. All the commands in this menu may be made available to users on an individual basis.

You have complete flexibility in deciding which commands to make available to which users.

Log on as Sysop and choose the SYSOP option from the Remote Sysop Menu. After specifying a User-ID, you'll come to the Editing Access Menu, which looks almost exactly like the Remote Sysop Menu. You can decide exactly which of these dozens of powerful commands that a particular user can use.

When you are in the Editing Access Menu, you'll see which commands the user can already use by the little => indicator (if it is there, he can use the command; if it isn't, he can't). For example:

DETAIL => Detail Info on User-ID	Allowed to use DETAIL command
DETAIL Detail Info on User-ID	Cannot use DETAIL command

Toggle access on and off by typing in the name of the command. Typing ON permits access to all remote Sysop commands, typing OFF turns them all off.

When the SYSOP option is turned on, the user has the powerful master key (page 110).

You'll probably want to make your menu tree design (page 59) reflect just who is, and who isn't, allowed in the Remote Sysop Menu.

Here is an example of giving a user access to commands in the Remote Sysop Menu:

```
                    R E M O T E   O P E R A T O R   M E N U

  SENDALL => Send Message to All              SYSTATS => View Overall Statistics
     SEND => Send Message to User-ID         MODSTATS => View Module Usage
    LOGON => Edit BBS Log-on Message         DEMSTATS => View System Demographics
                                             CLSSTATS => View Class Statistics
  ACCOUNT => Accounting functions
   DETAIL => Detail Info on User-ID           EMULATE => Emulate a channel
    AUDIT => Display the Audit Trail          MONITOR => Monitor All mode
    USERS => Stats of Users Online              INPUT => Monitor Input mode
   SEARCH => Account Database Search           CHANGE => Change Channel Status

   HANGUP => Disconnect a User-ID                TYPE => DOS TYPE command
  SUSPEND => Suspend/Unsuspend a User-ID         COPY => DOS COPY command
  PROTECT => Protect/Unprotect a User-ID       RENAME => DOS RENAME command
   DELETE => Delete a User-ID                     DIR => DOS DIR command
 SHUTDOWN => Shutdown the System                   MD => DOS MD command
  CLEANUP => Force Cleanup or Event                RD => DOS RD command
 TRANSFER => Transfer files                       DEL => DOS DELETE command
    SYSOP => Edit a User-ID's Access

REMOTE SYSOP
Select an option (or ? for menu): SYSOP

Which User-ID would you like to edit? COSYSOP

Editing access for "CoSysop"...

  SENDALL    Send Message to All            SYSTATS    View Overall Statistics
     SEND    Send Message to User-ID       MODSTATS    View Module Usage
    LOGON    Edit BBS Log-on Message       DEMSTATS    View System Demographics
                                           CLSSTATS    View Class Statistics
  ACCOUNT    Accounting functions
   DETAIL    Detail Info on User-ID         EMULATE    Emulate a channel
    AUDIT    Display the Audit Trail        MONITOR    Monitor All mode
    USERS    Stats of Users Online            INPUT    Monitor Input mode
   SEARCH    Account Database Search         CHANGE    Change Channel Status

   HANGUP    Disconnect a User-ID              TYPE    DOS TYPE command
  SUSPEND    Suspend/Unsuspend a User-ID       COPY    DOS COPY command
  PROTECT    Protect/Unprotect a User-ID     RENAME    DOS RENAME command
   DELETE    Delete a User-ID                  DIR    DOS DIR command
 SHUTDOWN    Shutdown the System                MD    DOS MD command
  CLEANUP    Force Cleanup or Event             RD    DOS RD command
 TRANSFER    Transfer files                    DEL    DOS DELETE command

    SYSOP    User has the "MASTER" key throughout the system

Type "ON" or "OFF" to toggle all options,
otherwise option to toggle, X to exit, or ?: DETAIL

Type "ON" or "OFF" to toggle all options,
otherwise option to toggle, X to exit, or ?: USERS

Type "ON" or "OFF" to toggle all options,
otherwise option to toggle, X to exit, or ?: SEARCH

Type "ON" or "OFF" to toggle all options,
otherwise option to toggle, X to exit, or ?: ?
```

On the Menu Tree Design screen, you can see the name of each page. The lines connect menu pages to their child pages. Parents are toward the left, children on the right.

By the way, a page will never have more than one parent. Say you want a menu selection in one menu to have the same function as another menu selection in another menu. Menu Tree makes it easy to duplicate the same function in two different menus. Even if the function is a complex branching menu, Menu Tree will copy the whole structure for you.

Three Types of Pages

Think of a page as an image on a user's screen.

A menu page shows a list of choices, each identified by a unique character. When a user makes a choice, he switches to a different page. Three things could happen, depending on what type of page it is:

Menu page:	another menu comes up
Module page:	some service in the BBS begins
File page:	a text file is displayed on the user's terminal

A module page invokes a particular service in the BBS. It can start broadly:

```
Enter the Forums
Enter the File Library
```

or narrowly:

```
Go into the /Support Forum and start downloading the file attached to
message #401933 using ZMODEM.

Enter the UTILITY LIB and tag for download all .EXE and .COM files and the
READ.ME file.
```

See pages 69-72 for examples of command strings.

A file page displays a text file on the user's terminal. It is up to the user whether the information pauses when his screen fills up or continues nonstop.

Pages are color coded in the tree diagram:

White	menu page
Yellow	auto-select menu page (see page 72)
Green	module page
Purple	file page

The /GO Command

If you put some thought into what you name your pages, you can give your users a handy set of /GO commands for the services on your system. For example:

/GO TOP	go to the TOP menu
/GO FORUMS	go to a menu of available Forums
/GO MAIL	read your incoming mail
/GO FEEDBACK	write feedback to the Sysop
/GO SUPPORT	enter the /Support Forum

In this example, these are all page names: TOP, FORUMS, MAIL, FEEDBACK, SUPPORT.

/GO *<menu page name>*	leads you to that menu
/GO *<module page name>*	invokes the services you specified when you created the module page
/GO *<file page name>*	displays the file

Users can enter the /GO command from almost any menu or prompt. (Two exceptions: from the full-screen editor or during full-screen data entry; there are others.)

You will want to write instructions for all your /GO commands and put them in the file named GALGIC.TXT, which as shipped contains this hint:

```
<< INSERT HELP ABOUT GLOBAL COMMANDS HERE >>
```

CREATING A NEW PAGE

> To create a new page, create a new menu selection on a menu page.

1. Enter Menu Tree and highlight the item that will become the parent page.
2. Hit *<Enter>* to edit the page.
3. Keep hitting *<Enter>* until you skip down to one of the empty 25 menu selections for the menu page.
4. Type the select character, or *<Alt-E>* to edit the selection.
5. Answer the questions about the selection. The destination page is the name of your new page. Page names can have up to 15 characters.

At first, the new page is also a menu page. To make it a different type of page, you must:

6. Hit *<Esc>* to exit the parent menu.
7. You'll notice your new page as a branch off of the parent page. Move the cursor to the new page.
8. Hit *<Enter>* to edit the page.
9. Now use the up and down arrows to turn it into a module or file page and hit *<Enter>*.

Now you are looking at your new page. After choosing the type of page, you will see the following two questions:

Allow GO command on this menu/module/file page name? *Yes/No*
Key required for GO

Here are the possibilities for these options:

Allow GO	Key required	
NO		no user can enter /GO *<page name>*
YES	*<blank>*	all users can enter /GO *<page name>*
YES	*<key name>*	only users with the key *<key name>* may enter the command /GO *<page name>*

DESIGNING A MENU PAGE

Here's the unique information you have to give for each menu page:

- Auto-select menu page? *Yes/No*
- Edit how this page looks? *Yes/No*
  (decide how you want the menu to appear to users)
- Page Title
  (displayed if Sysop uses text variable TITLE in menu page file; see page 89)
- Up to 25 menu selections, for each one:
  - Select character (A-Z, 0-9, and so on)
  - Short description (up to 30 characters)
  - Key required
  - If the user has no key, hide/dim/show the option
  - Destination page

Duplicating Menu Pages

If you wish to duplicate the same functions of one menu branch in another branch, follow the steps in "Creating a New Menu Page," but in step 5 enter the name of the existing page you want as the destination. Menu Tree will rename and copy that page and the whole structure under it to the new branch. You now can modify any pages in the new branch.

Deleting a Menu Page

Follow the steps in "Creating a New Page," but in step 3 skip to the menu selection you wish to delete. Enter *<Alt-D>*.

BBS-Constructed or Custom-Edited Menus

BBS-Constructed Menus for ANSI Users

Either you can have the BBS construct a default menu for you, or you can create your own. Here's the way a BBS-constructed menu looks for ANSI users:

```
Please select one of the following:

T ... Teleconference
I ... Information Center
F ... Forums (Public Message Bases)
E ... Electronic Mail
L ... File Libraries
A ... Account Display/Edit
P ... Polls and Questionnaires
D ... Doors
R ... Registry of Users
Q ... QWK-mail
X ... Exit System (Logoff)

Main System Menu (TOP)
Make your selection (T,I,F,E,L,A,P,D,R,Q,? for help, or X to exit): _
```

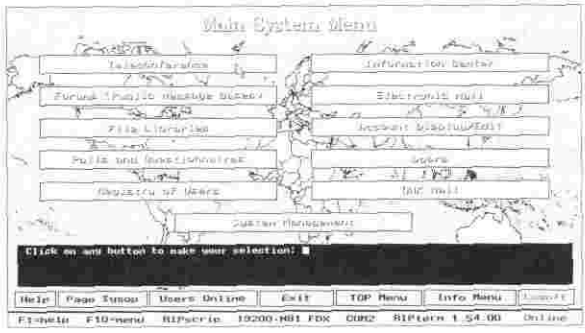
The letters in the left column are the select characters. The short descriptions follow the dots. For ANSI users, there is a shorter version of a BBS-constructed menu:

```
Main System Menu (TOP)
Make your selection (T,I,F,E,L,A,P,D,R,Q,? for help, or X to exit): _
```

In this example, MAIN SYSTEM MENU is the title of the menu page; TOP is the name of the menu page . A user can hit *<Enter>* or ? to redisplay the full menu.

BBS-Constructed Menus for RIP Users

An auto-constructed menu for RIP users looks like this:



To control the physical size, placement, and style of the buttons on the menu, you use a number of offline configuration options in BBSRIP.MSG as well as several features that can vary from menu to menu. You'll be able to view and change certain options only if you have installed RIP*aint*, the RIP drawing tool from TeleGrafix Communications Inc. (see page 92 for more on RIP*aint*). To purchase a copy of this program, call TeleGrafix at (714) 379-2131, Galacticomm's sales department at (800) 328-1128 or (305) 583-5990, or your nearest authorized Galacticomm dealer.

Customizing Auto-Generated Menus without RIP*aint*

If you do not have RIP*aint*, you can use only three options to control the appearance of your auto-generated menus. These are:

DSPXIT — When the BBS generates a RIP menu, it displays a button for each option specified for a menu page in the Menu Tree. On your BBS's main system menu, this includes the option to log off. Because RIP menus by default have a global command bar (contained in the text block DFSEND2) at the bottom and this bar has an EXIT button, displaying an additional button for logging off may be redundant. If this option is set to NO, the BBS won't display a button for logging off the system; your users will use the EXIT button from your menu. If this option is set to YES, the BBS will display a button for logging off.

XITPGE — With DSPXIT set to NO, the BBS needs to know what module page calls the module Logoff (End Session) or it will display a button for a log-off option. Most often, this page is named EXIT. If you've changed that page name, you would enter the new name in this option.

MAXLGE — When automatically generating a RIP menu, the BBS uses either of two button and text style combinations: a button and text style for larger buttons (specified in the text blocks ENALGE and DIMLGE) or a button and text style for smaller buttons (specified in the text blocks ENASML and DIMSML). This option tells the BBS the maximum number of options a menu can have and still be displayed using the styles for larger buttons. If a menu has more options than specified here, the BBS will display those options using the styles for smaller buttons instead. Set this option to 25 to always use the larger styles. Set this option to 0 to always use the smaller styles.

Customizing Auto-Generated Menus with RIP*aint*

If you have installed RIP*aint*, edit the text block DFLHDR to modify the background and top title bar. To place the title of the menu on the title bar, you use the text variable TITLE (see page 89). You also work with the global command bar and text window in the text block DFSEND2. Moreover, you can work with five options, plus the three already discussed, to control the appearance of a menu. These are:

DEF1 through DEF25 — These options act as templates to specify the locations of the buttons for each menu option on the screen when the BBS automatically generates a RIP menu. DEF1 specifies the location of a button for a menu with one option, DEF2 specifies the locations of buttons for a menu with two options, and so on. The BBS is concerned only with the *location* of the buttons in these options—that is, their X0, Y0 – X1, Y1 coordinates. It will ignore other aspects (style, labels, and so on) as well as any other objects within these scenes. To set the *style* of the buttons for the BBS as well as the font of the buttons' labels, use the options ENALGE, DIMLGE, ENASML, and DIMSML.

ENALGE — This option tells the BBS what button style and what text font to use for LARGE/ENABLED buttons. The BBS will display an option using this button style if the number of options to be displayed for the current menu is less than or equal to the value set in MAXLGE and:

- It has no key required, or
- It has a key required and the user has that key, or
- It has a key required but you chose Show Option for it in the Menu Tree

The BBS will use the style of the first button it finds here and will use the font style of that button's label. (It ignores anything else in this option.)

DIMLGE — This option tells the BBS what button style and what text font to use for LARGE/DIMMED buttons. The BBS will display an option using this button style if the number of options to be displayed for the current menu is less than or equal to the value set in MAXLGE, and:

- You've specified a key required for this option
- The user does not have that key, and
- You chose Dim Option for it in the Menu Tree

The BBS will use the style of the first button it finds here along with the font style of that button's label. It will ignore anything else in this option.

ENASML — This option tells the BBS what button style and what text font to use for SMALL/ENABLED buttons. The BBS will display an option using this button style if the

number of options to be displayed for the current menu is more than the value set in MAXLGE and:

- It has no key required, or
- It has a key required, and the user has that key, or
- It has a key required, but you chose Show Option for it in the Menu Tree

The BBS will use the style of the first button it finds here along with the font style of that button's label. It ignores anything else in this option.

DIMSML — This option tells the BBS what button style and what text font to use for SMALL/DIMMED buttons. The BBS will display an option using this button style if the number of options to be displayed for the current menu is more than the value set in MAXLGE and:

- You have specified a key required for this option, and
- The user does not have that key, and
- You chose Dim Option for it in the Menu Tree

The BBS will use the style of the first button it finds here along with the font style of that button's label. It ignores anything else in this option.

Editing the Way Menus Look

When you create your menus, you can create four versions, for users whose terminals:

<name>.IBM	support ANSI and IBM's extended ASCII
<name>.ANS	support ANSI, but not IBM's extended ASCII (box outlines, international characters, other symbols)
<name>.ASC	do not support ANSI (colors, cursor positioning, and so on)
<name>.RIP	support RIP (these users also automatically support ANSI and IBM's extended ASCII)

The *<name>* part of the file is usually the page name, but you may use a different name. For the .ASC, .ANS and .IBM versions, you will use BBSDRAW. To create or modify a .RIP version of a menu, you need to install RIP*aint* (see page 92). You can purchase a copy of this software from TeleGrafix at (714) 379-2131, from our Sales Department at (800) 328-1128 or (305) 583-5990, or from your nearest authorized Galacticomm dealer.

Usually, when a menu page is set to display a file, the BBS will first attempt to display the appropriate file specified in the Menu Tree (for example, *<name>*.RIP for RIP users, *<name>*.IBM for users who support ANSI and Extended ASCII, and so on). If it can't find the first file, it will attempt to display the first alternate file it can find (for example, if the BBS could not find *<name>*.IBM, it will attempt to display *<name>*.ANS, and so on).

If you have a menu page set to display a file, but you have not created a .RIP version of the menu, you may not want the BBS to try to display any menu files having .IBM, .ANS, or .ASC extensions to RIP users. The reason is that users would see these files displayed in RIP*term*'s ANSI window, which could lead to confusing displays (see page 93 for more on RIP*term*).You can control this with the Level 4 option DSPOEXT in BBSRIP.MSG. If you set this option to NO, then when a RIP user is on a menu page and that menu page is set to display a file, the BBS will only look for a menu file with a

.RIP extension and will ignore any other files. If it cannot find a file with a .RIP extension, it will display an auto-generated menu. If you set this option to YES, then the BBS will try each extension in turn after .RIP, as usual. If you do not own a copy of RIP*aint*, keep DSPOEXT set to NO.

Using Your Own Editor to Edit Custom Menu Tree Menus

Menu Tree can be made to run your own favorite text or ANSI editor when you create your custom menus. Just change the editor command line in BBSMAI.MDF:

```
Language Editor: BBSDRAW %s
```

to run another editor:

```
Language Editor: ZAPEDIT %s
```

In these cases, %s represents the file where the menu will be stored, such as INFOMENU.ANS. See page 146 for more on the language-editor command line.

Menu Selections

Menu selections are the choices users get when the BBS displays a menu. A user makes his choice by typing a single character and hitting <*Enter*>.

For each of the up to 25 menu selections you can have in a menu, you need to specify:

Select Character

This is the single character that the user will enter to make his choice. This can be a letter, a single digit (0–9), or almost any punctuation symbol.

Short Description

This describes the menu selection. If the BBS is constructing this menu for you, this will appear on the user's screen next to the select character.

Key Required

Are you going to require a user to have a certain key to use this menu selection? If not, just leave this blank. If so, enter the key name here.

If the User Does Not Have a Key

If you're requiring a key, and the user doesn't have it, you can:

Show option	choice is displayed anyway
Hide option	choice is hidden from the user
Dim option	choice is displayed at low intensity

This choice applies whether the BBS is constructing the menu for you or you are laying it out with BBSDRAW. (In BBSDRAW, you mark where each option appears in your menu using the <*Alt-M*> key.)

Destination Page

What do you want to call the new child page that you are about to create?

Whenever you specify a new menu selection, you're also creating a new page. That page's name has to be unique. If you use the name of a page that already exists, Menu Tree offers to make a copy of that page and give the copy a new name. If the page is a menu page with children of its own, the children will also be copied and given new names.

This destination page is the page a user will branch to when he makes the selection. It's important to give the page a meaningful name. That is because, if you wish, your users can use this name with the /GO command from almost anywhere online.

Page names can be 1 to 15 characters long and have capital letters, digits or the underscore (_) character.

DESIGNING A MODULE PAGE

A module page invokes some service inside the BBS. You will specify:

- The module name
- The command string
- Whether to display the module page header (MPGHDR). This special text block in BBSMAJOR.MSG can be displayed as a header whenever a user selects a module page from a menu page. This is mainly for RIP users. Set it to YES if a choice on a menu page leads to a module that hasn't had RIP added to it. This will clear away any RIP graphics on the screen and set up a suitable frame for that module's ANSI output. Set this to NO for modules that do have RIP. For example, the module page ACCOUNT calls the module Account Display/Edit, which does have its own RIP graphics; therefore, Display Module Page Header? is set to NO. The module page REMOTE calls the module Remote Sysop Menu, which has minimal RIP graphics; therefore, Display Module Page Header? is set to YES. By default, the English/ANSI version of MPGHDR has nothing in it: for your ANSI users, you might put text in MPGHDR if, for instance, you would like to clear the screen every time a user goes into a module.

Choose the module name from a scrolling menu of choices. At a minimum, you should get these choices:

```
Account Display/Edit
Doors
Electronic Mail
File Libraries
Forums
Logoff (end session)
Menu-ize Global Commands
Polls and Questionnaires
QWK-mail
Registry of Users
Remote Sysop Menu
Teleconference
```

When you install add-on options on your BBS, additional names will appear automatically in this list. Many add-ons are available from Galacticomm and third-party developers. See our latest product catalog or newsletter for details.

Remember that when you create a module page you can create two paths to the same service. A single menu selection can bring up the service. If you've allowed the /GO command for your module page, you can invoke it from almost anywhere. You can create an orphan module page for a service you want accessible *only* through the /GO command.

Some of the following examples bring up privileged services, such as writing to Forums or writing to mass-mailing lists. Just keep in mind that if you give everyone access to a module page that invokes a privileged service, some users might get turned away with messages that may not be clear to them. You may want to take some steps to make sure these options aren't even presented to them.

You can use command strings instead of typing commands from the module's main menu. Before entering your command strings in the module page, you can test them from the module's menu. Here is a brief guide for The Major BBS's standard modules:

Some example command strings for Forums

<blank>	enter the current Forum, see the Forum menu
RSF	scan from the first message
RS.	scan starting from the next message you haven't read yet
RS38501	scan from message number 38501
RSL	scan from the last message
RLBF	list brief titles of all messages
RLTF	list four-line titles of all messages
RLFF	list all messages fully
RLB.	list brief titles starting with the next unread message
RLT.	list four-line titles starting with the next unread message
RLF.	list full messages starting with the next unread message
FSF	filescan from the first file
FS.	filescan starting from the next file you haven't seen yet
FS38501	filescan from the file attached to message number 38501
FSL	filescan from the last file
FLBF	filescan list brief titles of all files
FLTF	filescan list four-line titles of all files
FLFF	filescan list all file descriptions fully
FLB.	filescan list brief titles starting with the next file
FLT.	filescan list four-line titles starting with the next file
FLF.	filescan list full file descriptions starting with the next file
QS	quickscan
W	write a message in the Forum

W.	write a message in the Forum to all users
W CoSysop	write a message in the Forum to the CoSysop user
S?	display a list of Forums and choose one
S/Support	select the /Support Forum
T	enter the Forum Teleconference

Some example command strings for Electronic Mail

<blank>	enter the E-mail menu
RTF	read all your incoming mail, starting with the earliest
RT.	read your incoming mail, starting with mail you have not read yet
RTL	read your latest piece of incoming mail
RFF	read the earliest piece of outgoing mail that is still in your out box
RFL	read your latest piece of outgoing mail
W Linda Bowman	write mail to Linda Bowman
W /Legal	write a message to the /Legal Forum
W @group3	write mail to distribution list @group3
W !quick	write mail to your individual distribution list
W !mass	write mail to every user on the system
SC	configure your personal distribution list (or if the user has the SUPER key, configure a named distribution list)
SA	auto-forward incoming mail to another user-ID
SS	Set personal preferences for E-mail

Some example command strings for the File Libraries

<blank>	enter the current Library, see the Library menu
&F	find files
&S?	display a list of Libraries and choose one
&S *<Library name>*	select a Library and return to the parent menu without displaying anything
&S *<Library name>*	select a Library and leave the user at the main Library menu
&D	download a file
&T *	download all tagged files
&T * Z	download all tagged files using ZMODEM
&D *.C	download all files with the .C extension
&T -ALL	untag all tagged files
&U TEST.TXT	upload TEST.TXT to the current Library, if allowed
&O	select operations menu (if Sysop or Library Operator)

Note: An & in the first position of a File Libraries command string overrides user preferences and should always be used.

Some example command strings for Account Display/Edit

<blank>	enter the Account Display/Edit menu
S	display statistics
A	display and, if desired, edit account information
T	transfer credits to another user
L	change language or protocol preference

Some example command strings for Polls and Questionnaires

<blank>	enter the Polls and Questionnaires menu
R	view results for a poll
R BBSPOLL	poll name for viewing results

Some example command strings for Doors

<blank>	get the generic Doors menu
L	get a list of doors
E *<door name>*	enter a specific door

Some example command strings for the Registry of Users

<blank>	enter the Registry menu
DA	get a directory of all users in the Registry, starting with A
Y	create or edit your entry
L Sysop	display registry information on the Sysop user
L	look up any user

Some example command strings for the Remote Sysop menu

<blank>	enter the Remote Sysop menu
USERS	display statistics of users online
SYSTATS	view overall statistics
MODSTATS	view module usage
DEMSTATS	view system demographics
CLSSTATS	view class statistics
ACCOUNT POST	post credits to a user's account

Some examples command strings for QWK-mail

<blank>	enter the QWK-mail menu
DZ!	download packet using ZMODEM, then log off

Some example command strings for Menu-ized Global Commands

/GO *<page name>*	jump to a menu, module, or file page
/#	get a list of users online
/RECENT	get a list of users recently logged off
/P *<User-ID>* *<message>*	page a specific user with a message
/R *<User-ID>*	look up a specific user in the registry

And some more command strings for Sysops only (see page 291):

/INVIS	toggle Sysop invisible mode

The /GO <*page name*> command string can be extremely useful. With it you can create multiple paths to the same menu. Suppose you wanted to make two different menu selections from two different menus do the same thing for a user. For example, suppose you have one tree of menus for expert users and another for new users. In the tree for new users, you have a very helpful master help menu with all kinds of information on your service. Expert users can always type /GO HELPMENU to get there, but suppose you wanted to give them a menu option somewhere in their menu structure that leads them directly to the master help menu. The answer: create a module page in the expert-user tree for the Menu-ize Global Commands module, with a command string of /GO HELPMENU.

The only other way to do this would be to try to create a child menu page, also named HELPMENU, and let Menu Tree make a duplicate copy of the HELPMENU page and all its child pages. Choosing between these methods might not be simple for you. In the one method, you can end up with a lot of extra pages to maintain. In the other, your expert users will be subtly teleported to the new-user menu tree when they choose this special menu selection.

DESIGNING A FILE PAGE

A file page will display the contents of a text file to a user's screen. Here, you will see a list of prompts that includes:

```
Display File Page Header?
File Name (with path, if not default):
```

The text block FPGHDR, in BBSMAJOR.MSG, can be displayed as a header whenever a user selects a file page from a Menu Tree menu. This is mainly for your RIP users. Set this to YES for most file pages, to clear away the previous RIP screen and set up a suitable frame for displaying the file. Only if the file itself is a RIP scene would you consider setting this to NO. For your ANSI users, you might put text in this option if, for instance, you'd like to clear the screen every time a user chooses to display a file.

You can specify the entire DOS path to the file if you like. Otherwise, the file should reside in the main BBS directory, typically \BBSV6. To edit a file page, use your favorite word-processor or EDIT, a standard DOS editing program.

AUTO-SELECT MENU

This feature is simple in form, but complex in possibilities. You don't have to be a programmer to use it, but it would be a good idea to get thoroughly familiar with operating The Major BBS before you try to design auto-select menus.

> An auto-select menu automatically and instantly takes the first choice a user is allowed to make, without waiting for the user to type anything.

So what is the point of that? Well, different users can't always make the same menu choices, since some selections require a key. This is how you make your BBS work differently for different users.

For example, to handle users with the OPERATIONS key differently:

1. Make the TOP menu an auto-select menu;
2. Have the first selection require the OPERATIONS key and branch to a special menu;
3. Have the next selection require no key and branch to the menu for everyone else.

In practice, you must make all the menu selections in an auto-select menu require a key, except the last one, because any selections after one that required no key would never be used. That last selection is your default or catch-all, for users who don't have any of the keys.

Your system will crash if it does not have a valid branch for every user.

PSEUDO-KEYS

Pseudo-keys are not like standard keys, which you explicitly give to users or to user class keyrings. Users get a pseudo-key implicitly, by virtue of some other privilege you grant them on the BBS.

Using the _PORT# and _GROUP# Pseudo-Keys

Each user always has a port pseudo-key and a group pseudo-key. You can use them, along with auto-select menus, to bring up different menus, depending on the user's port or channel group:

_PORT#00 to _PORT#FF	Channel 00 to FF hexadecimal
_GROUP#1 to _GROUP#16	Channel Group 1 to 16

For example, a user calling on channel 2C (hexadecimal) has the pseudo-key _PORT#2C. When you log in from the console using <*F7*>, you are on channel 00, so you have the _PORT#00 pseudo-key. If your Hardware Setup defines channel group 3 as a GalactiBox with 16 modems, then all users that call through those modems have the pseudo-key _GROUP#3.

If you add a selection to an auto select menu that requires one of these pseudo-keys, then users on that channel or group can get a different menu than everyone else.

Using Language Pseudo-Keys

These two classes of pseudo-keys allow you to handle users differently based on the spoken language and terminal protocol portions of their user-language:

_LANG=<*spoken language*>, such as _LANG=ENGLISH, or _LANG=GERMAN
_PROT=<*terminal protocol*>, such as _PROT=ANSI or _PROT=RIP

For example, users online in the Spanish/ANSI language automatically have both the _LANG=SPANISH and _PROT=ANSI pseudo-keys.

One use for these pseudo-keys might be to display a different main menu for each user-language. Consider a BBS that is well stocked with spoken languages and terminal protocols. Here pseudo-keys differentiate spoken languages, and Menu Tree differentiates terminal protocols. (Menu Tree has a great way to handle multiple terminal protocols,

because the different protocols usually have different file extensions, as in INFOMENU.ANS, INFOMENU.IBM, and INFOMENU.RIP.)

The first step is to create an auto-select menu with pseudo-keys to split the different spoken languages into different submenu pages:

```
TOP menu page, an auto-select menu

Menu selection 1 is the TOPENGL page and requires the _LANG=ENGLISH key
Menu selection 2 is the TOPSPAN page and requires the _LANG=SPANISH key
Menu selection 3 is the TOPGMAN page and requires the _LANG=GERMAN key
Menu selection 4 is the TOPELSE page and requires no key
```

Use Menu Tree to create the TOPENGL, TOPSPAN, TOPGMAN, and TOPELSE menu pages. (As is always a good practice with auto-select menus, TOPELSE handles any leftover cases.)

The final step is to customize each submenu page with different menus for the different file extensions associated with each terminal protocol. For the TOPENGL page, set `Change the way this menu looks?` to YES; then design the TOPENGL.ANS file for ANSI users, the TOPENGL.RIP file for RIP users, and so forth.

Special-Privilege Pseudo-Keys

These pseudo-keys are most useful when creating menus that have a mix of common user options and privileged options reserved for the Sysop or for Sysop-designated helpers. For example, if you created a menu page full of the standard Forums services (read, write, and so on, as on pages 321-323) plus the special Forum-Op services (approve, modify, erase, and so on, as on page 239), you would probably want to require the _FORUMOP pseudo-key for the privileged `A = Approve files for download` menu selection.

_FORUMOP Pseudo-Key

This key is possessed at all times by the designated Sysop for Forums (that is, any user who possesses the key specified by offline Security and Accounting option SIGSYS) and by any Forum-Op when that user has selected the corresponding Forum. All Forum-Ops are appointed by the Forum Sysop (see page 238). Again, you might use the _FORUMOP pseudo-key if you wanted to include privileged Forum-Op commands on a custom Forum menu you were creating — just add menu selections for each of the Forum-Op commands and enter _FORUMOP as the key required (see page 67 about specifying keys required for menu selections).

_LIBOP! Pseudo-Key

This key is possessed by the designated Library Sysop, which is any user possessing the key specified by option FLSYSOP (see page 254 about the Library Sysop).

_LIBOP Pseudo-Key

This key is possessed by the Library Sysop and by any Library Operator when that user has selected the corresponding Library (see page 254 about Library Operators).

ORPHAN PAGES

An orphan page is one that users cannot reach from any menu selection. They start at the orphan page named TOP when they log on your BBS. The only way to get to any other orphan page is with the /GO command.

In Menu Tree design, orphan pages appear on the far left side of your screen. The TOP page appears in the top left corner. To create another orphan page, hit the *<F5>* key.

EMERGENCY ONLINE MENU DISABLE/ENABLE

If you are having some problem with a menu or access to a menu you can disable it online. This feature is intended for emergency operations, especially in cases where you can't get to the BBS console computer right away, but you can call it up remotely. For example:

- You forgot to lock a menu option — it is available to everyone and you do not want that
- You need to shut down a module or service for any reason

You must have the MASTER key to use these commands. They are valid from any menu page.

DISABLE *<page name>* Command

This command takes a page out of commission. To use it, either specify the name of the page or go to the parent menu page and specify the select character.

```
Make your selection (A,B,C,D,? for help, or X to exit): DISABLE ALPHA

OK, the "ALPHA" page has been disabled (use the ENABLE command to enable it)

(JUMBO)
Make your selection (A,B,C,D,? for help, or X to exit): _
```

Now if users try to select that page, they'll get the message:

```
Sorry, that option is temporarily unavailable.
```

ENABLE *<page name>* Command

To enable a menu page again, use the global ENABLE command. The syntax is the same as that of the DISABLE command:

```
Make your selection (A,B,C,D,? for help, or X to exit): ENABLE ALPHA

OK, the "ALPHA" page has been enabled again!

(JUMBO)
Make your selection (A,B,C,D,? for help, or X to exit):
```

MENU TREE DESIGN EXAMPLES

Most of the pages described in these Menu Tree examples allow the /GO command and require no keys to use it. Moreover, in most cases no key is required for a menu selection option. Only the exceptions to these rules are noted.

The Default Menu Tree

The Major BBS comes with this TOP Edit Menu:

```
Menu Select Options:

1   T   Teleconference
2   I   Information Center
3   F   Forums (Public Message Bases)
4   E   Electronic Mail
5   L   File Libraries
6   A   Account Display/Edit
7   P   Polls and Questionnaires
8   D   Doors
9   R   Registry of Users
10  Q   QWK-mail
    -   ------------------------

24  S   System Management
25  X   Exit System (Logoff)

Return to Menu Tree?
```

See pages 294-295 for a diagram of the default TOP menu.

Implementation of the TOP menu page

Auto-select page? NO
Selections:

Select character: T
Short description: Teleconference
Destination page: TELE

Select character: I
Short description: Information Center
Destination page: INFO

Select character: F
Short description: Forums (Public Message Bases)
Destination page: FORUMS

Select character: E
Short description: Electronic Mail
Destination page: EMAIL

Select character: L
Short description: File Libraries
Destination page: LIBRARY

Select character: A
Short description: Account Display/Edit
Destination page: ACCOUNT

Select character: P
Short description: Polls and Questionnaires
Destination page: POLLS

Select character: D
Short description: Doors
Destination page: DOORS

Select character: R
Short description: Registry of Users
Destination page: REGISTRY

Select character: Q
Short description: QWK-mail
Destination page: QWK

Select character: S
Short description: System Management
Key required: SYSOP
If user has no key: Hide option
Destination page: REMOTE

Select character: X
Short description: Exit System (Logoff)
Destination page: EXIT

Implementation of the TELE module page

Module Name: Teleconference
Command String: *<none>*

Implementation of the INFO menu page

Auto-select page? NO
Selections:

Select character: A
Short description: About Our company...
Destination page: ABOUTUS

Select character: C
Short description: System Configuration
Destination page: SYSCONFIG

Select character: S
Short description: How to Set Up Your Own BBS
Destination page: YOURBBS

Select character: G
Short description: Using Global Commands
Destination page: GLOBALS

Select character: H
Short description: Help (BBSUSER.DOC)
Destination page: HELP

Implementation of the ABOUTUS file page

File name: GALAIC.TXT

Implementation of the SYSCONFIG file page

File name: GALSIC.TXT

Implementation of the YOURBBS file page

File name: GALHIC.TXT

Implementation of the GLOBALS file page

File name: GALGIC.TXT

Implementation of the HELP file page

File name: BBSUSER.DOC

Implementation of the FORUMS module page

Module Name: Forums
Command String: *<none>*

Implementation of the EMAIL module page

Module Name: Electronic Mail
Command String: *<none>*

Implementation of the LIBRARIES module page

Module Name: File Libraries
Command String: *<none>*

Implementation of the ACCOUNT module page

Module Name: Account Display/Edit
Command String: *<none>*

Implementation of the POLLS module page

Module Name: Polls and Questionnaires
Command String: *<none>*

Implementation of the DOORS module page

Module Name: Doors
Command String: *<none>*

Implementation of the REGISTRY module page

Module Name:	Registry of Users
Command String:	*<none>*

Implementation of the QWK module page

Module Name:	QWK-mail
Command String:	*<none>*

Implementation of the REMOTE module page

Allow GO to this module?	YES
Key required to use GO:	SYSOP
Module Name:	Remote Sysop Menu
Command String:	*<none>*

Implementation of the EXIT module page

Module Name:	Logoff (end session)
Command String:	*<none>*

You can see how the Remote Sysop Menu appears as menu option S from the TOP menu for users with the SYSOP key. Users without the SYSOP key do not even see this option, because for them it is hidden. What's more, it takes the SYSOP key to use the /GO REMOTE command.

The Information Center provides access to informative text files. It is implemented as a menu leading to file pages.

Two Bulletin Boards on One Computer

Let's say you have eight phone lines supporting two BBSes, a Customer Support BBS and a Games BBS. Let's keep these systems as distinct as possible.

The strategy is to make the top menu an auto-select menu that will decide which main menu a user logging on should see.

All new users can sign up online. But they can't use either system until the Sysop approves them. (This is achieved by configuring the log-on class to allow only 0 minutes online per day, as in the Sign-up model BBS on page 101.)

All users of the Support BBS are in classes that have the SUPPORT key on their keyring. Users of the Games BBS have the GAMES key.

The initial connect message (named HELLO; see page 179) should give a message suitable to either system, just asking for user-ID and password.

Implementation of the TOP menu page

Auto-select page?	YES
Selections:	
Select character:	A
Short description:	GAMES BBS

Key required: GAMES
Destination page: GAMES

Select character: B
Short description: SUPPORT BBS
Key required: SUPPORT
Destination page: SUPPORT

Select character: C
Short description: DEFAULT
Key required: *<none>*
Destination page: DEFAULT

Implementation of the GAMES menu page

Allow GO to this menu? YES
Key required for using GO: GAMES
Auto-select page? NO
Selections:
.... (games menu selections) ....

Implementation of the SUPPORT menu page

Allow GO to this menu? YES
Key required for using GO: SUPPORT
Auto-select page? NO
Selections:
.... (customer support menu selections)....

Implementation of the DEFAULT menu page

Allow GO to this menu? YES
Auto-select page? NO
Selections:

Select character: F
Short description: Feedback to Sysop
Destination page: FEEDBACK

Select character: X
Short description: Exit (log off)
Destination page: EXIT

Implementation of the EXIT module page

Module Name: Logoff (end session)
Command String: *<none>*

Implementation of the FEEDBACK module page

Module Name: Electronic Mail
Command String: W.

If a user with the GAMES key logs on, he is immediately and seamlessly routed to the GAMES menu page. A user with the SUPPORT key instead is sent to the SUPPORT menu page.

Users with both the GAMES and SUPPORT keys will end up in the GAMES BBS, because the TOP menu lists it first. Perhaps you could make a special entry in the games menu for users with the SUPPORT key.

The DEFAULT page is designed to catch users with neither the GAMES key nor the SUPPORT key. These users only get to write a message to the Sysop.

These features do not apply to an auto-select menu page: select characters, descriptions, and display options when the user has no key. Auto-select menus are never displayed to anyone, so this information is never used.

Separate Forum Menus

Suppose we wanted a BBS that had one Forums selection menu leading to a different menu for each Forum. The menu for the /Support Forum would present all the options in the standard Forum menu. But the /BetaTest Forum would allow only reading and downloading of files by users with the BETA key. Users with the SYSOP key could write to the /BetaTest Forum. And the /Report Forum would allow only writing of messages and uploading of files that were directed to a user named Hal.

In the implementation list that follows, note that when you use a command string to access a Forums or File Libraries module from a menu page, you can control where a user goes after he exits. For example, when you use S /Support R, with a space between the S and the module name, the user will stay in the module. When you use S/Support R, with no space between the S and the name, the user will return to the initial menu page.

Implementation of the FORUMMENU menu page

Auto-select page?	NO
Selections:	
Select character:	S
Short description:	Support Forum
Destination page:	SUPPORT
Select character:	B
Short description:	Beta Testing Forum
Key required:	BETA
If user has no key:	Hide option
Destination page:	BETA
Select character:	R
Short description:	Write to the Report Forum
Destination page:	REPORT
Select character:	F
Short description:	Forum Maintenance
Key required:	SYSOP

If user has no key: Hide option
Destination page: FORUMS

Implementation of the SUPPORT menu page

Auto-select page? NO
Selections:

Select character: R
Short description: Read messages
Destination page: SUPREAD

Select character: W
Short description: Write a message
Destination page: SUPWRITE

Implementation of the SUPREAD module page

Module Name: Forums
Command String: S /Support R

Implementation of the SUPWRITE module page

Module Name: Forums
Command String: S /Support W

Implementation of the BETA menu page

Allow GO to this menu? YES
Key required to use GO: BETA
Auto-select page? NO
Selections:

Select character: R
Short description: Read messages
Destination page: BETAREAD

Select character: W
Short description: Write a message
Key required: STAFF
If user has no key: Hide option
Destination page: BETAWRITE

Implementation of the BETAREAD module page

Allow GO to this module? YES
Key required to use GO: BETA
Module Name: Forums
Command String: S /BetaTest R

Implementation of the BETAWRITE module page

Allow GO to this module?	YES
Key required to use GO:	STAFF
Module Name:	Forums
Command String:	S /BetaTest W

Implementation of the REPORT module page

Module Name:	Forums
Command String:	S /Report W Hal

Implementation of the FORUMS module page

Allow GO to this module?	YES
Key required to use GO:	SYSOP
Module Name:	Forums
Command String:	*<none>*

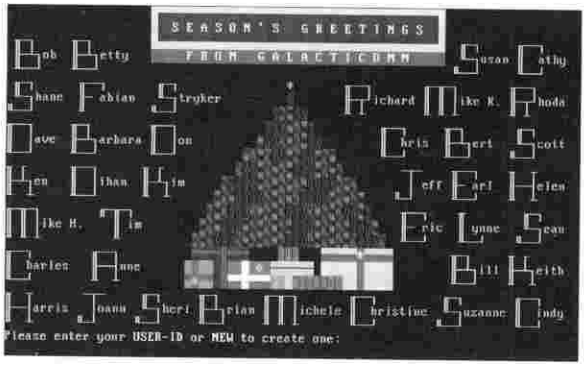
It is not necessary to define an explicit exit command for each of these menus — entering X from a menu always gets you back to the parent menu, even if X is not a choice in the menu.

The standard Forum menu is never available to users through these menus, only to the Sysop. The Sysop should probably always have a way into the standard Forums menu so he can maintain Forums.

Users with the STAFF key can write to the /BetaTest Forum to put new messages and files online there. The only way to read from the /Report Forum is for user Hal to log on, enter E-mail, and read the Forum messages directed to him. Why not implement the /Report Forum as private mail to Hal? This way, users writing a report will not be able to request a return receipt. Moreover, the messages and any files attached will remain on the system for the message lifetime in the /Report Forum, and all attached files will reside in the REPORT subdirectory.

7

USING BBSDRAW



CUSTOM DESIGNING MENUS

BBSDRAW is a full-screen editor used by the offline Menu Tree Design program to help you design your own custom menus (see page 66). We call this creating a BBSDRAW menu. BBSDRAW also is used by the offline CNF Configuration Facility to edit messages that go out to online users. We call this editing a BBSDRAW text block. In addition, you can use BBSDRAW from DOS on a stand alone ASCII/ANSI file.

Features of a BBSDRAW Menu and a BBSDRAW Text Block

- 80 by 25 text screen
- ANSI colors
- Extended ASCII characters
- Optional initial clear-screen
- Optional final cursor position and color
- Text variables
- Menu selection markers (BBSDRAW Menu only)

Moving the Cursor

Use the four arrow keys to move the cursor around on the screen. In addition:

<Home>	moves the cursor to the beginning of the line
<End>	moves the cursor to one character beyond the last character on the line
<Ctrl-Home>	moves the cursor to the upper left corner
<Ctrl-End>	moves the cursor to the lower right corner

BBSDRAW Commands

<Alt-A>	sets the current color (see page 86)
<Alt-B>	block move/copy/erase/fill (see page 87 about block fill)
<Alt-C>	chops one line into two lines
<Alt-E>	removes all ANSI codes on the screen — go to pure ASCII
<Alt-F>	sets the final cursor position and color (see page 87)
<Alt-I>	inserts a new line above the current one
<Alt-J>	joins two lines into one
<Alt-K>	reveals all menu selection markers by making them blink; *<Esc>* stops the blinking (see page 90)
<Alt-L>	loads in the contents of a file
<Alt-M>	adds or removes markers (see page 90)
<Alt-N>	new screen — clear everything
<Alt-O>	simulates an online display of the information (does not work when BBS is running under Windows)
<Alt-Q>	turns on/off the quick reference bar at the bottom, so that you can have a full 80-by 25- screen in view
<Alt-R>	restores a line you just deleted
<Alt-S>	saves the current file
<Alt-U>	gets the colors from where the cursor is pointing and makes them the current colors.
<Alt-V>	adds or edits a text variable (see page 88)
<Alt-W>	sets the initial clear-screen on or off (see page 87)
<Alt-X>	exits BBSDRAW, with option to save your changes
<Alt-Y>	deletes the current line (can be undone with *<Alt-R>*)
<Alt-Z>	deletes a text variable (see page 88)
<Del>	deletes the character under the cursor
<Backspace>	deletes the character to the left of the cursor
<Ins>	toggles character insert mode on/off
<Pg Up>	saves this text block and moves up to the next one (only available when editing a text block in CNF)
<Pg Dn>	saves this text block and moves down to the next one (only available when editing a text block in CNF)
<Esc>	quits BBSDRAW — you get a warning if you've made changes
<F1> – *<F10>*	uses extended character set, as seen on bottom of screen
<Alt-F1> – *<Alt-F10>*	changes extended character set on bottom of screen to a different character set

Storage of BBSDRAW Menus

When you replace the plain menu that Menu Tree creates for you with a zingy, whiz-bang BBSDRAW menu, you will create at least one of these files, where *<page>* is usually the name of the menu page:

<page>.ANS for ANSI users
<page>.ASC for non-ANSI users
<page>.IBM for ANSI users with IBM's extended character set

If only one file exists, then it is used in all three cases. If all three exist, then each case gets a different menu. When there are only two of these files:

- Non-ANSI users get *<page>*.ANS as their second choice, if there is one
- ANSI users get *<page>*.ASC as their second choice
- Users of IBM's extended ASCII get *<page>*.ANS as their second choice

Colors

Use the *<Alt-A>* menu to choose the current foreground and background colors. For example, to pick white on red, like the original Coca-Cola cans, choose:

```
foreground=15     (bright white)
background=4      (red)
```

From then on, whatever you type will be white on red. The current colors also have an effect on the block-fill function of the *<Alt-B>* command and on the *<Alt-F>* final position and color command.

If you want to use colors you already see somewhere else on the screen, move the cursor to that spot and hit *<Alt-U>*. Now those colors will be the current colors.

Extended ASCII Characters

The function keys *<F1>* through *<F10>* each represent a single extended ASCII character. The lower right corner of the BBSDRAW screen shows which ten characters. You can actually choose from 100 different extended ASCII characters using the function keys. *<Alt-F1>* through *<Alt-F10>* are for choosing which set of extended characters you want. Try holding down *<Alt>* and hitting the function keys one after another. You will see the set of extended characters change. Put any one of them up on the screen by hitting the appropriate function key without the *<Alt>* key held down.

You can also insert any character you want using *<Alt>* and the numeric key pad. Hold down *<Alt>*, type out the ASCII or extended ASCII sequence of the character, and release *<Alt>*. To insert the ASCII ESC character, hold down *<Alt>* and type 27 on the numeric keypad, then release *<Alt>*. Or use *<Alt>* 219 for a big rectangle and so on. You can use *<Alt>* 12 to insert a form feed.

Block Fill Function of <*Alt-B*>

There are five ways you can fill in a rectangular region:

`Character`	fill it full of a specific character. The colors are not changed in the region.
`Attribute`	set the region to the current color. The characters that are there remain.
`Foreground`	change only the foreground color to the current foreground color.
`Background`	change only the background color to the current background color.
`Everything`	fill it full of a specific character at the current color.

Initial Clear-Screen

This feature makes the file clear the user's screen every time the file is displayed. That way, the file paints down from the top instead of scrolling up from the bottom. Turn this feature on or off with <*Alt-W*>. Note that any file with 80-column lines always will be saved with a clear screen, regardless of your <*Alt-W*> setting. This has to do with the way 80-column lines wrap on the user's screen.

Final Cursor Position and Color

Sometimes you want the cursor to end up somewhere other than the last character of the last line in your customized menu. You may want to paint the whole screen and then leave the cursor in the middle of a box somewhere. And what about the final color? Whatever the user types from that point on will be in the final color.

These questions are answered with the <*Alt-F*> command. What final color do you want? Set that as the current color with <*Alt-A*>. Then move the cursor to the final position and hit <*Alt-F*>.

Final position and color is indicated by a smiley face on top of whatever is at the location you designated as the final position. The color of the face is the final color.

To delete this feature, move to the smiley face and hit <*Del*>. Whatever was under the smiley face comes back into view (it is not deleted).

TEXT VARIABLES

The Major BBS has several text variables that you can embed into menus or text blocks. A text variable is a field that your system fills automatically every time it is output to a user — for example, if you use the text variable `DATE` to stand for today's date, users always will see the current date in that field. This section tells you how to use a text variable and what text variables are available with the basic platform for The Major BBS.

Page 267 lists more text variables, which you can use in certain text block prompts in the File Libraries. Additional text variables may become available when you add modules to The Major BBS.

To embed a text variable using BBSDRAW, move to where you want the left end of the item to be and hit <*Alt-V*>.Then enter the name of the text variable and choose justification — <*Spacebar*> toggles these options:

None	value is displayed with no truncation or blank padding
Left	value is displayed on the left with extra blanks on the right if it is shorter than the format length; value is chopped off on the right if it is too long
Right	value is displayed on the right with blank padding on the left
Center	value is displayed in the center of the field with spaces around it

Then you choose format length, which is applicable only if Justification: is Left, Right, or Center. Text variables are visible on the BBSDRAW screen. They show up with the name of the text variable in them and asterisks (*) surrounding the name. To edit a text variable, point to it and hit <*Alt-V*> again. To delete a text variable, point to it and hit <*Alt-Z*>.

Text Variables That Are Always Valid

You can use these text variables in any BBSDRAW menu and in any BBSDRAW text block.

DATE	today's date
TIME	current time
PORT	port index, based on channel definition sequence
CHANNEL	channel number
SYSTEM_NAME	offline configuration option BBSTTL
SYSTEM_COMPANY	offline configuration option COMPANY
SYSTEM_ADDRESS1	offline configuration option ADDRES1
SYSTEM_ADDRESS2	offline configuration option ADDRES2
SYSTEM_PHONE	offline configuration option DATAPH
RESTRICTED_PHO	offline configuration option LIVEPH
CHARGE_PER_HOUR	offline configuration option CHGHOUR
MINIMUM_CHARGE	offline configuration option CHGMIN
REG_NUMBER	your software registration number
NUMBER_OF_LINES	the total number of channels defined
OTHERS_ONLINE	the number of other users who are online at the moment
TOTAL_CALLS	total number of calls the BBS has ever received
DOWNLOADS	total downloads
UPLOADS	total uploads
TOTAL_MESSAGES	total E-mail or Forum messages written
OPEN_FORUM_MSGS	total Forum messages still on file
OPEN_EMAIL_MSGS	total E-mail messages still on file
TOTAL_ACCOUNTS	total number of user-IDs on file
TOTAL_MALE	total number of male users on file
TOTAL_FEMALE	total number of female users on file
TOTAL_CORP	total number of corporate users on file

CALL_TIME_LIMIT	number of minutes user can stay online (e. g., 30 minutes or UNLIMITED)
DAY_TIME_LIMIT	number of minutes user gets per day (e. g., 90 minutes or UNLIMITED)
TIME_TODAY	Number of minutes user has been online today (e. g,. 34 minutes)
DAYS_LEFT	number of days user has left in current class (e. g., 14 or UNLIMITED)
DEBT_LIMIT	maximum debt allowed for this user (e. g., 36000 or UNLIMITED or None)
CREDIT_RATE	user's current credit consumption rate (per minute)
TITLE	for the current menu page a user is on, the text specified in the Page Title option in the Menu Tree
CURRENT_FORUM	last Forum the user selected
TOTAL_ANSI	total number of users on file with ANSI terminals
BAUD	baud rate for the current user's session

See "Text Variables in the Library," pages 266-267.

User Account or User Session Text Variables

These text variables can be used in any BBSDRAW menu and in any BBSDRAW text block that is displayed to users who have gotten to the TOP menu already. (Do not use these variables in log-on or sign-up text block prompts.)

PAGE	name of the current menu, module, or file page
PARENT	name of the parent menu page
USERID	User-ID
NAME	full name
COMPANY	company
ADDRESS1	address line 1 (street)
ADDRESS2	address line 2 (city, state, ZIP)
ADDRESS3	address line 3 (country)
PHONE	telephone number
SYSTEM_TYPE	system type (such as IBM-PC or Macintosh)
ANSI	ANSI ON/ANSI OFF (manual), or ANSI/non-ANSI (auto)
SCREEN_WIDTH	width of screen
SCREEN_LENGTH	length of screen (or 2=continuous)
AGE	age of user
SEX	Male or Female
CREATION_DATE	date user signed up
LAST_ON	date user last logged on
CLASS	user's class
CREDITS	total number of credits user has
CREDITS_EVER	total number of credits ever posted to user's account
PAID_EVER	total number of PAID credits posted to user
TIME_ONLINE	number of minutes user has been online (e. g., 3 minutes)

MENU SELECTION MARKERS

This feature allows you to mark a portion of a menu and tie it to one of the menu selection options defined in the menu page. That way, the option can be hidden or dimmed for users who do not have access to it. (This is the only BBSDRAW feature that you can use on a menu but not elsewhere.)

To mark part of a line, point to the left edge and then hit *<Alt-M>*. You will need to specify the menu select character to which this marker is to be tied. Then BBSDRAW will display a column indicator line. Use *<right arrow>* to sweep the marker across and include the region you want. Then hit *<Enter>*.

Hiding a Menu Selection in your BBSDRAW Menu

You can use a menu selection marker to completely hide a selection in a BBSDRAW menu from users who should not see it. The Remote Sysop menu off the `TOP` menu is an example. You must have the `SYSOP` key to see, much less use, that menu selection.

The `TOP` menu of The Major BBS as shipped does not use a BBSDRAW menu. It uses the default, off-the-rack, Menu Tree-created menu. If you wanted to create a BBSDRAW menu for the `TOP` menu, you could make a `TOP.ANS` file, for example. Then you would have to put a menu selection marker there. The visibility of the option `S = REMOTE SYSOP MENU`, or whatever is in that menu, would need to be tied to the `S` menu selection. In the definition of `TOP`, that selection requires the SYSOP key.

Here are the steps to remember:

1. When you define the menu selection, require users to have a certain key to use the selection (do that in the menu page definition; see page 67).
2. Choose to `Hide` the option if the user does not have the key (also done in the menu page definition).
3. Mark the piece of your menu that is to be hidden using *<Alt-M>* in BBSDRAW. To remove it, hide all 80 characters of a line; this will clip out the entire line, leaving no evidence that it was ever there. If you hide less, only that section will be blanked out; the user will see the rest of the line.
4. Give keys to users or classes of users who should have access to the selection.

Dimming a menu selection goes much the same way, except you choose `Dim option`.

Editing Menu Selection Markers

To see where a menu selection marker is, hit *<Alt-K>*. All marked areas will start flashing. Hit *<Esc>* to stop them from flashing. To change a marker, point the cursor anywhere inside it and hit *<Alt-M>*. You can change the right margin by using *<left arrow>* and *<right arrow>* and hitting *<Enter>*. Delete the marker by hitting *<Del>*.

Note that marked areas cannot overlap or include one another.

Combining Text Variables with Menu Selection Markers

To put a text variable inside a marked area, place the text variable first. Then put the marked region on top of it. If you did the marker first, just delete it and start over. You cannot mark part of a text variable — you must mark all or nothing.

THE SPECIAL IF-ANSI CONSTRUCT

You can code in some special strings to display one thing for an ANSI user and something else for a non-ANSI user. These strings are not supported by any ANSI terminal, and they don't need to be: the BBS recognizes them, strips them out of the text stream, and sends one thing to a user if he has ANSI enabled and another thing if he doesn't. The BBS already strips out all the ANSI commands when sending a menu or prompt to a non-ANSI user.

You can enter your own IF-ANSI constructs using BBSDRAW by typing in the *<Esc>* [[...|...] coding. To get an *<Esc>* code into the text, hold down *<Alt>*, type 27 on the numeric keypad, then release the *<Alt>* key.

BBSDRAW does not try to display the IF-ANSI construct in any fancy way, so you see it in its raw form, which consists of a three-character prefix:

<Esc> (looks like a little left-pointing arrow)
[
[

followed by the string to send to ANSI users, and then a divider:

| (the vertical bar character)

followed by the string to send to non-ANSI users, followed by a terminator:

]

which ends the IF-ANSI construct. Whatever follows the terminator of the construct goes out to either type of user, just like all the other text. If you do not terminate the IF-ANSI construct, it automatically terminates at the end of BBSDRAW text.

Sign-up Questions

The sign-up questions use the IF-ANSI construct to display a white box in which users type their answers. This is done by coding a sequence like this for the user's name entry:

<Esc>
[
[*<set inverse video>*
<29 spaces>
<set the final cursor position back to the beginning of the field>

The final cursor position looks like a smiley face on top of the *<Esc>*. When this is displayed on the user's screen, however, the *<Esc>* [[doesn't appear.

USING BBSDRAW FROM DOS

You can create or edit files offline with BBSDRAW. Type in the following command from DOS:

BBSDRAW *<file name>*

When you are done, use *<Alt-X>* to exit. You'll get the option of saving your new file.

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RIP GRAPHICS

The Major BBS has built-in RIP*scrip* support for online applications. This graphics standard, based on the Remote Imaging Protocol, was developed by TeleGrafix Communications. By default, the language English/RIP is defined on the BBS: users who have the RIP*term* terminal program will see RIP images displayed on their terminal.

If you want to do more with RIP than just display the ready-made images in the BBS's `.MSG` files — for example, if you want to modify the English/RIP language or to create your own graphics screens — you will need the RIP*aint* Add-on Option, which includes:

`RIPAINT.EXE` A graphics design program with which you create full-screen images, mouse buttons, menus, icons, and more.

`RIPAINT.DLL` A form of RIP*aint* designed to work with The Major BBS so you can create and edit RIP versions of your text blocks within CNF and RIP versions of your menu page files within the Menu Tree.

If you do not have RIP*aint* and you try to change a RIP option or screen, you will get a warning message. You can order both programs from Galacticomm at (800) 328-1128 or (305) 583-5990, or from your nearest authorized Galacticomm dealer.

RIP ON THE MAJOR BBS

Even if you don't have RIP*aint*, you should read this chapter to become familiar with how RIP's presence affects The Major BBS and with the RIP*term* freeware, which you can make available for download to users who want to display RIP graphics.

Note that for now, RIP*scrip* graphics are not available over LANs using the BBS's LAN access capabilities. Nor can you view RIP*scrip* graphics at the Sysop's console. (If you try to emulate an English/RIP user, you'll see only the raw RIP*scrip* codes flying by.)

RIP*term*

System Requirements

To run RIP*term*, the user will need the following at minimum:

- IBM AT-compatible computer
- 512 KB available memory
- DOS 3.0 or later
- EGA or VGA graphics
- One modem or serial port on COM1 – COM4
- Hard disk (RIP*term* installed occupies less than 2 MB)

We also recommend that the user's system include:

- Color monitor
- Mouse, two buttons
- Extended (XMS) or expanded (EMS) memory (to improve performance)

Downloading RIP*term*

You may want to put a RIP*term* package on your BBS for your users to download. The more convenient you make it, the more users will start calling your BBS in graphics mode. You can modify `RIPTMxxx.ZIP` (where *xxx* is the current version in your `\BBSV6` directory) if you want to include your own BBS in the `RIPTERM.PHO` dialing directory or if you want to include any custom icons. You can use PKWARE's PKZIP and PKUNZIP utilities to work on `RIPTMxxx.ZIP`.

You can give your users these instructions for installing RIP*term*:

1. Make a `\RIPTERM` directory on your hard disk.
2. Call into the BBS, using a standard ANSI terminal program such as Telix or PROCOMM PLUS.
3. Go into File Libraries and type `D RIPTMxxx.ZIP` to download the `RIPTMxxx.ZIP` file.
4. Download `RIPTMxxx.ZIP` into your `\RIPTERM` directory. If you do not have PKUNZIP, download that as well.
5. Log off the BBS and change to the `\RIPTERM` directory.
6. Type `PKUNZIP RIPTMxxx -D` to extract the RIP*term* files.
7. Type `RIPTERM` to install RIP*term*. Answer the questions about your modem.
8. Use <*Alt-O*> to bring up your modem settings and turn on RTS/CTS flow control. Then use <*Alt-V*>or click <*Save*> to save the settings.
9. Use the <*Alt-D*> dialing directory to dial up the BBS again.
10. Log on and choose `English/RIP` as your preferred language.

Remember to provide instructions on your BBS for downloading PKUNZIP.

Auto-sensing RIP*term*

If the only languages defined on your BBS are English/ANSI and English/RIP, then it is probably a good idea to set the offline Configuration option LANGOP to AUTO (instead of the default ASK). This helps users who do not have RIP*term* — otherwise, they would have to choose a language as soon as they connect.

If LANGOP is ASK, users without RIP*term* may have to answer this question:

```
Auto-sensing...

Please choose one of these languages:

   1. English/ANSI      The standard English language version
   2. English/RIP       The English version of RIPscrip graphics

Choose a number from 1 to 2: _
```

Setting LANGOP to AUTO means users without RIP*term* will skip this question: they will always start online with the English/ANSI language.

RIP*term* users, however, always will start their BBS session using a RIP language — RIP*scrip*'s auto-sensing capability will see to that. If LANGOP is set to ASK and your BBS has only one RIP language, the BBS chooses that language automatically.

If more languages are defined on your BBS, you might need to keep LANGOP set to its default value (ASK) or to change LANGSUP to YES so users can register a language preference when they sign up.

If users have registered a language preference on your BBS, then they will default to that language as soon as they enter their User-ID and password, with a message like:

```
Switching to your chosen language, German/RIP...
```

There are three ways to register a language preference for a user:

- User answers the sign-up question `Which language/protocol would you prefer to use on this BBS?` (asked if Configuration option LANGSUP is set to YES). They reply by choosing a language that is not already current (that has not been auto-selected or chosen already).
- User changes his language preference from the Account Display/Edit menu. Users that have the DEMO key can do this. (You can require a different key by changing the offline Security & Accounting option LANGCHG).
- From the console, the Sysop enters a language name on the user's Account Detail record.

There are two ways to remove a user's language preference from disk:

- A user with the key specified in LANGCHG can select L from the Account Display/Edit Menu and choose A, for Automatic, from the list that appears.
- The Sysop can change the language on the user's Account Detail screen to blank.

Screen Pause in RIP

When The Major BBS pauses its output, a RIP user will see this message:

```
Click text area to continue, CTRL-X to quit, or CTRL-N for nonstop ...
```

The user will be able to click his mouse in the currently defined text window or hit *<Enter>* to continue to the next screen — just as an ANSI user would hit C. The RIP user would hit *<Ctrl-X>* to stop the output and return to the previous menu — just as an ANSI user would hit Q. The RIP user would hit *<Ctrl-N>* to scroll without pausing — just as an ANSI user would hit N.

Recommended CNF Settings

You can set two Configuration options to get the best performance under RIP. Both are in BBSMAJOR.MSG:

- OUTBSZ: your output buffer size is 8,192 bytes by default. Keep this setting to allow for the increased size of many of the RIP text blocks. If you disable RIP on your BBS, you can set this to 4096 to save memory.
- SOPAUD: set this to NO. This prevents a Sysop from receiving too many messages for Audit Trail entries while online, which can be disruptive in a full-screen environment.

DISABLING AND RE-ENABLING RIP

Before you begin either disabling or re-enabling RIP, we strongly urge you to back up your system.

DISABLING RIP

If you wish to disable RIP on your BBS, follow these steps:

1. Go to DOS and create a temporary directory (use any name you wish) under your \BBSV6 directory.
2. From the introductory menu, choose 7 (Basic Utilities).
3. From the Basic Utilities menu, select BBSLANG.
4. From the list of languages that appears on your screen, select English/RIP.
5. Select Export .MSG file text for this language. In response to the next prompt, type in *.MSG. In response to the prompt that follows, type in the name of the temporary subdirectory you created in step 1.
6. Reselect 7 from the introductory menu. Reselect BBSLANG. Reselect English/RIP.
7. Select Remove .MSG file text for this language.
8. In response to the prompt, type in *.MSG. Wait till processing is finished.

9. Reselect 7 from the introductory menu. Select BBSDMOD. Select The English/RIP language from the Available Modules column and hit <*Enter*>. English/RIP language will appear in the Expressly Disabled column. Hit <*Alt-X*> to exit.

RIP is now disabled.

RE-ENABLING RIP

1. Type BBS and hit <*Enter*> to return to the introductory screen. Select 7 (Basic Utilities).

2. Select BBSDMOD. Hit <*Tab*> to move the highlight bar to the Expressly Disabled column. Select The English/RIP language and hit <*Enter*>. English/RIP language will appear in the Available Modules column. Hit <*Alt-X*> to exit.

3. From the DOS prompt within your BBSV6 directory, type BBSILANG <*name of your export directory*>*.mlx ttt<*Enter*>. This re-imports the RIP text blocks that you saved in your temporary directory. All the .MSG files into which RIP was re-imported will have back ups with the extension .TTT; you can erase these if you wish.

RIP is now re-enabled.

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SECURITY AND ACCOUNTING

Here are some of the internal mechanisms you can use to accomplish security and accounting on your BBS:

- **Classes** – for answering a wide range of questions about large groups of users all at once:
  - How long users can stay online
  - Whether to charge them for their time online
  - Whether to allow them to go into debt, and how much debt
  - When to delete their accounts
  - When the user should be switched to another class
  - What to tell a user when you switch his class while he is online
- **Locks and Keys** – apply locks to features and issue keys to users
- **Class Keyring** – a set of keys belonging to all users in that class
- **Credits** – meter each user's connect time in seconds or other units
- **Debt** – allow a user's balance of credits to go negative and periodically report and reset to 0
- **Forum Access Levels** – assign message read/write privileges and file upload/download privileges to users
- **Library Locks** – control access to the File Libraries by applying locks to privileges such as visibility, uploading, and downloading
- **Remote Sysop Menu** – dozens of powerful online commands and utilities that you can make available to trusted assistants or Co-Sysops
- Various offline Security & Accounting options (choose 3 from the introductory menu)

THE FIVE BBS MODELS

To get your bulletin board operational fast, we've prepared five BBS models from which you can choose:

Public Model	Anyone can call and get full access immediately
Customer-Service Model	Support your customers and get their feedback
Sign-up Model	New callers can sign up, you approve them later
Private Model	You specify exactly who can log on
For-Profit Model	Users pay for using your service

These are like model homes, fully furnished and ready for you to move in. You aren't constraining your system at all when you choose one. (In fact, you can change to another model later, and reasonable things will happen.) If you'd rather start with bare floors, pick the Public Model. It's the simplest, with only two classes.

Each model is simply a preconfigured set of user classes, plus a few other option settings. Once you are up and running you'll probably want to do some customizing and to define your own classes and locks and keys. There are many ways you can customize this system. Many of your options regarding user access are configurable from the offline Security & Accounting service (page 123). You can access many more from the online Remote Sysop Menu (page 230).

Here we'll discuss what life on your system will be like if you just choose a BBS model and change nothing else. Keep in mind as you read this that you can adjust almost everything. And, if you're working on a system that someone else has set up, it probably has been adjusted, and the information here could be off a little or a lot. (Most of this adjusting is available as options 2, 3, and 4 from the offline Introductory Menu and in the online Account Class Editor.)

Public Model

This is the simplest model to understand and operate.

If you want to set up a free, open-access bulletin board that anyone can use, the Public Model is the way to go. You might use this model if you are offering a public service of some kind.

If you want tighter controls on your system or if you want more levels of access, you might take a look at the Customer-Service Model.

In the Public Model BBS, anyone can call your BBS and sign up by typing in his name, address, phone number, and other information. All these users are in the class called USER. They can call as many times as they want and stay online as long as they want. The system automatically deletes only those users who haven't logged on for two years.

The User-ID Sysop has broad sweeping powers online, especially in the Remote Sysop Menu. That's because the Sysop User-ID is in the class called SYSOP. You could also appoint Co-Sysops and grant them similar powers, by switching them to the SYSOP class (using the SWITCH command from the Remote Sysop's ACCOUNT submenu, page 121).

Class Name: USER (initial class for new sign-ups)

```
Number of minutes users can spend online per call: Unlimited
Number of minutes users can spend online per day: Unlimited
Users in this class are exempt from credit charges.
Users in this class are allowed to go into debt (for unlimited credits).
Debts will never be cleared.
Users in this class will switch to another class if:
    They haven't logged on for 730 days (switch to DELETE_ACCOUNT).
Keys held by class (USER keyring):
DEMO            NORMAL
```

Class Name: SYSOP

```
Number of minutes users can spend online per call: Unlimited
Number of minutes users can spend online per day: Unlimited
Users in this class are exempt from credit charges.
Users in this class are allowed to go into debt (for unlimited credits).
Debts will never be cleared.
Keys held by class (SYSOP keyring):
DEMO            NORMAL          MODERATE        MASS_MAILING
SUPER           SYSOP
```

Offline Security & Accounting settings

```
SAMPLN   Number of lines on which to allow anyone to log on ...........256
SUPCLS   Start users off in what account "class"? ..................... USER
SHWCRD   Show users how many credits they have? ........................ NO
```

Customer-Service Model

This model was designed to help a company keep in touch with customers or an organization keep in touch with its members. If you're trying to provide a forum for questions, suggestions, and complaints, or any other contributions, this model is ideal. It's probably the most versatile model if you aren't going to charge for using your BBS.

The Customer-Service Model isn't as open as the Public Model. That's because you might not want anonymous callers, such as your competitors, to have access to too much information. On the other hand, it's not as restrictive as the Sign-up Model. You may want to make it very convenient for new prospects to get information, prices, or ordering instructions, 24 hours a day.

A customer-service BBS is also a great way to start a users' group, where your customers start sharing ideas with each other. This happens a lot on the Galacticomm Demo System. Someone will throw out a question on one of the Forums, and someone else will come back with an answer.

Besides the SYSOP class, which has sweeping powers, users under the Customer-Service Model are graded into three levels:

PROSPECT	Anyone from anywhere can get online and look around
CUSTOMER	Unlimited time restrictions, write Electronic Mail
STAFF	Help in system management

Anyone who calls up your system out of the blue (perhaps you've included your BBS number in ads or product literature), becomes a user in the PROSPECT class. Each time a PROSPECT user calls, he gets up to 30 minutes online. But he can call back as many times as he wants. This offers some protection against hackers tying up all your phone lines, but is still hospitable to your prospects. A PROSPECT user's privileges are limited: for example he can write electronic messages, but only to the Sysop. A PROSPECT user gets deleted if you leave him in that class and he doesn't call back for two months.

Switching a user to the CUSTOMER class allows him to stay online as long as he wants without getting disconnected. He also can write electronic messages to anyone and usually can contribute to the Forums. CUSTOMER accounts will survive up to two years between logons. To switch a user to the CUSTOMER class, go into the Remote Sysop Menu and choose ACCOUNT and then SWITCH (more on page 121).

The CUSTOMER class keyring allows CUSTOMER users to write E-mail, upload files to Forums, download from the File Libraries' main Library, and many other privileges. Whereas PROSPECTs get only the DEMO key, CUSTOMER users get both the DEMO and NORMAL keys. You can see what features are unlocked by these keys on page 108.

Users in the STAFF class have no time restrictions, and their accounts stay on your system forever. STAFF users can create distribution lists and send mass mailings, among other things. As you can see, the STAFF keyring has all the keys on it except the dangerous-in-the-wrong-hands SYSOP key (be careful with that one).

Implementation of the Customer-Service Model BBS:

Class Name: PROSPECT (initial class for new sign-ups)

```
Number of minutes users can spend online per call: 30 Minutes
Number of minutes users can spend online per day: Unlimited
Users in this class are exempt from credit charges.
Users in this class are allowed to go into debt (for unlimited credits).
Debts will never be cleared.
Users in this class will switch to another class if:
    They haven't logged on for 60 days (switch to DELETE_ACCOUNT)
Keys held by class (PROSPECT keyring):
DEMO
```

Class Name: CUSTOMER

```
Number of minutes users can spend online per call: Unlimited
Number of minutes users can spend online per day: Unlimited
Users in this class are exempt from credit charges.
Users in this class are allowed to go into debt (for unlimited credits).
Debts will never be cleared.
Users in this class will switch to another class if:
    They haven't logged on for 730 days (switch to DELETE_ACCOUNT)
Keys held by class (CUSTOMER keyring):
DEMO            NORMAL
```

Class Name: STAFF

```
Number of minutes users can spend online per call: Unlimited
Number of minutes users can spend online per day: Unlimited
Users in this class are exempt from credit charges.
Users in this class are allowed to go into debt (for unlimited credits).
Debt will never be cleared.
```

```
Keys held by class (STAFF keyring):
DEMO            NORMAL          MODERATE        MASS_MAILING
SUPER
```

Class Name: SYSOP

```
Number of minutes users can spend online per  call: Unlimited
Number of minutes users can spend online per day: Unlimited
Users in this class are exempt from credit charges.
Users in this class are allowed to go into debt (for unlimited credits).
Debts will never be cleared.
Keys held by class (SYSOP keyring):
DEMO            NORMAL      MODERATE            MASS_MAILING
SUPER           SYSOP
```

Offline Security & Accounting settings

```
SAMPLN   Number of lines on which to allow anyone to log on ..... 256
SUPCLS   Start users off in what account "class"? ..... PROSPECT
SHWCRD   Show users how many credits they have? ..... NO
```

Sign-up Model

The Sign-up Model is more restrictive than the Customer-Service Model and less restrictive than the Private Model. You would use it if all you want to allow strangers to do is to leave their name, address, and phone number; if you want new callers to able to access *at least some services, the Customer-Service Model might be preferable. The idea is that* the caller does the work of entering his information and picking a User-ID and password. Then the BBS hangs up, and the caller goes in the APPLICATION class. You have 60 *days to switch the caller from the* APPLICATION *class to the* USER *class, allowing him* to get online; otherwise the account will be deleted.

Members of the USER class can log on and use the system as long as they like. After two years without logging on, however, a USER account would get deleted.

Members of the SUPERVISOR class have broad powers. They have no time restrictions, and the accounts stay on your system forever. *SUPERVISORs* can create distribution lists and send mass mailings, among other things. They can even switch other users' classes if you enable this feature in the Remote Sysop Menu.

As always, users in the SYSOP class can do just about anything online. *Be very careful whom you switch to this class.*

Implementation of the Sign-up Model BBS:

Class Name: APPLICATION (initial class for new sign-ups)

```
Number of minutes users can spend online per call: 0 Minutes
Number of minutes users can spend online per day: 0 Minutes
If the time limit for the day is reached, the system will disconnect them.
  (Class transition message used: the default.)
Users in this class are NOT exempt from credit charges.
Users in this class are allowed to go into debt. (for unlimited credits)
Debts will never be cleared.
Users in this class will switch to another class if:
    They haven't logged on for 60 days (switch to DELETE_ACCOUNT).
Keys held by class (APPLICATIONS keyring):
DEMO
```

Class Name: SUPERVISOR

```
Number of minutes users can spend online per call: Unlimited
Number of minutes users can spend online per day: Unlimited
Users in this class are exempt from credit charges.
Users in this class are allowed to go into debt (for unlimited credits).
Debts will never be cleared.
Keys held by class (SUPERVISOR keyring):
DEMO            NORMAL                  MODERATE        MASS_MAILING
SUPER
```

Class Name: SYSOP

```
Number of minutes users can spend online per call: Unlimited
Number of minutes users can spend online per day: Unlimited
Users in this class are exempt from credit charges.
Users in this class are allowed to go into debt (for unlimited credits).
Debts will never be cleared.
Keys held by class (SYSOP keyring):
DEMO            NORMAL          MODERATE            MASS_MAILING
SUPER           SYSOP
```

Class Name: USER

```
Number of minutes users can spend online per call: Unlimited
Number of minutes users can spend online per day: Unlimited
Users in this class are exempt from credit charges.
Users in this class are allowed to go into debt (for unlimited credits).
Debts will never be cleared.
Users in this class will switch to another class if:
    They haven't logged on for 730 days (switch to DELETE_ACCOUNT).
Keys held by class (USER keyring):
DEMO            NORMAL
```

Offline Security & Accounting settings

```
SAMPLN   Number of lines on which to allow anyone to log on ..... 256
SUPCLS   Start users off in what account "class"? ..... APPLICATION
SHWCRD   Show users how many credits they have? ..... NO
```

Private Model

This is the most restrictive type of BBS. You would use the Private Model to specify exactly who is to get online before they call. You pick the User-IDs and passwords. If you're setting up a system for use only by employees or special customers or if you have any reason to want maximum restrictions, this model is appropriate.

On the Private Model BBS, callers cannot sign up; you install all the new accounts from the console. You can do this by logging on with the <*F7*> key and typing new in place of a User-ID. You pick the User-IDs and passwords and notify the users; they call up and log on in the MEMBER class.

Members of the COORDINATOR class have broad powers. They have no time restrictions, and the accounts stay on your system forever. COORDINATORs can create distribution lists and and send mass mailings, among other things. They can even switch other users' classes, if you enable this feature in the Remote Sysop Menu.

As always, users in the SYSOP class can do just about anything online. *Be very careful whom you switch to this class.*

Class Name: COORDINATOR

```
Number of minutes users can spend online per call: Unlimited
Number of minutes users can spend online per day: Unlimited
Users in this class are exempt from credit charges.
Users in this class are allowed to go into debt (for unlimited credits).
Debts will never be cleared.
Keys held by class (COORDINATOR keyring):
DEMO            NORMAL          MODERATE          MASS_MAILING
SUPER
```

Class Name: MEMBER (initial class when you sign up a user's account from the console)

```
Number of minutes users can spend online per call: Unlimited
Number of minutes users can spend online per day: Unlimited
Users in this class are exempt from credit charges.
Users in this class are allowed to go into debt (for unlimited credits).
Debts will never be cleared.
Users in this class will switch to another class if:
    They haven't logged on for 730 days (switch to DELETE_ACCOUNT).
Keys held by class (MEMBER keyring):
DEMO            NORMAL
```

Class Name: SYSOP

```
Number of minutes users can spend online per call: Unlimited
Number of minutes users can spend online per day: Unlimited
Users in this class are exempt from credit charges.
Users in this class are allowed to go into debt (for unlimited credits).
Debts will never be cleared.
Keys held by class (SYSOP keyring):
DEMO            NORMAL          MODERATE          MASS_MAILING
SUPER           SYSOP
```

Offline Security & Accounting Settings

```
SAMPLN   Number of lines on which to allow anyone to log on ..... 0
SUPCLS   Start users off in what account "class"? ..... MEMBER
SHWCRD   Show users how many credits they have? ..... NO
```

For-Profit Model

This is the most complicated of the model BBSes, with six predefined classes. To digress for a second, here are a few of the features we've found are important in getting users to call and stay online:

- Ease of use
- Lots and lots of options
- Interesting, useful, and entertaining things online
- Convenience of payment
- New stuff coming online all the time

That's why in this model we've tried to get you started with six different payment options and access privileges. We think you'll want to have multiple strategies for getting your customers to keep calling back.

Besides the SYSOP class, which has sweeping powers, users in the For-Profit Model BBS are categorized as:

DEMO	Brand new callers with access to enough features to get their interest
PAYING	These users are paying by the hour for their connect time
MONTHLY	Users can get online for up to three hours a day for a month
WEEKLY	Users can get online for up to three hours a day for seven days
BILLED	Users stay online as long as they like and you bill them monthly

Any anonymous caller can sign up by typing in his name, address, phone number, and other information. He immediately goes into the DEMO class. Each time he calls, he can stay online for up to 10 minutes. He can call back as often as he likes. This helps keep your non-paying callers enticed and helps keep your phone lines turning over so paying callers can get through. If a DEMO user doesn't log on for two months, his account is automatically deleted.

When you've gotten a new user interested in your system and he's ready to pay for more privileges, one option is to charge him by the hour. This is done with credits: you give a user credits, which he uses at the rate of one per second when he's online. That means you'll want to post 3,600 credits for each hour he pays for (see page 226 to post credits).

If you post credits to a DEMO user, he automatically switches into the PAYING class. There he can stay online for as long as his credits last. Besides steadily consuming credits for each second of online time, the user pays credits for various services, such as 95 credits for writing an electronic message or 50 credits for requesting a return receipt.

If a PAYING user uses up his credits, he reverts to the DEMO class, and DEMO rules apply again.

You could also offer monthly subscriptions to your system. When your customer pays the subscription fee, you manually switch him to the MONTHLY class using the Remote Sysop `ACCOUNT SWITCH` command (see page 121). Now he is exempt from most charges on your system. But he can stay online for no more than 3 hours per day. If he's online past the three-hour mark, he gets popped back to the PAYING class, if he has any credits left, or to the DEMO class if he has none. His MONTHLY status is restored the next morning (after the next auto-cleanup around 3:00 a.m.).

You can specify any number of days for a user to stay in this MONTHLY class if you manually switch him to that class, but the default is 30 days. In the WEEKLY class, the default is 7 days — otherwise the MONTHLY and WEEKLY classes are the same.

The great thing about subscriptions is the motivation to keep calling every day — if you don't use those three hours, they're gone. There's no problem accommodating a combination of subscription and pay-for-play usage. A user might want to buy a few credits in addition to subscribing. That way he can stay online past his three-hour curfew whenever he likes. When a MONTHLY user's month is up, credits allow him to remain online as a PAYING user. Otherwise, he's back to the DEMO class.

If you want to bill your users, you can switch them to the BILLED class. Here they get to use just about all the services online. They build up debt, and each month the credits they have "borrowed" that month are reported into a text file called `BBSDBT.RPT` (see page 122).

Our accountant friends might frown at the liberties we've taken with the terminology of their trade here: this debt we speak of acts just like a negative quantity of credits. In the BILLED class, credits are allowed to fall below the zero point. (By default there's no limit to how much debt a user can build up except the numeric limit around minus two billion). Each debt report cancels a user's debt by setting his credits back to zero.

As always, users in the SYSOP class can do just about anything online. *Be very careful whom you switch to this class.*

Reserving Some of Your Phone Lines for Paying Customers

If you're running a For-Profit BBS, you may want to offer free sample time on a few of your phone lines and reserve the rest for paying customers. This way, your DEMO callers can't tie up all the phone lines, and they're even more enticed to buy time on your system. To do this:

1. Set the offline Security & Accounting option `SAMPLN` to the number of free sample lines. (Under the For-Profit model, it starts out at 256, allowing all users to log onto any channel.)
2. Set the `SAMPKY` as the key required to log onto the reserved lines. Under the For-Profit model, it's already the NORMAL key. All classes have that key on their keyring except the DEMO class, so new signups and DEMO users would be the ones restricted to the free sample lines.
3. Under `Hardware Setup`, you'll need to define the channels for your free sample lines first, then those for your reserved lines.

Implementation of the For-Profit Model BBS:

Class Name: BILLED

```
Number of minutes users can spend online per call: Unlimited
Number of minutes users can spend online per day: Unlimited
Users in this class are NOT exempt from credit charges.
Users in this class are allowed to go into debt (for unlimited credits).
All debts on this account will be cleared on the 1st of each month and
will be reported.
Users in this class will switch to another class if:
     They haven't logged on for 730 days (switch to DELETE_ACCOUNT).
Keys held by class (BILLED keyring):
DEMO              NORMAL              MODERATE
```

Class Name: DEMO (initial class for new sign-ups)

```
Number of minutes users can spend online per call: 10 Minutes
Number of minutes users can spend online per day: Unlimited
Users in this class are NOT exempt from credit charges.
Users in this class are NOT allowed to go into debt.
Users in this class will switch to another class if:
     They are posted credits (switch to PAYING).
        (Class transition message used: the default.)
     They haven't logged on for 60 days (switch to DELETE_ACCOUNT).
Keys held by class (DEMO keyring):
DEMO
```

Class Name: MONTHLY

```
Number of minutes users can spend online per call: Unlimited
Number of minutes users can spend online per day: 180 Minutes
If the time limit for the day is reached, the system will switch them
     to the PAYING class.
Class transition message used: the default.
Users in this class are exempt from credit charges.
Users in this class are NOT allowed to go into debt.
Users in this class will switch to another class if:
     They have been in the class for 30 days (switch to PAYING)
     They haven't logged on for 730 days (switch to DELETE_ACCOUNT)
Keys held by class (MONTHLY keyring):
DEMO              NORMAL              MODERATE
```

Class Name: PAYING

```
Number of minutes users can spend online per call: Unlimited
Number of minutes users can spend online per day: Unlimited
Users in this class are NOT exempt from credit charges.
Users in this class are not allowed to go into debt.
Users in this class will switch to another class if:
     They run out of credits (switch to DEMO).
       (Class transition message used: the default).
     They haven't logged on for 730 days (switch to DELETE_ACCOUNT).
Keys held by class (PAYING keyring):
DEMO              NORMAL              MODERATE
```

Class Name: SYSOP

```
Number of minutes users can spend online per call: Unlimited
Number of minutes users can spend online per day: Unlimited
Users in this class are exempt from credit charges.
Users in this class are allowed to go into debt (for unlimited credits).
Debts will never be cleared.
Keys held by class (SYSOP keyring):
DEMO              NORMAL              MODERATE        MASS_MAILING
SUPER             SYSOP
```

Class Name: WEEKLY

```
Number of minutes users can spend online per call: Unlimited
Number of minutes users can spend online per day: 180 Minutes
If the time limit for the day is reached, the system will switch them
     to the PAYING class.
  (Class transition message used: the default.)
Users in this class are exempt from credit charges.
Users in this class are NOT allowed to go into debt.
Users in this class will switch to another class if:
     They have been in the class for 7 days (switch to PAYING).
     They haven't logged on for 730 days (switch to DELETE_ACCOUNT).
Keys held by class (WEEKLY keyring):
DEMO              NORMAL              MODERATE
```

Offline Security & Accounting settings

```
SAMPLN  Number of lines on which to allow anyone to log on ..... 256
SUPCLS  Start users off in what account "class"? ................ DEMO
SHWCRD  Show users how many credits they have? ..................... YES
```

Switching from One BBS Model to Another

If you change your mind after your system gets up and running, you could change to a different BBS model. (This option is called BBSSETCL and is available from the offline Basic Utilities menu.) Then in most cases, the BBS will automatically switch old users into the most logical new class the next time they log on.

