RATSoft/ST™

The Ultimate BBS Software

By R0dent Laboratories

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Chapter 1 - Introduction

Legal Notices 1.1
Welcome To Ratsoft! 1.2
Manual Accuracy 1.2
Support, Registration, Updates 1.3

Chapter 2 - Installation

System Requirements 2.1
MultiTos Users 2.1
Installation Check-List 2.1
Making A Backup 2.2
Installing Ratsoft To A Hard Drive 2.2
Ratsoft/St Help Syustem 2.3
Modem Considerations 2.4
System Notes And Compatiblity 2.5
Serial Port Patches 2.6
Tos Folder Allocation 2.7
Updating Tos 1.0, 1.2, 1,6X,2.05, 3.05 2.7
Speeding Up Tos 1.0 , 1.02 2.7
General System Enhancements 2.7

Chapter 3 - Configuration

Configuration Program 3.1
Bbsinfo 3.2
Toggles 3.2
Modem 3.6
System Paths 3.7
Timers 3.8
Settings 3.9
Conferences 3.13
Colors 3.14

Chapter 4 - General Operation

Boot-Up Process 4.1
Auto-Starting Ratsoft 4.2

CONTENTS

Waitcall Screen And Functions 4.3
Functions While On-Line 4.6
News Files 4.9

Chapter 5 - Message Bases

Creating Message Bases 5.1
3 Simple Flags 5.3
Creating Additional Bases 5.3
Editing Existing Bases 5.4
Maximum Number Of Messages 5.4

Chapter 6 - File Sections

Creating File Sections 6.1
New File Area Commands 6.2
Sponsor Capabilities 6.2
Adding Files To File Section 6.3
Adding Files To File Areas 6.3
File Editor 6.4
User Uploads 6.8
File Attaches 6.8
File Database 6.9
Uploads To File Areas 6.9
Killing An Upload 6.10
Immediate Upload Credit 6.10
File Area Fixer 6.10

Chapter 7 - File Tool

File Tool Function Description 7.2
Upload Archive Tools 7.2
Files Added By Sysop 7.3
Bbs Advertisements 7.3
Diz And .Dsc Description Files 7.4
Archive Shell 7.5
Command Line Parameters 7.5

Chapter 8-Data Files

Data Editor 8.1
- *Menu Functions* 8.1
- *General Functions* 8.4
- *Section Commands* 8.10
- *Message Area Functions* 8.12
- *Translations* 8.15
- *File Ratings* 8.17
- *Bbs Data* 8.18
- *Callback Verifier* 8.18
- *Module Execution Parameters* 8.20
- *File Transfer Protocols* 8.22

Chapter 9 User Editor/Mass Mask

User Editor 9.1
User Masks 9.9
User Log Print Out 9.11

Chapter 10 - Text File

Variable Tags 10.1
Text Files 10.5
- *Infoforsm* 10.5
- *General Information On Databases* 10.6
- *Type 1 Regular Database* 10.7
- *Type 2 Menu Database* 10.8
- *Type 3 Or Files Database* 10.11
- *Log-On Bullteins* 10.11
- *Older Database Files* 10.12

Scripts 10.13
Conditions 10.13

Chapter 11- Scripting Language

General Rules And Limitations 11.1
Legal String Names 11.1
Illegal String Names 11.2

CONTENTS

Reserved Variables 11.2
The Commands 11.2
Script Formatting And Errors 11.28
Example Scritps 11.29

Chapter 12 - Rat Dos

Commands 12.1
Batch Files 12.4

Chapter 13 - Additional Modules

Schedular 13.1
System Backups 13.2
Voting Booths 13.3
On-Line Games 13.3
System Log Manager 13.5
*Fast*Off* 13.6
User Purger 13.7

Appendix A - Trouble Shooting
Appendix B - Technical Support
Appendix C - Cd Rom Drivers
Appendix D - Reference Material

Index

RATSoft/ST™

The Ultimate BBS Software

Chapter 1

Introduction

Introduction

Legal Notices

J&J Computers warranties for a period of ninety days the media on which this product is carried. If after ninety days a problem should develop with the media, then return it to J&J Computers with a check for $5.00 (U.S.) to cover handling and shipping charges, and we will replace it.

ONE

All other softwares mentioned are Trademarks of their respective companies.

Welcome to RATSoft!

So you've had it with Atari BBS programs! I don't blame you, I've had it too. As a result of my disgust with the current crop of BBS programs available for the Atari ST line of computers, RATSoft was born, and has grown to be one of the most powerful BBS programs available for any platform.

BBS programs of the past tended to be dull, boring, and made absolutely no attempt to utilize the true power of your Atari. RATSoft was designed to make the most of your Atari, and to make that other local SysOp, with his expensive PC and that BBS program he paid a king's ransom for, truly jealous!

While RATSoft is an extensive BBS package, it is not difficult to set up or maintain. You will find it to be a pleasure to use and operate, with little hassle. The more your use and learn RATSoft, the more you will find you are able to accomplish. This is the BBS program you have always wanted: one you are not able to out-grow.

While you may be eager to get your new RATSoft system on-line, please take the time to read the installation instructions before even touching the RATSoft master disks.

Manual Accuracy

Every attempt will be made to keep the manual you receive as in-line with the current version as is possible. However, RATSoft is not a BBS which remains unchanged for years, or even months, on end. Some portions of this manual may not accurately reflect the current version. If this is the case, you can find changes

and/or new information in a text file called **UPDATES.TXT** on disk 1. It is recommended that you print this file out, and look over it carefully. In addition, if any errors were discovered in the manual after printing, corrections may be found in a text file called **READ_ME.TXT** on disk 1.

Each new update of RATSoft released is usually accompanied with a text file documenting the changes. These text files, in combination with your original manual and on-line help system, should provide you with all the information you need.

However, if you should have any questions, or do not understand something, feel free to call your support BBS and leave a message. RATSoft was not designed to confuse the user; quite the contrary; however, some things may be confusing to you the first time around. RATSoft support people or other RATSoft Sysops will be happy to help you. Just ask!

Support, Registration, Updates

Support is handled through a variety of methods, including telephone support, on-line services, and networks. When requesting support, you may be asked to provide your name, purchase date, and version number. For future reference, you may wish to jot those down here:

Information can be found on the Wait-Call Screen

Purchase Date: _____

Version Rcvd.: _____

Version Date: _____

Your copy of RATSoft comes to you personalized for your use only. Each time you boot RATSoft, a specialized "key file" is required. This is a special data

file which was created personally for you which lets RATSoft know you are the proud owner of a legitimate copy. All key files are not created equal, and may only be designed by our team of Nobel Prize winning scientists back at the R0dent Laboratory. The key file, RATSOFT.KEY, should never be deleted or moved out of your RATSOFT folder, or RATSoft may not operate properly. And most of all this key file must never leave **YOUR POSSESSION**! Guard it with your life.

When you ordered RATSoft, you were automatically added to a list of registered RATSoft owners. Currently, a yearly fee of $30.00 is required for support. You only need to start paying this fee once you have had RATSoft for one full year, as the first year of support has been included with the purchase price.

This support fee is not intended to make anyone rich, but to cover the costs of future development. As a result, you are entitled to all upgrades free. An extra handling fee may be required at some points, but this will be only in the rarest of cases, such as programs which require extensive printed documentation, or mail distribution. This support fee does not cover efforts by 3rd-party developers, as they are in no way related to R0dent Laboratories Software. If you are using a shareware program with RATSoft, you are obligated to pay the registration fee. Shareware software is an important part of the Atari Community. Remember to support your shareware author.

All upgrades are free for downloading on support sites around the country when they are released. See the included list of RATSoft/ST support bulletin boards in the **Technical Support** Section of this manual, and call the one closest to you. Once you have applied, leave the SysOp feedback with your name and telephone number. Once the SysOp has verified that you are, in fact, who you said you are, you will be validated for the RATSoft support areas, granting you access to the upgrades and

RATSoft message networks.

If possible, make it a habit to check the support BBS at least once a month. In the past, RATSoft has operated on a frequent update schedule, averaging five or more semi-major or major updates a year, not including extra utilities and 3rd-party releases, which are posted on a regular basis. This frequent update schedule allows RATSoft to remain light years ahead, and incorporate new features and ideas in a timely fashion.

You are encouraged to participate in message bases concerning RATSoft, as there is often a wealth of information exchanged which you may find of interest. In addition, suggestions for future development are welcomed, and appreciated. Your opinions and suggestions are respected, and many of the improvements incorporated into RATSoft are the result of suggestions from RATSoft SysOps.

RATSoft/ST™

The Ultimate BBS Software

Chapter 2

Installation

Installation

In order for RATSoft/ST to operate properly, there are some requirements your system must meet.

System Requirements:

* **Atari ST, STE, TT, or Falcon 1 megabyte required, 2 megs or more strongly recommended.**
* **Any monitor, any resolution**
* **Hard Disk Drive**
* **Hayes-compatible modem, any speed**

Optional Items:

* **Printer**
* **Alternative media, such as a CD-ROM drive, or a Floptical disk drive**

Multi-TOS Users: *If you are using Atari's Multi-TOS or other multi-tasking programs, please disable these programs before installing RATSoft/ST. Unfortunately, these programs create too much of a system slow down to operate a BBS at an acceptable speed. Future versions of RATSoft/ST will support these environments, when an acceptable balance between speed and multi-tasking capability can be found.*

Installation Check-List

- ✓ Check all connected hard disk(s) for errors or bad sectors.
- ✓ Connect the modem you will be using with RATSoft/ST.
- ✓ Set aside a partition you wish to use as your main RATSoft/ST partition with at least 7 to 10 free megabytes.

TWO

WARNING: Under no circumstances should you run unreliable or "flaky" hardware with RATSoft/ST. Your BBS will only run as well as your hardware does!

Making a Backup

In the event your master disks should be damaged by food, drink, children, shark attack, pets, natural disaster, or the whatever, you will have peace of mind knowing you have copies of your master disks safely tucked away.

Please take three fresh disks, and label them as back ups of your RATSoft/ST master disks. There are several ways in which you may back up your masters, including the "Disk Copy" option of the desktop or by using one of the many disk copying programs available. However you do it, just do it! Place the back ups in a safe place, away from extreme heat, moisture, exposure to light, magnetic fields (televisions, telephones, etc.), and of course, the above mentioned. In the event your disks are damaged and no back ups are available, you may obtain new copies for a small handling fee.

Installing RATSoft/ST to your Hard Disk

RATSoft/ST comes with a program specifically designed to install the RATSoft/ST program and related files to your hard disk, as well as set-up system configurations and data files for use. Insert the RATSoft/ST master diskette #1 into drive A or B. From the GEM desk-top, open the drive A or B icon, and double-click on INSTALL.PRG to begin installation.

NOTE: Please do not attempt to install RATSoft/ST to your hard disk without using the provided utility! If problems arise with the installation, please call any of the support numbers listed in Appendix B for assistance.

INSTALL only requires answering a few simple questions and entering some general information about you, your system, and your system preferences. INSTALL was designed to be a "smart" program, and will work around most difficulties without a fuss. However, if an error is encountered during installation, INSTALL will report the error and suggest possible solutions. If a problem persists, please call any of the support numbers listed in Appendix B for help. We will be happy to help you get up and running!

Once the installation program has finished, your new RATSoft/ST BBS is ready to run!

RATSoft/ST Help System

The RATSoft/ST Help System is an accessory, or program, which works with both RATSoft/ST and many of the included utilities. The Help System provides instant access to an extensive library of help files, making detailed help only a keystroke or mouse button away! While this is no substitute for a complete manual, it covers the "most-asked" questions, and should keep you from constantly thumbing through the manual saying "I know I read something about this somewhere."

The Help System offers more advantages when run as an accessory, it also requires about 200k. If your system is tight on memory (if you only have 1 megabyte of memory, for example), choose to install only the program version. At any time if you should choose to disable the accessory, the program version will automatically come into use, and of course, will only occupy the needed memory when in use. Both versions are automatically installed, and the accessory is disabled should you select to only use the program version.

If you have chosen the accessory version, INSTALL will re-boot the machine to install the newly added accessory. INSTALL will automatically continue where

it left off, provided you are running TOS version 1.4 or newer. If you are using 1.0 or 1.2, or your system returns to the GEM desk-top rather than the installation utility, just re-execute INSTALL.PRG. You will then have the Help Utility available during the rest of your installation!

Modem Considerations

INSTALL provides a list of modems with pre-set configurations. If your modem is not given, follow the guidelines listed below to properly set up your modem and create an initialization string:

Most of these settings are the defaults included with your modem, and in most cases, you will already be using them. Please consult the documentation provided with your modem for specific commands or alterations.

- ✓ Set your control panel for 8 bits, no parity, 1 stop bit. Make sure to SAVE these new settings by either using "Save Desktop" or the SAVE function of the MODEM CPX provided with Atari's Extensible Control Panel (XCONTROL).

- ✓ Auto Answer should be turned OFF.

- ✓ Verbal Results should be ON, and to their highest degree.

- ✓ DCD should track the state of your modem, in other words, the carrier lead on your modem should report the current state of the carrier.

- ✓ Modem reports DCE, and not DTE, in CONNECT results. DTE refers to speed at which your modem is communicating with your computer. For high speed modems, this is usually 19.2k or higher.

DCE refers to speed at which the modem is communicating with the caller. You will want this setting, or all your callers will appear to have logged on at 19200 bps.

✓ If you are using a high speed modem, use "port locking." This maybe referred to as "fixed DTE" in your modem's manual.

If you have difficulty finding the proper settings for your modem, a RATSoft/ST support SysOp may be able to provide some assistance. Most modems will display an "active profile" and a "command summary." If your modem is capable of doing this, go into a terminal program and capture your active profile and command summary. For most v.32bis modems, the commands are AT&V and AT$H. Be sure to save your capture! F-mail the capture to the SysOp of a RATSoft/ST support BBS with an explanation of your problem.

System Notes and Compatibility

RATSoft/ST was designed using what are believed to be only "legal" methods. While this does not guarantee compatibility with future machines, RATSoft/ST should run on all future TOS-compatible machines.

In the event an incompatibility is discovered, RATSoft/ST will be immediately updated, provided an update is possible.

Since each Atari is different, please note all the following that apply to your system. Each version of TOS has had it's own unique set of bugs, and they must be dealt with differently so your machine is as stable as possible.

Serial Port Patches

If you're using a high speed modem, you may be well aware of the TOS bugs that affect RTS/CTS (hardware) flow control performance. While these problems are reported to be fixed in newer versions of TOS (2.06, 3.06 and FalconTOS), it may ultimately come down to trial and error. Serial port "patch" programs correct these flow control bugs. Several are available, all being small AUTO folder programs, and most of which can be found on your local BBS or any of the RATSoft/ST support BBS's.

A good way to determine if flow control is working is to upload a file to another board or have a user download a file from your BBS at high speed. If several errors appear during the transmission (repositioning errors), or the transfer frequently aborts, your flow control may not be working. RATSoft/ST will turn on RTS/CTS flow control when initializing the modem, so it is not necessary to have this engaged from the desktop, but the serial patch program must be installed.