Switching All the Users in One Class to Another

There is an offline utility that achieves this called BBSSWTCL. It is available from the Basic Utilities menu.

CUSTOMIZING YOUR SECURITY AND ACCOUNTING

Locks and Keys

Throughout the BBS, you'll be able to control who can access what by putting locks on features and issuing keys.

On The Major BBS, these very high-tech keys open doors without ever leaving your pocket. In fact, your users may never need to know what keys they have or how features are locked. You can customize the entire look of your bulletin board and even make it operate differently for every user.

Creating New Locks and Keys

Here's how to create a new lock: make up a name. That's all there is to it. Lock names and key names are 1 to 15 characters long. We use the terms *key name* and *lock name* interchangeably. That's because:

> A key with the same name as a lock opens the lock.

To make use of your lock, you'll want to apply the lock to features and give keys with the same name to users. The BBS automatically keeps track of what locks there are and who has the keys to them.

Applying Locks and Giving Keys

Locks can be placed on several things:

- Features defined in the offline Security & Accounting service (see pages 123-125).
- Menu selections: you can make a restricted menu option appear dim or disappear entirely; you can make entirely different menus appear depending on what keys a user has, or what channel he is on using Auto-Select menus.
- Various features for each separate Library in the File Libraries.

You can distribute keys to users in two ways:

- Put the key on the class keyring for the class of users you want to have it.
- Give the key directly to specific users.

You use the Remote Sysop ACCOUNT Menu to do either.

You can distribute up to 1,024 bytes worth of keys to each user or to each class. The name of each key plus one byte counts toward this limit. For example, if all your keys were nine letters long, you could distribute no more than 102 keys to any one class keyring or to any one user.

Tips on Using Locks and Keys

To get the most use out of locks and keys, you will want to keep a few things in mind:

- Don't make too many locks. You'll probably want to use the same lock name for many different features. That means that one key is all a user needs to access all of those features. If you define one lock for every feature, you're going to have a huge number of keys to keep track of.
- Use class keyrings whenever you can. Instead of just giving a key to a user (or taking one away) whenever need arises, place that user in a category with other users who also need the same access privileges and restrictions. Work on the class keyring.
- Each feature can have only one lock, but users can have many keys. We've started you off with keys that unlock a range of privileges, from basic to highly privileged. The most basic classes have only one or a few keys. The SYSOP class is the most privileged class; it has all the keys.

Default Locks

The Major BBS starts out with the following lock names already in use:

DEMO	The minimal lock – everyone gets the DEMO key by default
NORMAL	Access to most standard features
MODERATE	Allows a user to moderate teleconferences
MASS_MAILING	Allows a user to send electronic messages to everyone
SUPER	For a trusted assistant with broad powers
SYSOP	Sweeping powers across all BBS services

You can see from the five BBS models who automatically gets the keys to these locks, by virtue of what class they're in and what's on the class's keyring.

These locks mean nothing in themselves — one lock is much like any other. What matters is what feature you apply it to. For example all that matters about the NORMAL lock is what features you apply it to and who has the NORMAL key.

The following list shows you where we've distributed the locks on your brand-new out-of-the-box system. This list should also give you an idea what features you can restrict with locks. The name given to each feature is the name you'll find under offline option 3 from the introductory menu (pages123-127). You can find it using the *<F8>* search command.

Some features are never locked:

- Reading messages in the Forum named /Hello.
- Reading E-mail

- Looking up other users in the Registry
- Viewing and editing a user's own account information
- Entering the teleconference and listening to other users' conversations
- Viewing the system information

Features under the DEMO lock:

- REGKEY — entering yourself into the User Registry
- LANGCHG — user allowed to change language preference
- FLVKEY — *default key required to see files in a Library*

The DEMO key is required for upload and download access to each file transfer protocol (XMODEM, ZMODEM, Kermit, and others). This is not a security feature but a way for you to limit your users' protocol options.

Features under the NORMAL lock:

- SIGPRV — having privileged access to the Forums by default (see page 240)
- UNLKEY — unlimited use of the teleconference *(all 65,535 channels, and as many messages as you like)*
- SAMPKY — logging onto reserved channels
- RLGKEY — the re-log option to log on again without disconnecting
- EMLKEY — writing E-mail messages to any user, not just the Sysop
- EATKEY — uploading attached files with your E-mail messages
- RRRKEY — requesting return receipts with your electronic messages
- PRSKEY — using personal distribution lists
- MHSKEY — *writing messages that are dispatched over MHS*
- DEFDL — downloading files from a Library
- LISTKEY — downloading lists of files
- DEFUL — uploading files to a Library
- QDLKEY — downloading QWK packets (for offline mail reading)
- QULKEY — uploading reply packets
- FLDKEY — downloading files from a Library

Features under the MODERATE lock:

- MODKEY — moderating channels in the teleconference

Features under the MASS_MAILING lock:

- MSSKEY — sending E-mail simultaneously to every other user on the system

Features under the SUPER lock:

- SYSKEY — exemption from:
  - being disconnected after 20 minutes of inactivity
  - most restrictions on profanity
  - recording online time in the system usage statistics
- DSTKEY — creating distribution lists

Features under the SYSOP lock:

- SIGSYS — sweeping powers in Forums
- GLBKEY — from most prompts online:
  - look up another users account (with the /1 command, page 291)
  - become invisible to other users online (/invis command, page 291)
- FIMLOCK — use file import transfer protocol
- FEXLOCK — use file export transfer protocol
- BYPSKY — bypass forced RIP (icons) download
- DEFAPP — pre-approval power of uploads
- DEFOVR — overwrite existing files
- NOCHGKEY — never get charged per-K or per-file for downloads
- SYSAPP — Sysop access in Doors module
- DEFLOP — default Library Operator lock whenever a new Library is created
- FLSYSOP — sweeping powers in the File Libraries
- PLLOPKEY — access to the Poll-Op menu
- SUPKEY — Sysop privileges

The Master Key

The master key is not a key named MASTER. It is the key that goes with the User-ID Sysop and is the most powerful key on the BBS. If you delete the SYSOP account by accident, then signing up under the Sysop User-ID gives you the master key again. Possession by other User-IDs is indicated with a little => indicator on the SYSOP privilege from the Editing Access Menu (page 137). Anyone with the master key can give it to another user.

Features of the master key:

- Locks don't stop you; you possess all keys by implication
- You can give the master key to any user, or take it away
- You can decide other users' access to the Remote Sysop Menu commands
- Electronic messages can have unlimited carbon copies
- You can use the ENABLE and DISABLE commands for emergency online menu maintenance (page 75)
- In the teleconference, you can see unlisted users in a SCAN
- You have no restrictions on switching teleconference channels
- You can squelch or unsquelch any other user in the teleconference

ONLINE SECURITY AND ACCOUNTING

To get to this menu, log on as the Sysop, enter the Remote Sysop Menu, and type ACCOUNT. The Remote Sysop ACCOUNT menu presents the following options:

```
Select one of the following accounting functions:

     ? ... Redisplay this menu
  SHOW ... Show current list of account classes
  LIST ... List the keys in the keyring for a class
 CLASS ... Maintain account classes
SWITCH ... Switch a user to another class
  EDIT ... Edit a user's individual keys
  POST ... Post credits to a user's account
     X ... Return to main Remote Sysop Menu

Select an option: _
```

Most of these functions are self-explanatory. The CLASS command is for creating new user classes or for editing the characteristics of an existing class.

Creating Your Own New Class

The CLASS command is in the Remote Sysop ACCOUNT menu (log on as Sysop, enter the Remote Sysop Menu, and type ACCOUNT). If you enter the name for a class that doesn't exist yet, you get the chance to create it. The major issues involved in creating a class are:

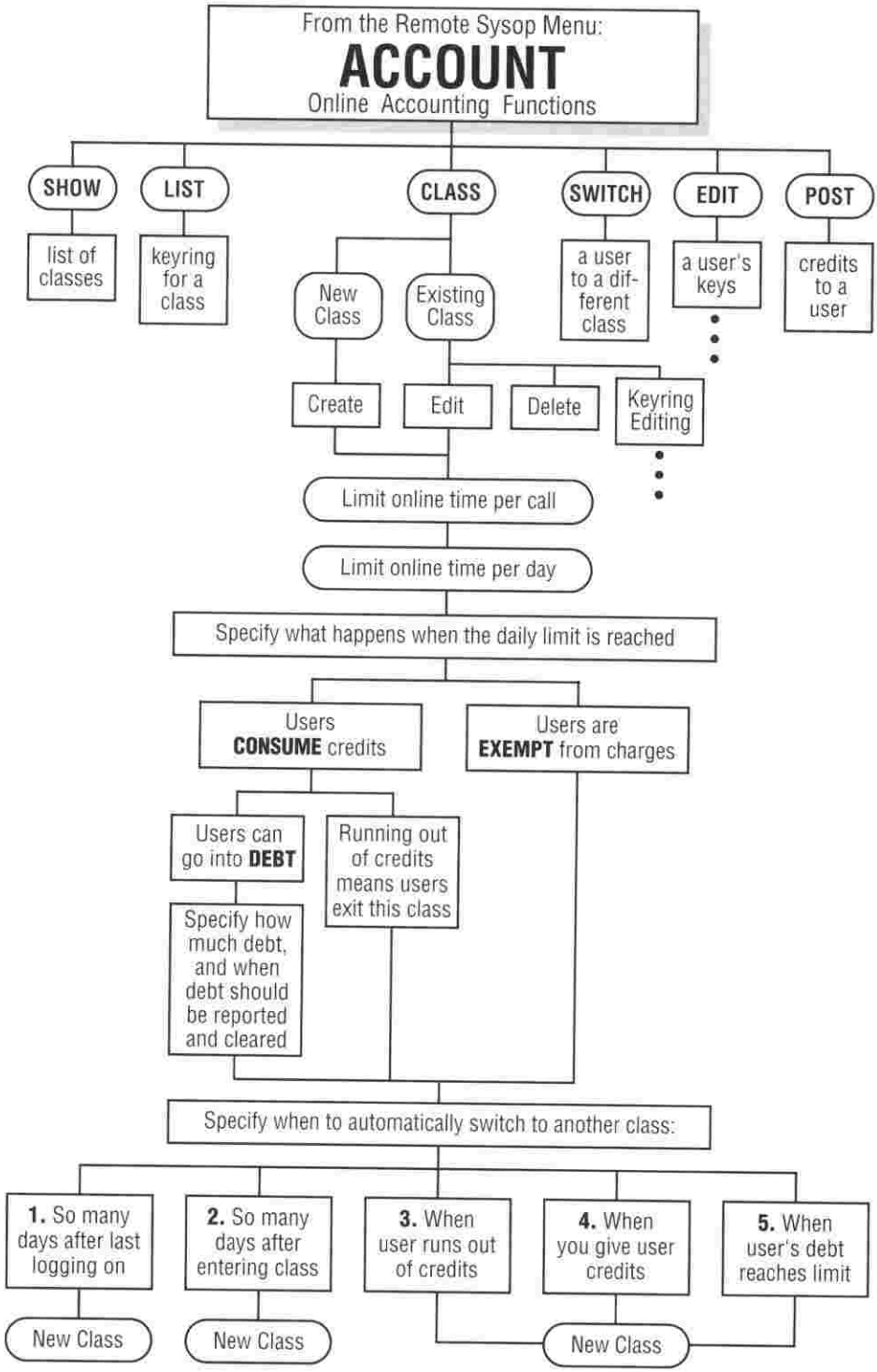
- Limitations on online time per call and per day;
- Credit consumption (online usage metering);
- Debt (a negative balance of credits);
- Under what circumstances to switch this user to another class;
- Putting keys on the class keyring.

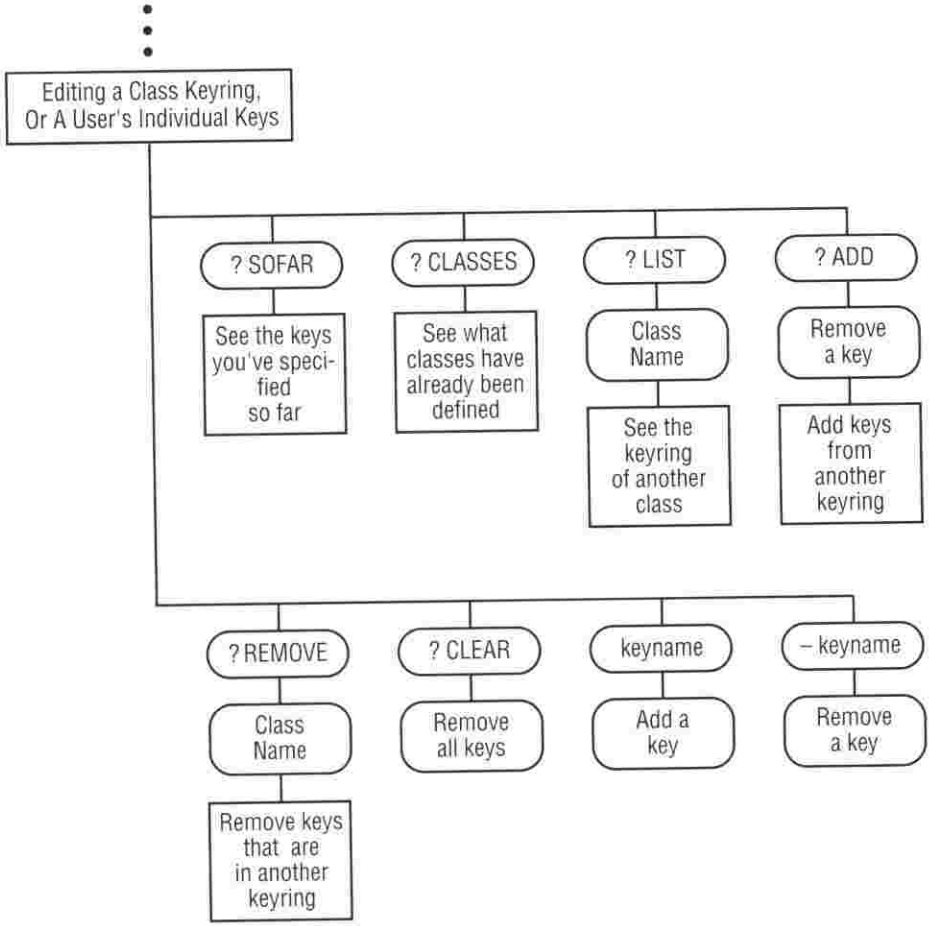
Limitations on Online Time

The first question is: how long do we allow users to stay online each time they call? You can make this unlimited, or you can restrict it to a certain number of minutes to make this particular class of users roll over more often and free up phone lines.

The class that is named in the SUPCLS offline Security & Accounting option is the one that all users enter after they sign up. If you set the time-per-call limit to zero in this class, new users will be forced offline immediately after they sign up. This is the scheme used in the Sign-up Model to get users to key in their name, address, and phone number, but giving the Sysop complete authority to determine who gets to use the system.

Limitations on time per day are handy for subscriptions to profit-oriented systems. (The MONTHLY and WEEKLY classes in the For-Profit Model use this feature to limit users to three hours of online time per day.) What happens when this limit is reached? Users can be switched temporarily to another class for the remainder of the day. (Limiting online time to zero in that class effectively disconnects them at this point.)


From the Remote Sysop Menu:
ACCOUNT
Online Accounting Functions
SHOW
LIST
CLASS
SWITCH
EDIT
POST
list of classes
keyring for a class
New Class
Existing Class
a user to a different class
a user's keys
credits to a user
Create
Edit
Delete
Keyring Editing
Limit online time per call
Limit online time per day
Specify what happens when the daily limit is reached
Users CONSUME credits
Users are EXEMPT from charges
Users can go into DEBT
Running out of credits means users exit this class
Specify how much debt, and when debt should be reported and cleared
Specify when to automatically switch to another class:
1. So many days after last logging on
2. So many days after entering class
3. When user runs out of credits
4. When you give user credits
5. When user's debt reaches limit
New Class
New Class
New Class



Example: Creating a New Class

```
REMOTE SYSOP

Select an option (or ? for menu): ACCOUNT

Select one of the following accounting functions:

     ? ... Redisplay this menu
  SHOW ... Show current list of account classes
  LIST ... List the keys in the keyring for a class
 CLASS ... Maintain account classes
SWITCH ... Switch a user to another class
  EDIT ... Edit a user's individual keys
  POST ... Post credits to a user's account
     X ... Return to main Remote Sysop Menu

Select an option: CLASS

Maintain which class (or ? for list): HOURADAY

"HOURADAY" does not exist, create it? Y
```

```
Every user on your system belongs to a particular "class" of users. You
will now be prompted for answers to several questions. Based on your
answers, a new class of users will be created. You have the ability to
place all sorts of restrictions on the users that are in this class, the
first of which being the amount of time a user in this class will be
allowed to remain online per call. You may limit users to anywhere from
0 to 1440 minutes per call.

If you wish users in this class to have no limit on the amount of time
they may spend on each call, simply answer UNLIMITED.

How many minutes may a user in this class stay online per call? UNLIMITED

You have just selected the amount of time a user in this class may stay
online per call. Now, you may set a limit on the total amount of time a
user may stay online per day, no matter how many times he calls. You
may limit users to anywhere from 0 to 1440 minutes per day.

If you wish users in this class to have no limit on the amount of time
they may spend on each call, simply answer with the word UNLIMITED.

How many minutes may a user in this class stay online per day? 60

You have placed a limit on the amount of time a user in this class may
spend online per day. When a user in this class runs into this limit,
you may have the system do one of two things:

1 ... Inform the user he is out of time for the day and disconnect him.
2 ... Switch the user to a different class until the end of the day, and
      then switch him back.

Select one of the above two actions: 1
```

In the example, the session time is not limited, but the daily time is limited to one hour. Users who exceed the hour are disconnected.

Note: Whenever you set up a user to automatically switch to a different class under some condition, be sure that you get the name of the class right. You can use the name of a class that doesn't exist yet, but if you don't create a class by that name later, the user will be deleted when it comes time to switch him to the nonexistent class.

Credit Consumption

Credits are a BBS commodity for metering online time. Credits can be posted to a user's account and consumed as he uses the system. Typically, each second of connect time consumes one credit (3,600 per hour). Other features, such as writing an E-mail message or downloading from the File Libraries, cost the user additional credits.

When a user runs out of credits for any reason, he can (1) be automatically switched to a different class, (2) be deleted, or (3) go into debt. Users who are exempt from credit charges are not affected by these issues and these questions will be skipped.

```
Your system may consume credits for time and services used online. If a
user runs out of credits, he will not be able to use any of the services
on your system that have credits. (In Level 3 CNF, there are many ques-
tions dealing with whether or not you want to charge credits for different
services.)

By answering YES to this question, you make all users currently in this
class exempt from any credit charges. If you still want users in this
class to be charged for online time and/or services, answer NO to this
question.
```

```
Are users in this class exempt from credit charges? N

Since you've specified that users in this class are subject to credit
charges, you may allow users in this class to go into "debt", which
means that when they run out of credits, they may still be able to use
services that charge credits. This very much allows the user to act as
if he still has credits even after he runs out. If you answer
YES to this question, you will be allowed to specify exactly how far
you wish to allow users to go into debt and how often to automatically
reset their debt to 0.
```

Debt

Users who are not exempt from credit charges may be allowed to run up a tab and accumulate charges as they use your system. This is tracked as a negative balance of credits in their account. Debt can have a limit or it can be unlimited.

There are many options for reporting user debt:

```
1 ... On the 1st of each month
2 ... Every Monday
3 ... Every so many days (prompted for next)
4 ... When they hit their debt limit
5 ... Never report users in this class (and never reset debt to 0)
```

At those times, the debt information is output to (actually appended to the end of) the text file called BBSDBT.RPT (see page 122). Then the debt is reset to zero (zero credit balance).

```
Do you wish to allow users in this class to go into debt? Y

You have opted to allow users in this class to go into debt. Now you may
specify how far into debt you will allow them to go. You may allow a user
to go into debt for anywhere from 1 credit to 9999999 credits.

If you wish to allow a person unlimited debt, simply enter UNLIMITED
here.

What is the "debt limit" for users in this class? 360000

Since users in this class can go into debt, you may want to place them on
a report every so often... When a user is placed on a report, his debt
is automatically cleared out to 0. If you do wish to put users on a
report, the report can be found in the file "BBSDBT.RPT" in your main BBS
directory. Please select how often you would like to report users' debt:

1 ... On the 1st of each month
2 ... Every Monday
3 ... Every so many days (prompted for next)
4 ... When they hit their debt limit
5 ... Never report users in this class (and never reset debt to 0)

Select one of the above options: 3

You have specified that users in this class that go into debt will be
reported every x number of days. When reported, users' debts are reset
back to 0.

Reset users' debt to 0 every how many days? 14
```

In this example, debts are allowed to accumulate up to 360,000 credits (roughly one hundred hours of online time) and are reported and reset every two weeks.

Automatic Switching to Another Class

Here are the conditions under which users could be *permanently* switched to a separate class (recall that switching due to the daily time limit is temporary):

```
1 ... If they haven't logged on for a certain number of days
2 ... If they have been in the class for a certain number of days
3 ... If they run out of credits
4 ... If they are posted credits (so that they have more than 0)
5 ... If they reach their debt limit
```

The last three are mutually exclusive, so you can pick only one of them. Other than that, you can pick a separate destination class for any of these reasons.

```
There may be several reasons why you would want users in this class to
switch to a different class. You will now receive a list of possible rea-
sons, and be asked to select one. After selecting one of the reasons,
you will be allowed to enter in which class users will switch to in
that case, and then be given the exact same list to pick another reason.
When done selecting reasons, simply select 0 to finish.

Please select one of the following:

0 ... All done selecting reasons
1 ... If they haven't logged on for a certain number of days
2 ... If they have been in the class for a certain number of days
3 ... If they run out of credits
4 ... If they are posted credits (so that they have more than 0)
5 ... If they reach their debt limit

Select one of the above: 1

You have selected to switch a user in this class to another class in the
event that he has not logged on for a specific number of days.

How many days since a user logged on should pass before this happens? 60

You have selected a reason that a user in this class be switched to
another. Now you must select what class the user is to be switched
to when this happens.

If you simply wish to delete the account of the user in this case,
simply enter "DELETE_ACCOUNT" as the answer to the following question.

In this instance, what class should users go to?
(? for list): DELETE_ACCOUNT

Please select one of the following:

0 ... All done selecting reasons
1 ... If they haven't logged on for a certain number of days
2 ... If they have been in the class for a certain number of days
3 ... If they run out of credits
4 ... If they are posted credits (so that they have more than 0)
5 ... If they reach their debt limit

Select one of the above: 5

You have selected a reason that a user in this class be switched to
another. Now you must select what class the user is to be switched
to when this happens.

If you simply wish to delete the account of the user in this case,
simply enter "DELETE_ACCOUNT" as the answer to the following question.
```

```
In this instance, what class should users go to?
(? for list): DEADBEAT

Warning: The "DEADBEAT" class does not yet exist. If a user expires to
         this nonexistent class, his account will be deleted. Please
         create the class when you get a chance if this is not your
         intention.

By default, when a user is switched from one class to another, he is
given a message telling him the class name he's leaving, and the new class
name he is entering. The message also, by default, informs the
user of his new limitations as being part of the new class.
This message can be found in CNF Level 6 under the option name of NEWCLS.

You may over-ride that message, and display a message of your own to the
user in the event that he is switched to another class as a result of this
reason. Your message (that will appear instead of the default message) may
be up to 640 characters long (or 8 lines if you are in full-screen edit
mode).

Do you want to specify your own class transition message? N

Ok, in the event that a user exits the class in this manner, he will
be given the default message that tells him about the new class he is
entering.
```

In this example, users are deleted when they haven't logged in for 60 days or they are switched to the DEADBEAT class when they reach their debt limit. Notice the helpful warning message about classes that don't exist?

Editing the Class Keyring or the Individual Keys for a User

Each class has one keyring for all users in the class. You edit the keyring when creating or editing a class. In addition, each user can have his own set of keys. It's the same process to edit a keyring as to edit a user's individual keys. Here are the options from the key editing prompt:

```
Enter a key name, '?' for help, or '.' to end:
```

? SOFAR	see the keys you've specified so far
? CLASSES	see what other classes have already been defined
? LIST *<class name>*	see what keys are on a class's keyring
? ADD *<class name>*	add the keys from another class's keyring to this set of keys
? REMOVE	if any of the keys you have so far are also in another class's keyring, remove them from this set of keys
? CLEAR	remove all keys from this set
<key name>	add a key to this set
–*<key name>*	remove a key from this set
.	done editing keys

Here's an example of editing a class's keyring:

```
Please select one of the following:

0 ... All done selecting reasons
1 ... If they haven't logged on for a certain number of days
2 ... If they have been in the class for a certain number of days
3 ... If they run out of credits
4 ... If they are posted credits (so that they have more than 0)

Select one of the above: 0

In CNP Level 3, as well as when creating Forums and LIBs, you are given
the opportunity to require that a user have a certain key to use a certain
feature, "locking" that feature. In addition to being able to give keys
to individual users, you may specify a "keyring" that every user currently
in this class holds. This is simply a list of keys that users in this
class have in addition to the ones you have individually given them.

Enter key names one at a time, followed by a RETURN. Each key name can be
from 3 to 15 characters, but can not contain spaces. When you are done
entering keys, simply enter a dot "." followed by a RETURN. Enter a "?" to
get help on importing keyrings from other classes, or just listing the
contents of keyrings from other classes. To remove a key you have already
added to the list, put a minus sign "-" in front of the key name (just as
if you were adding the key, but with a "-" in front). There should be no
space between the "-" and the key name you want to remove.

Enter a key name, '?' for help, or '.' to end: ?

When entering/removing keys, just enter a key name followed by a RETURN to
insert it into the list. To remove a key already in the list, just enter a
minus sign "-" followed immediately by the key name you wish to remove (also
followed by a RETURN). Just enter "X" here to return to entering/removing
keys, or else choose one of the additional functions on this menu...

Please choose one of the following:

SOFAR ..... List keys so far in this keyring
CLEAR ..... Clear out (delete) all keys in this keyring
LIST ...... List all keys in a different keyring
CLASSES .... List all classes (keyrings) available
ADD ....... Add all keys in another keyring to this one
REMOVE ..... Remove all keys in another keyring from this one
X ......... Go back to entering/removing keys from this class

Please enter your selection: CLEAR

OK, all the keys have been cleared!

Enter a key name, '? for help, or '.' to end: ? ADD USER

OK, the selected keyring has been successfully imported!

Enter a key name, ? for help, or '.' to end: ? SOFAR

Keys in the HOURADAY class:

DEMO              NORMAL

Enter a key name, ? for help, or '.' to end: SUBSCRIBER

OK, that key has been added.

Enter a key name, ? for help, or '.' to end: SPECIAL

OK, that key has been added.
```

```
Enter a key name, ? for help, or '.' to end: ? SOFAR

Keys in the HOURADAY class:

DEMO            NORMAL          SUBSCRIBER      SPECIAL

Enter a key name, ? for help, or '.' to end: .

You've now answered all the questions required to define a new class.
If you've made any mistakes during creation, you can always edit the
class. If you've changed your mind about creating this class, select
NO now.

Proceed and create? Y

The class has been successfully created. It has been saved to disk
and added to the online class table so that you may begin to use it
immediately.
```

In this example, the old set of keys was first cleared out. Then the keys from the USER class were imported and the keys named SUBSCRIBER and SPECIAL were added.

In special cases, you might like to give one specific user a specific key. Do this with the EDIT command from the Remote Sysop ACCOUNT menu. Then go through this same procedure, but you'll be dealing with a user's individual keys. For example:

```
REMOTE SYSOP

Select an option (or ? for menu): ACCOUNT

Select one of the following accounting functions:

? ........ Redisplay this menu
SHOW ..... Show current list of account classes
LIST ..... List the keys in the keyring for a class
CLASS .... Maintain account classes
SWITCH ... Switch a user to another class
EDIT ..... Edit a user's individual keys
POST ..... Post credits to a user's account
X ........ Return to main Remote Sysop Menu

Select an option: EDIT

Edit the keys for which users? LOUISE R. MILLER

In CNF Level 3, as well as when creating Forums and LIBs, you are given
the opportunity to require that a user have a certain key to use a certain
feature, "locking" that feature. In addition to being able to specify
a keyring of keys for users in particular classes, you may also give users
individual keys. This is simply a list of keys that this user has in
addition to those specified in the keyring for the class he happens to
be in.

Enter key names one at a time, followed by a RETURN. Each key name can be
from 3 to 15 characters, but can not contain spaces. When you are done
entering keys, simply enter a dot "." followed by a RETURN. Enter a "?" to
get help on importing keys from keyrings, or just listing the contents
contents of keyrings from existing classes. To remove a key you have
already added to the list, put a minus sign "-" in front of the key name
(just as if you were adding the key, but with a "-" in front). (There
should be no space between the "-" and the key name you want to remove.)

Enter a key name, ? for help, or '.' to end:  ? SOFAR
```

```
Louise R. Miller holds the following keys (plus the keys in his/her class
keyring):

UTILITY          GROUP8

Enter a key name, ? for help, or '.' to end:  -GROUP8

OK, that key has been removed.

Enter a key name, ? for help, or '.' to end:  GROUP9

OK, that key has been added.

Enter a key name, ? for help, or '.' to end:  MAINTLIB

OK, that key has been added.

Enter a key name, ? for help, or '.' to end:  ? SOFAR

Louise R. Miller holds the following keys (plus the keys in his/her class
keyring):

UTILITY          GROUP9          MAINTLIB

Enter a key name, '?' for help, or '.' to end:  .

Select one of the following accounting functions:

? ........ Redisplay this menu
SHOW ..... Show current list of account classes
LIST ..... List the keys in the keyring for a class
CLASS .... Maintain account classes
SWITCH ... Switch a user to another class
EDIT ..... Edit a user's individual keys
POST ..... Post credits to a user's account
X ........ Return to main remote sysop menu

Select an option: _
```

Editing or Deleting an Existing Class

Editing an existing class starts off the same way as creating a new class: enter CLASS *<class name>* from the Remote Sysop ACCOUNT submenu. Then your choices are:

```
The "<class name>" class currently exists. You have four options:

E ... Edit this class
D ... Delete this class
K ... Edit only the keyring for this class
N ... Do nothing

Please select an option: _
```

You pass through the same questions you do when creating a class (see page 111), but the defaults are the current parameters for the class.

The DELETE_ACCOUNT Class

A DELETE_ACCOUNT class does not exist. In a few cases, using the phrase DELETE_ACCOUNT in place of a class name indicates you want a user's account deleted under the circumstances. Using the name of any nonexistent class would also end up

deleting the user. Note: if the user has the protected flag, he will not be able to log on if he is set to a nonexistent class, but his account will not be erased.

Class Transition Message

When a user is online and he is being automatically switched to a different class, he usually gets a message informing him of the old and new class names, and the rules and parameters of the new class. But you can replace this message with one of your own in several instances: when either the user has run out of credits or is posted credits (and so has more than zero).

Right after answering which class to switch to (when editing or creating a user class) you'll get a chance to supply one of these custom transition messages. The message can be up to eight lines long.

Here's an example of a custom class transition message:

```
Sorry, you've used up your hour for today. If you have any credits,
you can stay online in the PAYING class. Otherwise, please call
back tomorrow.
```

Switching a User's Class

There are several ways a user can get into a class.

- After sign-up, a user is in the class specified by the SUPCLS offline Security & Accounting option.
- Some classes specify conditions under which a user automatically switches to another class. For example, in the For-Profit model, a PAYING user switches to the DEMO class when he runs out of credits.
- You can manually switch classes from the Remote Sysop Menu using the ACCOUNT menu SWITCH command (see below).
- From the User Account Detail screen on the BBS console, you can change a user's class (page 196).

Here's an example of switching a user's class from the Remote Sysop Menu:

```
REMOTE SYSOP
Select an option (or ? for menu): ACCOUNT

Select one of the following accounting functions:

? ........ Redisplay this menu
SHOW ..... Show current list of account classes
LIST ..... List the keys in the keyring for a class
CLASS .... Maintain account classes
SWITCH ... Switch a user to another class
EDIT ..... Edit a user's individual keys
POST ..... Post credits to a user's account
X ........ Return to main Remote Sysop Menu

Select an option: SWITCH

Which user do you want to switch? IRA POND

Ira Pond is currently in the PAYING class.
```

```
Switch user to what class name (? for list): MONTHLY

Enter # of days the user should remain in this class (RETURN for 30): 90

OK, Ira Pond has been switched to the MONTHLY class.
```

In this example, Ira was switched from the PAYING class to the MONTHLY class. Notice that the default duration of that class is 30 days. Ira paid for a 90-day subscription, so he can stay in the MONTHLY class for three months.

You do not need to type an exact match for the User-ID.

```
REMOTE SYSOP

Select an option (or ? for menu): ACCOUNT

Select one of the following accounting functions:

? ........ Redisplay this menu
SHOW ..... Show current list of account classes
LIST ..... List the keys in the keyring for a class
CLASS .... Maintain account classes
SWITCH ... Switch a user to another class
EDIT ..... Edit a user's individual keys
POST ..... Post credits to a user's account
X ........ Return to main Remote Sysop Menu

Select an option: SWITCH

Which user do you want to switch? TOM

No exact match found. Perhaps you meant one of these:

  1. Tom Hobbs
  2. Tom Shimoda
  3. Tomas Santiago

Enter one of these digits (or another User-ID) at the following prompt …

Which user do you want to switch? 2

Tom Shimoda is currently in the PROSPECT class.

Switch user to what class name (? for list): CUSTOMER

Ok, Tom Shimoda has been switched to the CUSTOMER class.
```

Debt Reports

The text file BBSDBT.RPT accumulates the debt reports for members of classes that you have specified should have debt and should report debt. You should periodically process the file and delete it so that it doesn't grow too large.

A debt report will be generated when credits are deducted from a user's account and the debt limit is crossed. A report may also be generated during the nightly auto-cleanup for user classes that you have scheduled for periodic reporting.

Here is an example of a debt report in BBSDBT.RPT:

```
User-ID                                Debt (in credits)
-------------------------------------------------------
Alex Dowty                             2043
Deserie Puccio                         1855
Dr. Elwood Grant                       72340
Griff Boyer                            346
Isabel E. Adler                        72347
Ira Pond                               71246
V. Conway                              17650
Allen R. Wilson                        2275
Charlie Cook                           8732
Henry Schmidt Jr.                      27854
```

BBSDBT.RPT is a flat ASCII text file with variable-length fields. Its field positions are:

Columns 1-29	User-ID
Columns 36-45	number of credits in debt

Other Reports on Security and Accounting

These reports are available from the offline Report menu:

Forum Access Report	shows who has specially assigned access to which Forums, as set from the Forum Operator menu configure-users command (see page 240).
User Key Report	shows each user's class and what keys you have given him individually.
Remote Access Report	shows who has access to Remote Sysop Menu commands and which exact commands.
User Class Report	shows the parameters of each user class: time limits, credits, debt, when to transition to another class, when to delete the user's account, and so on.

See pages 383-386 for examples of these reports.

OFFLINE SECURITY AND ACCOUNTING OPTIONS

Default Settings

Security & Accounting Options in BBSMAJOR.MSG

```
MMUCRR    Credits per minute consumed at the Main menu ..............  60
SAMPLN    Number of lines on which to allow anyone to log on ........ 256
SAMPKY    Key required to log on reserved channels ..................  NORMAL
RLGKEY    Key required to re-logon at logoff ........................  NORMAL
GLBKEY    Key required to use Sysop global commands ..................  SYSOP
SYSKEY    Key required for exemption from rules ......................  SUPER
VISPSW    Make passwords visible in "detail info" displays? ......... YES
CHGHOUR   Connect time charge per hour, if any ....................... $0.75
CHGTIME   Minimum connect time purchase ..........................  10 hours
CHGMIN    Charge for minimum purchase ............................. $7.50
```

Security & Accounting Option in BBSACCT.MSG

```
PESTER    Advertise credit-buying procedure to users? ..... NO
```

Security & Accounting Options in BBSSUP.MSG

```
PRESUP    Give all users how many free credits upon sign-up? ..... 0
SUPCLS    Start users off in what account "class"? ..... DEMO
SHWCRD    Show users how many credits they have? ..... YES
LANGCHG   Key required for changing language preference ..... DEMO
```

Security & Accounting Option in BBSFTF.MSG

```
ASULOCK   Key required for A ASCII file uploads: ..... DEMO
XMULOCK   Key required for M,C,1 XMODEM file uploads: ..... DEMO
YMULCK    Key required for B YMODEM-Batch file uploads: ..... DEMO
YGULOCK   Key required for G YMODEM-g file uploads: ..... DEMO
ZMULOCK   Key required for Z ZMODEM file uploads: ..... DEMO
KMULOCK   Key required for K KERMIT file uploads: ..... DEMO
FIMLOCK   Key required for F upload (file import): ..... SYSOP
ASDLOCK   Key required for A ASCII file downloads: ..... DEMO
LSDLOCK   Key required for L Listing file downloads: ..... DEMO
XMDLOCK   Key required for M,C,1 XMODEM file downloads: ..... DEMO
YMDLOCK   Key required for B YMODEM-Batch file downloads: ..... DEMO
YGDLOCK   Key required for G YMODEM-g file downloads: ..... DEMO
ZMDLOCK   Key required for Z,ZR ZMODEM file downloads: ..... DEMO
KMDLOCK   Key required for K KERMIT file downloads: ..... DEMO
VEWLOCK   Key required for V Compressed file viewing: ..... DEMO
FEXLOCK   Key required for F download (file export): ..... SYSOP
```

Security & Accounting Options in BBSRIP.MSG

```
BYPSKY    Key required to bypass forced downloads ..... SYSOP
```

Security & Accounting Options in GALMS.MSG

```
EMLKEY    Key required to write E-mail messages ..... NORMAL
EMLTCK    How many credits to charge for each message? ..... 95
EATKEY    Key required to upload "attachments" ..... NORMAL
EATTCK    Charge for uploading an attachment: ..... 200
RRRKEY    Key required to request "return receipts" ..... NORMAL
RRRTCK    Charge for requesting a return receipt? ..... 50
SIGCCR    Forum default credit consumption rate, per min: ..... 60
SIGTCK    Default charge for posting a Forum message: ..... 95
SATTCK    Default charge for uploading a file to a Forum: ..... 200
SOPMHD    Allow Forum-Ops to modify Forum headers? ..... YES
QRCHRG    Charge (per-message) for distribution list use: ..... 1000
SIGPRV    Key required for privileged default access ..... NORMAL
SIGSYS    Key required for Sysop access in Forums ..... SYSOP
PRSKEY    Key required to use personal dist lists ..... NORMAL
DSTKEY    Key required to edit Sysop-defined lists ..... SUPER
MSSKEY    Key required to send "mass" mailings ..... MASS_MAILING
MHSKEY    Key required to write MHS messages ..... NORMAL
TAGLOCK   Key required to tag files for download .....
```

Security and Accounting Options in GALTLC.MSG

```
TLCCCR    Teleconference credit consumption rate, per min: ..... 60
TLCOVR    Charge Forum tele users the above rate? ..... YES
SWTFRM    Allow users to switch to and from Forum channels? ..... NO
MODKEY    Key required to moderate channels in tele ..... MODERATE
UNLKEY    Key required for unlimited use of tele ..... NORMAL
NPAYMX    Max times a limited user can speak per session: ..... 10
MAXFRE    Top channel number allowed to limited users: ..... 32767
```

Security & Accounting Options in GALP&Q.MSG

```
MAINKEY   Key required in order to enter module: ..... <blank>
SUPKEY    Key required in order to have super powers ..... SYSOP
PLLOPKEY  Key required in order to have Poll-Op powers .....SYSOP
```

Security & Accounting Option in GALREGIS.MSG

```
REGKEY    Key required to create registry entries ..... DEMO
```

Security & Accounting Option in GALFIL.MSG

```
FLSYSOP   Key required for Library Sysop access ..... SYSOP
FLVKEY    Default visibility key ..... DEMO
FLDKEY    Default download key ..... NORMAL
DEFUL     Default key required to upload files ..... NORMAL
DEFAPP    Default preapproval key ..... SYSOP
DEFOVR    Default overwrite key ..... SYSOP
DEFLOP    Default Lib-Op key ..... SYSOP
DEFPLOP   Default primary Lib-Op ..... SYSOP
NOCHGKEY  Key to not charge extra for downloads ..... SYSOP
LISTKEY   Key required to download list of files ..... NORMAL
```

Security & Accounting Options in GALMJD.MSG

```
SYSAPP    Key required for Sysop access ..... SYSOP
```

Security & Accounting Options in GALQWK.MSG

```
QDLKEY    Key required to download QWK packets ..... NORMAL
QULKEY    Key required to upload reply packets ..... NORMAL
```

What the Settings Do and How To Change Them

Security & Accounting Options in BBSMAJOR.MSG

```
MMUCRR    Credits per minute consumed at the Main menu ..... 60
```

The first configurable option at this level determines how quickly your users will consume credits, by default. Typically, credits are consumed at a rate of 1 per second, or 60 per minute.

```
SAMPLN    Number of lines on which to allow anyone to log on ..... 256
```

You have the option to restrict your demo or prospect class of users to the low end of your telephone rotary, if you wish. Your more privileged classes of users will be able to call in on any lines they like. The name of the key that distinguishes these users from each other is defined in the next option (SAMPKY).

What this option controls is the number of lines on which you want to accept new signups and nonprivileged users. Enter 256 to enable free use of all lines.

```
SAMPKY   Key required to log on reserved channels ..... NORMAL
```

The above option (SAMPLN) defines the number of lines on which to allow anyone to log on. Lines above that number are reserved (meaning that not just anyone can log on to them).

This option defines the name of the key the user will need in order to log on lines above the number contained above in SAMPLN.

```
RLGKEY   Key required to re-logon at logoff ..... NORMAL
```

When a user chooses to log off the system, they are always prompted for whether or not they are sure. Only users that hold the key named in this option will have the additional choice to re-logon — to actually go back to the logon prompt, and log on as another User-ID.

To allow all users to re-logon, leave this option blank.

```
GLBKEY   Key required to do Sysop global commands ..... SYSOP
```

There are two global commands offered to Sysops only: /l (looking up another account) and /invis (turning invisible). This option should contain the name of the key required to use these global commands.

Anyone holding this key will be able to look up anyone else's account and run about your system invisible to all users, so beware to whom you give this key.

```
SYSKEY   Key required for exemption from rules ..... SUPER
```

Normally, the option IDLZAP limits the amount of time a user can remain online without typing anything and the option PFCEIL limits the wording a user may use. Users who possess the key you name here will not be affected by these restrictions.

```
VISPSW   Make passwords visible in "detail info" displays? ..... YES
```

You may not wish to have user passwords visible in the "detail account" display on the master console, or when using the DETAIL command from the Remote Sysop Menu. Answer NO to this question to suppress the display of user passwords in both of these places.

NOTE: USER PASSWORDS WILL ALWAYS BE VISIBLE IN THE "USER REPORT," WHICH IS GENERATED IN AN OFFLINE UTILITY.

```
CHGHOUR  Connect time charge per hour, if any ..... $0.75
```

How much are you going to charge users for each hour of connect time — that is, for 3600 credits? (If you will not be charging your users for connect time, then the setting of this option does not matter.)

```
CHGTIME  Minimum connect time purchase ..... 10 hours
```

What is the minimum amount of connect time that users may purchase? (If you will not be charging your users for connect time, then the setting of this option does not matter.)

CHGMIN Charge for minimum purchase $7.50

What is the charge for the minimum amount of connect time that users may purchase? This figure should be the product of the previous two. (If you will not be charging your users for connect time, then the setting of this option does not matter.)

Security & Accounting Options in BBSACCT.MSG

PESTER Advertise credit-buying procedure to users? ..... NO

At various points, the BBS can charge credits for services. This option controls whether, when denying a user access to a service due to lack of credits (or when the user runs out of credits), it tells the user in detail where to send money to, how much to send, etc. (The message actually sent is Level 6 configuration variable HOWBUY, with filled-in data from Level 4.)

If you answer NO to this question, the BBS will not bring up the issue of how to obtain credits when denying a user access to a service because of lack of credits.

Security & Accounting Options in BBSSUP.MSG

FRESUP Give all users how many free credits upon sign-up? 0

If you specify a number other than zero here, all users, immediately upon signing up, will be granted this number of free credits, entitling them to that amount of online time and services.

Specify zero if, on the other hand, you only want users to have credits upon your direct approval — by crediting their accounts from the Sysop console of The Major BBS or from the Remote Sysop Menu online.

SUPCLS Start users off in what account "class"? ..... DEMO

This is the class name that all new users will automatically be placed in. The class itself contains information about how much time the user may stay online per call and per day, as well as all kinds of other settings. To create or edit classes, select ACCOUNT from the Remote Sysop Menu (when logged on the BBS as Sysop).

Warning: Do not change this without first creating the class online. Doing so will prevent new users from logging on and may cause the BBS to crash when they log on.

SHWCRD Show users how many credits they have? ..... YES

If you want users to be aware of how many credits they have, answer YES to this question; users will be told at log-on and when editing their account information how many credits (or how much debt) they have.

If you are running a free system, though, and do not want your users to be concerned about how many credits they have, answer NO to this question. If you turn this option off, users will not be able to (T)ransfer credits.

LANGCHG Key required for changing language preferences ..... DEMO

Do you want to restrict the ability of users to change their language preference from the Account Display/Edit menu?

If not, set this option to blank, allowing everyone to change their language preference. If so, set this option to the name of a key, and give that key to the users (or classes of users) you want to be able to change their language preference.

Security & Accounting Options in BBSFTF.MSG

ASULOCK Key required for A ASCII file uploads ..... DEMO

To limit access to the A = ASCII file upload protocol, set this option to a key name, and only give that key to users, or to user classes, whom you wish to be able to use the protocol.

To allow all users to use this protocol, either set this option to a key all users have, or set it to blank.

XMULOCK Key required for M, C, 1 XMODEM file uploads ..... DEMO

To limit access to the M, C, and 1 = XMODEM file upload protocols, set this option to a key name, and only give that key to users, or to user classes, whom you wish to be able to use the protocol.

To allow all users to use these protocols, either set this option to a key all users have, or set it to blank.

YMULOCK Key required for B YMODEM file uploads ..... DEMO

To limit access to the B = YMODEM file upload protocol, set this option to a key name, and only give that key to users, or to user classes, whom you wish to be able to use the protocol.

To allow all users to use this protocol, either set this option to a key all users have, or set it to blank.

YGULOCK Key required for G YMODEM-g file uploads ..... DEMO

To limit access to the G = YMODEM-g file upload protocol, set this option to a key name, and only give that key to users, or to user classes, whom you wish to be able to use the protocol.

To allow all users to use this protocol, either set this option to a key all users have, or set it to blank.

ZMULOCK Key required for Z ZMODEM file uploads ..... DEMO

To limit access to the Z = ZMODEM file upload protocol, set this option to a key name, and only give that key to users, or to user classes, whom you wish to be able to use the protocol.

To allow all users to use this protocol, either set this option to a key all users have, or set it to blank.

KMULOCK Key required for K Kermit file uploads ..... DEMO

To limit access to the K = Kermit/Super-Kermit file upload protocol, set this option to a key name, and only give that key to users, or to user classes, whom you wish to be able to use the protocol.

To allow all users to use this protocol, either set this option to a key all users have, or set it to blank.

FIMLOCK Key required for F upload (file import) ..... SYSOP

The F import protocol allows a user to import a file from your local hard disk or floppy drive as an alternative to any file upload.

WARNING: This command can crash your machine (by copying from an empty floppy drive, for example), so you want to allow only your most trusted users to use it.

ASDLOCK Key required for A ASCII file downloads ..... DEMO

To limit access to the A = ASCII file download protocol, set this option to a key name, and give that key only to users, or to user classes, whom you wish to be able to use the protocol.

To allow all users to use this protocol, either set this option to a key all users have, or set it to blank.

LSDLOCK Key required for L Listing file downloads ..... DEMO

To limit access to the L = ASCII file download protocol, set this option to a key name, and give that key only to users, or to user classes, whom you wish to be able to use the protocol.

To allow all users to use this protocol, either set this option to a key all users have, or set it to blank. Note: if users do not have the key to fit this lock, they will not be able to use the (F)ile List command in the File Libraries.

XMDLOCK Key required for M, C, 1 XMODEM file downloads ..... DEMO

To limit access to the M, C, or 1 = XMODEM file download protocols, set this option to a key name, and give that key only to users, or to user classes, whom you wish to be able to use the protocol.

To allow all users to use these protocols, either set this option to a key all users have or set it to blank.

YMDLOCK Key required for B YMODEM-Batch file downloads ..... DEMO

To limit access to the B = YMODEM-Batch file download protocol, set this option to a key name, and give that key only to users, or to user classes, whom you wish to be able to use the protocol.

To allow all users to use this protocol, either set this option to a key all users have, or set it to blank.

YGDLOCK Key required for G YMODEM-g file downloads ..... DEMO

To limit access to the G = YMODEM-g file download protocol, set this option to a key name, and give that key only to users, or to user classes, whom you wish to be able to use the protocol.

To allow all users to use this protocol, either set this option to a key all users have, or set it to blank.

ZMDLOCK Key required for Z,ZR ZMODEM file downloads ..... DEMO

To limit access to the Z = ZMODEM-Batch file download protocol, set this option to a key name, and give that key only to users, or to user classes, whom you wish to be able to use the protocol.

To allow all users to use this protocol, either set this option to a key all users have, or set it to blank.

KMDLOCK Key required for K Kermit/Super-Kermit file downloads ... DEMO

To limit access to the K = Kermit/Super-Kermit file download protocol, set this option to a key name, and give that key only to users, or to user classes, whom you wish to be able to use the protocol.

To allow all users to use this protocol, either set this option to a key all users have, or set it to blank.

VEWLOCK Key required for V Compressed file viewing ..... DEMO

To limit access to the V = View compressed file contents protocol, set this option to a key name, and give that key only to users, or to user classes, whom you wish to be able to use the protocol.

To allow all users to use this protocol, either set this option to a key all users have, or set it to blank.

FEXLOCK Key required for F download (file export) ..... SYSOP

The F export protocol allows a user to export a file to and your local hard disk or floppy drive as an alternative to any file download.

WARNING: This command can crash your machine (by copying to an empty floppy drive, for example), so you want to allow only your most trusted users to use this.

Security & Accounting Options in BBSRIP.MSG

BYPSKY Key required to bypass forced downloads ..... SYSOP

Users who have this key will never be forced to download your custom Library at logon or logoff. If you set the Level 4 options ODONACTN and ODOFACTN to FORCE, the BBS will treat users who have this key as if ODONACTN and ODOFACTN were set to CHOOSE. This also applies to users who have either the MASTER key or who have the key specified in option SYSKEY. (If ODONACTN or ODOFACTN are set to WARN, then users with this key will only get a warning message, like all other users.)

EMLKEY Key required to write E-mail messages ..... NORMAL

You may want to limit the ability to write Electronic Mail messages to certain users. If this is the case, fill this option in with the name of a key. Only users holding the key named in this option will be allowed to write E-mail messages.

If you wish everyone to be able to write E-mail, leave this option blank.

EMLTCK How many credits to charge for each message? 95

You may charge users for the privilege of leaving Electronic Mail messages by choosing here the number of credits to deduct from their account each time they write or copy a message. Users with less than this many credits available will only be allowed to leave E-mail for the Sysop.

EATKEY Key required to upload "attachments" ..... NORMAL

You may want to limit the ability to attach files to E-mail messages. Attachments are files that the E-mail sender uploads, and the receiver downloads. If you want to limit this ability, fill this option in with the name of a key. Only users holding this key will be able to attach files to messages.

If you wish everyone to be able to attach files to messages, leave this option blank.

EATTCK Charge for uploading an attachment: 200

You may wish to charge users a certain amount of "credits" to upload an attachment to an E-mail message. If so, set this option to the number of credits you wish to be charged to each user that uploads an attachment.

Set this number to 0 if you want attachments to be free of charge.

RRRKEY Key required to request "return receipts" ..... NORMAL

You may want to limit the ability to request "return receipts" on E-mail messages to certain users. If so, fill this option in with the name of a key. Only users holding this key will be able request return receipts.

If you wish everyone to be able to request return receipts, leave this option blank.

RRRTCK Charge for requesting a return receipt? 50

You may want to charge users a certain amount of credits for requesting return receipts on E-mail messages. If so, set this option to the number of credits to be deducted from a user's account each time he requests a return receipt on a message.

Set this number to 0 if you want return receipts to be free of charge.

SIGCCR Forum default credit consumption rate, per min: 60

By default, at what rate do you want users to consume credits when in the Forums? (Your Forum-Ops will have the ability to override this default, on a Forum-by-Forum basis). The standard rate is 60 per minute. Select a higher

number to place a premium on Forum usage, or a lower one to encourage it (zero means FREE usage!).

```
SIGTCK   Default charge for posting a Forum message: ..... 95
```

How much do you want to charge a user, by default, for posting a Forum message? (Your Forum-Ops can override this default on a Forum-by-Forum basis.) This many credits will be deducted from a user's account each time he posts a message.

Type 0 if you want Forum messages to be posted for free. Type a negative number if you want to ADD credits to a user's account for posting a message.

```
SATTCK   Default charge for uploading a file to a Forum: ..... 200
```

How much do you want to charge a user, by default, for uploading a file to a Forum? (Your Forum-Ops can override this default on a Forum-by-Forum basis.) This many credits will be deducted from a user's account each time he uploads a file to a Forum.

Type 0 if you want users to be able to upload for free. Type a negative number if you want to ADD credits to a user's account for uploading a file.

```
SOPXHD   Allow Forum-Ops to modify Forum headers? ..... YES
```

The Forum header record of each Forum can contain options for overriding the cost (or bonus credits) for uploading attachments, writing messages, and even basic connect time. In most environments, Forum-Op privileges are not granted to anyone but persons of the utmost integrity; however, if you have a problem in this area, you may wish to disable the feature whereby Forum-Ops are allowed to change these parameters. Answer NO here to prevent Forum-Ops from abusing their privileges, at least to the extent of granting themselves and their friends credits.

```
QKCHRG   Charge (per-message) for distribution list use: ..... 1000
```

This question defines the charge applied to users for each message they send out using distribution lists. This applies to each message sent out using a personal list, and each message sent out using the mass-mailing feature.

Note that this charge does not apply to use of Sysop-defined lists — each of those has its own per-use (not per-message) charge.

```
SIGPRV   Key required for privileged default access ..... NORMAL
```

In the Forums, you may edit each user individually and give access (or remove access) to reading, writing, uploading and downloading. If you don't edit a user, though, then the access he has, by default, is the default access you assign to that Forum.

Each Forum has two settings for default access: privileged and nonprivileged. Users holding the key named in this option will have the privileged default access, while all others will have the nonprivileged default access.

SIGSYS Key required for Sysop access in Forums ..... SYSOP

Sysop users have access to modify Forums, create Forums, and edit users' access levels. In addition, people with this access have full access to any and all Forums. Only users holding the key named in this option have Sysop access in the Forums.

(Be careful who you give this key to — they will be able to do all the things you can do in the Forums: editing any user's access, changing charges in the Forums, etc.)

PRSKEY Key required to use personal dist lists ..... NORMAL

On the E-mail "special function" menu, the option L will only appear to users holding this key. This option will allow them to edit their personal distribution list, which they can then send messages to.

DSTKEY Key required to edit Sysop-defined lists..... SUPER

On the E-mail "special functions" menu, a user selecting C will either get 1) a chance to modify his personal distribution list or 2) a chance to create/modify any Sysop-defined list, depending on whether or not they have the key named in this option. Users holding the key named here will be given option #2, while users who don't will be given option #1.

MSSKEY Key required to send "mass" mailings ..... MASS_MAILING

When writing or copying a message, only users holding the key named in this option will be able to make use of the mass-mailing feature. This is the feature that allows one to write or copy a message to every single user in the user database.

Because mass mailings tend to create huge message databases on large systems that lead to longer delays when reading and writing messages, you may want to limit this feature to use by special users.

MHSKEY Key required to write MHS messages ..... NORMAL

This option can be ignored if you have the Level 4 option ALWMHS set to NO.

You may want to limit the ability to send MHS messages to certain users. If this is the case, fill this option in with the name of a key. Only users holding the key named in this option will be allowed to send MHS messages.

If you wish everyone to be able to send MHS messages, leave this option blank.

TAGLOCK Key required to tag files for download ..... <blank>

For E-mail and Forum attachments, to restrict the ability to tag attached files for download, set this option to a key name and then give that key to the users you want to be able to tag files.

Tagging files allows you to specify files one at a time and then download them all at once later.

```
TLCCCR   Teleconference credit consumption rate, per min: ..... 60
```

By default, at what rate do you want users to consume credits when in the teleconference? The standard rate is 60 per minute. Select a higher number to place a premium on teleconference usage, or a lower one to encourage it (zero means FREE usage!).

```
TLCOVR   Charge Forum tele users the above rate? ..... YES
```

In the Forums, users can be charged different credit rates depending on what Forum they are currently in. When a user selects to enter the teleconference from the main Forum menu, should they continue to be charged the same rate (as if they were still in the Forum), or should they be charged the teleconference rate (configured above)?

Answer YES to this question if you want everyone in teleconferencing to be charged the same amount, no matter how they got in.

```
SWTFRM   Allow users to switch to and from Forum channels? ..... NO
```

Since users entering the teleconference through the Forums may be charged a different rate from others, do you want to allow users to enter the teleconference through a Forum, and then switch to another channel? Answer NO if you do not want your users to able to switch freely to and from Forum channels.

```
MODKEY   Key required to moderate channels in tele ..... MODERATE
```

Filling this option in with a key name will result in only people holding that key being able to moderate channels in the teleconference.

Leave this option blank to allow anyone to moderate teleconference channels.

```
UNLKEY   Key required for unlimited use of tele ..... NORMAL
```

Filling this option in with a key name will have the effect that people holding that key will not be limited in number of statements or in channel number while they are in teleconference. These limits are set in the two following options, and will apply only to people without this key.

To allow anyone unlimited use of the teleconference, leave this option blank.

```
NFAYMX   Max times a limited user can speak per session: ..... 10
```

To restrict the number of "statements" made by people in teleconference, set this option. This limit will only be placed on people not holding the key named in the above option (UNLKEY). After a limited user has made this many statements in the teleconference, he is "muted" until he logs off and logs back on again.

Make this number 0 to prohibit any statements from limited users at all. (So that they will be allowed to listen, but listen only).

MAXFRE Top channel number allowed to limited users: 32767

The teleconference of The Major BBS has 65,535 channels. (Imagine — more radio stations than listeners!) To allow unlimited users (users with the key named in option UNLKEY above) to hold conferences that are free from intrusion by the limited users (users without the key named in UNLKEY), use this option. Limited users will not be able to select channels above this number.

Type 65535 to allow limited users access to all teleconference channels.

Security & Accounting Options in GALP&Q.MSG

MAINKEY Key required in order to enter module ..... <blank>

This is the key required for a user to be able to enter into the Polls and Questionnaires module. Leave this field blank to allow all users to enter.

SUPKEY Key required in order to have SUPER powers ..... SYSOP

This is the key required for a user to have SYSOP access to the Polls and Questionnaires module. Users who have this key will be able to perform all Poll-Op options as well as have the ability to grant credits, class, keys and a file via Polls and Questionnaires. ***Never leave this field blank.***

PLLOPKEY Key required to have Poll-Op powers ..... SYSOP

This is the key required for a user to have access to the Poll-Op menu. Users who have this key will be able to add, edit, and delete Polls and Questionnaires. ***Never leave this field blank.***

Security & Accounting Options in GALREGIS.MSG

REGKEY Key required to create Registry entries ..... DEMO

If you want to "screen out" certain users from the Registry, fill this option in with the name of a key. Only users holding this key will be able to create Registry entries. Users not holding this key will then only be able to read others' entries, not write their own.

Leave this option blank if you want all users to be able to list themselves in the Registry.

Security & Accounting Options in GALFIL.MSG

FLSYSOP Key required for Library Sysop access ..... SYSOP

Any user with this key will have full Sysop powers throughout all Libraries. In most cases, you will want to leave this as SYSOP and instead assign other users as Lib-Ops, giving them only localized control in certain Libraries.

FLVKEY Default visibility key ..... DEMO

This is the default key assigned to a Library when it is created, which is required for a user to see or select a Library or see files in a Library. If a user has no access to any Libraries, the user will not be allowed into the File Libraries.

FLDKEY Default download key ..... NORMAL

This is the default key assigned to a Library when it is created, which is required for a user to be able to download files from a Library.

DEFUL Default upload key ..... NORMAL

This is the default key assigned to a Library when it is created, which is required for a user to be able to upload files to a Library.

If the Library is a Library on CD or a Read-only Library, users will not be able to upload to it, regardless of this setting.

DEFAPP Default preapproval key ..... SYSOP

This is the default key assigned to a Library when it is created, which is required for a user to have the ability to upload files that do not need approval to that Library.

If the Library is a Library on CD or a Read-only Library, users will not be able to upload to it, regardless of this setting.

DEFOVR Default overwrite key ..... SYSOP

This is the default key assigned to a Library when it is created, which is required for a user to have the ability to overwrite files he uploaded that already have been approved.

DEFLOP Default Lib-Op key ..... SYSOP

This is the default key assigned to a Library when it is created, which is required for a user to be a Lib-Op in that Library.

DEFPLOP Default primary Lib-Op ..... SYSOP

This is the default primary Lib-Op assigned to a Library when it is created.

NOCHGKEY Key to not charge extra for downloads ..... SYSOP

A user possessing this key will never be charged any more than connect time, if applicable, for downloading files.

LISTKEY Key required to download lists of files ..... NORMAL

A user possessing this key will be able to request that lists of files be built for him to download.

Security & Accounting Options in GALMJD.MSG

SYSAPP Key required for Sysop access ..... SYSOP

This is the key required for a user to be able to add, modify, or delete a door from the database that can be accessed through Doors.

QDLKEY Key required download QWK packets ..... SYSOP

If you don't want everyone on your system able to freely download QWK-mail packets, set this option to the name of the key users must have in order to download packets.

To freely allow downloading of QWK-mail packets, clear out this option with the <*F2*> key (or set it to DEMO).

QULKEY Key required to upload reply packets ..... NORMAL

If you don't want everyone on your system able to freely upload QWK-mail reply packets (.REP files), set this option to the name of the key users must have in order to upload packets.

To freely allow uploading of QWK-mail reply packets, clear out this option with the <*F2*> key (or set it to DEMO).

SECURITY OF ONLINE SERVICES

These online services have elaborate security mechanisms:

- Remote Sysop Menu
- Forums
- File Libraries

You can manage the security of these services by logging on as the Sysop User-ID.

Remote Sysop Menu Access — the Editing Access Menu

The user named Sysop manages access to the Remote Sysop Menu. All the commands in this menu may be made available to users on an individual basis.

You have complete flexibility in deciding which commands to make available to which users.

Log on as Sysop and choose the SYSOP option from the Remote Sysop Menu. After specifying a User-ID, you'll come to the Editing Access Menu, which looks almost exactly like the Remote Sysop Menu. You can decide exactly which of these dozens of powerful commands that a particular user can use.

When you are in the Editing Access Menu, you'll see which commands the user can already use by the little => indicator (if it is there, he can use the command; if it isn't, he can't). For example:

DETAIL => Detail Info on User-ID	Allowed to use DETAIL command
DETAIL Detail Info on User-ID	Cannot use DETAIL command

Toggle access on and off by typing in the name of the command. Typing ON permits access to all remote Sysop commands, typing OFF turns them all off.

When the SYSOP option is turned on, the user has the powerful master key (page 110).

You'll probably want to make your menu tree design (page 59) reflect just who is, and who isn't, allowed in the Remote Sysop Menu.

Here is an example of giving a user access to commands in the Remote Sysop Menu:

```
                    R E M O T E   O P E R A T O R   M E N U

  SENDALL => Send Message to All              SYSTATS => View Overall Statistics
     SEND => Send Message to User-ID         MODSTATS => View Module Usage
    LOGON => Edit BBS Log-on Message         DEMSTATS => View System Demographics
                                             CLSSTATS => View Class Statistics
  ACCOUNT => Accounting functions
   DETAIL => Detail Info on User-ID           EMULATE => Emulate a channel
    AUDIT => Display the Audit Trail          MONITOR => Monitor All mode
    USERS => Stats of Users Online              INPUT => Monitor Input mode
   SEARCH => Account Database Search           CHANGE => Change Channel Status

   HANGUP => Disconnect a User-ID                TYPE => DOS TYPE command
  SUSPEND => Suspend/Unsuspend a User-ID         COPY => DOS COPY command
  PROTECT => Protect/Unprotect a User-ID       RENAME => DOS RENAME command
   DELETE => Delete a User-ID                     DIR => DOS DIR command
 SHUTDOWN => Shutdown the System                   MD => DOS MD command
  CLEANUP => Force Cleanup or Event                RD => DOS RD command
 TRANSFER => Transfer files                       DEL => DOS DELETE command
    SYSOP => Edit a User-ID's Access

REMOTE SYSOP
Select an option (or ? for menu): SYSOP

Which User-ID would you like to edit? COSYSOP

Editing access for "CoSysop"...

  SENDALL    Send Message to All            SYSTATS    View Overall Statistics
     SEND    Send Message to User-ID       MODSTATS    View Module Usage
    LOGON    Edit BBS Log-on Message       DEMSTATS    View System Demographics
                                           CLSSTATS    View Class Statistics
  ACCOUNT    Accounting functions
   DETAIL    Detail Info on User-ID         EMULATE    Emulate a channel
    AUDIT    Display the Audit Trail        MONITOR    Monitor All mode
    USERS    Stats of Users Online            INPUT    Monitor Input mode
   SEARCH    Account Database Search         CHANGE    Change Channel Status

   HANGUP    Disconnect a User-ID              TYPE    DOS TYPE command
  SUSPEND    Suspend/Unsuspend a User-ID       COPY    DOS COPY command
  PROTECT    Protect/Unprotect a User-ID     RENAME    DOS RENAME command
   DELETE    Delete a User-ID                  DIR    DOS DIR command
 SHUTDOWN    Shutdown the System                MD    DOS MD command
  CLEANUP    Force Cleanup or Event             RD    DOS RD command
 TRANSFER    Transfer files                    DEL    DOS DELETE command

    SYSOP    User has the "MASTER" key throughout the system

Type "ON" or "OFF" to toggle all options,
otherwise option to toggle, X to exit, or ?: DETAIL

Type "ON" or "OFF" to toggle all options,
otherwise option to toggle, X to exit, or ?: USERS

Type "ON" or "OFF" to toggle all options,
otherwise option to toggle, X to exit, or ?: SEARCH

Type "ON" or "OFF" to toggle all options,
otherwise option to toggle, X to exit, or ?: ?
```

```
Editing access for "CoSysop"...

 SENDALL    Send Message to All          SYSTATS    View Overall Statistics
    SEND    Send Message to User-ID     MODSTATS    View Module Usage
   LOGON    Edit BBS Log-on Message     DEMSTATS    View System Demographics
                                        CLSSTATS    View Class Statistics
 ACCOUNT    Accounting functions
  DETAIL => Detail Info on User-ID       EMULATE    Emulate a channel
   AUDIT    Display the Audit Trail      MONITOR    Monitor All mode
   USERS => Stats of Users Online          INPUT    Monitor Input mode
  SEARCH => Account Database Search       CHANGE    Change Channel Status

  HANGUP    Disconnect a User-ID            TYPE    DOS TYPE command
 SUSPEND    Suspend/Unsuspend a User-ID     COPY    DOS COPY command
 PROTECT    Protect/Unprotect a User-ID   RENAME    DOS RENAME command
  DELETE    Delete a User-ID               DIR    DOS DIR command
SHUTDOWN    Shutdown the System             MD    DOS MD command
 CLEANUP    Force Cleanup or Event          RD    DOS RD command
TRANSFER    Transfer files                 DEL    DOS DELETE command

   SYSOP    User has the "MASTER" key throughout the system

Type "ON" or "OFF" to toggle all options,
otherwise option to toggle, X to exit, or ?: _
```

In this example, user CoSysop can now use the DETAIL, USERS, and SEARCH commands from the Remote Sysop Menu.

Forum Access Levels

You manage Forum access in two ways:

- Defining privileged or unprivileged access
- Assigning different access levels:
  - To individual users
  - To all privileged users
  - To all nonprivileged users

Privileged users are those with the NORMAL key, as specified by the SIGPRV offline Security & Accounting option.

The eight access levels are:

Zero	user cannot see anything in the Forum.
Read	user can read Forum messages, but not download files attached to the messages.
Download	user can download files, but not write messages to the Forum or upload file attachments.
Write	user can write Forum messages, but not upload files.
Upload	user can upload files, but the files require Forum-Op approval before other users can download them.
Co-Op	user can upload files, and the files are immediately available for other users to download.
Forum-Op	Forum-Op can approve uploads, maintain bulletins, and set the access levels of other users.

Sysop	Sysop can create and delete Forums, and assign Forum-Ops. Can also duplicate user privileges. This level is not assignable directly: holders of the SYSOP key (as specified by offline Security option SIGSYS) have the Sysop access level in all Forums.

You assign these levels (except Sysop) with the online C = Configure User Privileges option in the Forum menu (see page 240). See Forum management starting on page 238 for details.

Library Locks

In the File Libraries, you can apply a different set of locks in each Library, either when you create the Library or when you edit the Library's options.

Features that can be locked within each individual Library:

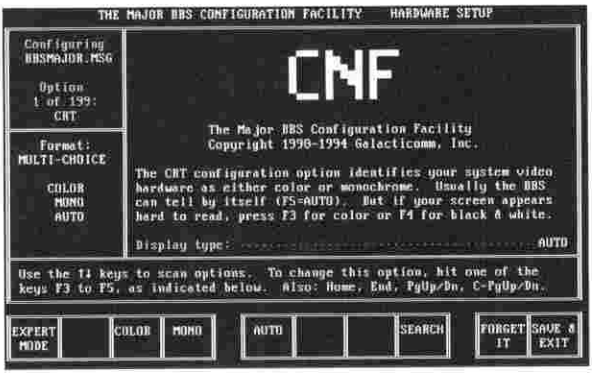
- Visibility to the Library
- Downloading from the Library
- Uploading to the Library
- Overwriting other files in the Library
- Pre-approval of uploaded files (allowing other users to download right away)
- Primary Library Operator: sweeping powers within the Library

The default keys for the above are set in Level 3 Security & Accounting. The default User-ID for the Primary Library Operator is SYSOP.

See Library Management, pages 254-268, for details.

10

USING CNF



CNF is the offline configuration facility for The Major BBS. You can use it to customize many features of your BBS. There are hundreds and hundreds of options here that you can scroll through, search for, view, read help messages on, and change to suit you.

CUSTOMIZING YOUR BBS WITH CNF

Four distinct services present options to you in the CNF format. All are available from the offline Introductory Menu:

1. **Hardware Setup**	Communications interface specifications and settings and other system settings.
3. **Security & Accounting**	Keys required to use online services, charges for services.
4. **Configuration Options**	Numerous miscellaneous options and settings, including the questionnaire questions.
6. **Editing Text Blocks**	Almost all the prompts, menus, and help messages in the BBS, including the user registry questions.

In each of these services, you can scan up and down through a long list of options and settings, change some options if you like, and hit *<F10>* to save and exit.

CNF Quick Reference

<up> <down>	Scroll up and down through the options.
<PgUp> <PgDn>	Page up and down through the options, 15 at a time.
<Ctrl-PgUp>	Jump up to the next index-tab boundary.
<Ctrl-PgDn>	Jump down to the next index-tab boundary.
<Home>	Jump up to the first option.
<End>	Jump down to the last option.
<Enter>	Edit a text block or move to next option.
<left> <right>	Edit an option.
<Backspace>	
<Del> <Ins>	
<Alt-J>	Shell to DOS (then type `EXIT` to return to CNF).
<F1> `HELP MODE`	View one option at a time with complete instructions.
<F1> `EXPERT MODE`	View 15 options at a time in the options box. Scroll them up and down. See the way the options are grouped with the index tabs. If you want expert mode all the time, set the Configuration option `EXPMODE` to `YES`.
<F2> `CLEAR`	Blank out the option. (Then retype it if you wish.)
<F2> `EDIT`	Edit the text block using BBSDRAW (page 84), if you are editing the English/ANSI version, or RIP*aint*, if you are editing the English/RIP version and you have a copy of RIP*aint* installed on your BBS. If you try to edit the English/RIP version of a text block without RIP*aint* installed, CNF will display an error message.
<F3> – <F7>	Softkey selections for multiple-choice options.
<F3> `CHOOSE LANG`	Choose a user-language (for text options only, and only when you have more than one language on your BBS).
<F4> `CLEAR`	Clear the version of this text option under the current user-language (see "Language Subsets," page 53).
<F8> `SEARCH`	Search for a string among the names, descriptions, help messages, and values of the options.
<Shift-F8>	Continue searching forward for the same string.
<Ctrl-F8>	Search backward, up through previous options.
<F9> `FORGET IT`	Exit CNF without saving any of the changes you made.
<F10> `SAVE & EXIT`	Save your changes and exit CNF.

Here are some important CNF options that affect the way that CNF itself operates:

The first option under Hardware Setup: CRT

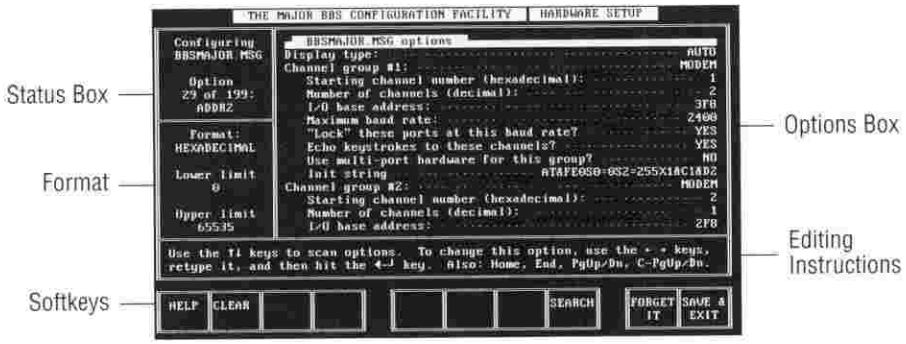
COLOR	Act like you have a color screen
MONO	Act like you have a monochrome, black & white screen
AUTO	Automatically decide whether this is a color or monochrome screen

This option affects the appearance of the entire BBS and all offline utilities.

The first Configuration Option: EXPMODE

NO	CNF always starts out in help mode (full instructions displayed)
YES	CNF always starts out in expert mode (15 options displayed at once)

The CNF Display



Options Box

This box shows you the option you're pointing to. This example shows the screen in expert mode where you can see up to 15 options at once. (In this case, there are 14 options with an index tab on top). On the left are descriptions of each option and on the right are the current settings. (Except: with Text options, you have to hit *<F2>* or *<Enter>* to see the settings.) At the bottom of the box is the current option, the one you can edit.

Index Tabs in the Options Box

CNF options are actually stored in text files with the extension .MSG. In expert mode, the options are grouped by file and marked with little tabs between files. The file name that the current option belongs to also appears in the upper left corner in the status box. Use *<Ctrl-PgUp>* and *<Ctrl-PgDn>* to hop between message files.

Options You've Changed

On a color screen, the background is blue behind most options. When you change an option the background is red. On a monochrome screen, the changed options show in reverse video.

Softkeys

These squares show you the action of the function keys <*F1*> through <*F10*> on your keyboard. See the quick reference on page 142.

Status Box

This box shows you the name of the current option (the one at the bottom of the options box) and the file it belongs to. Example files:

BBSMAJOR.MSG	System options
BBSACCT.MSG	User accounting and handling functions
BBSSUP.MSG	Sign-up
BBSEDTM.MSG	Full Screen Editor and Line Editor for messages
BBSEDTF.MSG	Full Screen Editor and Line Editor for files
BBSFSD.MSG	Full Screen Data Entry and Linear Entry
BBSFTF.MSG	File Transfer Service
GALMS.MSG	Electronic Mail, Forums, MHS
GALTLC.MSG	Teleconference
GALP&Q.MSG	Polls and Questionnaires
GALREGIS.MSG	Registry of Users
GALFIL.MSG	File Libraries
GALRSY.MSG	Remote Sysop Menu

When you change an option, its name and the file it belongs to get highlighted in the status box.

Format

As you move to the different options, this box shows you the type of option and the values to which you could change it. For text options, the format box also shows you the current language and the editor that will be used with it.

Types of CNF Options

The format box shows you the type of the option you're pointing to. In some cases the option is limited to a range of values or to certain specific values.

CHARACTER	One letter, digit, or punctuation symbol
STRING	A one-line string of characters
TEXT	These usually are 25 lines by 79 characters, with optional ANSI commands and extended ASCII characters. In general, you edit text options with BBSDRAW by typing <*F2*> (see page 84). Text options are the only options that may have different values for different languages. They also may have different formats and different editors, as do /RIP languages, which are in RIP*script* graphics format and edited with RIP*aint*.
NUMERIC	A decimal number
LARGE NUMERIC	A large decimal number
HEXADECIMAL	A hexadecimal number

YES or NO	Use the <*F3*> or <*F4*> softkey, or Y or N.
MULTIPLE CHOICE	This option has a limited number of choices, which are all visible in the format box. You can type in your choice, or you can use the softkeys to pick the one you want.

Help Mode vs. Expert Mode

When you first bring up one of the CNF services, you'll see the first option with full instructions displayed in the options box. Hit <*Enter*> to move to the next option. Retype any option you like and hit <*Enter*>.

To switch to the expert mode, hit the <*F1*> key. Then you'll see a full 15 lines of options in the option box. The keys still work the same: Use <*up*> and <*down*> to scroll through the options, retype them as you wish, and hit <*Enter*>. To get more information on an option, move to the bottom of the option box and hit <*F1*>. Now you're back in help mode until you hit <*F1*> again.

CNF defaults to the help mode. You can change that by changing the Configuration option EXPMODE to YES. Then CNF always will come up in the expert mode.

<*F8*> Searching

You can search for words and phrases using the <*F8*> search key. Just hit <*F8*>, type in a word, and hit <*Enter*>. CNF will scan for your word in the option name, description, help message, and the value of the option. If CNF can find a match, it will stop on that option. To search through all the options, move to the top first with <*Home*>and then use <*F8*>. Otherwise, the search will start from the current option and move downward.

If you get a match but it's not the one you want, hit <*Shift-F8*> (hold down the <*Shift*> key and hit <*F8*>). This will scan forward for the next occurrence of the same word. If you get down to the last occurrence, you can hit <*Ctrl-F8*> to scan upwards, toward the first occurrence.

Also, when you're typing a word to search for, you can end with <*Ctrl-F8*> instead of <*Enter*>. This will start the search upward instead of downward.

Editing Text Options

In the English/ANSI language, and most other /ANSI languages, text options are blocks of text that are up to 79 characters wide and 25 lines long. When you point to a text option and hit <*F2*>, you fire up the BBSDRAW editor. Use the arrow keys to move around, retype some text, use <*Alt-Y*> to delete lines, and so forth. When you are done, hit <*Alt-S*> to save the information and return to the CNF screen. If you want to import a text file into BBSDRAW, use <*Alt-L*>. See page 84 for more details on using BBSDRAW.

Other languages may have other formats and custom editors. For example, English/RIP and all /RIP languages use RIP*aint* to edit RIP graphics. The current language appears in the format box on the CNF screen. Choose among the languages defined on your BBS by pointing to a text option and typing <*F3*>.

On page 56 are instructions for defining your own language. In the *Developer's Guide* that comes with the Developer's C Source Kit, you can find a complete description of the language format in the .MDF and .MSG files.

Custom Editors

If you are handy with a DOS text editor, such as EDIT, you can specify your own custom language editor (other than the standard BBSDRAW) for use on English/ANSI text by changing this line in BBSMAI.MDF:

```
Language Editor: BBSDRAW %S
```

For example, to use the popular ANSI editor TheDraw, you might change the line to:

```
Language Editor: THEDRAW %S
```

The main drawback to using TheDraw in this way is that when saving your changes you have to type in the name of the destination file. This should be CNF00000.ANS, unless that file already was on your disk for some reason. The *Developer's Guide* has complete instructions for using custom editors.

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CONFIGURATION OPTIONS

This section describes the offline Configuration Options for The Major BBS. The default settings are shown here. To change settings, shut down the BBS and select option 4, Configuration Options, from the Introductory Menu. See page 141 for instructions on using CNF.