Consult the documentation included with the serial patch program you are using for installation of the program. As not all serial patches work on all versions of TOS, it may take several attempts with different serial patch programs before the ideal one is found.

If you have a Mega STE or TT030 with TOS 2.05 or 3.05, you may find yourself running into walls trying to find the proper serial patch. HS_FIX_P.PRG, a "16mhz version" of HS_FIX, is recommended. In addition, do not use the serial patch programs which Atari released for these TOS versions, and remove the MODEM.CPX for the Extensible Control Panel (XCONTROL) should it be installed. This special version of HS_FIX is available from the RATSoft/ST support BBS's for downloading.

TOS Folder Allocation

In TOS 1.0 and 1.2, a "bug" existed which only allowed 40 folders to be allocated. While this limit was increased in versions 1.4 and above, it does not mean the newer TOS versions are without limitations. An auto folder program called FOLDRXXX.PRG can be used to allocate extra folders. ICD's hard drive software also has the ability to allocate extra folders. Just a precaution, allocate up to 256 extra folders. This takes very little memory and can save a great many headaches down the road.

Upgrading TOS 1.0, 1.2, 1.6x, 2.05, and 3.05

These versions of TOS have problematic bugs, and while it is not necessary, and should not affect the general operation of RATSoft/ST, you may wish to consider upgrading your version of TOS. TOS 1.0 and 1.4 users may upgrade to version 1.4 cheaply, or 2.06 by adding a special board. 2.05 and 3.05 users just need to buy replacement chips.

Speeding up TOS 1.0/1.2

The GEMDOS routines used for determining the amount of free clusters is unbearably slow on TOS 1.0 (original TOS) and TOS 1.2 (Blitter TOS). A public domain AUTO folder program called FATSPEED by Uli Kuebler patches these routines, speeding them up dramatically.

General System Enhancements

Anyone running a BBS should own, and frequently use, a hard disk error correction and defragmenter (optimizer). While RATSoft/ST makes ever attempt to prevent disk errors, certain uncontrollable acts (a power outage, for example) can cause disk corruption. Using a program which will diagnose and correct these disk errors will help to avoid any future problems. And while a disk optimizer is not necessary, it will increase the speed of disk access, and

lessen the wear and tear on your hard drive by taking all the "fragmented files" and moving them into a sequential pattern on the hard disk.

While using RATSoft/ST, you will soon discover the need to develop an intimate relationship with a good text editor. Text editors allow you edit everything from text to data files. While word processors are excellent additions to anyone's software collection, they are not to be used with RATSoft/ST's data files! Word processors often save "formatting codes" along with the text rather than a pure ASCII save, making the saved file appear corrupted to RATSoft/ST, which will leave you one unhappy camper. It is important you use a program which labels itself a text editor. Many freeware and shareware text editors can be found for downloading on your local BBS, as well as some feature-packed commercial offerings.

RATSoft/ST™

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Chapter 3

Configuration

Configuration

RATSoft/ST's Configuration Editor, CONFIG.PRG, is a GEM-based program making editing the system configuration a snap! The configuration contains data which affects the operation of your BBS, such as folder names and default settings.

CONFIG.PRG is located in your RATSoft/ST folder, and can be executed by double-clicking on CONFIG.PRG from the desk-top or by entering "CONFIG" followed by a [RETURN] from RAT-Dos. The GEM environment makes moving around easy, and all dialog boxes are kept in windows so you may access the menu bar. Upon loading, the Configuration Editor lists the default page and CONFIG.DAT that will be used. If you wish to modify another page, click on the current page, and select the page you wish to edit.

The Configuration Editor is broken up into several "pages", or separate dialogs, to make editing organized and easy. You may select which page to edit from the Page menu heading, or by pressing the corresponding keys. Depending on which version of TOS you are using, you may have several (or all) pages open at once. To save the configuration click on the save icon located at the bottom of the screen.

The Configuration Editor interfaces with RATSoft/ST's help system providing instant access to help files. Select Help/Current Page for information on the current page, or Help/General for over all help and usage information about The Configuration Editor.

Each option of The Configuration Editor is explained below, listed by their page names in the editor itselfs:

BBS Info

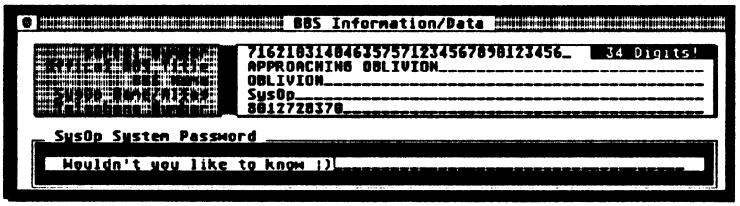

figure 3.1

Serial Number: This is your 34-digit RATSoft/ST serial number. When you installed RATSoft/ST, your serial number was installed in the configuration, and should never be changed. If changed, RATSoft/ST may give you less-than-desirable results in protest of a missing or incorrect serial number.

Official BBS Title: The registered name of your BBS.

BBS Name: The name of your BBS, this may be a BBS nick name or written in "fancy" characters.

SysOp Name/Alias: This is your SysOp name or alias.

Telephone Number: Your BBS's telephone number. International users should include their country codes. This should be only numbers, with no separators.

SysOp System Password: The secondary password required for level 255 SysOps. The secondary password is required when logging onto the BBS, or entering the SysOp commands.

Toggles

(Options are listed as they appear on the screen, from left to right)

New Users Leave Feedback: All new users are required to leave the SysOp an e-mail after they have completed their new user application process.

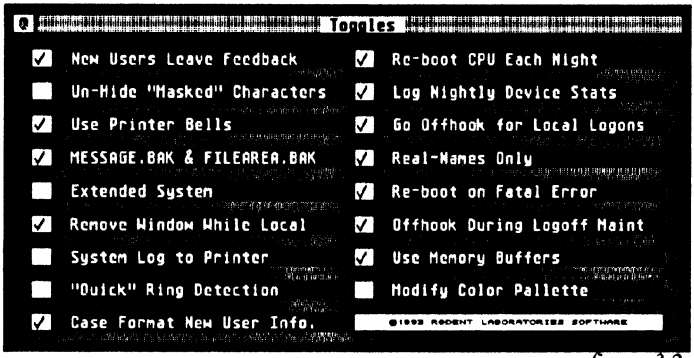

figure 3.2

Re-Boot CPU Each Night: After mid-night maintenance, the system cold-boots. This is useful for problematic systems which tend to crash. A cold-boot will clean out the system memory.

Un-Hide "Masked" Characters: When users enter passwords, when they are logging on for example, they are shown a "mask" character, hiding their input. If this option is active, the actual text is displayed on the SysOp screen rather than the mask character. The user will still see the mask character.

Log Nightly Device Stats: During mid-night maintenance, total space and free space statistics for all connected devices (excluding drives A and B), are recorded in your system log. This makes it easy to see which devices are near capacity.

Use Printer Bells: In addition to the normal SysOp pager, the printer is beeped when a user calls for chat. This allows you to leave your monitor off while still being aware if a user has called you to chat.

Go Off-Hook for Local Logons: While on the system in local mode, the modem is taken off-line, "busying" the line.

MESSAGE.BAK & FILEAREA.BAK: Each time your MESSAGE.DAT and FILEAREA.DAT files are updated, the old files are renamed with a .BAK extender. In the event one of these data files becomes corrupted, try replacing the affected file with it's corresponding .BAK file.

Real Names Only: Your BBS will not accept aliases, and does not prompt the user to enter an alias when applying as a new user.

Extended System: The normal limit of 150 message bases and file areas is expanded to 1,024. This allocates an extra 10k (10,000 bytes) per user. Only use this option if you want more than 150 message bases or file sections, as the extended password file can become quite large.

Re-Boot on Fatal Error: After a system error, and recovery, if RATSoft/ST detects it was a "fatal" error, a warm boot is preformed. The caller on-line is notified. Provided RATSoft/ST is set to auto-load from the desktop (see Auto-Starting RATSoft/ST), the caller will be logged back onto the system within a matter of minutes. A "fatal" error takes many forms, but usually refers to an error in which memory was allocated but could not be released, leaving the system with almost no available free memory. A re-boot is then required to "clean out" the system.

Remove Window While Local: While on-line in local mode, the normal system window is replaced by a 1-line status line, yielding a 24-line display.

Off-Hook During Logoff Maint.: When a user logs off the system, various BBS data files are saved and updated during "logoff maintenance." On some systems this may be slow, and may leave the modem unattended for an unacceptable amount of time. If so, turning on this option will tell RATSoft/ST to busy the line, or take

the modem off-hook, while these data files are updated.

System Log to Printer: System log output is sent to the printer rather than a disk file (RATSOFT.LOG). If this option is on, yet no printer is connected, RATSoft/ST will automatically redirect all system log output to the disk file.

Use Memory Buffers: Buffering functions, such as screen preservation, are stored in memory rather than to a disk file. Turning this option OFF can save memory if memory is tight, but the speed of buffering functions suffers. In normal ST resolutions, a screen can occupy 32k of memory, and TT resolutions can occupy up to 153k.

"Quick" Ring Detection: The ring detection lead is monitored from the modem port rather than checking for the incoming "RING" from the modem. This is usually faster than looking for "RING", but is not compatible with all modems. The Supra 14,400 modems for example, will not work with this feature.

Allow Color Palette Changes: Wait-Call and Online Colors are set according to the palette information saved in COLORS.DAT. These colors may be changed with the "Colors" option of the configuration, explained below. TT and Falcon owners using non-ST resolutions should set their control panels for the normal 16-color ANSI, and turn this option OFF.

Case Format New User Info: New user information is case formatted, meaning if the user enters "joe user" as their alias, RATSoft/ST will convert it to "Joe User".

Modem

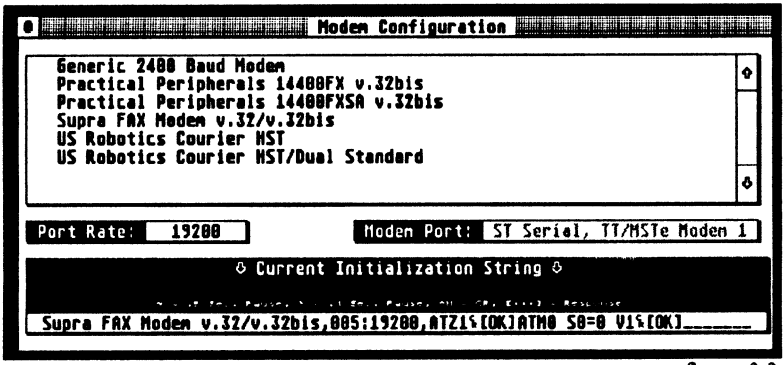

figure 3.3

This page contains a list of default modem configurations. During installation, you probably configured your modem through the use of this configuration page, and will not need to do it again unless you change modems.

If the default modem string is not acceptable, or your modem was not provided in the defaults, you may enter your own modem initialization string. A common initialization string might be:

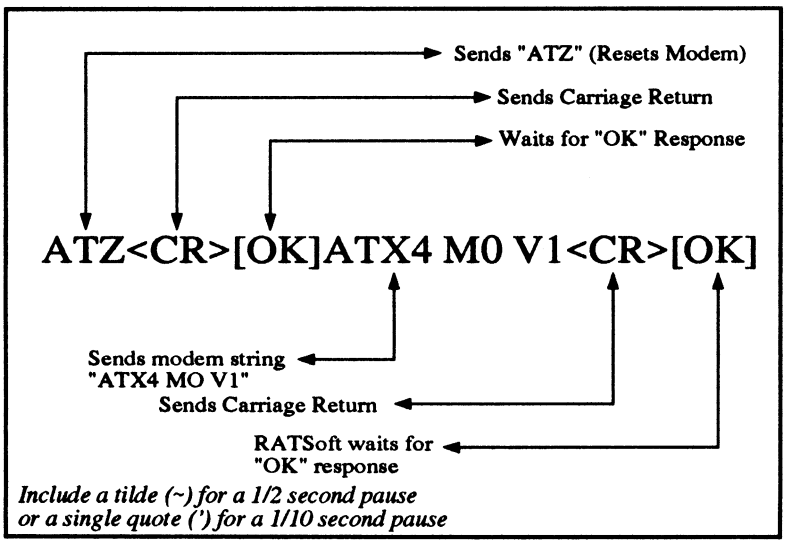

figure 3.4

3.6 CONFIGURATION

System Paths

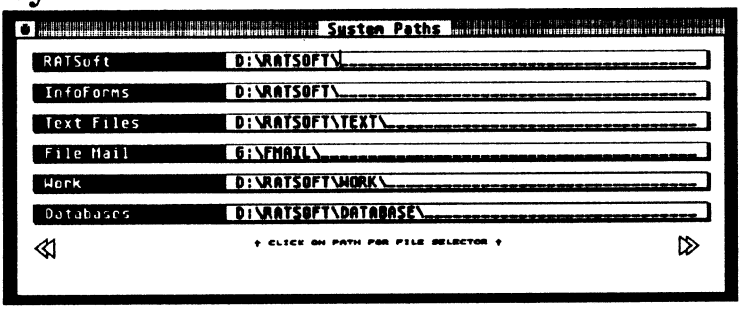

figure 3.5

System Paths spans three pages. Use the arrows located the bottom of the window to move forward or back a page.

RATSoft: Your main RATSoft path.

InfoForms: InfoForms are stored here in their own folders. For example, if this was C:\RATSOFT\, InfoForm 1 would be stored in a folder named C:\RATSOFT\INFOFORM.1\, InfoForm 2 in C:\RATSOFT\INFOFORM.2\, etc.

Text Files: Where RATSoft/ST locates text files, menu files, databases, and scripts.

File Mail: F-mail (or files attached to e-mails) are sent here when uploaded by a user. As there is no limitation on size, this should be a device with a constant amount of reasonable free space.

Work: RATSoft/ST's work folder. This should be an EMPTY folder, as RATSoft/ST will delete all it's contents when a user logs off.

Databases: The default folder for uploads to databases. This is only a default, and varies with each database. Only Type III (Files Databases) use this path definition.

Section News: All section news files are stored in this folder. These are the individual news files which may be attached to a message base or file section.

Auto Messages: Message editor Auto Messages are stored in this folder.

Voting Booths: Folder Voting Booth data, used by VOTE.RAT module.

Help Files: Help files for both the RATSoft/ST Help System and on-line help system (HELPSYS.RAT) are stored here.

Quick-Access Utilities [T] and [E]: Two programs which can be executed with the [T] and [E] options from the wait-call screen.

Launch Program and Command Line: An optional program which can be executed during RATSoft/ST's boot-up process, just before the wait-call screen appears.