OFFLINE CONFIGURATION OPTIONS

Default Settings

Configuration Options in BBSMAJOR.MSG

```
EXPMODE   Default to expert mode each time CNF comes up? ..... NO
BBSTTL    BBS name ..... YOUR SYSTEM NAME HERE
COMPANY   Company name ..... Your Company Name
ADDRES1   Address Line 1 ..... Your Company Address, Line 1
ADDRES2   Address Line 2 ..... Your Company Address, Line 2
DATAPH    Your main BBS phone number ..... YOUR MAIN NUMBER
LIVEPH    Reserved usage phone number ..... YOUR RESERVED NUMBER
OUTBSZ    Size in bytes of each port's output buffer: ..... 8192
LANGOP    Ask users their language/protocol before logging on? ..... ASK
ANSIOP    Initial ANSI setting at start of session: ..... AUTO
RSETOP    Status of phone lines when BBS is down: ..... BUSY
ENAEUR    Enable receipt of European character set data? ..... NO
MODZAP    Seconds between resetting inactive modems (0=off) ..... 300
IDLZAP    Seconds of live user inactivity before hangup (0=off) .... 1200
ZAPSER    Apply inactivity-logoff to SERIAL channels? ..... NO
ZAPDLAN   Apply inactivity-logoff to Direct LAN channels? ..... NO
ZAPVLAN   Apply inactivity-logoff to Virtual LAN channels? ..... YES
SVRATE    Seconds between saving system variables (0 disables) ..... 300
MCUHR     Hour of day for auto-cleanup ..... 3
MSHHR1    Hour of day for timed event auto-shutdown #1 ..... -1
MSHHR2    Hour of day for timed event auto-shutdown #2 ..... -1
MSHHR3    Hour of day for timed event auto-shutdown #3 ..... -1
MSHHR4    Hour of day for timed event auto-shutdown #4 ..... -1
MCUMIN    Grace period before auto-shutdown (minutes) ..... 20
MCUWRN    Minutes of explicit warnings before auto-shutdown ..... 5
LONAUD    Make Audit Trail entry for each Log-on? ..... NO
LOFAUD    Make Audit Trail entry for each Log-off? ..... NO
```

```
MMUAUD    Record all user Menu Tree choices in Audit Trail? ..... NO
MAXCAT    Maximum number of concatenated commands allowed: ..... 7
SHORTM    When exiting to a menu, use short form or long? ..... SHORT
PFCBIL    Severity level of profanity suppression ..... 2
VISREL    Period (inverse pitch) of emulation beep ..... 800
INVBEL    Period of emulation beep when not monitoring ..... 0
SOPAUD    Output Audit Trail postings to remote Sysops? ..... NO
EXICNC    Make "concatenated commands" bypass menu upon exit? ..... YES
UPDCLK    Enable automatic DOS clock synchronization? ..... YES
NUMXRP    Number of "possible UIDs" to display in list: ..... 6
SCNPAUS   One-line prompt when screen pauses (hit <F2> to see it)
MAXSCNS   Maximum number of display screens: ..... 15
MMUATR    ANSI attribute for menu options ..... <-[1;36m
ANSDIM    ANSI sequence to dim menu options ..... <-[0;37m
```

Configuration Options in BBSACCT.MSG

```
HWTLOG    Highest system usage, users logging on get (minutes) ..... 1
LWTLOG    Lowest  system usage, users logging on get (minutes) ..... 2
HWTSUP    Highest system usage, users signing up get (min/ques) ..... 2
LWTSUP    Lowest  system usage, users signing up get (min/ques) ..... 3
```

Configuration Options in BBSSUP.MSG

```
SGNAUD    Make Audit Trail entry for each new signup? ..... YES
SGNBEL    Period (inverse pitch) of signup beep ..... 1100
MINCXF    Minimum credits one user can xfer to another ..... 600
DFTEDT    What default editor should new signups be given? ..... FSE
SAFPSW    Can a user's password be "PASSWORD" or their User-ID? ..... NO
LANGSUP   Ask new user's language/protocol preference? ..... NO
SNDRST    Send RIP_RESET_WINDOWS when switching to non-RIP? ..... YES
ANSASK    Double-check new user's ANSI setting? ..... YES
ASKNAM    Ask users their first and last names? ..... YES
ASKCOM    Ask users their company name? ..... YES
ASKADR    Ask users their address (3 lines)? ..... YES
ASKPHO    Ask users their telephone number? ..... YES
ASKSYS    Ask users the type of system they are using? ..... YES
ASKBDY    Ask users their date of birth? ..... YES
CHGBDY    Allow users to change their date of birth? ..... NO
ASKSEX    Ask users their sex? ..... YES
SGNUSZ    Maximum size for User-IDs of new users: ..... 29
DIGALW    Allow digits in User-IDs? ..... NO
FULALW    Allow spaces and punctuation in User-IDs? ..... YES
NAMDFT    How should User-IDs be handled for new signups? ..... ASK
SUPHDR    Additional signup question header
SUPQS1    Additional signup question #1
SUPQS2    Additional signup question #2
SUPQS3    Additional signup question #3
SUPQS4    Additional signup question #4
SUPQS5    Additional signup question #5
SUPQS6    Additional signup question #6
SUPQS7    Additional signup question #7
SUPQS8    Additional signup question #8
SUPQS9    Additional signup question #9
SUPQ10    Additional signup question #10
SUPEND    Closing thanks for additional signup questions
SAVINF    Save standard signup information to ASCII file? ..... NO
SUPFRM    Save any signup information in "fixed-length ASCII"? ..... NO
```

Configuration Option in BBSEDTM.MSG

```
FSEMHI   Minimum screen height for Full Screen Editor: ..... 20
```

Configuration Options in BBSFSD.MSG

```
ALMMMX   Beep user when he makes a data entry error? ..... YES
UDWRAP   Should up and down arrows "wrap" at top & bottom? ..... YES
SECCHR   "Secret" data entry character (e.g., changing password): .... *
```

Configuration Options in BBSFTF.MSG

```
MAXTAGS  Max number of file specs to tag for download? ..... 50
KBYTTO   X/YMODEM upload byte timeout: ..... 3
KBLKTO   X/YMODEM upload block timeout: ..... 10
KRETRY   X/YMODEM upload max number of retries: ..... 10
X25TMO   X/YMODEM upload minimum timeout over X.25 (seconds) ..... 10
ZTZONE   Seconds between GMT and local/daylight time: ..... 0
ZXWINDOW ZMODEM download max window size: ..... 2048
KTXWIN   Kermit download maximum window size (in packets): ..... 8
KRCWIN   Kermit upload maximum window size (in packets): ..... 8
KTXTMO   Kermit download timeout (seconds): ..... 5
KRCTMO   Kermit upload timeout (seconds): ..... 5
KTXRETRY Kermit transmitter retry limit: ..... 10
KRCRETRY Kermit receiver retry limit: ..... 10
FXPREF   File transfer X.3 prefix: ..... 2:0
FXSUFF   File transfer X.3 suffix: ..... 2:1
ALWAIT   Auto log-off waiting period, in seconds: ..... 5
BINZAP   Binary transfer, inactive timeout in seconds: ..... 300
ASCZAP   ASCII transfer, inactivity timeout in second: ..... 600
```

Configuration Options in BBSRIP.MSG

```
MINVER   Maximum RIP version code for auto-sensing ..... 015200
DSPXIT   Display button for exit from main menu? ..... NO
XITPGE   Name of "Logoff (End Session)" page: ..... EXIT
MAXLGE   Maximum number of selections for large button style: ..... 16
DSPOEXT  Display other menu file extensions for RIP users? ..... NO
HASCLB   Does this BBS have a custom Library? ..... NO
```

Configuration Options in GALMS.MSG

```
DFTPR1   By default, clear msgs after replied to for new users? .... YES
DFTPR2   By default, at logon, how to handle new mail: ..... PROMPT
DFTPR3   By default, include Forum msgs in new user's mailbox? ..... YES
DFTPR4   By default, how to handle "message quoting": ..... NEVER
DFTPR5   By default, read messages in "browse mode"?: ..... NO
CB4HDR   If not in "browse mode", clear screen for messages? ..... YES
EMLLIF   Lifetime (days) of each E-mail message (-1=forever): ..... 21
AUTQSC   Always put new Forums in users' quickscans? ..... YES
MSGATR   ANSI attribute for message texts ..... <-[1;32m
SUPU2S   Write E-mail automatically to Sysop from new users? ..... YES
SUPE2U   Write E-mail automatically to new users from Sysop? ..... YES
E2UTPC   New-user auto-message topic: ..... Welcome New User!
E2UTXT   Text of E-mail message to new users from Sysop .....
E2UATT   Attachment to new user E-mail, if any ..... BBSUSER.DOC
E2URRR   Return receipt when user reads new-user E-mail ..... NO
ASKATT   Prompt users for E-mail file attachments? ..... YES
ASKRRR   Prompt users for E-mail return receipt? ..... YES
ASKCPY   Prompt users to copy E-mail to another user? ..... YES
EDNAUD   Make Audit Trail entry for each E-mail download? ..... NO
EUPAUD   Make Audit Trail entry for each E-mail upload? ..... NO
```

```
CCMAX     Maximum no. of carbon copies per E-mail message: ..... 5
NSIGS     Number of Forums to allow room for: ..... 40
STLCOF    Allow "teleconference" from Forums for ordinary users? .... YES
SIGLIF    Default life (in days) of Forum messages (-1=forever) ..... 90
SDNAUD    Make Audit Trail entry for each Forum download? ..... YES
SUPAUD    Make Audit Trail entry for each Forum upload? ..... YES
DFTSIG    Default Forum for users when first online ..... /HelTo
QIKDLY    Cycle-based delay for distribution lists: ..... 0
ALWMHS    Do you wish to activate MHS-type messaging? ..... NO
```

Configuration Options in GALFIL.MSG

```
DEFLNAME  Name of the default Library ..... MAIN
DEFDESC   Description for default Library ... A general-purpose file area
NOTIFSYS  Notify Sysop of unapproved files at logon? ..... YES
NOTIFLOP  Notify Lib-Ops of unapproved files at logon? ..... YES
UNIFILE   Require unique file names across all Libraries? ..... NO
SYSTAGS   Maximum # of tagged files to allow system-wide? ..... 300
TEMPDIR   Temporary directory for uploads ..... LIBTEMP\
COPYDIR   Dirpath for temporary files ..... LIBCOPY
THRESH    Copy threshold, in megabytes ..... 5
DEFPROTO  What is the default protocol for everyone? ..... ?
LONGSRCH  Force embedded, brute force keyword searches? ..... NO
COMEFF    Comm efficiency (for computing download time) in % ..... 70
FREEULS   Allow free uploads in all Libraries? ..... NO
AUDITALL  Record all file transfers to Audit Trail? ..... NO
PFNOEIL   Severity level of profanity suppression ..... 2
CHGABT    Charge users for aborted downloads? ..... NO
DEFALLTB  Search all Libraries from (D)ownload prompt by default? ... YES
CLNLEVEL  Level of Library cleanup to run nightly. 0=none ..... 1
DEFSTYP   System default List/Search mode ..... P
DEFSLIB   System default range of Libraries to List/Search ..... ... ASK
STFLIST   Exclude color (for ANSI users) in downloadable lists? ..... YES
```

Configuration Options in GALGLO.MSG

```
NRECCL    Number of entries in recent logoffs list ..... 40
SYSREQ    Include MASTER key-holders in /RECENT list? ..... NO
```

Configuration Options in GALMJD.MSG

```
RLSPRT    Release Door ports when Door connection terminates? ..... NO
DISCHR    Character used to disconnect from Door: ..... -
```

Configuration Options in GALNOTE.MSG

```
ANCFNM    Announcement file name ..... GALNOTE.TXT
UFPHDR    Use File Page header as Announcement header? ..... NO
ANCHDR    Header for announcement text (hit <F2>)
ANCTRL    Trailer for announcement text (hit <F2>)
TXTATR    ANSI color sequence for announcement text ..... <-[1;32;40m
```

Configuration Options in GALP&Q.MSG

```
ASCIIFIL  ASCII file for answer storage ..... P&QANSR.TXT
```

Configuration Options in GALQWK.MSG

```
QWKNAME   Your BBS ID ..... YOUR_ID
INTERPKT  Time in seconds between processing packets ..... 30
```

```
INTRAPKT  Time in seconds between processing messages ..... 2
NEWSFL    QWK "news" file in BBS directory .....
FRMLMT    Maximum messages per Forum, per QWK packet ..... 200
VALTO     Validate "To:" field of uploaded .REP packet? ..... NO
```

Configuration Options in GALTLC.MSG

```
NSWCHX    Max times a user can switch channels in 15 sec period ..... 3
PAGINT    Minimum time between paging the same user (seconds) ..... 120
REQINT    Minimum time between requests to chat with a user ..... 120
TINPSZ    Maximum length of a teleconference message (characters) ... 127
SOPBEL    Period (inverse pitch) of page-Sysop beep ..... 500
DFTPOP    Default page-enable status at user logon ..... ON
```

What the Settings Do and How To Change Them

Configuration Options in BBSMAJOR.MSG

```
EXPMODE   Default to expert mode each time CNF comes up? ..... NO
```

This facility can operate in two modes: expert mode or continuous help. To toggle between the two modes at any time, press the *<F1>* key. To default to expert mode, enter `Y` or hit *<F4>*. Otherwise enter `N` or hit *<F3>*.

```
BBSTTL    BBS name ..... YOUR SYSTEM NAME HERE
```

This is the title of your BBS (Bulletin Board System). This title will be presented to users when they connect with your system. Hit *<F2>*, type in the name of your BBS, and hit the *<Enter>* key.

```
COMPANY   Company name ..... Your Company Name
ADDRES1   Address Line 1 ..... Your Company Address, Line 1
ADDRES2   Address Line 2 ..... Your Company Address, Line 2
```

Your company name and address are presented to users when they are instructed as to how to purchase system credits, allowing them live connect time. Hit *<F2>*, type your company's information, and hit the *<Enter>* key.

```
DATAPH    Your main BBS phone number ..... YOUR MAIN NUMBER
LIVEPH    Reserved usage phone number ..... YOUR RESERVED NUMBER
```

You may allocate some of your phone lines for demonstration purposes, while reserving others for special users only (see the offline Security & Accounting Options `SAMPLN` and `SAMPKY`). When doing this, you will typically have two separate phone line rotaries: one for everybody (`DATAPH`) and one for special users only (`LIVEPH`).

Users will be told that they can only use this phone number to dial up your BBS when their account has upgraded status.

```
OUTBSZ    Size in bytes of each port's output buffer: ..... 8192
```

Each port has a "circular buffer" for output bytes, so that the main program can dump batches of text into the buffer all at once, and the bytes can then be transmitted to the user one at a time, as the communications device is ready for them.

The size of this buffer is used for, among other things, determining the maximum size of E-mail messages, and Forum messages.

```
LANGOP    Ask users their language/protocol before logging on?: .... ASK
```

Do you want to ask users what language/protocol they want to use every time they long on?

If you have a suite of initial welcome messages that are custom designed for each language, answer ASK, to make sure users get the right language from the very start. (The question is skipped if the auto-sensing phase produces one best choice.)

Answer AUTO to always avoid this question and move right into asking for their User-ID. If the only languages defined on your BBS are English/ANSI and English/RIP, then it is probably a good idea to set this option to AUTO. This helps non-RIP*term* users, who would otherwise have to answer this question when they log on:

```
Auto-sensing …

Please choose one of these languages:

1. English/ANSI     The standard English language version
2. English/RIP      The English version of RIPscrip graphics

Choose a number from 1 to 2: __
```

With LANGOP set to AUTO, non-RIP*term* users always start off with the English/ANSI language.

RIP*term* users, on the other hand, always will start off using a RIP language, because of RIP*scrip*'s auto-sensing capability, even if LANGOP is set to ASK. If your BBS has more languages defined, however, you might need to keep LANGOP set to ASK, so users can state their preferred language when they sign up.

```
ANSIOP    Initial ANSI setting at start of session: ..... AUTO
```

Once a user logs on, the BBS knows whether to enable ANSI graphics to that user. However, when the modem connection is first made, the system may have to make an assumption about whether or not the user supports ANSI. There are four ways you can configure this initial assumption:

ON	assumes every user supports ANSI
OFF	assumes no user supports ANSI
ASK	asks each user, first thing, if they do or not
AUTO	determines automatically if a user does or not

```
RSETOP    Status of phone lines when BBS is down: ..... BUSY
```

Both during the auto-cleanup and when the BBS is shut down, the phones lines are not active. Do you want the lines "busied out" or simply not answered when they ring? Select BUSY to force the lines off-hook during the auto-cleanup and at shutdown, or NO-ANS to let them just ring if they must, without being answered.

```
ENAEUR    Enable receipt of European character set data? ..... NO
```

In the U.S., you will probably want to ignore the parity bit of each received data character, so that callers will not be bothered by incorrect parity/data-bit settings such as 7-E-1 or 7-N-2 (the recommended setting is 8-N-1). Answer NO here for the greatest convenience of U.S. callers.

However, for various European character sets and other special symbols, it is vital to treat the high-order bit of each incoming byte as a data bit. If you answer YES here, it means that callers must use the correct setting of 8 data bits, no parity, 1 stop bit.

```
MODZAP    Seconds between resetting inactive modems (0=off) ..... 300
```

The BBS can be told to periodically reset all modems not in use, providing them with fresh init strings, etc. This is handy in case a modem loses power momentarily or gets clobbered by a power line fluctuation, etc.

This variable is the number of seconds between automatic refresh checks of all vacant modems. To disable this feature, set this number to 0.

```
IDLZAP    Seconds of live user inactivity before hangup (0=off) ... 1200
```

When a user walks away from his session without hanging up or logging off, he is tying up a valuable phone line. How many seconds do you want to give him before The Major BBS hangs up on him? Type 0 if you wish never to hang up on a user due to idleness.

Note: the following options — ZAPSER, ZAPDLAN, and ZAPVLAN — control whether various types of hardware are exempt from the no-activity logoff. Any user with the MASTER key is always exempt.

```
ZAPSER    Apply inactivity-logoff to SERIAL channels? ..... NO
```

It may be desirable to leave your serial channels online semi-permanently in some cases, and not to have to worry about more than IDLZAP seconds going by without input activity before they get automatically logged off or reset. If you want your serial channels to be treated just like modem channels as far as the IDLZAP parameter is concerned, answer YES here. But if you want them protected against the automatic "hangup" due to absence of input activity, answer NO.

```
ZAPDLAN   Apply inactivity-logoff to Direct LAN channels? ..... NO
```

It may be desirable to leave your direct-circuit LAN channels online semi-permanently in some cases, and not to have to worry about IDLZAP seconds going by without input activity before they get automatically logged off. If you want sessions on your IPXD LAN channels to be automatically terminated after IDLZAP seconds, answer YES here. If you want them to stay online indefinitely, answer NO.

```
ZAPVLAN   Apply inactivity-logoff to Virtual LAN channels? ..... YES
```

It may be desirable to leave your virtual-circuit LAN channels online semi-permanently in some cases, and not to have to worry about IDLZAP seconds going by without input activity before they get automatically logged off. If you want

sessions on your IPXV and SPX LAN channels to be automatically terminated after IDLZAP seconds, answer YES here. If you want them to stay online indefinitely, answer NO.

```
SVRATE    Seconds between saving system variables (0 disables) ..... 300
```

The "system variables" include many time measurements for accounting and statistical purposes. In case of power-loss or other catastrophes, the system variables are periodically saved to disk. This save takes a little chunk of time, so you will not want to do it constantly. How often (in seconds) do you wish to save the system variables?

```
MCUHR     Hour of day for auto-cleanup ............................... 3
```

The Major BBS requires time "off the air" to take care of certain internal accounting and housekeeping functions. You may choose the hour of the day when this is to take place. Here are some sample values for this option:

0	12:00 midnight
3	3:00 a.m.
12	12:00 noon
23	11:00 p.m.
-1	never (not recommended)

```
MSHHR1    Hour of day for timed event auto-shutdown #1 ............... -1
MSHHR2    Hour of day for timed event auto-shutdown #2 ............... -1
MSHHR3    Hour of day for timed event auto-shutdown #3 ............... -1
MSHHR4    Hour of day for timed event auto-shutdown #4 ............... -1
```

You may configure The Major BBS to automatically shut down at certain times every day, above and beyond the auto-cleanup time mentioned above. This is handy for intersystem mail utilities such as FidoNet and RelayNet. Here are some sample values for these options:

0	12:00 midnight
3	3:00 a.m.
12	12:00 noon
23	11:00 p.m.
-1	never

```
MCUMIN    Grace period before auto-shutdown (minutes) ................ 20
```

If people are using your system at any of the appointed hours for auto-shutdown (see the last several options), then The Major BBS will wait. It will wait for up to 59 minutes (as you specify here) for users to voluntarily finish and log off. After the grace period, users are forced to log off. (The next option will specify warnings issued toward the end of the grace period).

```
MCUWRN    Minutes of explicit warnings before auto-shutdown .......... 5
```

Toward the end of the grace period associated with an auto-shutdown, you may wish to begin warning any users still online that a shutdown is about to take place. The warnings happen at a rate of once per minute. The setting of this parameter determines how many minutes the warnings will go on for. If this setting is equal to MCUMIN, above, then the warnings will start as soon as the hour begins.

```
LONAUD    Make Audit Trail entry for each Log-on? ..................... NO
LOFAUD    Make Audit Trail entry for each Log-off? .................... NO
MMUAUD    Record all user Menu Tree choices in Audit Trail? ......... NO
```

The Audit Trail is a database that records important events on The Major BBS. Audit Trail entries can be viewed on the main console of the BBS, or even searched offline (select the option 9, Reports, from the Introductory Menu of The Major BBS).

Do you wish to make an Audit Trail entry each time a user logs on — that is, connects with The Major BBS and enters a valid password?

Do you wish to make an Audit Trail entry each time a user logs off — that is, when a user's session ends due to: exiting from the main menu, excess profanity, or simply hanging up the phone line?

Do you wish to make an Audit Trail entry each time a user selects an option from the main Menu Tree of The Major BBS? If so, the User-ID and letter of the menu option will be recorded in the Audit Trail.

```
MAXCAT    Maximum number of concatenated commands allowed: ........... 7
```

Users will use your system by making menu selections and by answering questions. After a while, users may become proficient enough to know the answers before the questions are asked. Command concatenation is a feature that allows users to answer a series of questions in one statement. For example ERT from the MAIN menu may mean: E-mail (E); Read (R); messages To you (T).

You may want to limit the number of commands that can be strung together for simplification.

```
SHORTM    When exiting to a menu, use short form or long? ........ SHORT
```

When returning to a menu from either a module or another menu, do you want the short form or the long form of the menu displayed? The Major BBS standard method is to display the long form only when entering the menu "from above," but you may want the long form displayed each time the menu is reached, regardless of whether it is reached by exiting to it "from below." Answer SHORT to use The Major BBS standard method or LONG to use the long form all the time.

```
PFCEIL    Severity level of profanity suppression ..................... 2
```

The Major BBS has a built-in ability to detect swearing, and to take various levels of action in response. If you want swearing fully permitted on your system, across the board, set this variable to 0. For very limited monitoring and denial of word use, set this variable to 1. A value of 2 leads to more vigorous prosecution of swearers, and a value of 3 yields the most severe restrictions on colorful language available.

```
VISBEL    Period (inverse pitch) of emulation beep ................... 800
```

This number controls both the pitch and the duration of the beep character at the main console when actively emulating a user channel. Increasing this number both lowers the pitch of the tone and makes it take longer.

To disable this beep, set the period to a value of 0.

INVBEL Period of emulation beep when not monitoring 0

This number controls both the pitch and the duration of the beep character at the main console when a user channel has been emulated, but the emulation screen is not visible. Increasing this number both lowers the pitch of the tone and makes it take longer.

To disable this beep, set the period to a value of 0.

SOPAUD Output Audit Trail postings to remote Sysops? ..... NO

Each time an Audit Trail record is created, the BBS can search the list of online users, and, if it finds any user with the MASTER key, it will dump a copy of the Audit Trail record to that user's display.

If you want this feature enabled, answer YES to this question. If you would rather not have your sessions interrupted with this type of data while you are online, answer NO.

EXICNC Make "concatenated commands" bypass menu upon exit? ..... YES

This is a difficult option to explain. The issue is: when a user exits from a point within a module, such that they would normally be presented with that module's primary menu, do you want a special test made that says, "If this user entered the module most recently from a module page with a nonblank command string, then they should exit the module altogether, and never see the module's primary menu"?

UPDCLK Enable automatic DOS clock synchronization? ..... YES

Certain systems, especially those systems which are overloaded or have heavy CD-ROM use, may experience their DOS clock "losing" time. An internal mechanism was built into The Major BBS to periodically update the DOS clock to avoid this problem. However, a few systems have been observed not updating their DOS date at midnight if this feature is enabled. If your system is NOT updating its DOS date properly, you should set this option to NO; otherwise set it to YES.

NUMXRF Number of "possible UIDs" to display in list: 6

At certain prompts, if a user enters a partial User-ID they may be given a list of possible User-IDs, based on the partial ID they entered. This option allows you to alter the number of possible User-IDs displayed to the user in these cases.

The higher this number is, the more overhead is generated on the system whenever a user gets one of these lists. It is recommended that this be left at its default of 6.

SCNPAUS One-line prompt when screen pauses (hit <F2> to see it)

This is the text that is displayed to the user when more than a page of text has been displayed, or their screen is about to be cleared. The options the user will have will be N to not pause any more, Q to abort whatever is being listed, and C to just continue on to the next page.

```
MAXSCNS   Maximum number of display screens: ..................... 15
```

The Major BBS allows add-on modules to have their own display screens. using this option you can control how many screens room is allocated for. You should only change this option if you get an error message telling you to increase this option.

```
MMUATR    ANSI attribute for menu options ....................<-[1;36m
```

This is the ANSI sequence that represents the attribute for any default menus that are displayed.

```
ANSDIM    ANSI sequence to dim menu options ................. <-[0;37m
```

When creating a menu, you are given the choice of showing, hiding, or dimming options that users don't have access to. When a user is shown an option on a menu that they don't have access to, and you've specified the option to be dimmed in that case, this ANSI sequence dims the option.

Configuration Options in BBSACCT.MSG

```
HWTLOG    Highest system usage, users logging on get (minutes) ..... 1
```

When users are logged on to (almost) all available channels, how much time (in minutes) should we give a user to log on before disconnecting him? In other words, when the user is being prompted to enter a User-ID or password, how long do we let him just sit there before bumping him off?

The time limit during lower levels of system usage is interpolated with option LWTLOG, below.

```
LWTLOG    Lowest system usage, users logging on get (minutes) ..... 2
```

When no users are logged on, how much time (in minutes) should we give a user to log on before disconnecting him? In other words, when the user is being prompted to enter a User-ID or password, how long do we let him just sit there before bumping him off?

The time limit during higher levels of system usage is interpolated with option HWTLOG, above.

```
HWTSUP    Highest system usage, users signing up get (min/ques) ..... 2
```

When users are logged on to all available channels, how much time (in minutes) should we give a user to answer each signup question before disconnecting him?

The time limit during lower levels of system usage is interpolated with option LWTSUP, below.

```
LWTSUP    Lowest system usage, users signing up get (min/ques) ..... 3
```

When no other users are logged on, how much time (in minutes) should we give a user to answer each signup question before disconnecting him?

The time limit during higher levels of system usage is interpolated with option HWTSUP, above.

SGNAUD Make Audit Trail entry for each new signup? ..... YES

If you want a time-and-date-stamped entry in your Audit Trail each time a new account (User-ID) is created, answer YES to this question, otherwise answer NO.

SGNBEL Period (inverse pitch) of signup beep 1100

This number controls both the pitch and the duration of the beep at the main console when a new user signs up and enters the Main Menu for the first time. Increasing this number both lowers the pitch of the tone and makes it take longer.

To disable the beep, set the period to a value of 0.

MINCXF Minimum credits one user can xfer to another 600

A user can only transfer credits if they have credits on-hand. You may place a minimum on the amount of credits that any user can transfer, to keep the paupers from cluttering up your Audit Trail.

DFTEDT What default editor should new signups be given? ..... FSE

Users will be able to change the editor they wish to default to. Whatever you put here will be considered a new sign-up's editor of choice until or unless he changes it by editing their account information.

LINE Editor will always come up in line mode.
FSE Editor will come up in full-screen mode if it can, line mode if it can't.

SAFPSW Can a user's password be "PASSWORD" or his User-ID? ..... NO

This option when set to YES will permit users to use their User-ID or the word PASSWORD for their password. This is not recommended as hackers naturally will try a User-ID or PASSWORD in hack attempts. If set to NO the user must choose something else. The Sysop can override this setting by changing a password via the main console's Account screen.

LANGSUP Ask new users language/protocol preference? ..... NO

Answer YES to ask new users what language/protocol they would prefer to use in future log-ons.

(See also the offline Security Option LANGCHG about allowing users to change this preference.)

SNDRST Send RIP_RESET_WINDOWS when switching to non-RIP? ..... YES

If a user is logged on with RIP and switches to a non-RIP language (either during his initial sign-up or during a session, from the Account Display/Edit menu), you can have the BBS send a RIP_RESET_WINDOWS command as soon as the switch is made, in order to clear away any RIP graphics present on the screen.

If you set this option to YES, the BBS will send the command to clear the screen. If you set this option to NO, any present RIP graphics will remain on the screen, and all subsequent output will be routed to the currently defined text window.

ANSASK Double-check new user's ANSI setting? ..... YES

When a user signs up (types new in place of logging on with a User-ID), do you want to double-check his initial ANSI setting? When a user first connects to your BBS, the BBS determines if that user can support ANSI graphics or not (by either auto-sensing or asking them, depending on Level 4 option ANSIOP).

Do you want to double-check that determination by asking the user if he sees a message blinking or not?

ASKNAM Ask users their first and last names? ..... YES

When users sign up (type new in place of logging on with a User-ID), do you want to ask them for their name?

ASKCOM Ask users their company name? ..... YES

When users sign up (type new in place of logging on with a User-ID), do you want to ask them for the name of their company?

ASKADR Ask users their address (3 lines)? ..... YES

When users sign up (type new in place of logging on with a User-ID), do you want to ask them for the address of their company?

ASKPHO Ask users their telephone number? ..... YES

When users sign up (type new in place of logging on with a User-ID), do you want to ask them for their telephone number?

ASKSYS Ask users the type of system they are using? ..... YES

When users sign up (type new in place of logging on with a User-ID), do you want to ask them what type of computer system they are using?

ASKBDY Ask users their date of birth? ..... YES

When users sign up (type new in place of logging on with a User-ID), do you want to ask them what their date of birth is?

CHGBDY Allow users to change their date of birth?..... YES

If you want users to be able to change their date of birth, answer this question with a YES. If only you, as the Sysop, want to have the option of changing a user's date of birth after he or she signs up, answer this question with a NO. You can always change the date of birth from the User Account Detail screen.

ASKSEX Ask users their sex? ..... YES

When users sign up (type new in place of logging on with a User-ID), do you want to ask them what sex they are?

SGNUSZ Maximum size for User-IDs of new users: 29

This option limits the size of the User-ID that a new user may select. By default, this option is the maximum User-ID size allowable on the system. You may, however, wish to restrict the users on your system to having shorter User-IDs. If so, you may alter this number to make it smaller.

DIGALW Allow digits in User-IDs? ..... NO

Normally, User-IDs should be restricted to alphabetic characters only, but you may wish to allow digits. If so, set this option to YES.

Note: we strongly recommend *against* using digits in User-IDs, because it depersonalizes the user interactions. To receive a message from 994582 is a very different experience than receiving a message from George Fulman. Don't feel that, just because CompuServe uses numbers, it is somehow "the way it should be done."

FULALW Allow spaces and punctuation in User-IDs? ..... YES

If you answer YES to this question, User-IDs will be allowed to contain spaces, periods, commas, apostrophes, and hyphens. If you answer NO, then User-IDs will not be allowed to contain any of these characters.

To support people's full names as User-IDs, you will want to answer YES to this question, answer NO to the DIGALW question, and answer 29 to the SGNUSZ question.

NAMDFT How should User-IDs be handled for new signups? ..... ASK

There are three possible answers to this question. The first, REAL, assumes the User-ID for new signups is the real name they enter in. The second, DFAULT, will result in all new signups being asked if they want to go ahead and use the real name they entered as their User-ID, allowing them to answer NO, and select a different User-ID.

The last possible answer to this question, ASK, will result in all new users being asked for a User-ID separate from their real names.

SUPHDR Additional signup question header

If any of the following fields (SUPQS1 – SUPQ10) are not blank, this message will be displayed before the first question.

Hit <*F2*> to view or edit this option.

```
SUPQS1    Additional signup question #1
SUPQS2    Additional signup question #2
SUPQS3    Additional signup question #3
   .
   .
   .
SUPQ10    Additional signup question #10
```

If you want to ask additional questions during signup, put them in these fields (SUPQS1 – SUPQ10). Starting with the first field (SUPQS1), the BBS will output the contents of each field until it reaches the tenth one, or it reaches a blank field. (A blank field means there are no more questions.) The user will be given an opportunity to answer each question (as it's displayed) with up to 79 charac-

ters of input. Each answer will be saved in an ASCII text file in the format specified by the option SUPFRM.

Hit <*F2*> or <*Enter*> to view or edit this English/ANSI text using BBSDRAW.

SUPEND Closing thanks for additional signup questions

If any of the previous fields (SUPQS1 – SUPQ10) are not blank, this message will be displayed after the last question is asked.

Hit <*F2*> or <*Enter*> to view or edit this English/ANSI text using BBSDRAW.

SAVINF Save standard signup information to ASCII file? ..... NO

Answering YES to this question will result in the saving of all information the user entered during signup to an ASCII text file.

If any additional signup questions were specified in options SUPQS1 – SUPQ10, then the answers to those questions will follow immediately after the standard information.

SUPFRM Save any signup information in "fixed-length ASCII"? ..... NO

If you have chosen to add additional signup questions by filling in option(s) SUPQS1 – SUPQS10, or you have selected YES to the SAVINF questions, or both, data is going to be appended to the BBSSUP.TXT file every time a user signs up. Selecting YES for this option will make it so that data is saved in a form that is easily importable into almost any database product. Selecting NO will save it in a more readable, labeled form.

Configuration Options in BBSEDTM.MSG

FSEMHI Minimum screen height for Full Screen Editor 20

This is the minimum screen height a user may have to use the Full Screen Editor. If his screen does not have a height of at least this value, he will be forced to use the Line Editor.

Configuration Options in BBSFSD.MSG

ALMMMX Beep user when he makes a data entry error? ..... YES

Answer YES if you want error conditions on field entry to send a warning tone to the user's terminal. Answer NO to keep these warnings silent.

UDWRAP Should up and down arrows "wrap" at top & bottom? ..... YES

When an ANSI user is using the Full Screen Data entry service and he keeps hitting the up or down arrow keys, what kind of action would you like?

Answer YES if hitting the up arrow at the top field should "wrap" the cursor back down to the bottom field (and you want hitting a down arrow on the bottom field to wrap to the top). Answer NO if the cursor should just sit still in these cases.

```
SECCHR    "Secret" data entry character (e.g. changing password): .... *
```

When entering "secret" data fields, such as when changing a password, what character should be echoed? (This lets the user know how many keystrokes have been typed, but a casual observer won't be able to tell exactly what he's typing.) For example, use * and you may see something like this if you go to change a seven-letter password:

```
Password: *******_
```

Configuration Options in BBSFTF.MSG

```
MAXTAGS   Max number of file specs to tag for download? ............. 50
```

Users can tag up to MAXTAGS-1 files for download using the T protocol. They can download the tagged files all at once using the File Libraries T command. They also get a chance when they log off or whenever they select a multifile download protocol.

Warning: memory penalty will be about 22 x MAXTAGS x NTERMS bytes (NTERMS is the number of channels you define) Also, you could overflow your output buffer if MAXTAGS is too high.

```
XBYTTO    X/YMODEM upload byte timeout: ............................... 3
```

When uploading using XMODEM or YMODEM, how patient should the BBS be when it stops receiving bytes? For example, if you set this option to 3, then when three seconds pass with no incoming bytes, the BBS will request a retry from the transmitter by sending it a NAK.

You might want to use a higher value if your X.25 users are dialing into packet-switching networks at a low baud rate (for example, at 1200 baud, 1,024-byte packets can take more than eight seconds to fill up).

```
XBLKTO    X/YMODEM upload block timeout: ............................. 10
```

When uploading using XMODEM or YMODEM, how patient should the BBS be when it stops receiving blocks? For example, if you set this option to 10, then when the BBS has to wait longer than 10 seconds for an incoming block, it will request a retry from the transmitter by sending it a NAK.

You might need to use a higher value if you have users at 300 baud trying to use XMODEM-1K or YMODEM (where blocks can take longer than 30 seconds to transmit).

```
XRETRY    X/YMODEM upload max number of retries: ..................... 10
```

When one of the above two timeouts occur, and the BBS sends a NAK, how many total NAKs do you want to send before giving up the transmission entirely? (0 means never send NAKs, -1 means retry forever, 32767 means retry for a very long time).

```
X25TMO    X/YMODEM upload minimum timeout over X.25 (seconds) ....... 10
```

X.25 users may experience line delays that require more "patience" in the protocol timing than is required for modem or other users. This option specifies a

minimum timeout period in seconds. For X.25 users, it will override the above XBYTTO and XBLKTO settings (and other internal settings) if they are smaller.

ZTZONE Seconds between GMT and local/daylight time: 0

The ZMODEM and YMODEM-Batch protocols encode file modification dates as seconds since 12:00 a.m. 1/1/70 GMT. To comply with this, and for true compatibility with UNIX systems, you should set this option to the difference, in seconds, between your local time and GMT (+=west, –=east, for example: 14400=EDT, 18000=EST=CDT, 21600=CST=MDT, 25200=MST=PDT, 28800=PST). For compatibility with Omen Technology's DSZ utility, you may use 60 times the value of the DOS environment variable ZONE (or the -z parameter). However, since MS-DOS has no concept of time zones, you will probably want to use 0 (GMT).

ZXWINDOW ZMODEM download max window size: 2048

ZMODEM protocol has provisions for the sender to make sure that it does not get too far ahead of the receiver by requesting feedback, and slowing the transmission when the latency of that feedback exceeds this number. When this parameter is 0, no feedback is requested (so that an entire download will proceed without feedback, until the end of the file, unless the receiver detects errors). A smaller value may mean a smaller receive buffer is required. A larger value will mean less feedback traffic.

KTXWIN Kermit download maximum window size (in packets): 8

Super Kermit, or "sliding windows" Kermit achieves greater efficiency by permitting the transmitter to "get ahead" and transmit packet N+1 before it receives an acknowledgement for packet N. In this way the transmitter can continue without pause.

The window specifies how much the sending can get ahead of the acknowledgement, in terms of packets. This transmit window applies only to downloads.

Memory penalty: about 8 x KTXWIN x (number of users)

KRCWIN Kermit upload maximum window size (in packets): 8

Super Kermit, or "sliding windows" Kermit achieves greater efficiency by permitting the transmitter to "get ahead" and transmit packet N+1 before it receives an acknowledgement for packet N. In this way the transmitter can continue without pause.

The window specifies how much the sending may get ahead of the acknowledgement, in terms of packets. This receive window applies only to uploads.

Memory penalty: about 98 x KRCWIN x (number of users)

KTXTMO Kermit download timeout (seconds): 5

Under Kermit, each party in a transmission may tell the other party how impatient to be. The KTXTMO option is used during transmission to tell the receiver how long of a silence to put up with before timing out and sending a NAK back to the BBS.

KRCTMO Kermit upload timeout (seconds): 5

Under Kermit, each party in a transmission may tell the other party how impatient to be. The KRCTMO option is used during receive to tell the transmitter how long of a silence to put up with before timing out and retrying the sending of a packet to the BBS.

KTXRETRY Kermit transmitter retry limit: 10

When transmitting a file, if the BBS retries the sending of a packet, it will only send a single packet this many times before giving up and declaring "too many retries."

This parameter, multiplied by the timeout specified to the BBS by the receiver's Kermit program, will give you an approximation of the total time it would take for the BBS to detect the death of the receiver (or communication line).

KRCRETRY Kermit receiver retry limit: 10

When receiving a file, if the BBS times-out and sends NAKs for a packet, it will only send this many (for a single packet) before giving up and declaring "too many retries."

This parameter, multiplied by the timeout specified to the BBS by the transmitter's Kermit program, will give you an approximation of the total time it would take for the BBS to detect the death of the transmitter (or communication line).

FXPREF File transfer X.3 prefix: 2:0

On X.25 channels, this X.3 string programs the user's PAD just before a binary upload or download.

FXSUFF File transfer X.3 suffix: 2:1

On X.25 channels, this X.3 string restores the user's PAD just after a binary upload or download.

ALWAIT Auto log-off waiting period, in seconds: 5

For very long downloads or uploads, your users can ask your BBS to automatically log them off when the file transfer is done. To specify that, they add ! after the protocol letter, such as Z! for ZMODEM with auto-logoff.

This option specifies how long to wait after ending the transfer, and giving notice, before actually terminating the call. Make the number smaller for faster auto-logoffs. Make it larger when data compression or other factors cause auto-logoff to cut off the termination notice message.

BINZAP Binary transfer, inactivity timeout in seconds: 300

If no progress is made during a binary file transfer (X/Y/ZMODEM, Kermit) in this many seconds, the transfer will be aborted. Set to -1 to wait forever.

Note: setting this option to -1 may allow idle users to stay online indefinitely (the IDLZAP inactivity timeout will not even start until the file transfer is aborted).

ASCZAP ASCII transfer, inactivity timeout in seconds: 600

If no progress is made during an ASCII file transfer (ASCII, Listing, Viewing) in this many seconds, the transfer will be aborted. Set to -1 to wait forever.

Note: setting this option to -1 may allow idle users to stay online indefinitely (the IDLZAP inactivity timeout will not even start until the file transfer is aborted).

Configuration Options in BBSRIP.MSG

MINVER Maximum RIP version code for auto-sensing 015200

When RIP is auto-sensed, the BBS will find out what version of RIP the user calling in supports. If the user calling in doesn't have at least this version, he'll be warned that he needs to download an update.

This version code must be a six-digit string without any periods (such as 015200 for version 1.52.00).

DSPXIT Display button for exit from main menu? ..... NO

When the BBS generates an automatic RIP menu, it displays a button for each option specified for a menu page in the menu tree — on your BBS's main system menu, this includes the option to log off. Since RIP menus, by default, have a Global Command Bar (contained in the text block DFSEND) at the bottom, which has an EXIT button, displaying an additional button for logging off may be redundant. Set this option to NO to suppress the display of this button — your users will use the EXIT button to log off your system. Set this option to YES if you would like a button displayed for the logoff option.

XITPGE Name of "Logoff (End Session)" page: ..... EXIT

To avoid displaying a button for the option to log off the system, the BBS needs to know what menu page calls the module "Logoff (End Session)." Most often, this is the EXIT menu page, but if you've changed that page name, you should enter the new name here.

MAXLGE Maximum number of selections for large button style: 16

When automatically generating a RIP menu, the BBS uses either of two different button and text style combinations: a button and text style for larger buttons (specified in the text blocks ENALGE and DIMLGE) or a button and text style for smaller buttons (specified in the text blocks ENASML and DIMSML). This option tells the BBS the maximum number of options a menu can have and still be displayed using the styles for larger buttons. If a menu has more options than specified here, the BBS will display those options using the styles for smaller buttons instead. Set this option to 25 to always use the larger styles. Set this option to 0 to always use the smaller styles.

DSPOEXT Display other menu file extensions for RIP users? ..... NO

For those users who are logged on with RIP, you may not want the BBS to display any menu files which have extensions of .IBM, .ANS, or .ASC. If you set this option to NO, then when a RIP user is on a menu page, and that menu page is set to display a file, the BBS will only look for a menu file with a .RIP extension, and will ignore any other files. If it can't find a file with a .RIP extension,

it will display an auto-generated menu. If you set this option to YES, then the BBS will try each extension in turn, as normal.

```
HASCLB    Does this BBS have a custom Library? ..................... NO
```

If you maintain a particular Library of RIP icons and/or scenes that are required for your BBS, you can have the BBS check your users' hard drives for this file, compare its date and time to a copy of that same file on the BBS's hard drive and, if they're different, either force the user to download your custom Library, let the user choose whether to download, or just warn the user that his Library is out of date. You can have the BBS perform this check when a user logs on, when he logs off, or at both logon and logoff. Set this option to NO if your BBS doesn't require any special icons and/or RIP scenes.

Configuration Options in GALMS.MSG

```
DFTPR1    By default, clear msgs after replied to for new users? ... YES
```

On the main E-mail menu, there's an option to set preferences. When a new user signs up, what should the default value of his/her first preference be? (Users will be able to override this default if they choose.)

The first preference deals with whether or not to clear messages out of a user's mailbox after he replies to them. If you want messages to be cleared out of a user's mailbox after he replies to them, choose YES; otherwise choose NO.

```
DFTPR2    By default, at logon, how to handle new mail: ......... PROMPT
```

On the main E-mail menu, there's an option to set preferences. When a new user signs up, what should the default value of his second preference be? (Users will be able to override this default if they choose.)

The second preference deals with how to handle a user logging on when he has new mail waiting. The options:

NOTIFY	Just notify the user that he has new mail
PROMPT	Prompt the user whether or not to go into E-mail
READIT	Go straight into E-mail at logon and read it

```
DFTPR3    By default, include Forum msgs in new user's mailbox? .... YES
```

On the main E-mail menu, there's an option to set preferences. When a new user signs up, what should the default value of his third preference be? (Users will be able to override this default if they choose.)

The third preference deals with whether to include Forum messages directed to the user in his E-mail scan of messages to him. Answer YES for this option if you do want Forum messages directed to a user to show up in his mailbox by default. Otherwise, choose NO.

```
DFTPR4    By default, how to handle "message quoting": ........... NEVER
```

On the main E-mail menu, there's an option to set preferences. When a new user signs up, what should the default value of his fourth preference be? (Users will be able to override this default if they choose.)

The fourth preference deals with how to handle "message quoting" (beginning replies as the quoted original message):

PROMPT	Be prompted about possibly quoting when replying
NEVER	Never be bothered with message quoting questions
ALWAYS	Always use message quoting when replying to messages

```
DFTPR5    By default, read messages in "browse mode"? ..... NO
```

On the main E-mail menu, there's an option to set preferences. When a new user signs up, what should the default value of his fifth preference be? (Users will be able to override this default if they choose.)

The fifth preference deals with how to handle reading of messages. In "browse mode," the user will see the header of the message first, and then have the option of reading the body. Otherwise, the user will see both the header and the body at once.

```
CB#HDR    If not in the "browse mode", clear screen for messages? .. YES
```

If the user is not in "browse mode," you can clear the screen at the beginning of each message. If you don't want to clear his screen, answer this question NO.

```
EMLLIF    Lifetime (days) of each E-mail message (-1=forever): ..... 21
```

Electronic Mail messages have a limited lifetime. This is the number of days that a message will be kept on file after it is written. Type -1 here to keep all messages around forever.

```
AUTQSC    Always put new Forums in users' quickscans? ..... YES
```

Every time a new Forum is added, should it automatically appear in everyone's quickscan configuration? If you answer YES to this question, when new users first use the quickscan feature, the BBS will automatically scan all the Forums, until the user alters the configuration. Also, as new Forums are added, they will automatically appear in the configurations of existing users.

If you answer NO, users will only quickscan Forums they explicitly added themselves. One drawback to this method is that users may not notice when new Forums are added.

```
MSGATR    ANSI attribute for message texts .....<-[1;32m
```

This is the ANSI sequence to be displayed to users before any Forum or E-mail messages. This should change the current ANSI color to whatever you wish any messages to be displayed in.

This should take the form of an ESC character (hold down <*Alt*>, hit 27 on your numeric keypad, then let go of the <*Alt*> key), then a bracket ([ ), then the ANSI sequence.

```
SUPU2S    Write E-mail automatically to Sysop from new users? ..... YES
```

Each time a new account is created, the BBS can write an E-mail message to User-ID Sysop with the user's sign-up accounting data. To enable this feature, answer YES to this question. To disable it, answer NO.

```
SUPE2U    Write E-mail automatically to new users from Sysop? ..... YES
```

Each time a new account is created, the BBS can create a message to the new user automatically. Typically, the message you create will welcome the user to the system, and provide some helpful information. You can optionally have an attachment to the message, containing whatever additional information you may wish to give to the user.

If you answer YES here, the next four configuration variables control the message topic of the message sent to the new user, the text of the message itself, the filespec of the attachment (if any), and the return-receipt status.

```
E2UTPC    New-user auto-message topic: ............... Welcome New User!
```

This string will become the topic of the message that is automatically created for each new user.

If the message has an attachment, then the name of the file will be pre-pended to the topic you give here, so that the message will appear as a bona-fide file description (thus prompting the user with the filename at the download point and defaulting the auto-download filename properly).

```
E2UTXT    Text of E-mail message to new users from Sysop
```

This message can be up to 25 lines of up to 76 characters each. It is automatically sent to new users as E-mail from Sysop as soon as the user's account is created.

If you do not wish to provide an attachment to this message, be sure to change the wording of the message, and to set the value of the following configuration variable, E2UATT, to blank.

To edit this configuration variable text, press <*F2*>.

```
E2UATT    Attachment to new user E-mail, if any ..... BBSUSER.DOC
```

The message automatically sent to new users upon account creation may optionally have a file "attachment." This means that the user will have the option of downloading the file you specify here, after he has read the new-user message text. (Only the single copy of the file you specify here will exist on your disk, even when hundreds of new user messages use it as an attachment.)

To eliminate any attachment from new-user messages, hit the <*F2*> key.

Never edit the file BBSUSER.DOC directly (see page 21).

```
E2URRR    Return receipt when user reads new-user E-mail? ..... NO
```

The message automatically sent to new users upon account creation may optionally generate a return receipt to the Sysop after the user reads the message.

To enable this feature, answer YES to this question. To disable it, answer NO.

```
ASKATT    Prompt users for E-mail file attachments? ............... YES
```

When users write an E-mail message and have the key contained in the Level 3 variable EATKEY, they are asked if they wish to upload an attached file along

with their message. To enable this feature, answer YES to this question. To disable it, answer NO.

ASKRRR Prompt users for E-mail return receipt? ..... NO

When users write an E-mail message and have the key contained in the Level 3 variable RRRKEY, they are asked if they wish their message to generate a return receipt when read. To enable this feature, answer YES to this question. To disable it, answer NO.

ASKCPY Prompt users to copy E-mail to another user? ..... NO

When users write an E-mail message, they are asked if they wish to send a copy of their message to another user. To enable this feature, answer YES. To disable it, answer NO.

EDNAUD Make Audit Trail entry for each E-mail download? ..... NO

The Audit Trail is a database that records important events on The Major BBS. Audit Trail entries can be viewed on the main console of the BBS or even searched offline (select the Reports option from the Introductory Menu of The Major BBS).

Do you wish to make an Audit Trail entry each time a user uploads an attachment associated with an E-mail message?

EUPAUD Make Audit Trail entry for each E-mail upload? ..... NO

The Audit Trail is a database that records important events on The Major BBS. Audit Trail entries can be viewed on the main console of the BBS, or even searched offline (select the Reports option from the Introductory Menu of The Major BBS).

Do you wish to make an Audit Trail entry each time a user downloads an attachment associated with an E-mail message?

CCMAX Maximum no. of carbon copies per E-mail message: 5

To curtail hacker attempts at hard-drive overload, you may want to limit the number of carbon copies that a user can make of a single message.

Setting this parameter to 0 disables the E-mail carbon-copy feature altogether.

NSIGS Number of Forums to allow room for: 40

You can have up to 3,500 Forums, but you may want to save memory space by keeping this number only as high as you need it to be. Both disk and memory space are allocated according to this number.

STLCOP Allow "teleconference" from Forums for ordinary users? ... YES

You have the option of disabling the teleconference menu option in the Forum main menus for anyone but the Sysop and Forum-Ops.

If you answer YES to this question, then any user with a minimum of "read access" to a Forum can invoke the "teleconference" option from that Forum. If

you answer NO to this question, then only the Sysop and Forum-Ops can invoke the teleconference option from the main menu of each Forum.

```
SIGLIF    Default life (in days) of Forum messages (-1=forever) ..... 90
```

You may keep Forum messages fresh by giving them a finite lifetime. Choose the number of days that the system should keep a Forum message, by default, before automatically deleting it (your Forum-Ops will have the ability to override this default, on a Forum-by-Forum basis).

```
SDNAUD    Make Audit Trail entry for each Forum download? ..... YES
```

The Audit Trail is a database that records important events on The Major BBS. Audit Trail entries can be viewed on the main console of the BBS, or even searched offline (select the Reports option from the Introductory Menu of The Major BBS).

Do you wish to make an Audit Trail entry each time a user downloads from a Forum?

```
SUPAUD    Make Audit Trail entry for each Forum upload? ..... YES
```

The Audit Trail is a database that records important events on The Major BBS. Audit Trail entries can be viewed on the main console of the BBS, or even searched offline (select the Reports option from the Introductory Menu of The Major BBS).

Do you wish to make an Audit Trail entry each time a user uploads to a Forum?

```
DFTSIG    Default Forum for users when first online ..... /Hello
```

Consider the first time after logging on that a user selects the Forum option from the MAIN menu of The Major BBS. What Forum do you want them to start out in? The Major BBS as shipped from the factory already has a Forum named /Hello for this purpose. If you want users to start out in some other Forum, then change this option to the name of that Forum (remember that the / is part of the Forum name).

If you change this option, be sure to specify the name of a Forum that you have already created (Sysop C command).

```
QIKDLY    Cycle-based delay for distribution lists: ..... 0
```

Distributing messages to a large number of users will both take some time, and slow the system down a bit for everyone online. You can specify a delay in this option between distribution of each message. The higher this number is, the less other users will notice the effects of E-mail distribution (and also the longer it will take the user distributing the message to finish).

```
ALWMHS    Do you wish to activate MHS-type messaging? ..... NO
```

The BBS can support MHS when running on a Novell Network with MHS V1.5 installed. The BBS requires access to the network drive to maintain two separate subdirectories for processing MHS messages. It will be necessary to have your Network Administrator do some initial Network preparation to use this facility.

Answer NO to this question if you do not have a Novell Network, do not have MHS V1.5, or do not wish to support MHS messages. Otherwise, answer YES if you want to support MHS messaging.

Three other options, OUTMSG, INMSG, and GTWNME, appear only when ALWMHS is set to YES (see page 182).

Configuration Options in GALFIL.MSG

```
DEFLNAME  Default LIBRARY name? ..................................... MAIN
```

This is important: the Library of this name must exist. If it does not exist, it will be created. Users who first encounter the File Library are placed in this Library first (as long as they have access to this Library).

```
DEFDESC   Description for default Library .. A general-purpose file area
```

There is generally no need to change this option; the descriptions of Libraries are easily changeable online by a Library Operator or Library Sysop.

```
NOTIFSYS  Notify Sysops of unapproved files at log-on? ............. YES
```

This will notify anyone who has the key which is specified in option FLSYSOP of any files in any Library which are not yet approved.

```
NOTIFLOP  Notify Library Operators of unapproved files at log-on? .. YES
```

This will notify Lib-Ops of files awaiting approval in the Libraries in which they hold responsibility.

```
UNIFILE   Require unique file names across all Libraries? ........... NO
```

In any one Library, no two files can have the same name; however, files in different Libraries can have the same name by leaving this option at NO. If you change this to YES, all files across all Libraries must have unique names.

```
SYSTAGS   Maximum # of tagged files to allow system-wide? ......... 300
```

This option determines how many files can be tagged throughout your entire BBS at one time. If you have a larger system, or a system with a lot of file transfer activity, you will want this number to be higher. Memory penalty: 100 bytes for each tagged file.

```
TEMPDIR   Temporary Directory for Files ..................... LIBTEMP\
```

User uploads go into subdirectories under the directory you specify here. If a user logs off without logging in an uploaded file, the file is moved to this subdirectory, where it can be recovered by resuming upload of the file.

```
COPYDIR   DOS path for temporary files ...................... LIBCOPY\
```

This is the directory where files are copied before download for each Library configured as a Library on CD.

```
THRESH    Minimum free space for copying, in megabytes ..... 5
```

This is the number of megabytes that the File Libraries will ensure remains free on the drive that COPYDIR is on, so that file copy activity does not crash the system.

```
DEFPROTO  What is the default protocol for everyone? ..... ?
```

The default setting of ? means that your users will be given a menu of file transfer protocols from which to choose. Depending on your system and the level of expertise of your users, you may want to set this to Z for ZMODEM.

```
LONGSRCH  Force embedded, brute force keyword searches? ..... NO
```

With this option set to NO, keyword lists are stored in a database to speed searching. The file GALFILK.DAT stores these keywords. This makes for much faster searches. You may want to set this option to YES if you are short on disk space or have a small File Library. Searches will take much longer with this option set to YES.

```
COMEFF    Comm efficiency (for computing download time) in % ..... 70
```

When estimating how long it will take for a file to be downloaded, the system takes into account the length of the file, the user's baud rate, and a certain percentage efficiency typically associated with file transfer operations over the phone lines. In general, it's best to err on the low side, so that if the file takes less time to transfer than forecast, the user will be pleasantly surprised.

```
FREEULS   Allow free uploads in all Libraries? ..... NO
```

Setting this option to YES will turn off connect charges to the user who is uploading. If set to NO, each Library may be set to turn off the connect charges.

```
AUDITALL  Record all file transfers to Audit Trail? ..... NO
```

This option controls whether all file transfers are recorded to the Audit Trail. If set to NO, each Library may be independently set to audit uploads and downloads.

```
PFNCEIL   Severity level of profanity suppression ..... 2
```

The File Library has a built-in ability to detect swearing and to take various levels of action in response. If you want swearing fully permitted on your system, across the board, set this variable to 0. For very limited monitoring and denial of word use, set this variable to 1. A value of 2 leads to more vigorous prosecution of swearers, and a value of 3 yields the most severe restrictions on colorful language available.

```
CHABT     Charge users for aborted downloads? ..... NO
```

You may have configured some Libraries to charge users for downloading files (deducting credits from the user's account). This option answers a policy question that applies to all Libraries that charge for downloads.

If set to YES, users are charged for each file that they start to download, but abort for whatever reason. If set to NO, users are charged only when download completes.

If you select YES and downloads are charged per-K, then users will be charged only for the amount successfully downloaded.

```
DEFALLIB  Search all Libraries from (D)ownload prompt by default? .. YES
```

When a user selects D for Download from the File Libraries menu, and enters a file name to find, this controls whether all Libraries are searched for that file or just the current Library.

```
CLNLEVEL  Level of Library Cleanup to run nightly,0=none:.............1
```

The auto-cleanup routine can do several levels of verification of Library statistics. 0 will do nothing, 1 will check approval totals and new additions, and 2 will do the same check as 1, as well as verify that all files exist and are of the proper size.

```
DEFSTYP  System default List/Search mode ............................. P
```

If a user hasn't selected a preference, this is the mode a user will be set to when selecting F from the Libraries main menu.

P	Prompt always, no default method
F	By file name, alphabetically
D	By date, most recently added to File Library
L	By date, new files
N	By number of times the file has been downloaded
W	By file name, or partial file name (wildcards)
K	Keyword search through file names and descriptions

```
DEFSLIB  System default range of Libraries to List/Search:.......... ASK
```

If a user hasn't selected a preference, this is the range of Libraries a user will search by default. ASK will ask the user to choose, CURLIB will search the current Library only, and ALL will search all Libraries.

```
STPLIST  Exclude color (for ANSI users) in downloadable lists?..... YES
```

If a user has ANSI color and this option is set to NO, lists of files will be created with ANSI colors included. If this option is set to YES, then ANSI colors aren't included in the lists.

Configuration Options in GALGLO.MSG

```
NRECCL  Number of entries in recent logoffs list ..................... 40
```

When a user types /RECENT from any prompt, a list is displayed of the most recent users to logoff the system. How many logoffs should be displayed in this list?

```
SYSREC  Include MASTER key-holders in /RECENT list? ................. NO
```

When a user types /RECENT from any prompt, he is displayed a list of the most recent users to logoff the system. Do you want users with the MASTER key to be included in this list? Answer NO to this question if you don't want the /RECENT list to include MASTER key-holders logging on and off.

Answer YES to this question if you want everyone to be included in the /RECENT list.

Configuration Options in GALMJD.MSG

```
RLSPRT    Release Door ports when Door connection terminates? ..... NO
```

When a Door connection is terminated, it is possible that the activity on the Door computer will look like a user is attempting to log into the BBS. This can become an endless cycle. This option defaults to NO, which will prevent the endless logon attempt loop.

```
DISCHR    Character used to disconnect from door: ..................
```

When a user enters this character three times in a row, within a period of three seconds, the user will disconnect from the door he is using.

Configuration Options in GALNOTE.MSG

```
ANCFNM    Announcement file name ........................... GALNOTE.TXT
```

This is the name (and, if you wish, the path) of the file which contains the information you want to announce to users when they log on. You can create this file using any ASCII text editor. If the file you name here is missing, or any other error occurs, then nothing will be displayed, and the BBS will simply continue with the normal logon process.

```
UFPHDR    Use File Page header as Announcement header? ..... NO
```

The Level 6 text block FPGHDR is a standard header that can be displayed before any file page is selected by a user. If you answer YES here, Logon Notes will use that header for the announcement text as well. If you answer NO, you can create a header to be used only for the announcement text by editing the ANCHDR option.

```
ANCHDR    Header for Announcement text (hit <F2>)
```

If you set the option UFPHDR to NO, you can use this text block instead to create a header to be displayed before the announcement text. If you don't wish to have any header, leave UFPHDR set to NO, and leave this option blank.

```
ANCTRL    Trailer for Announcement text (hit <F2>)
```

This text block can be used to create a trailer to be displayed after the announcement text. If you don't wish to have any trailer, leave this option blank.

```
TXTATR    ANSI color sequence for Announcement text ..... <-[1;32;40m
```

This option controls the appearance of the announcement text on the users' screens. If you're familiar with ANSI control sequences, you can alter this option to set the foreground and background colors of the text. The sequence below is for bright green on black (the colors of most text messages on the BBS).

Configuration Options in GALP&Q.MSG

```
ASCIIFIL  ASCII file for answer storage .....................P&QANSR.TXT
```

This is the ASCII file for the Polls and Questionnaires module to write to if selected in the poll editor. If this file does not exist, the system will create it for you.

Configuration Options in GALQWK.MSG

```
QWKNAME   Your BBS ID ..................................... YOUR_ID
```

This is your BBS ID. It must be no more than eight characters long and should be a short form of your BBS name.

```
INTERPKT  Time in seconds between processing packets ..... 30
```

This is the time (in seconds) between checks for uploaded packets. Because of memory constraints, only one uploaded packet can be processed at once. If you set this number too low, you may produce an undue load on your system.

```
INTRAPKT  Time in seconds between processing messages ..... 2
```

This is the time between processing messages in an individual packet. This can be no more than five seconds.

```
NEWSFL    QWK "news" file in BBS directory .................
```

This is the name of a file, which must be located in your main BBS directory, which can be downloaded to users as part of their QWK packets letting them know of the latest system news, etc. This will often be a file which you have displayable as system news to non-QWK-mail users in your menu tree someplace.

```
FRMLMT    Maximum messages per Forum, per QWK packet ..... 200
```

You may wish to place a limit on the number of messages it is possible to put into a single QWK packet, per Forum, in a single download.

If the number of messages beyond the user's current message pointer in a given Forum exceeds this number, then the user will only be given this many, and the remainder will have to be picked up later, via a separate download operation.

```
VALTO     Validate "To:" field of uploaded .REP packet? ..... NO
```

Normally, you will want to check the `To:` address of incoming messages uploaded via a `.REP` packet. However, if your BBS supports mail networks such as RIME or FidoNet, you may have to set this to `NO`. By setting this options to `NO`, the User-ID in the `To:` field will not be checked to make sure that user exists on your BBS and therefore will not reject messages addressed to a nonexistent User-ID.

```
NSWCHX    Max times a user can switch channels in 15 sec period ..... 3
```

Switching channels in the teleconference can be particularly annoying to users on those channels because everyone is informed whenever somebody comes into and out of their channel. The feature controlled by this option diminishes the effects of these conference "door-slammers."

Most respectable users will stay on each channel for at least enough time to hear what is being said, so this feature should not bother them — but you can adjust it if it does. Set this number to 9999 to disable the feature.

```
PAGINT    Minimum time between paging the same user (seconds) ..... 120
```

To minimize annoyance, a user can only be paged so often before the pager is told to be patient. This option specifies the length of a time period in seconds after a user is paged, during which no one else can page him.

```
REQINT    Minimum time between requests to chat with a user ..... 120
```

To minimize annoyance, a user can be requested to chat (talk directly with another user) only so often before the requester is told to be patient. This option specifies the length of a time period in seconds after a user is requested to join in chat, during which no one else can request him to chat.

```
TINPSZ    Maximum length of a teleconference message (characters) .. 127
```

All teleconference statements will be limited in length by this option. When users type this many characters, they will not be able to type any more, until they hit their carriage-return key.

```
SOPBEL    Period (inverse pitch) of page-Sysop beep ..... 500
```

This number controls both the pitch and the duration of the beep that sounds at the main console when a user pages the Sysop and the Sysop is not logged onto the BBS at the time. Increasing this number both lowers the pitch of the tone and makes it take longer.

To disable the beep, set the period to a value of 1, which makes it both inaudibly high-pitched, and inaudibly brief.

```
DFTPOP    Default page-enable status at user logon ..... ON
```

This parameter controls the default setting of the value controlled by the PAGE command. PAGE ON means that the user can receive pages, but no more often than once every so often (as controlled by config parameter PAGINT, above). PAGE OFF means the user cannot be paged at all. PAGE OK means that the user can be paged with wild abandon, free of any waiting-time restrictions.

12

EDITING TEXT BLOCKS

The Major BBS has more than 1,000 editable text blocks. With add-on options, there could be many more. This chapter describes only a few interesting ones. You can find any of them when you are in the offline Editing Text Block service with the *<F8>* search command, using the option name.

WAYS TO CHANGE TEXT BLOCKS

If you want to change an online prompt that is not a menu created by Menu Tree, use the *<F8>* search command under CNF (page 142). After entering the Edit Text Blocks service from the Introductory Menu, you can enter a command like this:

<F8> <word or phrase> <Enter>

CNF will search through all the text blocks looking for your word or phrase in the contents of the block. Then hit *<F2>* to view or edit the block. Move the cursor around with the arrow keys, change the text if you like, and save with *<Alt-S>*. Then hit *<F10>* to exit CNF.

See starting on page 141 for instructions on using CNF to search for, view, and edit text blocks. See starting on page 84 for instructions on BBSDRAW, which you'll use when you edit a text block.

If you have RIP*aint* installed on your BBS, then you'll use that to edit the English/RIP version of a text block. See starting on page 92 for general information on using RIP; see the RIP*aint* manual from TeleGrafix Communications for details on using RIP*aint*.

Using Your Own Editor

Here is a little trick when using your own text or ANSI editor program to edit CNF text blocks: just edit the `BBSMAI.MDF` text file and specify a new command line for the standard English/ANSI language editor. Look for this line in `BBSMAI.MDF`:

```
Language Editor: BBSDRAW %s
```

This editor command, `BBSDRAW %s`, calls up Galacticomm's full-screen full-color ANSI editor (see page 84). You can change the editor command to any DOS command line—for example:

```
Language Editor: ZAPEDIT %s
```

The `%s` symbol represents the name of the file to be edited. When you hit <*F2*> to edit a CNF text option, CNF will write the text of the option to a temporary file named something like `CNF00000.ANS`. In this example, CNF will execute the DOS command `ZAPEDIT CNF00000.ANS`, which should bring up your text editor on your computer.

This same language-editor command also will be used under Menu Tree when you create your own custom menus.

% – Symbols

In many of the text blocks, you'll find symbols like these:

`%c`	a character
`%s`	a string
`%d`	a number
`%6d`	a number right justified to 6 characters wide
`%-10.10s`	a string made to fit a 10 character wide space

C programmers will recognize these right away. The point is that if you edit a text block with little symbols like these, you need to follow a few rules:

1. Don't add these symbols to the text block. If you want a literal symbol like one of these, use a double percent sign `%%` instead of a single percent sign.
2. Don't change the order of these symbols in the text block.
3. Don't remove these symbols except from the end of the text block. (You can change `%c %d %s` into `%c %d`, but never into `%c %s`.)
4. These symbols all must be the same color. If you have a green `%` and a yellow `s`, for example, that means an ANSI color command is stuffed in between — which could cause trouble.

If you aren't careful with these symbols, you could wind up displaying trash on a user's screen, or in some cases you could even bring down the BBS. Fear not: CNF checks to make sure you're following the rules for %-symbols. If you add new %-symbols or change their order, CNF gives you a warning:

```
You've modified the '%' symbols in this option. (See about %-
Symbols in the Systems Operations Manual.) Keep changes, Undo
changes, or Edit some more?
```

At this point, you can type K, U, or E:

`K Keep changes`	This means you know what you're doing.
`U Undo changes`	Your text (and your %-symbols) are restored.
`E Edit some more`	You return to the editor, with the %-symbols the way you just left them, for further study or editing.

TEXT BLOCKS IN THE MAJOR BBS

Some Interesting Text Blocks

```
HELLO     Greeting message when user first connects to The Major BBS
HELLO25   Greeting when user first connects to The Major BBS via X.25
HELLOGN   Greeting when user first connects to The Major BBS via LAN
```

Users get one of these messages when they first connect to The Major BBS. It tells them the title of your BBS, your registration number, and the time and date. This message comes immediately before any special log-on message that may have been set from your Sysop console.

```
ENTUSID   Asking for User-ID, demo
```

This is the first question asked of any user accessing your BBS on one of your demo channels (right after the logon message set at the main console). Its channel number is less than the value of the SAMPLN option. These channels allow new and demo users to log on.

To display a file instead of this message, put a $ followed immediately by a file name with no extension. The extension will be .ANS for ANSI users and .ASC for non-ANSI users.

```
LOGUID    Asking for User-ID, reserved channel
```

This is the first question asked of any user accessing your BBS on one of your reserved channels (after the logon set at the main console). This is a channel whose channel number is greater than or equal to the value of the SAMPLN option. These channels only allow users to log on who already have an account and who hold the key named in the option SAMPKY. To display a file instead of this message, put a $ followed immediately by a file name with no extension. The extension will be .ANS for ANSI users and .ASC for non-ANSI users.

```
ENTPSW    Asking for password
```

After a user has correctly entered his User-ID, he is asked for his password with this prompt. Asterisks are echoed instead of the password to hide the password from observers.

```
HITHAR    Log-on greeting message
```

This message is given to all users when they log onto The Major BBS. A user has logged on when he has correctly entered his User-ID and his password.

```
DFLHDR    Default long menu header
```

This is the header for any menu that does not have a menu file associated with it. This is displayed to the user at the top of the default long menu.

```
DFLLIN    Default long menu option line
```

This is the format for each line in the default long menu. The beginning %c is the select character for the option, and the %s is the short description. Feel free to edit this however you like, but do not change the order of the %c and the %s: the %c must be first.

HLPMSG Header for redisplay of a main menu (for help)

When a user types ? at any main menu, he is given this message followed by the long form of the menu.

RUSXITN Main menu exit: confirm logoff

When a user makes the appropriate selection from the main menuing system to logoff, his request is confirmed with this message. If he types Y in response, he is logged off. If he types anything else, he is returned to the short main menu (letters only).

This text applies to users who do not have access to the option R for re-logon.

RUSXITL Main menu exit: confirm logoff

When a user makes the logoff selection from one of your main menus, we confirm his request with this message. If he types Y in response, he is logged off. If he types R, he is re-logged on, as if he logged off and called right back. Otherwise, by typing anything else, he is returned to the short main menu.

This text only applies to users who have access to the re-logon option (user must have the key named in the RLGKEY option in Level 3 CNF).

SEEYA Logoff goodbye message

This user has confirmed his desire to log off. He is reminded of the name of your BBS (option BBSTTL). This is the message the user gets right before he is logged off.

INTRO2 Introductory message for users when signing up

This message is sent to users when they sign up. That is, when they type new in place of a User-ID. A user is told he can do this only when he has connected with a demo channel (see level 3 option SAMPLN).

To display a file instead of this message, this message should contain only a $ followed immediately by a file name (with no extension). The extension will automatically be .ANS for ANSI users and .ASC for non-ANSI users.

Some More Text Blocks

SEEYEZ	Forced disconnect waiting for user to log on, or to sign up
GUSENAM	Use user name as User-ID prompt
PREUID	Ask a user signing up to choose a User-ID for themselves
PREDID	Ask a sign-up for User-ID (digits allowed)
GUSERID	Ask again for a User-ID (they just typed *<Enter>*)
UIDOK	Ask a user to confirm his choice of User-ID
PSWIRON	Tell a user signing up what a password is
GPSWORD1	Ask a user signing up to choose a password
PSWEPI3	Tell a user to remember his choice of User-ID/password
WELCOME	Welcome a user to the Main Menu for the first time
NAAUID	Reply to a choice of User-ID that is invalid
PL1UID	Reply to a choice of User-ID with mild imbedded profanity

PL2UID	Reply to a choice of User-ID with imbedded profanity
PL3UID	Reply to choice of User-ID with strong imbedded profanity
SMLUID	Reply to choice of User-ID that is too short
BIGUID	Reply to choice of User-ID that is too long
UIDINU	Reply to choice of User-ID that is not unique
NEWMAIL	E-mail new mail waiting alert
OLDMAIL	E-mail old mail waiting alert

Some Menu Text Blocks

ESTART	Electronic Mail menu
SSTART	Forums menu
RSMHDR	Remote Sysop Menu Header
INTRO	Teleconference welcome message

Some Registry Text Blocks

RENTRY	Registry lookup report
EDTENT	Registry menu for editing your own entry
FLDPMT1	Registry question #1
FLDSIZ1	Registry maximum length of answer #1
FLDPMT2	Registry question #2
FLDSIZ2	Registry maximum length of answer #2
FLDPMT30	Registry question #30
FLDSIZ30	Registry maximum length of answer #30

13

MHS — MESSAGE HANDLING SERVICE

MHS is Novell's standard for moving electronic messages over a network from one system to another using a store-and-forward architecture. For a discussion on MHS, along with installation and operation instructions, see Novell's *Netware MHS Installation and Operation Manual*. For information on MHS-compatible software packages, see the Novell NetWare MHS Solutions Guide.

MESSAGE HANDLING ON THE MAJOR BBS

The Major BBS can use Novell's MHS to exchange mail with individuals using other MHS-compatible mail systems. Most popular systems support Novell's MHS, including cc:Mail and Microsoft Mail. Novell's MHS also offers an X.400 gateway. MHS for The Major BBS is based on MHS version 1.5 and the SMF-70 specification.

MHS Preparations

The Major BBS acts as an MHS gateway. The MHS administrator of your Novell network will use the MHS directory manager software to create a gateway and disk subdirectories for an MHS database. The Major BBS will use the database to send and receive messages. (The BBS's modems are not used to transport MHS messages — that's up to the MHS Connectivity Manager and Transport Server.)

Once you have MHS installed on your Novell Network, and The Major BBS installed on a workstation, the following are the procedures for getting the BBS to use MHS.

Tasks for the BBS System Operator:

1. With your MHS administrator, choose a unique name for your gateway. It can be up to 8 characters long and include letters, digits or the punctuation symbols dollar (`$`), dash (`-`), or pound (`#`). Example: `BBSGate`.
2. Choose a pair of directories on your file server for the BBS to use as Inbound and Outbound directories. (The BBS will create them if they don't exist already, but not parent directories, if used.) Examples: `G:\OUTMSG` for your Outbound directory, `G:\INMSG` for your Inbound directory.

3. Enable MHS on your BBS by setting these offline Configuration Options for MHS. Use the names you came up with in steps 1 and 2. For example:

```
ALWMHS    Do you wish to activate MHS-type messaging? ..... YES
OUTMSG    Outbound directory for MHS ..................... G:\OUTMSG
OUTFIL    Outbound file directory for MHS ..... G:\OUTMSG\PARCEL
INMSG     Inbound directory for MHS ...................... G:\INMSG
GTWNME    MHS Gateway Name ............................... BBSGate
SCNMHS    How often should the BBS scan for incoming MHS msgs: ... 5
OUTSCN    How often should the BBS process outgoing MHS msgs: .... 5
```

The directory specified by OUTFIL is for files attached to messages that the BBS will send out via MHS. For the scan times SCNMHS and OUTSCN (in seconds), use larger numbers if MHS is not a high priority on your BBS. Use smaller numbers to make MHS mail more responsive.

4. Your BBS computer must use the DOS SHARE program. You can put a line in AUTOEXEC.BAT that says SHARE. See your DOS manual for details.

Tasks for the MHS Administrator:

5. Use the directory manager option in your MHS software to create the gateway, using the name from step 1. Specify the Gateway Version as 70. Put in a Gateway Command such as -FG:\OUTMSG, using the outbound directory from step 2. Let's say you created a gateway named BBSGate. MHS might create directories like these for you:

H:\MHS\MAIL\GATES\BBSGATE	MHS directory for the gateway
H:\MHS\MAIL\GATES\BBSGATE\IN	MHS Input directory
H:\MHS\MAIL\GATES\BBSGATE\OUT	MHS Output directory
H:\MHS\MAIL\GATES\BBSGATE\PUBLIC	MHS Public directory

The environment variable MV= is key to the use of H: here; see the MHS documentation. There are other directories, but you won't use them.

6. Copy the MHS program SMFSEND.EXE into the MHS Public directory and rename it to INPOST.EXE. For example:

```
COPY  H:\MHS\EXE\SMFSEND.EXE  H:\MHS\MAIL\GATES\BBSGATE\PUBLIC\INPOST.EXE
```

7. Copy the OUTPOST.EXE and BBSPCFG.EXE programs supplied by Galacticomm to the MHS Public directory, as in:

```
COPY  C:\BBSV6\OUTPOST.EXE  H:\MHS\MAIL\GATES\BBSGATE\PUBLIC
COPY  C:\BBSV6\BBSPCFG.EXE  H:\MHS\MAIL\GATES\BBSGATE\PUBLIC
```

8. Change to the MHS Public directory and run BBSPCFG.EXE, entering in the names of the BBS Inbound and Outbound directories from step 2 (*not from step 5*), for example:

```
Directory for messages bound for BBS:  G:\INMSG
Directory for messages bound for MHS:  G:\OUTMSG
```

Electronic Mail via MHS

Sending Private Messages

To send a message to someone via MHS, you can write an E-mail message to his MHS address. For example:

```
Who do you wish to send this message to?
Enter User-ID, "?" for help, or just RETURN for "Sysop": EWatson@TGSupt
{MCI: 605-4416}
```

You need to get someone's MHS Address from that individual or from his system administrator.

Receiving Private Messages

For The Major BBS to receive a private message, address it as follows:

```
MBBS@BBSGate (MBBS: Sam Olsten)
```

In this example, `BBSGate` is the gateway name you defined in the offline Configuration option `GTWNME`. That routes the message to your particular BBS. `Sam Olsten` is a User-ID on your BBS. (The first `MBBS` in this address is supposed to be the *user name*, but The Major BBS cannot use it. Because User-IDs on The Major BBS can consist of full names, the longer `Sam Olsten` from the extended address is the one used.)

Here is an example of the header of an Electronic Mail message received by MHS from another BBS:

```
Date: Thursday, May 28, 1993  10:52am                  Electronic Mail
From: MBBS@OTHGate (MBBS: Henry Goodheart)             Msg#: 34901
To:   Richard T. Nelson
Re:   Leads from PowerCon in Phoenix
```

Henry sent the message via a BBS that serves as the `OTHGate` MHS gateway.

Replying to Private Messages

When you reply to a message received via MHS, your message is transmitted back to the sender via MHS.

Return Receipts

When you send an Electronic Mail message to another BBS via MHS and request a return receipt, you should eventually get an Electronic Mail notice back that looks something like this:

```
      DELIVERY NOTICE
      ---------------

The message you sent on:

26-Jul-92 9:34 to MBBS@OTHGate (MBBS: Martha Drake) was successfully
delivered.
```

The date and time are the moment the message was sent. The MHS address is the address where the message was sent.

If your BBS receives a message with MHS Receipt Notification turned on, it will send back one of these acknowledgement messages to the sender.

Nondelivery

If your BBS receives a message via MHS for a User-ID or Forum that is not on your system, and the message requests nondelivery notice, the BBS sends back something like this:

```
        NON-DELIVERY NOTICE
        -------------------

The message you sent on:

13-Sep-92 17:44 to MBBS@OTHGate (MBBS: Michael R. Petersen) was
undeliverable.
```

On messages going out over MHS, the BBS always requests a nondelivery notice in case the message is undeliverable for some reason.

Other MHS Message-Delivery Options

The Major BBS uses these settings when transmitting a message via MHS:

Return of Contents	No
Receipt Notification	*see above*
Non-delivery Notification	Yes, *see above*
Grade of Delivery	Normal
Alternate Application Delivery	Prohibit
MHS Delivery Notification	No
Designate-Delivery	Prohibit

Forum Messages via MHS

Sending Forum Messages

The Forum Header can contain the directive:

```
MHS Addr: <MHS Address>
```

as in:

```
MHS Addr: Tanbaum@TWLink
```

Assuming the MHS connectivity manager has `TWLink` in its routing table, all messages written to this Forum will be transmitted to the `TWLink` host.

Receiving Forum Messages

For a Forum on The Major BBS to pick up a message, it needs to be addressed as follows:

```
MBBS@BBSGate (MBBS: /Support)
```

Where `BBSGate` is the setting of the `GTWNME` offline Configuration option, and `/Support` is the name of the Forum.

A sample incoming MHS header looks like this:

```
FROM:    moocow@pasture.com
TO:      MBBS@BBSGATE (MBBS: Sysop)
SUBJECT: This is a test message!
DATE:    01/01/94
```

Replying to Forum Messages

If a message was received into a Forum via MHS, you could reply to it, but what happens to your reply has nothing to do with who sent the message. Your reply will stay in the Forum for other users to see. And if the Forum Header has a directive `MHS Addr:` *<MHS Address>* in it, then the reply is also sent to that *<MHS Address>*. But the sender doesn't get the reply. Only a reply to MHS Electronic Mail (mail addressed to a specific User-ID) is sent back to the sender of the original message.

14

OPERATING THE MAJOR BBS

This chapter discusses the online services you, the Sysop, can use to manage your BBS while it is up and running. Many of the online services have special options and features that are available only to you. The next chapter, "At the User's Terminal," will describe the online services for users of The Major BBS.

Here's a quick preview of what is ahead:

Starting and Stopping the BBS

The Introductory Menu	page 188
Bringing up the BBS	page 188
Shutting down the BBS	page 190
Auto-Cleanup	page 191
Timed Event Shutdown	page 192

The BBS Console

The Eight Screens	page 193
User Account Detail Screen	page 193
Audit Trail Detail Screen	page 197
Emulation Screen	page 201
Statistics Screen	page 204
Monitor Screen	page 209
Summary Screen	page 211
Online User Info Screen	page 214
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Using Softkeys	page 220

Managing Online Services

Remote Sysop Menu	page 230
Forum Management	page 238
Message Management	page 248
E-mail Distribution Lists	page 250
QWK-mail	page 253
Library Management	page 254
Registry Setup	page 268
Polls and Questionnaires	page 270

Doors page 277

A Few Online Issues

GALNOTES page 288
User-ID Conventions page 288
Sign-up Questions page 289
Global Commands page 291

THE INTRODUCTORY MENU

To bring up The Major BBS from DOS, first change to the directory where you installed the software and type BBS. This brings up the Introductory Menu.

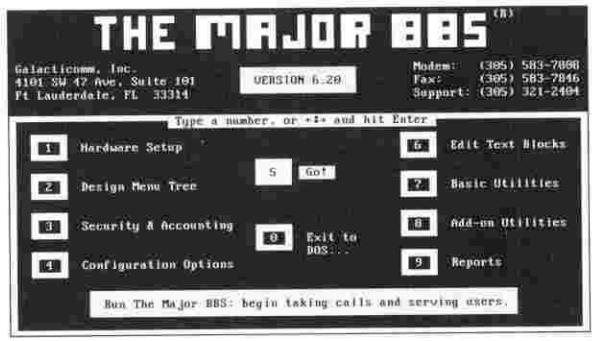
```
CD \BBSV6
BBS                    (Introductory Menu comes up)
```

The figure on the next page represents the choices of the Introductory Menu.

1. Hardware Setup	Tell the BBS what hardware you have and set several options about how to use it.
2. Menu Tree Design	Design the menu structure for your BBS — what choices users have and how your BBS presents its services to them.
3. Security and Accounting	Who should have access to what and, if yours is a pay system, how much various services should cost.
4. Configuration Options	Numerous settings and options for the BBS.
5. Go!	Bring the BBS up and go on the air. Start answering phone calls and serving users.
6. Edit Text Blocks	View and edit prompts, messages, and other multi-line text blocks that the BBS uses.
7. Basic Utilities	Offline utility programs for system design, maintenance, processing, etc.
8. Add-on Utilities	Offline utilities that are part of some add-on options for The Major BBS, either from Galacticomm or from a third-party.
9. Reports	Generate reports from the databases on users, usage, activity, and more.
0. Exit to DOS	Exit back to the DOS prompt.

BRING UP THE MAJOR BBS

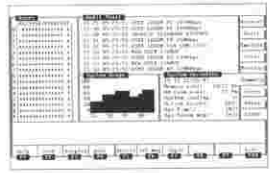
Choice 5 from the Introductory Menu puts the BBS on the air. The BBS will start answering phones and serving users.



Introductory Menu

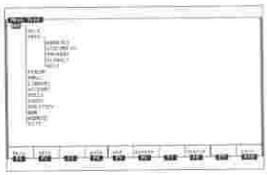
Hardware Setup, page 23

The Major BBS Online Console



page 211

Edit Text Blocks, page 177



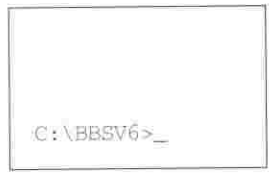
Menu Tree Design, page 59

Basic Utilities, page 387

Security and Accounting, page 97

(For when you expand your BBS)

Add-on Utilities



Exit to DOS, page 190

Configuration Options, page 147

Reports, page 379

A quicker way to bring up The Major BBS is the BBS GO command:

```
C:\BBSV6>BBS GO          BBS comes up
```

If you want your computer to bring up the BBS every time you reboot it, then put the commands at the end of your AUTOEXEC.BAT file:

AUTOEXEC.BAT file example

```
...
...
CD \BBSV6
BBS GO
```

SHUTTING DOWN THE MAJOR BBS

The quickest way to shut down the BBS from the console is the following four-character softkey sequence:

<F10>	Kill
<F9>	System
<F10>	Now
<F9>	Enter

Because you must enter this sequence from the console when the softkeys appear, be sure first to escape out of a full-screen emulation mode if you're in one.

There are other options when shutting down: delayed action, user notification, changing your mind and staying up after all, and more. See page 228 for details on the kill softkey.

Shutting Down from a Remote Location

To shut down the BBS from a remote location, use the SHUTDOWN command from the Remote Sysop menu. You can make the shutdown take effect in 1 to 10 minutes.

```
REMOTE SYSOP
Select an option (or ? for menu): SHUTDOWN

*** REMOTE SYSOP KILL MENU ***

   1 => Kill system in 1 minute
   2 => Kill system in 2 minutes
   3 => Kill system in 5 minutes
   4 => Kill system in 10 minutes
   5 => Kill system UNDO!
   6 => Kill system ASAP
   7 => Kill system NOW

Select a menu option, or X to abort: 2

*** WARNING: KILL SYSTEM SELECTED ***

  ALL USERS WILL BE DISCONNECTED,
  INCLUDING YOU, AND THE SYSTEM CAN
  ONLY BE BROUGHT UP AGAIN FROM THE
  ACTUAL SYSTEM CONSOLE!
```

```
  If you have selected a delayed kill,
  you can continue to use the system
  until it is shut down.  You can also
  undo the kill command.

ARE YOU SURE? Y
***<BEEP>

Sorry to interrupt here, but the BBS will be shutting
down in 2 minutes.  Please finish up and log off...

Thank you!

REMOTE SYSOP
Select an option (or ? for menu): _
```

If you're fast enough, of course, you can change your mind and keep the system up:

```
REMOTE SYSOP
Select an option (or ? for menu): SHUTDOWN

*** REMOTE SYSOP KILL MENU ***

   1 => Kill system in 1 minute
   2 => Kill system in 2 minutes
   3 => Kill system in 5 minutes
   4 => Kill system in 10 minutes
   5 => Kill system UNDO!
   6 => Kill system ASAP
   7 => Kill system NOW

Select a menu option, or X to abort: 5

REMOTE SYSOP
Select an option (or ? for menu): _
```

Once the BBS shuts down, the console will return to the Introductory Menu. There is no way to bring it back up except from the console.

What Your Modems Are Doing While the BBS Is Down

After shutting down your BBS, your modems can keep the phone lines busy or let them ring. Make this choice with the offline Configuration option RSETOP:

BUSY	The modems will go off-hook, so that any calls coming in will get a busy signal (assuming that *all* lines in your hunt group get busied-out).
NO-ANS	The modems will stay on-hook and ignore incoming calls, letting them ring and ring. This is desirable if you will be using your phone lines for other purposes while your BBS is down.

Auto-Cleanup

The offline Configuration option MCUHR specifies an hour of the day to shut down the BBS and perform housekeeping duties, such as rolling over daily statistics (monthly statistics, too) and purging old messages and old users. By default, this happens around 3:00 a.m., but you can change MCUHR to any hour from 0 to 23 (representing the hours from midnight to 11:00 p.m.).

You can make your own processes take place at auto-cleanup by writing a cleanup batch file and calling it BBSCLEAN.BAT.

BBSCLEAN.BAT	Run at the hour of auto-cleanup

You might want to back up some databases or run some reports in this batch file.

Timed Event Auto-Shutdown

You can make your BBS shut down and run DOS programs at four specified times per day. Enable these events by setting these offline Configuration options:

```
MSHHR1    Hour of day for timed event auto-shutdown #1 ..... -1
MSHHR2    Hour of day for timed event auto-shutdown #2 ..... -1
MSHHR3    Hour of day for timed event auto-shutdown #3 ..... -1
MSHHR4    Hour of day for timed event auto-shutdown #4 ..... -1
```

Here are some examples for the values of these options:

0	12:00 a.m. (midnight)
3	3:00 a.m.
12	12:00 p.m. (noon)
23	11:00 p.m.
-1	never

Obviously, you don't want to pick the same hour for two different events. And you want to avoid picking the same hour as the auto-cleanup. Make a custom batch file for each event you enable:

BBSEVT1.BAT	Run at the hour of event #1
BBSEVT2.BAT	Run at the hour of event #2
BBSEVT3.BAT	Run at the hour of event #3
BBSEVT4.BAT	Run at the hour of event #4

The Actual Time of Shutdown

For the auto-cleanup and for the timed events, the BBS automatically shuts down near an hour of the day that you specify. The actual time of shutdown may not be exactly on the hour. The BBS tries to wait for users to log off naturally. If they don't, it asks them to; if they still don't, it shuts down anyway. Here are the relevant offline Configuration options:

```
MCUMIN    Grace period before auto-shutdown (minutes) ..... 20
MCUWRN    Minutes of explicit warnings before auto-shutdown ..... 5
```

For example at 3:00 a.m., if no one is online, the BBS shuts down for auto-cleanup. If someone is online, the BBS doesn't notify him but waits for him to log off. It does shut down all the other lines, however, so no more calls are taken.

At 3:15 a.m., if the user still is online, the BBS starts sending him warning messages:

```
***<BEEP>

Sorry to interrupt here, but the BBS will be shutting
down in 5 minutes for the nightly "auto-cleanup"
process.  Please finish up and log off... thank you!
```

At about 3:16 a.m. there is another:

```
***<BEEP>

Sorry to interrupt here, but the BBS will be shutting
down in 4 minutes for the nightly "auto-cleanup"
process.  Please finish up and log off... thank you!
```

Now if he logs off, the BBS will shut down immediately. If he doesn't, he'll be forced off at about 3:20 a.m.

SCREENS

The Eight Screens

There are eight subscreens on The Major BBS console. You can use the *<Tab>* key to flip down through them or the *<Shift-Tab>* key to flip upwards. You also can get directly to any of the eight screens with a single *<Alt-letter>* keystroke.

Softkeys

Usually, the bottom portion of the console shows the 10 softkeys. These represent what the function keys *<F1>* through *<F10>* will do. In some cases, the softkeys aren't visible: when emulating a channel in the full-screen mode or when logging on locally to the BBS (using the *<F7>* softkey). See page 220 for instructions on using the softkeys.

Command Area — Softkey Commands and User Pages

The command area, a box just above the softkeys, is mainly for displaying the softkey commands as you enter them. It also shows messages from users when they try to page you online:

```
Lynda McCreary paged (08:46):  Can you approve my report file?
```

She paged you at 8:46 a.m.. When you come up to the console after being away for a while, this helps you determine how recent the page was.

This page resulted from Lynda typing the global command:

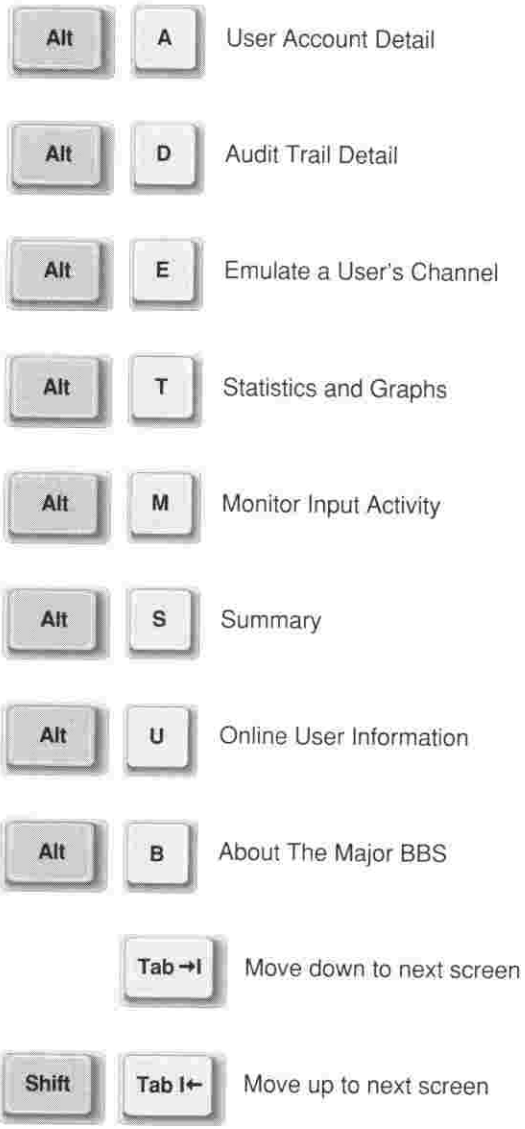
```
/p sysop Can you approve my report file?
```

If you had been online as the Sysop User-ID, you would have gotten the message at your terminal. When you're not online, it shows up in the command box. In addition, the indicator for the channel blinks in the user matrix.

User Account Detail

Use this screen to review or change the information you have on file about every user. Use the *<F5>* softkey to select a User-ID. Then you can scan through other User-IDs alphabetically using the *<PgUp>* and *<PgDn>* keys. If you find an account you want to change, use the up, down, right, and left arrow keys to point to a field, then retype it.

Switching Between Screens



Many of the fields on the User Account Detail were entered by the user when he first signed up on your system. He can change this information himself through the User Account Display/Edit function (see page 371).

The terminal screen dimensions also include an option for whether the screen output is continuous or paginated. If you select `2` for the `page @` value, then output will go continuously to this user's terminal. If you select the screen length, such as `24`, then one screen-full of information will be displayed at a time (22 lines). Some examples:

`Screen 80 by 24 (page @ 24)`	Standard 80 x 24 terminal, the BBS pauses when it has over 22 lines to display
`Screen 80 by 24 (page @ 2)`	Standard 80 x 24 terminal, the BBS doesn't pause, display is continuous
`Screen 80 by 43 (page @ 43)`	Enlarged 80 x 43 terminal, pause every 41 lines

Other information that you can change about a user:

Class

The user's class defines time limits and access privileges. See page 111 for more information on classes or page 121 for how to switch a user's class from a remote location.

Language

This is the user's language preference. This may be overridden at log-on.

Has master key: YES/NO

The master key is *not* a key named `MASTER`, but a designation that gives a user every key on your system — in effect, plus other privileges (see page 110).

Tagged for kill: YES/NO

To delete a user, make this option `YES`. The account will be removed from the BBS during the next auto-cleanup. This delayed action saves you time and keeps the BBS free of the heavy loading required for eradicating a user account from the system.

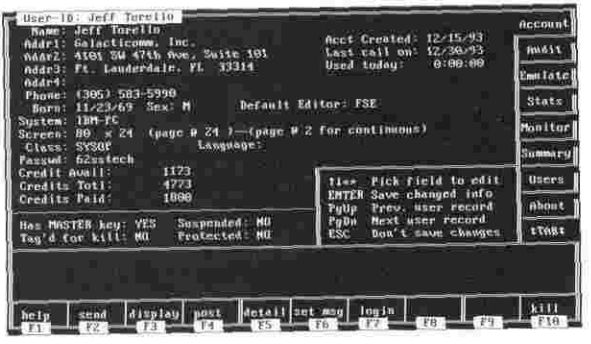
Suspended: YES/NO

A suspended account can't be used by the user. If he tries to log on when his account is suspended he's told:

```
The system operator has temporarily suspended
your account.  To clarify this matter, please
write to us at:

     <company>
     <address>

Be sure to include your User-ID with the
letter, so we can respond quickly.

Thank you for calling...
```

Alt A

User Account Detail



Tab →|

PgUp

Page up and down to other user accounts

PgDn

F5 User-ID Pull up a specific account

↑

← → Pick a field to edit

↓

Type in new info Enter ↵ Change field information

Esc Throw away changes to an individual field

You can also suspend a user's account with the "kill User-ID" softkey command.

Protected: YES/NO

A protected account is never deleted. This is helpful when you want most users in a class to have their account deleted under certain conditions (for example, when they run out of credits or when they haven't logged on in years), but you want some user accounts in the class to remain on your system forever.

Before you can manually delete an account that is protected, you must turn off the protection.

Other Statistics on the User's Account

Credits Available	The number of credits this user has
Credits Paid	The number of paid credits that you've ever posted to this user's account
Account Created	The date the user signed up
Last call on	The date the user last called your BBS
Used today	The amount of time the user has been online today

Audit Trail Detail Screen

The Audit Trail is a record of important events on your system, such as when the system comes up and goes down, when credits are posted to accounts, or when the system automatically recovers from certain error conditions. In some cases, you can decide which events should be reported. For example, the offline Configuration option MMUAUD governs reporting menu selections.

An abbreviated version of the Audit Trail appears on the summary screen. On the Audit Trail Detail screen, you can view all information in the Audit Trail database. Use the up and down arrow keys and *<PgUp>* and *<PgDn>* to scroll up and down. Use *<Home>* to jump to the earliest entry on file or *<End>* to jump to the bottom (the latest).

Here are examples of Audit Trail messages:

Summary	Detail
BBS SHUTDOWN	(Going down to DOS)
BBS UP: V6.20-2	(Ready to service users)
CAN'T EXPORT SIGNUPS TO TEXT!	(ERROR: Can't open "BBSSUP.TXT" for updating!)
CAN'T RECORD DEBTS TO DISK!	(ERROR: Can't open "BBSDBT.RPT" for updating!)
CLEANUP NOT ATTEMPTED	(DATE NOT SET: 01/01/80)
E-MAIL ATTACHMENT UPLOAD	Sal Tigrett uploaded SALESRPT.TXT to Ron McGuinness
E-MAIL ATTACHMENT DOWNLOAD	Ron McGuinness downld SALESRPT.TXT from Sal Tigrett
ERROR IN DISTRIBUTING MESSAGE!	CAN'T OPEN "somelist.dis" for reading.
ERROR: GENERAL PROTECTION FAULT	026F:7A51/#14:Gene Ottenberg/8
FORUM ATTACHMENT DOWNLOAD	Ed Daugherty downld HALLSTG.ANI from /Support
FORUM ATTACHMENT UPLOAD	Kattie Rodriguez uploaded HALLSTG.ANI to /Support
FREE CREDITS POSTED	User-ID: Dianna Teller Credits posted: 72000
INVALID PASSWORD ATTEMPT	9600bps attempt on "Gloria Restelle"
INVALID PASSWORD ATTEMPT	SPX attempt on "Terry Repetti"
INVALID PASSWORD ATTEMPT	X.25 attempt on "Ira Sutherland"

Alt D

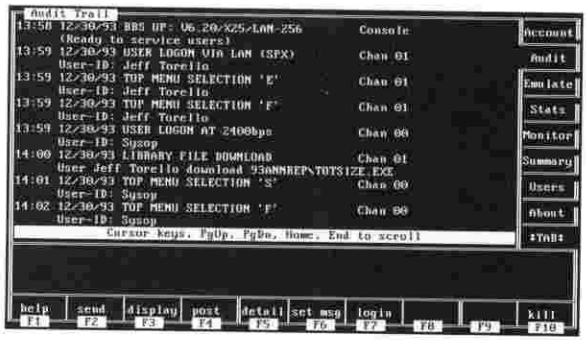
Audit Trail Detail

Home First Entry

PgUp Up 8 Entries

↑ Up 1 Entries

Scroll up to earlier audit trail entries



↓ Down 1 Entry

PgDn Down 8 Entries

End Last Entry

Scroll down to later audit trail entries

```
LIBRARY FILE DOWNLOAD          User Keith Asai download SUPPORT\SVCPRICE.LST
LIBRARY FILE DOWNLOAD ABORTED  User Keith Asai aborted dnld of SUPPORT\SVCPRICE.LST
LIBRARY FILE UPLOAD            User Ana Martinez-Aquino uploaded CITYCODE\ARCH301.DWG
LIBRARY FILE UPLOAD ABORTED    User Ana Martinez-Aquino aborted upld CITYCODE\ARCH301.DWG
MENU SELECTION 'E'             User-ID: Cathy Meyers
MHS: Inactive                  MHS: Directory Structure Incomplete!
NEW USER SIGNUP                New User-ID: Lou Tomlinson
SYSTEM USAGE SINCE LAST CLEANUP Calls: 257  Signups: 8  Hrs used: 143  Creds used: 459600
PAID CREDITS POSTED            User-ID: Dave Kidwell          Credits posted: 180000
USER ACCOUNT DELETED           User-ID: Gilbert Kizale           (Had 7165 credits)
USER ACCOUNT PROTECTED         CoSysop PROTECTED Julie Mason
USER ACCOUNT SUSPENDED         CoSysop SUSPENDED Julie Mason
USER ACCOUNT SUSPENDED         Suspended User-ID: Bob Turner
USER ACCOUNT UNPROTECTED       CoSysop UNPROTECTED Julie Mason
USER ACCOUNT UNSUSPENDED       CoSysop UNSUSPENDED Julie Mason
USER CREDIT TRANSFER           Harry B. Trippet->Nicole Nordberg (10000 credits)
USER LOGOFF                    User-ID: Ed Gauss
USER LOGON AT 19200bps         User-ID: Ed Gauss
USER LOGON VIA LAN(IPXD/IPXV/SPX) User-ID: Valencia G. Babarsky
USER LOGON VIA X.25            User-ID: Tatra Bialowieza
```

```
E-MAIL ATTACHMENT UPLOAD
Sal Tigrett uploaded SALESRPT.TXT to Ron McGuinness
E-MAIL ATTACHMENT DOWNLOAD
Ron McGuinness downld SALESRPT.TXT from Sal Tigrett
```

Sal wrote an E-mail message to Ron and attached the file SALESRPT.TXT to it. Ron read the message and downloaded the attached file. You get these messages when the offline Configuration options EUPAUD and EDNAUD, respectively, are set to YES.

```
ERROR: GENERAL PROTECTION FAULT
026F:7A51/#14:Gene Ottenberg/8
```

This internal error indicates an unexpected memory access, perhaps to an undefined region of memory.

This message appears when the offline Hardware Setup option GPHDLR is set to YES. Programmers and developers of add-on options for The Major BBS will want to set that option to NO to generate more diagnostic information in this type of condition and report it into a text file called GP.OUT.

Here is what the detail of this Audit Trail message means:

026F:7A51	The microprocessor execution address where the GP occurred.
/#14	*This is the online channel number. On the Summary screen* or Online User Information screen, this corresponds to column 1, row 4 on the user matrix.
Gene Ottenberg	*This is the User-ID that was being serviced when the GP* occurred. Often the best way to reconstruct the cause of the problem is to ask this user exactly what he was doing at the time of the GP.

/8	8 is the state code of the user at the time of the GP. A state code corresponds to a service on the BBS, such as Electronic Mail or the File Libraries. To find out which service is service 8, you can count the module positions on the Miscellaneous Statistics screen on page 208 (Menuing System corresponds to state 0; states 1 and higher are as listed in order in this table.)

```
FORUM ATTACHMENT UPLOAD
Kattie Rodriguez uploaded HALLSTG.ANT to /Support
FORUM ATTACHMENT DOWNLOAD
Ed Daugherty downld HALLSTG.ANT from /Support
```

Kattie wrote a message into the /Support Forum and attached the file HALLSTG.ANT to it. Ed read the message and downloaded the file. You get these messages when the offline Configuration options SUPAUD and SDNAUD, respectively, are set to YES.

```
LIBRARY FILE DOWNLOAD
User Keith Asai download SUPPORT\SVCPRICE.LST
```

This user downloaded the file SVPRICE.LST from the SUPPORT LIB.

This entry only appears if the Audit Downloads? option for that LIB is set to YES (see page 257).

```
LIBRARY FILE UPLOAD
User Ana Martinez-Aquino uploaded CITYCODE\ARCH301.DWG
```

This user uploaded the file ARCH301.DWG to the CITYCODE LIB.

This entry only appears if the Audit Uploads? option for that LIB is set to YES. See page 257.

```
MENU SELECTION 'E'
User-ID: Cathy Meyers
```

This entry occurs when you have set offline Configuration option MMUAUD to YES. Every time a user makes a menu choice from a Menu Tree menu, the choice is indicated in the Audit Trail.

```
MHS: Inactive
MHS: Directory Structure Incomplete!
```

The directories for MHS (Message Handling Service) are not present. You have set the offline Configuration option ALWMHS to YES, but the options OUTMSG and INMSG do not refer to directories that can be used for MHS purposes.

Audit Trail Maintenance

You will probably need to purge your Audit Trail occasionally to avoid using too much of your disk space (see page 387 for instructions; see page 379 for instructions on getting your Audit Trail recorded to disk, or to your printer).

Emulate a User's Channel

This screen is a simulation of one of your users' terminals. You can "look over his shoulder" at his interactive session on your BBS. If you like, you can also enter keystrokes and effectively tap into his keyboard as well.

This is helpful for showing a new user around on your system. Instead of just telling, you show. He sees your keystrokes echoed back as you type them. You see his keystrokes on your emulated screen. You both see the same information displayed on the screen (except on Advanced LAN channels, where his input lines are buffered). You could be on a voice call with the user at the same time and describe what you are doing.

Or you can help users quietly, watching their session without their knowledge. Sometimes a candid look at what users are doing reveals the menu choices they most often make and where you might clarify, elaborate, or simplify the prompts on your system.

To emulate a user's channel:

1. Switch to the Online User Information screen, by repeating the <*Tab*> key until it comes up, or using the <*Alt-U*> key to get there directly.
2. Pick the channel you want using the arrow keys. Use the up and down arrow keys to pick the row, and the left and right keys to pick the column.
3. Hit <*Enter*>. That switches you to the Emulation screen, which is now plugged into the new channel.

The screen will probably start out blank. You need to wait until the user types something or the BBS puts a display on his screen before you see anything.

This section describes how to use the User Emulation screen. Most of these functions also apply to the Local Login screen, so its function also will be discussed here.

Local Login and User Emulation

The BBS has two screens ready for you to view any time:

<*F7*>	the local login screen (for channel 00)
<*Alt-E*>	an emulation screen (for the user's channel you picked from the <*Alt-U*> Online User Information screen)

Use the <*Esc*> or <*F7*> softkey to bring up the Local Login screen. Use <*Esc*> to get back out of it.

You can use <*Alt-U*> to emulate a new user channel or <*Alt-E*> to return you to the channel you already picked.

Full Screen Emulation vs. Partial-Window

The Local Login screen always takes up a full screen. The Emulation screen can take up part of a screen or a full screen — hit the <*Esc*> key to toggle between full and partial Emulation screens.

Alt E

Emulate a User's Channel

Esc

Esc

Full Screen Emulation Mode

Shift F2 Activate Sysop chat mode

Shift F10 Reset/restart channel

Alt L Log session to disk

F7 Switch to local session (Partial Screen Emulation Mode only)

The User Emulation screen, when you first get to it, shows a user's session on part of the screen. The *<Tab>* screen indicators are still visible on the right. The softkeys and command area are still on the bottom. This window into the user's session will automatically pan around as the cursor moves on that screen.

To see the full user's screen, hit the *<Esc>* key. Then a full 80-by-24 emulation of the user's screen pops into view. The *<Tab>* indicators and the softkeys disappear. One bar remains at the bottom, reminding you to use *<Esc>* again to go back to the partial-window emulation screen.

Emulation Keystrokes

Most keys on your keyboard are piped into the user's session during emulation. Whatever you type is echoed to both screens just as if the user had typed it. It is the same with the user's keystrokes (see page 189).

Some keys do special things. These keystrokes work on either the Local Login screen or the User Emulation screen:

<Shift-F2> **Activate Sysop chat mode.** (This means hold down the *<Shift>* key and hit the *<F2>* key; User Emulation screen only.) This mode allows you to have a little chat with your user. Whatever either of you types just gets echoed to both screens. It operates very much like user-to-user chat mode in the teleconference, as on page 318. To end Sysop chat mode, hit the *<Shift-F2>* key again.

<Shift-F10> **Reset/restart a channel.** This keystroke resets the channel being emulated. If a session was in progress, it is terminated. If a session was not in progress on a non-hardware channel, a new session is restarted.

This command is handy for terminating unwanted users. If you find a user is doing something you don't approve of, or harassing other users, you can emulate his channel to see what he's up to. If you wish, terminate the session with *<Shift-F10>*.

<Alt-L> **Capture session to disk.** You can capture a user's session to disk in an ASCII text file using this keystroke. Hitting it once turns on the capture. Hitting it again turns it off. The information is logged into:

LOCALBBS.LOG	for local login (channel 00)
EMUBBS.LOG	for emulation (all other channels)

You can turn capture on and off at any time. The new information is always *appended* onto the end of the old file:

```
Log activated at 13:02:56 13-MAY-92
    <new session>
Log terminated at 13:06:02 13-MAY-92
```

<Alt-A> **Turn ANSI emulation on/off.** To simulate a user terminal that doesn't have ANSI capability, use this keystroke to toggle ANSI on and off for Local Login only.

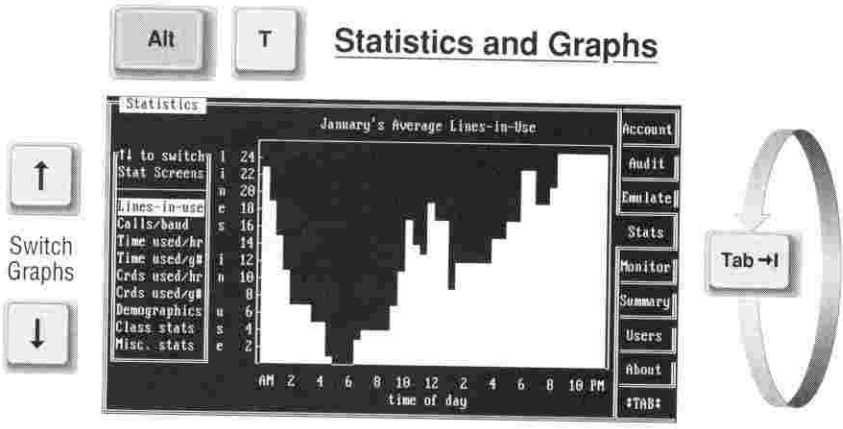
Emulating a Non-hardware Channel

You can activate an additional local session by emulating a non-hardware channel, which is a channel without actual hardware on it (see page 39). You can define non-hardware channels by configuring modem ports in the offline Hardware Setup mode and picking I/O addresses that aren't in use on your system. When you emulate a non-hardware channel, a session begins right away. Then you can enter a User-ID and password.

Emulating a RIP User

One thing you should remember is that the local console does not support RIP. This means that if you emulate a RIP user, you'll see the raw RIP*scrip* codes streaming by, not the graphics on his terminal. At times, this can be useful — for example, if you are working on a partial RIP scene that isn't functioning properly, you can see exactly what RIP commands the BBS is sending to the user.

Statistics and Graphs



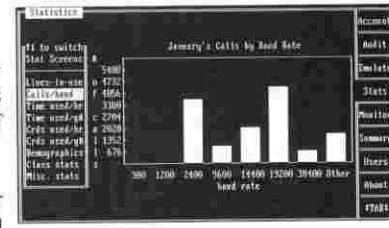
Lines in Use

This graph shows the average number of channels in use for each hour of the day since the first of the month. This can help you determine the busiest times of the day and perhaps when it is time to add more channels to your system.

For example, let's say you look at this graph on the 15th of September. The top of the graph will say "September's Average Lines-in-Use." Let's say that the bar over 10 p.m. reaches up to 18. This means that from 10:00 p.m. to 10:59 p.m. every night, from September 1 to 14, an average of 18 users were online. On the first of the month, the graph represents the entire previous month.

If your system has 20 lines total, callers are probably getting a lot of busy signals during this period. Remember that the 18 is an average online per hour. You could have an average of 30 people wanting to get online at a time, but only 18 actually get through.

Calls/Baud Rate

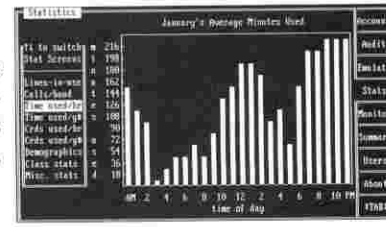


This graph shows the total number of calls at various baud rates since the first of the month. This can help you to decide how many of what type of modems you should get.

If you look at this graph on the 15th of September and see the bar over 2400 reaching up to 400, and the bar over 9600 reaching up to about 350, it means that from 1 to 14 September, you received about 400 calls that connected at 2400 baud and 350 connected at 9600 baud. On the first of the month, the graph represents the entire previous month.

If your system had two 9600 bps modems and six 2400 bps modems, then the demand is not balanced. You might want to get more 9600 bps modems.

Time Used/Hour

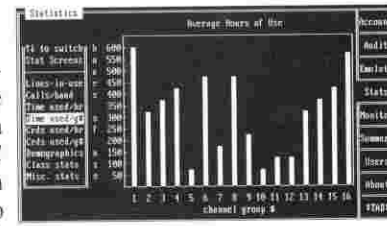


This graph shows the total number of minutes online for all users for each hour of the day, averaged for the current calendar month. The numbers can go way over 60 minutes per hour, of course, because you can have several people online at once.

This really is the same information as the Lines-in-Use graph in a different format.

If you're charging users for access to your system, it might be useful to contrast this graph with the Credits Used/Hour graph. The Credits graph tends to show when direct paying customers are using the system. The Time graph tends to show when everyone is using the system, including subscription users and free-demo users.

Time Used/Group Number

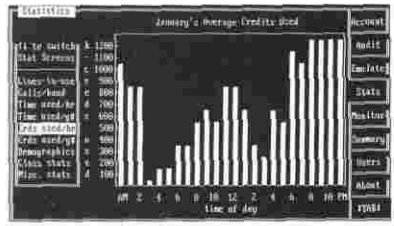


Channels of The Major BBS are divided by hardware type in up to 16 groups. A group can include all the modems in a GalactiBox, all the ports on a GalactiBoard, or all the virtual circuits on a PC XNet card. Or a group can be a single modem on the COM1 port. See the offline Hardware Setup for the channel grouping on your BBS.

This graph shows the average number of hours online per day for each channel group for the current calendar month. This could help you determine the most active channels.

Say you have an eight-channel X.25 packet-switching network connection on group 4 and a bank of 16 modems on group 5. The graph will show you total usage of both access methods. If the modems show twice the hours as the network, then the load is probably well balanced.

Credits Used/Hour

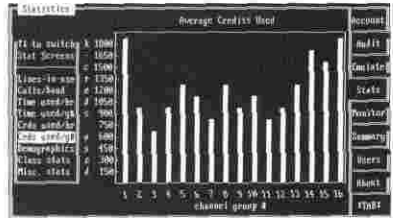


If you're not charging for access to your system, this graph will be empty. If you are charging users for access to your system, this can show you which hours of the day bring you the most revenue. For each hour of the day, since the first of the month, this graph shows you how many credits were consumed by users per hour. The graph shows thousands of credits, or kilo-credits, consumed per hour.

For example, if you see 20,000 credits at 10 p.m., then an average of 20,000 credits were consumed between 10:00 and 10:59 p.m. each night since the first of the month.

If this graph peaks at 10 p.m. and the Time Used/Hour graph peaks at 8 p.m., then you know that the direct paying users tend to get on later, while the free or subscription users tend to call in earlier.

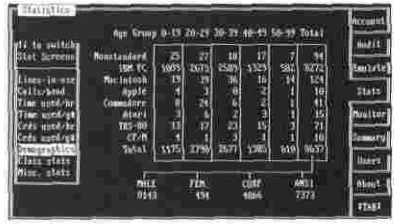
Credits Used/Group Number



Channels of The Major BBS are divided by hardware type in up to 16 groups. See the offline Hardware Setup for the channel grouping on your BBS.

If you are not charging for access to your system, this graph will be empty. This graph can reveal which channels are bringing you the most revenue (though it won't include subscription users). If your channel group with 9600 bps modems is bringing you significantly more credit consumption than the channel group with 2400 bps modems, then you might want to invest in more 9600 bps modems. If not, you may want to restrict use of the 9600 bps channels using the Offline Security & Accounting option SAMPLN.

Demographics



This table shows you which computers are used by which age group in your system and other statistics. Demographics are one way to know what kind of people are using your system. This might help in getting more people online or in better serving the people who already are there.

This information is based on the questions that the BBS asks users when they first sign up. If you have turned off some of these questions, some of this information might not be of use to you.

Age vs. Computer Type

This matrix compares the age and computer type of your users. If you see 137 in the the 20-29 column and the Macintosh row, then 137 of your users are 20-29 and use a Macintosh.

Age Totals

This row of numbers shows you how many of your users are in each age group. This might help you change your emphasis or strategies. For example, if you find a surprisingly high number of users in the 0-19 age group, you might want to start targeting services to their interests.

Computer Type Totals

This column shows you how many users you have on each type of computer. For example, this might help you confirm that 97% of your callers are on IBM PC-type computers, and it is OK to use the extended IBM character set to make your menus and prompts a little more interesting.

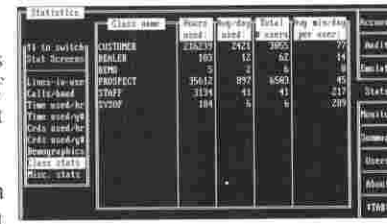
Corporate

This figure is the total number of callers who entered a company name (the question after their name and before their address).

ANSI users

This figure is the total number of users whose terminals have ANSI capability. If most of your users have ANSI, you might want to put more work into designing sharper and more elaborate menus and prompts.

Class Statistics



A class is a group of users with similar access restrictions, privileges, and payment options (if any). You can run the offline Class Report to get details on the classes in your system.

This table gives you details about what users in the various classes on your system are doing. It might help you to give more attention to the class of users that is online most or to restructure classes that are being used very little.

Hours Used

This is the total number of hours that users in this class have been online since the first of the month.

Average Hours/Day Used

For the current calendar month, this column shows the average number of user hours per day. For example, if you see 47 here, then users of this class were online an average of 47 hours per day since the first of the month.

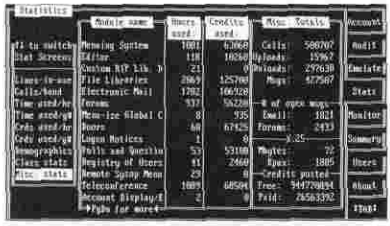
Total Number of Users

This shows the total number of users on your system that are in each class.

Average Minutes per Day per User

This tells you how much time users spend online per day. If you see 15 here, then users of this class averaged 15 minutes online per day since the first of the month.

Miscellaneous Statistics



Hours Used per Module

This column shows the total number of hours that users have been using the various services on your BBS since the first of the month. This can help you to spend your time working on the services that are getting the most usage (and avoid wasting time on the services that are not being used).

For example, if most users are writing private E-mail and uploading and downloading files in the File Libraries, you might want to put some attention into those areas, making it easier for users to get the information they need. You could put common commands such as "read your mail" or "list top 10 files" into your system's TOP menu.

If you have more modules on your BBS than fit on the screen, you can use *<PgUp>* and *<PgDn>* to scroll through them.

Credits Used per Module

If you are not charging for access to your BBS, this column will probably be empty. If you are charging for access, this can show you where a lot of your revenue is based. If a greater proportion of credits is consumed in the Forums, for example, then you may want to encourage more Forum access by contributing to them more yourself. Because it takes credits to contribute to your Forums, this will inspire more user to buy credits.

Totals

These figures show the total number of calls, file uploads, file downloads, and E-mail or Forum messages generated on your system since you first installed it.

Open Messages

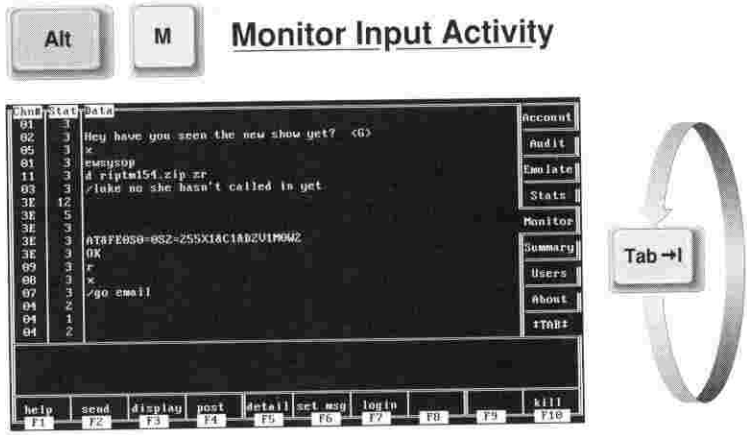
Open messages are messages that are still online. Open E-mail messages are sitting in users' in-boxes. Open Forum messages are still online, available to anyone who has the proper access to read them.

X.25 Statistics

These figures are the total number of kilo-packets (thousands of packets) and megabytes (millions of characters) that have been exchanged over X.25 packet-switching networks. If you have the X.25 Software Option, these statistics accumulate since system installation.

Credits Posted

If your BBS is using credits to meter connect time, then these figures show how many have been posted to user accounts since your system was installed. Free credits are posted manually or automatically for various reasons, including upload royalties or transfers from other users. Paid credits are only posted manually, by the Sysop or designated Co-Sysops. (The distinction between paid and free credits is only a convenience to you for statistical purposes. There is no functional difference between paid or free credits.)



The monitor screen has these three columns of information:

Chn#	Channel number, in hexadecimal
Stat	Status code
Data	If status 3, the actual text data received

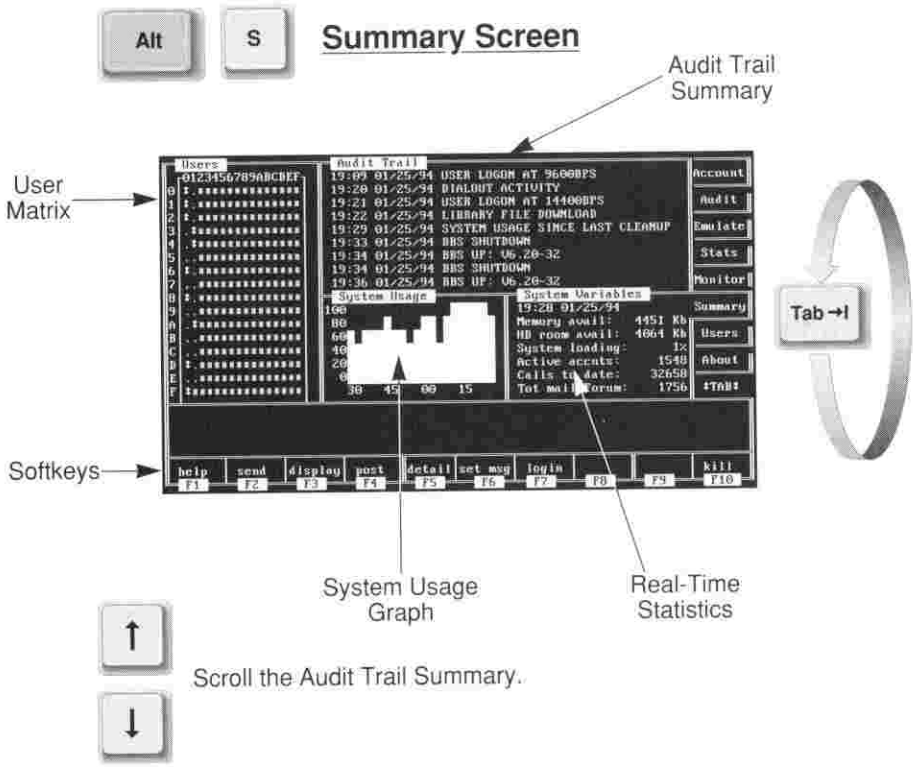
The channel number corresponds to the user matrix on the Summary and Online User Information screens (page 211). Most status codes are listed below. The Data column elaborates on a status 3 (carriage return terminated string received), when the BBS receives a line of text. This includes initial responses when resetting a modem and whatever a user types in response to a menu or prompt. Full-screen editing and data-entry modes do not generate status 3 conditions.

Channel Status Codes

1	Channel reset/restart	This status is part of killing a channel due to Sysop intervention, or other condition.
2	Command complete	Internal use only, part of the reset cycle of non-hardware or multi-modem card channels.
3	Text line received	By far the most common status — the user has typed a line of text followed by *<Enter>*.
4	Binary data received	Seen occasionally during file transfers.
5	Output complete	Internal use only, it means that a string of text has been completely transmitted.
6	*<Ctrl-O>* quit	User hit *<Ctrl-O>* to abort output.
7	Screen-pause quit	User chose to `(Q)uit` output to his screen when paused between screens.
11	Carrier Detect off	The Data Carrier Detect signal went from on to off. This happens on modems when the user hangs up, or the modem loses connection. It happens on serial ports when DCD goes off also.

12	Command complete	Internal use only, part of the reset cycle of modem and serial channels.
21	X.25 clear packet	Session ended by the packet-switching network.
22	X.25 command complete	Internal use only, part of the reset cycle.
24	X.29 message received	Incoming PAD programming instructions.
31	SPX terminate	User terminated his SPX session.
32	LAN pause	Internal use, end of pause.
33	Invalid LAN command	Bad IPX Direct address or other command.
34	SPX incoming call	An incoming SPX connection has been established.
35	SPX outgoing call	An outgoing SPX connection has been established.
36	SPX terminated	The BBS successfully terminated an SPX session.
37	LAN receiver error	Internal error with the LAN receiver.
38	LAN unknown packet	May appear as part of an abrupt or ungraceful termination of a LAN session or as an unsolicited IPX direct packet.
39	LAN other error	SPX watchdog termination, or bad IPX network address, or other error.
191	Full Screen Editor	User is editing a message.
230	X.25 window full	Multiple attempts were required to program the remote user's PAD.
231	X.25 other error	Other X.25 transmission error
241	Relogging on	User is starting a new session, after picking R instead of logging off.
251	Data input overflow	User typed a line too long or too fast.
252	Echo output overflow	Some data did not make it to the user's screen.
253	Data output overflow	Some data did not make it to the user's screen. Some output may have been too big for the channel's output buffer.
254	Status input overflow	The channel changed its conditions too many times over a short period.

Summary Screen



User Matrix

This box shows the activity on all 256 channels of the BBS. Each channel is represented by a single character. The first column represents channels 00 through 0F hexadecimal. The next column represents channels 10 through 1F, the last column, F0 through FF. To find out what channel a particular character represents, use the digit at the top of the column and the digit at the left of the row. For example:

```
Channel 3C:   column 3, row C
```

Here's what the characters represent:

·	Channel ready to receive calls
#	Missing device, or error with device
≠	Answering call
§	Carrier detected (modem only)
✻	User is logging on
?	New user signing up
↕	Connection established (non-modem), or user is online

∫	Channel shutdown
•	Deadbeat or suspended user
!	Hack attempt (wrong password)
T	LAN SPX session terminating
-	Non-hardware channel, good for emulation only
<blinking>	User is trying to page the Sysop

You can get more details on each channel from the Online User Information screen (hit the *<Tab>* key once). The same user matrix appears there, and one column at a time is broken out in more detail.

These are the colors that show in the user matrix for different baud rates:

300	dark blue
1200	green
2400	cyan
4800	dark red
9600	magenta
19200	yellow
38400	white
57600	white

System Usage Graph

This graph shows how many channels were in use for the preceding 60 minutes. The 100% level means that all channels that you defined had users online. The 0% level means that all channels were vacant. The undefined channels, represented by yellow squares, don't count.

The minute of the hour is displayed along the bottom of this graph. For example, at 10:20 in the morning, you should see `30 45 00 15` along the bottom of the system usage graph:

`30` representing 9:30
`45` representing 9:45
`00` representing 10:00
`15` representing 10:15

Real-Time Statistics

You can use the *<F3>* softkey to keep track of some real-time statistics on your BBS's operation. About a dozen statistics can be displayed, but only six at one time. The time and date are always displayed at the top. You pick what to display on the next six lines using the *<F3>* softkey. Once you put a statistic up there, it stays there. And it keeps updating as your BBS stays on the air.

If the system is shutting down, the top line might display one of the following (instead of time and date):

```
Shutdown in 7 min.
Shutting down NOW!
Shutdown ASAP
```

Here are examples of the information that could appear in lines 1-6.

`Memory Avail:`	`3534 Kb`	This is the amount of protected-mode memory available on your system. It shouldn't be allowed to get below about 20 Kb.
`Tot Mail/Forum:`	`492183`	This is the total number of messages ever written, either E-mail or messages in the Forums. The next message written will have this number as its message number.
`Opn E-mail:`	`5921`	This is the number of E-mail messages in user in-boxes.
`Opn Forum msgs:`	`26432`	This is the number of Forum messages on file.
`HD room avail:`	`120 Mb`	This is the amount of free disk space. This shouldn't be allowed to get below 100 Kb, although different configurations may require different safety margins.
`System Loading:`	`18%`	This is the percentage of your overall compute-time resources currently consumed by your users. (This number is 100% when your average response time reaches 1.5 seconds.)
`Active Accnts:`	`10986`	This is the number of User-IDs on file.
`Calls to date:`	`494502`	This is the number of times that users have logged onto your system.
`Tot Uploads:`	`34921`	This is the number of uploads, either to a Library or as attachments to E-mail or Forum messages.
`Tot Dnloads:`	`178309`	This is the number of downloads, either from a Library in the File Libraries or as attachments to E-mail or Forum messages.

Audit Trail Summary

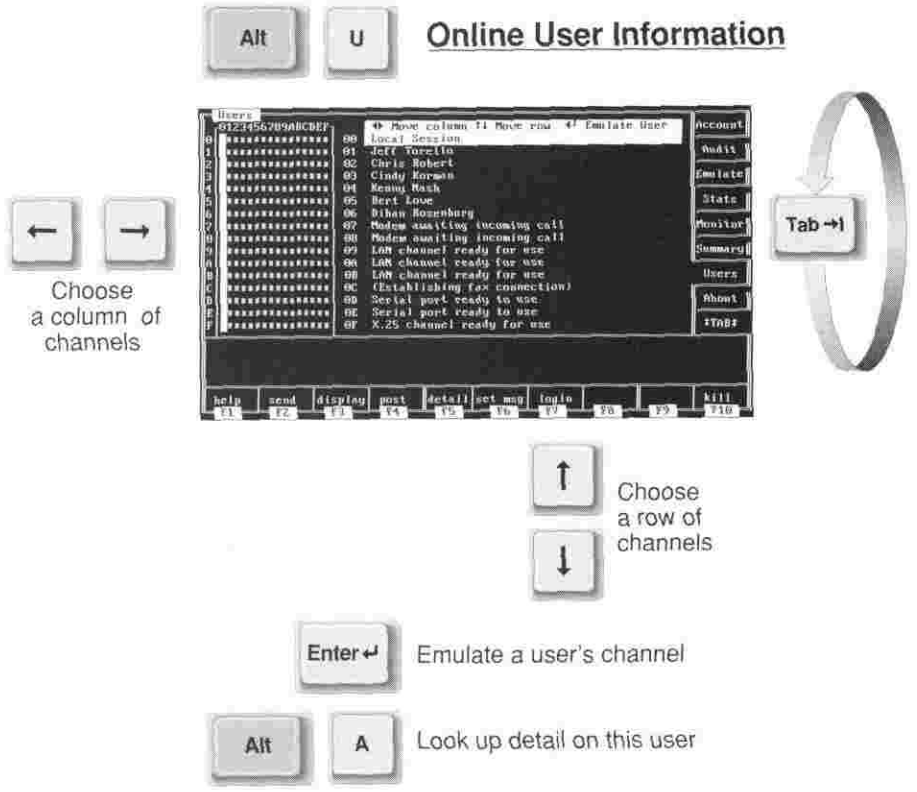
This box shows the nine most recent Audit Trail entries. You can see earlier information by scrolling around with *<up arrow>*, *<down arrow>*, *<PgUp>*, *<PgDn>*, *<Home>*, and *<End>*.

Only the brief summaries are shown. For more detail, see the Audit Trail Detail screen (page 197). Hit the *<Tab>* key a few times to get to it, or type *<Alt-D>*.

Softkeys and Command Entry

At the bottom of the screen are the 10 softkeys. They represent what the function keys *<F1>* through *<F10>* do on your keyboard. As you use the softkeys, they may change to a new set of options. Use the *<Backspace>* key to undo softkeys and make different choices. When you use the softkeys, the command area right above them shows the command you are performing. See page 220 for more on using the softkeys.

Online User Information



The Online User Information screen shows the same user matrix that's on the Summary screen. All 256 channels are represented by a single character code. See page 211 for the codes. To get more information on an online user, point to his channel using the arrow keys and hit *<Alt-A>*, to bring up his information on the User Account Detail screen.

On the right side of the Online User Information screen is detailed information on one column of channels at a time. Use *<left arrow>* and *<right arrow>* to pick a different column.

Here are the kinds of messages that could appear in the channel detail:

`ANSWERING CALL...`	The modem has detected an incoming call, and is waiting for carrier detect.
`ATZ OK, sending init string...`	During initialization, the modem responded correctly to the `ATZ` command by replying `OK`.
`Deadbeat user (hanging up)`	A user without the `NORMAL` key tried to log on to a reserved channel (see offline Security and Accounting options `SAMPLN` and `SAMPKY`).

`Disabled LAN`
`Disabled serial channel`
`Disabled X.25`
	You have busied-out one of these types of channels, so it can't take calls. You have to use the kill-channel softkeys to free the channel again.

`Door reserved channel`	Channel is reserved for use by Doors.
`ERROR: bad IPX address`	You have not defined enough network addresses for an IPX Direct Circuit channel group (see page 35).
`ERROR: bad status after ATZ!`	The modem on this channel is not responding properly to an ATZ command. Check hardware and software configuration.
`ERROR: bad status during init` `ERROR: bad/no init response`	The modem on this channel is not responding properly to the initialization string, check hardware and software configuration.
`ERROR: no response to ATZ!`	This is the status you get when a modem channel has a serial port but no actual modem on it or another problem preventing basic operation.
`Incoming LAN contact` `Incoming X.25 contact`	A session is beginning over one of these networks.
`Initializing...`	This channel has passed the first test of initialization.
`Invalid password attempt`	Third incorrect password attempt.

`LAN channel ready for use`	The LAN channel is ready to support sessions from the network.
`Local session`	You are logged into the *<F7>* local channel, channel 00.
`Local session disabled`	Sysop local login disabled by a `Kill Channel` command.
`Locked modem has carrier`	A modem with a fixed BBS-to-modem baud rate has detected a carrier. If you have told the BBS to lock the baud rate, but not the modem, then the channel may seem to get stuck in this condition.
`Logging on...`	A user has just entered his User-ID. The BBS is asking him for his password.
`Modem awaiting incoming call`	An operational modem channel will stay in this vacant condition until receiving an incoming call.
`Modem has carrier`	An incoming call has been answered and carrier from the other modem has been detected. If you told the modem to lock the baud rate (also called speed conversion or rate adjust), but not the BBS, then the channel may seem to get stuck in this condition.
`Modem set to BUSY-OUT`	You have told this modem to go off-hook so any incoming calls get a busy signal or get routed to the next phone line in your hunt group. Use the kill-channel softkeys to recover this channel.
`Modem set to NO-ANSWER`	You have told the modem to ignore incoming calls on this channel. Use the kill-channel softkeys to recover this channel.
`New user signing up...`	A user has typed `new` in place of a User-ID, and he is signing up on your BBS now.

`Non-Hardware`
`Non-Hardware LAN`
`Non-Hardware X.25`
	No live modem or serial hardware.
	No live LAN channel.
	No live X.25 virtual circuit.
	No hardware was detected on this channel. The I/O base address may

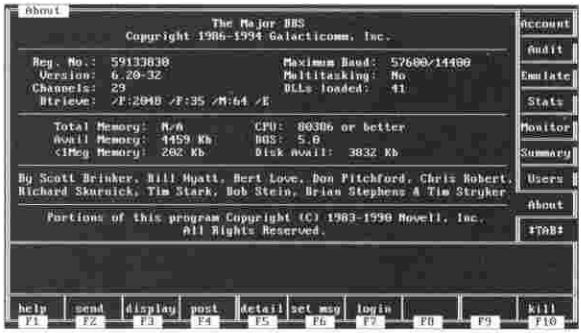
	be incorrect, or the hardware may be missing or defective. Or you have defined more channels than your user license permits.
`Opening Door for channel`	A Door session is beginning on this channel.
`Serial channel has activity`	An *<Enter>* has been received on a serial channel. The BBS is prompting for User-ID.
`Serial port ready to use...`	An operational serial port will stay in this vacant condition until a session begins (an *<Enter>* is received).
`Spurious IPX traffic`	Failed attempt to start a session on an IPX Virtual channel.
`SPX Terminating...`	An SPX session is attempting to terminate gracefully. Use the kill-channel softkeys to make it give up.
`Status invoked reset`	Some unexpected status condition on a channel that was waiting for an incoming call. Switch to the Monitor screen and try to see what the status code was.
`Suspended user (hanging up)`	A suspended user has attempted to log on. The BBS is hanging up and telling him why. Go to the Account Detail screen to unsuspend this User-ID.
`X.25 channel ready for use`	This X.25 virtual circuit is ready to accept incoming calls from the packet-switching network.
<User-ID>	This user is online and using the BBS.
`(Copying MHS file attachment)`	This channel is being used to copy an outgoing MHS file attachment. You should only see this on a non-hardware channel.

Emulating a Channel

To emulate a user's channel, use the arrow keys on the Online User Information screen to pick a channel, then hit *<Enter>*. You'll switch right away to the Emulation screen (see page 214).

You can log on locally by emulating any non-hardware channel. The <*F7*> softkey is a quicker way to do that if all you need is one channel; it instantly emulates channel 00, which is reserved for this purpose.

About The Major BBS



This screen includes some information that is particularly helpful when you're contacting Galacticomm for technical support.

Reg. No.

This is your software registration number. It also appears on the user screen when a user first connects to your BBS.

Version

The version code includes the base software version, such as `6.20`, plus some special suffixes:

`-2`	Supports two simultaneous users
`-32`	Supports 32 simultaneous users, and so on
`/LAN`	The Advanced LAN Option
`/X25`	The X.25 Software Option

Channels

This is the total number of channels you have defined on your system, including non-hardware channels.

Btrieve

These are some of the important options for the Btrieve database engine:

`/P:2048`	Page size of 2,048 bytes
`/F:26`	Number of Btrieve `.DAT` files that can be open at once
`/M:64`	Memory allocated in K by Btrieve for Btrieve operations
`/E`	Prevent Btrieve from using expand memory

Maximum Baud

This rate shows the maximum bit rate expected over all the channels and, if it is different, the maximum effective polling rate. The Major BBS does not use interrupts to service modems and serial ports. Instead, it polls these devices at a specified rate — the polling rate. For example, `38400/9600` means that some channels will be in use at up to 38400 bits per second, but that all channels need to be polled at the effective rate of *9600. (The actual polling frequency is 1.2 times the byte frequency, or 1.2 x 960 = 1,152* polls per second.) When all your modem and serial ports use 16550-type UART devices, the BBS can use an effective polling of one quarter the maximum baud rate. 16550 UARTs have internal buffers called FIFOs, which allow The Major BBS to poll them less frequently (see about the POLRATE option on page 44).

Multitasking

This shows the settings of the `MULTSK` and `MLTMTH` offline Hardware Setup options (see page 44). The possibilities are:

No	Standard high-priority timer polling
Yes — Timer	Reserves one COM port to pace the polling
Yes — Interrupt	Interrupts come directly from the ports

DLLs Loaded

This is the number of Dynamic Link Libraries loaded in your configuration of The Major BBS. This number increases as you upgrade your system with add-on options.

Available Memory

The `Avail Memory` *quantity comes out of the extended or protected mode memory that* is physically addressed above 1 Megabyte. This figure should probably be at least 100K bytes, but is likely to be a lot more than that. The `<1Meg Memory` figure is the amount of memory you have available in the real-mode memory that is physically addressed below 1 Megabyte. It's unsafe to run your system with this amount less than about 50K.

Disk Available

This is the total room you have on your hard disk that the BBS is running on. This amount should not be allowed to get below about 200K bytes.

SOFTKEYS

The softkeys are the function keys <*F1*> through <*F10*>. They allow you to enter special commands from the console of The Major BBS. They're called soft because they do different things under different circumstances.

When The Major BBS is running, the softkeys are represented at the bottom of the screen.

<*F1*>	`help`	Display instructions for using the current screen
<*F2*>	`send`	Send a message to users online
<*F3*>	`display`	Display real-time statistics on the Summary screen
<*F4*>	`post`	Post credits to a user's account
<*F5*>	`detail`	Get details on a user's account
<*F6*>	`set msg`	Set the log-on message
<*F7*>	`login`	Log in to the BBS from the console
<*F8*>		<*reserved for future use*>
<*F9*>		<*reserved for future use*>
<*F10*>	`kill`	Delete accounts, reset channels, shut down the BBS

When you see `display` over `F3` at the bottom of the screen, it means that <*F3*> has to do with displaying something. Hit <*F3*> and the softkeys on the screen change into another set of choices. Now over `F2` it says `message`. Hit <*F2*>, and you get *another* set of choices.

While you're doing this, you can see a command forming on the screen. So far it says:

```
Display messages:
```

Hit <*F2*> two more times and each time it means something different:

```
Display messages: open no. of E-mails, in position 2
```

This whole string means that the total number of open E-mail messages should be displayed on line 2 of the real-time statistics on the Summary screen.

Hit <*Enter*> to make the command take effect. Or hit <*Backspace*> to change the command. You'll notice that each <*Backspace*> erases a chunk of the command in the command box, so that typing:

<*F3*> <*F2*> <*F2*> <*F2*> <*Backspace*> <*F5*>

is the same as typing:

<*F3*> <*F2*> <*F2*> <*F5*>

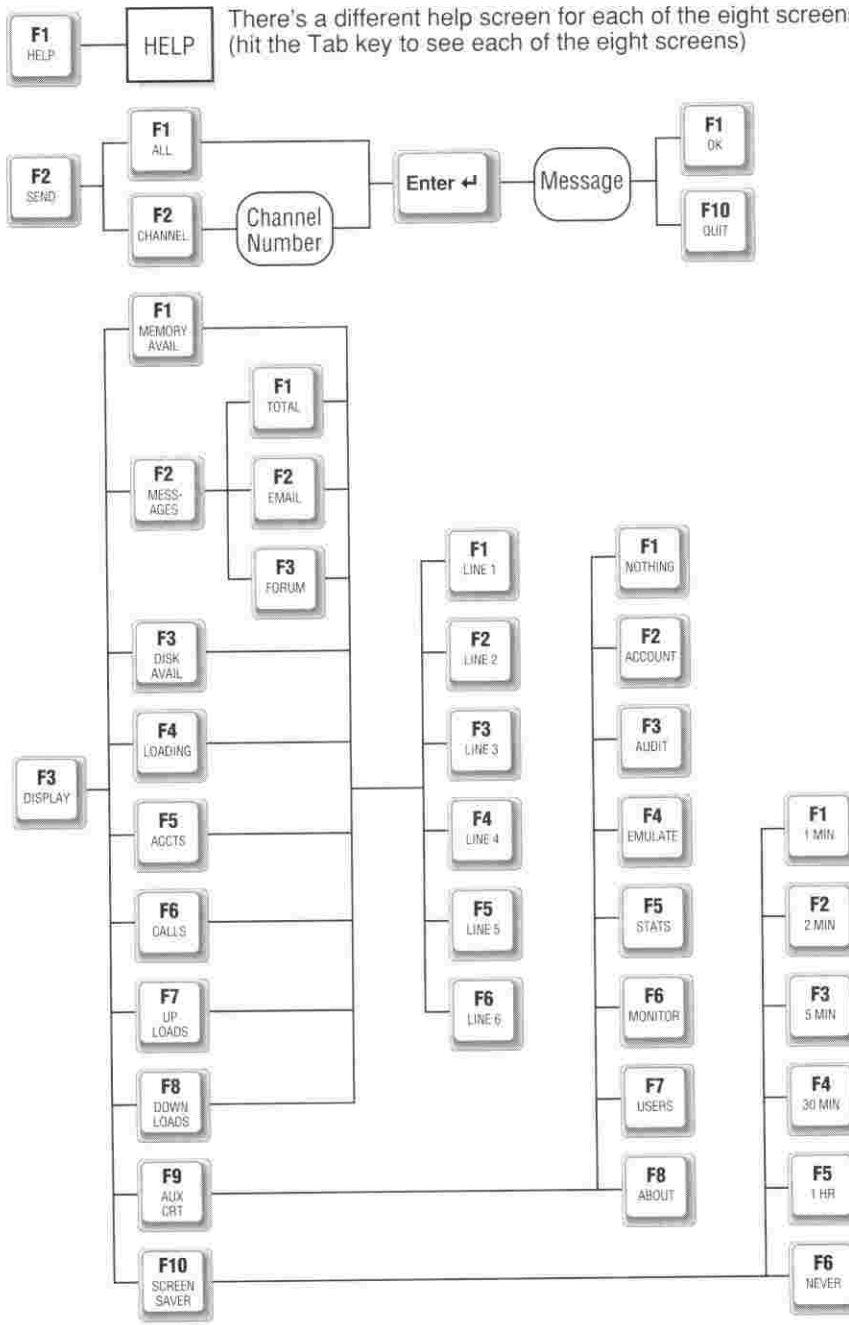
When the Softkeys Don't Appear

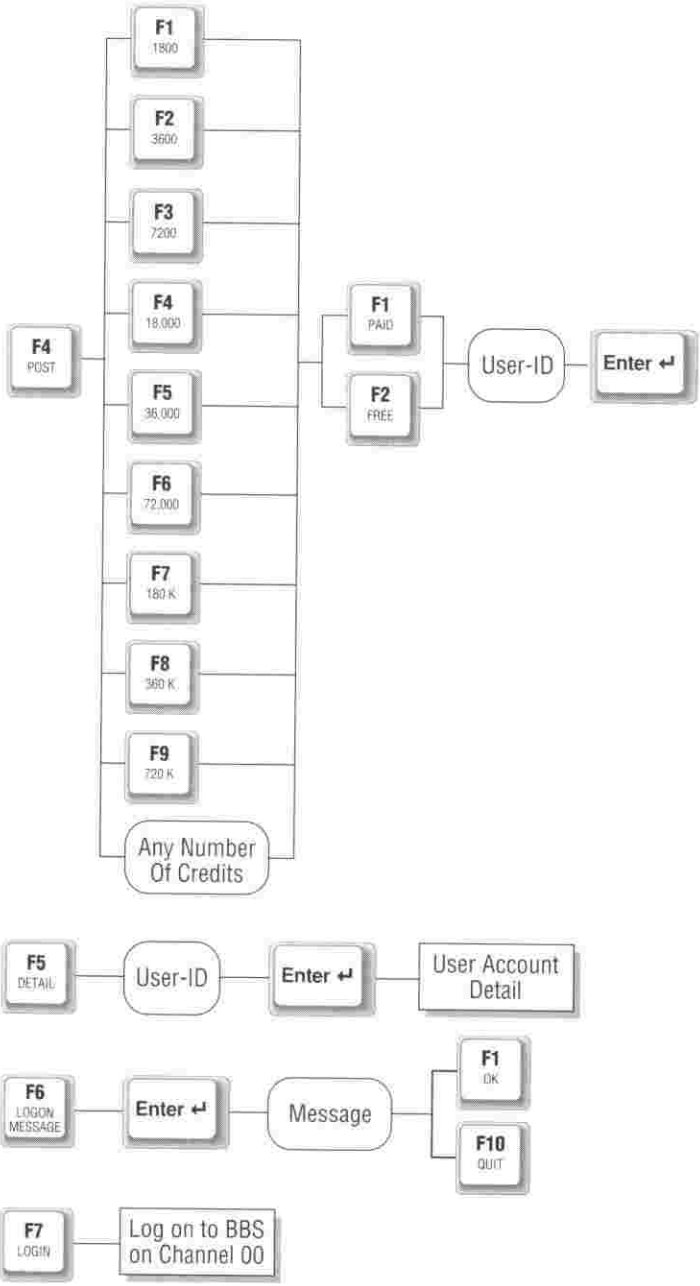
Most of the time, the softkeys are visible at the bottom of the console. Even when you use <*Tab*> to flip through the screens, the softkeys are not changed. But for some things, you need the entire screen, and the softkeys go away for a while:

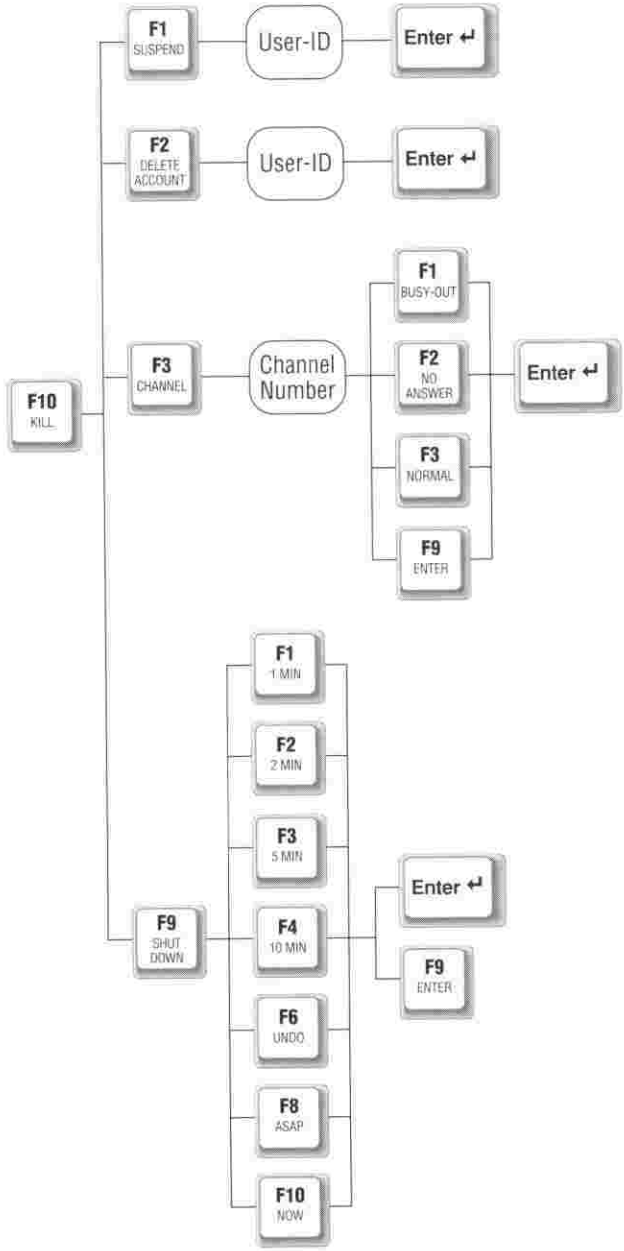
Full-screen user channel emulation
Full-screen local emulation

In both cases, the softkeys are just an <*Esc*> keystroke away.

help
F1
send
F2
display
F3
post
F4
detail
F5
set msg
F6
login
F7
F8
F9
kill
F10


F1 HELP
HELP
There's a different help screen for each of the eight screens (hit the Tab key to see each of the eight screens)
F2 SEND
F1 ALL
F2 CHANNEL
Channel Number
Enter ↵
Message
F1 OK
F10 QUIT
F3 DISPLAY
F1 MEMORY AVAIL
F2 MESS-AGES
F1 TOTAL
F2 EMAIL
F3 FORUM
F3 DISK AVAIL
F4 LOADING
F5 ACCTS
F6 CALLS
F7 UP LOADS
F8 DOWN LOADS
F9 AUX CRT
F10 SCREEN SAVER
F1 LINE 1
F2 LINE 2
F3 LINE 3
F4 LINE 4
F5 LINE 5
F6 LINE 6
F1 NOTHING
F2 ACCOUNT
F3 AUDIT
F4 EMULATE
F5 STATS
F6 MONITOR
F7 USERS
F8 ABOUT
F1 1 MIN
F2 2 MIN
F3 5 MIN
F4 30 MIN
F5 1 HR
F6 NEVER


F1
1800
F2
3600
F3
7200
F4
18,000
F5
36,000
F6
72,000
F7
180 K
F8
360 K
F9
720 K
Any Number
Of Credits
F4
POST
F1
PAID
F2
FREE
User-ID
Enter ↵
F5
DETAIL
User-ID
Enter ↵
User Account
Detail
F6
LOGON
MESSAGE
Enter ↵
Message
F1
OK
F10
QUIT
F7
LOGIN
Log on to BBS
on Channel 00


F10
KILL
F1
SUSPEND
User-ID
Enter ↵
F2
DELETE ACCOUNT
User-ID
Enter ↵
F3
CHANNEL
Channel Number
F1
BUSY-OUT
F2
NO ANSWER
F3
NORMAL
F9
ENTER
Enter ↵
F9
SHUT DOWN
F1
1 MIN
F2
2 MIN
F3
5 MIN
F4
10 MIN
F6
UNDO
F8
ASAP
F10
NOW
Enter ↵
F9
ENTER

Help

Each of the eight main screens on The Major BBS console have helpful instructions on how to use them. <*Tab*> to a particular screen and hit <*F1*> to get this help. Then hit <*Esc*> to get back to the screen.

Send Messages

Use this softkey command to send a message to users who are online. This isn't an E-mail message — this is an immediate message that goes right to their screens. If they're downloading or otherwise occupied, they'll miss it.

You can send the message to one user, or to all users online. To send it to one user, you need to know the channel number. Switch to the Online User Information screen and use the arrow keys to find the hexadecimal channel number. Here's an example of a message sent to one user:

```
<F2> <F2> <channel number> <Enter>
Sean, are you at your office?  I need to call you. <Enter>
What's the voice number there? <Enter>
You can reply by typing: <Enter>
<Enter>
     /p sysop the number is xxx-xxxx <Enter>
<Enter>
or whatever. <Enter>
<F1>
```

Here's an example of a message sent to all users online:

```
<F2> <F1> <Enter>
Sorry folks, we need to shut down for 10 minutes <Enter>
so we can install the new phone lines. <Enter>
Please log off when you get a chance. <Enter>
<F1>
```

The <*F1*> at the end signals the end of your message. This is one of the multiline softkey commands, so you need the special <*F1*> = OK keystroke at the end.

Display Statistics on Summary Screen

Here are the statistics that you can display on the Summary screen.

<*F3*><*F1*>	Memory Avail:	3534 Kb
<*F3*><*F2*><*F1*>	Tot Mail/Forum:	32353
<*F3*><*F2*><*F2*>	Opn E-mail:	5921
<*F3*><*F2*><*F3*>	Opn Forum msgs:	26432
<*F3*><*F3*>	HD room avail:	120 Mb
<*F3*><*F4*>	System Loading:	18%
<*F3*><*F5*>	Active Accnts:	10986
<*F3*><*F6*>	Calls to date:	494502
<*F3*><*F7*>	Tot Uploads:	34921
<*F3*><*F8*>	Tot Dnloads:	178309

See page 213 for more details on these statistics. You can only display six of these at a time:

<F1>	line 1
<F2>	line 2
<F3>	line 3
<F4>	line 4
<F5>	line 5
<F6>	line 6

Once you display a statistic, it remains up on the screen, and keeps up to date as the BBS is running.

Displaying on the Auxiliary CRT

If you have a monochrome CRT and a color CRT on your BBS computer, you can make use of both of them. Set the offline Hardware Setup option AUXIST to YES to activate this feature.

The <F3> <F9> softkeys specify what to display on your auxiliary CRT:

<F3> <F9> <F1>	nothing	Don't use the auxiliary CRT
<F3> <F9> <F2>	account	Display the User Account Detail
<F3> <F9> <F3>	audit	Display the Audit Trail Detail
<F3> <F9> <F4>	emulate	Display what is on a user's terminal
<F3> <F9> <F5>	stats	Display some system statistics
<F3> <F9> <F6>	monitor	Display the input activity monitor screen
<F3> <F9> <F7>	users	Display the Online User Information screen
<F3> <F9> <F8>	about	Display the About screen

Displaying the Screen Saver

The screen saver can increase the life of your CRT. When your console is not in use, the screen will be blank. Actually, a box will roam about your screen reminding you to hit any key to bring your display back.

You can control how patient the screen saver is with the <F3> <F10> softkeys:

<F3> <F10> <F1>	1 min	Screen saver has 1 minute patience
<F3> <F10> <F2>	2 min	Screen saver has 2 minute patience
<F3> <F10> <F3>	5 min	Screen saver has 5 minute patience
<F3> <F10> <F4>	30 min	Screen saver has 30 minute patience
<F3> <F10> <F5>	1 hr	Screen saver has 1 hour patience
<F3> <F10> <F6>	never	Screen saver is turned off

When the screen saver has one minute patience, your screen will go blank if you leave the keyboard alone for one minute.

Post Credits

You can post credits to a user's account from the console with the <*F4*> softkey. If you aren't charging for connect time on your BBS, or if you aren't tracking connect time with credits, then you won't need this command.

Many denominations are available without having to type them in:

<*F4*> <*F1*>	Post 1800 credits	(30 minutes)
<*F4*> <*F2*>	Post 3600 credits	(1 hour)
<*F4*> <*F3*>	Post 7200 credits	(2 hours)
<*F4*> <*F4*>	Post 18000 credits	(5 hours)
<*F4*> <*F5*>	Post 36000 credits	(10 hours)
<*F4*> <*F6*>	Post 72000 credits	(20 hours)
<*F4*> <*F7*>	Post 180000 credits	(50 hours)
<*F4*> <*F8*>	Post 360000 credits	(100 hours)
<*F4*> <*F9*>	Post 720000 credits	(200 hours)

Or you can type in whatever quantity of credits you like manually, without using the function keys.

The times shown above assume your BBS is consuming credits at the rate of 60 per minute. You can change this by changing the offline Security and Accounting option MMUCRR. Of course, other activities can consume credits, too.

Free vs. Paid Credits

The Major BBS tracks FREE credits vs. PAID credits in statistics for the system and for individual accounts.

<*F1*>	PAID
<*F2*>	FREE

If you are selling credits, you can post them as PAID credits. In all other cases you can post FREE credits: for yourself and your staff, for demonstrating the system to prospects, and so on. (Paid and free credits are functionally the same; the distinction is only a convenience for statistical purposes.)

Detail on a User's Account

This softkey command brings up details on a User-ID. It immediately switches you to the User Account Detail screen if you aren't already there. See page 196 to use what is on that screen.

After choosing <*F5*>, enter a User-ID and hit <*Enter*>. You don't have to type in the whole User-ID. You can just type in part of it, and then when you get to the detail screen, use <*PgUp*> and <*PgDn*> to find the right account.

Set Log-on Message

The log-on message is some text that appears when users first connect to the BBS. This is handy for announcements or late breaking news.

Here's a typical welcoming message when there is no log-on message:

```
Auto-sensing...


            WELCOME!

Bionetrics Research BBS (#95735581)
Running The Major BBS by GALACTICOMM
ONLINE 9600 BAUD AT 16:22 08/15/92

If you already have a User-ID on this
system, type it in and press RETURN.
Otherwise type "new":
```

And here's the same thing with a special announcement:

```
Auto-sensing...


            WELCOME!

Bionetrics Research BBS (#95735581)
Running The Major BBS by GALACTICOMM
ONLINE 9600 BAUD AT 16:22 08/15/92

The latest GPS coefficients are available
in the /NAV Forum.

If you already have a User-ID on this
system, type it in and press RETURN.
Otherwise type "new":
```

Here are the keystrokes you would use to enter a log-on message like that:

```
<F6> <Enter>
The latest GPS coefficients are available <Enter>
in the /NAV Forum. <Enter>
<F1>
```

You can also edit the log-on message from the Remote Sysop Menu. With these softkey commands, you can't edit the message; you can only retype it from scratch.

To display a file when users connect, put `$FILENAME` in the Text Block named `ENTUSID` (see page 179). (That would display `FILENAME.ANS` to ANSI users or `FILENAME.ASC` to non-ANSI users.

Log in to the BBS Locally

This is the easiest softkey command of all: just hit *<F7>*. It brings up a full-screen view of a simulated user's terminal. Right away you get the log-on prompt. You'll probably use this one a lot. You can log on as `Sysop` and manage much of the BBS there.

When you log in locally, you're simulating a user's terminal, without using modems or phone lines. You're actually using channel 00, which is reserved for this purpose. Whatever you type has the same effect as it would from a user's terminal. You can make menu selections, see ANSI-coded colorful displays, and use the Full Screen Editor to write messages. See page 354 for a few special keystrokes you can use.

While you are logging in the way a user would, the BBS continues to operate in the background. Hit <*Esc*> to return to the regular console. Hit <*Esc*> or <*F7*> again to resume the user session and you'll find that you pick up right where you left off.

The local log-in screen is very similar to the User Emulation screen. You can find out more about both of them starting on page 201.

Kill

This softkey command combines a number of diverse commands:

<*F10*> <*F1*>	Kill (suspend) a User-ID
<*F10*> <*F2*>	Kill Account (delete it from the database)
<*F10*> <*F3*>	Kill Channel (reset or restart it)
<*F10*> <*F9*>	Kill System (shut down)

Kill (suspend) a User-ID

When you suspend a User-ID, that user can't log on again.

<*F10*> <*F1*> <*User-ID*> <*Enter*> Kill (suspend) a User-ID

If he tries to log on, he's given a message like this:

```
The system operator has temporarily suspended
your account.  To clarify this matter, please
write to us at:

   <company>
   <address>

Be sure to include your User ID with the
letter, so we can respond quickly.

Thank you for calling...
```

You can see if a user is suspended from the User Account Detail screen. You can also suspend or unsuspend users there. See page 195 for details.

Kill Account (delete it from the database)

This command tags a user's account for deletion from the database at the next auto-cleanup.

<*F10*> <*F2*> <*User-ID*> <*Enter*> Kill Account (delete it from the database)

Kill Channel (reset or restart it)

This command can be used to put a channel in one of three modes: busy-out, no-answer or normal.

<*F10*> <*F3*> <*channel*> <*F1*> <*Enter*>	Busy-out a channel: user gets a busy signal, or is rotated to the next line
<*F10*> <*F3*> <*channel*> <*F2*> <*Enter*>	No-answer: line won't answer; it will just ring and ring

<F10> <F3> <channel> <F3> <Enter>	Normal: resume answering calls on this line

When you shut down the BBS, all channels are either set to the busy-out state or the no-answer state, according to the offline Configuration option RSETOP.

Kill System (shut down)

There are several conditions under which the BBS can be shut down. Sometimes you have several users online and you may want to wait until they all log off. You may or may not want to let them know the BBS is shutting down. But while you're waiting, you don't want any new callers to come in.

<F10> <F9> <F1> <Enter>	Shut down in one minute. Give a one minute warning to all users online, asking them to log off. Shut down all unused channels now, so no further calls can come in. Shut down when the time is up, or when everyone logs off, whichever is *sooner*.
<F10> <F9> <F2> <Enter>	Shut down in two minutes. Users get two warnings.
<F10> <F9> <F3> <Enter>	Shut down in five minutes; up to five warnings.
<F10> <F9> <F4> <Enter>	Shut down in 10 minutes; up to 10 warnings.
<F10> <F9> <F6> <Enter>	Undo shutdown. Restore all channels so they can take calls again. Obviously you have to catch this before the shutdown actually starts. You're too late when a flurry of disk activity has begun.
<F10> <F9> <F8> <Enter>	Shut down as soon as possible. This is the most polite and least urgent shutdown mode. Wait for all users who are now online to log off. No notices, no warnings. Shut down all unused channels to prevent any more calls from coming in.

Here's the type of warning users will get every minute on their terminal if you put the BBS on a timed shutdown:

```
Sorry to interrupt here, but the BBS will be shutting
down in 10 minutes.  Please finish up and log off...
```

REMOTE SYSOP MENU

The Remote Sysop Menu lets you manage and operate your BBS from a remote location. It has commands to look up a user's account information, monitor all input, send a message to all users online, and much more. There's even a command to shut down the BBS.

As The Major BBS is shipped, you can get to the Remote Sysop Menu by typing S from the top menu. The S option is visible only to users with the SYSOP key. (That's decided in the Menu Tree design; see page 59.)

You can allow other users to use specific commands in the Remote Sysop Menu. That is done from the Editing Access Menu (see page 137).

```
                    R E M O T E   O P E R A T O R   M E N U

  SENDALL => Send Message to All          SYSTATS => View Overall Statistics
     SEND => Send Message to User-ID     MODSTATS => View Module Usage
    LOGON => Edit BBS Log-on Message     DEMSTATS => View System Demographics
                                         CLSSTATS => View Class Statistics
  ACCOUNT => Accounting Functions
   DETAIL => Detail Info on User-ID       EMULATE => Emulate a channel
    AUDIT => Display the Audit Trail      MONITOR => Monitor All mode
    USERS => State of Users Online          INPUT => Monitor Input mode
   SEARCH => Account Database Search       CHANGE => Change Channel Status

   HANGUP => Disconnect a User-ID            TYPE => DOS TYPE command
  SUSPEND => Suspend/Unsuspend a User-ID     COPY => DOS COPY command
  PROTECT => Protect/Unprotect a User-ID   RENAME => DOS RENAME command
   DELETE => Delete a User-ID                DIR => DOS DIR command
 SHUTDOWN => Shutdown the System              MD => DOS MD command
  CLEANUP => Force Cleanup or Event           RD => DOS RD command
 TRANSFER => Transfer files                  DEL => DOS DELETE command
    SYSOP => Edit a User-ID's Access

 REMOTE SYSOP
 Select an option (or ? for menu): _
```

SENDALL => Send Message to All
SEND => Send Message to User-ID

These commands let you send a short message to all users online or to just one user. If you need to know who is online, use the USERS command. The message can be up to five lines long.

Here's what the message might look like on the user's terminal:

```
!!!<BEEP>

FROM SYSOP:

Just wanted to announce the release of our
new SuperQuorum software V2.0.  See a demo of
it in the /Demo Forum.
```

Your confirmation will look like:

```
<< Message Broadcast to All >>
```

or

```
<< Message sent to Sondra Drago >>
```

LOGON => Edit BBS Log-on Message

You can edit a short message, up to five lines long, that all users will see when they connect to the BBS. See page 227 for an example of what the log-on message looks like to users when they connect.

ACCOUNT => Accounting Functions

The ACCOUNT submenu allows you to manage security and accounting options online.


```
REMOTE SYSOP
Select an option (or ? for menu): ACCOUNT

Select one of the following accounting functions:

?      =>  Redisplay this menu
SHOW   =>  Show current list of account classes
LIST   =>  List the keys in the keyring for a class
CLASS  =>  Maintain account classes
SWITCH =>  Switch a user to another class
EDIT   =>  Edit a user's individual keys
POST   =>  Post credits to a user's account
X      =>  Return to main Remote Sysop Menu

Select an option: _
```

See the section starting on page 111 for a description of this menu.

DETAIL => Detail Info on User-ID

Use this command to look up a user's account. A lot of this information comes from the sign-up questions. Here's an example:

```
REMOTE SYSOP
Select an option (or ? for menu): DETAIL

Enter User-ID to lookup: JO KEYSOR

 User-ID ..................... Jo Keysor
 Account Created ............. 11/19/90
 Last Logon .................. 05/19/92
 Account Class................ PAYING
 Time Limit Per Call.......... UNLIMITED
 Time Limit Per Day........... UNLIMITED
 Days Left in This Class..... UNLIMITED

 Name ........... Joanne R. Keysor
 Company ........ Bionetrics, Inc.
 Addr (Line 1) .. P. O. Box 651042
 Addr (Line 2) .. Barrow, AK  99565-1042
 Addr (Line 3) ..
 Phone Number ... 907-392-4922
 System Type .... IBM-PC (ANSI ON)
 Screen Width ... 80
 Screen Length .. 24
 Default Editor . FSE
 Date of Birth .. 10/12/73
 Sex ............ F
 Password ....... caribou
 Credits ........ +714410
```

```
Credits total (ever)... 720000
Credits FREE (ever)... 720000
Credits PAID (ever)... 0
```

This is very similar to the information on the User Account Detail screen (see page 196). Or see page 372 for the information users can change online.

AUDIT => Display the Audit Trail

The Audit Trail records important events on the system. You can look at the Audit Trail starting from the (B)eginning (the earliest entry) continuing forward or starting from the (E)nd (the most recent entry continuing backwards):

```
REMOTE SYSOP
Select an option (or ? for menu): AUDIT

Display the Audit Trail from the (B)eginning or the (E)nd? E

AUDIT TRAIL
===========
15:05 12/17/93 BBS UP: V6.20-8                    Console
      (Ready to service users)
15:06 12/17/93 NEW USER SIGNUP                    Chan 01
      New User-ID: George Stevens
15:07 12/17/93 USER CREDIT TRANSFER               Chan 02
      Jeff Torello -> Bert (3600 credits)
15:08 12/17/93 LIBRARY FILE UPLOAD                Chan 01
      User George Stevens uploaded MAIN\targa.zip
15:09 12/17/93 LIBRARY FILE DOWNLOAD              Chan 02
      User Jeff Torello downloaded MAIN\targa.zip
```

USERS => Stats of Users Online

Here are some statistics on the users who are online at the moment:

```
REMOTE SYSOP
Select an option (or ? for menu): USERS

Ch  User-ID                    Credits    MinsOn  Current Module
--------------------------------------------------------------------
01  Jeff Torello               47773      2       Menuing System
02  Bert                       0          1       Menuing System
03      (sign-up in progress)
00  Sysop                      0          0       Remote Sysop Menu
```

Credits is the number of unused credits each user has available. MinsOn is the number of minutes each user has been online since logging on. Current Module shows you what service the user is using now.