Timers

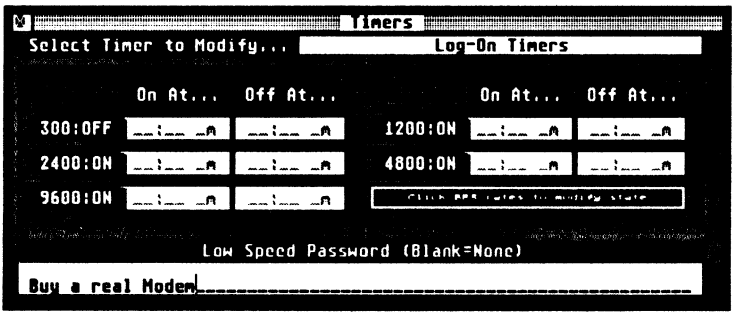

figure 3.6

Timers restrict access to either the system or file sections based on a caller's modem speed, or bps rate. Select "Log-On Timers" to set the timers which restrict access to the system, or "File Section Timers" which restrict users from the file sections.

Click on the speed to toggle between three options: Off, On, and Times. If ON, there is no restriction on the speed at any time. If OFF, the speed is always restricted regardless of what time it is. Lastly, if neither ON or OFF is set, the times listed under the "On At..." and "Off At..." columns are used. A caller at that speed is only allowed access between "On At" and "Off At". However, if a Low-Speed Password is used, the user may over-ride the restriction if the correct password is entered.

Settings

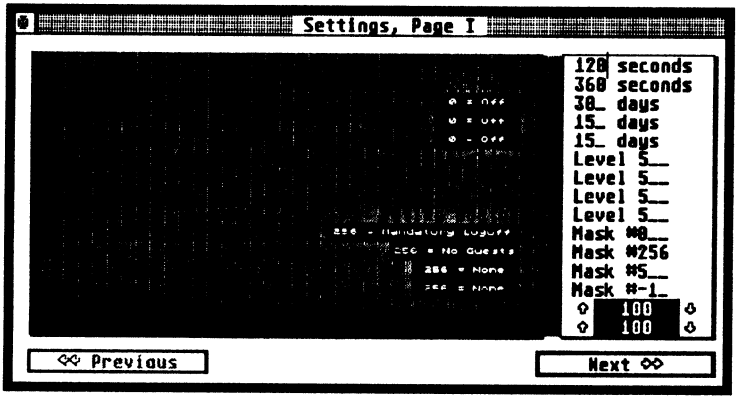

figure 3.7

Like the System Paths pages, Settings is divided into three pages. Click on the "Next" or "Previous" buttons at the bottom of the window to move between pages.

Idle Time-Out: The number of seconds required with no modem or keyboard input before a user is disconnected.

Idle Time-Out Local: The number of seconds required with no keyboard input before a local caller is disconnected.

Delete E-Mail After...: At mid-night, RATSoft/ST will delete all e-mails which are older than the given number of days. Enter 0 to disable this option.

Delete F-Mail After...: At mid-night, RATSoft/ST will delete all f-mails (files attached to e-mails) older than the given number of days. 0 disables the option.

Delete File Attaches After...: Like above two options, only files attached to messages (other than f-mail) is deleted after the given number of days.

Minimum Level for Logon Bulletins: The minimum over-all level required before a user may see the logon bulletin file (LOGONBUL.*).

Minimum Level for One-Liners: The minimum over-all level required before a user is shown the one-liners during log-on.

Minimum Level for Reading System News: The minimum over-all level required before a user may read any system news files.

Minimum Level for Voting Booths: The minimum over-all level required before a user may enter the voting booths. Use this option if you do not want new users to vote on mandatory polls.

Mask Applied to New Users: The number of the mask which is to be applied to new users logging onto the system. If 256, the user is logged off after the NEWUSER3.* file is displayed.

Mask Applied to Visitors: The mask used when a visitor logs on. If 256, no visitors are permitted.

Mask for Call-Back Verifier: Mask applied to the user account if a call-back verify attempt was successful.

Mask Applied to Expired Accounts: A mask which is applied to accounts which have expired, as set with the E[X]piration Date option in the User Editor.

Maximum Lines for Message Editor: The maximum number of lines allowed in the message editor. This may be anywhere from 10 to 32000, although a setting of 200 to 500 is more reasonable.

Maximum Number of Banners: The maximum number of on-line banners (one-line messages shown before the main menu prompt) your system will allow. Users may add banners to the system. Set this to 0 to disable the banners feature.

Re-Initialize Modem Every...: After the given number of minutes without any modem activity, the modem is automatically re-initialized. Useful if problems arise with the modem "falling asleep" or ceasing to respond after a long idle period.

Answer Phone on Ring #...: The number of rings required before RATSoft/ST answer the incoming call. This is normally 1 unless your modem sends caller ID information between the first and second rings, in which case, a setting of 2 or 3 is needed.

RATSoft/ST Memory Base: The "base" amount of memory RATSoft/ST allocates for itself in kilobytes (k). This does not reflect how much memory RATSoft/ST actually uses, but rather how much it is allowed to operate with. A very low setting may cause slow performance or crashes, where as a high setting may needlessly take memory which RATSoft/ST does not require. Using the default setting is recommended. If crashing becomes a common problem on your system, try adjusting this number upwards.

Direct All Feedback to...: When a caller uses the feedback function ([feed]), the message is sent to the given user number. Normally, this is 1 for the SysOp.

All New User Notices Sent to...: RATSoft/ST notifies the given user number of new callers to the system with a brief little notice.

Filelist/DSC Filename Prefix: The prefix used for the file section list generator, and .DSC files. This should be unique to your BBS to prevent conflicts with other RATSoft/ST systems. This may be 1 to 6 characters, although 3-4 is recommended.

BBS Operation Hours: If your system is not active 24 hours, you may use this option to automatically limit the hours RATSoft/ST will respond to incoming calls.

Chat Availability Hours: The chat pager is automatically turned ON at the given time, and OFF at the end of the period. The first is for weekdays (Monday-Friday), and the second for Weekends (Saturday and Sunday).

Alternate File Devices: These are the devices which RATSoft/ST will scan for available space when choosing a destination for uploads when they are validated. For example, if the default path for a file area is C:\RATSOFT\ATARI\UTILS\, RATSoft will first scan this path for enough free space. If there is not sufficient free space, the alternative devices are used. For example, if devices I and J are selected, RATSoft/ST will then check those devices, and place the file in I:\RATSOFT\ATARI\UTILS\ or J:\RATSOFT\ATARI\UTILS\.

Alternate Upload Devices: The largest available partition is used for incoming uploads. The folder scheme follows that which was first defined when an upload path was specified for the conference.

3.12 CONFIGURATION

Screen Saver: After a given number of minutes have passed at the wait-call screen with no activity, the screen is blanked preventing "burn-in." If RATSoft/ST's screen saver is used, disable all other screen savers. While running RATSoft/ST, this screen saver will probably serve your purposes best, as it will not blank the screen when a caller is on-line.

ANSI: Controls ANSI emulation. If your system appears to be slow when emulating ANSI on your screen, change this option to "Off at High Speeds" (ANSI emulation is only used for calls below 9600 bps), or "Off" (no emulation).

Conferences

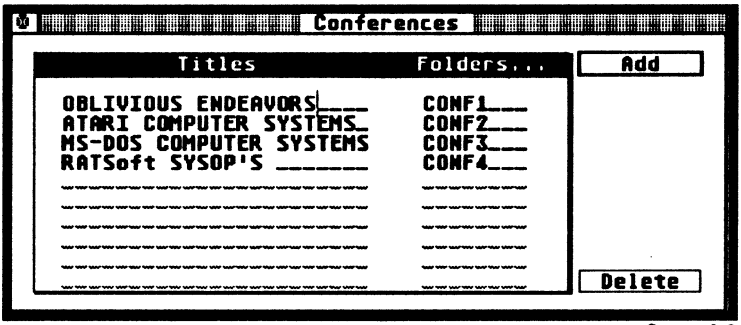

figure 3.8

RATSoft/ST uses a conference system. Conferences provide a way to further separate portions of your BBS rather that just offering separate message bases or file sections. For example, if your system supports Atari, IBM, and MacIntosh, you may wish to use a conference for each of these. Or if you offer an adult area, you may wish to use a separate conference for this material as you can completely "hide" a conference from unknowing users.

Each conference may have it's own message bases and file sections, separate from those located in other conferences. Users may be denied access to a

conference through flags in their user data.
From this page you may add, delete, swap, or change folder names for conferences. RATSoft/ST uses these folder names to store information for that conference, usually within the RATSoft/ST folder. For example, if you have an Atari conference, you may wish to give it the folder name ATARI. RATSoft/ST would then create the necessary folders, and you would end up with a folder scheme similar to...

C:\RATSOFT\ATARI\
[data files such as MESSAGE.DAT and FILEAREA.DAT]
\FILEDATA\ [data files for file areas]

Also, when creating new message bases or file sections, the default folders RATSoft/ST chooses will include these conference folders for better organization.

To delete a conference from the list, click the Delete button then click on the conference you wish to delete.

To swap conferences, click on the conference title you wish to swap and hold the button (the name of the conference it out-lined). Drag it over the name of the conference you wish to swap it with.

Colors

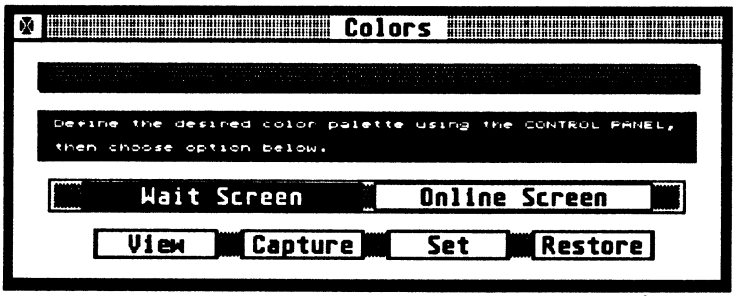

figure 3.9

If the "Allow Palette Changes" option is active under the TOGGLES page, this page will allow you to "capture" the palette you wish to use while at the wait-

call screen or while online. Using your control panel (such as Atari's original XCONTROL.ACC, with the COLOR.CPX), set the palette to your preferences. Select Wait Screen or Online Screen, then click on the Capture button to store the current palette. The View button will display the selected palette's color settings for all 16 colors or less, or however many are available in your current screen mode. Monochrome offers two, were as ST medium offers four.

RATSoft/ST™

The Ultimate BBS Software

Chapter 4

General Operation

General Operation

Boot-Up Process

To execute RATSoft, double-click on RATSOFT.PRG from the desk-top. In a few seconds, a dialog box will appear on screen as the data files are loaded.

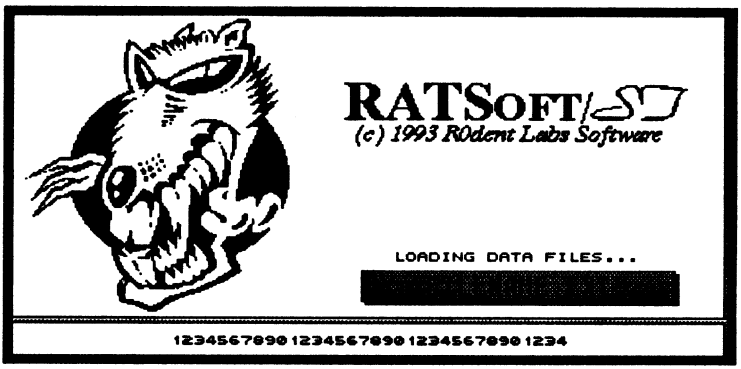

figure 4.1

You may abort RATSoft and return to the desk-top by holding both the left and right SHIFT keys, or holding both mouse buttons down.

During the boot-up process the following files are loaded, or scanned for information.

In Order of Access:

C:\RATSOFT.INI	CMD_FUNC.LST
RATSOFT.RSC	PASSWORD.DAT (scanned)
CONFIG.DAT	ARCHIVE.DAT
COLORS.DAT	PROMPT.DAT
BBS_DATA.DAT	BANNERS.DAT (optional)
WS_COLOR.DAT	MACROS.DAT (optional)
CCMDSDEF.DAT (optional)	MODULE.DAT (optional)
MAINCMDS.DAT	SOUND.DAT
MESGCMDS.DAT	FREEFILE.DAT (optional)
FILECMDS.DAT	TXTCACHE.DAT (optional).

figure 4.2

Some are optional, and only loaded if in use. The following files are loaded during the boot-up process, and are listed here merely for your information. If you are unsure of what a certain file is used for, see Appendix D.

As you can see, RATSoft juggles quite a bit of data just during the boot-up process. However, loading all this information is relatively fast. If an error should occur during the boot-up process, refer the list above to locate a possibly corrupt data file. See "Appendix B: Trouble-Shooting" for more information.

After all the data files have been successfully loaded, AUTOEXEC.BAT will be executed, if present. If no CONNECT command line parameter was passed (see "Running a Front End with RATSoft"), the wait-call screen will appear and the modem will be initialized. This modem initialization may be aborted by pressing the ESC key.

Auto-Starting RATSoft

You may wish to install RATSoft to automatically load when your computer is booted. TOS versions 1.4 and up offer an "Auto-Load" feature. To install RATSoft to auto-boot, locate RATSOFT.PRG from the GEM desk-top, click to select the icon, and select Install Application from the Options menu heading. Click the Auto-Load button, and click OK. Then remember to SAVE the desk-top! Users of TOS version 2.05 and up should also select Application as the Default Dir option.

NOTE: Many AUTO folder "boot up programs", such as X-Boot from Gribnif, modify the auto-load information in the desk-top information files (DESKTOP.INF or NEWDESK.INF). It may be necessary to install RATSOFT.PRG to auto-load from these boot up programs.

If you plan to use one of the older versions of TOS such as TOS 1.0 or 1.2 will need an AUTO folder program such as STARTGEM, available from a RATSoft/ST Support Bulletin Board or most other Atari based Bulletin board systems.

Wait Call Screen and Functions

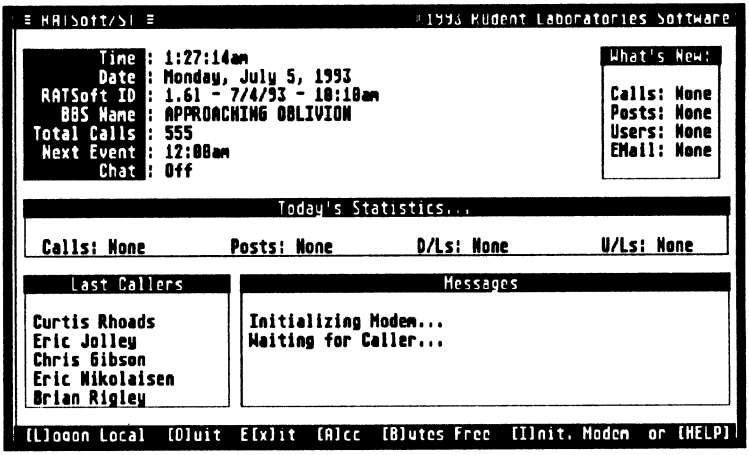

figure 4.3

The wait-call screen is displayed while RATSoft is inactive, or waiting for a caller. Statistics "boxes" contain current BBS information, last caller information, and system messages.