SEARCH => Account Database Search

This command can search your entire user database by content.

```
REMOTE SYSOP
Select an option (or ? for menu): SEARCH

Search for users by:

  1 => User-ID        2 => Password
  3 => Name           4 => Company
  5 => Address        6 => City/State/Zip
  7 => Phone #        8 => System type
```

```
 9 => Age          10 => Sex (M/F)
11 => Account class
12 => Total credits ever posted
13 => Total PAID credits ever posted
14 => Credits now available
15 => Creation date
16 => Last call date

Search method (1-16) or X: 3

Enter search key or X to exit: JIM

User-ID                          Real Name
-------------------------        ---------
J. Sheaffer                      Jim Sheaffer
Jim Monty                        Jim Montgomery
Jim Walker                       Jim Walker
Aji                              Rajib Ajimhara

** Search completed **
```

In this example, the database was searched for users with *Jim* in their name.

HANGUP => Disconnect a User-ID

Use this command to instantly disconnect a user.

```
REMOTE SYSOP
Select an option (or ? for menu): HANGUP

Enter User-ID or channel to disconnect (? for list): 02

... User Disconnected ...
```

SUSPEND => Suspend/Unsuspend a User-ID
PROTECT => Protect/Unprotect a User-ID

Use this command to suspend and protect user accounts. A suspended account means the user can't log on (page 195). A protected account cannot be deleted.

You use the same command to turn the condition on as you do to turn it off:

```
REMOTE SYSOP
Select an option (or ? for menu): SUSPEND

Enter User-ID to suspend: PIA MATHIAS

Proceed to suspend Pia Mathias? Y

OK, Pia Mathias's account has been SUSPENDED.

REMOTE SYSOP
Select an option (or ? for menu): SUSPEND

Enter User-ID to suspend: PIA MATHIAS

Proceed to unsuspend Pia Mathias? Y

OK, Pia Mathias's account has been UNSUSPENDED.
```

DELETE => Delete a User-ID

This command tags a user's account for deletion at the next cleanup.

SHUTDOWN => Shut down the System

Use this command to shut the BBS down. You won't be able to bring it up again remotely. It will just sit at the Introductory Menu until you can get to the console.

```
REMOTE SYSOP
Select an option (or ? for menu): SHUTDOWN

*** REMOTE SYSOP KILL MENU ***

   1 ... Kill system in 1 minute
   2 ... Kill system in 2 minutes
   3 ... Kill system in 5 minutes
   4 ... Kill system in 10 minutes
   5 ... Kill system UNDO!
   6 ... Kill system ASAP
   7 ... Kill system NOW

Select a menu option, or X to abort: _
```

See page 190 for more examples, or page 229 for an explanation of the shutdown modes.

CLEANUP => Force Cleanup or Event

Normally the auto-cleanup and the timed events occur at scheduled hours of the day (see pages 191-192). But you can make them happen at any time with this command:

```
REMOTE SYSOP
Select an option (or ? for menu): CLEANUP

*** FORCE CLEANUP OR EVENT MENU ***

   1 ... Auto-Cleanup
   2 ... Timed Event 1
   3 ... Timed Event 2
   4 ... Timed Event 3
   5 ... Timed Event 4

Select a menu option, or X to abort: _
```

This might be a good way to set up special processes that you can trigger on demand. Put the commands into a `BBSEVT1.BAT` batch file. Then call up the BBS and trigger a `Timed Event 1`.

TRANSFER => Transfer files

The `TRANSFER` submenu allows you to transfer files. It also helps with offline menu design.

```
REMOTE SYSOP
Select an option (or ? for menu): TRANSFER
```

```
        Remote Sysop File Transfer Menu
        -------------------------------

   U ... Upload a file (or files) to the BBS
   D ... Download a file from the BBS
   X ... Exit back to the main Remote Sysop Menu

Select one of the above letters (or 'X' to exit): _
```

The U and D options are for general-purpose uploading and downloading. You can download files from any DOS path on your BBS computer. Wildcards are acceptable:

```
Select one of the above letters (or 'X' to exit): D

Please enter the file(s) to download: \AUTOEXEC.BAT

   L ... Listing (a screen at a time)     G ... YMODEM-g
   A ... ASCII (continuous dump)          Z ... ZMODEM
   M ... XMODEM-Checksum                  ZR... ZMODEM (resume after abort)
   C ... XMODEM-CRC                       K ... Kermit / Super Kermit
   1 ... XMODEM-1K                        F ... File Export (to any DOS path)
   B ... YMODEM Batch

Choose a download option (or 'X' to exit): _
```

You can upload files to any subdirectory on the BBS computer:

```
Select one of the above letters (or 'X' to exit): U

Please enter the path prefix for upload (RETURN for current):

Please enter the file name to upload (hit RETURN for multi-files):

To start uploading these files, type:

   B ... YMODEM Batch                     Z ... ZMODEM
   G ... YMODEM-g                         K ... Kermit / Super Kermit

   (Add '1' to automatically log off when done)

Your choice (or 'X' to exit): _
```

SYSOP => Edit a User-ID's Access

See page 137 for editing a user's access to the commands in the Remote Sysop Menu.

SYSTATS => View Overall Statistics

These statistics are similar to the right half of the miscellaneous statistics from the Statistics screen. See page 208.

```
REMOTE SYSOP
Select an option (or ? for menu): SYSTATS

           Overall System Totals
           ---------------------

   Downloads: 14                    Uploads: 12
       Calls: 0

 # Messages: 12                     EMAIL Open: 7
                                Forums Msgs Open: 3
```

```
Creds posted: 2160000        FREE creds posted: 2160000
 X.25 Mbytes: 0                      X.25 Kpax: 0
```

MODSTATS => View Module Usage

These statistics are similar to the left half of the miscellaneous statistics from the Statistics screen. See page 208.

```
REMOTE SYSOP
Select an option (or ? for menu): MODSTATS

Module Name                | Hours | Credits |
---------------------------------------------
Menuing System             |  5152 |  311534 |
Editor                     |   341 |   15325 |
Custom RIP Lib Download    |  8574 |  108000 |
File Libraries             | 92374 |    6290 |
Electronic Mail            |   510 |   35330 |
Forums                     |  1520 |  153535 |
Menu-ize Global Commands   |  1230 |   94657 |
Doors                      |    76 |   18360 |
Logon Notices              |   976 |    1209 |
Polls and Questionnaires   |   150 |    1346 |
QWK-mail                   |  1199 |    4020 |
Registry of Users          |   256 |    5234 |
Remote Sysop Menu          |    21 |   25120 |
Teleconference             |    51 |    2526 |
Account Display/Edit       |    50 |     510 |
Logoff (end session)       |    11 |     643 |
File Transfer Service      |  7543 |  292462 |
Data Entry Service         |   161 |    1246 |
```

DEMSTATS => View System Demographics

These statistics are similar to the demographic statistics from the Statistics screen. See page 206.

```
REMOTE SYSOP
Select an option (or ? for menu): DEMSTATS

Computer Type          |00-19|20-29|30-39|40-49|50-59|Total|
-------------------------------------------------------------
               OTHER   |   22|  123|  237|  174|   64|  673|
              IBM-PC   |  230| 1390| 2371| 1344|  346| 5433|
           Macintosh   |   88|  346|  161|  560|   45| 1540|
      Apple/non-Mac    |   54|   34|    6|    4|   16|  145|
               Amiga   |   24|    4|    3|   15|    4|   44|
               Atari   |    0|    2|    0|    0|    2|    4|
         Radio-Shack   |    1|    0|    1|   21|   10|   33|
               CP/M    |    0|    0|    0|    0|    0|    0|
               Total   |  408| 1840| 2695| 1997|  473| 7184|

Male accounts          | 6022
Female accounts        | 1162
Corporate accounts     | 5883
ANSI accounts          | 6441
```

CLSSTATS => View Class Statistics

These statistics are similar to the class statistics from the Statistics screen (see page 207).

```
REMOTE SYSOP
Select an option (or ? for menu): CLSSTATS

Class name      | Hours |Avg/day|# users|Avg min/day/user|
-------------------------------------------------------
BILLED          |   235|      2|     15|               1|
DEMO            |  1653|     16|   2556|               2|
MONTHLY         |  2330|     23|    251|              35|
PAYING          |  1234|     12|    144|              43|
SYSOP           |   434|      4|      3|             152|
WEEKLY          |   550|      5|     77|               5|
```


EMULATE => Emulate a channel

With this command you can "look over the shoulder" of another user who is online, and see a simulation of what is on his screen. Emulation begins like this:

```
REMOTE SYSOP
Select an option (or ? for menu): EMULATE

Emulate which User-ID or channel number: 11

... Emulating, press ESC to exit ...
```

When emulating another user's channel, you can use these special keystrokes:

<Esc>	Exit emulation
<Ctrl-C>	Enter Sysop chat mode with this user
<Ctrl-Z>	Zap (hang up, restart) this channel

If you type anything else, it may affect the user's session.

The BBS is capable of emulating only one user channel at a time (local login on channel 00 is separate). This command usurps the emulation channel that you get from the console too. That means the next *<Alt-E>* from the console is going to bring up the screen for channel 11. See page 201 for more on emulating a channel.

MONITOR => Monitor All mode
INPUT => Monitor Input mode

The MONITOR command allows you to monitor input from all BBS channels.

```
REMOTE SYSOP
Select an option (or ? for menu): MONITOR

|<User-ID>|(C#)|(St)|Data                                                    |
|---------|----|----|--------------------------------------------------------|
|         | 01 | 12 |
|Fran Dumo| 11 |  3 | /go load
|         | 12 |  3 | RING
|         | 12 |  3 |
|         | 01 |  5 |
|         | 12 |  3 | CONNECT 9600/ARQ
|Fran Dumo| 11 |  3 | s
|Fran Dumo| 11 |  3 | d tagg*.zip
|Fran Dumo| 11 |  3 | t
|         | 01 | 12 |
```

See pages 209-210 for the meanings of the (St) status codes. The most interesting status code is status 3 = line of text received from user (or from the modem in some cases, as are RING and CONNECT, above). The INPUT command monitors only status 3's.

CHANGE => Change Channel Status

This command is analogous to the kill-channel softkey (see page 228).

```
REMOTE SYSOP
Select an option (or ? for menu): CHANGE

Enter channel number to change: 11

Change channel to (B)usy-Out, (N)o-Answer, (R)eset: R

OK, the channel's status will be updated accordingly.
```


DOS Commands: TYPE, COPY, RENAME, DIR, MD, RD, DEL

These mimic the DOS commands by the same names for dealing with DOS files in your BBS system.

TYPE	Display the contents of a text file on the screen
COPY	Copy a file from one place to another
RENAME	Rename a DOS file
DIR	Get a list of the files in a DOS directory
MD	Make a new subdirectory
RD	Remove a subdirectory
DEL	Delete a file

FORUM MANAGEMENT

This section gives you instructions for online management of Forums and describes the privileges and commands available to the Sysop and to Forum Operators. Most of these features will be available to you while the BBS is running. See starting on page 321 for instructions on using the Forums from a user's terminal.

As the Sysop, you have broad powers in Forums. You can delegate some powers to Forum Operators, so they can operate and maintain individual Forums.

The Forum Sysop

For this section, the Sysop is any user with the SYSOP key, as defined in the offline Security & Accounting option SIGSYS. Of course, any user with the MASTER key (see page 110) is also a Sysop in Forums. The Forum Sysop can:

- Create new Forums;
- Delete Forums;
- Copy Forum access levels from one user account to another;
- Appoint Forum Operators.

The Sysop also has all the privileges of Forum Operators in all the Forums.

Forum Operators

The Sysop can appoint one Forum Operator, or Forum-Op, for each Forum. Forum Operators can:

- Approve files for download;
- Modify any message in a Forum;
- Erase any message in a Forum;
- Exempt specific messages from automatic deletion;
- Forward or copy messages to another Forum or to a specific user;
- Assign access levels (all levels except the Forum-Op access level itself);
- Use the pseudo-key _FORUMOP.

To assign a Forum Operator, you could use these commands from the Forums menu:

S *<Forum name> <Enter>*	Select the Forum
C *<Enter>*	Configure user privileges
<User-ID> <Enter>	Pick the User-ID
F *<Enter>*	Give him Forum-Op access

Only a Sysop can assign the Forum-Op access level. If this Forum already had a Forum-Op, he would now lose those privileges.

To find out if a user is a Forum-Op for a Forum, you can start to configure his privileges. You'll get a message like:

```
User-ID "John Stewart" currently has "Forum-Op" access to this Forum.
```

If you have no idea who the current Forum Operator is, requesting help from the main Forum menu will identify him. Or you can run the offline Forum Access Report (see page 383) for the complete listing of all non-default Forum access levels assigned, including the Forum-Op of each Forum.

M = Modifying or E = Erasing a Message

The Sysop and Forum-Op can modify or erase any message in a Forum. To use these commands, you have to know the message number. See page 326 about finding a message in a Forum. If you have to go searching around for the message, you'll probably find it easier to use the (M)odify or (E)rase options that you get after reading a message (see page 247).

A = Approving Files for Download

A file uploaded by a user with Upload access will not be available for download until the Forum-Op approves the file. This command scans through the Forum for messages with unapproved files attached. It operates similarly to the RS command (see page 329) in bringing up one message at a time, except that it scans the Forum entries from most recent to least recent. After you read a message, you'll get several options. One of the (F)orum-Op suboptions will be to (A)pprove the file.

C = Configuring User Privileges

You can grant user access for a Forum in five different ways.

```
Select an operator option (? for menu): C

You can assign access levels for this Forum in these four ways:

   1 ......... global DEFAULT NON-PRIVILEGED access (currently "Read")
   2 ......... global DEFAULT PRIVILEGED access     (currently "Upload")
   3 ......... global MAXIMUM NON-PRIVILEGED ACCESS (currently "Co-Op")
   4 ......... key to be "Privileged" user (currently NORMAL)
   User-ID ... individual user access level (enter User-ID for current)

Enter a digit (1-4), a User-ID, or ? for help: _
```


To control whether a user is privileged in a Forum, the Sysop specifies a different key for each individual Forum. From the Forums menu, use S to select the right Forum and then C to configure user privileges. Choice 4 allows you to specify the key that will make users privileged in that Forum. Or just hit *<Enter>* to let the offline Security & Accounting option SIGPRV setting decide. (SIGPRV specifies the privileged key for any Forum where you have not yet required a specific key).

Here's a quick way to find out the exact access level that a particular user has. Just try to configure his access level (you don't have to change it):

```
Enter a digit (1-3), a User-ID, or ? for help: PHYLLIS COOPER

User-ID "Phyllis Cooper" currently has "Read" access to this Forum.

The available settings are:

   Z ... Zero
   R ... Read
   D ... Download
   W ... Write
   U ... Upload
   C ... Co-Op
   F ... Forum-Op
   * ... Reset to default access

Select a letter from the above list, or ? for help: X

Select an operator option (? for menu): _
```

Forum Access Levels

Here's a description of privileges at each of the eight access levels:

Zero Access

The user cannot see anything in the Forum. He won't see it in the S? list of Forums, he can't select it, and he can't read or write messages to the Forum.

Read Access

The user can read Forum messages, but not download files attached to the messages.

Download Access

The user can download approved files, but not write messages to the Forum or upload file attachments.

Write Access

The user can write Forum messages, but not upload files.

Upload Access

The user can upload files, but the files require Forum-Op approval before other users can download them.

Co-Op Access

The user can upload files, and the files are immediately available for other users to download.

Forum-Op Access

The Forum Operator can approve uploaded files, maintain messages, and set the access levels (Zero through Co-Op) of other users. There can only be one Forum-Op for each Forum. Only a Sysop can appoint a Forum-Op.

Sysop Access

A Sysop can create and delete Forums, and assign Forum-Ops. He can also copy DOS files, and duplicate user privileges. This level is not assignable directly: holders of the SYSOP key (as specified by offline Security option SIGSYS) have the Sysop access level in all Forums.

Each Forum can have a different access level for each of these conditions:

1. Default Nonprivileged Access
2. Default Privileged Access
3. Maximum Nonprivileged Access

In addition, a Forum can have any number of individual users assigned to any access levels.

1. Default Nonprivileged Access

For each Forum, this setting controls what your nonprivileged users can do in the Forum.

2. Default Privileged Access

Use this setting to allow most of your privileged users to have more access than nonprivileged users.

3. Maximum Nonprivileged Access

This setting specifies what will happen when you give a privileged user a specific access level and then that user loses his privileged status. A user might lose privileged status by running out of time for the day, running out of credits, and so on. In any event, his class has changed and he loses the key to privileged Forum access.

<User-ID> – Specific Access

Use this setting to give a user an access level other than the default levels. To give several users the same non-default access levels, use the user copy on page 246.

How the BBS Determines a User's Access Level

- Find out if the user is privileged by whether he has the appropriate key.
- If you haven't given the user a specific access level, then if he's privileged he gets the default privileged access level; if he's not, he gets the default nonprivileged access level.
- If you've given the user a specific access level, then that's his access level, subject to maximum nonprivileged access. If the user is nonprivileged, then his access level cannot be higher than the maximum nonprivileged access. That's true even if you've given him a different access level.

Some Examples of Forum Access Levels

Here are some typical applications for the default access levels. In all these cases, new users sign up into a class that makes them nonprivileged. After you check a user out, you can switch him to a class that makes him privileged. (See page 121 for switching classes.) In addition, let's say you have a few trusted users on your staff. So in each of these examples:

New user = Nonprivileged = Doesn't have the NORMAL key (per SIGPRV)
Approved = Privileged = Has the NORMAL key (per SIGPRV)
Staff = Users with Co-Op access level assigned to them

Default Non-Privileged	Default Privileged	Application
Zero	Co-op	Private message exchange — new users can't even get in, approved users can make messages and files available to each other.
Read	Upload	Customer support — let new users look around, but not contribute until you approve them. The Forum-Op will monitor passing of files between users.
Read	Download	File download service — new users can see what's there, approved users can download the files. Only the staff puts new files online.
Write	Write	Public message exchange — anyone can exchange messages with anyone else. Only your staff could put files online.
Co-op	Co-op	Public message/file exchange — anyone can exchange messages or files with anyone else.

Creating a Forum (O = Operations, C = Create)

The steps in creating a Forum:

- Log on to the BBS as the Sysop user (hit <*F7*> from the console, for example)
- Run the OC command from the online Forums menu
- Name the Forum
- Enter the Forum topic and Forum header using the editor

Before we go through an example, let's go over some terminology.

Naming a Forum

All Forum names begin with a slash (/), but in many contexts the slash isn't required. (It is required when you create a Forum, but not when a user selects it.) After the slash you can have up to eight letters or numbers.

Upper/lower case is important when you create the Forum. You can call a Forum /TechSupt or /INFO as it suits you. From then on, users don't need to worry about case, but the BBS will: you can type s techsupt and you'll select the menu for /TechSupt. Obviously, you can't have one Forum named /ORDERS and another named /Orders.

Forum Header

Creating a Forum includes writing the first message in the Forum — the Forum header. You can set down the theme of a Forum, welcome users to it, and explain how to use the Forum in the Forum header. The topic of this first message will become the topic of the entire Forum, appearing in the S? list of Forums, as well as the official topic of the Forums teleconference channel.

Forum Options in the Forum Header

The Forum header also can contain specially coded options in the text of the message. Be careful to type them in exactly.

`Message Lifetime: <number> days`

If someone writes a message today to this Forum, this is when the system will automatically delete the message. The default lifetime of a message is 90 days or whatever value you have set for the offline Security & Accounting option SIGLIF. You can set the lifetime to -1 for messages to be kept forever. Otherwise, messages will be deleted automatically during auto-cleanup, when they are <*number*> days old.

`Charge per Message Posted: <number> credits`

If you are charging credits for online activities, then this many credits are deducted from a user who writes a message to this Forum. The default charge for writing a Forum message is 95 credits or whatever value you have set for the offline Security & Accounting option SIGTCK. If this number is negative, the user will receive this many credits per message posted.

Charge per File Uploaded: <*number*> credits

If charging credits, then this amount is deducted from each user who uploads an attached file to a message, in addition to any message writing charge. The default charge for uploading an attachment to a Forum message is 200 credits, or whatever value you have set for the offline Security & Accounting option SATTCK. If this number is negative, the user will receive this many credits per file uploaded.

Credit Consumption Rate: <*number*>/minute

If charging credits, then as long as a user is in this Forum, credits will be deducted from his account at this rate. The default credit consumption rate is 60 credits per minute, or whatever value you have set for the offline Security & Accounting option SIGCCR.

MHS Addr: <*MHS Address*>

This is the MHS address where all Forum messages written to this Forum are to be transmitted (see page 182).

Thoughts of the Day: <*any long message*>

This option should be the last one appearing in the Forum header, so you can use several lines. This message appears to users whenever they select the Forum.

An Example of Creating a Forum

Log on as Sysop and enter the Forums menu.

```
Welcome, Sysop, to /Hello: Welcome to the BBS!

   R ... Read messages
   W ... Write a message
   Q ... Quickscan Menu
   F ... Filescan
   T ... Teleconference
   S ... Select a new Forum

   M ... Modify a message
   E ... Erase a message
   A ... Approve files (0 waiting)
   C ... Configure users
   O ... Operations menu

Select a letter from this list, or X to exit: O

Operations menu:

   C ... Create a Forum
   D ... Delete a Forum
   U ... User Copy Utility

Select an option (C,D,U, or X to exit: C

Enter name of new Forum: /Superdem

Enter key for this Forum, ? for help, or RETURN for "NORMAL":

You will now be placed into the editor.  The message topic you create will
become the "short description" (up to 50 characters) of the new Forum, and
the message body will become the first part of what the user sees when he
```

```
or she requests "more info" (?) at the main Forum menu.  The message body
is also scanned for the presence of several special phrases, as follows:

   Credit Consumption Rate: <n>/minute        (default: 60/minute)
   Message Lifetime: <n> days                 (default: 90 days)
   Charge per Message Posted: <n> credits     (default: 95 credits)
   Charge per File Uploaded: <n> credits      (default: 200 credits)
   MHS Addr: <MHS Address>                    (default: "" - a null string)
   Thoughts of the Day:                       (default: "" - a null string)

Specifying any of these phrases, anywhere in your message, will override
the default.  "Thoughts of the Day:" is especially useful since everything
in the message from that point onward is used as a "greeting message" each
time a user switches to the Forum, from either the Main Menu or another
Forum.  You, or the Forum-Op that you appoint, can edit this message to
change these settings at any time.
```

...Entering the editor mode...

Topic: `Superdemocracy, people voting directly on issues`

Body of message:

```
Superdemocracy is a continuous networked hierarchy of online referenda,
open to all.

Message lifetime: -1

Thoughts of the day:
Online technology offers the promise of a fundamentally new form of
government:  a government truly of the people, by the people, for the
people.
```

...Save the Forum header and exit the editor...

```
<<< CONFIRMED: Forum "/Superdem" CREATED >>>

Online technology offers the promise of a fundamentally new form of
government:  a government truly of the people, by the people, for the
people.

Welcome, Sysop, to /Superdem: Superdemocracy, people voting directly on
issues

   R ... Read messages
   W ... Write a message
   Q ... Quickscan Menu
   F ... Filescan
   T ... Teleconference
   S ... Select a new Forum

   M ... Modify a message
   E ... Erase a message
   A ... Approve files (0 waiting)
   C ... Configure users
   O ... Operations menu

Select a letter from this list, or X to exit: _
```

Deleting a Forum (O = Operations, D = Delete)

Use this command to remove a Forum from your BBS. You'll be shown how many messages are in the Forum and asked if you're sure you want to delete it.

Copying User Access (O = Operations, U = User copy)

This command copies all the specific Forum access level settings from one user account to another. Use this if you want groups of users to have the same access privileges.

Suppose that you wanted to give all your branch managers across the country:

Download	access to the /Prices Forum;
Upload	access to the /Reports Forum;
Co-op	access to the /Exchange Forum.

First, make up a User-ID called Branch Manager and give him these three access levels using the C = configure user access command. Then use the OU command to copy these access levels to each of the branch manager User-IDs. After you do this, you may want to set other individualized access levels, like making each branch manager the Forum-Op of his own Forum.

Forum Teleconference

Each Forum has its own teleconference channel. The topic of the channel is the topic of the Forum (the message topic in the Forum header message).

Forum Teleconference Channel Numbering

Teleconference channels are numbered from 1 to 65,535. To find out which Forum uses which channel, you can get the Forum number from the offline Forum Access Report (see page 383).

Teleconference channel = Forum number + 2

So Forum 0 uses teleconference channel 2. Teleconference channel 1 is the main channel, and is never used by a Forum.

Forum Teleconference Charges and Switching Channels

Forum Teleconference users are charged the Teleconference credit consumption rate unless you set option TLCOVR to NO, in which case they are charged the Forum consumption rate while in a Forum Teleconference. Since the rate for Forum Teleconference can be different from normal Teleconference, you can prevent users in the normal Teleconference from switching to a Forum Teleconference channel by setting option SWTFRM to NO.

Forum Operator Options After Reading a Message

After a Forum-Op reads a message, he gets the same options as other users, plus several more:

```
(R)eply, (E)mail reply, (F)orum-Op, (T)hread, (P)revious, or (N)ext? _
```

If he chooses (F)orum-Op, he will get various choices depending on conditions:

(A)pprove a file for download
(F)orward a message to another Forum or to an individual user
(C)opy a message to a Forum or user

(T)ag a message as EXEMPT from automatic deletion
(U)n-exempt a message
(E)rase a message
(M)odify a message

(A)pproving a File for Download

You can scan the messages in a Forum for files that need approval using the A command from the Forums menu. Then after reading a message with an unapproved attachment, use the (F)orum-Op option to (A)pprove the file.

When a user with upload access to a Forum uploads an attachment to a message he writes, the message will not be available for other users to download until the Forum-Op approves it. Users with Co-Op access can upload files and get instant approval.

(F)orwarding or (C)opying a Message

Forwarding a message means removing it from this Forum, creating a copy of the message, and putting it somewhere else. When you copy a message, the original remains in the Forum. To forward or copy a message to another Forum, be sure to use the slash in front of the Forum name (to distinguish it from a User-ID).

When you forward a message to a Forum, the new message is usually directed to all users of the Forum. To direct the message to one user, use this syntax:

/<Forum name> -<User-ID>

(T)agging a Message Exempt / (U)n-exempting

Usually, messages in a Forum have a specific lifetime, set with the Message Lifetime: option in the Forum header. But sometimes a message comes along that you think should remain in the Forum forever. Perhaps you wrote a particularly clear solution in reply to a recurring customer problem. Or you uploaded a file to a Forum that your users keep coming back to download.

Use the (T)ag message exempt option to prevent the natural demise of a message at the end of its lifetime. It will last forever (or until you (U)n-exempt or (E)rase it).

(E)rasing or (M)odifying a Message

After reading a message, the Forum-Op gets a chance to (E)rase or (M)odify it. Erasing a message deletes it from the Forum, along with any file that was attached. Modifying a message brings up the editor on it, where you can change the topic and body of the message.

There is no way to re-upload an attached file. To do the equivalent, write a brand new message, import the old message body (*<Ctrl-N>* from the Full Screen Editor or (N) from the Line Editor), retype the topic field, and upload the new attachment. Then delete the old message.

Forum Organization

Whatever you name your Forums, you'll probably find that just one Forum or a few get much more activity than all the others put together. This phenomenon reinforces itself because:

- Users will tend to include the more popular Forums in their quickscans;
- More messages mean more replies to messages;
- Users with something to say will tend to put the message into the Forum with the most participation, rather than the one that best fits the subject.

So whatever you name your Forums, it's a good idea to check them regularly and weed out the ones that wind up garnering only a message or two.

The quickscan option can help users when you have many Forums. Users can specify the Forums that interest them and even narrow down the scan with a set of keyword lists. You can find out which users have chosen which Forums in their quickscans with the offline Forum Quickscan Report (see page 382).

MESSAGE MANAGEMENT

This section describes special Sysop privileges common to E-mail and Forum messages.

F Protocol = Import/Export File Transfer Protocol

The F file transfer protocol allows you to upload and download files from the system console. It also gives you a way to copy files around on your system from a remote location. Either way, you go through the usual motions of an upload or download, except you use an additional file transfer protocol. To upload, you key in:

```
F ... File Import (existing file)
```

To download, you key in:

```
F ... File Export (to any DOS path)
```

This can be used on any file attached to a Forum or E-mail message.

The F protocol is available to users with the key specified in the offline Security & Accounting option FPRLOCK. By default FPRLOCK is set to SYSOP, so any user with the SYSOP key can use the F protocol.

F Protocol Uploads – File Importing

You can upload a file from any DOS path on your BBS computer and attach it to a message. If the file is on a different drive than your BBS directory, then the BBS will copy it to the appropriate subdirectory for the message you're attaching it to. For example:

The EMAIL subdirectory	for private Electronic Mail
The HELLO subdirectory	for the /Hello Forum
The SUPPORT subdirectory	for the /Support Forum

... and so on.

Here's an example of importing a file during an upload:

```
Your choice (or 'X' to exit): F

File to import: A:SEACORE.DTA

Do you want to COPY or do you want to REFERENCE the file?  We can copy the
file to EMAIL\39531.ATT.  Or, if you expect the file to remain available
where it is now, we can just refer to it at A:SEACORE.DTA when we need it.

   YES => EMAIL\39531.ATT
   NO  => A:SEACORE.DTA

Make a copy of the file? Y

Copying the file to EMAIL\39531.ATT.........................
```

The file SEACORE.DTA is being imported from the floppy in drive A: and attached to a private Electronic Mail message, number 39531. Naturally, you need to copy files from the floppy unless you plan on leaving the floppy disk in the drive forever. If you had answered NO = *reference* in this case, then the recipient would make the BBS read from A: when he tried to download the file.

If the path you specify has no colons (:) in it, then this question automatically assumes NO — the file stays where it is and is used by reference. That's because the file must be on the current drive, and the BBS assumes it always will be available there.

```
Your choice (or 'X' to exit): F

File to import: \USGS\EROS7A.IMG

The file "\USGS\EROS7A.IMG" will be referenced where it stands.
```

Of course, if you want to copy it, just include the drive letter in the import path, as in C:\USGS\EROS7A.IMG, and answer the copy question YES.

F Protocol Downloads – File Exporting

You can download a file to any DOS path on you BBS computer. For example:

```
Choose a download option (or 'X' to exit): F

Where to export the file: A:QMODEL.DOC
Exporting GEOLOGIC\40219.ATT to A:QMODEL.DOC.....................
```

This copies the file attached to message 40219 in the /Geologic Forum to a file QMODEL.DOC on the floppy in drive A:.

E-mail and Forum Options

See page 166 for offline E-mail and Forum settings. There are default E-mail preferences, default Forum options, new user announcements, Audit Trail choices, and more.

DISTRIBUTION LISTS

There are three types of Electronic Mail distribution lists:

Type of list	List name	Description
Named	@<*name*>	The Sysop or any trusted user with the SUPER key (DSTKEY) can define a named list. A named list has optional lock and charges.
Personal	!QUICK	Each user with the NORMAL key (PRSKEY) can define and use one personal list. The list can have up to 40 User-IDs. The charge is 1,000 credits per addressee (QKCHRG).
Mass Mailing	!MASS	A mass mailing goes to every User-ID on file. It requires the MASS_MAILING key to use (MSSKEY). The charge is 1,000 credits per addressee (QKCHRG).

You can use a distribution list when writing an E-mail message or when carbon copying it — just specify the list name in place of a User-ID.

Named Distribution Lists

These distribution lists have names that consist of an at-sign (@) plus up to seven other letters or digits. Case is unimportant. Here are some examples of distribution list names:

@STAFF
@GROUP18
@ACCOUNT
(@ACCOUNTS won't work — it is too long)
(@BR_MGR is wrong — it has punctuation)

Any user with the SUPER key can define a named distribution list (as set by the offline Security & Accounting option DSTKEY). You can create a distribution list from the Electronic Mail S = special functions menu, C = configure distribution list. This is the same way that most users work on their personal distribution lists (see page 349). Keep in mind that:

- A user with the SUPER key can create named distribution lists;
- A user with the NORMAL key can only create a personal distribution list.

To create a new list, configure a new list name. You can specify:

- A key required to use the list (or no key = available to all);
- A charge, in credits, to use the list;
- A list of User-IDs (addresses).

Here's an example of creating a named distribution list:

```
The following E-mail services are available:

   R ... Read message(s)
   W ... Write a message
   M ... Modify a message
   E ... Erase a message
   S ... Special functions
   X ... Exit from E-mail

Select a letter from the above list, or ? for more info: S

Choose a special function:

   C ... Configure distribution list
   A ... Auto-forward incoming E-mail
   S ... Set personal preferences

Your choice (or X to exit)? C

Enter !QUICK to configure your personal list, otherwise
enter list name to create/edit (beginning with the @ character): @STAFF

Key required to use this list (RETURN for none): NORMAL

Please enter a credit charge for use of this list ([0]-32000): 2400

Enter User-ID to add, or 'X' to exit: SYSOP

Ok, user added!

Enter User-ID to add, or 'X' to exit: VALERIE SILVA

OK, user added!

Enter User-ID to add, or 'X' to exit: ERIC BELFIELD

OK, user added!

Enter User-ID to add, or 'X' to exit: GEORGE BERNSTEIN

OK, user added!

Enter User-ID to add, or 'X' to exit: SAMMY SHEEHAN

OK, user added!

Enter User-ID to add, or 'X' to exit: X

Select an E-mail option (R,W,M,E,S,X, or ? for menu): _
```

To add more names to an existing named distribution list, configure it using the same command as creating a list:

```
Select an E-mail option (R,W,M,E,S,X, or ? for menu): SC @STAFF

Enter User-ID to add, or 'X' to exit: TED MUNGER

OK, user added!

Enter User-ID to add, or 'X' to exit: FRED OMAHONEY

OK, user added!
```

```
Enter User-ID to add, or 'X' to exit: X

Select an E-mail option (R,W,M,E,S,X, or ? for menu): _
```

To use a named list, a user has to have the key you specify and enough credits to cover the charge. The charge is for writing to the entire list. (If you have a per-message charge in mind, multiply that by the number of User-IDs in the list.)

The User-IDs don't have to be signed up yet to put them in a named distribution list. In fact, they're not checked at all, so be sure to spell them correctly. Case is unimportant.

All information about a named distribution list is stored in a file with a `.DIS` extension. (The information for `@STAFF` is stored in `STAFF.DIS`.) In fact, you can define a list by creating a `.DIS` file and putting it in the BBS directory. Here is an example of a `.DIS` file's contents:

Contents of a file named `STAFF.DIS`

```
key required=NORMAL
charge=2400

SYSOP
VALERIE SILVA
ERIC BELFIELD
GEORGE BERNSTEIN
SAMMY SHEEHAN
TED MUNGER
FRED OMAHONEY
```

(Don't specify a key in the first line if you want the list unlocked — no key required.)

Editing a Named Distribution List Offline

To find out whom you've put on a named distribution list or to remove entries from the list, you can shut down the BBS and use DOS commands or a text editor on the `.DIS` file. Or you could download the `.DIS` file, edit it, and re-upload it (see page 234 for file transfer details).

Available Distribution Lists

There's no automated way for a user to find out what distribution lists are available to him. You might use this as a measure of confidentiality or security. If you want to make it easy for users to use certain lists, edit one of these offline text blocks and tell users what lists you have defined:

`DISHLP`	Help information on distribution lists
`WHOTO1`	Prompt asking to whom a user wants to write a message
`CPYUID1`	Prompt asking to whom a user wants to carbon copy a message

Personal Distribution List

A user can create one personal distribution list of his own if he has the NORMAL key (as defined by the offline Security & Accounting option `PRSKEY`; see page 349 for instructions). Personal distribution lists can include up to 40 User-IDs and can be used only by the user that creates them. To send to a personal list, a user writes to `!QUICK`.

The charge for using a personal distribution list is 1,000 credits per addressee or whatever is defined in the offline Security & Accounting option QKCHRG.

Mass Mailing

Mass mailing means sending a message to every User-ID on your BBS. This requires a special MASS_MAILING key, as defined by the offline Security & Accounting option MSSKEY. The charge for a mass mailing is 1,000 credits per addressee or whatever is defined in the offline Security & Accounting option QKCHRG.

A mass mailing causes heavy disk access, possibly for an extended period, depending on how many User-IDs are in your database. Only trusted users should have access to this feature, and they should use it only when such system loading is acceptable.

QWK-MAIL

QWK-mail adds full quick mail capabilities to The Major BBS and allows your users to bulk download news, E-mail, and Forum messages. Using an offline reader, they can view their messages and write responses for bulk upload. QWK-mail's efficiency will allow your users to participate more fully in the activities on your BBS.

Usually, a user logs on your system, selects the QWK-mail menu, and requests download of a QWK packet. A QWK packet is a file with a filename you, as the Sysop, specify (see page 175) and the extension .QWK. QWK-mail scans for messages the user has not yet read and includes them in the QWK packet. All E-mail is included, plus Forum messages as configured in the user's quickscan.

The user is requested to select one of The Major BBS file transfer protocols to download his QWK packet. After the QWK packet is downloaded, the user logs off and reads the messages using an offline mail reader (see page 364). The offline reader also allows the user to write responses and request file downloads. These are assembled into a REP (reply) packet. A REP packet is a file with the same filename you specified for QWK packets plus an extension of .REP.

The user now logs back onto your system, selects the QWK-mail menu and requests upload of the REP packet. The user selects one of The Major BBS file transfer protocols to upload his REP packet. The uploaded REP packet is queued behind other users' REP packets for processing. Once the REP packet is uploaded, the user is free to use other services or to log off while the REP packet is processed. QWK-mail scans for REP packets at an interval you specify. When a REP packet is processed, the reply messages are sent as if they were done online. Files requested in a REP packet are included in the user's next QWK packet.

Configuration

You'll find QWK-mail's configuration options at several levels in the Introductory Menu for The Major BBS. In each case, they are grouped under GALQWK.MSG. The easiest way to locate them is to hit the <*F8*> key once within CNF to start a search for QWK at the appropriate configuration level.

LIBRARY MANAGEMENT

This section gives you instructions for online and offline management of the File Libraries. See starting on page 365 for instructions on *using* the File Libraries from a user's terminal.

As the Sysop, you have broad powers in the Libraries. You can delegate some of these powers to Library Operators, so they can operate and maintain individual Libraries. This section describes the privileges and commands available to the Sysop and to Library Operators, or Lib-Ops.

The Library Sysop

For this discussion on Library management, the Sysop is any user with Sysop privileges in the Library. The offline Security & Accounting option `FLSYSOP` specifies the key required to have these privileges. By default, that key is SYSOP. Unless you change `FLSYSOP`, any user with the SYSOP key is a Sysop in the Libraries. Any user with the master key (page 110) is a Sysop in all the Libraries as well.

The Sysop has these special privileges in the File Libraries:

- Create new Libraries
- Remove Libraries
- Edit the Library Operator restrictions of a Library
- Appoint Library Operators
- Copy/Move files between Libraries

The Sysop also has all the privileges of Library Operators in all Libraries.

Appointing Library Operators

The Sysop can appoint Library Operators for each Library and delegate powers to them to maintain the Libraries. Library Operators can:

- Approve or unapprove files for view and download by other users;
- Copy, move, rename, or delete files within a Library;
- Get a list of the DOS files that reside in the directory for the Library;
- Modify any file in the Library;
- Modify the record showing who uploaded a file;
- Edit the descriptions, features, and access restrictions of a Library.

Each Library has exactly one primary Library Operator. You specify this User-ID when you create or edit a Library, in the space marked `Primary Library Operator`.

When you create a Library, you can put a lock on the Library Operator features in that Library. Then only a user who has a key with the same name as the lock can be a Library Operator. You can appoint other Library Operators by giving them the key to the Library Operator lock. (The Primary Library Operator doesn't need this key. If you want other users to have Library Operator privileges in a Library, give them the Library Operator key.) All Library Operators get notified at log-on if any unapproved files are in the Library.

So a Library Operator is either:

- A user with the Library Operator key, or
- The user you name as primary Library Operator when you create or edit the Library.

The Sysop can do anything that a Library Operator can do. To find out who is the current Primary Library Operator for a Library, select the Library and use the edit command from the operations menu. Use *<Ctrl-O>* to quit editing mode.

Online Help

Any user can get help in the Libraries by entering ? from the File Libraries menu. The Library Operator and Sysop get information on their privileged commands. All the menus have general instructions and tips for using the Libraries. You can change the contents of the help screens by editing the appropriate Level 6 text blocks.

Managing Your File Libraries

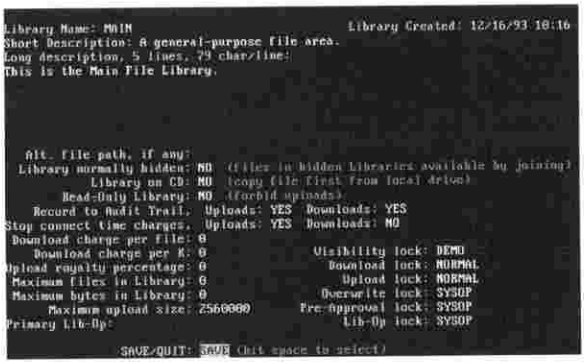
All Library management functions can be done by selecting the Operations menu from the File Libraries menu. The following operations are necessary to make Library files available to your users:

- Create the Library — specify critical information regarding the Library;
- Move the DOS files into the Library directory — either by uploading or copying;
- Log the files in — add the files and associated information to the Library data file;
- Approve the files — make the files accessible by users.

There are several variations on how these operations may be accomplished, including offline utilities (page 390).

Creating a Library

When creating a Library, the first step is to give it an up to eight character name. You then must decide if the Library is going to be DOS-only (see below). These two attributes of a Library cannot be changed. Then you get the chance to set the Library's descriptions, features, and access restrictions.



If your terminal has ANSI capability, creating a Library gives you a full screen view of the Library information. You can move around with the arrow keys. To change anything, just move the cursor to it or retype it. See page 361 for complete instructions on modifying fields in the Full Screen Data Entry mode. We'll go into the meaning of each field in detail further on.

When you are done entering a Library's information, move the cursor to the bottom and choose:

SAVE	Save this information and create the Library
QUIT	Throw out this information and forget about creating the Library

You can type in the first letter (S or Q) and hit *<Enter>*, or tap *<Spacebar>* until the one you want comes up and then hit *<Enter>*. You also can exit fast by using these keystrokes from any field:

<Ctrl-G>	Save this information and create the Library
<Ctrl-O>	Throw out this information and forget about creating the Library

Library Names

A Library name is up to eight characters long and can include letters, numbers, and the same punctuation characters as file names in a Library:

```
! # $ & ' ( ) - @ ^ _ `
```

All Library names are converted to uppercase.

DOS-only Library

A DOS-only Library is a Library that is not indexed by the File Library. The Library consists of whatever files are in the Library's directory. A listing of DOS-only Libraries will show only the file names, dates, and sizes, without descriptions. As an alternative, if a text file named FILES is in the Library's directory, it will be displayed to the users, instead of the file names. DOS-only Libraries aren't included in Library searches. The nature of DOS-only Libraries makes many of the File Libraries functions, such as log-in and approval, irrelevant.

Library Description

This field provides a brief description of the contents of a Library.

Long Description

This field provides more detailed information on a Library's contents.

Alternate File Path

The rule for storing files is this: files are stored in a subdirectory with the name of the Library under your BBS directory unless there is an alternate file path, in which case the files are stored there. Some examples might help illustrate this:

Example:	Where all Library files reside:
SUPPORT Library, no alternate file path	\BBSV6\SUPPORT\<*file name*>
BIGFILES Library, with an alternate file path of D:\SUB\	D:\SUB\<*file name*>

You can make the files in a Library reside on any single DOS directory on your BBS computer. If you need to have the files in multiple directories, see the discussion on joining Libraries on page 263. You should leave this option blank if you're not familiar with DOS directories. But if you need to put a huge bank of files on another drive or if you want to make a bunch of read-only files available from some other device (such as an optical storage disk), the alternate file path can do this.

Be sure to specify the complete path:

Example file paths

```
D:\LONGFILE\
M:\
J:\UTILS\SENTINEL
J:\UTILS\SENTINEL\
```

The file path can be up to 49 characters long.

Hidden Libraries

Hidden Libraries are not shown in the list of available Libraries. A user cannot select a hidden Library. This is not a security feature, but a mechanism to help you structure your Libraries so that they are more useful to your users (see "Joining Libraries" on page 263). Hidden Libraries are visible to Library Operators.

Libraries on CD-ROMs

When a Library is on CD-ROM, the files a user tags for download are copied to a temporary subdirectory before the user can begin downloading. In addition, users cannot upload or copy files to those Libraries. This option can be used for any slow device that could cause download errors.

Read-only Libraries

Read-only Libraries do not allow uploads. CD-ROM Libraries must be read-only.

Audit-Trail Reporting of Uploads and Downloads

If you turn on either of these options, then every upload/download in the Library generates an entry in the Audit Trail. Here's an example of an upload entry:

```
07:54 05/08/92 LIBRARY FILE UPLOAD
     User Sal G. Niven uploaded ZONELIVE\UCOVER.TLL
```

In this case the uploader is Sal G. Niven. He uploaded the file UCOVER.TLL to the ZONELIVE Library. Here's an example of a download entry:

```
11:07 05/08/92 LIBRARY FILE DOWNLOAD
     User Elmont Gibbs downloaded ZONELIVE\UCOVER.TLL
```

Charges for Using the Library

In the File Libraries, you can manage user charges in these ways:

- Charge so many credits per downloaded file
- Charge so many credits per 1 KB of downloaded files
- Set up uploader royalties: route a percentage of these download charges back to the original uploader as an incentive
- Turn connect time charges on or off during downloads, and also suspend time limits (for the day or session) during downloads (this is called free download time)
- Turn connect time charges on or off during uploads, and also suspend time limits (for the day or session) during uploads (called free upload time)

All these options can be set when you create a new Library or edit an existing one.

Free Upload and Download Time

If you are not charging for the use of your BBS, then this option probably makes no difference to you.

If your system charges for online connect time, credits are consumed every minute users are online. In each Library, you can turn off credit consumption during uploads, downloads, or both. You may decide on free upload connect time to encourage users to upload. You may want free download connect time to allow very long downloads in a particular Library, or to have better control over download charges using the credits-per-file and credits-per-1,024-byte options.

This option also enables users to stay online during file downloads or uploads that exceed set time limits. For example, say the free-uploads option is set to YES for a Library, and a user starts uploading. Even if the user's class specifies a time limit for the day or the call, the upload will be allowed to complete before he gets knocked off. If the option is set to NO, the user's session may get terminated in the middle of the upload.

Download Charges

You can charge users for downloading from your File Libraries based on the number and sizes of files.

The default charges when you create a Library are zero:

- Download charge per file: 0
- Download charge per 1,024 bytes of each file: 0

These charges are checked before a download starts to make sure the user has enough credits. When the download completes successfully, the credits are deducted from the user's account. Users pay for aborted downloads only if the Sysop has specified that they should.

You could set up negative download charges to "pay" users for downloading files if you had reason to do that. Royalties do not take effect if the download charge is negative.

Upload Royalties

You can specify an upload royalty of 0% to 100%. Royalties go to the original uploader whenever someone is charged for a download. (Exception: royalties never go to the Sysop User-ID.)

Say you are charging for downloads at the rate of 1,000 credits per file and 1,024 credits per 1,024 bytes. If someone downloads a 9,000-byte file, he gets charged 10,000 credits. If the royalty is 25% and a user named Michelene Yaros uploaded that 9,000-byte file, then she gets 2,500 credits added to her account when the other user downloads the file. She would be charged 7,500 credits if she ever downloaded the file herself.

Limits on Files and Bytes in a Library

You can limit the amount of information users can upload to a Library. This is protection against hostile users who could try to fill up your entire disk with uploaded files. These limits are reported to users when they select the Library.

Here are the default limits that appear when you first create a Library:

Maximum number of files:	10,000
Maximum number of bytes:	10,000,000
Maximum size of an upload:	200,000

The size restriction on any individual file upload may be less than 200,000 bytes if the Library has less room.

If you don't want limits on these features, you can change them to numbers as large as 999,999,999.

Library Locks

In each Library, you can restrict access to various features by putting locks on them. Lock names are 1 to 15 characters long. When you lock a feature, only users with a key by the same name can use the feature.

Say you put a lock named AUTHORIZED on downloading in the UTILS Library. Then only users with the AUTHORIZED key would be able to download files from the UTILS Library. A user could have the AUTHORIZED key in one of two ways:

- If it was on the class keyring for his class;
- If you had given him the key individually.

See page 117 for details on issuing keys to users.

Leave a lock blank for unrestricted access to the corresponding feature. Exception: the Library Operator lock. The Library Operator feature has a lot of power. If you leave the Library Operator lock blank, then only the Sysop and the Primary Library Operator named for the Library have privileges. If you leave any other lock blank, then all users have access to the corresponding feature. Examples:

`Visibility Lock:`	`NORMAL`	Only users with the NORMAL key see this Library or the files in it.
`Visibility Lock:`	*<blank>*	Anyone can see the Library and its files.
`Download Lock:`	`NORMAL`	Only users with the NORMAL key can download.
`Download Lock:`	*<blank>*	Anyone can download.
`Library Operator Lock:`	`SUPER`	Anyone with the SUPER key is a Library Operator.
`Library Operator Lock:`	*<blank>*	No one is a Library Operator.

Visibility Lock

Put a visibility lock on a Library if you want only certain people to know it is there. Give the corresponding key to users who should be able to see the Library. This lock affects *any* command that deals with the Library. If a user doesn't have the proper key, then an `S?` listing does not show the Library. It is as if the Library does not exist. The Library files don't show up in searches, even if the search is across all Libraries.

Download Lock

Users without a download key cannot download files from that Library: the menu that appears on the screen does not give the download option.

Upload Lock

Users without an upload key cannot upload files to that Library: the menu that appears on the screen does not give them the upload option.

Overwrite Lock

This lock prevents users from modifying files that they didn't upload. The overwrite lock restricts this feature:

- Uploading a file when a file by that name already exists in the Library, and the user doing the uploading is not the same as the user who uploaded the original file.

A user with upload access can always overwrite a file that he uploaded, whether he has the overwrite key or not.

Having the overwrite key doesn't allow a user to *modify* files he didn't upload. (Only the Primary Library Operator or Sysop can do that.) It only allows him to *upload* a new file on top of an existing one (and then he'll be designated the uploader of that file).

If a user tries to overwrite a file when he doesn't have overwrite access in a Library, he will get a message like this:

```
Sorry, you don't have the access to overwrite the file.
```

Pre-approval Lock

This lock helps you restrict what one user can make available to other users in a Library. An uploaded file won't be available for users to download until the Library Operator approves it. The file won't appear at all in searches.

To approve a file, the Library Operator uses the command `A ... Approve files`.

A user with the pre-approval key can upload a file that other users can download immediately — in other words, it is approved automatically. Unapproved files are visible to the Sysops and Library Operators.

Library Operator Lock

Use this lock if you need multiple Library Operators. Repeating what's on page 255: a Library Operator is either a user with the Library Operator key or the user you name as Primary Library Operator when you create or edit the Library. If you want only a Primary Library Operator, then leave the Library Operator lock blank. If you want additional Library Operators, then make up a lock name here, and give the corresponding key to these Library Operators.

These features are restricted by the Library Operator lock:

- Approve or unapprove files
- Copy/Move/Rename/Delete files within the Library
- Modify any file in the Library
- Modify who's designated the uploader of a file

The default Library Operator lock is set in the offline Security & Accounting option `DEFLOP`, which is set to the SYSOP lock by default.

Primary Library Operator

When you create or edit a Library, the Primary Library Operator is the User-ID so named in the space marked `Primary Library Operator`.

As discussed, the Primary Library Operator is notified when he logs on of any unapproved files in that Library. You can make a user the Primary Library Operator for as many Libraries as you like.

The default Primary Library Operator is set in the offline Configuration option `DEFPLOP`, which defaults to `Sysop`. Unless you change `DEFPLOP` and unless you change the Primary Library Operator field when you create a Library, new Libraries will have `Sysop` as the Primary Library Operator. This is what you want when you don't need a Primary Library Operator.

Creating a Library without ANSI

If your terminal doesn't have ANSI, you can still create a Library. You will proceed with the descriptions and features of the Library one by one. On each one, hit:

<*Enter*> to skip over the field and move down to the next field.

When you're pointing to a field, you can back up over any information that's already there and type new information, or just start typing in the new information.

To edit the information that's there	start with *<Backspace>*
To replace the information that's there	start by typing the first character of the new information

If you make a mistake, just use:

<Ctrl-U> to back up one field.

Deleting a Library

The act of deleting a Library does not remove the files from the disk. It means simply that all information about the Library, including keywords, is deleted from the Library management files.

Edit this Library

The features in the Edit Library menu duplicate those in the Create Library menu. To change the descriptions, features, or access restrictions for a Library, first select the Library, and then use the command `E ... Edit this Library`. From this point on, editing a Library is much like creating one. If your terminal has ANSI capability, you see a full screen of information on the Library. You move the cursor around and change things; when you're done, hit *<Ctrl-G>* to save (see the instructions for creating a Library, starting on page 255, for the meaning of the Library fields). Library Operators may use this command, but they do not have the ability to change the Library Operator Lock or Primary Library Operator options.

DOS-only Libraries

You cannot convert a DOS-only Library to a regular Library or a regular Library to a DOS-only Library. You must first delete the Library and then create it again either as DOS-only or as a regular Library.

Changing the Alternate File Path for a Library

The only feature where a change would have far-reaching implications is alternate file path. Changing the alternate file path changes the underlying assumptions that the Library makes about where files are stored. The act of changing this option does very little in itself. It does not move files or create directories or anything. You must understand enough about what's going on behind the scenes to do that manually, perhaps by shutting down the BBS and using DOS commands.

This is the most drastic feature to change: the files will remain in the old directory. On the other hand, because changing this feature doesn't automatically do anything with the files, it's relatively safe to change the alternate file path temporarily and then change it right back. This is true for all the features presented in the Edit menu.

Log Files into this Library

Logging in files means to make room for descriptions and keywords in the Library databases. Only a Library Sysop may do this, using the L command from the Operations Menu:

```
You may either copy files to this Library by entering the source path
below (ex: A:\*.*) or, if the files are already in place in the Library's
directory, enter a * to log them in.

Enter source path to copy from, or * to log current files:
```

When the Sysop enters a path name or a path and file name, the file or files will be copied to the current Library and logged in. The Sysop is asked whether to edit the file descriptions as the files are logged in; if so, each file is brought up in turn for edit as it is logged in.

Entering an * has the same effect as option 2 on the Library Maintenance menu: the Library's subdirectory is scanned for any files that are not logged in. In this case, the files will be logged in automatically, and the Sysop must go back and edit the descriptions one by one if needed.

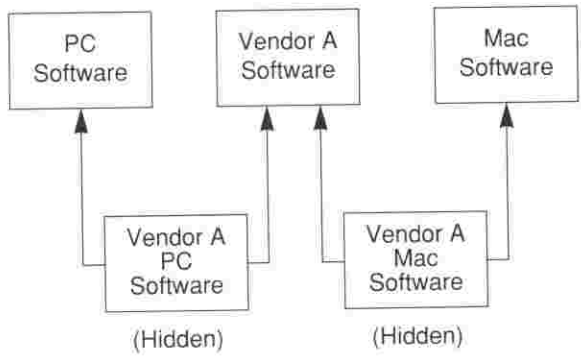
Join/Unjoin Other Libraries to this Library

You can group several Libraries together by joining them to another Library. This is a powerful way to organize many different drives and directories of files for your users.

When a user searches files within a Library, he will see all the files in each joined Library in addition to any files located directly in that Library (unless that user does not have access to a particular joined Library, in which case those particular files won't be visible).

You can use this feature to simply have files in different directories be in one Library by hiding the sub-Libraries and joining them to the visible Library. Also, you could join them to the visible Library. Also, you could join a hidden confidential Library to a visible Library so only users holding the appropriate keys could access the confidential files. You can even use this feature to reorganize how your Libraries appear to your users.

Here's an example:



Joining File Libraries

In this example, your users can only see the PC Software, Vendor A Software and the Mac Software Libraries. However, these Libraries contain no files (but they could). The files are actually in two hidden Libraries, Vendor A PC Software and Vendor A Mac Software. These two Libraries are joined to the visible Libraries as indicated by the arrows. You could continue extending this scheme for Vendor B, Vendor C, etc. By doing this, you get a simple Library structure to maintain while your users get a versatile method of accessing those Libraries.

Library Maintenance

The Library Sysop option Library Maintenance enables the Library Sysop to perform confidence checks and fixes on one or all Library areas. The options are:

```
1 ... Search for files logged in, but not present, in this Library
2 ... Search for files not logged in, but present, in this Library
3 ... Search for files logged in, but not present, in all Libraries
4 ... Search for files not logged in, but present, in all Libraries
```

Selecting options 1 and 3 will search the Library or Libraries for files that are logged in but have no corresponding DOS files. Before the search begins, the Sysop is asked whether to un-log the not-present files as they are found or just warn that they exist.

Selecting options 2 or 4 have a similar effect, but serve instead to look through the Library's subdirectory for DOS files not logged in. The Sysop is asked in this case whether or not to automatically log in the files as they are found.

Tagged File Status

Tagged File Status lists all the files that all the users on the BBS currently have tagged for download and each file's status, such as ready to retrieve, being copied for the user, and queued to be copied for the user.

Libraries with Files Awaiting Approval

Libraries with Files Awaiting Approval lists all Libraries with files logged in but not approved.

Approve Files

Unapproved files come from users without pre-approval access to the Library. The Library Operators and Sysops are notified at logon of unapproved files in their Libraries.

To approve files, a Library Operator first goes to the File Approval menu from the Operations menu. There, he can choose from three options:

```
T ... Approve tagged files
```
(The Library Operator would tag for download the files he wanted to approve first.)

```
N ... Approve a file in this Library by file name
A ... Approve all unapproved files in this Library
```

Unapprove Files

To unapprove files, a Library Operator has three options:

```
T ... Unapprove tagged files (The Library Operator would tag for download the files he wanted to unapprove first.)
N ... Unapprove a file in this Library by file name
A ... Unlog-in all unapproved files in this Library
```

Unapproved files will not be available for download, except by the Library Operator. And they will be missing from the file listings and from keyword and chronological searches.

Remove (Unlog) or Rename Files

The Remove or Rename menu gives you four options:

```
T ... Unlog tagged files (The Library Operator would tag for download the files he wanted to log first.)
N ... Unlog a file in this Library by file name
R ... Rename a file in this Library

A ... Unlog all unapproved files in this Library
```

If you unlog a file, you will get the option to delete the actual DOS file. If you delete the DOS file, there is no restore function.

Renaming prompts you for the old and the new file names. The actual DOS filename is changed and all Library data is updated.

Move or Copy Files in this Library to Another Library

The File Move or Copy menu gives you four options for moving or copying files from one Library to another:

```
T ... Move tagged files (The Library Operator would tag for download the files he wanted to move first.)
N ... Move a file in this Library by file name

A ... Copy tagged files
C ... Copy a file in this Library by file name
```

The T option moves files you tagged for download. It prompts you for the destination Library.

The N option prompts you for the name of the file in the current Library and the name of the destination Library.

The A option copies files you tagged for download. It prompts you for the destination Library.

The C option prompts you for the name of the file in the current Library and the name of the destination Library.

Editing Information on a File

Editing Information on a File allows you to change a file's description, upload date, upload time, the name of the uploader, and the number of times the file was downloaded.

Offline Library Management Utilities

Though all Library management functions can be performed online, two offline utilities are provided for functions that you may prefer to run offline:

GALFILKW	Rebuilds the keyword database file (GALFILK.DAT).
GALFILIN	Logs in files to a specified Library using a "*login script*" file.

You can access these programs from the Offline Utilities menu or you can run them from DOS. Please see pages 390-391 in the Offline Utilities chapter for more information on these programs.

Text Variables in the Library

When you use the offline service for editing text blocks, there are a few special cases where you can use text variables. Text variables are specially tagged portions of a text block that come to life when used online.

For example, the Library menu displays the name and description of the current Library. That's done with the text variables FL_NAME and FL_DESC in the text block FLMMNU. You can add other information to the Library menu, such as the date and time the Library was created, using the text variable FL_CTIM.

When you run the offline service for editing text blocks, you'll see the Library text blocks under the file marked GALFIL.MSG. You can also search for the text blocks by name, using the <*F8*> search command and the names below.

See page 177 for general information on getting started editing text blocks. See page 84 for more on working with the actual text variables in the BBSDRAW mode.

There are four circumstances when you can use text variables in the Library:

- Library menu prompts
- Detailed Library descriptions
- Detailed file descriptions
- Keyword and chronological searches

In each case, a specific set of text variables is valid for use in a specific set of text blocks.

To get started with Library text variables, follow these steps:

1. Shut down the BBS.
2. Select the Edit Text Blocks option from the Introductory Menu.
3. Use the <*F8*> key to search for the text block LISTLIN0.
4. Hit the <*F2*> key to edit the option.
5. Use the BBSDRAW key <*Alt-V*> to enter your own text variables.

The File Libraries employs the use of many text variables in its message blocks to make it easier for you, the Sysop, to make small changes and custom modifications without recompiling source code. The 10 text variables that follow may be used in almost any message block within the File Libraries:

Text Variable	Function
FL_INIT	initialize user to his current Library
FL_NAME	current Library name
FL_DESC	current Library description
FL_FNUM	number of files in current Library
FL_FAPP	number of unapproved files in current Library
FL_CTIM	current Library creation date and time
FL_TAGS	number of tagged files open
FL_BYTU	maximum upload size for current Library
FL_BYTT	maximum total file size for current Library
FL_FILT	maximum number of files in current Library

Note: these text variables may also be used outside the Library areas (on menu pages, for instance), but you must use FL_INIT as the first text variable in the message block before the display of any of any of these text variables. FL_INIT initializes the Library text variable pointers for the current user.

The following 11 text variables work only on the current file. They work properly only in specific message blocks, most notably in those detailed after this list.

Text Variable	Function
FLF_DMIN	estimated number of minutes to download current file
FLF_FDATE	DOS date of file (MM/DD/YY) or UNAPPROVED if file not approved
FLF_FDATES	DOS date short (MM/YY) or UNAPPROVED if file not approved
FLF_NAME	current file's file name
FLF_LIB	current file's Library name
FLF_SIZEK	current file size in kilobytes
FLF_SIZE	current file size in bytes
FLF_TAGK	current file tag A-? or just A
FLF_TIMES	number of times current current file downloaded
FLF_UDATE	approval date (MM/DD/YY) or UNAPPROVED
FLF_ULBY	current file uploaded by

You would be most likely to use these text variables, and to modify their usage, in the following message blocks:

LISTLIN0 through LISTLIN7

F Protocol = Import/Export File Transfer Protocol

The F file transfer protocol allows you to upload and download files from the system console. It also gives you another way to copy Library files around on your system from a remote location (besides the copy and move commands). Either way, you go through

the usual motions of a single-file upload or download, except that you use an additional file transfer protocol. When you upload, you use:

```
F ... File Import (existing file)
```

And when you download, you use:

```
F ... File Export (to any DOS path)
```

The F protocol is available to any user with the key specified in the offline Security & Accounting option FPRLOCK. By default, FPRLOCK is set to SYSOP, so any user with the SYSOP key can use the F protocol.

F protocol uploads – File Importing

You can upload a single file from any DOS path on the BBS computer into the Library. The BBS will copy the file into the appropriate directory for the Library. Here's an example of importing a file during an upload:

```
Your choice (or 'X' to exit): F

File to import: A:IMPACT.DTA

Copying the file to GEOCOMET\IMPACT.DTA.....................
```

The file IMPACT.DTA is being imported from the floppy in drive A: to the GEOCOMET Library.

F protocol downloads – File Exporting

You can download a single Library file to any DOS path on your BBS computer. For example:

```
Choose a download option (or 'X' to exit): F

Where to export the file: A:GEOTEST.DOC

Exporting GEOTEST.DOC to A:GEOTEST.DOC.....................
```

This copies the Library file GEOTEST.DOC to the floppy in drive A:.

REGISTRY SETUP

The Registry is a central database of user information that users voluntarily provide to other users. No user has to create a registry entry about himself, but he'll be reminded about it each time he logs on (see page 369 for user instructions). If you don't like this, edit the text block REGPLS offline, and erase the message there.

The Registry can have up to 30 questions. You can modify the questions to fit the people, activities, and interests on your BBS. Do this early, however, because changing the questions usually means asking everyone to answer them all over again.

Before we get into the specifics of how to set up your Registry, we'll discuss how it works. The main feature is a question list of up to 30 questions. When a user fills out his registry entry, he answers these questions about himself. Those answers are on file for all users to see. Users can edit their answers about themselves any time.

There's one template for displaying a user's information to another user. There's another template for a user to edit his own information.

Here are the most important components of the Registry setup. The names on the left are the offline configuration options in CNF level 4 where these items are stored:

RENTRY	the report template
EDTENT	the editing template
	the question list:
FLDPMT1	question #1
FLDSIZ1	max. length of answer #1
FLDPMT2	question #2
FLDSIZ2	max. length of answer #2
FLDPMT3	question #3
FLDSIZ3	max. length of answer #3
:	:
:	:
FLDPMT30	question #30
FLDSIZ30	max. length of answer #30

There can be up to 30 questions. The last actual question is identified by making the following answer length blank. For example, if you want 20 questions, then make offline Configuration option FLDSIZ21 blank.

There also is a limit to the sum of the answer lengths. There are only 900 bytes to store answers from a user. So the sum of <each answer length plus 1> must be less than 900.

Adding New Questions to the Registry

You can safely add new questions to the end of the Registry question list. If users fill out their registry and you add new questions to the end, then the early entries will just show blank answers to the new questions. They don't have to reenter everything.

Changing the Registry Questions

If you want to change, delete, rearrange, insert, or otherwise modify the existing Registry question list, you need to redo the Registry database from scratch. Anyone who already filled out their registry must do it over. The procedure from your end goes like this:

1. Change the questions and answer lengths. Be sure to make the first unused answer length (just after the last used answer length) blank.
2. Change the report template and editing template (see below).
3. Start the registry database over from scratch by typing this DOS command in the BBS directory:

```
COPY GALREGIS.VIR GALREGIS.DAT
```

The Report Template

Edit the offline Configuration option RENTRY. You'll see that this closely resembles what is displayed when you look up a user's entry. But you'll also see lots of %s and %-

10s symbols. Each one represents an answer. And their order is important — they are in the same order as the questions are asked. Here's an example of a very simple report template for six questions:

```
Answer #1:  %s     Answer #2:  %s
Answer #3:  %s     Answer #4:  %s
Answer #5:  %s     Answer #6:  %s
```

See how entries are ordered when a line includes multiple answers? It is very important to get the symbols in the right order and to get the right quantity. (Too many symbols could cause your system to crash intermittently when someone looks up an entry.)

Here's how several different symbols would display the answers ANSWER and This is a longer answer.

Symbol	Displaying ANSWER	Displaying This is a longer answer
%s	ANSWER	This is a longer answer
%-10s	ANSWER	This is a longer answer
%10s	ANSWER	This is a longer answer
%0.10s	ANSWER	This is a
%10.10s	ANSWER	This is a
%-0.10s	ANSWER	This is a
%-10.10s	ANSWER	This is a

The Editing Template

Edit the offline Configuration option EDITENT. There will be lots of %s symbols just like in the report template. Here, the answer fields must be numbered, starting with 1, for the user to pick a field to change. Be sure to get the fields in the right order, as in:

```
[1]Answer #1:  %s     [2]Answer #2:  %s
[3]Answer #3:  %s     [4]Answer #4:  %s
[5]Answer #5:  %s     [6]Answer #6:  %s
```

POLLS AND QUESTIONNAIRES SETUP

Polls and Questionnaires is the service you use to gather information on the users of your BBS. In general, you would use a poll to find where user consensus falls on various issues and a questionnaire mainly to gather data specific to each user.

Moreover, the results from questionnaires are not tallied, but poll results are. A user possessing the LOOKUP key for a particular Poll or Questionnaire can view online the answers to that Poll or Questionnaire for any user. A user possessing the RESULTS key for a particular Poll can view online the statistics for that Poll.

With this service, you can prepare up to 200 forms of up to 100 questions each. See page 371 for user instructions.

Question Types

Questionnaires use nine basic question types. They are more versatile than polls, which are limited to four of the nine types: Multiple Choice, True/False, Yes/No, and Display Only. An overview of the nine question types follows.

Credit-Card Number

Used to get the user's credit-card number. Though no actual algorithm checking is involved in verifying the user's response, there is a basic check to make sure the response is within the normal size and nature of a credit-card number.

Date

Used to obtain date information — for example, an expiration date from a credit card or the user's date of birth.

Display Only

Displays a message and asks the user to press *<Enter>* to continue. No response data is stored for this question type. This would be useful for an introductory message or a closing message.

Multiple Choice

Gives the user up to 16 possible answers; the user chooses a letter (A - P) that corresponds to his choice. You can allow the user to choose more than one answer when creating the question. In addition, you can include responses that either lead to certain additional questions or omit certain questions altogether. Called branching, this function is used only with multiple-choice question types. If you need to use a Yes/No or True/False question that requires branching, you must use Multiple Choice and then manually fill in the answer strings.

Numeric Value

Asks the user for a dollar amount or a number. The number obtained must be less than 999 million.

Open-Ended Response

Asks the user for a lengthy answer — up to 1,999 characters.

True/False

Similar to Multiple Choice, except that it offers two choices only — true or false. For True/False questions that offer branching options, use Multiple Choice.

Yes/No

Like True/False, it offers two choices only — yes or no. For Yes/No questions that offer branching options, use Multiple Choice.

User Account

The answers a user gives updates his user account information, similar to the way the sign-up process works. The most complex of the question types, it has 11 fields:

```
NAME
ADDRESS LINE 1 (Company)
ADDRESS LINE 2 (Street Address)
ADDRESS LINE 3 (City/State/Zip)
ADDRESS LINE 4 (Country)
PHONE NUMBER
BIRTHDAY
SEX
ANSI SETTING
EDITOR SETTING
PASSWORD
```

If you have questions about what data these fields represent, see the user account section on page 374.

Designing a Poll or Questionnaire

There are two major steps involved in designing a poll or questionnaire, General Poll Information and Adding Questions.

General Poll Information contains the following:

Poll Name

This is a key field that cannot be modified. Users may select polls by using the Poll Name or the index number usually provided.

Description

This is the description of the poll you are creating.

Type of Poll

You must choose either poll or questionnaire.

Priority

Logon notification priority may be set as follows:

- SKIP — Do nothing during logon for the poll.
- ANNOUNCE — Output a message to users logging on to announce the existence of the poll (default).
- ASK — Ask all users logging on if they wish to take the poll or questionnaire now.
- INSIST — Force the user logging on to take the poll or questionnaire at this time.

Data Storage

This tells the program where to store all user responses for the poll or questionnaire. This can be set to:

- BTRIEVE — Save to Btrieve data file.
- ASCII — Save to ASCII text file.
- BOTH — Save to both Btrieve and ASCII files.
- DISCARD — Do not save user responses.

For polls, if this is set to ASCII or DISCARD, the tallied results will still be saved to the GALP&QT.DAT Btrieve data file (tally data file).

Save Branch

This tells the program whether to save branch selection answer responses from users to the specified data storage area.

Answer Type

This determines whether a user may answer the poll more than once and what to do with the new results.

- ONCE — User may take the poll or questionnaire only once
- REPLACE — User may take the poll or questionnaire over and over, replacing previous answers if changes are made. If you plan to grant users a key, credits, or a file or to change their class, it will be done when they complete this poll or questionnaire for the first time.
- ACCUMULATE — User may take the poll or questionnaire over and over with answers accumulating.

Default CLS

This will default the display of all text questions to clear the screen before displaying the question text body. You can override this parameter on a per question basis via the question editor.

Create Date

This is the date that the poll was originally created. The date is permanent.

Close Date

This is the last day that the poll will be available for user input.

Look-up Key

This is the key required to look up individual user's answers. The default is SYSOP. Leaving this field blank will allow all users to have access to this feature.

Results Key

This key is required to view results for the poll. It is unused for questionnaires. Leaving the field blank will allow all users to have access to this feature.

Logon Key

If you have set your Priority to ANNOUNCE, ASK, or INSIST, you can target these logon priorities to a particular class of users who have this LOGON key. If this field is left blank, then all users will be targeted.

Access Key

This is the key required to take the poll. Leaving this field blank will allow all users to take the poll.

Access Attribute

This key specifies whether to show, dim, or hide results if a user does not have the ACCESS key.

Granted Key

This is the key granted to users who complete the poll. If left blank, no key will be granted to users. Only users who have the SUPKEY may grant privileges. Never leave the SUPKEY or the PLLOPKEY fields blank. If you do, all users will have Sysop and Poll-Op access to your Polls and Questionnaires module.

When entering a granted file in a poll, always make sure that the file and path are correct. And always make sure when entering a poll to check the next-question and previous-question fields.

Granted Class

This is the class to switch users to who have completed the poll. If left blank, no class switching will occur.

Granted Credits

You may either add or deduct credits from users for completing the poll. To add credits, make this number positive; to deduct credits, make it negative.

Granted File

Place the name and path of the file you wish to grant all users that complete the poll. You must make sure that the file name and path are correct and the file exists for this feature to work properly.

After you have completed and saved this information, you will be prompted to press *<Enter>* to begin adding questions. If you press X at this point, you'll lose your poll information and have to start over again, so make sure you have a basic idea of the questions you wish to add before creating a poll or questionnaire.

Adding Questions

All polls must start at question #1. After the first question, you may begin branching as you wish. You will be given a prompt saying `Press <Enter> to add question #1`. After pressing *<Enter>*, you will be put into the General Question Information Poll-Op Editor for question #1. This editor contains the following fields:

Poll Type

This is the type of poll you have selected from the General Poll Information Editor. This field cannot be edited and is displayed only as a guide.

Poll Name

This is the name that you previously specified in the General Poll Information Editor. This field cannot be edited and is displayed only as a guide.

Current Question

This is the current question number you are adding. This field cannot be edited and is displayed only as a guide.

Question Type

This is the question type for this question. Question types vary between polls and questionnaires as described in the section on basic poll types section. You will be able to use the *<Spacebar>* to toggle through the available selections.

Account Field

This selection is only applicable when you have selected the question type `USER_ACCOUNT`. You will be able to use the *<Spacebar>* to toggle through the available selections. *See the section on question types for additional information.*

Next Question

This is the default next question to go to after getting a user's response for this question.

Previous Question

This is the default previous question to go to if the user opts to move backward through the questions.

Exempt Data

Select `YES` if you do not want to save this user response to the currently selected data storage method. Select `NO` to store this data to the currently selected data storage method.

Enable Branching

Enables branching for Multiple Choice questions only. This will enable the branching fields within the Multiple Choice answer string editor.

Answer Choices

Number of answer choices to accept from user. An answer choice is defined as a letter from A to P and does not count punctuation, or spaces. You can allow up to 16 answer choices.

Clear Screen

Clear the users screen before displaying this question?

Question Text Body

After you have saved the General Question Information, you can begin adding the question text message.

Multiple Choice Editor

If you have selected a question type of Multiple Choice, you will next be sent into the Multiple Choice Editor. You may enter up to 16 answer strings that will be labeled A to P when displayed to the user. If you have previously enabled branching, you will also be able to specify the next question associated with each of the choices.

Editing a Poll or Questionnaire

After typing S from the main menu, you will see a list of polls and questionnaires, if there are any present, or you may select A to add a poll. Entering the name or cross reference index number of a poll on the list will place you at the following menu:

```
G ... General information editor
Q ... Questions Editor
D ... Delete this Poll/Questionnaire
R ... Reset all user answers for this Poll/Questionnaire
X ... Exit to Poll-Op menu
```

Selection G will place you into the General Information Editor for the currently selected poll. You will be to able edit all fields except the poll name.

Selection Q will get you a list of current questions and prompted to enter question number to edit or A to add additional questions.

Selection D will tag the poll for deletion at the next auto-cleanup. You will be prompted to confirm the deletion.

Selection R will reset all Btrieve user answers for the poll or questionnaire as well as resetting the statistics if this is a poll. You will be prompted to confirm resetting the poll.

Selection X will take you to the previous menu.

The Question Editor Menu

You use the Question Editor menu to edit an existing question. There are two basic types of questions — Multiple Choice and other. The menu for editing Multiple Choice questions is as follows:

```
G ... General question data
T ... Question text message
D ... Delete this question
M ... Edit multiple choice answer strings
C ... Clear all multiple choice answer strings
X ... Exit to question list
```

The menu for editing questions other than Multiple Choice is as follows:

```
G ... General question data
T ... Question text message
D ... Delete this question
X ... Exit to question list
```

Selection G will allow you to change the general question information as outlined in the earlier section on adding questions.

Selection T will place you into the editor, allowing you to edit the question text body.

Selection D will delete this question entirely. If your data storage method is set to Btrieve or Both, all user answer responses to this question will be deleted as well. Make sure that if you delete a question without replacing it you adjust the surrounding questions so that the poll or questionnaire will flow correctly. You cannot delete the first question of a poll, because every poll must begin with question #1.

Selection M, displayed only for Multiple Choice questions, will place you into the Multiple Choice Answer String Editor. If you have branching enabled, you also will be able to edit the branching parameters from within this editor.

Selection C, also displayed only for Multiple Choice questions, will reset all answer strings to *<blank>* as well as reset all the branching selections to the default next question number.

Selection X will return you to the question listing, allowing you to select another question to edit. This selection will auto-save the current question.

DOORS — DOS APPLICATIONS ON THE BBS

What is a Door?

A Door allows an online BBS user to run a DOS application. He operates the application by typing on his keyboard, and sees the results on his terminal. The BBS allows him to do this remotely, over a modem or some other long-distance connection. This capability gives your users access to a vast array of DOS software. (On The Major BBS, DOS applications all run on other machines.)

Some Terminology

First, let's get some concepts straight. *Doors* usually refers to a service available to BBS users. From their perspective, the term includes the entire set of equipment and software that enables them to run some great programs online. The BBS site includes the BBS computer and at least one Door computer. Each Door computer can support as many applications as its memory allows, but only one user at a time unless it also has multitasking capability.

You can run three special types of programs on a Door computer: Door programs, DOS applications via Doorways, and host programs. A *Door program* can be run remotely, through a serial connection. User keystrokes come in through the serial port, and display information goes out through the serial port.

A standard DOS program, on the other hand, assumes its user is sitting right there at the computer keyboard, staring at the screen. A *Doorway* helps trick a standard DOS program into being run remotely, over a serial port. The Doorway runs the DOS program, simulates keystrokes on behalf of the remote user, and spies on the screen once in a while, to maintain a copy of it on the remote user's terminal. Galacticomm resells a Doorway program called Doorway from TriMark Engineering. You can order Doorway from Galacticomm's Sales Department at (800) 328-1128 or (305) 583-5990, from TriMark at (615) 966-3667, or from your nearest authorized Galacticomm dealer.

In this manner, the Doorway program plus the standard DOS program combine to make something like a Door program. Sometimes we refer to the Doorway/DOS program combination as a Door program.

Whether you are using Door programs or a Doorway with standard DOS applications, you need something to start them up at the right time. This is the *host* program. The Galacticomm Host program, or GHost runs while the Door computer is idle — while the Door programs are *not* running. GHost comes standard with The Major BBS.

For example, say a user on the BBS asks to run the QPROC Door. Then on a Door computer somewhere GHost runs the QPROC.BAT file.

Security

Note that most Door programs do not provide the same level of security that you can expect from The Major BBS. In some cases, it is possible to get into DOS and enter commands that could damage the Door computer. Therefore, you should either limit Doors access to trusted users (using BBS security methods, which we'll get to later), or make sure that no data accessible from the Door computers are confidential or irrecoverable and that no programs with dangerous capabilities are accessible.

Running the Door computer on a LAN can be a very handy setup for maintenance and support, but be aware of the security risks. Letting any anonymous user get through a Door to the DOS prompt on a network drive could spell disaster. But you also need to avoid Doorway/DOS applications that can be hacked to do the same thing — for example by a shell-to-DOS command in the application. (Doorway's /H: option may help you prevent this kind of thing.) Be sure you have all your leaks plugged before you put the Door computers on a network.

What You Need To Run Doors

On each Door computer you'll need one serial port. On the BBS computer, you'll need one extra serial port per Door connection (in addition to the ports you need for incoming calls from users). You'll also need an adequate number of User Six-Packs — each outgoing Door connection counts toward your user-count license.

GHost will run on each Door computer. GHost runs when the Door is not in use. When a user asks to enter a Door, the BBS shoots off a message to GHost and GHost fires up the Door program, or a Doorway and a standard DOS application.

To Set up Doors on Your BBS

1. Make sure you've installed The Major BBS and have it up and running. See the Installation chapter starting on page 10, or follow the Installation Checklist.
2. Plan which Doors services you'll be providing on which BBS channels, and which channels you'll connect to which Door computers. Then you'll also know which services you need to install on which Door computers.

   Here's a simple example of a configuration for Doors:

BBS channel 30	Door computer I	Doors: A, B, C, D Doorway/DOS applications: X, Y, Z
BBS channel 31	Door computer II	Doors: A, B, C, D Doorway/DOS applications: X, Y, Z
BBS channel 32	Door computer III	Doorway/DOS application: Q

   If you want to run a Door program on several Door computers, be sure to put them on a contiguous series of BBS channel numbers. The example meets this requirement, because Doors A, B, C, D, X, Y, Z are available on channels 30-31.

   In this example, you can see how you would need to install the Door programs on the Door computers. Computers I and II needs to have Door programs A, B, C, D as well as DOS applications X, Y, Z and a Doorway of some kind. Door computer III needs a Doorway and DOS application Q. In BBS Hardware Setup, you would need to configure three serial ports on channels 30, 31, and 32. Then you would need to define Doors services on the BBS for the eight Doors named A, B, C, D, X, Y, Z, and Q. Steps 3 to 7 give details for these procedures.

3. Set up a Door computer. First get the computer running under DOS and make sure its serial port works. Then make a `\GHOST` directory and unzip `GALDOOR.ZIP` in it. For example, on the BBS computer (with an blank floppy disk in drive A:):

   ```
   CD \BBSV6
   COPY PKUNZIP.EXE A:
   COPY GALDOOR.ZIP A:
   ```

   Then on the Door computer (with the same floppy in drive A):

   ```
   MD \GHOST
   CD \GHOST
   COPY A:PKUNZIP.EXE
   COPY A:GALDOOR.ZIP
   PKUNZIP GALDOOR
   ```

   To bring up the Door computer, just run the `GHOST.BAT` file, specifying the COM port and baud rate, as in:

   ```
   CD \GHOST
   GHOST COM1 19200
   ```

   You can put these instructions in the Door computer's `AUTOEXEC.BAT` file to make the Door computer get right to work when you boot it up. By the way, you can terminate the GHost program by hitting <*Esc*> from the Door computer's keyboard.

4. Set up a Door program on the Door computer. Remember that a Door program is a special program designed specifically to be run remotely through a serial port. We recommend you install each Door in its own directory and make a special Door batch file for it in the \GHOST directory.

   Here's what should be in that batch file:

   ```
   CD \<Door directory>
   <run Door>
   CD \GHOST
   GHOST <COM port> <baud rate> <address:interrupt>
   ```

where:		
	<Door directory>	the directory containing the Door software
	<run Door>	the command that invokes the Door
	<COM port>	the COM port linked to The Major BBS: COM1-COM8, or DIG*x*/*y* for intelligent DigiBoards, where *x* is the DigiBoard port (1-32) and *y* is the COM port equivalent (1-8)
	<baud rate>	the baud rate of the COM port
	<address:interrupt>	the I/O address (4 digits, hex) and interrupt (decimal, 2-15) — optional

   The Door batch file name should be the name you'll give the Door on the BBS. For example:

   ```
   DOOR1.BAT
   CD \DOOR1
   DOOR1
   CD \GHOST
   GHOST COM1 19200
   ```

   Then users can choose the DOOR1 service from the Doors menu on the BBS.

5. Set up a Doorway to a DOS application on the Door computer. In this scheme, a standard DOS application will be made usable remotely by a Doorway program.

   Doorway is such a program. You'll probably want to install it in the \DOORWAY directory. See pages 287-288 for some examples of Doorway installations for DOS and for Lotus 1-2-3.

6. Use offline Hardware Setup to configure one serial port on your BBS for each simultaneous Door program you want to run. There is some information about configuring serial ports on pages 32-34. That text is written to help you connect a serial port to a user's terminal, but it is very similar to what you'll be doing: connecting a serial port to a Door computer.

   You'll need to use the same baud rate as that of your Door computer's serial port; we've found that 19200 baud provides good performance. The connection to the Door computer does not have to be the same baud rate as the user's connection to the BBS.

7. Skip this step if you've installed Version 6.2 from scratch. If you are upgrading from an earlier version, the Doors service may not be in your Menu Tree, and you may need to use Menu Tree Design to create menu entries for the Doors services on your BBS. The easiest thing to do is create a module page for the Doors module with a blank command string (see page 68).

In that case, every user would get the standard Doors menu options:

```
The following Doors services are available:

   E ... Enter a Door
   L ... List available Doors
   X ... Exit Doors

Select a letter from the above list, or X to exit: _
```

Here are some possible command strings, if you want to get fancy with your menu structure:

<blank>	Get the Doors menu (shown above)
L	Get a list of Doors
E *<Door name>*	Enter a specific Door

If you do use nonblank command strings, you should create at least one module page for the Doors module with a blank command string. You'll use it online as the Sysop to configure the Doors module. (You could make it an orphan page that users can get only with the /GO command.)

8. Bring up the BBS, log on as Sysop, and enter the Doors module. Here is the expanded Doors menu for Sysops (that is, for any user with the key specified by the offline Security & Accounting option SYSAPP, which defaults to SYSOP):

```
The following Doors services are available:

    E ... Enter a Door
    L ... List available Doors

    A ... Add a Door
    M ... Modify a Door
    D ... Delete a Door

    X ... Exit Doors

Select a letter from the above list, or X to exit: _
```

Add each Door to the BBS's database. Here's an example of adding a Door named DBENTRY:

```
Select a Doors option (E,L,A,M,D,X or ? for Help): A

Enter the name of the Door you wish to add: DBENTRY

Enter a short description for the Door: Database Transaction Entry

Enter the first channel on which this Door can be accessed: 14

Enter the last channel on which this Door can be accessed: 1C

Enter the key required to access this Door or [RETURN] for none:
ACCOUNTING

Enter the additional credits per minute to charge users while in
this Door or [RETURN] for no additional charge: 0

Enter the maximum time in minutes a user is allowed to remain in
this Door or 0 for no limit: 120
```

```
Normally, Doors interact with the Galacticomm Host (GHost) on the
Door computer. The two programs handshake prior to allowing data to
pass back and forth. If you are not using the GHost program set this
option to No.

Should handshaking be enabled[RETURN=YES]? Y

Door programs often require that certain parameters be passed. To be
flexible with as many Door programs as possible, you may choose from
the following:

   1 ... No additional parameters passed to Door
   2 ... Generate parameters for drop file (e.g. DOOR.SYS)
   3 ... Pass a custom created list of parameters

Use which method: 3

You have elected to choose what parameters to pass to the Door. The
following is a list of valid items that may be passed to the Door:

   <U>ser-ID     <S>hort Com Port   <A>NSI Setting
   <C>om Port    <B>aud rate        <T>ime Limit

At the next prompt enter the letters of the items you wish passed to
the Door in the order you wish them passed. (If you responded "BCU"
then Doors would pass the string "BAUD COM 'Your User-ID'".)

Enter the parameter string you wish to pass: BCU

              Door DBENTRY

            Status: Available
       Description: Database Transaction Entry
     First Channel: 14
      Last Channel: 1C
      Key Required: ACCOUNTING
         Surcharge: 0 credits
        Time Limit: 120 minute(s)
 Handshake Enabled: Yes (Parms Passed)
User Abort Enabled: Yes
  Single User Only: No

Door successfully added to database.
```

To change these settings, use the Sysop's M ... modify command from the Doors menu. (As you can see, adding a Door doesn't even ask you about some of these options. You can only set them through the Modify menu.)

Status: Available/Offline

This option defaults to Available, but can be changed by modifying the settings for the Door after it has been created. You can disable a Door without deleting it. You may find this handy while you are getting ready, so you can define a Door before letting users fire it up.

Name of the Door

This is the name the Door will be known by on your BBS. This should also be the name of the batch file on the Door computer. It can be up to eight characters long.

Short description

This appears in the list of Doors from the Doors menu. It can be up to 40 characters long.

First and Last Channel

These are the BBS channel numbers, in hexadecimal, as channels appear on the user matrix on the Summary screen. When a user selects this Door, the first available channel in this range will be used.

These channels will be unusable as serial ports for incoming channels unless you change the offline Configuration option RLSPRT to YES. On some systems, doing this could get the Door computer and the BBS locked in an endless tennis match. That's why RLSPRT defaults to NO.

Key Required

Users cannot invoke the Door unless they have the key specified here. This is the primary security method for Doors: put a lock on the Door and only give the key to users whom you want to use the Door. If this setting is blank, the Door is available to all users.

Surcharge

You can charge extra credits per minute for using this Door.

Time Limit

You can limit the amount of time, in minutes, any user can run a Door program. This may help reduce certain kinds of problems or abuse. This limit is not enforced by the BBS, but is passed along to the Door or Doorway program (assuming you're passing parameters at all). The Door program or Doorway should shut down when the limit is exceeded.

Handshake Enabled

Set this to YES when you're using GHost on the Door computer. Set it to NO if you want to connect to a Door computer that's not running GHost (for example a Unix machine).

User Abort

This option defaults to YES but can be changed by modifying the settings for the Door after it has been created.

Enabling this feature means users can abort the Door they're running by hitting the dash character three times in a row (---) within three seconds. (You can use a different character by changing the offline Configuration option DISCHR to something other than a dash.) This will terminate the Door session and return the user to a previous menu on the BBS. If the Door program has problems being ended abruptly like this, you may want to disable this feature. Keep in mind that a similar thing can happen anyway whenever a user abruptly disconnects from the BBS.

Single User Only

This option defaults to NO but can be changed by modifying the settings for the Door after it has been created.

Leave this set to NO in most cases. If you want only one user at a time running this Door, regardless of what channels are available, set it to YES. This may help, for example, if you are running an application on a LAN that accesses single-user databases.

Handshake Method

Assuming handshaking is enabled, there are a few different ways that parameters could be passed from the BBS to the Door computer.

None	No parameters passed to the Door
Drop File	Parameters are passed in the standard file format that many Door/Doorway programs expect
Custom Parameters	Parameters can be passed to the Door batch file in a customized sequence

Drop File Parameter Passing Method

In this case, a drop file will show up in the \GHOST directory on the Door computer when it should — each time the Door is invoked. However, your Door batch file may need to transport it to the directory where the Door software resides. For example:

```
DOOR1.BAT
CD \DOOR1
COPY \GHOST\DOOR.SYS
DOOR1
CD \GHOST
GHOST COM1 19200
```

Using Model Files

If you're using the drop file handshaking method to pass parameters from the BBS to the door computer, you can control both the format of the drop file, as well as it's name, by creating a "model file." This is an ASCII text file which tells the GHost program what information should be placed into a drop file for a particular Door program, where each piece of information should go within the drop file, and what the drop file should be named.

The Major BBS Doors module already supports the two most common drop file formats for Doors programs — DOOR.SYS and DORINFO*x*.DEF. There are, in fact, three model files provided with the BBS which the GHost uses to create these files: DOOR.MDL, DOOR2.MDL and DORINFO1.MDL. DOOR2.MDL is an alternate format for the DOOR.SYS file. If your program requires the DOOR2 format, copy DOOR2.SYS to DOOR.SYS in the batch file that invokes your program. If all of your Doors programs uses one of these formats, then you don't need to be concerned with creating your own model files. However, if you have a Doors program which uses some other drop file format, then you'll need to create a model file in order to tell the GHost how to format the drop file, as well as what to name it.

Creating Model Files

A model file can be created using any ASCII text editor. You should give a model file an extension of .MDL, and place it on the Door computer, in the same directory from which GHOST.BAT is invoked. The general format of a model file is:

```
DROP FILE: <filename>
parameter 1
parameter 2
      .
      .
      .
parameter n
```

The drop file *<filename>* should include both the name and extension. It can be specified on any line in the model file, but the phrase DROP FILE must begin in column one. If you don't specify a name, the GHost will create a drop file with the same name as the model file, with an extension of .SYS.

A parameter is a line of information to be placed in the drop file by the GHost. There's no limit on the number of parameters that can be placed in a model file. The GHost copies parameters from the model file to the drop file, substituting the values for parameter variables.

You can place comments in a model file by preceding the comment with ";;". Anything on any line after that will be ignored.

GHost ignores blank lines in a model file when generating drop files, so if you need to leave a line blank in a drop file (if that line is unused, for example), place some "junk" character on that line in the model file.

Each time the GHost activates a Door, drop files are generated for each model file found in the current directory. Therefore, you must have at least one model file present in the directory where GHost resides, or GHost will return an error to the BBS, and your Door won't activate.

Parameter Variables

A parameter variable is always preceded by a tilde ("~") in the model file. The following parameter variables may be used anywhere in the model file:

~C is the COM port address, in the form "COM*x*". If the COM port was specified in the form "Cxxxx:i", then this variable will result in the four-digit hex address.

~S is the COM port in "short" form, ie. "1", "2", etc. If the COM port was specified in the form "Cxxxx:i", the GHost will simply enter a "." for this variable.

~X is the COM port address, in the form of a four digit hex address.

~B is the baud rate of the connection between the Door computer and the BBS.

~U *is the User-ID passed to the GHost by the BBS.*

~F is the first name of the user. If there is at least one space in the User-ID, then this will be anything before the first space. If there are no spaces, then this will be the entire User-ID.

~L is the last name of the user. If there is at least one space in the User-ID, then this will be anything after the first space. If there are no spaces, then this will be a ".".

~T is the time remaining for the user in the Door program, expressed in minutes.

~* is same as T, expressed in seconds.

~A is the graphics mode of the user, where GR means graphics (ie. ANSI on), and NG means no graphics (ie. ANSI off).

~& is the same as A, but 1 for ANSI, 0 for non-ANSI.

~~ this results in a literal "~" being place in the model file.

You can study the three standard model files provided, DOOR.MDL, DOOR2.MDL and DORINFO1.MDL, for examples of how model files and parameter variables are used.

Custom Parameter Passing

In the last case, you can pass any or all of these values to the Door batch file:

Code	Meaning	Example value
U	User-ID	'George Stookey'
C	COM port	COM3
S	Short COM port	3
B	Baud rate	19200
A	ANSI setting	GR
T	Time limit	120

These can be associated in any order with the familiar DOS batch file parameters: %1, %2, %3, %4, %5, or %6. You define that association with a parameter string comprising code letters from the above list. For example, let's say your Door batch file needed to work with: baud rate, COM port, and User-ID.

Parameter string: BCU

Then the Door batch file would be invoked (almost) as if the following DOS command line were entered:

```
DOOR1 19200 COM3 'George Stookey'
```

In this example, the string 'George Stookey' (including the single quotes and the space) replaces %3 in the Door batch file.

```
%1      19200
%2      COM3
%3      'George Stookey'
```

The ANSI setting is coded as GR for on and NG for off.

GHost Special Function — Nightly Cleanup on the Door Computer

To perform special nightly tasks on the Door computer, you can put the hour for cleanup in a file named GALCLEAN.TXT in the \GHOST directory. This hour number is 0 to 23, and means the same thing as the MCUHR *offline Configuration option* as described on page 154. Then put the special nightly tasks in a file named GALCLEAN.BAT.

```
GALCLEAN.TXT
3

GALCLEAN.BAT
<special nightly tasks>
```

In this example, at 3:00 a.m., GALCLEAN.BAT is run. After the special nightly tasks are done, GHost comes back online.

When changing the GALCLEAN.TXT, the changes take effect the next day. For immediate update, you need to backdate the Door machine.

Doorway Special Considerations — Full Keyboard Support

Many DOS programs make use of non-ASCII keystrokes such as the arrow keys, <*F1*> through <*F10*>, <*PgUp*> and so forth. If you're trying to run a program like this through a Doorway, your users will need to use terminal software that can support these keystrokes. For example, if a user hits <*PgDn*> you don't want his terminal software reacting to it, you want a <*PgDn*> keystroke to be simulated on the Door computer. Most popular terminal programs have a Doorway mode or an IBM PC emulation mode that can make this happen.

Here are some suggestions for Telix and PROCOMM PLUS Version 2:

Telix	<*Alt-=*> toggles Doorway mode on and off. Almost all keystrokes except <*Alt-=*> are supported.
PROCOMM PLUS V2	In the terminal setup options, among the VT/ANSI set of terminals, set the terminal emulation mode to IBM PC. The <*Alt*> keystrokes are not supported but almost all others are (<*F1*>-<*F10*>, <*Ctrl-PgDn*>, and others).

Doorway Example — Providing Access to the DOS Prompt

To make the DOS prompt available to users of your BBS, you can configure a Doorway that runs a DOS shell. (Remember, you want to be careful about whom you allow to use a feature like this — DOS is very vulnerable to careless or malicious persons.)

You could create a Door named DOS on the BBS that uses the DOOR.SYS method of parameter passing. Then in your \GHOST\DOS.BAT batch file:

```
DOS.BAT

CD \DOORWAY
COPY \GHOST\DOOR.SYS
DOORWAY COM1 /B:M /NCD /O:T /V:D /CD /C:DOS
CD \GHOST
GHOST COM1 19200
```

There's more on the Doorway command line parameters in the Doorway documentation, but here's a brief list:

COM1	specifies to use DOOR.SYS
/B:M	moves line 25 to line 24 for terminal programs that use a status line on line 25
/NCD	specifies to disconnect without delay after carrier drops
/O:T	uses an abbreviated title screen
/V:D	allows for programs which use direct screen writes
/CD	specifies to change to the root directory (in this context)
/C:DOS	brings up the DOS command line

Doorway Example — Running Lotus 1-2-3 Remotely

Configure a Door called 123 on The Major BBS using the DOOR.SYS method to pass parameters, and create a 123.BAT file in the C:\GHOST directory containing:

123.BAT

```
CD \DOORWAY
COPY C:\GHOST\DOOR.SYS
DOORWAY COM1 /B:M /NCD /O:T /V:D /CD /P:\123\123.EXE
CD \GHOST
GHOST COM1 19200
```

where: /P:\123\123 specifies to run 1-2-3 from the \123 directory, and /CD specifies to change to the \123 directory while running.

OTHER MANAGEMENT CONSIDERATIONS

GALNOTES

This simple utility enables you to automatically display any file to your users each time they log on. Thus you can have regular announcements of any size that all your users will be sure to see. GALNOTES will load into your BBS automatically each time you start it up (that is, you do not have to add it to your menu tree).

User-ID Conventions

A User-ID is the unique name that the BBS uses to identify each of your users. Usually, the User-ID is a person's real name. When a person's name is not unique, the newer user can keep trying variations until he gets a unique User-ID. (See page 347 for an example of the kind of help that other users get when trying to tell similar User-IDs apart.)

Offline Configuration Options relating to User-IDs

```
SGNUS2    Maximum size for User-IDs of new users: ..................... 29
DIGALW    Allow digits in User-IDs? ..................................... NO
FULALW    Allow spaces and punctuation in User-IDs? ..................... YES
NAMDFT    How should User-IDs be handled for new signups? ............... ASK
```

NAMDFT options – how to handle User-IDs at sign-up

REAL	Ask user for real name (use it as User-ID, too)
DFAULT	Ask user for real name, ask if he wants to use his real name as User-ID too, and if no, ask for User-ID
ASK	Ask user for real name, and for User-ID

Sign-up Questions

When people first call your BBS, they can sign up all by themselves (unless you set the offline Security & Accounting option SAMPLN to 0.) The BBS will ask the new caller for his name, address, phone, and other information. You can disable any of these questions by changing these offline configuration options (see page 148):

```
ANSASK    Double-check new user's ANSI setting? ..................... YES
ASKNAM    Ask users their first and last names? ..................... YES
ASKCOM    Ask users their company name? ............................. YES
ASKADR    Ask users their address (3 lines)? ........................ YES
ASKPHO    Ask users their telephone number? ......................... YES
ASKSYS    Ask users the type of system they are using? .............. YES
ASKBDY    Ask users their birthday? ................................. YES
ASKSEX    Ask users their sex? ...................................... YES
```

In addition, you can ply your new users with up to ten questions of your own:

```
SUPHDR    Additional signup question header                    <blank>
SUPQS1    Additional signup question #1                        <blank>
SUPQS2    Additional signup question #2                        <blank>
SUPQS3    Additional signup question #3                        <blank>
SUPQS4    Additional signup question #4                        <blank>
SUPQS5    Additional signup question #5                        <blank>
SUPQS6    Additional signup question #6                        <blank>
SUPQS7    Additional signup question #7                        <blank>
SUPQS8    Additional signup question #8                        <blank>
SUPQS9    Additional signup question #9                        <blank>
SUPQ10    Additional signup question #10                       <blank>
SUPEND    Additional signup question closing thanks
SAVINF    Save standard signup information to ASCII file?          NO
SUPFRM    Save any signup information in "fixed-length ASCII"?     NO
```

Answers to your custom sign-up questions are recorded in the text file BBSSUP.TXT. You can use the Remote Sysop TRANSFER menu to download this file. You may want to periodically erase it so it doesn't get too big. If there are no custom signup questions and SAVINF is NO, then nothing is written to BBSSUP.TXT.

SUPFRM = NO – printable report

When SUPFRM is set to NO, the information in BBSSUP.TXT can be printed on a printer. Here's an example that assumes SAVINF is set to YES:

```
User-ID:  Kim Johansen                    Date:  10/13/92    Time:  13:14:52
Address:  Biometrics Oceanic              Name:  Kimberly H. Johansen
          1783 East Broadhurst           Phone:  315/452-6092
          Pine Ridge, WI  77462            Age:  46

 System type:  IBM-PC                       Sex:  F
Screen width:  80                        Length:  24
```

```
Answers to additional signup questions:
<answer 1>
<answer 2>
<answer 3>
:
```

SUPFRM = YES – fixed-length ASCII report

In this case the BBSSUP.TXT file is a flat ASCII text file with fixed-length records. Here are the fields:

Columns	
1-9	Date
10-18	Time
19-47	User-ID

if SAVINF is set to YES:

48-76	Name
77-105	Address (company)
106-134	Address (street)
135-163	Address (city, state, ZIP)
164-192	Address (country)
193-207	Phone
208-210	System type (0-7)
211-213	Screen width
214-216	Screen length (or 2 for continuous output)
217-219	Birthday
220	Sex (M or F)
221-299	Answer to custom question #1
300-378	Answer to custom question #2
379-457	Answer to custom question #3
458-536	Answer to custom question #4
537-615	Answer to custom question #5
616-694	Answer to custom question #6
695-773	Answer to custom question #7
774-852	Answer to custom question #8
853-931	Answer to custom question #9
932-1010	Answer to custom question #10

if SAVINF is set to NO:

48-126	Answer to custom question #1
127-205	Answer to custom question #2
206-284	Answer to custom question #3
285-363	Answer to custom question #4
364-442	Answer to custom question #5
443-521	Answer to custom question #6
522-600	Answer to custom question #7
601-679	Answer to custom question #8
680-758	Answer to custom question #9
759-837	Answer to custom question #10

Sysop Global Commands

You can enter these commands from almost any prompt in the BBS:

/INVIS	Stay invisible online. Other users won't know that you are online. Note that if you log off while invisible, the next time you log in, you'll still be invisible.
/L *<User-ID>*	Look up a user's account information.

These commands are available to any user with the SYSOP key (as defined by the offline Security & Accounting option GLBKEY).

15

AT THE USER'S TERMINAL

This chapter is for users of The Major BBS — the people who sit at the terminal, log onto the BBS, move through various menus, exchange messages and files, answer polls and questionnaires, and use the teleconference.

INTRODUCTION FOR SYSOPS

As a system operator, or Sysop, you can use this chapter to get around the BBS yourself, to decide on the features to provide for your users, and to help them with problems.

We hope you won't be confused by the dual audience of this manual:

In the rest of this chapter:	you = the user of a BBS
In the Glossary:	you = a user or a Sysop
In all other chapters:	you = the Sysop of a BBS

The rest of this chapter is written with the user in mind.

INTRODUCTION FOR USERS

As a user, you may be calling into one or more BBSes that use The Major BBS software. For all of them, information in this chapter will come in handy.

The commands explained in this chapter are the ones that an ANSI user will need. If you are a RIP user (see page 299), you can follow along and work with either the RIP buttons noted on your screen or the ANSI commands. One exception is when the screen pauses during file display (see page 300), where a RIP user will have to use RIP keystrokes.

Remember, Sysops can customize just about anything to suit their needs and preferences. If they have purchased source licenses from us, they really can change anything. Any BBS you call can change any of the rules. This guide is a starting point.

Using The Major BBS

You may be connecting to The Major BBS via modem, serial port, packet switching network, or Local Area Network (LAN). Across all these mediums, the interface is virtually identical. You will start by entering your User-ID and password. This is called logging on. The first time you connect to a BBS, you have to sign up: the BBS asks you a few questions, and you pick a User-ID and password to use every time you call the BBS.

Here are some terms for the most basic aspects of using a BBS:

Connect:	Dial up the BBS with your computer, modem, and terminal emulation software, such as PROCOMM PLUS, Telix, or CROSSTALK
Sign up:	Connect to the BBS for the first time, answer a few questions, choose a User-ID and password, get online (page 296)
Log on:	Connect to the BBS, type in your User-ID and password, get online (page 301)
Log off:	End your online session, exit the TOP menu, disconnect from the BBS (page 303)

Recommended Terminal Settings

8-N-1	8 data bits, no parity, 1 stop bit
ANSI	Terminal emulation
Full duplex	Do not use half duplex
XON/XOFF = off	No software flow control
RTS/CTS = on	Enable hardware flow control
Auto-LF = off	Do not translate <*Enter*> into <*Enter*><*LF*>
BS = destructive	<*Backspace*> should erase what it moves over

Using Menus

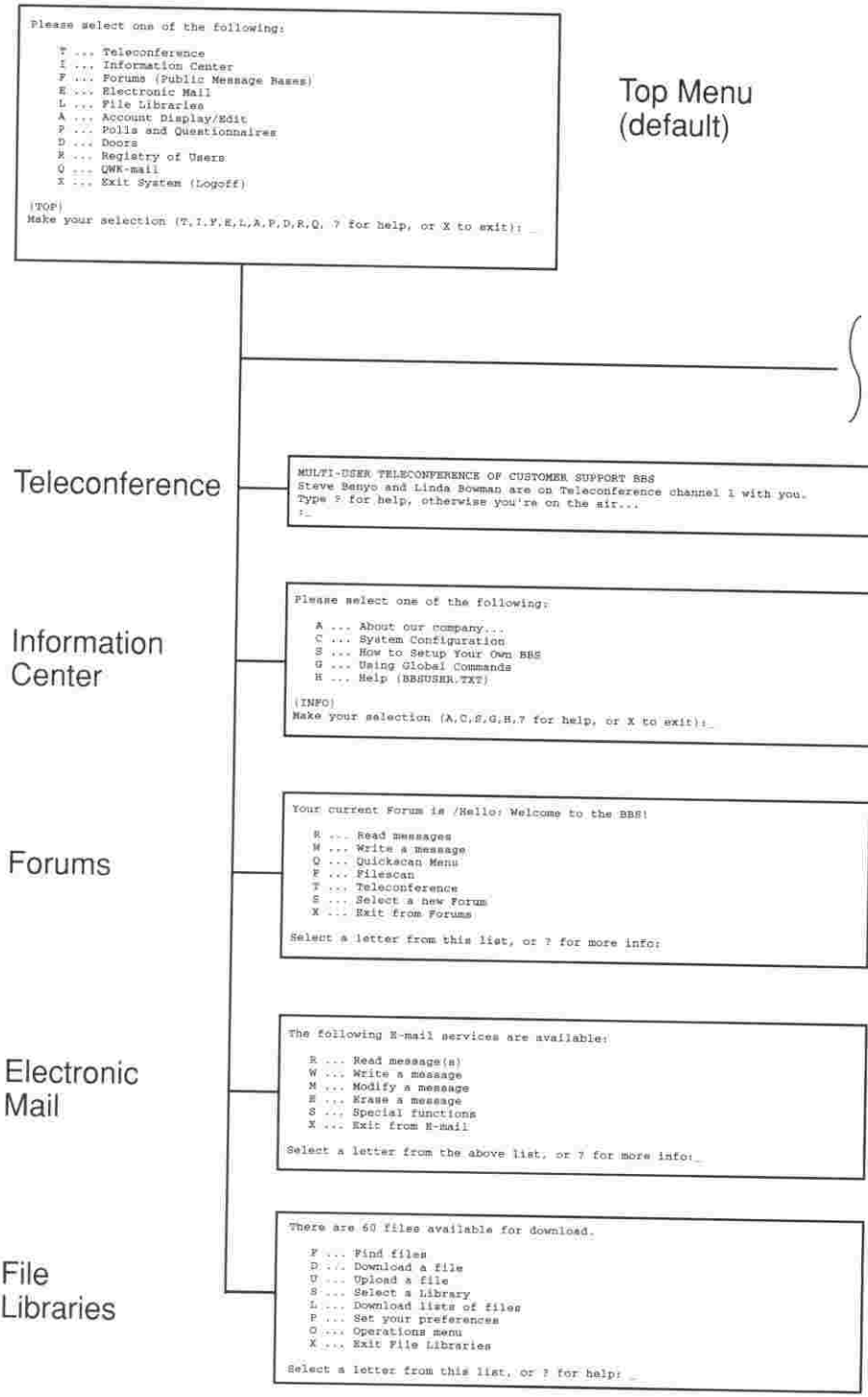
BBSes have customized menus with numerous options from which to choose. The figures on the next two pages show the menu structure that comes with The Major BBS right out of the box. If your Sysop changed anything, he's probably changed the way that the TOP menu and submenus look when you log onto the BBS.

There are a few commands you can almost always use at menu prompts:

X <*Enter*>	exit to the next higher menu
? <*Enter*>	redisplay the entire menu, or request help

Information Center

The information center is a place to find general information about the BBS. You may find information on the company or individuals who operate the BBS, why they operate it, how to contact them, and other details about the system.


Please select one of the following:
T ... Teleconference
I ... Information Center
F ... Forums (Public Message Bases)
E ... Electronic Mail
L ... File Libraries
A ... Account Display/Edit
P ... Polls and Questionnaires
D ... Doors
R ... Registry of Users
Q ... QWK-mail
X ... Exit System (Logoff)
(TOP)
Make your selection (T,I,F,E,L,A,P,D,R,Q, ? for help, or X to exit):
Top Menu (default)
Teleconference
MULTI-USER TELECONFERENCE OF CUSTOMER SUPPORT BBS
Steve Banyo and Linda Bowman are on Teleconference channel 1 with you.
Type ? for help, otherwise you're on the air...
:
Information Center
Please select one of the following:
A ... About our company...
C ... System Configuration
S ... How to Setup Your Own BBS
G ... Using Global Commands
H ... Help (BBSUSER.TXT)
(INFO)
Make your selection (A,C,S,G,H,? for help, or X to exit):
Forums
Your current Forum is /Hello: Welcome to the BBS!
R ... Read messages
W ... Write a message
Q ... Quickscan Menu
F ... Filescan
T ... Teleconference
S ... Select a new Forum
X ... Exit from Forums
Select a letter from this list, or ? for more info:
Electronic Mail
The following E-mail services are available:
R ... Read message(s)
W ... Write a message
M ... Modify a message
E ... Erase a message
S ... Special functions
X ... Exit from E-mail
Select a letter from the above list, or ? for more info:
File Libraries
There are 60 files available for download.
F ... Find files
D ... Download a file
U ... Upload a file
S ... Select a Library
L ... Download lists of files
P ... Set your preferences
O ... Operations menu
X ... Exit File Libraries
Select a letter from this list, or ? for help:

User Account Display/Edit

```
User-ID:  Jim DiNucci
Credits:  +715200

S => Display statistics on your account
A => Display or edit account information (address/phone/password)
T => Transfer credits to another user

Your choice (or 'X' to exit): _
```

Polls and Questionnaires

```
Please select from the following list of polls:

 #   Poll Name                 Description                                  Status
---  ------------------------------------------------------------------------------
 1   BBS                       Vote for your favorite BBS                    NEW
 2   CLAIM                     Insurance claim form                          NEW
 3   COMPANY PICNIC            Vote for your favorite site for '94           NEW
 4   EMPLOYEE OF THE YEAR      Vote for the most outstanding employee        NEW
 5   GENERAL                   General suggestion box                        NEW
 6   SERVICE                   Rate our service                              NEW
 7   SUGGEST                   Suggestions for product enhancements          NEW
 8   WINDOWS                   Survey on MS Windows                          NEW

Enter poll name or number, ? to redisplay, X to exit or RETURN for more: _
```

Doors

```
The following Doors services are available:

   E ... Enter a Door
   L ... List available Doors

   A ... Add a Door
   M ... Modify a Door
   D ... Delete a Door

   X ... Exit Doors

Select a letter from the above list, or X to exit: _
```

Registry of Users

```
The following Registry services are available:

   G ... General information
   D ... Directory of users in Registry
        ("DA" to start at the beginning)
   Y ... Edit YOUR entry
   L ... Look-up another user's entry
   X ... Exit from the Registry area

Select a letter from the above list: _
```

QWK-mail

```
Welcome to QWK-mail!

   D ... Download YOUR_ID.QWK packet
   U ... Upload YOUR_ID.REP packet
   A ... Attachment toggle (currently OFF)
   R ... Reset message pointers

Select your selection, ? for help, or X to exit: _
```

Logging Off

```
You are about to terminate
this telephone connection!

Are you sure (Y/N)? _
```

Global Commands

These commands are available from almost any BBS prompt:

/#	Get a list of the other users who are online now.
/GO *<page name>*	Jump to a specific service on the BBS.
FIND *<string>*	Find a menu or menu option with a certain word in it among menu short descriptions (available from the TOP menu).
/P *<User-ID>* *<message>*	Page a user who is online and give him a little message.
/P SYSOP *<message>*	Page the Sysop. If he's online, this command pages him like any other user. If he's not, your channel indicator will blink on the Sysop's console, and your message will appear there, too.
/R *<User-ID>*	Look up another user in the User Registry.
/RECENT	Show information on users who have recently been online, but have logged off. (Use /# to see who is still online.)

SIGNING UP ON THE MAJOR BBS

Many installations of The Major BBS allow you to call up with no advance notice and create your own account. Here's the first screen you'll see when you connect to the BBS with your modem:

```
Auto-sensing...

Please choose one of these languages/protocols:

   1 ... English/ANSI     The standard English language version
   2 ... English/RIP      The English version of RIPscrip graphics

Choose a number from 1 to 2:
```

When you have entered in your choice, the following message will appear:

```
            WELCOME!

Tri-City Commerce Dept. BBS (#93264522)
Running The Major BBS by GALACTICOMM
ONLINE 9600 BAUD AT 12:35 11/21/92

If you already have a User-ID on this
system, type it in and press RETURN.
Otherwise type "new": _
```

Just type new and *<Enter>* and the sign-up process begins.

If the BBS doesn't allow you to sign up over the modem, you may get a prompt like this:

```
            WELCOME!

Tri-City Commerce Dept. BBS (#93264522)
Running The Major BBS by GALACTICOMM
ONLINE 9600 BAUD AT 12:51 11/21/92

Please enter your User-ID: _
```

In that case you may have to use a different BBS number or call the Sysop by voice to find out how to sign up on this BBS.

If you can sign up online, you'll answer a few questions and then pick a User-ID and password. For example:


```
If you already have a User-ID on this
system, type it in and press RETURN.
Otherwise type "new": NEW

Welcome, newcomer!  You have logged on to the world's most
advanced multiuser bulletin board system, The Major BBS.

Before going into that, though, let's get acquainted.  If
you'll tell us a little bit about yourself, we'll create
an account for you that you can use anytime for "free
samples" of what we have to offer.  There will be certain
things you won't be able to do (like posting messages, etc.)
until you elect to become a full member of the board...
but you will have a chance to see if you like us first.

The following word may or may not be blinking: ANSI
Is it blinking (Y/N)? Y

Good!  Your answer has been used to control the ANSI
features of this system.  Now if you'll tell us a little
about yourself, we'll get under way.

Please enter your first and last name:

Jamie Winger

Now enter your company name, or just press RETURN if none:


Enter the first line of your address (your street address or P.O. Box):

123 Main Street

Enter the second line of your address (city, state, and ZIP):

Parkerville, NJ  11039

Enter the last line of your address (Country or <RETURN> for U.S.):

Now enter the telephone number where you can be reached during the day:

(201) 583-5990

We would also like to know what kind of system you are using, so that we can
serve you better.  Do you have...

     1. An IBM PC or compatible
     2. An Apple Macintosh
     3. An Apple other than Macintosh
     4. A Commodore Amiga
     5. An Atari, any model
     6. A Radio Shack unit, any model
     7. A CP/M system of any sort
     0. None of the above
Select a number from 0 to 7: 1

And if you don't mind us asking, what is your date of birth? 09/23/64
```

```
Are you male, or female? M

Now, you need to choose a "User-ID" for yourself.  Your User-ID will be your
"code name" on this system.  You will use it to identify yourself to the
system when you log on, and other users will know you by this name.  Your
User-ID can be 3 to 29 characters long (including letters, spaces, commas,
periods, and hyphens).  If you want it capitalized a certain way (for
example, "John McLean"), type it in just that way.  If you use all lower
case, or ALL UPPER CASE, the system will apply its own capitalization
standards.

Enter the User-ID you want to be known as: Jamie Winger

Here is a simulated message, showing how your User-ID will appear to other
users:

   From Jamie Winger: How does this run so many users at once?

Are you satisfied with your choice of User-ID (Y/N)? Y

OK, Jamie Winger, now you'll also need to select a password, so that
you can keep other people from using your account without your permission.
Make it short and memorable, but not obvious.  The security of your account
depends on nobody else knowing what your password is.

Enter the password you plan to use: ******
Please re-enter your password for verification: ******

Your account has now been created!

WRITE THIS INFORMATION DOWN, if you haven't already.  There will be nothing
anyone can do for you if you forget either one of these.  We don't give out
people's passwords by mail or over the phone, even if they "sound" totally
honest.  So if you forget your password, or give it out to someone who
shouldn't have it, you are "up the creek".  KEEP YOUR PASSWORD TO YOURSELF.

Press RETURN when you have written down your User-ID and password...

Welcome, then, to the San Diego Physician Referral BBS!

One moment, please...
***

Your account class has just been changed to "USER".

New time limit per call: Unlimited
 New time limit per day: Unlimited
  Credits now available: 1

If you have any questions, please leave E-mail to "Sysop".

There is new mail in your mailbox!

Do you want to see it now (Y/N)?
```

That new mail is a welcoming message from the Sysop, generated automatically. There's a file attached with brief instructions for using the BBS. If you answer YES, you'll read the message right away. If you answer NO, you'll get the prompt (N)onstop, (Q)uit, or (C)ontinue. Choosing C takes you to the TOP menu.

Note that when you enter your password, The Major BBS echoes asterisks. When you first sign up, you must enter your password twice for confirmation. Then whenever you log on, you can see how many characters of your password you've typed.

ANSI

ANSI refers to the American National Standards Institute standard X3.64-1979. It defines several codes based on ASCII for cursor positioning and screen control commands. By convention, it has also come to refer to special codes for colors on a terminal.

When you sign up on The Major BBS, the first question asks if a certain item on your screen is blinking or not. If it is, then your terminal probably supports all ANSI codes.

The BBS uses your terminal's ANSI capability in many ways: lots of prompts appear in color, with important parts highlighted; messages are displayed on a full screen as you write them, and you move the cursor around using your arrow keys; and more.

Using RIP

The Major BBS has built-in support for RIP*scrip*, a graphics standard for online applications based on the Remote Imaging Protocol developed by TeleGrafix Communications. By default, the language English/RIP is defined on the BBS.

To display RIP graphics on your terminal when you are logged into The Major BBS, you need to be running a RIP-compatible terminal program. One such program is RIP*term*, a freeware graphics terminal program that your Sysop can make available for download. Then with the click of a mouse button, you can make menu selections, scan your mail, compose messages, and much more.

Recommended, but not strictly required, for RIP*term*:

- Color monitor
- Mouse, 2 buttons
- Hard disk (RIP*term* installed occupies less than 2 MB)
- Extended (XMS) or expanded (EMS) memory (will improve performance)

Installing RIP*term*

Here's how to download and install RIP*term*:

1. Make a `\RIPTERM` directory on your hard disk.
2. Call into your favorite BBS that supports RIP*scrip*, using a standard ANSI terminal program like Telix or PROCOMM PLUS.
3. In the File Libraries, type `D RIPTMxxx.ZIP` to download the `RIPTMxxx.ZIP` file (where *xxx* stands for the current RIP*term* version number).
4. Download `RIPTMxxx.ZIP` into your `\RIPTERM` directory. If you don't have the `PKUNZIP` utility, download `PKUNZIP.EXE`, too.
5. Log off the BBS and change to the `\RIPTERM` directory.
6. Type `PKUNZIP -D RIPTMxxx` to extract the RIP*term* files.
7. Type `RIPTERM` to install RIP*term*.
8. Answer the questions about your modem.
9. Use <*Alt-O*> to bring up your modem settings and turn on RTS/CTS flow control. Then use <*Alt-V*> to save the settings.
10. Use the <*Alt-D*> dialing directory to dial up your favorite BBS again.
11. Log on and you'll be able to use the BBS in RIP*scrip* graphics mode.

If you are not a RIP*term* user, you may have to respond to this prompt when you log on:

```
Auto-sensing...

Please choose one of these languages:

   1. English/ANSI      The standard English language version
   2. English/RIP       The English version of RIPscrip graphics

Choose a number from 1 to 2: _
```

If you are a RIP*term* user, you'll always start your BBS session using a RIP language.

If you have previously registered a language preference, then you may get switched to that language as soon as you enter your User-ID and password, with a message like this:

```
Switching to your chosen language, German/RIP...
```

Otherwise, you will be asked to select a language during log on. You can register your language preference in two ways:

- Answer the sign-up question, "Which language/protocol would you prefer to use on this BBS?". If you see this question, you reply by choosing a language that is *not* already current (that hasn't been auto-selected or chosen already).
- Change your language preference from the Account Display/Edit menu, if the Sysop has given you access.

In addition, the Sysop can specify a language for you.

Screen Pause in RIP

When the BBS pauses the output, you'll see this message if you are a RIP user:

```
Click text area to continue, CTRL-X to quit, or CTRL-N for nonstop...
```

You will be able to click your mouse in the currently defined text window or hit <*Enter*> to continue to the next screen. You'll hit <*Ctrl-X*> to stop the output and return to the previous menu. Or you'll hit <*Ctrl-N*> to scroll without pausing.

User-IDs

A User-ID allows the BBS to recognize you when you call back. A password makes sure the BBS knows it's you, and not someone pretending to be you.

Most people use their name for a User-ID. User-IDs can be 3 to 29 characters long and include letters, numbers, and punctuation including period (.), space ( ), comma (,), dash (-), apostrophe (') and the underscore (_). You can't put punctuation at the beginning of a User-ID. Some systems may not allow digits or punctuation at all, or require that User-IDs be kept to a smaller maximum length. A BBS may also give you special instructions for selecting your User-ID. Some systems may also permit certain international characters from the Extended ASCII character set:

128 to 165 decimal	80 to A5 hexadecimal	(mostly west European characters)
224 to 239 decimal	E0 to EF hexadecimal	(mostly Greek characters)

Once you choose a User-ID, you can't change it without signing up all over again.

Sysop

On most systems, there's a special User-ID `Sysop` for the system operator to use. If you have questions or comments about the BBS, you may be able to leave E-mail to `Sysop`.

Capitalization

You can specify your own capitalization for a User-ID. But if you type your entire User-ID in one case, then the BBS will try to adjust things for you. Examples are:

What you specify for a User-ID:	What the BBS uses as your User-ID:
`STEVE BENYO`	`Steve Benyo`
`mr snyder`	`Mr Snyder`
`JANE DOE`	`Jane Doe`
`ronald q. mcdouglas`	`Ronald Q. Mcdouglas`
`Ronald Q. McDouglas`	`Ronald Q. McDouglas`

Passwords

It is important both to remember your password and to keep it secret. You may have your own ideas about how to accomplish these two things, but here are a few tips.

Don't use a password someone might guess within a dozen tries, like the name of a relative, or something in your work. Don't use your User-ID as a password. Make up a word that has a ring to it and then write it down in some remote safe place — that way you can rely on memory most of the time.

Combine two words or ideas into one, or take a familiar term and apply a twist. This combination of two things makes the likelihood of guessing the password extremely remote. But, it's also something you can easily remember. Here are some examples: `sunsprout`, `birdbrick`, `mobydisk`, `ragthyme` (but don't use any of these!).

If secrecy is particularly important, you should change your password regularly. This is especially true if you are the Sysop of a BBS, or a trusted Co-Sysop.

Changing Your Sign-up Information

You can change most of your sign-up answers, except your User-ID, from the Account Display/Edit service, if the BBS provides it (see page 371 for instructions).

LOGGING ON THE MAJOR BBS

Once you have a User-ID and password, you can log on at any time. You'll see something like:

```
Auto-sensing...

            WELCOME!

South Bedford School BBS (#04676863)
Running The Major BBS by GALACTICOMM
ONLINE 19200 BAUD AT 07:35 10/12/93
```

```
If you already have a User-ID on this
system, type it in and press RETURN.
Otherwise type "new": DAVE HASKELL

Enter your password:*****

Greetings, Dave Haskell, glad to see you back again.

You have +7195 credits!

There is new mail in your mailbox!

Do you want to read it now (Y/N)? N

By the way, you haven't filled out your Registry entry yet...
Just select R from the TOP menu to enter the Registry!

Please select one of the following:

T ... Teleconference
I ... Information Center
F ... Forums (Public Message Bases)
E ... Electronic Mail
L ... File Libraries
A ... Account Display/Edit
P ... Polls and Questionnaires
D ... Doors
R ... Registry of Users
Q ... QWK-mail
X ... Exit System (Logoff)

Main System Menu (TOP)
Make your selection (T,I,F,E,L,A,P,D,R,Q,? for help, or X to exit): _
```

The Auto-sensing step is where the BBS tries to figure out your terminal's display capability, such as ANSI or RIP. You may be asked at this point to select a language and terminal protocol.

Most BBSes show you a customized greeting when you connect. The one in the example has the BBS software registration number, your connection rate, and the time and date.

When you type in your password, the BBS doesn't echo your keystrokes. That way your password doesn't appear on your terminal where someone else might see it.

Here are some examples of the notices you could get after you log on:

```
You have +7195 credits!
```

Credits are used on some BBSes to track your connect time and to charge for it. This is your current balance.

```
There is new mail in your mailbox!
```

Some systems notify you when you log on that you have new mail waiting.

```
Do you want to read it now (Y/N)?
```

You may get the option to jump to E-mail and read the new messages right away.

```
By the way, you haven't filled
out your Registry entry yet...
```

The User Registry lists information about you that you make available to all other users on the BBS. (Sign-up information is usually available only to the Sysop and trusted staff.) See page 369.

LOGGING OFF THE MAJOR BBS

The convention on most bulletin boards is to use the X option from the TOP menu to exit the BBS and log off.

A few different things can happen at that point. If you have any tagged files, you get a chance to download them. There may be other log off activities. At the least, you'll get a confirmation request:

```
Make your selection (T,I,F,E,L,A,P,D,R,Q,? for help, or X to exit): X

You are about to terminate this telephone connection!
Are you sure (Y/N)? _
```

Choose Y to log off immediately. Choose N to return to the TOP menu. On some systems, you may get the chance to log on again under the same or a different User-ID:

```
You are about to terminate this telephone connection!
Are you sure (Y/N, or R to re-logon)? _
```

If you choose R, a session will begin all over again.

Downloading Tagged Files When You Log Off

If you have tagged files for download, you'll get the chance to download them before you log off. (See page 308 for more on downloading files.)

```
(TOP)
Make your selection (T,I,F,E,L,A,P,D,R,Q,? for help, or X to exit): X

Intercepting logoff!

You have tagged the following file(s):

   1. The file DOCUMENT.ZIP in the MAIN Library (575K, 46 minutes)
   2. The file PROGRAM.EXE in the MAIN Library (18K, 2 minutes)
   3. The file attached to message #39582 in /Support
   4. The file attached to message #39604 from Sam Jones

To begin downloading, choose:

   L ... Listing (a screen at a time)     Z ... ZMODEM
   A ... ASCII (continuous dump)          ZR... ZMODEM (resume after abort)
   B ... YMODEM Batch                     K ... Kermit
   G ... YMODEM-g

   (Add '!' to automatically log off when done)

  -1 to -4 or -ALL ... untag the files

Your choice ('X' to log off, or 'R' to return online): _
```

Here are some examples of what you might do at this point:

Z	download all files now using ZMODEM. Then you can log off.
Z!	download all files now using ZMODEM. Then you will be logged off automatically.
X	log off anyway without downloading the tagged files. The files won't be tagged if you log on again.

R	return online and forget about logging off for the moment. The files will remain tagged.

Automatic Log Off

Sometimes a BBS may automatically log you off. This may happen if:

- The system is shutting down for daily auto-cleanup (usually around 3:00 a.m.), or it is shutting down for some other scheduled process.
- The Sysop is manually shutting down the BBS.
- Your time is up, either for the day or for this call. Or on pay systems, you have run out of credits. In such cases, some systems log you off.
- You asked the BBS to log you off after a file upload or download, by sticking an exclamation point (!) on the end of the file transfer protocol.

In some cases, you'll get a warning; in others, you won't. A warning may come several minutes in advance and repeat every minute, urging you to log off voluntarily before the BBS forces you off.

```
Sorry to interrupt here, but the BBS will be shutting
down in 5 minutes.  Please finish up and log off...
```

In the following cases, you wouldn't see the warning:

- While uploading or downloading a file.
- While editing your account information.
- While modifying the descriptions and keywords of a file you uploaded.

ABOUT MESSAGES

Messages are used in Forums and in Electronic Mail.

Electronic Mail	=	private messages from one user to another (see page 340)
Forums	=	public messages written by different users, readable by many users (see page 321)

There is a lot of overlap between Electronic Mail and Forums. For example, when you write an E-mail message, you can send it privately to one user and send a carbon copy to a Forum, where it is public. You can reply privately to the author of a Forum message, and other users won't see that reply. Usually the best way to erase a message you wrote in a Forum is to use the E-mail `Read` command to find it and erase it.

Electronic messages consist of:

- Header
- Body
- File attached (optional)

The header contains such information as whom the message is to, whom it is from, what the topic is, and when it was written (see the Forum message header on page 325 and the E-mail message header on page 343).

Message Topic

Each time you write a new message, you need to give it a topic. When you reply to a message, you inherit the topic of the original message.

Threading and Routing History

Sometimes a brief history of a message's handling appears below the four-line header. Here are some examples of the kinds of information that can appear there:

`Reply to #20953`	This message was written by replying to message number 20953.
`Copy by Maria Natella`	Maria Natella copied this message to a user or to a Forum (she may still have a copy).
`Fw by CoSysop`	User `CoSysop` forwarded the message to a user or to a Forum (he no longer has the message).
`Auto-fwd from Bill McVey`	An E-mail message was written to Bill McVey, but he had auto-forwarding turned on, so it was rerouted to another user.
`cc: of #19553`	The message was a carbon-copy of another E-mail message.
`cc: of MHS`	The E-mail message was a carbon copy of one originally sent via MHS.

These may appear in a series, like this:

```
(Reply to #20953, Reply to #20810, Fw by CoSysop)
```

Newer information appears on the left. This string means that the message you are reading was a reply to #20953, which itself was a reply to #20810, which was forwarded by the user `CoSysop`.

This doesn't go on forever — an asterisk (*) indicates "there's more to this history, but we haven't retained it":

```
(Reply to #20980, Reply to #20953, Reply to #20810, Fw b*)
```

newer information added here

older information disappears here

Message Number

The BBS issues a new sequential message number each time anyone writes a message. Whether it is private E-mail or a message in some Forum, it has a unique message number on the BBS.

Message Body

You can compose the body of a message you are writing using the editor. You will get the Full Screen Editor if you have an ANSI-compatible terminal. Otherwise, you will use a line-oriented editor (see page 353 for more on the editors).

When you tell the BBS to "read" a message, you'll see a display of the message body on your terminal. When this happens, the BBS makes a note not to include that message the next time you scan for new messages.

Files Attached to Messages

When you write an E-mail or Forum message, you usually have the option of attaching a file, which you upload after writing the message. Then anyone who reads the message has the option of downloading the file (see page 308 for more about file transfers).

File Names

When you attach a file to a message, put the name of the file in the topic. You can put a description of the file after that. For example:

```
Topic: FONTCVT.EXE - converts printer fonts
```

The BBS will encourage this. Here's what might happen if you hadn't put a file name in the topic when you wrote the message:

```
Do you wish to "attach" a file to this message (Y/N)? Y

Do you want to name this file?

     Current topic: This program can be used to convert printer fonts.

If you answer "YES" and enter a topic that starts with a file name like
"FILENAME.EXT", then this file name can be used when downloading.
If you answer "NO", the downloaded file will be named "5941.ATT".

Do you want to reenter the topic field (Y/N)? _
```

If you answer no, the file will be called 5941.ATT whenever another user downloads it (5941 is the message number in this case).

```
Do you want to reenter the topic field (Y/N)? Y

New topic (file name and description): FONTCVT.EXE - converts printer fonts
```

This file name will be used when someone downloads with a multifile protocol such as ZMODEM. In this example, the file's name on the user's machine would be FONTCVT.EXE.

Tagging Attached Files for Download

You can tag a file for download using the T protocol. That way you don't have to stop what you're doing and download the file. You can accumulate several files and download them all at once. This is handy when scanning through your E-mail messages or scanning through a Forum.

To download the files you've tagged, you can use the File Libraries T command (see page 367) or try to log off the BBS. You'll get a choice of multifile download protocols to download all tagged files at once.

Modifying or Erasing a Message You Wrote

If you want to modify or erase a Forum message or an E-mail message you wrote, you can find it through the Electronic Mail menu. You can (R)ead all messages (F)rom you, and scan through them until you find the one you want to change. After reading your message, you'll get the chance to modify it:

```
The following E-mail services are available:

   R ... Read message(s)
   W ... Write a message
   M ... Modify a message
   E ... Erase a message
   S ... Special functions
   X ... Exit from E-mail

Select an option (R,W,M,E,S,X, or ? for more info): R

Read messages (F)rom you or (T)o you (? for help): F

Enter message number to start with, F for the
first message, L for the last, or ? for help.
(Just hit RETURN to start with message #109157): L

Date: Thursday, April 30, 1992   8:37am                    Electronic Mail
From: Cristina Rodolfo                                       Msg#: 109148
  To: Tom Gerhart
  Re: Sam's promotion

(N)ext, (P)revious, or (R)ead this message? P

Date: Wednesday, April 29, 1992   4:18pm                        /IntSales
From: Cristina Rodolfo                                       Msg#: 109033
  To: Stuart Blaumberg                                          *EXEMPT*
RTLE: ASIADIST.RPT - distribution network for Asia
      (Reply to #108782, Reply to #108623, Fw by Tom Gerhart)

(N)ext, (P)revious, or (R)ead this message? P

Date: Wednesday, April 29, 1992   2:11am                        /IntSales
From: Cristina Rodolfo                                       Msg#: 108934
  To: Stuart Blaumberg
  Re: Leads from the trade show in Taipei                     (2 replies)
      (Reply to #108710, Reply to #108212, Reply to #107989, R*)

(N)ext, (P)revious, or (R)ead this message? R

Stu,

     I agree, and I forgot to tell you that Sam discovered a new
supplier in Taipei that we could use for our plastics fabrication.
I think his name was Chen, but I'll check.

                                        Regards, Cris

(E)rase this message, (M)odify it, (P)revious or (N)ext message? M
```

At the end of this example, you'd go into the editor (the Full Screen Editor if you have ANSI, the Line Editor if you don't). To erase your message, pick the (E)rase option.

On the other hand, if you know the number of the message you want to modify or erase, just use the (M)odify or (E)rase command from the Electronic Mail menu. It will work on Forum messages you wrote as well as Electronic Mail.

ABOUT TRANSFERRING FILES

Transferring a file between your computer and the BBS is called uploading and downloading. You upload from your computer to the BBS. You download from the BBS to your computer.

There are two fundamentally different ways that files can be stored on The Major BBS:

- As attachments to Forum messages or Electronic Mail messages
- As files in the File Libraries

There's more about the Electronic Mail, Forums, and File Libraries services later in this chapter. You will see how files are stored by those services and ways to find files. This section introduces you to some of the general considerations of file transfers: what protocol to use, opportunities for more efficiency, and some common problems and solutions to transferring files.

There are some pretty technical discussions here. You may want to come back to this section when you need to understand file transfer protocols in depth. To get you started, here's a quick rundown on the most popular protocols and their highlights:

L = List	Display a text file, one screen at a time
C = XMODEM-CRC	Widely used, can transfer any file, binary or text
B = YMODEM Batch	Widely used and full featured, gets the file size right, and sometimes the date and time too
Z = ZMODEM	Robust and efficient
K = Kermit	Works on 7-bit communication lines

Download Protocols

```
L ... Listing (a screen at a time)
A ... ASCII (continuous dump)
M ... XMODEM-Checksum
C ... XMODEM-CRC
1 ... XMODEM-1K
B ... YMODEM Batch
T ... Tag file(s) for later download
G ... YMODEM-g
Z ... ZMODEM
ZR .. ZMODEM (resume after abort)
K ... Kermit / Super Kermit
V ... View compressed file contents

(Add '!' to automatically log off when done)
```

Upload Protocols

```
A ... ASCII
M ... XMODEM-Checksum
C ... XMODEM-CRC
1 ... XMODEM-1K
B ... YMODEM Batch
G ... YMODEM-g
Z ... ZMODEM
K ... Kermit / Super Kermit

(Add '!' to automatically log off when done)
```

L ... Listing (a Screen at a Time)

This protocol will display a text file to your screen 22 lines at a time. When a file is longer, it pauses every 22 lines with the message:

```
(N)onstop, (Q)uit, or (C)ontinue? _
```

(N)onstop	the rest of the file will come to your screen continuously, with no more pausing. (If you have an IPX Direct connection on a LAN, you might lose characters.)
(Q)uit	terminate this output and proceed to the next prompt.
(C)ontinue	continue with the next 22 lines.

You can change the number of lines that the BBS shows in between these pauses by calling up the Account Display/Edit service, if available. You also can make the output always continuous if you change `Pause output?` from `Pause` to `Continuous`. (Then an `L` protocol download would act just like an `A` protocol download.)

If you are a RIP user, when the screen pauses you will see the message `Click text area to continue, CTRL-X to quit, CTRL-N for nonstop`. You can do any of the following:

Click the text area or hit	
<*Enter*> or <*backspace*>	continue with the next 22 lines
<*Ctrl-X*>	terminate the output and proceed to the next prompt.
<*Ctrl-N*>	the rest of the file will come to your screen continuously, with no more pausing.

A ... ASCII Download (Continuous Dump)

This is the simplest protocol of all, where ASCII information is dumped to your screen continuously, as fast as the communication channels can take it. On IPX Direct Channels, some data may be lost from large files.

A ... ASCII Upload

This is the simplest upload method. The BBS just writes to the file whatever it receives. You can type in the lines of the file, one at a time, or you can instruct your terminal software to upload an ASCII file.

When done, enter a single line with only the word `OK` on it. This tells the BBS that ASCII upload is over.

ASCII Upload Pause Between Lines

ASCII-file uploads may require a slight delay between lines. This will avoid character loss with some modems. Most terminal programs have a way of adjusting the amount of pacing — time to pause after sending each carriage-return character.

M ... XMODEM-Checksum

This is one of the earliest and most widely used file transfer protocols for microcomputers. It can transmit any file of 8-bit bytes. XMODEM can detect transmission errors and correct them by retransmitting.

The size of a file transferred by XMODEM is always a multiple of 128 bytes. That's because XMODEM transmits a file in blocks of 128 characters and has no way of conveying the actual amount of data in the last block. If you download a file off the BBS using XMODEM, the unused portion of the last block will contain ASCII EOF characters (1A hexadecimal).

C ... XMODEM-CRC

This variation of XMODEM-Checksum uses a more secure 2-byte cyclic redundancy check instead of a simple 1-byte checksum. With this protocol, it is less likely that random line noise will be mistaken for good data (about 0.001% versus 0.4%).

1 ... XMODEM-1K

This variation of XMODEM-CRC uses 1,024-byte blocks instead of 128-byte blocks. On channels with little or no line noise, this can increase efficiency. That's mainly due to the turnaround delays associated with XMODEM (send a block, wait for acknowledge, send another block, wait for acknowledge). These delays occur less often when you're sending 1,024 bytes at a time. Some interfaces, particularly packet-switching networks, have very long turn-around delays.

On channels with high line noise, the smaller blocks of 128-byte XMODEM may be more efficient.

The size of files downloaded with XMODEM-1K may be a multiple of 128 bytes, not 1,024, because the final bytes of the file may be transmitted in 128-byte blocks.

B ... YMODEM Batch

This protocol takes the best enhancements of XMODEM and adds some significant improvements:

- Multiple files in one transfer session
- File names are communicated
- Exact file sizes are communicated
- The file's modification time and date are communicated

Not all these features are used in every case. Electronic Mail and Forum attachments still must be transferred one file at a time. It is also up to you to put the file name into the topic field when you are uploading message attachments.

G ... YMODEM-g

This protocol assumes there is zero probability of transmission errors and transmits an entire file without stopping to wait for acknowledgement of each 1,024-byte block. If there are transmission errors, the receiving party will detect them, and the session will end immediately.

Z ... ZMODEM

ZMODEM is a complex protocol that attempts to meet diverse data communications requirements. Compared to YMODEM-Batch, ZMODEM offers these benefits:

- Streaming protocol — will transmit blocks nonstop; yet will detect and recover from transmission errors.
- Can recover an aborted download or upload, picking up where it left off in a later file transfer session.
- More tolerant of the idiosyncrasies of some packet-switching networks.
- Can selectively transfer files based on whether the receiver has the files already, or on whether they are newer or bigger.

Technical note – ZMODEM Window Size

ZMODEM is a streaming protocol that usually defaults to infinite window size. This means that transmission will continue nonstop unless the receiver reports an error. A 2,048-byte window size means that the transmitter expects periodic acknowledgement from the receiver (every quarter-window = 512 bytes). The transmitter may hold up transmission, if necessary, to stay no more than 2,048 bytes ahead of those acknowledgements.

For ZMODEM uploads you may get the best results, and avoid retries and aborted transfers, if you set the window size in your terminal emulation software to a finite value such as 2,048 (0 usually represents infinite window size).

K ... Kermit

Kermit, developed at Columbia University for mainframe-to-microcomputer communications, has been implemented on a wide variety of computers. Kermit has these special features:

- Streaming protocol with sliding windows. Error recovery specifically targets the bad packets and does not retry good packets that were received later than the bad one.
- Can operate over 7-bit communication channels, with or without byte parity. This is especially useful on some packet-switching networks that don't have 8-bit capability.

V ... View compressed file contents

This protocol allows you to view the contents of a compressed file. A compressed file can contain many files in one and takes up much less space than the original files. A special program that you run on your computer can uncombine and uncompress the files, restoring them to their original condition. Sometimes, one program does the actual combining and compression, while another does the opposite.

The following compressed file formats are supported:

File Extension	Program	Author/Owner
ZIP	PKZIP/PKUNZIP	PKWARE, Inc., Glendale, Wis.
ARC	ARC	System Enhancement Associates, Wayne, N.J.
ARC	PKPAK/PKUNPAK	PKWARE, Inc., Glendale, Wis.
LZH	LHARC	Haruyasu Yoshizaki
ZOO	ZOO/OOZ	Rahul Dhesi
EXE	PKZIP/PKUNZIP	PKWARE, Inc. (self-extracting ZIP file)
EXE	PKPAK/PKUNPAK	PKWARE, Inc. (self-extracting PAK file)

Here's an example of viewing a compressed file using the V download protocol.

```
  L ... Listing (a screen at a time)      G ... YMODEM-g
  A ... ASCII (continuous dump)           Z ... ZMODEM
  M ... XMODEM-Checksum                   ZR .. ZMODEM (resume after abort)
  C ... XMODEM-CRC                        K ... Kermit / Super Kermit
  1 ... XMODEM-1K                         V ... View compressed file
  B ... YMODEM Batch
  T ... Tag file(s) for later download

Choose a download option (or 'X' to exit): V

 Length   Method    Size  Ratio   Date    Time     CRC      Name
 ------   ------   ------ -----   ----    ----    ------    ----
  73372   Implode   41105  44%  09/21/91  04:31  18fd534a  CABATTN.EXE
   2012   Implode     349  83%  10/20/91  20:14  b6e34af7  ATLANTIC.DAT
   2012   Implode     349  83%  10/20/91  20:20  c516df08  PACIFIC.DAT
   2012   Implode     349  83%  10/20/91  20:24  d9f92d69  TASMAN.DAT
   2012   Implode     349  83%  10/20/91  20:26  0700687f  CORAL.DAT
  12619   Implode    3374  74%  01/18/92  17:35  31bc6728  CABATTN.DOC

Download this ZIP file? _
```

Notice that the download option V ... View compressed file appears. This option only appears when you're attempting to download a compressed file. As you can see, after viewing the contents you get a chance to really download the file (transfer it to your computer).

T ... Tag file(s) for Later Download

When you use the T download protocol you are saying: "I want to download this file, but not right now. Return to the menu so I can enter more commands before I download."

You can usually tag up to 50 file specifications on a BBS and download them all at once. A file specification can be a single file, such as a file attached to an E-mail or Forum message. In the File Libraries, a file specification can be a single file or a wildcard specification of several files, as in *.TXT, representing all files with a .TXT extension.

When you log off, you get a chance to download all the files you have tagged. You have to use one of the multifile protocols at that point, such as ZMODEM, Kermit, or YMODEM-Batch.

If you want to download your tagged files, but don't want to log off, you can just act like you are logging off. When the file transferring is done, answer NO to the confirmation question and return online (see page 303 about downloading files when you log off).

! ... Automatically Logging Off When Done

You can add this suffix onto the end of most file transfer protocol codes to cause the BBS to automatically log you off when the transfer is complete. This is handy when the transfer is very long and you are off doing other things. You do not want expensive connect charges or long distance charges to mount up after the transfer completes.

Data Compression and Error Correction

Many modems can compress the data that flows between your terminal and the BBS, and they do it transparently. Under certain conditions, file transfers can be far more productive when the modems are in a data compression mode.

But data compression has its drawbacks. With XMODEM or YMODEM or other non-streaming protocols, data compression and error correction may actually slow the transfer down. This is because the turn-around delay is longer — while the modem tries to figure out how to packetize the data and how best to compress it. Especially at higher baud rates, any time saved transferring each block is lost while the sender waits for acknowledgement.

The turn-around delays can also make typing on the BBS appear less responsive. Little delays between when you type a keystroke and when the character is echoed back on your screen can be annoying, and make speedy typists halt and stutter.

Here are the conditions under which data compression might help you:

- Uploading or downloading large files
- Using a streaming protocol, such as ZMODEM, Kermit, or YMODEM-g
- Downloading files that aren't compressed already, such as text files or executable files.

Notice that all three of these conditions have to apply for you to benefit from compression. Transferring small files? You won't notice a difference. Using XMODEM? It may be slower with compression. Downloading a `.ZIP` file? It's already compressed and may take longer to download if the modem is trying to compress the information further.

Still, compression can be very handy in the right conditions. More and more BBSes are using modems with compression to increase the efficiency of transferring very large files. You can get file transfers several times as productive as they would be without compression.

Whether to use data compression is up to the Sysop of your BBS — and to you, too. Even if the Sysop enables compression on his modems, you can usually disable it on your modem and make a connection without it. (Some modems have the ability to exclude noncompression calls, but few BBSes would use a feature like that. Most BBSes that support compression will automatically fall back to a session without compression if that's all the calling modem will support.)

Hardware Handshaking / Flow Control

Hardware handshaking makes one device able to transmit to another at a rate no faster than the other device can handle.

Data compression will require this on both ends of the link — between BBS and modem, and between terminal computer and modem. And at either end, both the computer and the modem have to be configured to use the RTS and CTS signals:

- BBS computer has to generate RTS and handle CTS
- BBS modem has to handle RTS and generate CTS
- Terminal modem has to handle RTS and generate CTS
- Terminal computer has to generate RTS and handle CTS

There are eight separate functions here, but it is not as difficult as it sounds. The BBS always supports RTS/CTS. Most modems can be told to support RTS/CTS with the proper commands in their setup strings. The BBS should take care of its modem with the initialization string. You need to take care of the terminal end by sending the right command to the modem, and by telling your communications software to support RTS/CTS.

Always turn off software flow control (XON/XOFF) unless you are using RIP, in which case leave it on.

Setting the Terminal Modem

The `AT` command to turn on RTS/CTS handshaking is usually `&K3` or `\Q3`. It can be something else, so check your modem manual to be sure.

Setting the Terminal Communications Software

Here are some examples of communication program settings to use:

Telix:
```
XON/XOFF software flow control ... Off
CTS/RTS hardware flow control ... On
```

PROCOMM PLUS:
```
software flow control (XON/XOFF) ... OFF
hardware flow control (RTS/CTS) ... ON
```

Technical Description of RTS and CTS Usage

The de facto standard is often called RTS/CTS. This term is a little tricky because these signals aren't used the way that the EIA-232-C specification defines them.

Signal	Direction	What the signal means when it's ON	What the signal means when it's OFF
CTS	modem-to-computer	It is OK for the computer to send more data. The modem is ready for it.	The computer shouldn't send any more data right now. The modem can't handle it.
RTS	computer-to-modem	It is OK for the modem to send more data now. The computer is ready for it.	The modem shouldn't send any more data right now. The computer can't handle it.

It is easy to see how CTS stands for clear to send. But RTS as request to send does not quite fit. Under EIA-232-C, RTS has a function associated with the sending of data over the phone lines. But the de facto standard with modems has RTS performing a function more like clear to receive. It is really just the mirror image of CTS.

TELECONFERENCE

Teleconferencing is like a conference room where people gather to present and exchange information or to chat socially. The multichannel feature makes it like a vast building of conference rooms. There are so many channels, 65,535 in fact, that you can have some privacy if you wish.

Teleconferencing simply allows several users to converse with one another over their terminals. When you type something, that message goes out to all the other users in the same Teleconference channel, telling them what you typed.

The cost of this type of teleconference is far less than that of presently available video teleconferences, or that of assembling all participants from across the country in the same room. So BBS teleconferences can be held more often.

The following are the advantages of computer teleconferences over voice teleconferences:

- Many more people can participate.
- No fading away of your voice when too many people are online.
- Each participant can capture a complete transcript of the entire conference.
- Information doesn't get lost when more than one person is speaking.
- You can exchange private "whispered" messages with other users.

The following are the disadvantages of computer teleconferences over voice teleconferences:

- Terminals are not yet as widely available as telephones.
- People cannot type as fast as they can talk — nor can they communicate as much.

In practice, teleconferencing operates like a citizens band radio, but with more features (see the example on page 320). When you first enter the Teleconference, you tune in to channel 1. Right away you get an announcement listing all the other users who are on that channel. If you want to confer with one user in particular or with a small group of users, you can suggest to them that they switch to some other channel — say, 22. While you're on channel 22, you can summon other users with the paging feature. If you exit the Teleconference and come back without logging off, you'll be on the same channel.

Teleconference channels have nothing to do with the communication channels that you use for your session on the BBS. Teleconference channels are just a method of keeping track of who is talking to whom.

There is also a Teleconference channel for each Forum (see page 324). The lower Teleconference channel numbers are reserved for Forum usage, one channel per Forum.

Teleconference Commands

In the Teleconference, you get a colon (:) for a prompt. When you type a message and hit *<Enter>*, that message is broadcast to all other users on the same Teleconference channel. Here are some details on the Teleconference commands:

<Enter>

Just hitting *<Enter>* tells you who else is on your Teleconference channel, listing their User-IDs.

WHISPER TO *<User-ID>: <message>*

Send a private message to just one other user. No one else on your channel will even know this is happening, much less know what you say in the message.

You can abbreviate the other party's User-ID if you make sure you use enough letters to clearly refer to only one user.

Normally you don't need to use a colon between the User-ID and the message. If there are two users in the Teleconference with the same first name, and you want to whisper to one of them, you'll need to use the colon. That's because you'll need to use the first name and part of the last name to be specific about who you're whispering to. Because there is a space between the names, it is too uncertain to use a space to separate the name and the message — use a colon.

For example, suppose that Jane Miller and Jane Dreyer were on the same Teleconference channel with you.

`:WHISPER TO JANE HELLO JANE`	wrong — ambiguous, and no colon
`:WHISPER TO JANE DREYER HELLO JANE`	wrong — still no colon
`:WHISPER TO JANE: HELLO JANE`	wrong — ambiguous
`:WHISPER TO JANE D: HELLO JANE`	right

/ *<User-ID>: <message>*

This is the shorthand form of the whisper command. (No space is required between the slash and User-ID.) For example:

```
:/JANE D: HELLO JANE
```

CHANNEL *<number>*

Switch to another channel.

CHANNEL

Show your current channel number.

SCAN

Show a directory of the other users in Teleconference, and if they are listed, what channels they are using. An example of the SCAN command:

```
:SCAN
USER-ID                          ..... CHANNEL ... TOPIC
-------------------------------------------------------
Betty                            ...    44
Judy Fisher                      ...    44
Farley Dietz                     ...  (Chat)
Wilma                            ...    44        Gossip
Bilbao                           ...  (Chat)
Fred                             ... (Unlisted)
Barney                           ... (Unlisted)
```

The lower numbered channels are reserved for the Forums. Channel 1, the Main channel, never has a topic. Forum channels have Forum topics. Non-Forum channels show a topic picked by a moderator of the channel, if any. In the above example, Wilma is moderating channel 44 with a topic of Gossip. Farley and Bilbao are in the Teleconference chat mode (discussed further on). Fred and Barney are on some other channel, with the display of their channel number turned off (probably the same channel, but we can't be sure).

UNLIST

This prevents your Teleconference channel number from being seen by others when they scan the Teleconference. Your channel number is always visible when you are on channel 1 or a Forum channel, however. When you first enter the Teleconference after logging on, you are unlisted on all channels but channel 1 and the Forum channels.

LIST

This allows your Teleconference channel number to be seen by others when they scan the Teleconference.

PAGE *<User-ID>:<message>*

This will send a message to another user who is currently logged onto the BBS. If you include an optional message, that will also be sent to the user in addition to the standard announcement shown below. The same rule pertaining to the use of the colon applies to this command. Usually, you can't page a user more often than once every two minutes. You can disable others' ability to page you with PAGE OFF. If your page doesn't get through for any reason, you'll be told about it. Paging the Sysop user when he's not online causes your indicator on the main console to blink.

Here's what a page might look like on the other user's terminal:

```
***<BEEP>

Wilma is paging you from Teleconference channel 1!
```

PAGE OFF

This prevents other users from paging you or from requesting you to chat (see the CHAT command, below).

PAGE ON

Now other users can page you again, but no more often than once every two minutes.

PAGE OK

Now you can receive pages or chat requests as often as people care to issue them.

CHAT *<User-ID>*

This command allows two users to enter chat mode where they can converse directly with one another. In chat mode, each keystroke from one user is immediately echoed to both users.

To begin chat mode, both users must consent. If you are requesting the other user to join you in chat mode, he gets a notice that asks him to also enter the same CHAT command with your User-ID, agreeing to join you in chat.

The following is an example of two users entering and exiting Teleconference chat mode (bold face type indicates each user's own keystrokes).

Wilma's Screen

```
:chat betty
Ok, Betty has been notified of
your request to chat

:***
Betty has accepted your request
to chat!
TELECONFERENCE CHAT ACTIVATED.
Type 'X' on a blank line to
exit.

hi betty, how are you?
Fine thanks, Wilma, and you?
Oh, I'm fine.
SSaayy WBieltmtay
Say Betty, have you seen Fred?
I was just going to ask you
about Barney.
Those two are up to something!
Don't you know it!
x
...Okay, exiting chat...
:
```

Betty's Screen

```
<BEEP> Wilma is requesting
you join her in chat! Type
"chat Wilma" within the next
two minutes to accept.
:chat Wilma

TELECONFERENCE CHAT ACTIVATED.
Type 'X' on a blank line to
exit.

hi betty, how are you?
Fine thanks, Wilma, and you?
Oh, I'm fine.
SSaayy WBieltmtay
Say Betty, have you seen Fred?
I was just going to ask you
about Barney.
Those two are up to something!
Don't you know it!
x
...Okay, exiting chat...
:
```

Notice how they both typed at the same time at one point. Either user can enter X to exit chat mode.

MODERATE *<topic>*

If you have moderating capability, type this command to set the topic for the channel and make yourself the moderator. As the moderator, you have the following privileges:

- Setting the topic for the channel
- Squelching (silencing) other users on the channel

- Unsquelching other users on the channel
- Appointing another moderator for the channel

Forum channels have fixed Forum topics and can't be moderated.

As a moderator, you can change the topic by just typing in the MODERATE command with the new topic. If you type MODERATE with no topic then suddenly no one is the moderator of that channel. You also give up moderating if you log off, but not if you remain online.

APPOINT *<User-ID>*

When you are the moderator, you can make someone else the moderator with this command.

SQUELCH *<User-ID>*

As moderator, you can silence any other user on the Teleconference by squelching him. Then that user cannot talk on the channel till either you unsquelch him or he logs off and on again.

UNSQUELCH *<User-ID>*

Permit a squelched user to speak again with this command.

EXIT or X

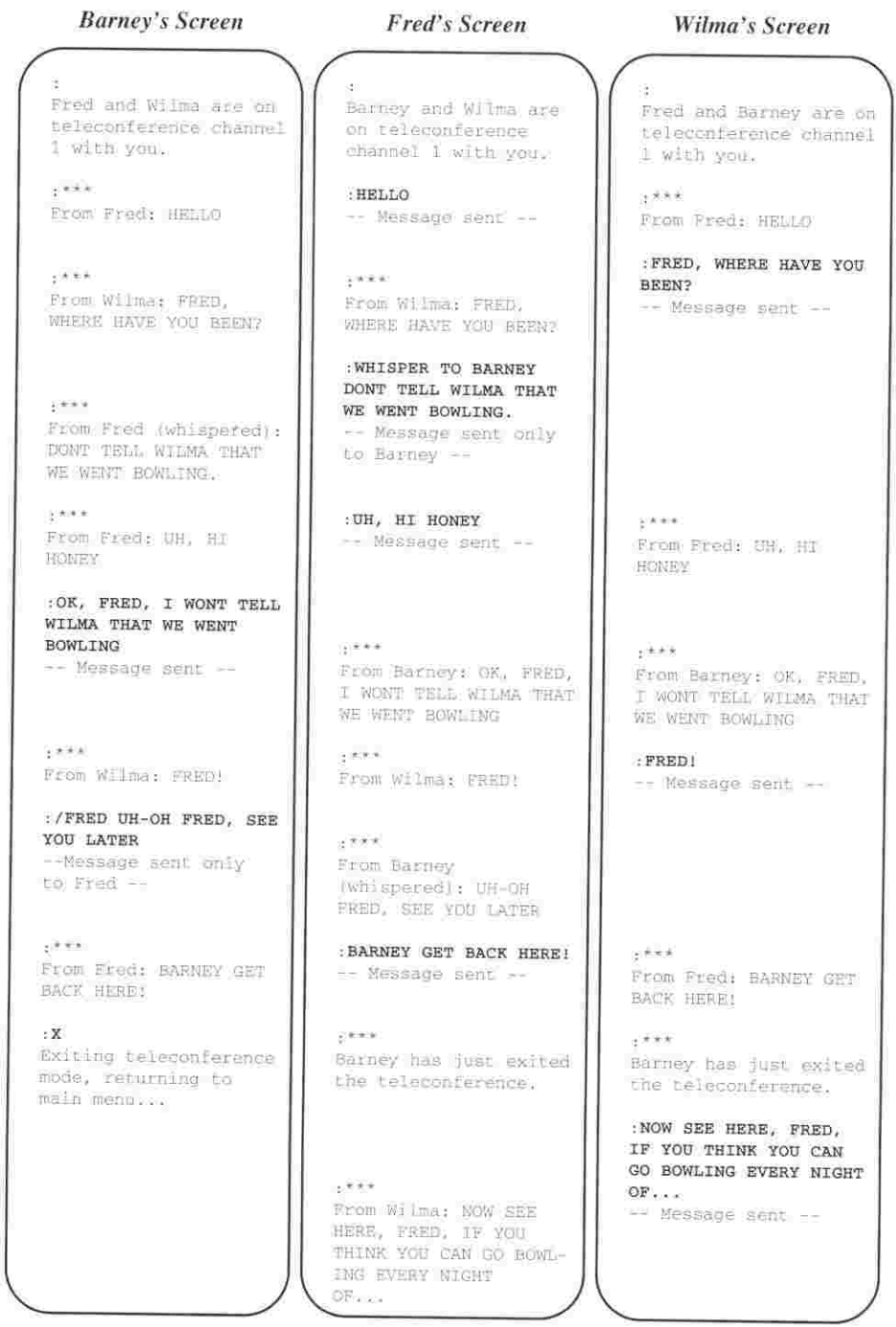
This takes you out of the Teleconference.

<message>

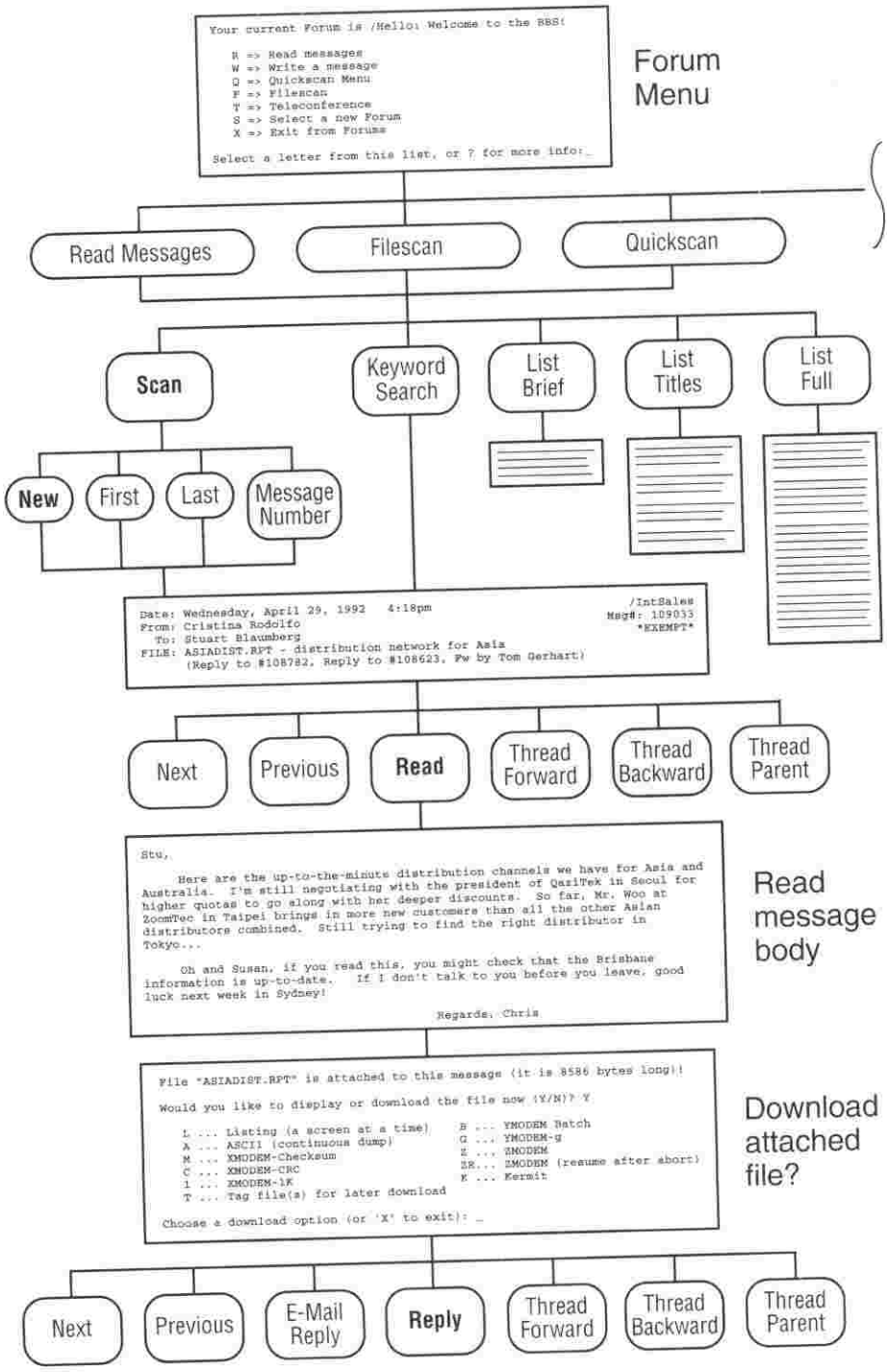
Anything you type that doesn't fit any of the above formats is treated as a message to all other users on the same Teleconference channel.

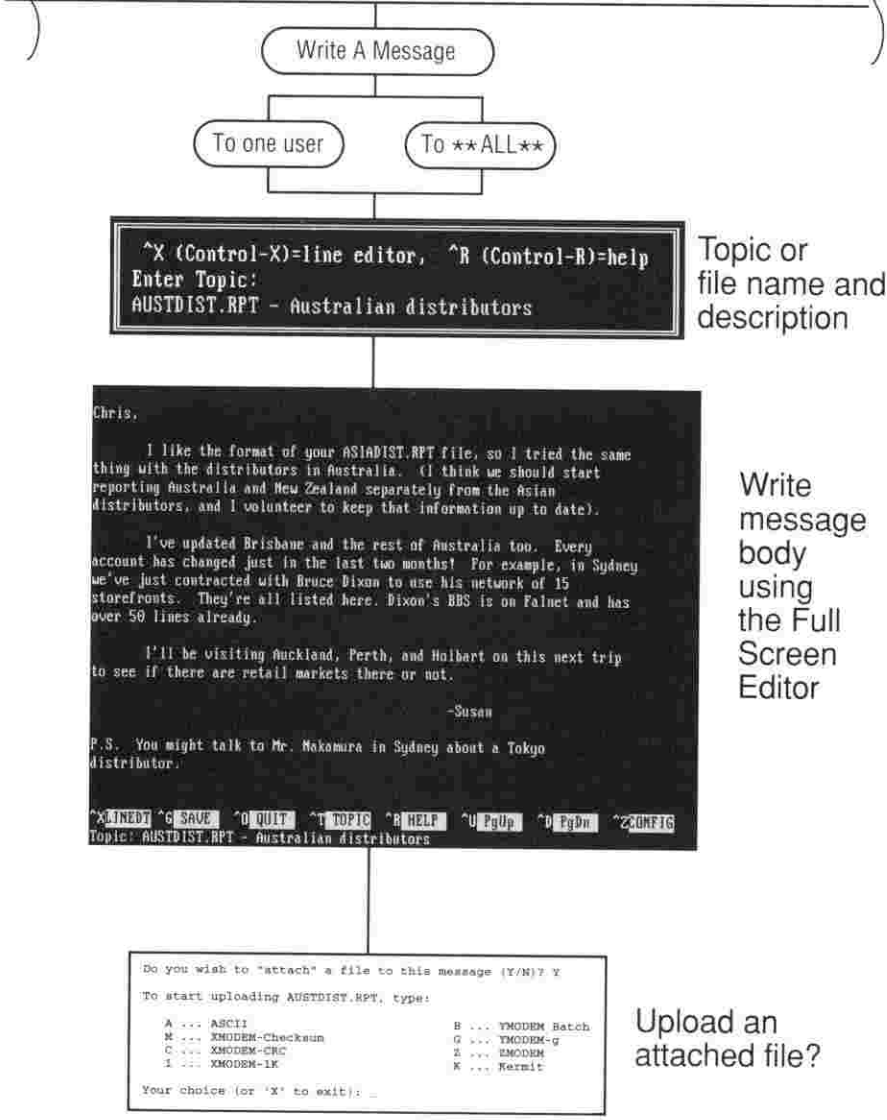
Some users may be restricted to sending only ten messages in any session.