While at the wait-call screen, several functions are available from the keyboard. Press HELP to display a brief help screen. Each option is explained here in detail:

[A] Access Accessories: This function calls a small program which provides access to a GEM menu bar and all desk accessories installed in the system. This makes getting to your control panel or accessory text editors or terminal programs easy without exiting RATSoft.

Under the File menu, an Auto-Exit option can be found. If active (it will be checked if active), RATSoft will return to the wait-call screen when no carrier is present. This was designed for those who use accessory-based terminal programs who may wish to download files unattended without leaving the BBS unattended when the transfer has completed. Once you are connected to the remote bulletin board, select File/Auto-Exit. An alert box will inform you the option has been activated.

[B] Free Space Statistics: This function determines the total number of free bytes on your system by scanning all available devices, minus floppy drives. The statistics are shown in the Messages window.

[C] Chat Toggle: Toggles the chat pager ON or OFF. If the chat pager is on, the system will make a "beeping" noise when a user calls you for chat.

[E]/[T] Quick Execute Program: Loads a pre-defined program, which you define in the configuration. While it does not matter what program is executed under these keys, usually a text [E]ditor and [T]erminal program are used, as those are the programs you would want to execute most while running RATSoft.

[F] Force Schedular: Executes the Schedular. This is useful if you have an entry in your Schedular which executes with every pass, or if the Schedular is updated and RATSoft needs to be made aware of new entries.

[L] Log-on Locally: Logs on the system from the console. Same as [RETURN].

[Q] Quit: Exits RATSoft, does not take the modem off-hook. See E[x]it.

[S] SysOp Commands: Goes directly to SysOp commands.

[T]: See [E].

[W] Throw Carrier: Simulates a "RING", and 'throws' a carrier. Useful if you wish to connect someone already on the line.

[X] Exit and Go Off-hook: Exits RATSoft and takes the modem off-hook, "busying" the line. See [Q].

[HELP] Display Help: Displays help for the wait-call screen, so you need not flip through this manual each time you are looking for a function.

[F1] through [F10] Execute Batch Files: These function keys execute a corresponding batch file, named WAIT

[Shift]+[F1] through [Shift]+[F10]
Send Modem String: Sends a command string to the modem, based on information provided in the M_STRING.DAT file. See below.

[0] Execute Program: Executes a GEM or TOS program, but will not execute RATSoft modules, scripts, or other RATSoft-related files. Optionally, you may have RATSoft "removed" from memory, freeing up all available memory. Once the called program has exited, RATSoft is automatically re-started.

[1] through [9]: Executes a GEM or TOS program as defined in the WAITEXEC.DAT file. See below.

M_STRING.DAT: Modem Strings Sent from the Wait-Call Screen. This is an ASCII data file which contains 10 CR/LF terminated lines, corresponding to Shift+F1 through Shift+f10. The contents of each line is nothing more than a string of commands to be sent to the modem, following the same format of that used by the initialization string in the configuration. Use a text editor to modify this file.

WAITEXEC.DAT: Programs Executed from the Wait-Call Screen. This ASCII data file contains up to 9 CR/LF terminated lines, each line representing a program to be executed when keys 1 through 9 are pressed from the wait-call screen. An example WAITEXEC.DAT:

```
C:\RATSOFT\CONFIG.PRGBBFREE_MEM:C:\TERMINAL\TERMPROG.PRG
```

When 1 is pressed, C:\RATSOFT\CONFIG.PRG is loaded and the command line of "BBS" is passed, automatically loading the BBS Info page of the configuration. When 2 is pressed, C:\TERMINAL\TERMPROG.PRG is loaded. Notice the "FREE_MEM:" preceding the file name. This tells RATSoft to dump itself from memory, thus freeing the memory occupied by RATSoft, before executing the program. Once TERMPROG.PRG has been exited, RATSoft is re-loaded.

***TIP:** Press HELP from the wait-call screen to see the contents of both your M_STRING.DAT and WAITEXEC.DAT files along with their corresponding key presses.*

Functions While On-line

While a user is on-line, or while you are on-line from the console, the following functions are available:

ALTERNATE+A: Access accessories. Calls the menu bar, just like [A]ccessories from the wait-call screen.

ALTERNATE+B: Boot user with garbage. RATSoft creates "fake line noise", and then drops carrier.

ALTERNATE+C: Toggles the status of the chat pager.

ALTERNATE+D: Enters RAT-Dos. Modem input/output is suspended.

ALTERNATE+F: Calls the GEM file selector, for inserting paths and file names or doing disk functions, should your file selector support such options.

ALTERNATE+H: Hangs up on user.

ALTERNATE+L: Lock modem. Suspends all modem input/output, and a "Modem Locked" message is displayed on the bottom status line of the status window.

ALTERNATE+R: Reset. Returns RATSoft to the wait-call screen without saving any user information.

ALTERNATE+S: Calls RATSoft Help System, if available, in either accessory or program form.

ALTERNATE+W: Change window size. Changes the size of the status window, from no window to a full 8-line status window.

ALTERNATE+Z: Toggle local status window. If "Remove Window While Local" is active (see The Configuration Editor), the normal status window is replaced by a 1-line status line. ALTERNATE+Z will toggle between the normal status window and the local 1-line status line.

F1: Enters ASCII chat mode with word wrap. You may capture the current chat conversation with F6. All chat conversation will be dumped to a file called CHAT_CAP.TXT located in your RATSOFT folder. Use F6 to turn off the capture.

F2: Enters VT52/ANSI bidirectional chat mode with word wrap. Only available to VT52 and ANSI callers, this uses a full-screen, two-window, environment which allows simultaneous typing between both the SysOp and the user on-line in their own seperate windows. Press [HELP] from the full screen chat for a list of options.

F3: Toggles the SYSOP NEXT flag. If active, after the current caller has logged off the system, RATSoft will not allow any other callers and immediately go into a local log-on sequence. Should you have a tough time getting on your own BBS, this option may come in handy.

F4: Enters SysOp mode. Modem input/output is suspended.

F5: Enters the user editor. Modem input/output is suspended.

F6: See F1.

F7: Toggles the AUTO OFF-LINE flag. When active, while scanning files in the file areas, RATSoft checks to see if the file exists, and if not, the file is given an off-line status. See "Alternative Media."

F8: The user on-line is given temporary SysOp access, giving them full SysOp abilities. Press F8 to return the user to their normal status.

F9: Enters SysOp commands with modem input/output, unlike F4 which suspends input/output.

HELP: Replaces status window with a window of available on-line commands with brief descriptions. Two pages are available, use HELP for the next page, and HELP again to return to the status window.

UP ARROW/DOWN ARROW: Increases or decreases the user's time limit by 1 minute.

LEFT ARROW/RIGHT ARROW: Increases or decreases the user's time limit by 10 minutes.

News Files

During the log-on procedures, RATSoft will display any unread (new) news files to the user on-line. These are created by the SysOp through the [A]dd News File option in the SysOp commands. Up to 15 news files may be in use at any given time, and they are all shown to the user automatically upon log-on, but are only displayed once, after which the user may read them by using an option on the main menu.

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The Ultimate BBS Software

Chapter 5

Message Bases

Message Bases

RATSoft's message system was designed to be fast, flexible, and easy to maintain. Your BBS may have up to 50 Message Bases, unless you using the 'extended system' option (see "The Configuration"), in which case, you may have up to 1,024 Message Bases.

RATSoft can use different message formats, depending on which message modules are installed on your system. For now, only the internal format will be discussed. If installing a message module, please see the documentation provided with that module for proper installation instructions. They will generally vary with each module.

Creating Message Bases

If there are currently no Message Bases on your system, to create the first message area, press the 'M' key to enter the Message Bases. You will be prompted with **"Message area 1 does not exist, create it?."** Answer YES to create the first message area.

Creating each base involves following a few simple prompts. Please make sure that each drive targeted for a message area has enough space to adequately handle the number of messages you intend to have when the base has reached full capacity. Generally, messages range in size from 512 bytes to 2k (2048 bytes). "File attaches" or files that are tagged onto a specific message are automatically placed in a \FILES\ folder within your message area folder when they are uploaded. If possible, you may want to set aside a whole drive partition solely for Message Bases.

When creating a new message area, you are prompted for the following information...

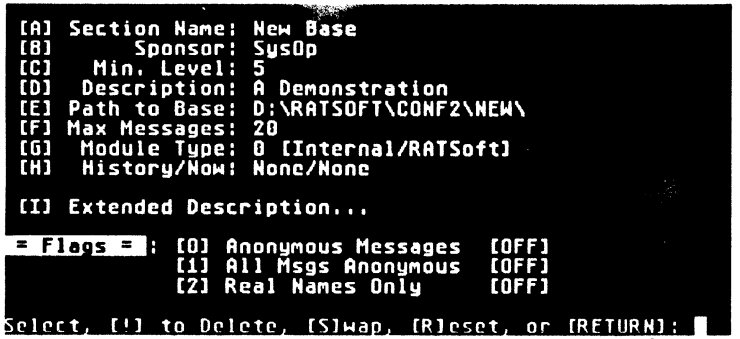

figure 5.1

Message Base Name: The title of the message base. For example, "General" or "Buy and Sale"

Description of Base: A brief (up to 30 characters) description of the message base.

Sponsor: The user who sponsors the base. This user has limited SysOp capabilities within his/her own message base. See below.

Level for Entry: The minimum access level required to enter the message base.

Pathname for Base: This is the path where the messages will be stored. RATSoft provides a default path name, but you may simply back-space over this and provide your own. This is only a folder specification, and should be a new or empty folder that is not used by any other portion of the BBS. Never give the same path for more than one message base!

Maximum Messages: The maximum number of messages the base will allow before "wrapping." RATSoft internal message format (module type 0), supports between 5 and 500 messages per base. This number will vary with other message modules, depending on their limitations.

The sponsor of the message area may delete, edit, and

copy messages as well as create and delete a section news file. These capabilities are automatically given to sponsors regardless of the user parameters. All sysops, or level 255 users, also have these capabilities.

After the above information is provided, you are taken to the message section editor which allows you edit the information you just provided, as well as set flags and module type.

RATSoft has the unique ability to use message modules, or programs written specifically for RATSoft that utilize different message formats. Each message area has a "module type" associated with it. A type 0 module is RATSoft's own internal routines, which is what you will generally use. Types 1 through 255 are modules, identified by their MSG_x.RAT file names, x being the module number. If you want to use a message module RATSoft, read the instructions supplied with the module. Different installation instructions may be required.

There are three simple flags:

Anonymous: Users have the option to make their messages anonymous. SysOps will still be able to see their names.

All Messages Anonymous: All messages are anonymous. Users names will not be displayed to other users, however, the SysOp and other users with a user level of 255 will be able to see who wrote each message.

Real names only: The real names only flag should be used only when aliases are allowed, as all messages are, by nature, "real name" on real-name only systems.

Creating Additional Bases

To create additional Message Bases, use the 'C'hange area option, and enter a number higher than that of the current

number of bases on your system. For example, if there are currently 5 Message Bases in the current conference, enter 6 (or anything higher), and RATSoft will allow you to create a new message base.

Editing Existing Bases

To edit an existing message bases' parameters, enter the desired message area, and press the **$** key. From this menu, you may increase the number of messages allowed, change the name, description, folder, sponsor, or delete the entire base.

If you decrease the maximum number of messages, RATSoft will "compact" the base, deleting older messages until the new maximum is reached.

Maximum Number of Messages

Under normal operation, RATSoft allows for a total of **150** message bases on the entire system. If RATSoft is running in "extended mode", there may be **1,024** total message bases. For more information on extended mode operation, see chapter 3'.

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The Ultimate BBS Software

Chapter 6

File Sections

File Sections

File sections are treated by RATSoft in much the same way as message bases. There is a maximum of 50 file areas for the entire system, unless you are running an extended system (see Chapter 3), in which case you may have up to 1,024 file areas. There is no limit on how many file areas may fall under any conference, although conferences may not share file areas with other conferences.

Before diving into the specifics of file areas, let me explain a few things about the file areas so you may better understand how they operate.

RATSoft keeps all the file information in data files (named AREA.xxx). It does not do directory searches when displaying files to the user on-line, but instead, retrieves all the information from the data file. Each file area has it's own data file, in which all the file information, including the file name, location (path), brief and full descriptions, release date, upload information (uploader's name, time, date), the number of accesses, last download date and time, and lastly, the file's size.

Creating File Sections

Creating new file areas is somewhat similar to the process of creating new message areas. If no file areas exist in the current conference, you will be asked if you wish to create the first file area. And, like message bases, creating additional file areas is accomplished by 'C'hanging to an non-existent file area.

If you are creating the first file area of the conference, RATSoft will first ask for the default upload folder. This folder is where all uploads are sent to for the current conference, not the file section. While you are

required to give a drive specifier, RATSoft may use other devices depending on which "Alternate Upload Devices" are specified in the configuration. However, the same folder scheme will be used.

New File Area Commands

When creating a new file area, you are prompted for the following information...

File Area Name:
The name to be given to the new file area.

Description:
A description of the file area, such as "Pictures, GIF's, and Spectrums."

Sponsor:
The sponsor of the current file area. The sponsor has access to limited editing capabilities of files, and the ability to validate new uploads. See below.

Minimum Level:
The minimum level required for entry into the file area.

Default Folder:
This is the default folder. Validated uploads are sent to this folder. See "Adding Files to a File Section."

Sponsor Capabilities

The sponsor of a file area has the ability to edit files in their own file section using the file editor, but may not perform file functions on the file, such as deleting the file or moving the file to a different path.

The sponsor may create a section news file for their file section, which is shown to each user automatically when the user enters or scans the file area.

The sponsor may also validate uploads in your upload que that were uploaded to the conference in which they are sponsor. If you wish to stop the sponsor from validating any uploads, deny the [fsys] menu function.

Adding Files to a File Section

If you are familiar with other BBS programs, you may be a bit thrown by the way RATSoft handles downloads. RATSoft does not rely on a strict folder scheme, but retains the path of each file listed in a file area. For example, if you added a new file, named **"C:\APP\STUFF.ZIP"**, RATSoft identifies the file by it's file name (STUFF.ZIP), and also the path in which it is located (C:\APP\). Each time this file is accessed, RATSoft knows the file is located in C:\APP\, and will therefore search for it there.

This method provides greater flexibility over how your system manages files and allows you to keep files wherever you please over your entire system.

Adding Files to the File Areas

RATSoft provides two ways to add files to a file area. To add a single file to the system, press '**$A**' from the file sections. RATSoft will prompt "File: " and provide the default folder. Type in the file you wish to add, should it be located in the default folder, or backspace over the default folder, and provide the complete file-name of the file you wish to add.

***Tip:** To erase the entire line, press 'Control' plus 'X', and instead of typing in the complete file name, press the right mouse button, find the file you wish to add with the file selector, and press "OK." RATSoft then inserts the complete file name.*

The file will then be processed through the File*Tool Utility (if active), and added to the file area. you will then be taken to the file editor.

The second method allows the adding of multiple files at a single time by providing a file mask instead of a single file name. Press '$W' from the file prompt. RATSoft will ask "Add only foreign files?" If you answer yes, only files which are "foreign," or are already not in the file area, will be scanned. You will then be prompted for a file mask on which to search. Simply provide the path and file mask ("C:\APP*.ARC", for example). All matches will be found and the option to add the file will be given one by one until no more matches are located.

File Editor

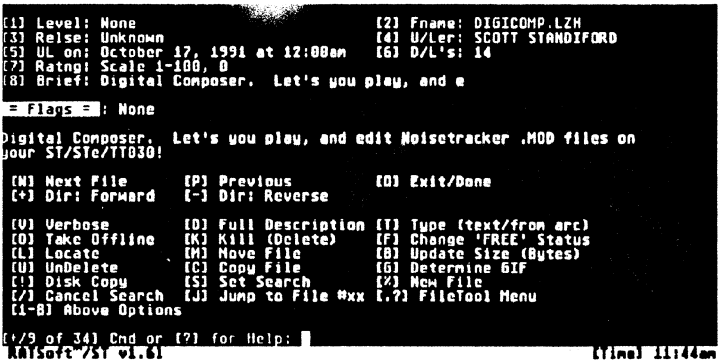

figure 6.1

Once a file has been added to the system, either through the use of the **$W** or **$A** file SysOp commands, the file may be edited at any time. To edit a file, scan the file section you are in, either using the brief file listing or the full description listing. Select 'E'dit, and you will be taken to the file editor. Only SysOp, file Sysops, or sponsors may edit files in a file section. Sponsors may not perform any disk functions, unless their file level is 255.

To illustrate the file editor, an example file is shown in figure 6.1 (previous page). When you use the file editor, what you see on the screen should look very similar.

Listed at the top are the name of the file, it's size. If the file is deleted, "**DISK FILE DELETED**" will follow the name of the file.

The next line contains the number of the file and the section in which it is located.

The next few lines (options one through eight) contain the file level, release date (as entered by the uploader), filename, uploader, upload date, accesses (number of downloads), rating (as entered by the uploader), and the brief description. These functions can be edited simply by choosing the corresponding key.

The "flags" line contains various file flags, of which there are three current possibilities: free download, database file, and deleted. If the file is marked as "free," the user is not charged when they download the file, or in other words, it is not counted against their upload to download ratio, upload to download kilobyte ratio, or number of downloads. However, the user must have sufficient time to complete the download.

The database flag is not a modifiable, but is set by the system as well as whether it should the file be linked to a files database (see "Databases").

Lastly, the deleted flag indicates whether the entry has been marked as deleted. Note that this does not reflect the actual existence of the file on the disk, but whether the entry is **MARKED** as deleted. Entries marked as deleted are removed from the file section when a clean-up is performed.

Each of the other commands are explained below in detail:

[N]ext, [P]revious,
Movement Direction [+]/[-],
and [Q]uit:
Moves to the next file, previous file, sets the default direction to forward or reverse, or quits and exits the file editor. The default direction refers to whether the next file or previous file will be brought up when the [RETURN] key is pressed.

[V]erbose:
Provides a verbose listing of an archived file.

Full [D]escription:
Allows editing of the full description.

[T]ype file:
Displays a text file. If the file is an archive, you are shown a verbose listing of the file, and prompted for which file to display. The file is extracted and displayed on the screen.

[O]ff-line/On-line:
Toggles the off-line status of the file. If the file is currently on-line (available for downloading), the file is taken off-line, and optionally deleted from the disk. If the file is currently off-line, it will be brought back on-line (made available for downloading) ONLY if the file can be located. If the file has been deleted, it cannot be brought back on-line.

[K]ill:
Deletes the file from the disk, and marks the entry in the RATSoft data file for deletion. These files are not displayed in the file listings. The entry in RATSoft's data file is not actually removed until a clean-up is done. For more information on file area clean-up, see "File SysOp Commands."

6.6 FILE SECTIONS

[F]ree Status:
Toggles the free status flag. See above.

[L]ocate:
This allows you to locate the file by giving RATSoft the path it is located in. For example, if you had deleted the disk file previously, and placed it back on your hard disk at a later date, [L]ocate the file, then select [O]n-line or [U]n-delete to bring the file back to an on-line and available status.

[M]ove:
Allows the file to be moved to another file section, in any conference.

Update Size ([B]ytes):
Simply determines the size of the file (in bytes). For example, this function could be used to update the size of an archive if a file had been added to the archive after it had been placed on-line.

[U]n-delete:
Un-deletes a file. This only removes the 'delete flag' from the data entry. If the disk file is no longer available, the entry cannot be un-deleted.

[C]opy:
Like the move function, but does not mark the file entry as deleted once the copy has been preformed.

Determine [G]IF/MOD:
Should the file be a GIF picture file, or a music MODule, this will determine the resolution and color map of the GIF, or the name of the MODule. The information is placed in the brief description.

[!] Disk Copy:
Copies the file to a given destination.

[S]et Search:
Allows search options to be set for scanning through the file area. Works exactly like using search options with the brier or full description listings.

[%] New File: Allows the 'identity' of the file to be completely changed. By providing the complete path and file name of a new file, the entry in the file data becomes associated with the given file.

[/] Cancel Search: Cancels any search options which may have been previously set.

[J]ump: "Jump" to any entry in the current file section.

[.?] File*Tool Menu: If RATSoft File*Tool is installed, this gives a menu of the functions available through File*Tool. All File*Tool functions are preceded by a period. See 'File*Tool" for more information.

*NOTE: The data is saved whenever you quit editing the current file, which includes [N]ext, [P]revious, [J]ump, [Q]uit, and File*Tool functions.*

User Uploads

RATSoft can accept files, or uploads, in three basic ways:

File Attaches
First, users may attach files to a message or an e-mail by using the "Attach Files" options from either the line or full screen editor. No special considerations are needed for such files, but it should be noted these files can be automatically cleaned-up (or deleted) through clean-up routines which run at night. File attaches and f-Mail (files attached to e-mail) can be deleted after a set number of days, as defined in the configuration (See The Configuration).

Files Databases
Users may also upload files to data-bases. The file is given a default level which was defined when the database was created. To edit these files, enter the database and enter **[$E]**. Select which file you wish to edit, and you are taken to the file editor. Editing these files is identical to those which are in file sections (See The File Editor).

Uploads to File Areas
By far the most common type of upload, these are the files which users upload for credit. All files uploaded by users are placed in an Uploads Que, which the SysOp (or file sponsors) can review, and then validate and finally put these files on-line for others to download.

When a user uploads a file, or files, RATSoft will prompt the user for descriptions of the files they have uploaded. If the user fails to enter descriptions, or the system "times out" before the user has noticed the upload had completed, the user will be prompted for descriptions on their next call.

To validate uploads, use **$V** from the file menu to validate new uploads, or **$U** to enter the upload que at entry number one.

To validate an upload, enter 1 then [RETURN] to give single credit, 2 for double credit, and so on. You may even give the user half credits, for example, .5 would give the user half credit, and 1.5 would give one a half credits. The user is notified that their upload was validated, and you may type in a one-line comment if you wish. You may then place the file on-line for others to download by choosing a destination conference and file area. RATSoft will move the file from the upload path to the file area's default path. Depending onr which of your alternative devices are active (see Chapter 3), RATSoft will first see if there is enough space on the default device, and then search all alternative devices

until a device with enough free space is found, or if no space is available, the file remains in the upload que.

Killing an Upload

You may also [K]ill a file, which will give the user no credit, and optionally send a notification of no credit. You may use [K]ill to delete the disk file along with the entry in the upload que, or you may just delete the entry from the upload que.

Immediate Upload Credit

There are two account flags exist which allow the user to receive immediate credit, put the file on-line by choosing a file area and level, or both. If both flags are active, the entry will not appear in your upload que. If one only flag is active, the file remains. For example, if the user receives credit when the upload the file, you must still place the file on-line (See: Chapter 9).

File Area Fixer : FIX_FILE.PRG

If one of your AREA.xxx files or UPLOADS.DAT file becomes corrupted, File Area Fixer (FIX_FILE.PRG) may be able to fix the corrupted data file. You must use File Area Fixer outside of RATSoft, or RATSoft may fail to recognize any changes to the affected data files.

After loading FIX_FILE.PRG, select the AREA.xxx or UPLOADS.DAT file to fix. If the corrupted area is section #1 in conference 1, locate the file d:\RATSOFT\CONF1\FILEDATA\AREA.1.

Corrupted AREA.xxx or UPLOADS.DAT files often result in "data not numeric" errors or extremely odd numbers reported in file areas.

Orphaned Files Finder

Should you move a lot of files around your system, instead of using the [M]ove command for each file in the file sections for each file, you may move the files quickly from the desk top or your favorite file utility. Once the files have been moved, RATSoft will not be able to locate the files unless you change the path location for each file entry.

The MASSPATH.PRG utility will quickly locate all "orphaned" files by searching paths you provide. For example, if you were to add a new hard drive to your system, and wanted to move all the files located in C:\RATSOFT\ATARI\UTILS\ to H:\RATSOFT\ATARI\UTILS\ and I:\RATSOFT\ATARI\UTILS\, you would first move the files using the desk top or other file utility. Secondly, load MASSPATH.PRG, locate the file section which was affected, and locate the two new paths, H:\RATSOFT\ATARI\UTILS\ and I:\RATSOFT\ATARI\UTILS\. All files which cannot be located are automatically taken off-line.

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Chapter 7

FileTool

FileTool

File*Tool is a highly advanced and versatile archive tool for RATSoft, unlike anything offered for BBS programs before. File*Tool can convert between archive types, delete files from an archive, ad BBS ads, compress text files, pictures, modules, and other files into an archive saving space, among many other useful options.

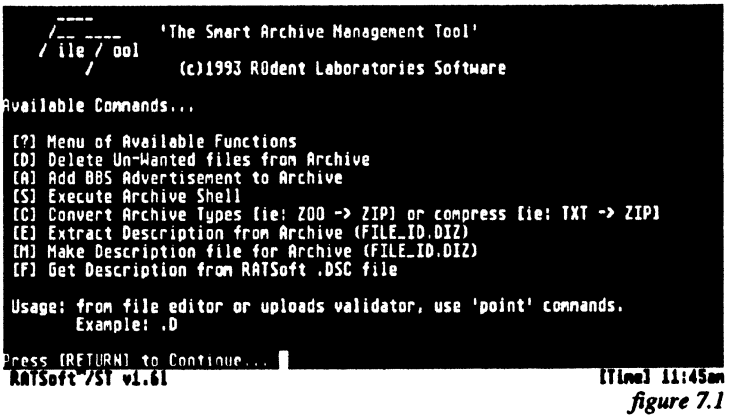

figure 7.1

The heart of File*Tool is the data file, FILETOOL.DAT. Using a text editor, FILETOOL.DAT can be easily modified. The data file is broken up into sections, each has a heading in brackets (ex: [Upload]). Most sysops will find the provided FILETOOL.DAT to be adequate, and may find it necessary to do only minor changes, if any.

Most functions in File*Tool are handled by two to four letter keywords. For example, AD is the function used to add a BBS advertisement to an archive, and DEL is the function for deleting unwanted files from an archive. These keywords are used to perform various tasks on archives when a user uploads a file, on-line from the file editor, from RAT-DOS, or from batch files. The following functions are supported:

Function Description

AD:
Adds a BBS advertisement to the archive

CONV:
Converts archive types, or compresses an uncompressed file

DEL:
Deletes file(s) from an archive

EDSC:
Extracts a description file (FILE_ID.DIZ)

MDSC:
Creates a description file for an archive (FILE_ID.DIZ)

SHEL:
Calls an archive shell

RDSC:
Extracts a description for a file from a RATSoft description file (*.DSC)

These functions tell File*Tool what actions to perform at a certain time. For example, under the heading [Upload], a list functions tells File*Tool what actions to perform on an archive when a user uploads a file.

Upload Archive Tools

There are two sets of functions which affect uploads in File*Tool. When a user is entering descriptions for a file, if File*Tool is present, RATSoft will automatically call File*Tool and perform the functions under the [Upload] heading.

For example:

[Upload] DEL,AD,EDSC

File*Tool would first delete unwanted files from the archive (**DEL**), add your BBS advertisement (**AD**), and finally search for a file description within the archive (**EDSC**).

Alternatively, you may also execute FileTool using the **UPLOAD** parameter and File*Tool will execute the functions listed under [Off-line_Upload]. The advantage of this is that time-consuming functions, such as converting between archive types, can be accomplished when no one is on-line.

File*Tool will mark a flag in UPLOADS.DAT for each action performed, and will never execute [Upload] or [Off-line_Upload] functions more than once on the same archive. While scanning through uploads in the upload que, you will see "FT [Upload]" or "FT [Off-line_Upload]" listed for flags for each set of functions performed.

Files Added by the SysOp

Files which are added through the **$A** or **$W** options from the file menu are automatically passed through File*Tool, using the parameters under the [On-line] heading.

BBS Advertisements

File*Tool has the ability to add a BBS advertisement to your archive. In an attempt to create some standard for BBS advertisements which are include in archives, rather than having dozens of BBS advertisement files, RATSoft introduced a new format. Only 1 file is used, BBS_ADS.TXT, for BBS advertisements, and each

time a new BBS receives that file, File*Tool adds your BBS advertisement to BBS_ADS.TXT.
If no BBS_ADS.TXT can be located, a new one is created.

Under [Advertisement] in FILETOOL.DAT, the Mode parameter defines which BBS advertisement method you wish to use. Mode can be "BBS_ADS.TXT" (recommended) or "OTHER."

The CheckAd parameter tells File*Tool to scan any BBS_ADS.TXT file that can be found in the archive to see if your BBS advertisement had already been added. If so, your BBS ad is not appended, and a message is sent to the log. This is a great way of identifying files which make their way back into your upload que by an unknowing uploader.

The last line under the [Advertisement] heading contains the actual file name of your BBS advertisement. This should just be a simple ASCII BBS advertisement of a reasonable size. If Mode = BBS_ADS.TXT, this file is appended to BBS_ADS.TXT, if Mode = OTHER, the literal file, with it's original name, is added to the archive.

If NONE is found in place of a file name, File*Tool will not attempt to add a BBS advertisement to the archive.

.DIZ and .DSC Description Files

Common on PC bulletin boards, archives often contain a description file named FILE_ID.DIZ. Provided the **EDSC** function is used, File*Tool will search an archive for this file and use the description contained within. In addition to FILE_ID.DIZ, File*Tool can also look within RATSoft's own .DSC description files for descriptions of a file being added to the system, through the use of the **RDSC** function. For example, if you were to download some files from another RATSoft BBS,

and downloaded the description file with it, when you used **$A** or **$W** to add the files to your system, File*Tool can extract the description right out of the .DSC file you downloaded. Under the [RATSoft_Desc] heading, list all the paths you normally download files to, as this is where your .DSC files will end up. File*Tool will scan all these description files, and if a description is found, extract and use it. When all the descriptions for files have been removed from a .DSC file, File*Tool will allow you to delete the file.