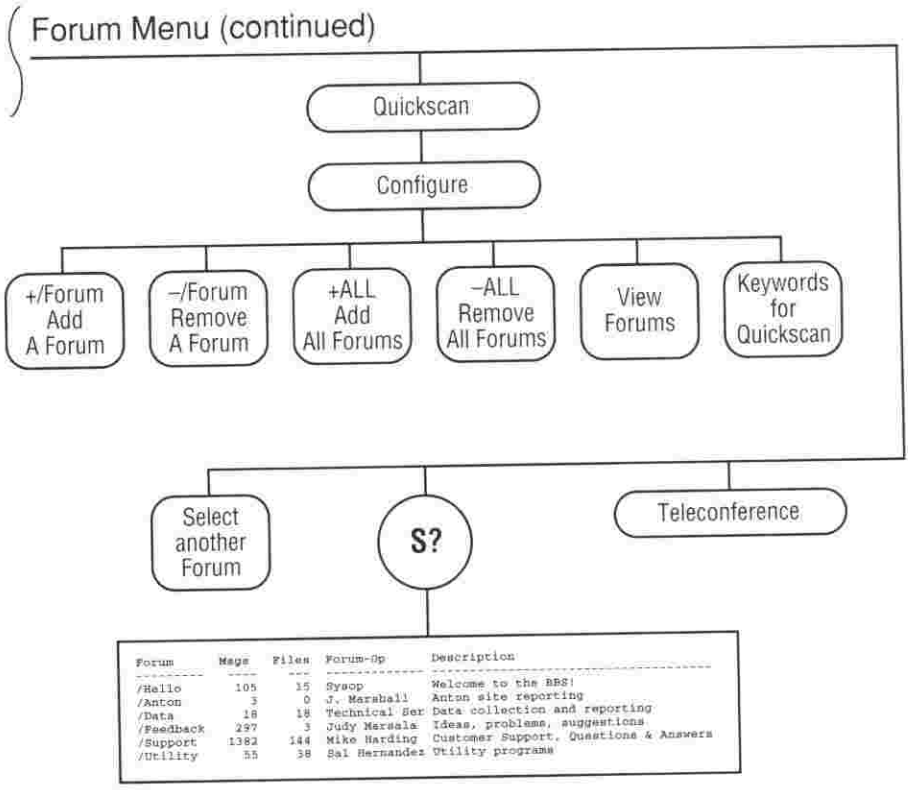
The figure on the next page is a sample Teleconference session for three users. Prompts and messages from The Major BBS are in regular type, and what each user types is in boldface.



Sample Teleconference Session


Your current Forum is /Hello: Welcome to the BBS!
R => Read messages
W => Write a message
Q => Quickscan Menu
F => Filescan
T => Teleconference
S => Select a new Forum
X => Exit from Forums
Select a letter from this list, or ? for more info:_
Forum Menu
Read Messages
Filescan
Quickscan
Scan
Keyword Search
List Brief
List Titles
List Full
New
First
Last
Message Number
Date: Wednesday, April 29, 1992 4:18pm
From: Cristina Rodolfo
To: Stuart Blaumberg
FILE: ASIADIST.RPT - distribution network for Asia
(Reply to #108782, Reply to #108623, Fw by Tom Gerhart)
/IntSales
Msg#: 109033
EXEMPT
Next
Previous
Read
Thread Forward
Thread Backward
Thread Parent
Stu,
Here are the up-to-the-minute distribution channels we have for Asia and Australia. I'm still negotiating with the president of QaziTek in Seoul for higher quotas to go along with her deeper discounts. So far, Mr. Woo at ZoomTec in Taipei brings in more new customers than all the other Asian distributors combined. Still trying to find the right distributor in Tokyo...
Oh and Susan, if you read this, you might check that the Brisbane information is up-to-date. If I don't talk to you before you leave, good luck next week in Sydney!
Regards, Chris
Read message body
File "ASIADIST.RPT" is attached to this message (it is 8586 bytes long)!
Would you like to display or download the file now (Y/N)? Y
L ... Listing (a screen at a time)
A ... ASCII (continuous dump)
M ... XMODEM-Checksum
C ... XMODEM-CRC
1 ... XMODEM-1K
T ... Tag file(s) for later download
B ... YMODEM Batch
G ... YMODEM-g
Z ... ZMODEM
ZR... ZMODEM (resume after abort)
K ... Kermit
Choose a download option (or 'X' to exit): _
Download attached file?
Next
Previous
E-Mail Reply
Reply
Thread Forward
Thread Backward
Thread Parent


Write A Message
To one user
To **ALL**
^X (Control-X)=line editor, ^R (Control-R)=help
Enter Topic:
AUSTDIST.RPT - Australian distributors
Topic or file name and description
Chris,
I like the format of your ASIADIST.RPT file, so I tried the same thing with the distributors in Australia. (I think we should start reporting Australia and New Zealand separately from the Asian distributors, and I volunteer to keep that information up to date).
I've updated Brisbane and the rest of Australia too. Every account has changed just in the last two months! For example, in Sydney we've just contracted with Bruce Dixon to use his network of 15 storefronts. They're all listed here. Dixon's BBS is on Falnet and has over 50 lines already.
I'll be visiting Auckland, Perth, and Holbart on this next trip to see if there are retail markets there or not.
-Susan
P.S. You might talk to Mr. Makamura in Sydney about a Tokyo distributor.
^X LINEDT ^G SAVE ^Q QUIT ^T TOPIC ^R HELP ^U PgUp ^D PgDn ^Z CONFIG
Topic: AUSTDIST.RPT - Australian distributors
Write message body using the Full Screen Editor
Do you wish to "attach" a file to this message (Y/N)? Y
To start uploading AUSTDIST.RPT, type:
A ... ASCII
M ... XMODEM-Checksum
C ... XMODEM-CRC
1 ... XMODEM-1K
B ... YMODEM Batch
G ... YMODEM-g
Z ... ZMODEM
K ... Kermit
Your choice (or 'X' to exit):
Upload an attached file?



List of Forums

FORUMS

Forums are for gathering people and information.

Bulletin boards have many features that compare in interesting ways with things we are all used to. A post office delivers mail to your door — bulletin boards do it electronically. A newspaper conveys a large amount of very timely information — bulletin boards can convey more information faster, but not to as many people (yet). A phone book can help you contact anyone in a city — a bulletin board type of service could offer more versatile access to more timely information (it is already being done in France).

But there's nothing quite like a BBS Forum. Forums can be:

- A conference in-session all the time;
- A collection of the contributions of many people;
- Of benefit to many people;
- Geographically unlimited.

In a Forum, lots of people write messages and lots of people read or search or scan messages. You can direct a message to all users or to a specific user. You can search for messages in many ways: chronologically, by topic, by conversation threads, by message content, by lists of keywords, or by the unique message number. You also can search in the same ways for only those messages with files attached. There are other features we'll get to later.

Here's the Forums menu:

```
Your current Forum is /Hello: Welcome to the BBS!

     R ... Read messages
     W ... Write a message
     Q ... Quickscan Menu
     F ... Filescan
     T ... Teleconference
     S ... Select a new Forum
     X ... Exit from Forums

   Select a letter from this list, or ? for more info: _
```

When you first log on you'll probably be in a welcoming or introductory Forum like this `/Hello` Forum.

S? = See a list of Forums

Before you do anything else, you'll probably want to see what Forums are online:

```
Your current Forum is /Hello: Welcome to the BBS!

   R ... Read messages
   W ... Write a message
   Q ... Quickscan Menu
   F ... Filescan
   T ... Teleconference
   S ... Select a new Forum
   X ... Exit from Forums

Select a letter from this list, or ? for more info: S?
```

```
Forum       Msgs   Files   Forum-Op        Description
/Hello       105      15   Sysop           Welcome to the BBS!
/Data         18      18   Technical Ser   Data collection and reporting
/Feedback    297       3   Judy Marsala    Ideas, problems, suggestions
/Support    1382     144   Mike Harding    Customer Support, Questions & Answers
/Utility      55      38   Sal Hernandez   Utility programs

Enter name of new Forum or ? for a list: _
```

Forum Names

A Forum name is a slash followed by up to eight characters, such as `/Hello` or `/CustSupt`. In some cases, you don't need to include the slash: when you select a Forum with the `S` command no slash is required, just `HELLO` or `CUSTSUPT` will do. In other contexts, you will need the slash: when you forward E-mail to a Forum, the slash distinguishes a Forum name from a User-ID.

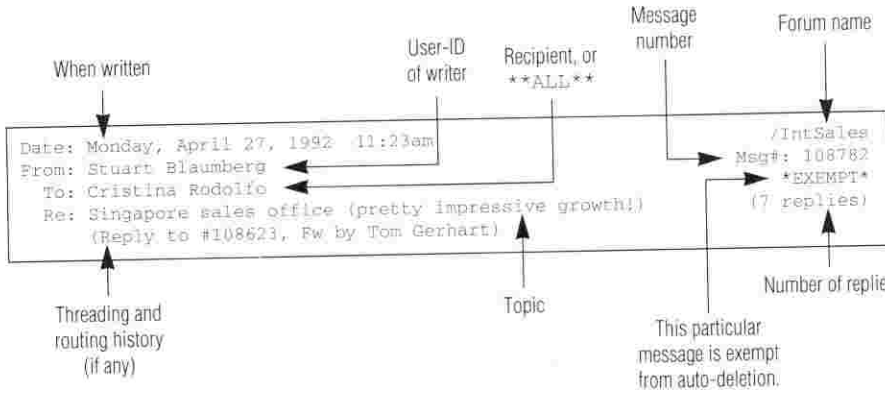
S=Select another Forum

You get the same Forums menu when you select a different Forum, with the new name and description at the top.

```
Enter name of new Forum (? for a list): UTILITY

Your current Forum is /Utility: Utility programs

   R ... Read messages
   W ... Write a message
   Q ... Quickscan Menu
   F ... Filescan
   T ... Teleconference
   S ... Select a new Forum
   X ... Exit from Forums

Select a letter from this list, or ? for more info: _
```

Messages in a Forum

Here's what a Forum message header looks like:



See page 304 for information about messages on The Major BBS.

Finding a Forum Message Fast

If You Know the Name of the File that is Attached to it

The file name should be the first thing in the topic field of the message it's attached to. Then you can find the message with the filescan-keyword command from the Forum menu:

FK *<file name>*

If You Know Something that is in the Message Header or Body

This command scans the entire message header and message body of the messages in the Forum:

RK *<keyword>*

If the keyword appears anywhere in there, the message header pops up for you to R = read or N = skip and find the next occurrence of *<keyword>* (see page 332).

If You Know the Message Number of the Message You Want

This command takes you directly to a specific message number in the Forum:

RS *<message number>*

If You Don't Know what Forum the Message is in

You can search through all Forums for a message by reconfiguring your quickscan to include all Forums:

QC	Quickscan configuration: Forums list maintenance.
-ALL +ALL	Remove and add all Forums, resetting all your message pointers to the first message in each Forum.
K	Quickscan configuration: keyword list maintenance.
<keyword lists>	Configure lists of keywords to look for. Your keywords could include the message number, a file name, or any information that would appear in the message header or body.

Whom a Message Is To

You can write a message in a Forum to a specific user, or to ** ALL ** users. Either way, the message is visible to anyone who has the proper access to the Forum. Writing a message to a specific user, however, gets his attention when he reads his mail (assuming his preference settings include Forum messages in his in-box; see page 351).

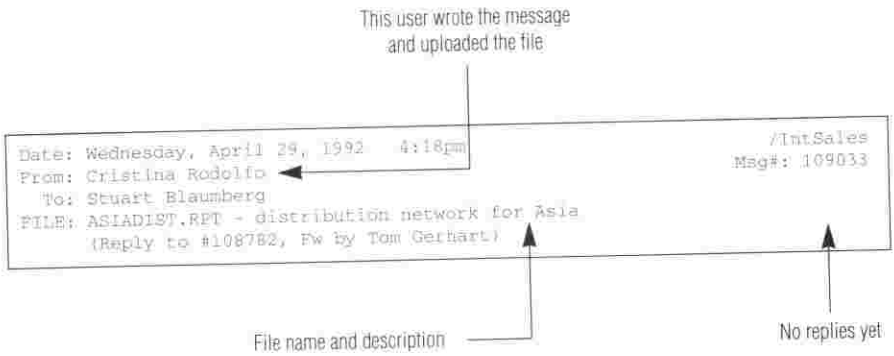
When writing to an individual user, if you can't remember his User-ID, type in an approximation and the BBS will try to find a match (see page 347 for an example with E-mail).

All replies in a Forum are automatically directed to the writer of the message you're replying to. Keep this in mind when adding your own message to a thread: which mes-

sage would be best to answer? Which user are you really speaking to, or who do you want to see your message most?

Files in a Forum

Files in a Forum are always attached to messages — one file to one message. When you write a message to a Forum, you have the option of uploading a file and attaching it to the message. When you read a message that has a file attached, you get a chance to download the file. Here's what a message header looks like when a file is attached:



You can think of the way files are kept in a Forum in either of two ways:

- A message with a file attached
- A file with a detailed description of it

Either way, it is the same thing. A message can have a file attached to it, or a message can be a description or introduction to the file.

By convention, the topic of a message with a file attached contains the file name and a brief description of the file. Nothing requires this, although whenever you upload a file you are encouraged to put a file name in the topic field.

If you have an ASCII file that you want to contribute to a Forum, the easiest thing to do is write a message and upload the file as an attachment. You can use any upload protocol, not just the ASCII protocol. The message could be empty, or explain something like "Here's the file that...." Other users can use the ASCII or LIST download protocols to view the file on their terminals.

Threading

A thread is a bunch of messages on the same topic. You'll probably find many different threads going on at the same time in a Forum. Say you write a message and somebody else writes a reply to it. You reply to that. Someone else replies to it, too. And then someone else replies to your original message. Before you know it a tree of messages is formed. All these messages usually keep the same topic. We call this a thread.

When you're scanning messages, you may come across a message with a lot of replies or one that's a reply itself. You can digress from your scan to see what else has taken place on this thread before you contribute to the thread yourself.

Threading forward and backward is chronological. In a complex thread, you won't always see a message next to its reply. You may see one subconversation intertwined with another. If message number 123 is a reply, threading to its parent lets you see the message that 123 was a reply to. You can keep threading up to the original message that started it all, if it is still available (see page 333 for more on threading).

Changing the Topic of a Reply

You can change the topic of a reply by hitting <*Ctrl-T*> in the Full Screen Editor or by selecting `T` in the Line Editor. But by doing so you'll lose the thread of the conversation. Then other users may not be able to find your message when they are threading through the other messages on the original topic.

If you reply to a message and change the topic, the `Thread Forward` and `Thread Backward` commands won't find your message, but the `Thread Parent` command will (see page 333). You may want to do this to break off from the original conversation and start another one.

Forum Header

The Forum header is the very first message in a Forum. You can see it by typing `RSO` from the Forum menu. The header may contain lots of information on the Forum, including how long messages are kept and the charges for using the Forum.

Here is an example of a Forum header:

```
#1 FORUM HEADER: /Hello                Created 03-FEB-92 11:09
Forum-Op: Sysop
Forum Topic: Welcome to the BBS!

This is the /Hello Forum Header.

...Sysop
```

In this case, `#1` is the message number. The Forum Operator is the Sysop. The topic of this message is the topic of the entire Forum and appears in the Forums menu.

R = Read Messages

There are many ways for you to read messages in a Forum. Actually, most of the features you'll find here are not for reading messages. They are for finding the messages you're interested in. Once you've read a message, you can decide what to do with it and what message to read next. One set of options could be:

```
Your current Forum is /Utility: Utility programs

   R ... Read messages
   W ... Write a message
   Q ... Quickscan Menu
   F ... Filescan
   T ... Teleconference
   S ... Select a new Forum
   X ... Exit from Forums
```

```
Select a letter from this list, or ? for more info: R

You can select the messages you wish to read in the following ways:

   S ... scan through messages one at a time
   L ... list messages non-stop
   K ... keyword-search for specific messages

Enter your choice, ? for help, or RETURN to "scan": S

Enter message number to start scanning at, or ? for help.
(Also, just hit RETURN for new messages, F for first, or L for last): <Enter>

Date: Monday, April 14, 1992  10:42am                              /Utility
From: Technical Services                                        Msg#: 39821
  To: ** ALL **
FILE: TEST02.EXE

(N)ext, (P)revious, (T)hread, (D)ownload file, or (R)ead description? R

This is the test program for collecting reliability and attenuation data on
your client's fiber optic line.  Please upload your results to the /Data
Forum (the program generates a file named TEST02.RPT).

          Linc at x2702

File "TEST02.EXE" is attached to this message (it is 71506 bytes long)!
Would you like to display or download the file now (Y/N)? N

(R)eply, (E)mail reply, follow (T)hread, (P)revious or (N)ext message? _
```

In this example, the user is scanning new messages he hasn't read yet. Message 39821 comes up. He reads it, and chooses not to download the attached file.

R = Read, S = Scan through Messages, One at a Time

First, you'll have these options for where to start your scanning:

<Enter> or .	Start with the next message you haven't read yet
F	Start with the first message in the Forum (the Forum header)
L	Start with the latest message in the Forum
<message number>	Start with a specific message number

During a scan, you look at messages one at a time, in chronological order. You can read the messages, download attached files, reply publicly, or reply privately.

The Default or Next Message

You'll probably be calling into the BBS regularly to see what's new in Forums. The Major BBS tries to keep track of where you left off when you last read messages in a Forum. But it doesn't keep track of exactly which messages you've read. It just remembers the highest numbered message in each Forum. When you come back, you pick up after that one. This is the default, or next, message that you can get by just hitting *<Enter>* when asked for a starting message number.

Imagine a library where you had to read the books on site. You add one of your bookmarks to each book you read, and then come back later to pick up where you left off.

Each visitor to the library puts in one of his own bookmarks too, to mark his position. This works great if you only read from cover to cover and don't skip around. You can't mark each page. You can't bend the corners or circle the page numbers or any of that; just use the bookmark. The bookmark is like the "next" position that each Forum maintains for you.

So in a Forum:

> The default or next message is the message right after the *highest numbered message that you've already read.*

You need to read the message (see the body of it, not just it's header) for this to count, except that reading while threading forward or backward doesn't count.

R = Read, L = List Messages Out, Nonstop

If you want messages to just scroll by on your screen without stopping to reply to each one, or to download any files, then you could use this listing command. You could capture all messages (using features in your terminal program) and read them offline. Later you could call back to download specific files or reply to specific messages. There are three types of listings depending on how much you want to see.

B	Brief one-liner descriptions of the messages
T	Titles, or message headers, four to six lines long
F	Full messages, with header and body

In all these cases you can specify the starting point like you do in a scan. The listing goes from that point forward, to the end of the Forum:

<*Enter*> or .	Next or default message
F	First message
L	Last message
<*message number*>	Any specific message in the Forum

Here are some examples of listings:

RLB List Brief

```
Select a Forum option (R,W,Q,F,T,S,X, or ? for menu): RLB0

Message #0 not found; selecting closest match instead:

#41156 04-MAY-92 Our customers are NUMBER ONE!  / Sysop
#41157 05-MAY-92 SuperWare 1-900 Technical Support  / Daniel Smith
#41158 06-MAY-92 SuperWare 1-900 Technical Support  / Sherry G.

End of list!
```

RLT List Titles

```
Select a Forum option (R,W,Q,F,T,S,X, or ? for menu): RLT0

Message #0 not found; selecting closest match instead:
```

```
#56  FORUM HEADER: /Support          Created 04-MAY-92 17:38
Forum-Op: Sysop
Forum Topic: Our customers are NUMBER ONE!

Date: Monday, May 5, 1992  5:40pm                                  /Support
From: Daniel Smith                                               Msg#: 41157
  To: ** ALL **
  Re: SuperWare 1-900 Technical Support                          (4 replies)

Date: Monday, May 6, 1992  9:42pm                                  /Support
From: Sherry G.                                                  Msg#: 41158
  To: Daniel Smith
  Re: SuperWare 1-900 Technical Support                          (2 replies)
      (Reply to #41157)

End of list!
```

RLF List Full messages

```
Select a Forum option (R,W,Q,F,T,S,X, or ? for menu): RLF0

Message #0 not found; selecting closest match instead:

#41156  FORUM HEADER: /Support          Created 04-MAY-92 17:38
Forum-Op: Sysop
Forum Topic: Our customers are NUMBER ONE!

Welcome to the SuperWare Customer Support Forum.  Please feel free to
post any questions you may have and join in on the discussions.

Thoughts of the Day:  Customers are our number one priority!

Date: Monday, May 5, 1992  5:40pm                                  /Support
From: Daniel Smith                                               Msg#: 41157
  To: ** ALL **
  Re: SuperWare 1-900 Technical Support                          (4 replies)

We at SuperWare are considering implementing a 1-900 number for
technical support.  There would be a nominal charge of $5 per call.

This will allow us to extend our support hours, add a few more lines,
and subsidize better training programs.  This will also cut down on
unrelated calls, and free up lines for emergency questions.

What do you think?

Daniel Smith
Director of Public Relations

Date: Monday, May 6, 1992  5:42pm                                  /Support
From: Sherry G.                                                  Msg#: 41158
  To: Daniel Smith
  Re: SuperWare 1-900 Technical Support                          (2 replies)
      (Reply to #41157)

No way!

I don't know what I'd do.

Almost every other afternoon I call up SuperWare to give me advice on
how to design my documents.

I also enjoy talking with a couple of the support folks about bird
watching and the weather.
```

```
Sherry G.

End of list!
```

When specifying the starting point in an RL listing, . , *<Enter>*, F, and zero all mean the same thing: start with the earliest message in the Forum. This differs from an RS scan, where . or *<Enter>* specify the message after the latest one has been read.

R = Read, K =Keyword Search

Keyword searching is like scanning except that you'll only see messages that contain special words or phrases you're looking for. The entire header and body of the messages are scanned for your keywords.

Keyword	Example matches
demo	Demonstration pandemonium demolition
-demo-	demo "DEMO"
red day	By Monday, I was tired of waiting
red-letter-day	Thursday was a red letter day

In the third example above, there are two keywords. When you specify multiple keywords, the BBS looks for messages with all the keywords. For more complex searches, see quickscan keyword phrases on page 337.

As you can see, a hyphen has a special purpose in keywords:

- A word with hyphens around it will specify an exact match on the entire word.
- A hyphen will match a space, a line boundary, any punctuation symbol, or any combination of these.

A keyword search always looks through all of the messages in a Forum.

Concatenated Read Commands

You can select several Forum read options at once by typing them all on the same line. All these read commands work from the Forums menu:

RSF	Scan from the first message
RS.	Scan starting from the next message you haven't read yet
RS38501	Scan from message number 38501
RSL	Scan from the last message
RLBF	List brief titles of all messages
RLTF	List four-line titles of all messages
RLFF	List all messages fully
RLB.	List brief titles starting with the next message
RLT.	List four-line titles starting with the next message
RLF.	List full messages starting with the next message

After Reading a Message

After you read a message in a Forum, you'll get a prompt like this:

```
(R)eply, (E)mail reply, follow (T)hread, (P)revious or (N)ext message? _
```

(R)eply in this Forum

If you reply, the author of the original message will see your reply in his Electronic Mail in-box. That's assuming his E-mail preferences are set accordingly (see page 351). Other users who read this Forum will also see your reply as part of a thread.

(E)mail (Private) Reply

You can reply privately to the author of a message in a Forum using the `(E)mail reply` option. The author will see your message in his E-mail. No other user will be able to see it.

Follow (T)hread

A thread is a bunch of messages on the same topic. The messages are formed into a tree by replying and re-replying. You can move through the thread in these ways:

```
Thread (F)orward, (B)ackward, or to (P)arent (? for help): _
```

The thread options can be combined into character pairs: Rather than typing `T` <*Enter*> `P` <*Enter*>, you can type `TP` <*Enter*>.

`TB`	`(T)hread (B)ackward`	skip back to earlier messages on the same topic, in chronological order
`TF`	`(T)hread (F)orward`	skip forward to newer messages on the same topic, in chronological order
`TP`	`(T)hread to (P)arent`	jump back to the parent of this message — the one it was replying to

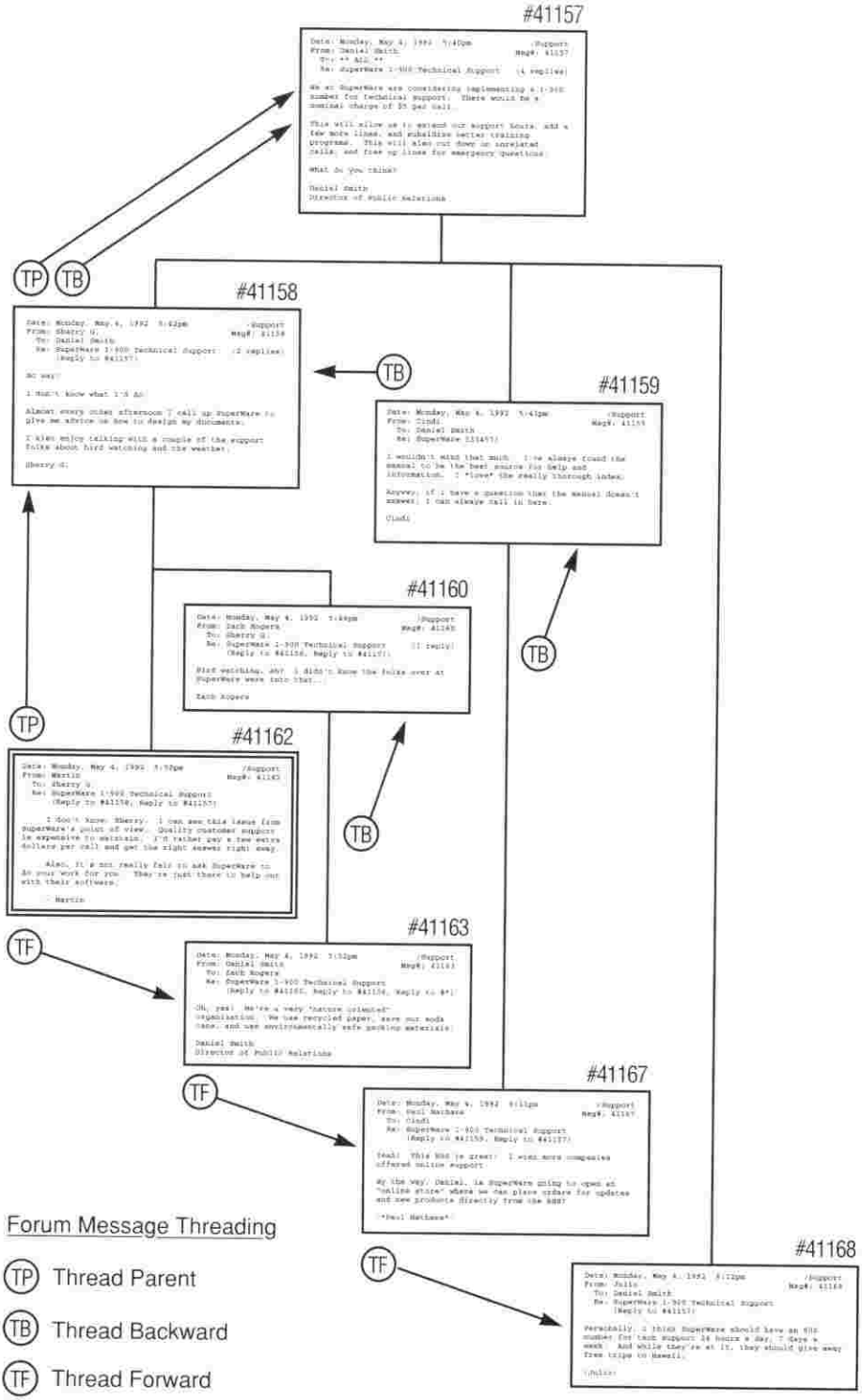
You can continue to type `TF` <*Enter*> `TF` <*Enter*> to move through the thread.

All this threading is a digression: you'll resume your original scan from where you left off when you choose the `(N)ext` or `(P)revious` message.

In this example, message 41157 is the original message. It is addressed to `** ALL **` users in the Forum. Messages 41158, 41159, and 41168 are direct replies to 41157. Messages 41160 and 41162 are both replies to 41158.

Starting from message 41162, this is how threading would work:

`TB`	Thread Backward	41162 → 41160 → 41159 → 41158 → 41157
`TP`	Thread Parent	41162 → 41158 → 41157
`TF`	Thread Forward	41162 → 41163 → 41167 → 41168



Forum Message Threading

(TP) Thread Parent

(TB) Thread Backward

(TF) Thread Forward

(P)revious or (N)ext Message

Use these commands to move chronologically through all the messages in the Forum. You'll often use P <*Enter*> P <*Enter*> P <*Enter*> to zoom backward in time, or N <*Enter*> N <*Enter*> N <*Enter*> ... to zoom forward. You can also type NNNN <*Enter*> to leap over four messages at once — seeing all their messages as you do.

F = Filescan — Look Only for Messages with Files Attached

The filescan option from the Forums menu operates exactly like the read option with one important difference: you only see messages with files attached. Everything else in the above description of reading messages also applies to file scanning.

Concatenated Filescan Commands

FSF	Scan from the first file
FS.	Scan starting from the next file you haven't seen yet
FS38501	Scan from the file attached to message number 38501
FSL	Scan from the last file
FLBF	List brief titles of all files
FLTF	List four-line titles of all files
FLFF	List all file descriptions fully
FLB.	List brief titles starting with the next file
FLT.	List four-line titles starting with the next file
FLF.	List full file descriptions starting with the next file

Q = Quickscan Multiple Forums

Here's another powerful variation on reading messages. The quickscan feature is specially tailored to the needs of the frequent caller. Quickscans always pertain to just the messages that you haven't seen yet, and they allow you to scan, list, or keyword-search several Forums at once. You can specify your own preference for a set of Forums and even the kinds of topics you'd like to see in those Forums.

This way, you do not have to switch to several different Forums each time you log on or wade through reams of old messages or messages that don't interest you.

Configuring Your Quickscan

The first step is to configure your quickscan by answering these questions:

- Which Forums interest you?
- Do you want to narrow the scan down to messages with certain keywords?

In the following example, a user will take a few Forums out of his quickscan and then configure a few keywords:

```
Your current Forum is /Hello: Welcome to the BBS!

   R ... Read messages
   W ... Write a message
   Q ... Quickscan Menu
```

```
   F ... Filescan
   T ... Teleconference
   S ... Select a new Forum
   X ... Exit from Forums

Select a letter from this list, or ? for more info: Q

Quickscan functions:

   S ... scan through messages and/or files
   L ... list messages and/or files
   K ... keyword-search for messages and/or files

   C ... configure your quickscan

Select a letter from the above list, or ? for help: C

Your quickscan now contains the following Forum(s):
/Hello     /Support     /Newsltr     /Dealers

   + ... add a Forum to your quickscan
   - ... delete a Forum from your quickscan
   V ... view the Forums now in your quickscan
   K ... configure your quickscan keywords

Enter K, V, + or -, or ? for more info: -

Enter a Forum to delete from your quickscan: DEALERS

   + ... add a Forum to your quickscan
   - ... delete a Forum from your quickscan
   V ... view the Forums now in your quickscan
   K ... configure your quickscan keywords

Enter K, V, + or -, or ? for more info: V

Your quickscan now contains the following Forum(s):
/Hello     /Support     /Newsltr

   + ... add a Forum to your quickscan
   - ... delete a Forum from your quickscan
   V ... view the Forums now in your quickscan
   K ... configure your quickscan keywords

Enter K, V, + or -, or ? for more info: -NEWSLTR V

Your quickscan now contains the following Forum(s):
/Hello     /Support

   + ... add a Forum to your quickscan
   - ... delete a Forum from your quickscan
   V ... view the Forums now in your quickscan
   K ... configure your quickscan keywords

Enter K, V, + or -, or ? for more info: K

Your quickscan keywords are now as follows:

   1.
   2.
   3.
   4.
   5.
```

```
Enter a line number to change (1-5), X to exit, or ? for help: 1

Enter a new keyword list, or ? for help: COMP COMMUNIC

Your quickscan keywords are now as follows:

   1. COMP COMMUNIC
   2.
   3.
   4.
   5.

Enter a line number to change (1-5), X to exit, or ? for help: 2 MODEM COMMUNIC

Your quickscan keywords are now as follows:

   1. COMP COMMUNIC
   2. MODEM COMMUNIC
   3.
   4.
   5.

Enter a line number to change (1-5), X to exit, or ? for help: 3 PACKET SWITCH

Your quickscan keywords are now as follows:

   1. COMP COMMUNIC
   2. MODEM COMMUNIC
   3. PACKET SWITCH
   4.
   5.

Enter a line number to change (1-5), X to exit, or ? for help: X

Select a Forum option (R,W,Q,F,T,S,X, or ? for menu): _
```


Now only the Forums /Hello and /Support are included in the quickscan, and three keyword equations have been added:

Keyword	Example of a match
1. COMP COMMUNIC	computer communications, company must communicate
2. MODEM COMMUNIC	modem communicating
3. PACKET SWITCH	packet switching networks, packet of switches

Your next quickscan keyword-search will show you only messages that have at least one of these three phrases in them somewhere, either in the topic or the message body. In more technical terms, the QK command will now look for messages with:

COMP and COMMUNIC
or
MODEM and COMMUNIC
or
PACKET and SWITCH

Keyword Phrases

See page 332 for details on these keywords and how to format them. The quickscan will search for messages that match any of the quickscan keyword phrases, but the match

must be complete on all of the words in a keyword phrase. The entire header and body of the messages are scanned for the keywords.

Which Forums

When deciding which Forums to include in your quickscan, here are some things you might type:

V	View the Forums now included in your quickscan
-<*Forum name*>	Remove Forum from quickscan
+<*Forum name*>	Add Forum to quickscan
-<*Forum*>+<*Forum*>	Reset scanning in the Forum to be the first message
-ALL	Remove all Forums from your quickscan
+ALL	Add all Forums to your quickscan

A new Forum is automatically added to your quickscan when the Sysop creates it. If you aren't interested in it, you can remove it any time.

Here are two special tricks you can use when specifying which Forums to include in your quickscan (after choosing Q and C from the Forums menu):

-<*Forum name*>+<*Forum name*>	Reset scanning in this Forum to the first message. (Then all messages in the Forum will appear to be new.)
+<*Forum name*>+<*Forum name*>	Reset scanning in this Forum to the last message. (None of the current messages will appear in your quickscan, only newer messages.)

Running a Quickscan

```
Select a letter from this list, or X to exit: Q

Quickscan functions:

   S ... scan through messages and/or files
   L ... list messages and/or files
   K ... keyword-search for messages and/or files

   C ... configure your quickscan

Select a letter from the above list, or ? for help: K

Searching /Hello for quickscan keywords....
Found a match for "superfast"!

Date: Saturday, January 8, 1994  9:47am                          /Hello
From: Sysop                                                   Msg#:  13
  To: ** ALL **
  Re: New Modems

(N)ext, (P)revious, follow (T)hread, or (R)ead this message? R

I recently upgraded this BBS to the new WhizBang V.SUPERFAST modems.
Response time appears to be nearly instantaneous, even with many users
on the system.  Let me know how you like them.
```

```
Sysop

(R)eply, (E)mail reply, (F)orum-Op, (T)hread, (P)revious, or (N)ext? N

Searching /Hello for quickscan keywords...
Quickscan Complete!

Select a operator option (? for menu): _
```

The dots represent messages that are skipped by the quickscan.

Starting Your Quickscan Pointers from Scratch

If you want your quickscan to review a Forum from the beginning, you need to reset your pointers for that Forum, because quickscan tries to give you only new messages. To do this, just remove and then add the Forum:

```
Enter K, V, + or -, or ? for more info: -/ANTON +/ANTON
```

Now your next quickscan will start the /Anton Forum from the first message. This might be particularly handy if you have changed your quickscan keywords and want to review what you might have missed.

W = Write a Message

In a Forum, you can write your message to ** ALL ** users, or to a specific user. When you write to a specific user, the message may appear in his E-mail in-box (see page 326 for more on "whom a message is to").

After making the choice of whom your message is to, you can begin writing it. If your terminal has ANSI capability, you enter the Full Screen Editor. You can type your message a line at a time, move the cursor around with the arrow keys, delete lines with <*Ctrl-Y*>, and so on. <*Ctrl-G*> saves your message and exits (see page 354 for more on the Full Screen Editor).

If your terminal doesn't have ANSI capability, you enter the Line Editor. Just type one line at a time here. The editor will automatically wrap lines as you run into the right margin. When done, type OK on a single line to save your message and possibly edit it a little more (see page 358 for details on the Line Editor).

After Writing a Message to a Forum

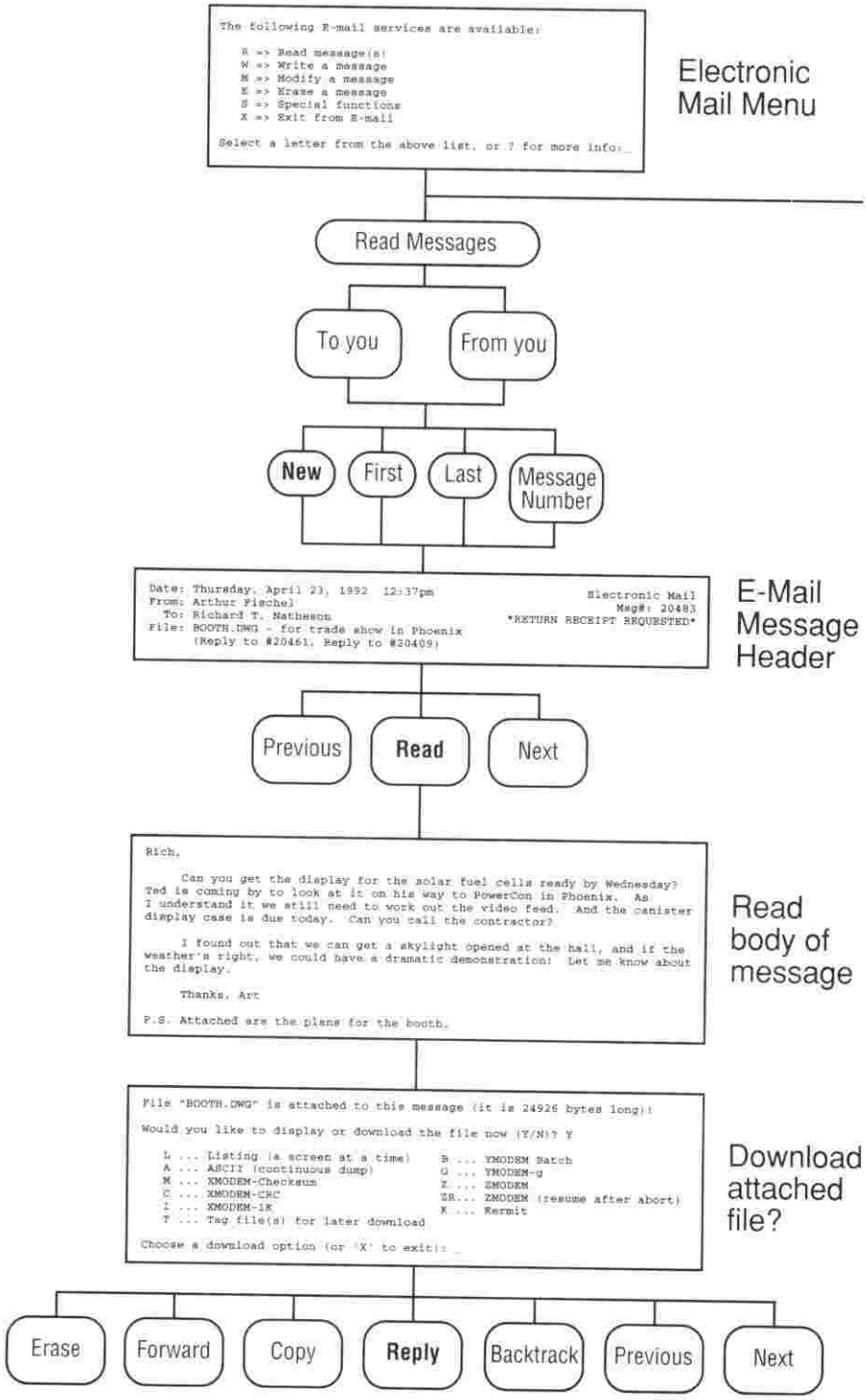
After you write a message, you get the option of uploading a file and attaching it to the message (assuming you have the access rights).

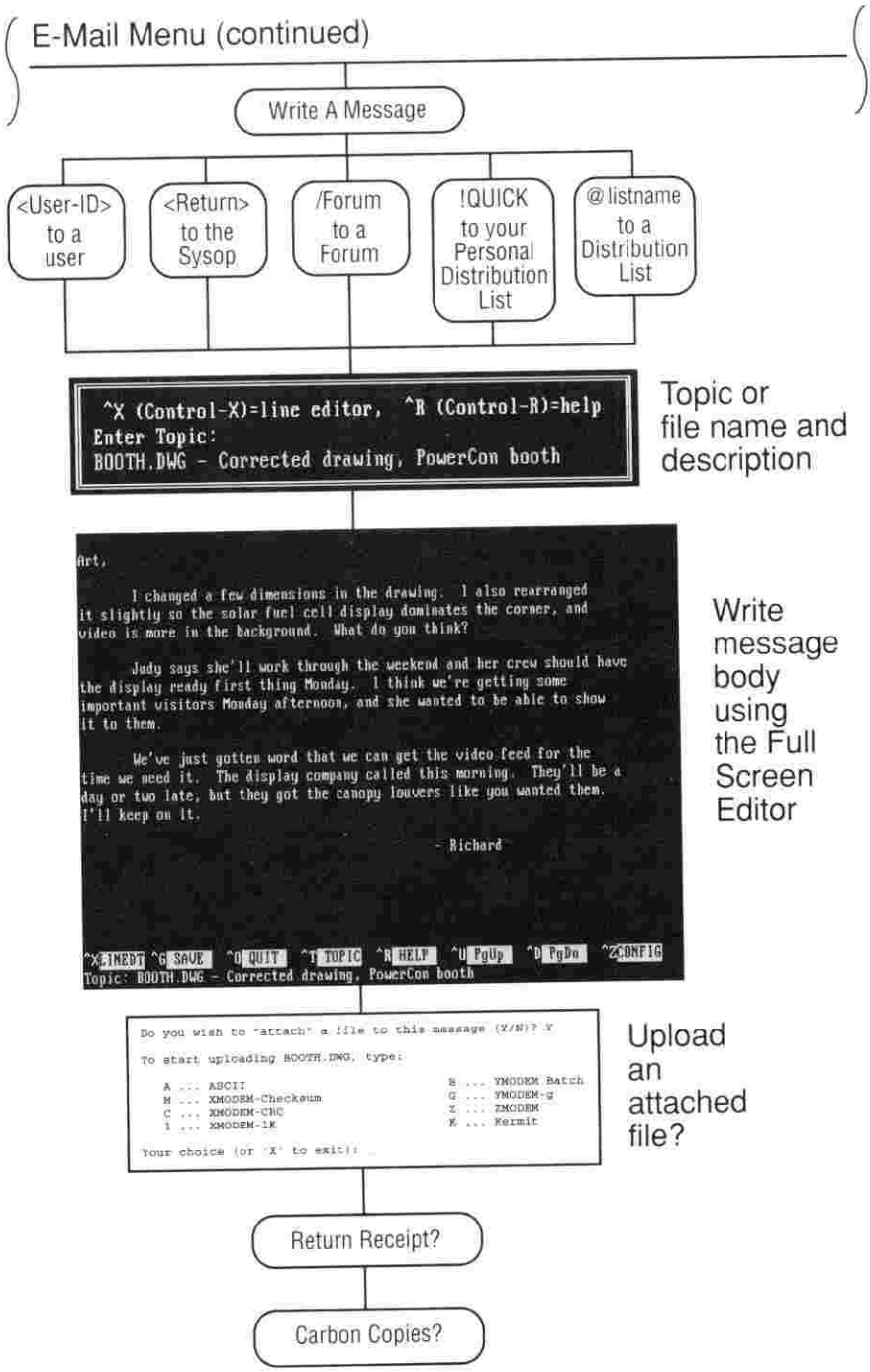
```
Do you wish to "attach" a file to this message (Y/N)? _
```

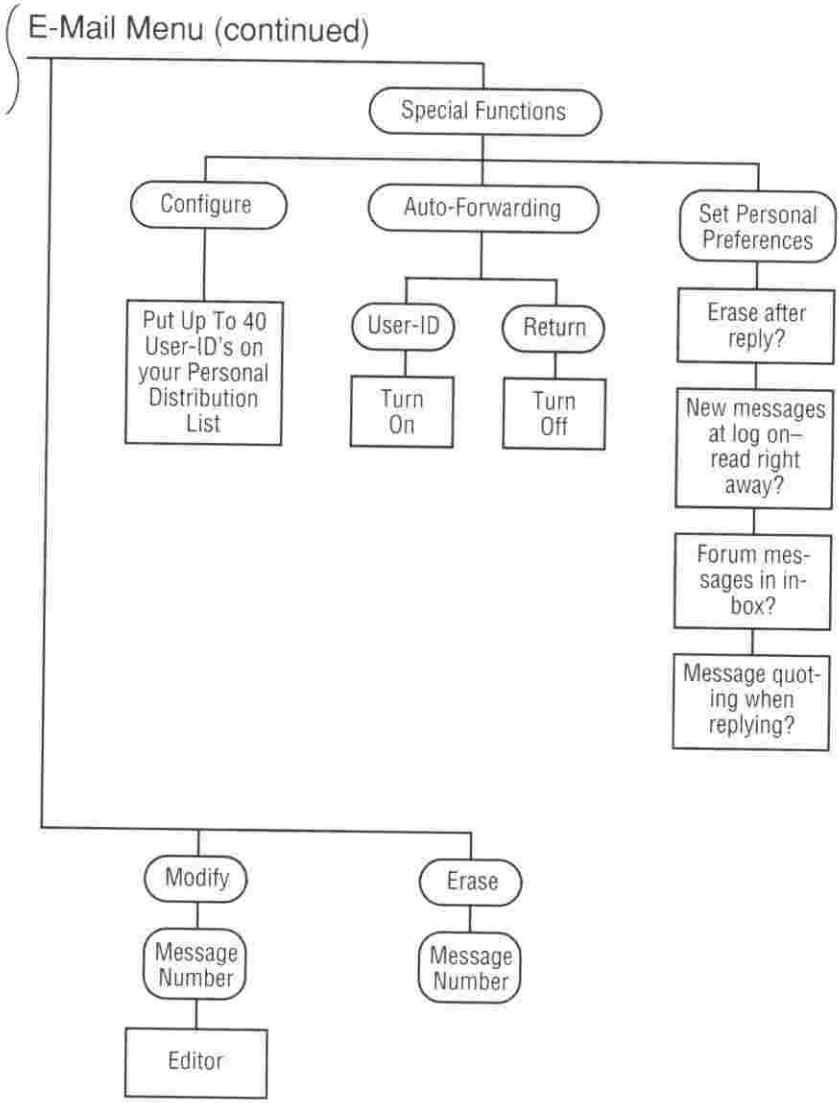
Be careful to complete this step or your message will get lost. For example, if you type X to exit instead of yes or no, you'll lose the message.

T=Teleconference

Every Forum has its own Teleconference channel. The topic of the channel is the topic of the Forum from the Forum header (see page 315 about using the Teleconference).


The following E-mail services are available:
R => Read message(s)
W => Write a message
M => Modify a message
E => Erase a message
S => Special functions
X => Exit from E-mail
Select a letter from the above list, or ? for more info:
Electronic Mail Menu
Read Messages
To you
From you
New
First
Last
Message Number
Date: Thursday, April 23, 1992 12:37pm
From: Arthur Fischel
To: Richard T. Matheson
File: BOOTH.DWG - for trade show in Phoenix
(Reply to #20461, Reply to #30409)
Electronic Mail
Msg#: 20483
RETURN RECEIPT REQUESTED
E-Mail Message Header
Previous
Read
Next
Rich,
Can you get the display for the solar fuel cells ready by Wednesday? Ted is coming by to look at it on his way to PowerCon in Phoenix. As I understand it we still need to work out the video feed. And the canister display case is due today. Can you call the contractor?
I found out that we can get a skylight opened at the hall, and if the weather's right, we could have a dramatic demonstration! Let me know about the display.
Thanks, Art
P.S. Attached are the plans for the booth.
Read body of message
File "BOOTH.DWG" is attached to this message (it is 24926 bytes long):
Would you like to display or download the file now (Y/N)? Y
L ... Listing (a screen at a time)
A ... ASCII (continuous dump)
M ... XMODEM-Checksum
C ... XMODEM-CRC
1 ... XMODEM-1K
T ... Tag file(s) for later download
B ... YMODEM Batch
G ... YMODEM-g
Z ... ZMODEM
ZR... ZMODEM (resume after abort)
K ... Kermit
Choose a download option (or 'X' to exit):
Download attached file?
Erase
Forward
Copy
Reply
Backtrack
Previous
Next


E-Mail Menu (continued)
Write A Message
<User-ID> to a user
<Return> to the Sysop
/Forum to a Forum
!QUICK to your Personal Distribution List
@listname to a Distribution List
^X (Control-X)=line editor, ^R (Control-R)=help
Enter Topic:
BOOTH.DWG - Corrected drawing, PowerCon booth
Topic or file name and description
Art,
I changed a few dimensions in the drawing. I also rearranged it slightly so the solar fuel cell display dominates the corner, and video is more in the background. What do you think?
Judy says she'll work through the weekend and her crew should have the display ready first thing Monday. I think we're getting some important visitors Monday afternoon, and she wanted to be able to show it to them.
We've just gotten word that we can get the video feed for the time we need it. The display company called this morning. They'll be a day or two late, but they got the canopy louvers like you wanted them. I'll keep on it.
- Richard
^X INSERT ^G SAVE ^O QUIT ^T TOPIC ^R HELP ^U PgUp ^D PgDn ^Z CONFIG
Topic: BOOTH.DWG - Corrected drawing, PowerCon booth
Write message body using the Full Screen Editor
Do you wish to "attach" a file to this message (Y/N)? Y
To start uploading BOOTH.DWG, type:
A ... ASCII
M ... XMODEM-Checksum
C ... XMODEM-CRC
1 ... XMODEM-1K
B ... YMODEM Batch
G ... YMODEM-g
Z ... ZMODEM
K ... Kermit
Your choice (or 'X' to exit):
Upload an attached file?
Return Receipt?
Carbon Copies?


E-Mail Menu (continued)
Special Functions
Configure
Auto-Forwarding
Set Personal Preferences
Put Up To 40 User-ID's on your Personal Distribution List
User-ID
Return
Turn On
Turn Off
Erase after reply?
New messages at log on– read right away?
Forum messages in in-box?
Message quoting when replying?
Modify
Erase
Message Number
Message Number
Editor

ELECTRONIC MAIL

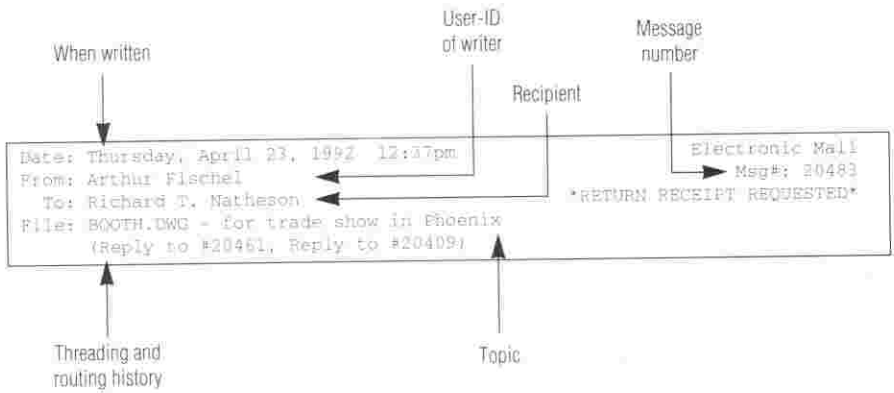
Electronic Mail allows you to send private messages to other users of the BBS. E-mail has several advantages over other modes of communication around an office:

- You can dial into the BBS from almost anywhere, at almost any time, write your message, and forget about it — no stamp, no paper to carry around.
- The recipient of your message has a copy he can capture and print out if he wants. Or he can leave the message in his in-box and go back to it later.
- You can attach a disk file to your message. No need to mail floppy disks or bring up two computers with file transfer software at the same time. You upload when you want, your recipient downloads when he wants.
- You can request a return receipt, so you know when the person read your message.
- Your recipient can reply easily to your message, sending another message back. Your original message will usually be available to you again so you can backtrack and remember what the person was replying to.
- You can easily copy your message to other users.
- You can send your message to distribution lists.
- You can create a distribution list of your own.
- You can send and receive mail from other E-mail systems with appropriate supplementary software.

These capabilities may require certain access privileges. It is up to the Sysop whether you can use them.

Electronic Mail Messages

Here's what an E-mail message header looks like:

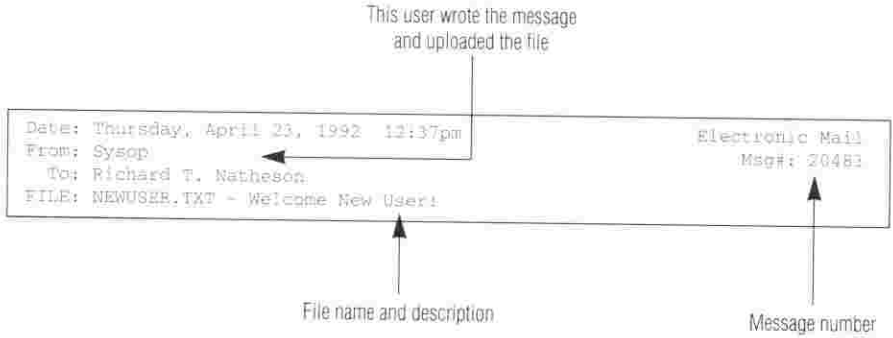


See page 304 for information about messages on The Major BBS.

The *RETURN RECEIPT REQUESTED* flag indicates that the sender wants to be notified when you read his message. When you do, another message is automatically generated by the BBS, from you back to the author of the original message, informing him that you read his message and when.

Files Attached to Electronic Mail Messages

To send a file to another user, you can write him an E-mail message and upload an attached file. When he reads the message, he has the option of downloading the file. Here's what an E-mail message looks like when it has a file attached:



Message Lifetime

On most systems, E-mail messages are only kept around for a while before they are automatically deleted. The lifetime is three weeks by default, but that is up to your Sysop. You can keep a message longer by forwarding it to yourself. This creates a clone of the original message with the forwarding day's date.

R = Read Messages

The Major BBS keeps track of the messages that were written to you and the messages you have written:

In-box	messages to you	messages someone wrote to you
Out-box	messages from you	messages you wrote

Either of these sets can be scanned, one message at a time, with the E-mail READ command. These include private messages between you and other users, as well as public messages in the Forums. (Whether your in-box includes Forum messages is your option.)

R = Read Messages T = To You

You'll have four options when you start your reading:

<*Enter*> or .	Start with the next message you haven't read yet
F	Start with the earliest message in your in-box
L	Start with the very latest message in your in-box
<*message number*>	Start with a specific message number

The Default or Next Message

You'll probably be calling into the BBS regularly to get your latest messages. Maybe some of your messages are not urgent, or they require more work to reply to, or you want to keep them around for a while.

The Major BBS tries to distinguish between new messages and messages you've read by remembering which message of those you've read has the highest number. If you're careful to read your messages in order, you'll find this handy for separating your urgent and your important mail.

When you are `(R)eading messages (T)o you`, the BBS will ask you for a starting message number. If you just hit *<Enter>*, you'll get the message that is one higher than the one with the highest number that you read through E-mail. You can do the same thing in one step by typing `RT.` from the E-mail menu. (The dot represents the default message number.)

There is a way to move a piece of mail you've read back into your new pile: forward it to yourself. This means you'll see it as new mail the next time you check your mail. It also extends the time before the BBS automatically purges it.

So in Electronic Mail,

> The default or next message is the message right after the *highest numbered message* that you've already read.

You need to read the message (see the body of it, not just the header) for this to count.

R = Read Messages F = From You

Messages from you include all the E-mail and Forums messages you've written that are still on the system. After finding and reading a message you've written, you may get these options:

```
(E)rase this message, (M)odify it, (P)revious or (N)ext message? _
```

Concatenated Read Commands

You can select several E-mail read options at once by typing them all on the same line:

`RTF`	Read all your incoming mail, starting with the earliest
`RT.`	Read your incoming mail, starting with mail you haven't read yet
`RTL`	Read your latest piece of incoming mail
`RFF`	Read the earliest piece of outgoing mail that is still in your out box
`RFL`	Read your latest piece of outgoing mail

After Reading a Message

After you read a message in E-mail, you'll get a prompt like this:

```
(R)eply, (E)rase, (F)orward, (C)opy, (B)acktrack, (P)revious, or (N)ext? _
```

(R)eply to the Message

When you reply, you are writing a new message back to the author of the original message. If your E-mail preferences have been set to allow message quoting, you can use pieces of the original message in your reply, and speak to each point directly.

Replying without Erasing

You can set your E-mail preferences either to automatically erase when you reply to an E-mail message or to leave the original message in your in-box. But even if you are set up to automatically erase, there is a way to get around it and save the original message.

Say you are typing in a reply to a message and you decide you don't want to lose the original message. Maybe you want to keep it on file, or you want to send a copy to someone. The way to skip the automatic deleting of the original message is to hit X to exit before the deleting takes place. The place to do this is the carbon-copy question. When you are asked about carbon copies, your reply already has been saved and stored, and the original message has not yet been deleted. It would get deleted if you answer N to the carbon copy question. Instead:

```
Do you want to send a copy of this message to anyone (Y/N)? X
```

Don't exit from the attach-file or return-receipt questions; you'd lose your reply entirely.

(E)rase the Message

After reading an E-mail message, pick this option to get rid of the message.

(C)lear Message

After reading a Forum message, pick this option to remove it from your in-box. You won't delete the message this way; it will still reside in the Forum.

(F)orward the Message

Forwarding the message is like handing a piece of your mail to someone else. They get the message, and you keep nothing.

Reply after Forward

In some cases you may want to both reply to a message and forward it to someone else. The dilemma is that either of these operations by itself usually leaves you with no message. You can both forward the original message to a third person, and send a reply to the original author, by invoking the "reply after forward" option. To use this, you need to enter F *<User-ID>* R all on one line:

```
(R)eply, (E)rase, (F)orward, (C)opy, (B)acktrack, (P)revious, or (N)ext? F SYSOP R
```

In this case, the original message is forwarded to the Sysop, and you enter the editor to compose your reply.

You could also send a carbon copy of the reply to a third person after you're done writing it.

(C)opy the Message

Copying the message sends a copy of it to another user. You keep the message in your in-box.

(B)acktrack to the Original Message

After viewing a reply to one of your messages, you can view the original message using the (B)acktrack option. This is very helpful when you can remember asking someone a question and now you have their answer, but you can't remember the question. Backtrack brings it up if it is still on the system. Even if the other user already cleared your message from his in-box, your message still remains sort of hidden in your out-box, just for this purpose.

(P)revious or (N)ext Message

Skip chronologically through the messages in your in-box or out-box with the (P)revious or (N)ext commands. Any time you're viewing a message header or body, or you've just downloaded an attachment, you can usually move around to other messages with (P)revious and (N)ext.

W = Write a Message

You can write an Electronic Mail message:

<Enter>	to the Sysop user
<User-ID>	to a specific user
@*<list>*	to a distribution list
!quick	to your own custom distribution list
!mass	to all users (special access may be required)
<user name>@*<gateway>*	to someone on another MHS host (see page 182)
/*<Forum name>*	to all users in a Forum
/*<Forum name>*- *<User-ID>*	to a specific user in a Forum

Finding the Right User-ID

When writing to an individual user, if you can't remember their User-ID exactly, just type in an approximation and the BBS will try to find a match.

```
Select an E-mail option (R,W,M,E,S,X, or ? for menu): W

Who do you wish to send this message to?
Enter User-ID, "?" for help, or just RETURN for "Sysop": SAM

No exact match found.  Perhaps you meant one of these?

  1: Sam Hobbs
  2: Sam Olsten
  3: Samantha B. Hayes
  4: Sammy Jones
  5: Sampuranand

Enter one of these digits (or another User-ID) at the following prompt...

Who do you wish to send this message to?
Enter User-ID, "?" for help, or just RETURN for "Sysop": SAMMY

...do you mean Sammy Jones (Y/N)? Y
```

You can find a user by specifying all or part of his first, last, or middle name. For example, you might find Sam Hobbs by typing in any of these strings in response to "Whom do you want to send this message to?":

```
S
SA
SAM
SAM H
SAM HO
SAM HOB
SAM HOBB
SAM HOBBS
H
HO
HOB
HOBB
HOBBS
```

Of course, just typing S is a bad way to find Sam Hobbs because there are probably lots of names on the BBS that start with S, and you're only going to get a limited amount (up to 6 by default). By the way, it does not matter whether you use upper or lower case.

See page 357 about composing your E-mail message online.

Attach a File?

After you write a message, you get the option of uploading a file and attaching it to the message (assuming you have the access rights).

```
Do you wish to "attach" a file to this message (Y/N)? _
```

Be careful to complete this step or your message will get lost. For example, if you type X to exit instead of yes or no, you'll lose the message.

Return Receipt?

The next option after deciding on the attached-file issue is whether you want to be notified when the recipient reads your message.

```
Do you want a "return receipt" when this message is read (Y/N)? _
```

A return receipt is a brief message that The Major BBS automatically generates from the reader when he first reads the message.

After answering the return-receipt question, your message is saved and stored.

```
<<< CONFIRMED: MESSAGE #78933 WRITTEN TO DISK >>>
```

It's important that you at least get to this point in writing a message. If you don't, and you hit X to exit back to the E-mail menu, or lose carrier or something, your message will be lost.

If the person you're writing to is also online when you get to this point, he may get a message on his terminal like:

```
***<BEEP>

Irving R. Neely has just written an E-mail message to you!
(You can find it by invoking (E)mail (R)ead-msgs (T)o you.)
```

Carbon Copies?

You can send copies of the message you've written to other users.

```
Do you want to send a copy of this message to anyone (Y/N)? Y

Who do you wish to send a copy of this message (cc:) to?
You may also type "?" for help: ED CHAVEZ

<<< CONFIRMED: MESSAGE #79833   COPIED TO #79834   >>>
<<<              SENT TO Ed Chavez              >>>

Do you want to send a copy of this message to anyone else (Y/N)? N
```

By the way, you may be able to save time by answering all three questions at once:

```
Do you wish to "attach" a file to this message (Y/N)? NNN
```

This means the message has no attached file, no return receipt requested, and no copies to anyone.

M = Modify or E = Erase a Message

You need to know the message number before you can use either of these options. You can find the message number of a message you wrote by (R)eading mail (F)rom you and scanning (N)ext or (P)revious until you find the one you want.

S = Special Functions

This is a little menu for managing various features of your own E-mail mailbox.

```
Choose a special function:

   C ... Configure distribution list
   A ... Auto-forward incoming E-mail
   S ... Set personal preferences

Select an option (C,A,S, or X to exit): _
```

S = Special Functions, C = Configure Distribution List

Your distribution list can have up to 40 entries. When you write a message to !QUICK, the BBS will send it to all of the names you have put in your list.

```
Select an E-mail option (R,N,M,E,S,X, or ? for menu): SC

 1:                              2:
 3:                              4:
 5:                              6:
 7:                              8:
 9:                             10:
11:                             12:
13:                             14:
15:                             16:
17:                             18:
19:                             20:
21:                             22:
23:                             24:
25:                             26:
27:                             28:
29:                             30:
```

```
31:                                 32:
33:                                 34:
35:                                 36:
37:                                 38:
39:                                 40:

Enter slot # to change, or ? to view your current list: 1

Enter new User-ID for slot #1: SYSOP

Enter slot # to change, or ? to view your current list: ?

 1: SYSOP                            2:
 3:                                  4:
 5:                                  6:
 7:                                  8:
 9:                                 10:
11:                                 12:
13:                                 14:
15:                                 16:
17:                                 18:
19:                                 20:
21:                                 22:
23:                                 24:
25:                                 26:
27:                                 28:
29:                                 30:
31:                                 32:
33:                                 34:
35:                                 36:
37:                                 38:
39:                                 40:

Enter slot # to change, or ? to view your current list: 2

Enter new User-ID for slot #2: BONNIE KIERNAN

Enter slot # to change, or ? to view your current list: 3 JIM KIRKLAND

Enter slot # to change, or ? to view your current list: 4 D. HOWARD PLAMER

Enter slot # to change, or ? to view your current list:

 1: SYSOP                            2: BONNIE KIERNAN
 3: JIM KIRKLAND                     4: D. HOWARD PLAMER
 5:                                  6:
 7:                                  8:
 9:                                 10:
11:                                 12:
13:                                 14:
15:                                 16:
17:                                 18:
19:                                 20:
21:                                 22:
23:                                 24:
25:                                 26:
27:                                 28:
29:                                 30:
31:                                 32:
33:                                 34:
35:                                 36:
37:                                 38:
39:                                 40:

Enter slot # to change, or ? to view your current list: 4 D. HOWARD PALMER
```

```
Enter slot # to change, or ? to view your current list: X

Select an E-mail option (R,W,M,E,S,X, or ? for menu): _
```

Notice that the user specified both the S special functions menu and C configure distribution list with one command: SC

In this example, four names were added to the distribution lists. Notice how there's no checking for correct User-IDs. You can specify users who haven't signed up yet. But be sure and get their User-ID exactly right (it doesn't matter whether you use upper or lower case).

S = Special Functions, A = Auto-forward Incoming E-mail

You can set things up so that all mail written to your User-ID will be automatically forwarded to another User-ID. This is helpful if you're going out of town for a while and someone is handling your messages. Or, if you want to change your User-ID, you can forward messages from the old User-ID until everyone gets used to using the new one. This forwarding is not apparent to whomever is writing you messages.

Forum messages to you are not affected by auto-forwarding. They'll still appear in your original in-box (if you have your preferences set for reading Forum messages along with E-mail messages). Moreover, enabling auto-forwarding only affects future messages — any E-mail currently in your in-box remains there.

S = Special Functions, S = Set Personal Preferences

You can personalize your mailbox with these options:

1. Should replying to a message erase it?

   NO: the messages will remain in your in-box.

   YES: replying to an E-mail message automatically erases it, and replying to a Forum message automatically clears it from your in-box.

2. How to handle new messages when you log on?

   1. Read them immediately?
   2. Ask you if you want to read them?
   3. Just notify you that you have mail waiting?

3. Should Forum messages that are directed to you appear in your E-mail in-box? (When you read your E-mail, you may also want to be notified of any new messages directed to you in the Forums.)

   YES: mix these in with your private E-mail.

   NO: don't bother you about them. You'll see them in the Forums.

4. When will you want to quote parts of a message when replying to it?

   1. Sometimes (ask you each time)
   2. Always
   3. Never

Replying to a message with quoting, is something like taking a business letter and scribbling your comments in the margins and mailing it back to the sender, only neater.

When you reply with quoting you start out, not with a blank message, but with the contents of the original message filling up your screen. You can delete and insert as appropriate to address each part of the original message specifically. This is very helpful to the original author, especially when he writes you a long message.

5. When reading E-mail you can:

    1. Browse through the message headers choosing whether to read the body of each message or not.

    2. Automatically read your messages as you scan through them, seeing both header and body at once.

Here is an example of changing some of these E-mail preferences:

```
Select an E-mail option (R,W,M,E,S,X, or ? for menu): SS

When you (R)eply to a message, the system can automatically "clear" it
from your mailbox (the message you replied to will no longer show up in
your mailbox).  On the other hand, you might want all messages kept in
your mailbox until you explicitly (E)rase or (C)lear them.

When you reply to a message, do you want it cleared from your mailbox? Y

When you log on, and there is new E-mail waiting for you, would you
prefer to:

     1) read it immediately

     2) be prompted whether or not to read it immediately

     3) be notified about it but proceed on to the Main Menu

Enter your preference: 3

The system can consider Forum messages directed to you to be "in your
mailbox", if you want it to.  For example, when you write a message in a
public Forum, and another user replies to your message, the reply can
appear both in your mailbox and in the Forum itself.  If you don't want
this (if it annoys you to read the message both places and you would
prefer not to see it in your mailbox but only in your quickscan), then
answer NO to the following question.

Would you like Forum messages "to you" to appear in your mailbox? Y

When you reply to a message, and you're using "message quoting", your reply
starts off as a quoted version of the message you are replying to.  ("Quoted
version" refers to having the initials of the person you are replying to
followed by a > at the beginning of every line.)  By doing this, you
can pick and choose which quoted lines of the original message to keep in
your reply, and which to delete.  You can use message quoting to respond to
exact questions in someone's message, make a point about something they
said, or just to remind readers exactly what it is you are replying to.
How do you want to handle message quoting in replies?

     1) be prompted when replying about whether or not to use quoting

     2) always use message quoting in replies to messages
```

```
     3) never use message quoting in replies to messages

Enter your preference: 1

When you are reading E-mail and Forum messages, you can either:

     1)  scan them in "browse mode", which lets you see the header
         of a message first, and then gives you the option to read
         it or skip over it;

     2)  or, automatically read each message when you come to it
         (this will also clear your screen at the beginning of each
         message).

Enter your preference: 1

Select an E-mail option (R,W,M,E,S,X, or ? for menu): _
```

EDITORS

The Major BBS has two general-purpose editing services, one for message editing and one for data entry. Message editing is for writing or editing E-mail or Forum messages. Data entry is for editing information about your account on the BBS, or about a file you uploaded.

This section will help you use the message editor and data entry tools on the BBS. The specific uses of these tools are discussed elsewhere; look up the page numbers listed under the applications.

These services act very differently if your terminal has ANSI capability than if it does not. If you have ANSI, you get the advantage of the full 80-by-24 character screen. You can use your arrow keys, *<Home>*, *<End>*, and *<Del>* keys, and more. If you don't have ANSI, you work one line at a time, or one item at a time. So the full screen versions are much more productive to use if you can. On the other hand, the line-oriented versions are more universal. They only rely on the ASCII standard for terminal emulation.

	For writing or editing a long text message:	*For entering or editing a series of data fields:*
For users with ANSI, and a full 80 by 24 screen	Full Screen Editor	Full Screen Data Entry
For users without ANSI, or with a screen smaller than 80 by 24	Line Editor	Linear Data Entry
Applications:	Electronic Mail message (page 341) Forum message (page 322)	Account display/edit (page 372) Modifying a Library file (page 368)

Full Screen Editor Keystrokes

BACKSPACE ← or DEL — Delete a character

CTRL Y — Delete a line

CTRL F — Insert a space

↑ ← → ↓ — Move the cursor around on the screen

CTRL R — Help

CTRL W — More help

CTRL G — Save and exit

CTRL O — Quit, abandon changes

CTRL A — Center the line

CTRL B — Insert a line below

CTRL C — Chop the current line into two lines

CTRL E — Erase to the end of the line

CTRL J — Join two lines into one

CTRL U — Scroll up 10 lines

CTRL D — Scroll down 10 lines

Home — Move to the beginning of the line

End — Move to the end of the line (to the last non-blank)

CTRL T — Retype the topic of the message

CTRL P — Reformat paragraph

CTRL Z — Choose between CTRL keys and VT-100 keys

CTRL X — Switch to the line editor

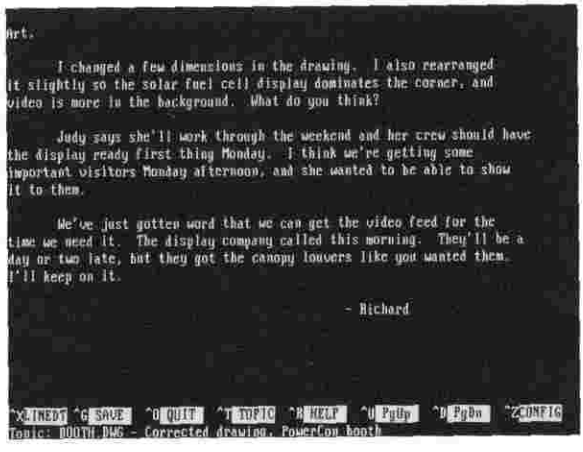
CTRL N — Import another message, by message number

CTRL L — Redisplay the screen

Full Screen Editor Block Commands

CTRL K CTRL B	Mark the beginning of a block
CTRL K CTRL K	Mark the end of a block
CTRL K CTRL H	Unmark the block
CTRL K CTRL Y	Delete the block
CTRL K CTRL F	Mark a frame around the block using IBM double-line characters
CTRL K CTRL U	Upload body text of the message

Full Screen Editor



The Full Screen Editor uses the ANSI X3.64-1979 standard to allow you to edit messages while viewing them on a full 80-by-24 character screen. When you ask to write a message, you enter the Full Screen Editor. Usually you'll start by typing a topic for the message.

Then you are placed on a big blank screen, ready for you to start typing your message. When you get to the end of a line (72 characters to be exact), the editor automatically puts you on the next line. You don't have to hit *<Enter>* at the end of each line.

When you reply to a message, the topic is the same as the original message. When you modify a message, the topic and body are filled with the original message's contents. If you want to change something in the message, use your arrow keys to move around and point to it, and then retype it. Use <*Del*> or <*Backspace*> to delete characters. When done, hit <*Ctrl-G*> to save and exit. You'll probably want to make use of a lot of specialized keystrokes for moving around on the screen, inserting/deleting/changing, and exiting the editor (see the online help by hitting <*Ctrl-R*>).

Text Uploading

<*Ctrl-K*> <*Ctrl-U*> will allow you to upload a text file, using a file transfer protocol like ZMODEM, and put the text into the message your editing. You can either clear the existing message before uploading text, or you can append the uploaded text onto the end of anything that's already in the editor's buffer.

The Screen

The Major BBS assumes your screen is 24 lines long when you sign up. You can change that from the Account Display/Edit service (See page 371). Your screen must be at least 20 lines long (the Sysop can change this minimum) and can be up to 48 lines long. On an 80-by-24 screen, you can view 80 by 22 characters at a time. At the bottom of the screen are two special lines for showing you your softkeys and the topic of your message.

The editor tries to make your lines 72 characters long when you type or when you reflow a paragraph. If the message must be kept shorter than one full screen of text, the unusable lines will be marked with ******.

If line noise gets the information on the screen out of sync, just type <*Ctrl-L*>. That will repaint the entire 80-by-24 screen and leave your cursor where it really belongs.

Moving the Cursor

Use the four arrow keys to move the cursor around on your screen. If there's room, you can scroll the message up or down by using the arrow keys at the top or bottom of the screen. Or use <*Ctrl-U*> and <*Ctrl-D*> to scroll up and down through your message. <*Home*> moves the cursor to the beginning of the line, and <*End*> moves to the end, just after the last nonblank character on the line.

Editing Commands

You can delete the character the cursor is pointing to with the <*Del*> key or with <*Ctrl-V*>. You can delete the character to the left of the cursor with <*Backspace*>. Delete an entire line with <*Ctrl-Y*>. Delete from the cursor to the end of the line with <*Ctrl-E*>.

You can insert new text by hitting the <*Ctrl-F*> key and inserting spaces first, and then typing in what you want. If it won't fit on one line, you can first chop the line in two with <*Ctrl-C*>, type the new stuff and then use <*Ctrl-J*> to join the lines again. Use <*Ctrl-C*> several times if you need several lines of space. You can use <*Ctrl-P*> to reflow a paragraph and clean it up.

To insert a blank line, move the cursor to the line above where you want it and use <*Ctrl-B*>. You can center a line between margins (columns 1-72) with <*Ctrl-A*>. Use

<*Ctrl-T*> to retype the topic of the message (also called the file description, if there's a file attached).

Importing another Message

This command will copy the body of an existing message into your editing buffer. This is handy if you forgot to send copies of a message to someone — just write a new message and import the original contents. This is even better than carbon copying because you can edit the imported text and write a note to the third party, like "Fred, here's the message I just sent to Paula."

To import an entire message type <*Ctrl-N*> and the message number. The topic will not be imported, but the entire message body will. You can only import messages you have written, or messages that were written to you. Importing a message will remove the existing message text (clears the current message).

Modes and Settings

For online help and reminders, use <*Ctrl-R*>; for more help, use <*Ctrl-W*>. Use <*Ctrl-Z*> to choose between VT-102 softkeys and control keys:

Control Keys		VT-102 Keys	
<*Ctrl-X*>	Line editor	<*F1*>	Import another message
<*Ctrl-G*>	Save and Exit	<*F2*>	Save and Exit
<*Ctrl-O*>	Quit and abandon	<*F3*>	Quit and abandon
<*Ctrl-T*>	Change Topic	<*F4*>	Change Topic
<*Ctrl-R*>	Help	<*F5*>	Help
<*Ctrl-U*>	Scroll up 10 lines	<*F6*>	Scroll up 10 lines
<*Ctrl-D*>	Scroll down 10 lines	<*F7*>	Scroll down 10 lines
<*Ctrl-Z*>	Configure these keys	<*F8*>	Configure these keys

Block Commands

The block commands start with <*Ctrl-K*>. To mark the start of a block use <*Ctrl-K*> <*Ctrl-B*>. The starting point of a block should be on a line above the line with the ending point. Or if they are on the same line, the start should be to the left of the end. Mark the end with <*Ctrl-K*> <*Ctrl-K*>. The entire block will appear in reverse video on your screen. You will see that the block is not a rectangle, but a continuous excerpt of the text stream.

Then you can either delete the block with <*Ctrl-K*> <*Ctrl-Y*>, or draw a double-line extended ASCII frame with <*Ctrl-K*> <*Ctrl-F*>. The double-line box is a rectangular box with the corners at the start and end of the block. You can unmark or *hide* the block with <*Ctrl-K*> <*Ctrl-H*>. (You can make the block appear again by choosing a new start or end point.)

Saving the Message and Exiting the Editor

When done writing and editing the message, you can type <*Ctrl-G*>.

Aliases for save and exit

<Ctrl-K> <Ctrl-S>
<Ctrl-K> <Ctrl-X>
`/S` *<Enter>* (on the last line by itself — the `/S` is not saved as part of the message)

Quit the Editor and Abandon Changes

Type *<Ctrl-O>* to exit the editor and abandon your message or your changes to the message. (If you were writing a brand new message it's discarded entirely. If you were editing a message, your changes are lost, but the original message remains intact.)

Aliases for quit and abandon

<Ctrl-O>
<Ctrl-K> <Ctrl-Q>

Line Editor

The Line Editor is used to write or modify a message when you do not have ANSI capability or your terminal screen is not big enough (at least 20 lines long). In those cases, you will enter the Line Editor whenever you try to write or modify a message.

You can get from the Full Screen Editor to the Line Editor with the *<Ctrl-X>* keystroke. You can get back to the Full Screen Editor mode from the Line Editor with the `M)ode` command.

```
EDITOR OPTIONS:

  S)ave message      R)etype a line
  A)ppend message    D)elete line
  L)ist message      I)nsert line(s)
  C)hange text       N)ew message
  H)elp              T)opic change
  M)ode: Switch to Full Screen Editor

Select an option from the above list: _
```

The Line Editor has two modes of operation:

Entry Mode	type in text, as you do on a typewriter
Command Mode	type in commands that modify the text

Entry Mode

When you type the body of a brand new message, you are in the entry mode. Text entry is like typing on a typewriter — typing line after line of a message. Text entry is automatically "word wrapped" so that you don't have to hit *<Enter>* at the end of each line within a paragraph. If you type in an empty line (hit *<Enter>* when the cursor is at the left margin) then the editor gives a brief help message but no text is added to the message. To add a blank line to the message, you need to to type *<Space> <Enter>* from the left margin.

While in *entry* mode, if you want to:	You simply type in a single line with only this on it:	Meaning:
Switch to command mode.	OK	end-of-message
Exit the editor and save the message.	/S or .S	save

Text Upload

To upload text into a message that you're editing, use U)pload file. You'll get the option to first clear any text that may be in the editor's buffer.

Command Mode

When you enter command mode, you get the editor menu:

```
EDITOR OPTIONS:

  S)ave message      R)etype a line
  A)ppend message    D)elete line
  L)ist message      I)nsert line(s)
  C)hange text       N)ew message
  H)elp              T)opic change
  U)pload file
  M)ode: Switch to Full Screen Editor

Select an option from the above list: _
```

There's a slight variation on this menu when you're editing a message that has a file attached:

```
FILE DESCRIPTION EDITOR OPTIONS:

  S)ave description   R)etype a line
  A)ppend to it       D)elete line
  L)ist description   I)nsert line(s)
  C)hange text        N)ew description
  H)elp               F)ilename change
  U)pload file
  M)ode: Switch to Full Screen Editor

Select an option from the above list: _
```

The short form of this menu is:

```
Select an editor option (S,A,L,C,H,R,D,I,N,T,U,M, or ? for menu): _
```

or

```
Select an editor option (S,A,L,C,H,R,D,I,N,F,U,M, or ? for menu): _
```

Here is what the editor commands can do:

While in *command* mode, if you want to:	You type in the following command:	Meaning:
Switch to entry mode (picking up at the end of the message.)	A	append
Insert text, switching to entry mode.	I	insert
Exit the editor and save the message.	S	save
Exit the editor, throwing away any changes to the message since you started the editor.	X	exit
Switch to the Full Screen Editor	M	mode

Save message: write the message to disk as it stands. Exit the editor.

Append to message: go into *Entry mode* to type in more text for the message starting at the bottom of the message.

List message: display the message with line numbers.

Change text: in a specific line of the message, replace a certain string with another. For example, if line 6 looked like:

```
06: The quick brown fox jumped over the lazy dog.
```

Typing: `C6` <*Enter*> `ed` <*Enter*> `s` <*Enter*> changes the line into:

```
06: The quick brown fox jumps over the lazy dog.
```

Help: display instructions on any of the other editor commands. For example, `HC` gives you information on the `Change` command. Help is available on almost every command this way.

Retype a line: replace one line (specified by its number) with a new line. For example, `R2` allows you to type in new text for line 2. Lines 1 and 3 through the end of the message (if any) are not changed.

Delete line: remove a line (specified by its number) from the message. For example, `D15` removes line 15 from the message, and moves the remainder of the message up one line.

Insert line(s): insert a line before another line in the message. For example, `I4` moves the rest of the message starting from line 4 down and you begin typing in a new line 4 in *Entry mode*. To insert after the last line in the message, use the `Append` command.

New message: either import another message, or clear this one entirely. If you type in a message number, you can import the contents of a message you wrote, or a message written to you, into this message. The topic is imported only if the one you already have is 1 character long (a dot, ., for example).

If you enter C, you will clear all text in the message, and stay in the Editor Command mode. Enter N to do nothing and forget about the N)ew command.

Topic change: retype the topic line of the message.

Filename change: retype the file name and description for the attached file.

Full Screen Data Entry

You might use the Full Screen Data Entry service for these purposes:

- Edit your account information on the BBS, with name, address, phone numbers and system preferences (see page 371; this is shown in the above example).
- Modify a file you uploaded, giving it descriptions and keywords (see page 368).

The Screen

When you enter Full Screen Data Entry mode, you'll see lots of fields ready for you to type in new information. Near the top, one of the fields will be highlighted. This highlighted bar is the field cursor. You can move the field cursor to other fields using the up and down arrow keys.

You'll notice a special field at the bottom where you can make your final answer. The choices there always include:

SAVE	Save your changes, exit data entry
QUIT	Quit data entry, abandon changes

You can just type S or Q to pick one of these and hit *<Enter>* to make it take effect. Other options may be available too, but these are the most important; this is how you get out of this mode. You can also get out from *any* field with these single keystrokes:

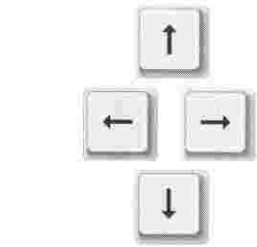
<Ctrl-G>	Save your changes, exit data entry
<Ctrl-O>	Quit data entry, abandon changes

Moving the Cursor

To move from field to field, use *<Up arrow>* and *<Down arrow>*. You may not always move exactly up or exactly down, but you will move through all the fields.

Inside the white field cursor bar is the familiar character cursor (usually a blinking underline). You can move this to the right or left with the right and left arrow keys. Use *<Home>* to get to the beginning of a line or *<End>* to get to the last character on the line.

Full Screen Data Entry Keystrokes



Move up to the next field

Move the cursor around on the field

Move down to the next field

New Info Enter↵ Change a field

BACKSPACE ← or DEL Delete a character

CTRL F Insert a space

Home Move to the beginning of a field

End Move to the end of a field (to the last character)

CTRL S Save information

CTRL Q Quit and abandon information

SPACEBAR On a multiple choice field, spacebar toggles through your options

Editing

To change a field, you can just retype it. Notice that the old answer disappears entirely. That helps when you want to change HELLO to BYE, so you don't get BYELO. Tip: If you wanted BYELO for some reason, then do not start by retyping — start by moving the cursor right or left. That way the old stuff doesn't disappear.

To delete characters use the *<Del>* key or the *<Backspace>* key. To insert spaces use the *<Ctrl-F>* key. To insert other things, use *<Ctrl-F>* first, to make room for them.

Sometimes the BBS won't let you make a certain change. If you try to change your screen width to eight characters, for example, it will revert to your old screen width and warn you that screen width must be at least 40 characters.