Archive Shell

Using the **[.S]** option from the uploads Validator or file editor menus, File*Tool will call an archive shell with the current file loaded in. Under the **[File_Types]** heading, archive parameters are listed for each archive type. The SHELL line under each of the archive types contains the file name of the archive shell you wish to use. For LHARC (LZH/LHA), and ST ARC (ARC), Charles F. Johnson's ARCSHELL is a good candidate. ST-Zip by Vincent Pomey offers it's own GEM environment and only needs to have the archive file name passed to it. If no SHELL is available for the given archive type, NONE should be placed on this line.

Command Line Parameters

File*Tool may be executed from RAT-DOS by passing parameters. The command line format is:

-DO:<functions> -CONF:<conf(s)> -SEC:<sec(s)> -NUM:<nmbr(s)> -SEARCH:<type>=<string>
-DO:<functions>

Functions to execute

-CONF:<conf(s)>
Conferences to act on. May be a single conference (ex:

A), several conferences (ex:ABC), or ALL.

-SEC:<sec(s)>
Sections within the listed conferences to act on, or "ALL."

-NUM:<nmbr(s)>
The files within the given sections which are affected, may be a single file (ex: 1), several files (ex: 1-50), ALL files, or the last x files (ex: LAST 10).

-SEARCH:<type>=<string>
Defines search options.
<type> may be: DATE or DAYSAGO <string> may be: For DATE, TODAY, YESTERDAY, or an actual date in mm/dd/yy format. For DAYSAGO, the number of days ago.

Examples:
-DO:DEL,AD -CONF:ALL -SEC:ALL
All unwanted files are deleted and a BBS advertisement appended to all archives on the entire system

-DO:AD -CONF:A -SEC:SEARCH:DATE=05/01/93
All files in section 3 of conference A with an upload date of May 1st, 1993, have your BBS advertisement appended

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Chapter 8

Data Files

Data Files

RATSoft uses a variety of data files while running, for modules, and other sysop-configurable options. Most of these data files are ASCII and can be easily modified with a text editor. Those which can be modified with a text editor are heavily commented, so you are not flying blind when attempting to change the settings contained within these files. Data files are identified, for the most part, by their .DAT extender. Some data files, such as PASSWORD.DAT, should never be modified.

Some of the more complex data files can be edited with the RATSoft Data Editor, a GEM utility which makes editing these files a breeze. To use the Data Editor, double-click on DATAEDIT.PRG from the desktop, or enter RAT-Dos and type DATAEDIT.

***NOTE:** If the Data Editor supports a data file, please use it instead of editing it with a text editor. The Data Editor assures format and limits the possibility of errors which may cause the system to malfunction.*

Other data files are covered throughout this manual according to what they affect. If you are looking for specific information on a data file not supported by the Data Editor, consult the index under "Data Files."

Menu Functions

Data Files: MAINCMDS.DAT, MESGCMDS.DAT, FILECMDS.DAT ,SYSOPCMDS.DAT, and other menu data files.

This function incorporates the editing of RATSoft menu files. Menu files are the key definitions, responses, and functions which are linked with user key-presses at some menus in RATSoft. For example, when a user presses "F" for file sections, an entry in MAINCMDS.DAT tells RATSoft to respond with "File

Sections" and enter the file sections, through the use of a menu function.

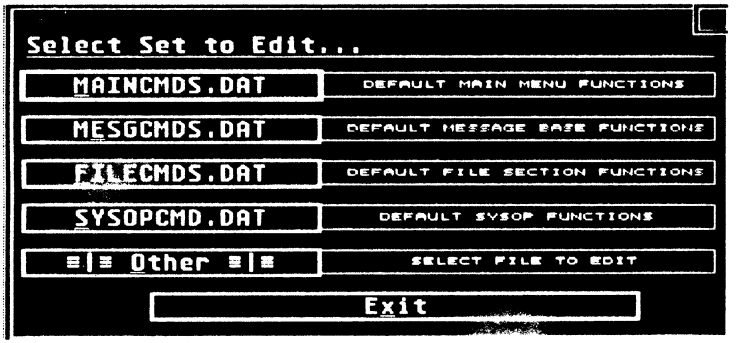

figure 8.1

The default for the main menu commands is MAINCMDS.DAT, FILECMDS.DAT for the file sections, MESGCMDS.DAT for the message bases, and lastly, SYSOPCMD.DAT for the sysop commands. Other menu files may be used, depending on which alternative menu files are defined either by entries in the TRANLATE.DAT file (see "Translations" in this section), or CCMDSDEF.DAT file (see "Linking Menu Files to Conferences" in this section).

After you have chosen which menu file you wish to modify, a window will be opened containing a list of the current entries in the menu file. Select, either by clicking on the entry with the mouse, or pressing the corresponding key, to edit the entry. Another window will be opened, containing the current string of responses and functions, allowing you to edit the data. Common editing functions are available, through the use of the arrow keys, backspace key, and delete key. Press **control-K** to choose another key to be linked with that function.

To better explain this, here is an example:

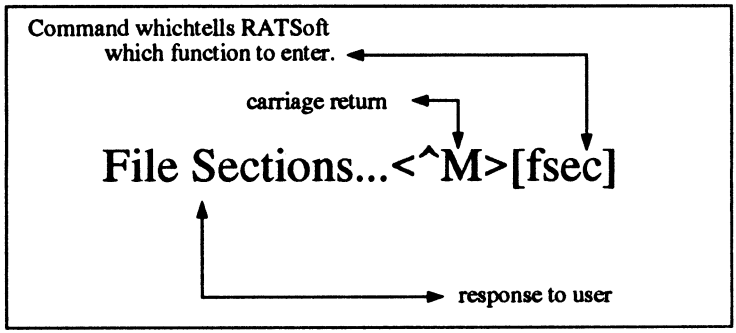

figure 8.2

For the F command, or file sections, the following data may appear in the editing window:

When the user presses the F key, "File Sections..." is displayed on the screen followed by a carriage return. RATSoft encounters [fsec], which is the command for file sections. The user does not see this, but RATSoft goes to the file sections when this is encountered.

Several responses and commands may be linked to one key, for example:

File Sections...<^M><^M>Your File Status:<^M><^M>[show;FILESTAT][fsec]

This command would show the text file "FILESTAT.TXT" before entering the file sections.

While editing a function, press **INSERT** to call up a list of available commands and their descriptions. This simplifies the process and avoids the need to remember hundreds of commands.

A list of available menu functions follows. Some may contain parameters or options. Please remember RATSoft will not recognize it as a function unless it is enclosed in brackets.

General Functions

may be used from any command set

Many of these functions should only be used from the SysOp command set (default: SYSOPCMD.DAT), but they are available universally.

[anws]
Adds a new system news file.

[bane]
Enters the banner editor, allowing the user to list or add banners, and the SysOp to delete banners.

[bye]
Logs the user off the BBS, with confirmation.

[clog]
Views the caller log.

[down:d:\path\filename.ext]
Download a file. Always specify a full path and file name.

[doss]
Enters the DOS Shell.

[dlmk:d:\path\filename.ext]
Download a file, or mark file in batch que. Always specify a full path and file name.

[edit]
Edits a text file using the message editors. This is really only useful for modifying small text files, with line lengths under 75 characters. For larger projects, or for text files with longer line lengths, use a text editor.

[e-ml<:user>]
Sends electronic mail, by either prompting the user to enter the user's alias/number, or sending e-mail to the

optionally given name. For example, [e-ml:1] would send electronic mail to user #1, and [e-ml:Mike] would send e-mail to a user named "Mike".

[enws]
Edits, deletes, or views an existing system news file created with the [anws] function.

[exec:<device:\path\>filename<.ext> <cmd>]
Executes one of the following: GEM program (PRG), GEM-takes-parameters (GTP), TOS (TOS) or TOS-takes-parameters (TTP), SCP (RATSoft script), RAT (RATSoft module), or MAC (macro file). The optional command line, <cmd>, can be used to pass command line parameters to the program, if supported. It is not necessary to specify a path or extension, unless you are executing a specific file. For example, the command [exec:GAMES], would look for the first file with an acceptable extender, first looking in your \RATSOFT\ folder and then your \TEXT\ folder. If a path is specified, no path searching is done, as if a extender is specified, only that extender is looked for.

[feed]
Sends feedback to the SysOp. Which user the e-mail is sent to is specified in the configuration. Normally, this is user number one.

[fsec]
Enters the file sections for the current conference, if any.

[gocf:conf]
The user is placed in conference 'conf'. The user is placed in the conference regardless if they actually have access to the conference or not. 'conf' may be a letter from A to J.

[lcnf]
Re initializes RATSoft by re-loading all data files, or optionally, just re-loads the configuration (CONFIG.DAT).

[macr:<cmds>]
Pushes a macro onto the command stack. For example: [macr:M/1/R/]. This is as if the user had command stacking mode turned on, and had typed "M/1/R" from the current command prompt.

[mail]
Enters electronic mail (e-mail).

[msgb]
Enters the message areas for the current conference, if any.

[news]
Displays all the system news files. When a user is logging on, all new system news files are automatically displayed. This will show all news files, regardless of whether they are new or not.

[show:<device:\path>filename<.ext>]
Similar to the [exec] function, except used to show text files, infoforms, databases, or menu files (MNU). The [show] command and [exec] commands are interchangeable with the SCP and MAC extenders, except [show] does not support command line passing. The path and extension rules which apply to [exec] are the same for [show], except [show] only searches the \TEXT\ folder.

[quit]
A universal command for exiting, or quitting, a section. It is used to exit the file sections, message areas, and other menus.

[qoff]
Logs the user off the BBS with no confirmation. A "quick log-off."

[prof]
Enters the profile editor.

[qscn]
New message scan. The user may scan all marked message areas for new messages in the current conference only.

[schd]
Edit or force execution of the schedular.

[scnf]
Change conference.

[savm]
Updates all MESSAGE.DAT and FILEAREA.DAT files. Depending on the number of message areas and file sections, and the speed of your hardware, this may take a few seconds.

[savu]
Writes all updated user information for the current caller to the PASSWORD.DAT user data file.

[sys]
Enter SysOp commands. Secondary password is required remotely.

[term]
Terminates the current string of functions. See example under "Restrictive Functions."

[tmdt]
Sets the system time and date.

[tran]
Change translation to a pre-defined translation, as defined in the TRANLATE.DAT file. See The Data Editor.

[uedt]
RATSoft User Editor.

[ulst]
Uses RATSoft's internal user list routines. A seperate, more advanced, user list is available through the USERLIST.RAT module.

[ufsn]
Universal file new scan. The user may scan all marked file sections, over all conferences, for new files.

[umsn]
Universal message new scan. The user may scan all marked message bases, over all conferences, for new messages.

[upld:d:\path\]
Uploads to the given path. DO NOT specify a file name, only the path where the file should reside when uploaded.

[use]
Prompts for a function, or a string of functions, to "use."

[vlog]
Displays the SysOp log (RATSOFT.LOG), if the system is set to output to disk, rather than the printer. Supports an alternative log file viewer module, LOGFILE.RAT, if present.

[yell]
Page the SysOp, if the chat pager is turned on.

[_flc:filename.ext]
Loads a menu file for the file section functions.

[_mnc:filename.ext]
Loads 'filename.ext' into the main menu command set. Must be a valid menu file.

[_msc:filename.ext]
Loads a menu file for the message area functions.

[_ssc:filename.ext]
Loads a menu file for the SysOp command functions.

Restrictive Functions
The following functions all you to deny access to functions based on passwords, levels, or conferences. If the condition is not met, RATSoft jumps to the next restrictive function or the end of the command string, depending on which comes first.

[~cnf:conf(s)]
User must currently be in the given conference for the following functions to be executed. See example.

[~dlv:database_level] [~flv:file_level] [~lev:level]
User must have a database level ([~dlv], file level ([~flv]), or an over-all ([~lev]) greater or equal to that of the given level, before the following functions are preformed.

[~pas:PASSWORD]
Prompts the user to enter a password.

Examples:

Enter Password: [~pas:TEST][msgb]
User is prompted for a password. If 'TEST' is entered as the password, the function [msgb] is performed.

[~lev:20][exec:TEST][term][~lev:10][exec:TEST_2]
If the user has an access level of 20 or above, TEST is executed, and the function is terminated [term]. Otherwise, RATSoft skips to the [~lev:10] function. If the user has an over-all level of 10 or above, TEST_2 is executed.

[~cnf:ABC][msgb]
If the user is currently in conference A, B, or C, the function [msgb] is executed.

File Section Commands

may only be executed while in a file section

[f+]
Marks the current file area, including it in new scans.

[f-]
Un-marks the current file area, excluding it from new scans.

[f_ar]
Allows switching to another file area by prompting the user for which file area to enter, and optionally providing a list of all available file areas. SysOps may also create new message areas from this function by entering a number greater than that of the actual number of message areas.

[f_st]
Shows the status of the current file area.

[farc]
ARC utility options.

[fanw]
Scans file areas in the current conference for new files. The files are shown with either brief or full descriptions depending on which option the user has set in their profile.

[fars]
Displays a list of file areas, the same list which is shown as if the user had used [f_ar] followed by a "L"ist request.

[fksr]
Terminates all file searches which are currently active.

[flst]
Lists files with full descriptions (one file per page). Active searches are used.

[fmrk]
Marks a file for batch downloading by prompting the user to enter the file number of the file they wish to mark.

[fmsp]
Sends electronic mail (e-mail) the sponsor of the current file area.

[fnew]
Displays new files, with full descriptions, for the current file section only.

[fnxt]
Next file section. The user is taken to the next file section. This functions wraps, meaning that if the user uses the [fnxt] function from the last file area, they are taken to the first file area.

[fnws]
Displays the current section news, if any.

[foff]
The file list generator. Creates an ASCII list, optionally packed by an archive utility, for the user to download.

[fprv]
Previous file section. The user is moved back one file section. Function wraps.

[fque]
Displays the list of files which have been marked in the user's download que for batch (multiple file) downloading.

[fscn]
Scans all files in the current file section, using brief descriptions (15 or more files per page, depending on user's set screen length). Active searches are used.

[fspn]
Creates or edits the current section news. Available only to Sysops and the sponsor of the current file section.

[fsys]
Enters file SysOp commands. Only accessible by Sysops.

[fsrc]
Sets file search options. SEE: [fscn], [flst], [fksr]

[fu/l]
Uploads a file to the current conference.

[fumr]
Un-marks a file which was previously marked for batch downloading.

Message Area Functions

may only be executed from the message bases

[m+]
The current area is included in all new message scans.

[m-]
Current area is excluded from all new message scans.

[m_st]
Displays current area statistics.

[m_ar]
Allows switching to another base by prompting the user for which area to enter, and optionally providing a list of all available message areas. SysOps may also create new message areas from this function by entering a number greater than that of the actual number of message areas.

[manw]
Scans all local (current conference only) bases for new messages.

[mars]
Displays a list of available message areas, as if the user had used [m_ar] and requested a "L"ist of message areas.

[mcnt]
Toggles continuous scroll.

[mmac]
Message macro editor, where the user may define three message macros.

[mmsp]
Sends e-mail to the sponsor of the current message area.

[mnew]
Shows new messages for the current area only.

[mnxt]
Next message area. The user is taken to the next message area. This functions wraps, meaning that if the user uses the [mnxt] function from the last message area, they are taken to the first message area.

new extender. All text files are located in the \TEXT\ folder as defined in the configuration.

Welcome Screen File/Number of Welcome Screens:
The file name of the welcome screen(s). Note that an extender IS included. If RATSoft locates a question mark (?) in the file name, a random number between 1 and the "Number of Welcome Screens" is used, allowing multiple welcome screens to be used. If no ? is located, the file name is used literally.

Clear Screen Code:
The <ESC> used to clear the screen. Varies with translation.

Input Box Codes/Backup in Input Boxes:
Input boxes create the effect of an "input field" when used. These are the <ESC> sequences sent before the input box is drawn (spaces equalling the maximum input length). "Back up in Input Boxes" is the code used to back up over the drawn box.

Alternative Prompt/Menu Files:
This allows the use of alternative prompt files or menu function files based on which translation is used. By default, PROMPT.DAT is used for prompts; MAINCMDS.DAT, MESGCMDS.DAT, FILECMDS.DAT, and SYSOPCMD.DAT are used for menu functions. Note that if the CCMDSDEF.DAT file is active, the menu function files are over-ridden.

Show on SysOp Screen:
If active, the color codes are shown to the SysOp as well as the user. Some translations may not be compatible with the ST's screen handler, and thus will appear as "garbage" to the SysOp. Should this function be active, everything appears to the SysOp as plain ASCII. Note that RATSoft can emulate VT52 and ANSI, and most of their derivatives.

Translations

Data File: TRANLATE.DAT Maximum of 255 entries.

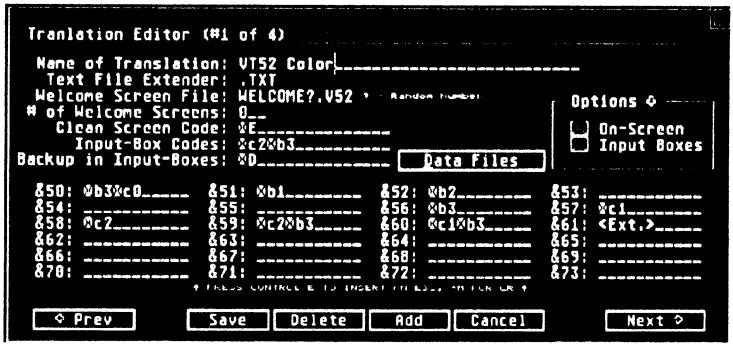

figure 8.3

The TRANLATE.DAT file contains translation data for VT52, ANSI, and any other translations you may wish to add to your BBS in the future. When a user selects which translation they wish to be in, this file contains all the ESC color codes and information the BBS uses for this translation.

For each translation, the following information is needed:

Name of Translation:
This is the name of the translation, such as "VT52 Color" or "ANSI Monochrome". This may really be whatever you wish, however, for RATSoft to recognize it as a legal VT52 or ANSI translation, the name must contain the word "VT52" or "ANSI". If you were to add a translation wish is based on either of these, simply place "VT52" somewhere in the name.

Text File Extender:
The extender to be used for text files. If you were to create seperate menus or welcome screens for your ANSI callers, you might want to use an ANS extender. RATSoft will first look for the text file with an ANS extender, and if not found, use its TXT counter-part. It is not necessary to make copies of all text files with the

new extender. All text files are located in the \TEXT\ folder as defined in the configuration.

Welcome Screen File/Number of Welcome Screens:
The file name of the welcome screen(s). Note that an extender IS included. If RATSoft locates a question mark (?) in the file name, a random number between 1 and the "Number of Welcome Screens" is used, allowing multiple welcome screens to be used. If no ? is located, the file name is used literally.

Clear Screen Code:
The <ESC> used to clear the screen. Varies with translation.

Input Box Codes/Backup in Input Boxes:
Input boxes create the effect of an "input field" when used. These are the <ESC> sequences sent before the input box is drawn (spaces equalling the maximum input length). "Back up in Input Boxes" is the code used to back up over the drawn box.

Alternative Prompt/Menu Files:
This allows the use of alternative prompt files or menu function files based on which translation is used. By default, PROMPT.DAT is used for prompts; MAINCMDS.DAT, MESGCMDS.DAT, FILECMDS.DAT, and SYSOPCMD.DAT are used for menu functions. Note that if the CCMDSDEF.DAT file is active, the menu function files are over-ridden.

Show on SysOp Screen:
If active, the color codes are shown to the SysOp as well as the user. Some translations may not be compatible with the ST's screen handler, and thus will appear as "garbage" to the SysOp. Should this function be active, everything appears to the SysOp as plain ASCII. Note that RATSoft can emulate VT52 and ANSI, and most of their derivatives.

Use Input Boxes:
If active, input boxes (see above) are used.

Definitions for the color code variable tags:
In many prompts and text files you will notice variable tags in the range of &51 (or {51}) to &79 (or {79}). These are the variable tags used for color, and they are defined for each translation in this TRANLATE.DAT file. In the default TRANLATE.DAT, the value of &51 for VT52 color is <ESC>b3<ESC>c0, where as with ANSI color &51 is defined as <ESC>[0;37;1m. When RATSoft encounters the &51 variable tag, depending on which translation is active, the appropriate information is sent, thus creating the desired effect on the caller's screen.

The TRANLATE.DAT file may contain up to 255 different translations, creating a total of 256 possible translations including ASCII.

File Ratings

Data File: RATINGS.DAT

figure 8.4

The default file ratings used when a user uploads a file. A maximum of 9 entries. The user may select one of these defaults or enter one of their own.

BBS Data

Data File: BBS_DATA.DAT

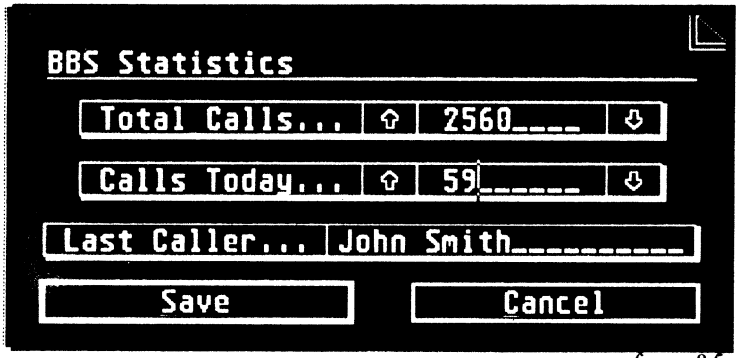

figure 8.5

This file contains many important pointers used by RATSoft. The editor provided in the Data Editor allows editing of three fields: The total number of calls to the BBS, the number of calls today, and the last caller to the system. At no time should you alter ANY other fields in this data file.

Callback Verifier

Data File: CALLBACK.DAT

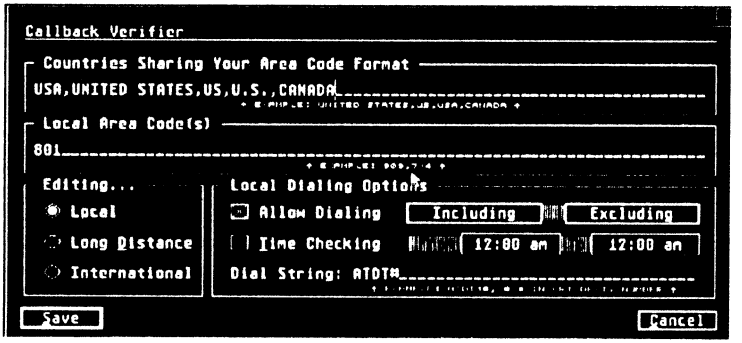

figure 8.6

The Callback Verifier (CBV) is a RATSoft module (CALLBACK.RAT) that is used to verify a new user by dialing their phone number and request their password. If the CBV is successful, a mask (defined in the

configuration, see The Configuration Editor) is applied to their account. If this mask is set to 256, the CBV is not used.

The CBV screen can be a bit confusing. At the top of the screen are listed:

"Countries Sharing Your Phone Format."
This refers to countries which use the same telephone number format, such as the United States and Canada. Remember to include nick-names, such as "USA", "US", and "United States."

"Local Area Code(s)"
Refers to which area codes contain pre-fixes which are local to you. For example, the 213 and 310 area codes in Los Angeles both have phone numbers which are local to each other. For most, you will only need to provide your local area code here.

The "Editing..."
This box contains three options: Local, Long Distance, and International. These are the dial options for local, long distance, and international calls. The options in the "xxxxxx Dialing Options" box differ for each selection.

The options box contains the following information:

Allow Dialing:
If disabled, the selected type of dialing is totally prohibited. If enabled, the other options in the box are taken into account before dialing occurs.

Time Checking:
If on, the time must fall between the specified time frame before the CBV is engaged.

Dialing String:
The string used to dial the modem. Insert a pound (#) to include the destination number (user's phone number).

This is usually ATDT# for local dialing, ATDT1# for long distance, and ATDT011# for international. NOTE: The CBV will NOT dial the first three digits of a phone number (or area code) when dialing locally.

Include/Exclude:
Click on one of these buttons to define which pre-fixes, area codes, or countries to include or exclude in the dialing list. Seperate each entry with a comma, no spaces. For example: 944,945,946,947,949.

Most SysOps will only want to use local dialing. In that case, disable all other dialing options (Long Distance and International). Make sure your area code(s) are correct, and INCLUDE a list of local pre-fixes. A list of pre-fixes which may be dialed from your pre-fix at no charge can usually be found in your local telephone book.

Module Execution Parameters

Data File: MODULE.DAT Maximum of 25 entries.

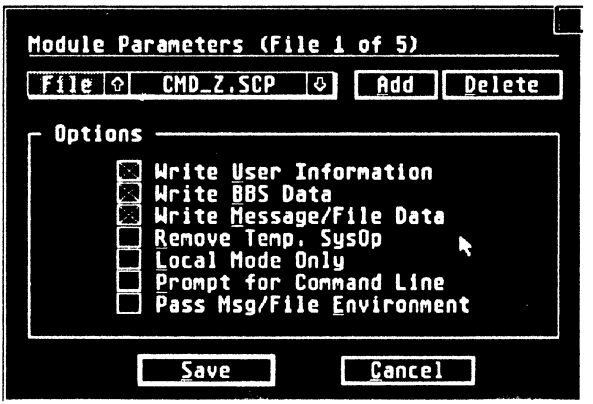

figure 8.7

While this may sound confusing, it is nothing more than a series of functions which may be preformed before a module or program is executed within RATSoft.

In most cases, you will never need to modify this file, as it is usually utilized by RATSoft modules, and is automatically updated by those modules should the information not be present.

The following options are supported:

Write User Information:
The user data is updated in the PASSWORD.DAT file before the file is executed. This is provided for programs which might access the PASSWORD.DAT file for user information rather than RATSoft's environment table.

Write BBS Data:
The BBS data file, BBS_DATA.DAT, is updated before the file is executed. Provided for programs which might access the BBS_DATA.DAT file rather than obtaining the information through the RATSoft environment table.

Write Message/File Data:
The message and file data for each conference, MESSAGE.DAT and FILEDATA.DAT, are updated before the file is executed. Provided for programs which might require this information rather than obtaining the information through the environment table.

Remove Temporary SysOp:
If the user on-line has been given "temporary SysOp access", this removes that flag and returns them to their normal status before the file is executed.

Local Mode Only:
The file will only be executed should the user on-line be "calling" from the console.

Prompt for Command Line:
User is prompted for a command line before the file is executed. The command line is passed to the program.

Pass Msg/File Environment:
RATSoft passes message and file data through the environment table. Modules which require this information must have this selection on. However, all modules included with RATSoft update this file automatically.

File Transfer Protocols

Data Files: UL_PROT.DAT, DL_PROT.DAT, DLB_PROT.DAT

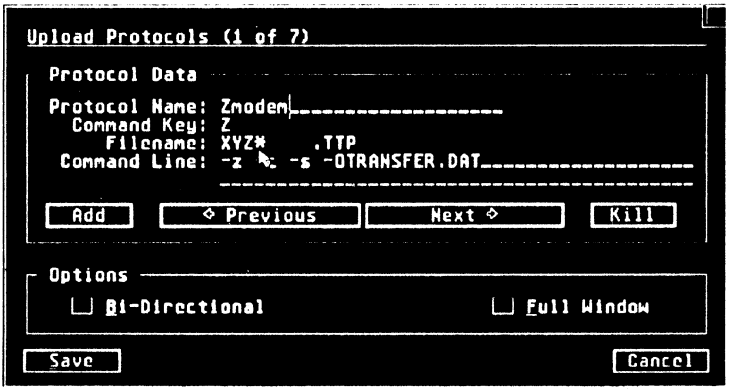

figure 8.8

These files contains the data necessary to run the protocols when a user uploads or downloads a file. UL_PROT.DAT is for uploads, DL_PROT.DAT for single file downloads, and lastly, DLB_PROT.DAT is used for batch downloads. The data included in these files is simple, and as follows:

Protocol Name:
The name of the protocol, such as "Zmodem" or "Ymodem-G".

Command Key:
The key the user presses to select the protocol.

File name:
The file name of the protocol program.

Command Line:
These are the parameters that must be passed to the protocol. Each protocol program requires different options to be passed on the command line, and a few things should be remembered:

* Carrier detect should be active, so the user is to hang up while uploading or download, the system does not "hang".

* Specify which "direction" the file should be sent in. Most programs will default to receiving.

* A list of successfully transferred files should be returned in the text file TRANSFER.DAT. This is a plain ASCII file.

Bidirectional:
If bidirectional is checked, the system will check for uploads upon return. This was designed for protocols which can send and receive files at the same time, such as Jekyll.

Full Window:
If checked, the entire screen is cleared for the protocol. Normally, the bottom 12 (or more) lines of the screen are blocked off and filled with various user statistics. If the protocol uses any kind of graphical display, this option should be used.