If you are editing a series of long lines, such as a long file description in a Library, you will need to type each line completely and hit *<Enter>* at the end of it. If you try to insert a blank line, the editor will think you're done. To enter a blank line, insert a single period (.) to start with, enter the lines below it, then come back and erase the period.

Multiple Choice Fields

You will find cases where a field has only a few possible answers, such as YES or NO, PAUSE or CONTINUOUS. The *<Spacebar>* will toggle among the choices for you, or you can type the first letter and get it directly. When you have what you want, hit *<Enter>* to move on.

Linear Data Entry

You'll use linear data entry if your terminal doesn't have ANSI capability or if it doesn't have enough lines (24 is always enough but the exact minimum requirement may vary). Linear data entry has the same purpose — to allow you to view and change a lot of information at once. But here the questions are presented to you one at a time.

See page 376 for an example of a linear data entry session on your account information.

In these cases, you don't have arrow keys to move from field to field, but you do have these keys:

<Ctrl-U>	Move up one field
<Enter>	Move down one field

<Ctrl-U> is not nearly as visual as the *<Up arrow>* key on a Full Screen Data Entry session. You usually have to pay close attention when you use *<Ctrl-U>* to just what you are entering.

In most cases, when you are done, you can just keep hitting *<Enter>* until the BBS doesn't take *<Enter>* anymore. That's because the last question is always asking if you want to:

SAVE	Save your changes, exit data entry
QUIT	Quit data entry, abandon changes

EDIT	Edit the information all over again
<*Ctrl-U*>	Back up to the next-to-last field

Pick an answer by typing the first letter and hitting <*Enter*>. There is no default for this question. You must pick one of these answers (there may be other choices too). Picking EDIT will swing you right back to the first question again. The quick way to exit a Linear Data Entry session is to type one of these keys from any field:

<*Ctrl-G*>	Save your changes, exit data entry
<*Ctrl-O*>	Quit data entry, abandon changes

Changing Fields

To change a field, just retype it. You'll notice that the old answer disappears right away. If you want to change what's there, be sure to use <*Backspace*> first. That's true even if you want to add at the end of an old answer: hit <*Backspace*> once, retype the character you clobbered, and then type what you wanted to add.

Multiple-Choice Fields

Some questions only have a few possible answers, as in YES or NO. You can toggle between them using <*Spacebar*>, or you can pick the one you want by typing the first letter of it.

QWK-MAIL

QWK-mail enables you to bulk download news, E-mail, and Forum messages. You can view the messages, write responses for bulk upload, and in general participate more fully in the activities on the BBS.

To use QWK-mail, you must first have an offline quick mail reader such as SLMR, EZ-Reader, BlueWave, or Freddie. Shareware versions of these programs are available on many BBSes. The Galacticomm Demo System, (305) 583-7808, has a shareware version of SLMR in the File Libraries.

Here are the QWK-mail menu options:

D – Download YOUR_ID.QWK packet

Downloads a QWK packet containing all messages you have not yet read. You can filter the messages which are downloaded by configuring your quickscan keywords and Forums. QWK-mail displays each Forum and the number of messages included in the packet while the QWK packet is being built.

QWK-mail will ask you to specify the download protocol. After the download successfully completes, your current message pointers will be updated automatically, so that your next download will only include new messages.

U – Upload YOUR_ID.REP packet

Uploads a REP packet which you built using your offline reader. You will be asked to specify the upload protocol.

If you are still online, you will be notified when processing of your REP packet has completed. This can take many minutes due to REP packets queued ahead of yours.

`A - Attachment toggle (currently <ON,OFF>)`

When `ON`, this option includes file attachments in your QWK packet. Usually, you would leave this option `OFF` to prevent downloading large file attachments which you are not interested in. You can still request download of those specific file attachments you do want in your next REP packet.

`R - Reset message pointers`

This resets your current message pointers to the message number you specify. QWK-mail automatically maintains your current message pointers, therefore, you normally don't have to change them.

If you are interested in downloading all messages since a certain date, you can reset the message pointers to the number of a message slightly older than the time you're interested in. Your next download will include messages newer than the one specified.

Resetting the message pointers to `1` will cause your next QWK download to include all messages in the Forums in your quickscan, along with all private E-mail messages to you.

`? - Help with this feature`

Displays a screen of useful information on using QWK-mail.

`X - Exit`

Exits QWK-mail and returns to the menu tree. Processing of REP packets will continue even if you exit QWK-mail or log off the BBS.

FILE LIBRARIES

The File Libraries is an online service which makes a large number of files available for you to download. If it's allowed, you can also contribute to the File Libraries by uploading files.

The Current Library

A Library is like a single DOS directory of files. You always have a current Library or default Library. When you first log on, you're in the default Library for the BBS. However, if you select a different Library, it will be your default Library the next time you log on. The Library menu header shows you what Library you're in:

```
Welcome to the MAIN Library.
Description: A general-purpose file area.

There are 8 files available for download.
```

However, searches can be configured to include all Libraries, see Preferences page 368.

Full Screen Displays

The File Libraries normally uses full screen displays, if your terminal program has ANSI or RIP capability. This greatly simplifies the process of working with long lists of files. Without ANSI, selection screens will scroll by a line at a time.

File Names

Files can be named just like DOS files, with one to eight characters, a dot (.), and zero to three characters:

```
FILENAME.EXT
```

File names can include letters (converted to upper case), numbers, and these punctuation symbols:

```
!  #  $  &  '  (  )  -  @  ^  _  `
```

All the files within a Library must have a unique name.

Wildcards

Wildcards are used to specify the name of a file when you don't know the exact name of the file or you want to specify multiple files. For example:

`auto*.*`	any filename which starts with "auto"
`*.zip`	all files with the extension of "zip"
`patch?.zip`	any filename which starts with "patch" followed by any single character and with the extension of "zip"

In the preceding examples, * means match any string (0 or more characters), ? means match any single character. You can use wildcards in most places where you're asked to enter a filename.

Download Pricing

The BBS may charge your account for downloading files. When you get a detailed description of a file, you can see an estimate of the download charges. This estimate tries to take into account the duration of the download on your session and the cost of connect time — you may see the amount drop if you call back at a higher baud rate.

If the amount of credits you have is close to this estimate, you may or may not be able to complete the download.

Tagging Files for Download

When searching through files, you don't have to download a file immediately. Instead, you can tag it for later download. You may want to do this if you'd rather download all the files you've found at the end of your session or if you're not sure if you really want a particular file. You can remove the file from the tagged file list before you start downloading if you decide you don't want it or you found the correct file later in your searching. See the section on Managing Tagged Files, page 367.

S = Selecting a Library

If the BBS has multiple Libraries, this command will appear in the File Libraries menu. You select a particular Library by typing:

S *<Library name>*

Type S? to get a list of all the Libraries available on the BBS.

D = Download a File

If you know the name of the file you want to download, type:

D *<filename>* *<optional protocol>*

If the file exists in any Library or if you used a wildcard in the file name, the download will start right away. If many files in different Libraries have the same name, you will get a search screen to select the ones you want.

F = Find Files

Select the F option from the Library menu if you want to list files available or search for a particular file. You can list files in alphabetical order, by date, by number of downloads or you can search by file name or keyword. Setting your Library preferences will affect the choices you will have, see page 368. In any case, you will get a search screen listing the files you requested. You will be able to get detailed information on any file, download a file immediately, tag files for later download, or view the contents of a file.

R = Resuming a Search

If you exit to the Library menu in the middle of a search list, you will find a new menu selection, R, to resume where you left off.

T = Manage Tagged Files

Select the T option to download files you have tagged. This option is only visible when you have files tagged. You will be given a list of the files you have tagged. You can untag any or all of them at this time. If you have tagged more than one file, you can download them all at once.

Even if you don't bother downloading your tagged files before exiting the File Libraries menu, you can return later in your session to download them. You will also be given a chance to download them before you log off. If you log off, however, or are disconnected for any reason without downloading the files, your list of tagged files will be lost.

L = Download Lists of Files

Select L to download a list of all the files in a Library or all the files in all Libraries if you prefer to search for files offline.

U = Upload a File

Select U to upload files. Enter the name of the file you wish to upload and select the file transfer protocol. With most terminal programs, you would now press *<PgUp>* to specify the file on your computer and start the upload. After the upload completes, you will be prompted to enter a description for the file. If you uploaded multiple files (using a multifile upload protocol), you will be prompted to enter descriptions for each of the files.

You can upload several files at once using one of the batch file protocols by typing * instead of a file name. You can choose a multifile upload protocol from among:

```
Enter file name, *, M, ? for more help, or X to exit: *

To start uploading these files, type:

   B ... YMODEM Batch                    Z ... ZMODEM
   G ... YMODEM-g                        K ... Kermit

   (Add '1' to automatically log off when done.)

   Your choice (or 'X' to exit):_
```

In these cases, you don't need to tell the BBS the name of the file. The same file name will be used on the BBS as is used on your computer. That's possible because these protocols transmit the name of the file — as well as its exact size, time, and date — before transmitting the contents.

You can use U* even when uploading only one file. That way, you don't have to type in the file name twice.

A Library has an upper limit on the size and number of files it can contain as well as the size of each uploaded file. Usually, you can see these limits when you select the Upload option.

In some Libraries, your uploaded file may not be available for other users to download until the Sysop or Library Operator approves the file. Library Operators are notified of unapproved files in their Libraries when they log on. Usually, you can see the name of the Primary Library Operator when you select a Library.

On systems that charge for usage, you may get a royalty for an uploaded file when another user downloads it. When the download completes, if charges are deducted from the downloader's account, then the uploader may get a percentage credited to his account.

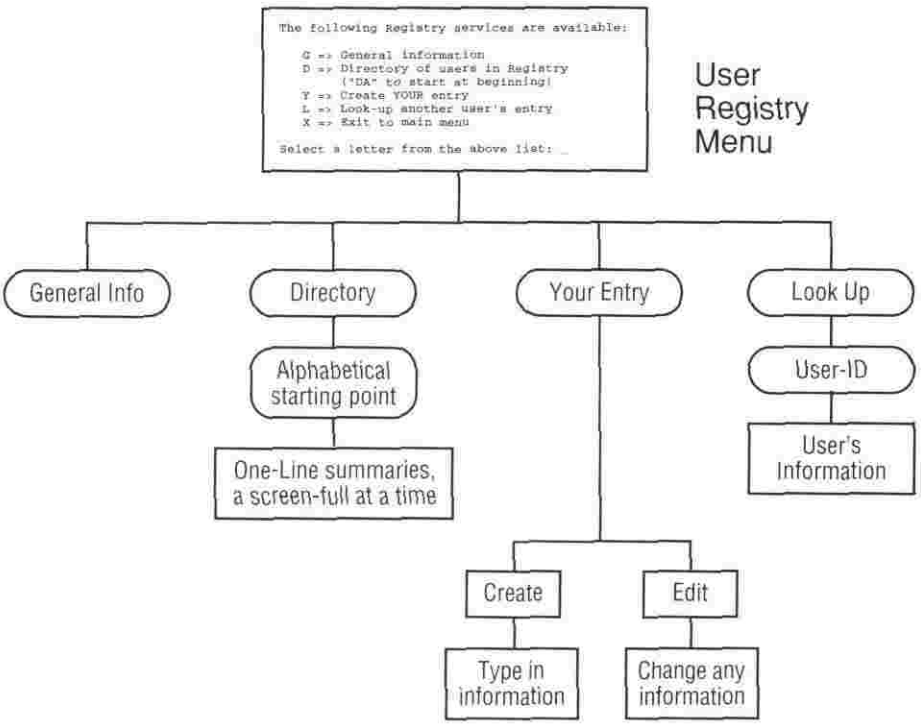
The charges based on the number and sizes of the files are subject to the royalty. Connect time charges during download are not subject to the royalty.

You can modify the description of a file you uploaded or re-upload it if necessary. Select U as if you were uploading a file the first time. Enter the file name of the original file to re-upload or M to modify the description.

P = Set Your Preferences

The preferences menu allows you to specify a preferred file transfer protocol or configure your default method of file listing and searching. You can also request that you be asked to specify those options each time you transfer a file or initiate a search.

REGISTRY OF USERS



The registry allows you to put information online for other users to view. This is your option. You may want to remain confidential or anonymous on the BBS, and there is no penalty for doing so. By the way, the questions you answered when you signed up are for the Sysop only. See him if you have any confidentiality concerns.

When you create your own entry in the Registry, you type in the answers to several questions. The operator of the BBS can configure his own set of questions. The last one is always a summary question. If you don't want to answer a question, you can always enter N/A.

You can scan Registry entries alphabetically by User-ID and see the summary lines. Also, you can look up all the Registry information, one User-ID at a time. Of course, you'll only see information on users who have voluntarily answered the registry questions.

D = Directory Search

Here's an example of a search through the registry:

```
Select an option (G,D,Y,L,X, or ?): D

Where in the alphabet (A-Z) do you wish to begin your directory listing? D

<< Press RETURN during scrolling to abort >>
```

```
USER-ID                          ... SUMMARY
-------------------------------------------
Dan Lamar                        ... Interested in starting BBS
Data Tidings Inc.                ... Danish Magazine
Davey Fredericks                 ... Bearded entrepreneur
Dean Jameson                     ... SYSOP, Missouri Purchasing BBS
Don Metzenbaum                   ... MCI Customer Support Education Manager
Dodger                           ... Kid from Connecticut that loves to BBS
Dracor                           ... electronics tech and comp. consultant.
Ed Williams                      ... Stanford BBS   200-241-8308
Eduardo Giovanni                 ... Computer oriented lawyer/businessman

 *** Directory Listing Aborted ***

Select an option (G,D,Y,L,X, or ? for menu): __
```

L = Looking up Another User

Here's an example of looking up another user's Registry entry:

```
Select an option (G,D,Y,L,X, or ? for menu): L

Enter User-ID to look-up or X to exit: TED DEGROFF

OK, here's the info for Ted DeGroff


Full Name ..... Ted DeGroff
Title ......... Research Scientist
Company ....... Photonics, Inc.
Location ...... Ft Wawazit, TX          Employees ..... 2500
Business Type ... Solar power mfg        Annual Sales ... $3B
E-mail Addresses:
   Compuserve ... 70626,2412             MCI Mail ..... 605-4416
   Internet   ... .                      Dialmail ..... .
   GEnie ..... .                         FidoNetmail ... .
Voice Phone # ... (714) 442-2000         Computer Type .. GTR 686/80
Operating Sys ... MS-DOS                 Comm. Program .. Lazercomm III
BBS owned ..... Sunshine Online
BBSs used ..... Galacticomm demo
Interests ..... Compact power storage
Experience .... Chemistry, Geology, Particle Physics
Applications .. Solar engines, fuel, electricity
Languages ..... Russian
Summary: Call our BBS for solar product lit, (714) 442-2025

Enter User-ID to look-up, N for the next in sequence, or X to exit: _
```

Y = Creating or Editing Your Entry

When you create your entry, you answer the Registry questions one after the other. Each answer has a limited number of characters it can accept. (To find out how many, you can just type a long line until you run into the limit.) After creating your entry, you could go back later and edit your answers.

POLLS AND QUESTIONNAIRES

The BBS's Sysop can prepare unlimited polls and questionnaires. This is where the BBS asks you a series of questions and records your answers. In each questionnaire, the BBS can present you with up to 100 questions.

Here's the Polls and Questionnaires' menu:

```
G ... General information
T ... Take a Poll/Questionnaire
R ... View results for a Poll
L ... Look up results for an individual

Enter your selection, or X to exit: _
```

Selection `G ... General information` will display basic information about the Polls and Questionnaires module, giving a brief overview of options `T`, `R`, and `L`.

Selection `T ... Take a Poll/Questionnaire` will list all polls and questionnaires to which you have access. To access a poll, you can enter the poll name or the index number next to the poll name.

Selection `R ... View results for a Poll` will list all polls that you have result access to. To view results for a poll, you can enter the poll name or the index number next to the poll name.

Selection `L ... Look up results for an individual` will display results for a particular individual for a given poll or questionnaire. You will see a prompt to enter the User-ID of the individual to look up and then a list of polls and questionnaires that this individual has completed. From this listing, you can enter a poll name or the index number next to a poll name and view the individual's responses.

USER ACCOUNT DISPLAY/EDIT

This service allows you to view some statistics on your account, review the answers you gave when you signed up, change them if you like, and transfer credits to other user accounts (if applicable).

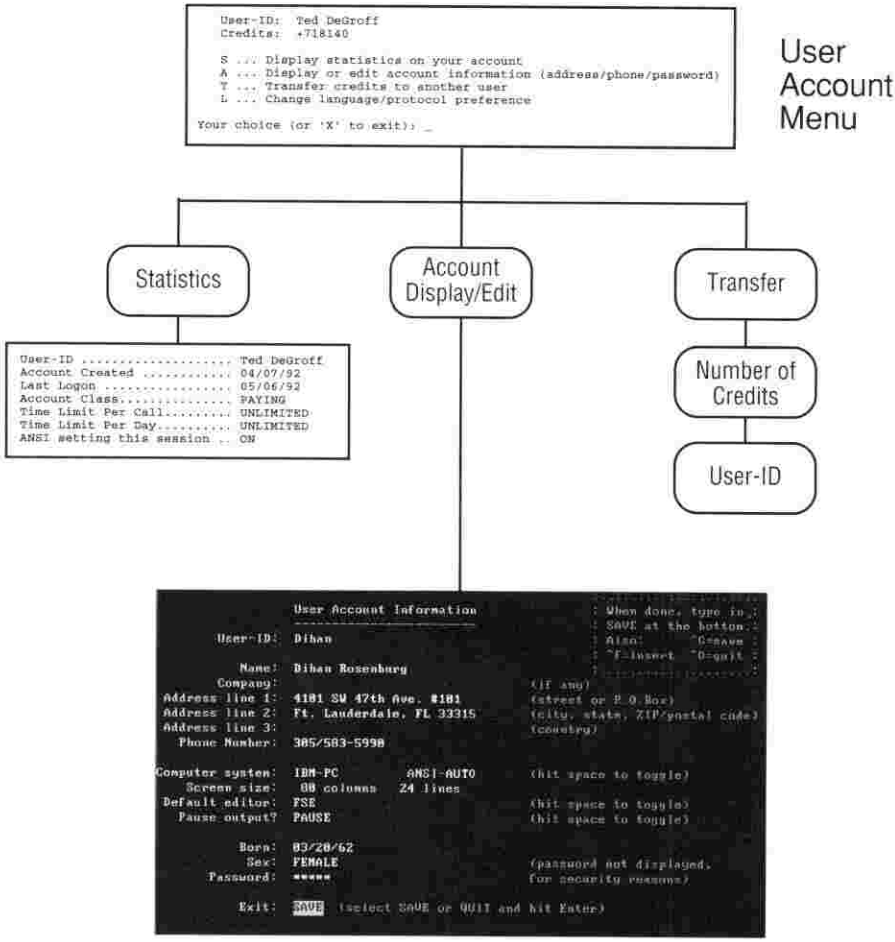
Credits

Some BBSes track your usage, or charge for your usage, by issuing "credits." Being online consumes credits and using various services also consumes credits. If the BBS does deal with credits then you'll see how many you have in your Account menu:

```
User-ID:  Arthur Berg
Credits:  +693150
Language: English/ANSI

S ... Display statistics on your account
A ... Display or edit account information (address/phone/password)
T ... Transfer credits to another user
L ... Change language/protocol preference

Your choice (or 'X' to exit): _
```

Otherwise, they won't be displayed:

```
User-ID:  Arthur Berg

S ... Display statistics on your account
A ... Display or edit account information (address/phone/password)
L ... Change language/protocol preference

Your choice (or 'X' to exit): _
```



S = Display Statistics on Your Account

This choice shows you a few statistics on your account.

```
    User-ID:  Arthur Berg

    S ... Display statistics on your account
    A ... Display or edit account information (address/phone/password)
    T ... Transfer credits to another user
    L ... Change language/protocol preference

Your choice (or '' to exit): S

 User-ID ..................... Arthur Berg
 Account Created ............. 02/09/91
 Last Logon .................. 05/14/92
 Account Class................ CUSTOMER
 Time Limit Per Call.......... UNLIMITED
 Time Limit Per Day........... UNLIMITED
 ANSI setting this session .. ON

    User-ID:  Arthur Berg

    S ... Display statistics on your account
    A ... Display or edit account information (address/phone/password)

Your choice (or 'X' to exit): _
```

Your account was created when you first signed up. The day you last logged on, (prior to your current session) is recorded also.

Your class determines how long you can stay online and what services you are allowed to use, and perhaps, whether you are charged for using the BBS. In the above example, Arthur has no limits on how long he can stay online. The ANSI-ON condition means that his terminal is receiving color and cursor movement commands from the BBS. You can change your ANSI setting if you like. More on that below.

A = Editing Your Account Information

On most BBSes, you can edit your answers to the sign-up questions. You won't be able to change your User-ID, though. And some questions are asked only at sign-up and can't be changed later.

You use the Full Screen Data Entry service to change your account information if your terminal has ANSI capability. You will see all your account information on the screen. To move around the different fields, use *<Up arrow>* and *<Down arrow>*. To retype a field, just type over the old information. To change a field, start by moving the cursor right or left to the correct position. Then type over the old stuff, or:

<Delete> or *<Backspace>*	delete a character
<Ctrl-F>	insert a character

See page 361 for more on using the Full Screen Data Entry service. See below for editing your account information when you don't have ANSI — using the Linear Data Entry service.

You can leave this screen any time by hitting:

<Ctrl-G>	Save your changes and exit
<Ctrl-O>	Quit and abandon your changes

Name, Address, Phone Numbers

Some of these fields have minimum lengths: you'll be notified if your answer is too short. This information is treated by most Sysops as highly confidential. It would be used mainly to contact you should there be a question or problem with your account. Many Sysops also use this information to mail you announcements, newsletters, and so forth.

Computer System

Different menus may be provided for users that have IBM computers and users that don't. IBM computers, when used as terminals, can display a wide variety of special extended ASCII characters, including box borders, shading, and international characters. The only other impact of this question is on demographic statistics that the Sysop can see.

ANSI Preference

This answer concerns whether or not your terminal should be receiving ANSI commands for cursor positioning, colors, and other attributes.

ON	ANSI commands will be sent to your terminal
OFF	ANSI commands will not be sent to your terminal
AUTO	Each time you log on, the BBS will decide whether to send ANSI commands to your terminal. The BBS may automatically detect whether you have ANSI, or it may ask you, or it may be configured by the Sysop to be on or off.

Usually you can leave this set to AUTO. But if the BBS appears to be making the wrong choice for your terminal, you can change it. If you see bland colorless text on your color monitor, set it to ON. If you see lots of annoying bracket characters with numbers and letters after them, such as `[33m` or `[0;1;47;52m`, you may want to set it to OFF.

Screen Dimensions and Pausing

Here are some examples of different screen configurations:

`Screen size: 80 columns by 24 lines` `Pause output? PAUSE`	standard 80-by-24 terminal the BBS pauses when it has 23 lines or more to display
`Screen size: 80 columns by 24 lines` `Pause output? CONTINUOUS`	standard 80-by-24 terminal, the BBS doesn't pause, display is continuous
`Screen size: 80 columns by 43 lines` `Pause output? PAUSE`	enlarged 80-by-43 terminal, pause each 42 lines

Default Editor

When editing Electronic Mail messages or Forum messages, you can choose to use FSE (Full Screen Editor) or the LINE Editor.

Language

If the Sysop permits, you can change your language by choosing L from the User Account Menu.

Birthdate

The Major BBS records birthdays. (That way, the information doesn't change every year.)

Sex

Enter MALE or FEMALE.

Password

Your password appears as a string of asterisks (****). You can change your password as often as you like to keep your account secure.

Save or Quit

When you are done editing, answer the question at the bottom:

SAVE	Save your changes and exit
QUIT	Quit and abandon your changes

Just pick S or Q and hit *<Enter>* to exit back to the Account Display/Edit menu.

Editing Your Account When You Don't Have ANSI

If your terminal doesn't have ANSI capability, or if your screen isn't long enough (24 lines is enough), then editing your account information will have to proceed one question at a time.

Use *<Enter>* to skip each field you do not want to change. When you get to a field you want to change, you can either back up over the information that's already there and type new information, or just start typing in completely new information.

To edit the information that's there:	start with a *<Backspace>*
To replace the information that's there:	start by typing the first character of the new information

If you make a mistake, just use:

<Ctrl-U>	To back up one field

Here's an example of editing your account information from a non-ANSI terminal:

```
   User-ID:  Jo Keysor
   Credits:  +715590

   S ... Display statistics on your account
   A ... Display or edit account information (address/phone/password)
   T ... Transfer credits to another user
   L ... Change language/protocol preference

Your choice (or 'X' to exit): A

                User Account Information
                ------------------------
        User-ID:  Jo Keysor

           Name:  Jo Keysor
        Company:  Bionetrics, Inc.
 Address line 1:  POB1042
 Address line 2:  Barrow, AK  99565
 Address line 3:
   Phone Number:  907-392-4922

Computer system:  IBM-PC          ANSI-AUTO
    Screen size:  80 columns      24 lines
 Default editor:  FSE
   Pause output?  PAUSE

            Age:  32
            Sex:  FEMALE
       Password:  ****

Do you want to change anything? Y

Retype any entry, or hit ENTER to leave it unchanged, or BACKSPACE over it to
change it.  You can also use ^U to backup one line if you made a mistake
(hold down the "Ctrl" key and type 'U').  Hit ^G to save at any time, or ^O
to quit at any time.

   User Account Information
   ------------------------

    Name: Joanne R. Keysor
 Company: Bionetrics, Inc.
Address1: P. O. Box 651042
Address2: Barrow, AK  99565-1042
Address3:
   Phone: 907-392-4922

                 (hit space to toggle)
Computer system:  IBM-PC

                 (AUTO, ON, OFF)
ANSI preference:  OFF

 Screen columns:  80
   Screen lines:  24

 Default editor:  FSE

   Pause output   (hit space to toggle)
    each screen?  PAUSE

            Age:  32

            Sex:  FEMALE
```

```
   (not displayed, for security reasons)
        Password:  *******

   Save, Edit again, or Quit? SAVE

Your information has been updated.

   User-ID:  Jo Keysor
   Credits:  +715545

   S ... Display statistics on your account
   A ... Display or edit account information (address/phone/password)
   T ... Transfer credits to another user
   L ... Change language/protocol preference

Your choice (or 'X' to exit): _
```

T = Transferring Credits

With the Sysop's permission, you can transfer credits from your account to another user's account. There's usually a minimum amount you can transfer, such as 600 credits. Here's an example of transferring credits:

```
   User-ID:  Teresa Gibbs
   Credits:  +16530

   S ... Display statistics on your account
   A ... Display or edit account information (address/phone/password)
   T ... Transfer credits to another user
   L ... Change language/protocol preference

Your choice (or 'X' to exit): T

This option is used to transfer credits to another account.
How many credits would you like to transfer? 100
Please enter a number in the range from 600 to 16529.
Enter the letter 'X' if you want to exit.

This option is used to transfer credits to another account.
How many credits would you like to transfer? 1000

Enter the User-ID to transfer credits to: CANDACE HERNAN

TO CONFIRM:
You wish to transfer 1000 credits from Teresa Gibbs to Candace Hernan.

Is this correct? Y

CONFIRMED:
1000 credits have been transferred from Teresa Gibbs to Candace Hernan.

   User-ID:  Teresa Gibbs
   Credits:  +16485

   S ... Display statistics on your account
   A ... Display or edit account information (address/phone/password)
   T ... Transfer credits to another user
   L ... Change language/protocol preference

Your choice (or 'X' to exit): _
```

Doors

Doors allow you to access DOS-based applications through the BBS. For the most part, Doors appear to function like native DOS programs. You may notice some differences in the way screens are updated, but the net effect is the same.

Select `L` from the Doors menu to get a list of the Doors available on this BBS. Select `E` followed by the Door name to enter a particular Door. You will be asked to wait while the BBS connects to the Door. You may be asked to try again later if for some reason the Door is unavailable or not responding. If you successfully enter the Door, you'll receive a `Connected!` message. At this point you are directly communicating with the DOS application.

Some Doors support what is called Doorway mode. In this mode you are able to use all the keys on your keyboard, including the *<Alt>* and function keys, as if you were at the computer keyboard. To do this, not only does the Door have to support Doorway mode, but your terminal program must also. Most terminal programs use *<Alt-=>* to toggle Doorway mode on or off. Remember that you must turn off Doorway mode once you return to the BBS!

The normal way to exit a Door is to exit the DOS application. You will receive a `Door Closed` message and you'll return to the Door menu. You can also exit a Door by typing a single character, usually "-", three times in rapid succession. You should wait several seconds before typing the disconnect sequence or the BBS may not recognize it.

16

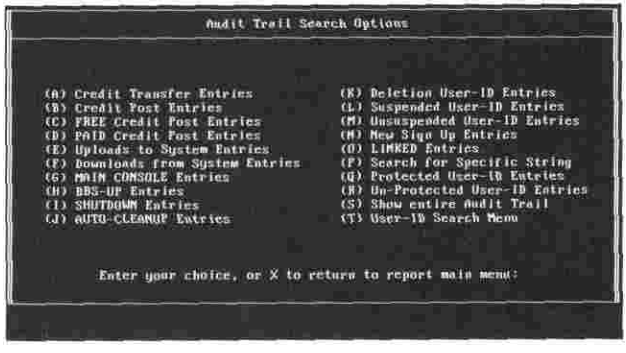
REPORTS

THE REPORT MENU

The Report menu is choice 9 from the Introductory Menu. You can send reports:

1. To your screen
2. To your printer
3. To a text file on disk

Audit Trail Search



The Audit Trail records important system events. You can view it online from the Audit Trail Detail screen (page 197). But with this offline report, you can search for specific events. You can search for new user sign-ups, user account deletions, specific User-IDs. In addition, you can search for any specific string.

```
Searching Audit Trail for "Entire Audit Trail"
Searching FORWARD Starting Date: 05/23/92 Ending Date: <NONE>

09:05 05/23/92 USER ACCOUNT DELETED
     User-ID: Dianna Teller                    (Had 0 credits)
```

Report Menu

Audit Trail

Forum Access Report

User Address Labels

User Key Report

User Account Detail

Remote Sysop Access

Forum Quickscan Report

Introductory Menu

Class Report

```
09:05 05/23/92 USER ACCOUNT DELETED
     User-ID: Ron Rodriguez                    (Had 0 credits)
09:41 05/23/92 PAID CREDITS POSTED
     User-ID: Gene Ottenberg                   Credits posted:   18000
13:51 05/23/92 USER CREDIT TRANSFER
     Sysop->Ana Martinez (1000 credits)
17:46 05/23/92 PAID CREDITS POSTED
     User-ID: Edward Z. Busch                  Credits posted:   10000
17:46 05/23/92 USER ACCOUNT UNPROTECTED
     Sysop UNPROTECTED Cosysop
17:46 05/23/92 USER ACCOUNT PROTECTED
     Sysop PROTECTED Cosysop
17:46 05/23/92 USER ACCOUNT SUSPENDED
     Sysop SUSPENDED Chris Robert
17:47 05/23/92 E-MAIL ATTACHMENT UPLOAD
     Sysop uploaded JAN1.WKI to Sheri Andersen
18:23 05/23/92 E-MAIL ATTACHMENT DOWNLOAD
     Sheri Andersen downld JAN1.WKI from Sysop
19:02 05/23/92 BBS SHUTDOWN
     (Going down to DOS)

                    *** END OF REPORT ***
```

The Audit Trail entries appear chronologically. All variations on the Audit Trail reports can be limited to a range of dates. In this example, the Audit Trail from 5/23/92 to today is listed.

User Address Labels

This report lists the addresses of users who are on file. If you like, it will print addresses only for users with U.S. ZIP codes. You also can restrict the list to users who have signed up since a certain date. That way, you can periodically send out mailings to new users of your BBS.

```
Dave Laduke                                  David Laduke II
6196 SW 17th St
Smithville, TN 30772



Kurt Martens                                 Kurt Martens
5558 SW 151 Terrace
Encino, CA 92940



Maya Whitcomb                                Maya
957 SW 18th Street
Dallas, TX 73221
```

Off to the right, starting in character column 41, is the User-ID. You probably won't want this on your mailing label, but this way you can refer back to a user's account from this report.

User Account Database

This report shows you all the information in the User Account database, including passwords. Here's an excerpt:

```
UserID    : Diane Staten                     Password: nickels
Real Name: Diane Staten                      System Type: 1(A)
```

```
Address 1: American Express                    Born: 09/23/74  Sex: Female
Address 2: 25963 SW 13 CT                      CRT: 80x24
Address 3: Chicago, IL 60612                   Date Created: 07/06/90
Address 4:                                     Date Last Used: 11/29/91
Phone Number: 555-1212                         Default Editor: FSE
Language: <none selected>

Current Class (Keyring): HOURLY                 Days in Class: 0

Credits Available:    34286  Total ever:   726401  Total Paid:   616800

UserID   : Barak                               Password: foonball
Real Name: James Barak                         System Type: 1(A)
Address 1:                                     Age: 35  Sex: Male
Address 2: 16277 SW 22 street                  CRT: 80x24
Address 3: Boston, MA                          Date Created: 12/31/91
Address 4:                                     Date Last Used: 05/21/92
Phone Number: 555-1212                         Default Editor: FSE

Current Class (Keyring): HOURLY                 Days in Class: 0

Credits Available:    16364  Total ever:   156000  Total Paid:   151200
```

Under system type, (A) means the user's terminal is ANSI compatible.

Forum Quickscan Report

This report shows user quickscan settings and access levels. The entries are in order by Forum number. (You can sort Forums by name using GALSORT — see page 393.)

```
            Forum Name: /4sale
          Forum Number: 000
 Non-Privileged Access: D/L
     Privileged Access: Write
    Max Non-Privileged: Forum-Op
         Privilege Key: Normal
-------------------------------------------------------------------------------
Adam Koorner                  *Default
Chris Robert                  *Default
Robert Stein                  *Default
Scott Brinker                 *Default
-------------------------------------------------------------------------------
           Forum Name: /Stocks
         Forum Number: 001
 Non-Privileged Access: D/L
     Privileged Access: U/L
    Max Non-Privileged: Forum-Op
-------------------------------------------------------------------------------
Adam Koorner                  *U/L
Edward Bush                    U/L
Robert Stein                  *U/L
Scott Brinker                 *U/L
Zermen Beck                   *U/L
-------------------------------------------------------------------------------
            Forum Name: /Ai
          Forum Number: 002
 Non-Privileged Access: D/L
     Privileged Access: U/L
    Max Non-Privileged: Forum-Op
-------------------------------------------------------------------------------
Tracy Lonest                 *Write
-------------------------------------------------------------------------------
```

Forum Information in the Quickscan Report

`Forum Number:`	Each Forum is assigned a unique number when it is created.
`Name:`	Name of the Forum.
`Nonprivileged Access:`	Default access level for nonprivileged users.
`Privileged Access:`	Default access level for privileged users.
`Max Nonprivileged:`	Maximum access level for nonprivileged users, even if you've assigned them a special access level (they'll get that level back if they become privileged again).
`Privileged Key:`	Key the user must hold to be privileged in this Forum.

Legend for the Quickscan Report

*	User is actively using this Forum in his quickscan.
`Default`	You have not given this user special access to this Forum. He has either the privileged or nonprivileged access levels.
`Zero`	Access level: Forum is invisible.
`Read`	Access level: Can read messages.
`D/L`	Access level: Can read messages and download attachments.
`Write`	Access level: Can read, write, or download attachments.
`U/L`	Access level: Can read,write, or download/upload.
`Coop`	Access level: Can upload preapproved files.
`Forum-Op`	Access level: Can appoint access levels in a Forum.
`Sysop`	Access level: Can create, delete Forums.

A user is listed in the quickscan report if either he is actively using that Forum in his quickscan or you have given him specific access to that Forum.

In the example on page 382, five users have `UPLOAD` access to the `/Stocks` Forum. Everyone else has either `WRITE` access (if they are privileged) or `DOWNLOAD` access (if they are not). Only four of the five are actively using `/Stocks` in their quickscans.

Forum Access Report

This report shows the Forum access levels for each user, in order by User-ID. Here is an excerpt:

```
USER-ID: Sasha Skaturi
      2-U/L
-------------------------------------------------------------------------------
USER-ID: Sheri Robert
      1-U/L          2-Write        3-Coop         4-Forum-Op
-------------------------------------------------------------------------------
USER-ID: Sysop
      0-Sysop        1-Sysop        2-Sysop        3-Sysop        4-Sysop
      5-Sysop
```

```
-------------------------------------------------------------------------------
USER-ID: Tammy Gooden
       2-U/L
-------------------------------------------------------------------------------
USER-ID: Ted E. Farly
       2-U/L
-------------------------------------------------------------------------------
USER-ID: Tiano Reeves
       2-U/L
-------------------------------------------------------------------------------

Legend of Forums and Default Levels
-----------------------------------

   No.     Name       Non Priv     Priv      Max Non Priv     Privileged Key
   ---     -------    ---------    -----     ------------     --------------
   000    /4sale      Zero         Zero      Zero             Normal
   001    /Al         Read         U/L       Coop             Normal
   002    /Class      Read         U/L       Coop             Normal
   003    /Common     Read         Write     Coop             Normal
   004    /C_echo     Read         U/L       Coop             Normal
   005    /Hdconf     Read         U/L       Coop             Normal
```

Under each User-ID are pairs of Forum numbers and access levels. The legend at the bottom matches Forum numbers with Forum names and shows the default nonprivileged, default privileged, and maximum nonprivileged access levels and the PRIVILEGED key. See the legend for the quickscan report earlier in this chapter and page 240 for more on Forum access levels.

In the example shown, Sasha has received `UPLOAD` access to the `/Class` Forum. Her access to the `/Common` Forum would be `READ` if she were nonprivileged, or `WRITE` if she were privileged. Sheri has been given specific access to four Forums. Sysop has `SYSOP` access to all Forums.

User Key Report

This report shows what keys have been given to individual users. It also shows the class to which each user belongs. (You can find out what keys are on each class keyring using the user classes report, below.)

```
USER-ID: Donna Beck                    Current Class (Keyring): HOURLY
This user has the following special keys:
MASS_MAILING

USER-ID: Edward Bush                   Current Class (Keyring): HOURLY
This user has the following special keys:
MASS_MAILING  VISITING_SYSOP

USER-ID: Larry Ryan                    Current Class (Keyring): HOURLY
This user has the following special keys:
No special keys for this user

USER-ID: Susan Carr                    Current Class (Keyring): DEMO
This user has the following special keys:
No special keys for this user
```

In this report, Donna has the MASS_MAILING key. Edward also has that key, plus he has the VISITING_SYSOP key. All other users have only the keys on their class keyring.

Remote Access Report

This report shows which users have access to commands in the Remote Sysop Menu. See page 137 for configuring these privileges.

```
USER-ID: Cosysop                                    HASMST UNDAXS
     SENDALL   SEND      LOGON     POST      DETAIL    AUDIT
     USERS     SEARCH    HANGUP    SUSPEND   PROTECT   DELETE
     SHUTDOWN  CLEANUP   SYSTATS   MODSTATS  AGESTATS  CRDSTATS
     EMULATE   MONITOR   INPUT     CHANGE    TYPE      COPY
     RENAME    DIR       MD        RD

USER-ID: Edward C. Bush                             HASMST
     SENDALL   SEND      LOGON     POST      DETAIL    AUDIT
     USERS     SEARCH    HANGUP    SUSPEND   PROTECT   DELETE
     SHUTDOWN  CLEANUP   SYSTATS   MODSTATS  AGESTATS  CRDSTATS
     EMULATE   MONITOR   INPUT     CHANGE    TYPE      COPY
     RENAME    DIR       MD        RD

USER-ID: Anonymous                                  SUSPEN

Legend of Remote Options and Flags
----------------------------------

HASMST - Has Master Key to System
SUSPEN - Account has been suspended
UNDAXS - Account can not be deleted

Option     Description of Access
---------------------------------
SENDALL    Send Message to All
SEND       Send Message to User-ID
LOGON      Edit BBS Log-on Message
POST       Post credits
DETAIL     Detail Info on User-ID
AUDIT      Display the Audit Trail
USERS      Stats of Users Online
SEARCH     Account Database Search
HANGUP     Disconnect a User-ID
SUSPEND    Suspend/Unsuspend a User-ID
PROTECT    Protect/Unprotect a User-ID
DELETE     Delete a User-ID
SHUTDOWN   Shutdown the System
CLEANUP    Force Cleanup or Event
SYSTATS    View Overall Statistics
MODSTATS   View Module Usage
AGESTATS   View System Activity
CRDSTATS   View Credit Record
EMULATE    Emulate a channel
MONITOR    Monitor All mode
INPUT      Monitor Input mode
CHANGE     Change Channel Status
TYPE       TYPE (a file)
COPY       COPY (a file)
RENAME     RENAME (a file)
DIR        DIR (directory listing)
MD         MD (make a directory)
RD         RD (remove a directory)
DEL        DELETE (a file)
```

To the right of each User-ID are special flags on the user's account, such as HASMST for the MASTER key. Other flags denote account suspension and marked for deletion. Below

each User-ID is a list of commands in the Remote Sysop Menu that the user can use. See page 230 for details on each command.

It is up to your Menu Tree design to allow the users in this report to get into the Remote Sysop Menu, using restricted menu selections (page 67) or /GO commands (see page 61).

User Classes Report

This report shows you the specifications of each user class. See page 111 for more on creating a class and page 120 for editing the characteristics of an existing class.

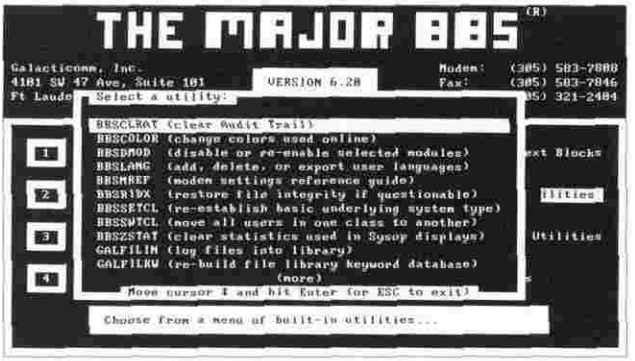
Here are excerpts of a user class report:

```
Class Name:  BILLED

Number of minutes user can spend online per call: Unlimited
Number of minutes user can spend online per  day: Unlimited
Users in this class are NOT exempt from credit charges.
Users in this class are allowed to go into debt (for unlimited credits).
All debts on this account will be cleared on the 1st of each month.
Users in this class will switch to another class if:

     They haven't logged on for 730 days (switch to DELETE_ACCOUNT)

Keys held by class (BILLED keyring):
DEMO             NORMAL           MODERATE

Class Name:  PAYING

Number of minutes user can spend online per call: Unlimited
Number of minutes user can spend online per  day: Unlimited
Users in this class are NOT exempt from credit charges.
Users in this class are NOT allowed to go into debt.
Users in this class will switch to another class if:

    They run out of credits (switch to DEMO).
       (Class transition message used: the default.)
     They haven't logged on for 730 days (switch to DELETE_ACCOUNT).

Keys held by class (PAYING keyring):
DEMO             NORMAL           MODERATE
```

Users in the PAYING class switch to the DEMO class if they run out of credits. The DELETE_ACCOUNT is not really a class name — it is a code for deleting a user's account. This is what happens to users in either of these classes when they haven't logged on in two years.

17

OFFLINE UTILITIES



Here are several handy utilities that you can run when the BBS is shut down. They are available from the Introductory Menu option 7, `Basic Utilities`.

BBSCLRAT — Clear the Audit Trail

The Audit Trail records important events on your BBS. It keeps growing, though, and should be periodically cleared so that the `BBSAUDIT.DAT` doesn't take up too much disk space. Before running BBSCLRAT, you may want to store a text report of the Audit Trail to disk and archive it (see page 379).

BBSCOLOR — Color Conversion Utility

This utility will convert online colors on your BBS. It will scan through your `.MSG` prompt databases and convert certain ANSI commands from one setting to another.

It's probably a good idea to get your whole color scheme planned out before you run BBSCOLOR.

Be careful not to merge two colors into one. If your prompts have green and cyan portions, then changing green to cyan will wipe out any distinction between these portions.

You may want to try exchanging colors in this case, or changing to a temporary color that isn't used.

BBSDMOD — Disable/Enable Modules

This utility displays two columns of online services or modules:

```
Available Modules                    Expressly Disabled Modules
```

You will probably see everything on the left when you first bring this up. To move a module from the Available column to the Disabled column or vice versa, point to it with the highlight bar and hit *<Enter>*.

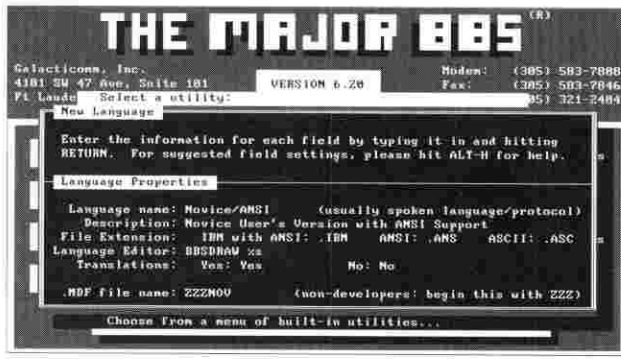
You can disable modules you are not using to conserve memory. Or sometimes two modules are similar in function and you want only one online at a time as you try them out — for example, the Teleconference that comes with The Major BBS versus the Entertainment Teleconference that comes with the Entertainment Collection Add-on Option. If you suspect you're having problems with an add-on option, you may want to disable it to isolate the problem.

If your menus lead a user to a module that you have disabled, then they will get a message like this:

```
Sorry, that option is temporarily unavailable.
```

BBSLANG — Add, Delete, or Export a User Language

If you have or want to have more than the standard languages that come with The Major BBS on your system, you'll work with this utility. To receive general help use *<Alt-H>* or to exit this utility use *<Alt-X>*.



To create a new language for your system use *<Alt-N>*. In the above diagram we have created the "Novice/ANSI" language. You'll notice that every language definition contains two parts. First is the proper name of the language like English, German, Spanish or even Trekkie. Then the protocol is described. ANSI and RIP are examples of protocols that come with The Major BBS.

The language description field gives your users more details about the language. Next is a list of file extensions that will be associated with the language. The language editor

prompt allows you to determine which editor should be invoked when you want to change the contents of text blocks containing this language.

The Yes/No prompts are used to determine what users will be expected to type when answering Yes/No prompts when your BBS is online.

The last prompt will contain the name of the file which contains your language definition for the BBS and its utilities. The suffix .MDF will be automatically used.

Once you have created the language definition, you'll be able to add text blocks containing the language to the BBS message files. More details on how to define a language can be found on pages 55-57.

After you have created a language, you may wish to make it available to other systems. To do so, select the language you wish to export from the initial BBSLANG menu. Use the *<Up arrow>* and *<Down arrow>* keys to scroll through the available language list. Press *<Enter>* to select a language to export.

Now select the Export a language option. You'll be prompted to enter the name of the message files you wish to export your language messages from, and the path to save the exported text. BBSLANG will add the extension .MLX to the files it creates.

If you decide you want to remove a language from your system, first select the language you want removed. If the language is one you have created, you may wish to first export it. Doing so will make it possible for you to use it again in the future. Now select the remove language option and then enter the name of the message file from which to remove the language.

BBSMREF — Modem Setup Information

You can scroll through this online guide to modem configuration settings to see detailed setup information on many popular modems. Then you can use the settings by selecting option 1, Hardware Setup, from the Introductory Menu.

BBSRIDX — Restore all Databases and Other Files

This command tries to restore the integrity of all databases on the system. You may want to use this after a power outage, disk crash, or other cases of suspected data corruption. With large systems, this may take some time.

BBSSETCL — Set One of the Five BBS Models

This utility tries to convert your BBS from one of the five BBS models to another (see page 98). A BBS model consists of a set of classes with specific characteristics and a few other options. Changing to another set of classes will make logical things happen if you do it early in your system's evolution. But if you have added several classes yourself since you installed your BBS, then this utility is probably of little use to you.

BBSSETCL changes the model by directing some classes to expire into some other classes. For example users in the STAFF class under the Customer Service Model would convert to the SUPERVISOR class under the Sign-up Model. To accomplish this, the options of the STAFF class are changed to expire users immediately into the SUPERVI-

SOR class. This takes effect the next time each user of the STAFF class logs on. To switch entire classes immediately, use the BBSSWTCL utility.

BBSSWTCL — Switch a Class of Users to Another Class

This utility converts an entire class of users to another class, as if you are using the SWITCH command (see page 121) from the Remote Sysop Account menu on every user in a class.

BBSZSTAT — Clear System Statistics

Many of the BBS's statistics are cleared monthly (see pages 204-207). However, you can zero them out any time using this utility. You also can clear out all of the system statistics that normally accumulate since you first installed the BBS (see page 208). You might want to do this if you've been setting up your BBS on a trial basis and want to go on the air officially.

GALFILIN — Log Files into Library

To log new files in a Library or to introduce descriptions to files already in a Library, you use the utility GALFILIN. This program reads a login script, an ASCII text file that contains everything the Library needs to know to present the file to the user. The format of the login script is:

```
FILENAME.EXT    12345    01/01/80    A
 <description> ...
 <description> ...
ANOTHER.ONE     23456    01/02/80    A    User-ID
MORE.ZIP        34567    11/29/93    A
```

On the first line is the file name, the file size, the DOS file date, and an A or U to indicate whether it is Approved or Unapproved. The User-ID of the file's uploader can be included here, too (defaults to Sysop if omitted).

Subsequent lines may hold the file description, up to 15 lines, and a maximum of 49 characters per line — these lines must have a space as their first character to differentiate them from the lines with the file names; this space does not become part of the file description.

This utility can be run from the Offline Utilities menu or it can be run from DOS. To run this utility from DOS, follow these steps:

1. Make a backup of your GALFILF.DAT and GALFILK.DAT files.

2. Type GALFILI *<File.scr>* *<Libname>* where *<File.scr>* is the name of that ASCII login script file, and *<Libname>* is the name of the Library where you'd like the file names and descriptions to appear. This Library must exist already; this utility will not log in any files otherwise.

Note: The DOS files must be in the correct directory for the Library. This utility makes no attempt to ensure that the DOS files are where the Library thinks they are. Also, type GALFILI, not GALFILIN, to run this utility from DOS.

GALFILKW — Re-build File Library Keyword Database

GALFILKW rebuilds the File Libraries keyword database (GALFILK.DAT) from the file names and file descriptions of all the files logged into your File Libraries. Initially this utility is run when updating from a V6.*x* system to V6.2 or higher. It is also necessary to run this utility if your GALFILKW.DAT file becomes corrupted or if you change the File Libraries LONGSRCH option from YES to NO.

Setting LONGSRCH to YES, causes the File Libraries to use the file descriptions contained in the GALFILL.DAT file. This method is not as efficient for keyword search but conserves disk space. Setting LONGSRCH to NO causes the File Libraries to use the GALFILK.DAT file for keyword searching. This is a quicker method for searching but utilizes more disk space.

Any time you change the value of LONGSRCH from YES to NO, you should run this utility. Any time you change the value of LONGSRCH from NO to YES, you can conserve disk space by copying the empty GALFILK.VIR file over GALFILK.DAT.

This utility can be run from the Offline Utilities menu or it can be run from DOS. To run this utility from DOS, follow these steps:

1. If you wish, make a backup of your old GALFILK.DAT file.
2. Make sure you are in your runtime directory (usually \BBSV6).
3. Type GALFILK and hit <*Enter*> to start keyword generation.

NOTE: Type GALFILK, not GALFILKW, to run this utility from DOS.

GALP&QR — Report on Polls and Questionnaires Results

This utility generates a statistical analysis of the answers to your online Polls and Questionnaires. See pages 270-277 for designing and managing Polls and Questionnaires online.

The Polls and Questionnaires offline utility supports three basic report types. All reports let you choose where to output the results. The options are output to Screen, Printer, or File. If you select File, you will see a prompt for file name to use for outputting this report. When selecting the File or Printer options, you also will get the output to your screen.

The User-ID report runs reports by User-ID. Enter the User-ID of the person for whom you want to run the report. You then can select from a list of Polls and Questionnaires that this user has completed. Use the <*Up arrow*> and <*Down arrow*> to select the Poll or Questionnaire of your choice and then press <*Enter*> to confirm. This report will display each question followed by the user response in the same order (1 through 100).

The Polls report runs reports for Polls only. Use <*Up arrow*> and <*Down arrow*> to select a Poll and then press <*Enter*> to confirm. This report will show tallied results for the selected Poll. The results, in question order, will show the question text followed by the answer. For Multiple Choice, True/False, and Yes/No questions, a percentage and a bar graph will follow each answer string. If a question has no current responses, neither percentage, nor bar graph will appear.

The Questionnaires report runs reports by Questionnaire only. Use <Up arrow> and <Down arrow> to select a questionnaire and press <Enter> to confirm. This report is divided into two main sections — question summary and user results. The question summary will print all questions in order (1 through 100), creating a question template header. The second part of the report will go in alphabetical order through all users who have responded to this questionnaire and print their responses, which can then be matched up to the question template header for analysis.

GALRFC — The Galacticomm RIP File Combine Utility

This utility will combine a specified list of files into a single file for viewing as a file page on your BBS. It's meant primarily for combining a series of RIP scenes which take up one screen each, to create a series of "sample" RIP scenes to display on your BBS. To combine a set of RIP files, first prepare an ASCII text file which contains a list of the files you want to combine, one per line. (Be sure to include the extension for each. You can also specify the path for each if you need to) When you run GALRFC, you'll answer a number of prompts:

Input File:	This is the name (and path, if you wish) of the ASCII text file which contains the names of the files you wish to combine.
Output File:	This is the name (and path, if you wish) of the single file you wish to create.
Add RIP_RESET_WINDOWS:	It's a good idea for each scene to reset both the graphics and text windows before it displays. If you set this to YES, then GALRFC will add a RIP_RESET_WINDOWS command into the single file being created before each scene, if the scene being added doesn't already have one. If you set this to NO, then GALRFC will not add a RIP_RESET_WINDOWS before the scene (if the scene does have a RIP_RESET_WINDOWS command, it will be kept).
Invisible Text Windows:	If the RIP files you're combining have no ANSI parts, it's a good idea to have an invisible text window for each scene, so that when the display pauses (if you set Add Pause Character, below, to YES), the BBS's "Click text area to continue..." prompt won't be visible to the user. If you set this to YES, GALRFC will strip out any RIP_TEXT_WINDOW command in the scene being added, and replace it with a single invisible text window.
Add Pause Character:	You should almost always have this set to YES, so that the BBS will pause the output between each scene. If you set this to YES, GALRFC will insert an ASCII character 12 after it adds each RIP file, to cause the BBS to enter screen pause mode.

Add Pause Scene:	If you set Add Pause Character to YES, then you may want to display some buttons such as "Continue" or "Quit," or some text such as "Hit RETURN to continue, or CTRL-X to quit" at the end of each screen, for your users' convenience. If you set this to YES, then GALRFC will insert the contents of the scene specified in Pause Scene (below) after it adds each RIP file.
Pause Scene:	If you set Add Pause Scene to YES, then this is the name of the scene to insert after each RIP file is added. This scene should contain any special buttons or text you want to display to users at the end of each RIP scene. By default, GALRFC uses the file GALRFC.RIP. If you don't have RIP*aint*, you should use this file. If you have RIP*aint*, you can create your own for GALRFC to use.

One thing you should be aware of is that the files to combine, as well as the pause scene to use, must be saved in RIP*aint* with File Width set to a maximum of 76 (this is to avoid any problems with The Major BBS's text wrapping features). If GALRFC encounters any line in a RIP file which is longer than 76 characters, it will discard that line, and use whatever it read from that file up to that point (any settings you specified above will still be used). If you specify a pause scene which has been saved with File Width greater than 76, GALRFC will display an error message.

GALSORT — Sort Forums Alphabetically

As you create new Forums, the listing of Forums grows chronologically. You can sort the Forums alphabetically using GALSORT. In addition, this reorders the Forum channel numbering for the Teleconference channels that are reserved for Forum usage. Be prepared for this to take some time, because the program has to rearrange the quickscan Next Message records for each User-ID, too.

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SERVICES FROM GALACTICOMM

How to contact us:

Address:	Galacticomm, Inc. 4101 SW 47th Ave. Suite 101 Ft Lauderdale, FL 33314
Voice phone:	(305) 583-5990 open 8:30 a.m. to 6:00 p.m. Eastern Time, Monday through Friday, except holidays.
Technical support:	(305) 321-2404 (see page 396)
Fax:	(305) 583-7846
BBS:	(305) 583-7808

Please call us — we love to talk to our customers! Also, please log into our bulletin board. It's both a demonstration of our product, and a 24-hour-a-day 365-day-a-year online customer service center.

USING GALACTICOMM'S DEMO SYSTEM

You can dial into our BBS at (305) 583-7808 with your modem. If you haven't signed up yet, please enter `NEW` and answer the sign-up questions. Then leave a note to the Sysop that you're a Sysop yourself. Be sure to include your registration number in the message. We'll give you access to the `/Sysops` Forum — a roundtable of BBS Sysops from around the world — as well as extra online time.

We use our BBS for a lot of things:

Product demonstration	Most of our add-on options for The Major BBS are online for you to try out.
Technical support	If you are having any problems with your BBS, you can write a message to User-ID "`Technical Support`".

Orders	Try our Online Shopping Mall for ordering software or hardware. Or just write a message to "Gcomm" with your ordering information. We accept MasterCard, VISA, and American Express.
Literature	Want more information on certain products? Just leave a note to "Customer Service" and we'll mail it right out. Or you can request literature by fax using Fax/Online. Just leave a message to "Sysop" requesting some credits.
Press releases/ announcements/ newsletter	In the PRESS Library (within the File Libraries) you'll find our latest press releases, and the electronic version of our newsletter, *The Major News*.
Third-party products	The Online Shopping Mall also has "stores" maintained by some of our third-party developers, with lots of add-on options for The Major BBS. Check it out!
Public BBS Listing	Hundreds of Major BBS systems from around the world are listed here. Call them to see what they're up to. See below.
Sysop roundtable	The /Sysops Forum on our BBS is easily the most active. You can exchange ideas and opinions with other Sysops. It's a great place to leave a message like "Has anyone ever tried to ...?" and get competent answers.
Suggestions	The /Features Forum always has lively debate with requests for new features for The Major BBS and add-on options. We use this Forum, and other sources, to find new ideas and to see what features are in the greatest demand.
Messages for Galacticomm	Electronic mail saves time and money: you don't have to bother with a formal letter, and it gets transmitted instantly. To save time, type up a long letter in a text file, then upload it using the editor's *<Ctrl-K> <Ctrl-U>* command.

Public BBS Listing

Our Demo System maintains a database of public BBSes around the world. Right after you log on, type:

```
/GO BBSLIST
```

You can view the BBSes in the database. Select A if you want to add your BBS to the list.

Feedback to Technical Support

To leave comments, questions, or suggestions, you can use the /GO FEEDBACK global command. Enter this command from almost any prompt on the BBS.

/GO FEEDBACK	Write an Electronic Mail message to the Technical Support department (enter the Full Screen Editor).
<topic> <Enter>	Write a topic.
<message>	Type in your message. It may be several lines long.
/S	Save your message.
NNN *<Enter>*	No attachment, return receipt, or carbon copies.

FREE UNLIMITED TECHNICAL SUPPORT (WITHIN REASON)

That's our policy, front to back.

If you have any technical questions about The Major BBS, try one of these:

- Our technical support voice number is (305) 321-2404. Our hours are 8:30 a.m. to 6:00 p.m. Eastern Time, Monday through Friday, except holidays.
- Our BBS number is (305) 583-7808. Just select "`Sales and Technical Support`" from the Main menu.
- Our Internet address is `support@gcomm.com` and our CompuServe address is `INTERNET:support@gcomm.com`.
- Our fax number is (305) 583-7846. Send faxes to the attention of Technical Support.

We strive to reply to all E-mail and faxes within 24 hours.

Before you call us, please have your registration number handy:

Your Registration number: _____
(See the inside front cover of this manual, or the online About screen <*Alt-B*>, or the welcoming message when you call into your BBS.)

Other important information (some of this you can get from the online About Screen):

Version: _____

Total number of channels defined: _____ Maximum baud rate: _____

Protected mode memory available: _____

Real mode memory available (under 1 Megabyte): _____

Disk space available: _____

Add-on options you have purchased from Galacticomm: _____

_____

Add-on options you have purchased from other companies: _____

_____

Feedback to Galacticomm

What do you like most about this software / manual? _____

_____

_____

If you could change one thing about this software / manual, what would it be?

_____

_____

Ok, how about two things? _____

_____

_____

What sections or information should we add to this manual? _____

_____

_____

Any comments about how we've handled your order / inquiry / problem?

_____

_____

Anything else on your mind? _____

_____

_____

Optional Name: _____

Company: _____

Registration Number: _____

Please fax to Galacticomm at (305) 583-7846, or mail to Galacticomm, Inc., 4101 SW 47th Avenue, Suite 101, Ft. Lauderdale, FL 33314, Attention: Marketing Department. Thanks in advance for your comments and feedback!

Galacticomm, Inc. • 4101 SW 47th Avenue • Suite 101 • Fort Lauderdale, FL • 33314
Voice: (305) 583-5990 • U.S. Sales: (800) 328-1128 • Fax: (305) 583-7846
BBS: (305) 583-7808 • Technical Support: (305) 321-2404

GLOSSARY

ANSI

By convention, "ANSI" has come to refer to the ability of a BBS to put colorful displays on a user's screen.

The American National Standards Institute standard X3.64 of 1979 specifies several cursor positioning commands based on sequences of ASCII codes. The standard doesn't actually say anything about colors.

The conversion of the term probably originates from the device driver file named "`ANSI.SYS`" supplied with DOS on IBM personal computers. When installed, this device driver causes certain escape character sequences output by programs, or contained in text files, to control cursor positioning, display colors, and other terminal features.

(The Major BBS does not require the `ANSI.SYS` device driver.)

ASCII

American Standard Code for Information Interchange. This is how most computers today use 7 bits of information to represent up to 95 letters, numbers, and punctuation, and 33 special-purpose control characters.

There are variations on ASCII all over the world. IBM PCs use "extended ASCII" coding for an additional 128 printable symbols and more.

ASCII, a file transfer protocol

For downloading a file, the text contents of a file can just be dumped to the user's screen. For uploading, the file can be transferred or typed a line at a time.

ASCII, referring to files

The contents of the file are almost exclusively printable ASCII characters, with some control characters like *<CR>* and *<LF>* on the end of each line.

ATTACHMENT

A file uploaded with an electronic message that the reader of the message may download.

AUDIT TRAIL

Archival record of important system events.

BATCH PROTOCOL

A file transfer protocol that supports sending more than one file during a single file transfer session. Usually, a protocol that supports batch also supports the communication of file attributes, like name, date and time of last modification, and exact size. This information appears when you use the "DIR" command in DOS, and when you ask to download files from the File Libraries.

BAUD

A unit of data communications signalling speed representing modulations per second. Technically speaking, it is different from bits per second in most modem protocols, but the term is frequently used interchangeably with BPS.

BELL 103

300 baud modem manufactured by AT&T. Most modems sold in the U.S. and Canada are compatible with BELL 103 modems at 300 baud. Elsewhere, the slightly incompatible CCITT standard V.21 is more common.

BELL 212A

1200 bps modem manufactured by AT&T. Compatibility with this modem is virtually identical to compliance with CCITT V.22.

BOARD

Short for a Bulletin Board System.

BPS

Bits Per Second. The eight data bits of each communicated byte are cradled between a start bit and a stop bit, so there are actually ten bit-times needed to carry one byte of data. That means that the maximum byte-rate, or bytes per second, is exactly one tenth of the BPS rate.

BBS or BULLETIN BOARD SYSTEM

A central system that provides a dial-up service to computers that may be separated by great distances. Services may include: access to data at the central system, exchange of files, multi-user conferences, electronic mail, and so on.

CARRIER

The noises that two computers, talking over the phone, constantly exchange with one another.

CASE, referring to letters

Upper case means capital letters (ABCXYZ). Lower case means small letters (abcxyz).

Case-sensitive means that "A" is treated differently from "a" in a particular context. Case-insensitive means they're treated the same.

CCITT

CCITT is the French abbreviation of the International Telephone and Telegraph Consultative Committee. CCITT meets every four years to review, revise, and ratify numerous standards relating to computer communications. Several of its standards are widely used and apply directly to Bulletin Boards:

V.21	300 baud modem communication, used mostly in Europe (Bell 103 compatibility is more widespread in North America)
V.22	1200 bps modem communication (mostly equivalent to Bell 212A)
V.22bis	2400 bps modem communication
V.29	9600 bps half duplex, or one way at a time (used by the modems in group 3 FAX machines, but used very little by bulletin boards)
V.32	9600 bps modem communication
V.32bis	14,400 bps modem communication
V.42	Error correction scheme, encompassing MNP-4 and LAPM
V.42bis	Data compression scheme using Lempel-Ziv in addition to V.42
X.3	Parameters that encode what features a PAD has in interacting with the user's terminal
X.25	Packet-switching network standard
X.28	Commands and messages a PAD exchanges with users
X.29	How one party on a packet-switching network can reprogram another's X.3 PAD parameters

See also Bell 103, Bell 212A, HST.

CHANNEL

A single data communications port on the computer running The Major BBS, connected to one modem or serial port, supporting one user at a time.

CLASS

A group of users with similar privileges and accounting. A user's class specifies how long he can stay online, and what he's charged for time online, if anything. Each class also has a keyring of keys that unlock features of the BBS. (Users may have additional keys issued to them individually.)

COMPRESSION, referring to data files

A compressed file has been reduced in size without losing any information content. This is done by exploiting patterns and redundancies in the information. Several programs offer compression or uncompression capabilities with various tradeoffs of speed, size reduction, and popularity (and, therefore, availability).

COMPRESSION, referring to communications.

See data compression.

CONNECTION

The beginning of a user's session on a BBS.

For modem channels, the act of a user dialing up over the phone line. For serial channels and IPX Direct channels, connection occurs when the user first hits *<Enter>*.

For other LAN channels and X.25 packet-switching channels, connection is detected automatically.

CONNECT TIME

Duration of a user's access to The Major BBS; the time between logging on and logging off.

CO-SYSOP

An assistant to the System Operator, with a subset of his or her powers and responsibilities on the BBS.

CREDITS

User commodity, allowing privileged connect time. Credits are often used to meter paid access to a BBS: a user buys credits from the Sysop, and then consumes them at a rate of (typically) 60 credits per minute of online time.

DATA COMPRESSION

Method for moving more data in less time. For modem communications, it usually refers to a method of converting a number of bytes of information into fewer bytes by taking advantage of patterns in the data. This conversion to a smaller form, and restoration to the original form, usually happen "on the fly" within each of the modems. Compression methods include MNP-5, Lempel-Ziv, and BTLZ.

DEFAULT

The assumed answer, unless otherwise specified. The "default" condition is what happens when nothing is chosen, or no action is taken. Examples: in Menu Tree design, the default menu is what users would see if the Sysop did not use BBSDRAW to custom design a menu. In scanning Forum messages, your default position is the message you'll read if you don't type in a message number. In the File Libraries, the default Library is where files will come from if you don't spell out a specific Library with your file names.

DIRECT CIRCUIT

A relatively permanent connection between two parties that takes operator intervention to change. Examples include a serial port and an IPX Direct Circuit LAN channel.

Compare with Virtual Circuit.

DOS

Disk Operating System. DOS most often refers to the MS-DOS operating system software developed by Microsoft for IBM personal computers.

DOWNLOAD

Transfer a file from The Major BBS down to a user's system.

EIA-232D

Standard of the Electronic Industries Association (EIA) for serial data communication. EIA-232D was formerly known as RS-232C.

ELECTRONIC MAIL or E-MAIL

Messages and files that people exchange privately over a BBS. One user of a BBS can write an Electronic Mail message to another user. Then when the other user logs on, he is notified he has mail waiting, and he can read the message. A file may be attached to a message by the sender uploading it. When the recipient reads the message, he can also download the file.

ERROR CORRECTION, referring to modem protocols

A method of automatically correcting data transmission errors, with the communicating parties just sending and receiving like they normally would. Some delays may become noticeable in interactive use, or with certain file transfer protocols that are not streaming.

EXTENDED ASCII

Computer representation of 256 symbols, using 8 bits. Extended ASCII is comprised of ASCII plus 128 additional symbols. Also, 32 of the ASCII control characters serve a dual purpose under extended ASCII, representing still more symbols. These are used on all IBM PC compatible computers.

EXTENDED MEMORY

Computer memory that is beyond the 1 megabyte limit of the original IBM Personal Computer, used in protected mode.

FILE PAGE

All menu branches in the Menu Tree eventually lead to a file page or to a module page. A file page displays a text file on the user's screen.

FORUM

A body of public messages, usually partitioned by subject, that many users can read or write. Users can also upload and download data files attached to Forum messages.

Often users will reply to an existing message in a Forum, and another user may reply to that, leaving a tree or "thread" of conversation. The most active Forums usually have the most informative and interesting threads.

When you use the Forums, you always select one Forum at a time. Usually you start with the `/Hello` Forum. The Forum `S` command selects a different Forum, or `S?` lists out all Forums.

FORUM-OP or FORUM OPERATOR

This is a user appointed by the Sysop who can maintain the Forum — erase or modify any message, approve files for download, etc.

There can be only one Forum-Op per Forum.

FREE CREDITS

Credits posted to a user's account as `FREE` credits, usually for demonstration or administrative purposes. (The distinction between paid and free credits is only a convenience to the Sysop for statistical purposes. There is no functional difference between paid and free credits.)

HST (USRobotics High Speed Technology)

14,400 bps modem communications used by the HST series of USRobotics modems.

IPX DIRECT CIRCUITS or CHANNELS

LAN access channels where each channel is allocated to one terminal computer on the network at a time, much like serial channels.

All IPX circuits are non-session oriented, meaning that a computer that's online with SPXTALK can lose power, get disconnected, move to another room, and still the BBS may not necessarily decide that the user's session is over. If the BBS sees any more activity from that network address, it's assumed to apply to that session.

IPX VIRTUAL CIRCUITS or CHANNELS

LAN access channels that are allocated for LAN use in general, and which will support, on demand, connection from any terminal on the network.

IPX Virtual circuits are only available with the Advanced LAN Option for The Major BBS.

KERMIT FILE TRANSFER PROTOCOL

A protocol developed at Colombia University originally for transferring files between mainframe computers and other systems. It has been implemented on a very large number of different systems. Though often not as efficient as ZMODEM,

it supports communication over 7-bit transmission lines (such as those that impose even or odd parity checking), streaming (also called sliding windows or Super Kermit), an efficient retry scheme, elaborate capability negotiation, as well as multi-file batch transmission and other features.

KEYRING

A set of keys associated with a class. All users in that class automatically have access to any feature with a lock that corresponds to a key on this keyring.

Each class has exactly one keyring. The Sysop maintains keyrings from the Remote Sysop ACCOUNT sub-menu.

KEYS

Keys give users access to features on the bulletin board, either by giving a user the key, or by placing it on the keyring for the class he belongs to. The operator of the bulletin board places locks on various features on his system ahead of time. When a user has the key with the same name as a lock that's on a feature, he can use the feature.

A user doesn't *have* to think in terms of keys at all. When a user has a key, the feature is simply there, available. When the user doesn't have the right key, the feature either disappears, or the user is turned away when he tries to use the feature.

Keys are issued by the Sysop user from the Remote Sysop ACCOUNT sub-menu, either to users or to the keyring for a class of users.

LAN ACCESS

Accessing a bulletin board over a Novell NetWare compatible Local Area Network. By running a terminal program such as SPXTALK anywhere on the network, the user can log on to the BBS, read and write messages, transfer files, and all other BBS activities.

All versions of The Major BBS software are capable of supporting the IPX Direct LAN access method. In setting up the BBS, the operator tells the BBS that certain channels are specifically allocated to specific network addresses. He specifies those 24-digit hexadecimal addresses, one for each channel, in the offline Hardware Setup option from the Introductory Menu. These are the addresses of the computers that he'll be allowing online. Then the user of a computer at one of those network addresses must tell his terminal program the network address of the BBS.

The Advanced LAN Option of The Major BBS allows the BBS and terminal program to find each other automatically on the network. Also, channels don't have to be reserved for specific computers, although a set of channels must be reserved for the specific type of LAN access. In addition to IPX Direct circuits, the Advanced LAN Option supports IPX Virtual and SPX circuits, and enhanced keystroke echoing at menu prompts.

LANGUAGE

See *user-language* (such as "English/ANSI," and *spoken language* (such as "English").

LIBRARY OPERATOR

A user appointed by the Sysop to maintain a Library. Library Operators have special privileges in a Library, like approving and unapproving files, modifying or deleting files, and more.

The Sysop can appoint multiple Library-Ops for a Library. That is, more than one user can have Library-Op privileges in a Library. But each Library has exactly one primary Library-Op, who is notified when he logs on if there are any unapproved files in the Library.

LOCKS

A restriction applied to a feature. The BBS operator can apply locks to many different features, like the ability to write electronic messages, or to download certain files. Then the Sysop can issue keys of the same name as the lock to the users or classes of users he wants to have access to the features. Often many features get the same lock, so one key can control all the features at once.

LOG OFF

The disconnection of a user from The Major BBS, either by "exiting" from the main menu, or (on modem channels) by hanging up.

LOG ON or LOG IN

The beginning of a user's session on The Major BBS, when he connects with his modem and supplies his User-ID and password.

LOWER CASE

Lower case means small letters.

MASTER KEY

This is not a key, as in locks and keys. This is a setting a user can have. When a user has this setting it's *as if* he had all the keys — all locked features are available to him. Also, he can give this setting to other users.

It all starts with the "Sysop" User-ID. The user Sysop always has the "master key." You can give other users the master key by using the "SYSOP" command from the Remote Sysop Menu, and by toggling on the "SYSOP" setting under that command.

MENU

A list of choices or options.

MENU PAGE

A link in a Menu Tree to more menus, or to file pages or module pages. A menu page presents a few or many choices to users, and then handles their selections.

MESSAGE

A bunch of text written from one user to another user, either privately or in a Forum. Forum messages can be directed to all users or to a specific user.

MODEL OF A BBS

A set of classes Galacticomm has pre-packaged for the BBS Sysop to get started. There are five different models from which to choose at installation.

An operator can even switch models later, after the BBS has been up for a while. Users who have signed up already will transition into the new classes.

MODEM

Short for modulator-demodulator. This device allows a computer to "talk" over a telephone line to another computer with a modem.

MODEM CHANNEL

An interface to a modem, whether it's internal to the computer chassis or external and connected by a cable to a serial port.

MODULE PAGE

All menu branches in the Menu Tree eventually lead to a file page or to a module page. A module page specifies some specific service in the BBS like "read your latest mail," or "enter the File Libraries," or "scan the `/Customer` Forum."

NULL MODEM

A cable or adapter for connecting the serial ports between two computers. Both ports have the same pinout, so several signals must be "swapped" by the null modem cable or adapter.

OFF-THE-AIR or OFFLINE, referring to a bulletin board

The Major BBS is not answering phone lines or handling serial channels. No users can be online. The system operator may take his BBS off-the-air to design menus, configure options, run reports, etc.

OFFLINE, referring to a user

The user is not connected to The Major BBS.

OFFLINE MAIL READER

This is a program which supports reading and replying to messages offline using the QWK packet format.

ON-THE-AIR or ONLINE, referring to a bulletin board

The Major BBS is answering phone lines and monitoring serial channels. Users can log on and be online.

ONLINE, referring to a user

A user has logged on to The Major BBS, and is making menu selections, file transfers, etc.

ONLINE, referring to information

The information is available, by some command or menu selection, to online users.

OPERATOR

The owner of a BBS, who maintains the computer and the operation of the BBS. The operator may charge users for connect time.

PACKET-SWITCHING NETWORKS

Long distance telephone networks exclusively for computers and computer services (as opposed to voice calls). Most use the X.25 standard.

PAD or PACKET ASSEMBLER / DISASSEMBLER

A device on a packet-switching network that allows serial devices to hook up to the network. A PAD is a computerized box, with little or no moving parts, that connects to the network on one end with one set of wires (CCITT X.25 says what happens there). On the other end, the PAD connects to multiple user terminals, usually through modems and serial cables.

PAGE (as in a menu, module, or file page)

One of the links in the Menu Tree of menus, files, and modules. When designing your Menu Tree, you'll see the names of the pages in a hierarchical diagram. The page names are different colors depending on what type of page they are: white / yellow=menu, green=module, purple=file.

PAGE (as in paging a user online)

A way for one user online to get a quick message to another user who is also online. Typical page messages are "Can you join me in teleconference for a moment?" or "Sam, excuse me, what's that number for ordering HDTV monitors again?". A user can also page the Sysop at the console if he's not online.

PAID CREDITS

Credits posted to a user's account as PAID credits, usually in exchange for payment. (The distinction between paid and free credits is only a convenience to the Sysop for statistical purposes. There is no functional difference between paid and free credits.)

PASSWORD

Special code to ensure the security of a user's account on the BBS. When logging on to a BBS, each user must supply his individual password after his User-ID to get online.

Usually a user chooses his own password when he signs up, and he can change it at any time. But the Sysop can prevent user sign-up, and assign User-IDs and passwords himself from the BBS's console.

PROTOCOL

How one computer or device can talk to another for some specific purpose.

PROTOCOL, MODEM

How modems connect and communicate data over the phone line. Examples are V.22bis which is what almost all 2400 bps modems use today, or V.32 for 9600bps, etc.

PROTOCOL, FILE TRANSFER

How to get a data file from one system to another. Examples are XMODEM, YMODEM, ZMODEM, Kermit.

PSEUDO-KEY

A pseudo-key is like a key in that the Sysop can require a user to have it before using some service. But unlike a key, the Sysop doesn't hand out a pseudo-key — the user has it by some other means. For example, the user on channel 3C has the pseudo-key named "_PORT#3C". By convention, pseudo-key names start with "_".

QWK

QWK is an industry standard for batch transferring E-mail and Forum messages. This allows users to download messages, read and reply offline, and then upload their replies.

REGISTRY OF USERS

A database of user information that users voluntarily provide for other users to see.

REMOTE SYSOP MENU

A large menu of commands that a BBS operator can bring up while online from a remote location, or while logged on locally.

RETRY

When transferring a file, this is how the receiver corrects errors in the transmitted data — he tells the sender somehow to try to send that block of data over again. Usually one or both parties place a limit on retries and abort the transfer session if there are too many in a row.

RIP

Remote Imaging Protocol. A graphics standard developed by TeleGrafix Communications, Inc. Using a RIP-compatible terminal program, BBS users can enjoy full graphics and mouse support.

RS-232-C

Standard of the Electronic Industries Association (EIA) for serial data communication. There are two subsets of this standard. Asynchronous RS-232 is by far the most widely used, as in serial ports on almost all microcomputers. An example of synchronous RS-232 is the physical aspects of CCITT X.25 packet-switching network connections.

SERIAL

Computer communication over a set of wires, most often using the RS-232-C standard.

SERIAL CHANNEL

An RS-232-C connection to a serially interfaced user terminal, or other device, supported by The Major BBS.

SESSION, referring to bulletin boards

The period between logging on and logging off. A session typically starts like this: a modem or other device makes a connection to the BBS and a user enters his User-ID and password. A session may end with a user explicitly terminating the call, or just by him hanging up. The BBS may also terminate a session for a number of reasons, like the user running out of time or credits, or the Sysop manually terminating it.

SESSION, referring to file transfers

The period while one file or several files are being transmitted from one system to another.

SIGNING UP

The first time a user connects to a BBS. Among other things, he chooses a User-ID and password for himself.

SPOKEN LANGUAGE

A language, such as "English" or "German" spoken by the users of a BBS. This is the *prefix* of a user-language, such as "English/ANSI" or "German/RIP."

SPX CIRCUITS or CHANNELS

LAN access channels that support, on demand, connection from any computer on the network. These circuits are session oriented, so the BBS can detect when the terminal shuts down unannounced (without the user explicitly logging off).

SPX circuits are only available with the Advanced LAN Option for The Major BBS.

SPXTALK

The Galacticomm LAN terminal program for connecting to The Major BBS over a Novell NetWare LAN.

STREAMING, referring to a file transfer protocol

The protocol somehow allows the sender to blast ahead without pause. This usually includes schemes to handle waiting for the receiver to catch up (that's what a "window" is for), detecting errors (by checksum or CRC), correcting them (retries), and, in the worst cases, giving up entirely (limits on timeouts and retries).

SYSOP, the person

Short for system operator, synonymous with operator. The owner/operator of a bulletin board system. Commonly pronounced "sis-op."

SYSOP CLASS

In each of the five Model BBSes, there is a SYSOP class with sweeping privileges. The Sysop class keyring usually has all the keys on it, including the SYSOP key. The Sysop class usually has no time restrictions.

Any user can be switched to the SYSOP class to get these privileges.

SYSOP KEY

This key is required for a user to gain access to many of the privileged operator features on the BBS — features under the SYSOP lock. This includes broad powers in the Forums and in the Library, like setting other users' access levels, managing messages and files, and changing file descriptions.

The SYSOP key isn't the most powerful thing for a user to have on the BBS — the so-called master key is more powerful, and the User-ID "Sysop" is the most powerful of all.

The BBS operator can give the SYSOP key to trusted users to help with BBS management. The best way to do this is probably to switch users to the SYSOP class, which has the SYSOP key on its keyring.

SYSOP LOCK

This is a lock on several powerful features in the BBS that the SYSOP key can open. The operator can change what features are locked by the SYSOP lock, or use different locks.

SYSOP MENU

See Remote Sysop Menu.

SYSOP PRIVILEGES

Broad powers on a BBS. Sysop privileges can be granted to users in several ways. These include, switching them to the SYSOP class, designating them as having the master key, or giving them the SYSOP key.

SYSOP USER or SYSOP USER-ID

The User-ID Sysop comes on all BBSes, already signed up. The Sysop is the person who logs in with the User-ID Sysop. This user always has the master key, and while online, has access to all features and privileges in the BBS.

TELECONFERENCE

An online conference between BBS users, where what one user types appears almost instantly on the screens of all the other users as soon as the message sender hits <*Enter*>. Many specific commands are available.

TERMINAL PROTOCOL

A specification for the way a user's terminal can communicate with the BBS, such as "ANSI" for text with colors and cursor control, or "RIP" for RIP*scrip* graphics. This is the *suffix* of a user-language, such as "English/ANSI" or "German/RIP."

TIMEOUT

When transferring a file, the receiver or sender may have a specifically limited patience for the time it takes to complete the transfer. He can tell the other party to resume transmission, or resume asking for transmission. This helps in recovering from many types of transmission errors. It also helps in deciding to give up the file transfer session, by imposing a limit on the number of timeouts.

TOP MENU

The main pick-list of user services, such as Electronic Mail, Forums, and Teleconference, that a user first sees when he logs on.

UPLOAD

Transfer a file from a user's system up to The Major BBS.

As a noun, *upload* may refer to a file that resides on the BBS because it was uploaded, or to the act of uploading, as in *17 new uploads today*.

UPPER CASE

Upper case means CAPITAL letters.

USER

A user sits at a terminal and uses a modem to connect to a bulletin board over the telephone, or with a serial port and a cable. The bulletin board asks questions and displays information on the terminal. The user types in answers to the questions, makes choices from a menu, and types in commands.

USER-ID

Name or "handle" by which a user is known to The Major BBS, or to other users online.

USER-LANGUAGE

A user-language, such as "English/ANSI," is a combination of a spoken language and a terminal protocol. The Major BBS may communicate with users in different languages, and with their terminals using different protocols.

VIRTUAL CIRCUIT

A relatively temporary connection between two parties, that can be broken and then remade with other parties. Examples: a voice telephone connection, a computer modem connection, an IPX Virtual Circuit LAN channel or SPX channel.

Compare with Direct Circuit.

V.nn - X.nn STANDARDS

See CCITT.

X.25 PACKET-SWITCHING STANDARD

CCITT standard X.25 is a complex standard for supporting long distance packetized communications.

XMODEM

A simple file transfer protocol, probably the most widespread in the world, that includes fixed-size, literal-content blocks and error checking. Originally developed by Ward Christensen. Variations include CRC (versus checksum), 1K or 1024 byte blocks (versus 128 bytes).

YMODEM

An evolved version of XMODEM that includes multiple-file batch capability and file statistics communication.

ZMODEM

A complex and robust streaming protocol that goes beyond YMODEM to support, among other features, retrying an aborted session, and picking up where you left off instead of starting over. This was developed by Chuck Forsberg at Omen Technologies specifically for packet-switching networks, but probably enjoys even more widespread use over modems.

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