Macros

Data File: MACROS.DAT

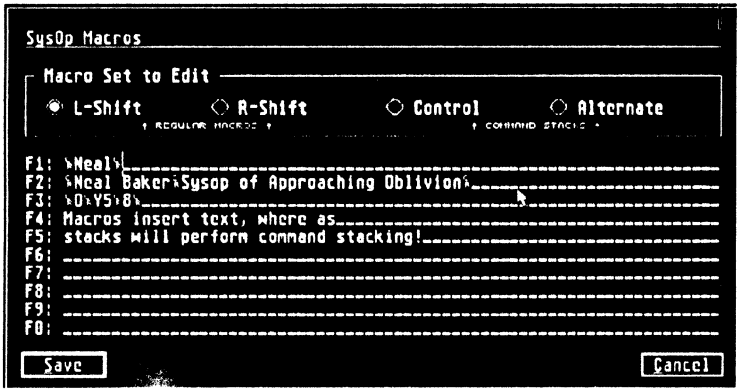

figure 8.9

This file contains forty SysOp macros. Twenty macros are considered "command stack" macros, which simply means the macro is shoved on to the stack of commands to execute. For example, if you were in the DOS shell and wish torun a program, sayC:\UTIL\MYPROG.PRG, you can create a macro which reads: "C:/CD \UTIL\/MYPROG", which would change the current drive to C, change to the \UTIL\ directory, and lastly run MYPROG. Commands are separated by forward slashes (/). The remaining twenty are just regular run-of-the-mill macros. Press the key, the line of text is printed on the screen.

Text Caching

Data File: TXTCACHE.DAT

CONTINUED ON NEXT PAGE

Text Caching

Data File: TXTCACHE.DAT

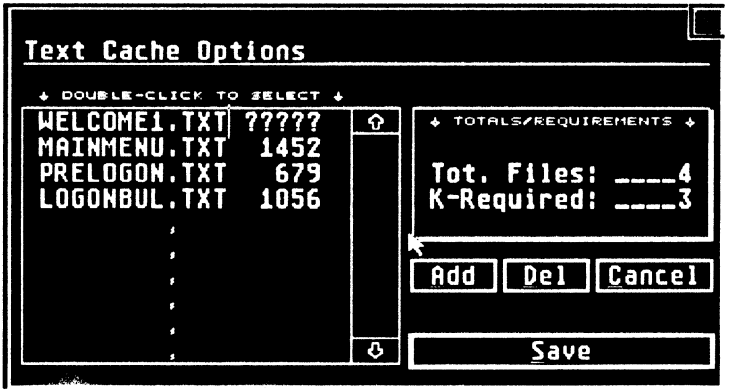

figure 8.10

Text files which are frequently accessed may be loaded into a memory buffer, or a cache buffer. This will reduce frequent and repetitive access to the hard drive. Text files such as welcome screens and menus are prime candidates. Scripts may not be cached.

While editing this file, the required amount of additional memory is displayed on the screen. If your system is tight on memory, it is not recommended you use this option.

Other Data Files

The following data files may be edited with your favorite text editor. Please do not use any type of word processor to edit these files, as they often save files with formatting codes which may confuse RATSoft.

Many data files you will never need to modify, or only make simply changes to. As data files change on a regular basis, they will not be out-lined here in detail. However, they are heavily commented. All you need to do is look in any data file, and the necessary data is

usually listed in detail, explaining exactly how to modify the file.

In addition, many of the data files are explained in the sections dealing with their corresponding modules. For example, FILETOOL.DAT is detailed under "File*Tool Archive Utility" and information on LOGFILE.DAT may be found under "BBS Back-Logs."

Using Alternative Menu/Prompt Files

It is possible to use alternative menu and prompt files, and a variety of ways exist to determine which prompt and menu files to use where.

One method is based on translation. This is probably the most popular method, as some SysOps will want to use different prompt files, or menu files, based on which translation the caller is in. This is also the easiest to set up. Simply use the Data Editor, and select "Alternative Data Files" from the TRANLATE.DAT page. For more information, see "The Data Editor."

The second method allows selection of alternative menu files based on conferences. This method requires a simple data file, named CCMDSDEF.DAT, which can be created with a text editor.

An example CCMDSDEF.DAT might look like:

Buffer = 9 Conf 3 { Main: MAINCMD3.DAT Mesg: MESGCMD3.DAT File: FILECMD3.DAT SysOp: SYSPCMD3.DAT } Conf 4 { Mesg: MESGCMD4.DAT }

[end of example]

In the above example, the files MAINCMD3.DAT, MESGCMD3.DAT, FILECMD3.DAT, and SYSPCMD3.DAT will be used while the user is in conference 3 rather than the default menu files of

MAINCMDS.DAT, MESGCMDS.DAT, FILECMDS.DAT, and SYSOPCMD.DAT. While the user is in conference 4, MESGCMD4.DAT will be used for the message bases, while the other menus will use the defaults. The optional parameter, Buffer = x, allocates memory to buffer these files. As it may slow your system down to have these files loaded each time a user switches conferences, RATSoft can grab the information from an internal buffer, thus eliminating the need for slower disk access. Remember that RATSoft automatically loads 4 menu files, so the Buffer = x number should equal the number of "extra" menu files you have defined plus four.

The third method involves using the menu functions [pmpt], [_mc], [_msc], [_fc], and [_sc]. See "Data Editor/Menu Function Files" for more information.

RATSoft/ST™

The Ultimate BBS Software

Chapter 9

User Editor

User Editor/Mass Mask

RATSoft has three basic user levels: An over-all level, database level (for Type III or Files Databases), and a file level for files in the file sections. The range for all these levels is 0 to 255. RATSoft treats an over-all level of 0 and 1 as new users, and 255 as a sysop. Data base level 255 allows editing of file databases, and a file level of 255 allows full sysop capabilities in the file sections. Otherwise, you may set up your levels however you see fit.

User Editor

The user editor provides the following commands. Some of the more complicated commands are explained below under their own headings.

[B]: Bit Masking
Bit masking options for message bases, file areas, profile editing capabilities, account flags, and conference access. Detailed below.

[D]: Delete
Permanently deletes a user. Detailed below.

[F]: Wanted Flag
If set, the SysOp is paged when the user logs on the system.

[G]: Visitor Status
Changes a visitor account to permanent status, or a permanent account to a visitor account. Detailed below.

[I]: InfoForm View
Displays a previously saved InfoForm. See Infoforms.

[L]: Account Flags
Sets user account flags. Detailed below.

[M]: Show Masks
Displays a list of masks which may be applied to the user. To apply a mask, enter the corresponding number of the mask and press [RETURN]. For more information, see "Masks."

[N]: Denied Files
Sets denied files. Detailed below.

[P]: Profile Editor
Calls the [prof] function, or the on-line profile editor. All fields may be edited, regardless of profile editing capabilities.

[Q]: Quit and Save
Exits the user editor and writes all updated user information to the PASSWORD.DAT user log file.

[R]: Reset Time
Resets the user's time used for the day.

[S]: Statistics
Displays the text file USERSTAT.

[T]: Edit Message and File Credits
Changes the current number of message posted, uploads/k and downloads/k.

[U]: Usage Data
Edits user usage data. Detailed below.

[V]: Change Byte x to Value y
Allows a given byte x to be changed to value y. Should only be used if specific instructions are given.

[W]: Write Mask
Saves the current user data as a mask. See "Masks."

9.2 USER EDITOR/MASS MASK

[Z]: Set User Data Number
Assigns a new user data number, an internal RATSoft pointer, to the user. Should only be used if specific instructions are given.

[!]: Quit, no Save
The user editor is exited, but no updates are written to PASSWORD.DAT.

User Editor - [B]: Bit Masking
The [B] option presents a sub-menu of bit-masking options. Bit-masking simply returns to options which have two states: on or off. Each option is explained below:

[B]: Message Base Bit Masking
For each message base, a user has edit, delete, copy, read only, and general access toggles. SysOps automatically have access to edit, delete, and copy all messages, and are immune to these settings. This also holds true for sponsors over ONLY their message bases. A table of toggles is presented, displaying the current statistics:

Conference: General

Section Name	Status	Read Only?	Edit?	Delete?	Copy?
1 General	By Level	No	No	No	No
2 Buy and Sell	Let In	No	Yes	Yes	Yes

Status:
Can either be "By Level", in which case the user is only allowed access to the message base if their over-all level is equal to or greater than that of the message base, defined when the base was created.

Read Only:
If "Yes", the user may read messages in the base, but not post or reply.

EDIT:
If "Yes", the user may edit messages they did not write, in addition to their own messages.

DELETE:
If "Yes", the user may delete messages they did not write, in addition to their own messages.

COPY:
If "Yes", the user may copy messages from one base to another.

NOTE: Only the message bases for the current conference are displayed. Use the [C]hange Conf option to change to alter the bit masks of message bases located in another conference.

[C]: Conference Flags
Displays the current conferences a user has access to. By default, the user only has access to conference 'A'. RATSoft hides all conferences which are not available to the user.

[F]: File Sections
Identical to the message bases, except only one field is available: STATUS. See message base information above for an explanation.

[P]: Profile Editing Capabilities
These bit mask options define which fields of a user's profile they may change through the profile editor. In some cases, SysOps may find it necessary to prevent users from changing their aliases. For example, some will try to create additional players in on-line games by using different aliases.

[S]: Specialty Flags
RATSoft does not use these flags for anything specific, but they are provided to give the SysOp an additional way of granting or denying access to functions on their

systems. Up to 32 flags may exist, each having either a YES or NO status.

An example of how these flags might be used would be for pay systems, which may wish to create a "Paying User" flag. When the user pays their dues, the flag is toggled on, and then the user may be granted access to additional functions by use of that specialty flag. RATSoft Script (see RATSoft Script) and conditions (see Conditions) provide access to these flags.

User Editor - [D]: Delete User
Deletes a user. The user may be recovered as long as a new user does not apply and fill the slot once occupied by the deleted account. All e-mail to the user is deleted (e-mail from remains, however), and all Infoforms and Profile Reports are deleted as well.

User Editor - [G]: Visitor Status
If your system supports visitors (see The Configuration), using this option will give the visitor onion a permanent account. The user is required to enter a password. When a visitor applies, RATSoft actually locates a free account for the visitor to use while on the system, but deletes it once the user has logged off the system.

User Editor - [L]: Set Account Flags
Sets various account flags, which of most are unrelated to each other. An explanation of each flag:

"Guest" Account:
The account is to be used by guests. A caller may use the account without being prompted for a password, and no user information is saved when the caller logs off, returning the account to the same status it was before the caller logged on. This differs from visitors as the user is not required to enter any user information or complete a partial new user application. The caller is only asked to enter a name to be used while on-line.

INSTANT CREDIT FOR UPLOADS:
After the user has entered descriptions for an upload, RATSoft gives the user credit immediately instead of requiring the SysOp to validate the file from the upload que. The file does remain in the upload que for the SysOp to put on-line, however, unless both this option and the following option are set.

UPLOADS GO IMMEDIATELY ON-LINE:
After the user has entered descriptions, RATSoft prompts the user to select an access level and file area to place the file in. This places the upload immediately on-line for others to download. The files remains in the upload que so the SysOp can give credit to the user, unless both this option and the above option are set.

DENY FREE D/L's DURING FREE PERIODS:
The user does not benefit from free download periods as defined in the FREEFILE.DAT file. For more information, see Free Files Schedule.

ADDRESS E-MAIL TO ALL:
The user may address electronic mail to "all", sending a copy to every user on the system.

CONDUCT REAL NAME SEARCHES:
When RATSoft requests a user alias to be entered, such as for an e-mail or message, the user may enter a real name which RATSoft will search for.

User Editor - [N]: Denied Files
A list of file names or file masks which the user may not have access to. This includes modules, text files, scripts, programs, databases, Infoforms, or downloads. If USERLIST.RAT was entered into the denied files list, the user could not access the extended user list USERLIST.RAT module. File masks are also excepted. For example, if *.RAT was entered, the user would not have access to any RATSoft modules, as they all use the RAT extender.

User Editor - [U]: Usage Data

Usage Data Options:

[A] Level: 10
[B] File Level: 10
[C] Database Level: 10
[D] Time Limit: 90
[E] UD Ratio (%): 20
[F] UD K Ratio (%): 20
[G] Post:Call Ratio: 50
[H] Da tabase K Ratio: 20
[I] Max Downloads/Day: 10
[J] Max DB D/Ls/Day: 5
[K] Max DB U/Ls/Day: 255
[L] Max ConfFiles/Day: 10
[M] Max ARC Util/Day: 2
[N] Max Posts/Day: 255
[O] Max Calls/Day: 5
[P] K-Byte Threshold: 0
[Q] DB K Threshold: 100
[R] Max E-Mails/Day: 5
[S] Max Add Banners: 10

LEVEL, FILE LEVEL, and DATABASE LEVEL: There are the three levels RATSoft uses. Each has a range of 0 to 255, 255 being considered SysOp, and 0 being considered a new user. If the over-all level (option A) is 0, the user is denied access to the system.

The uploads to downloads ratio (UD ratio), uploads to downloads in kilobytes ratio (UD K Ratio), messages posted to number of calls ratio (Post:Call Ratio), and database uploads to downloads in kilobytes ratio (Database K Ratio) all represent ratios which the user is required to meet before downloading files either from the file sections (where the first three ratios come into effect) or the files databases (where the last two options are considered).

These ratios are all based on percentages, rather than using strict numbers. For example, a 1 to 4 ratio (1:4) is the same as a 25% ratio to RATSoft. The easiest way to remember this is to think of it in these terms: "The user must have uploaded x% of the files they have downloaded." If the user is given a 0% ratio, they are considered exempt from that particular ratio.

With the exception of maximum banners, all the MAX options refer to the maximum number of times they user may do something a day. They are as follows:

MAX DOWNLOADS/DAY:
How many files a user may download a day.

MAX DB D/Ls/DAY:
The number of files a user may download from the file databases a day. This includes all files databases on the system.

MAX DB U/Ls/DAY:
The maximum number of files a user may upload to the file databases a day.

MAX CONFFILES/DAY:
The maximum number of file attaches, or conference files a user may download from the system a day. This does not include private e-mails with attached files.

MAX ARC UTIL/DAY:
The maximum number of files a user may add to an ARC download a day.

MAX POSTS/DAY:
The maximum number of messages a user may post on the system a day.

MAX CALLS/DAY:
The maximum number of calls the user may make to the system a day.

MAX EMAILS/DAY:
The maximum number of private e-mails the user may send a day.

MAX BANNERS/TOTAL:
The total number of banners the user may add to the system over the life-time of their account.

The two thresh hold options affect the uploads to downloads kilobytes ratios. These options define how

much K (kilobytes) a user may download over their given ratio. If these options are set to 0, the user may not download any files until they have uploaded.

User Editor - [X]: Expiration Date
The user's account "expires" on the given date. Each time the user calls on or after their expiration date, a text file, EXPIRED, is displayed, and optionally a mask may be applied to their account.

Extended User List Utility : USERLIST.RAT
RATSoft has a simple user list function is uses internally for functions such as sending mail or posting a message. An extended user list, a RATSoft module named USERLIST.RAT, offers a versatile user lister with search, sort, and dump capabilities.

The data file for Extended User List, USERLIST.DAT, controls which functions a user may display, along with default "pre-sets" for pre-configured lists. Using a text editor, USERLIST.DAT can be modified. The data file is heavily commented, and you only need to read the comments included.

User Masks

User masks make validating a user as easy as entering a number. Masks contain all the access information on a user such as ratios, maximum limits, account flags, and bit-mask settings.

While editing a user, you may save their profile as a mask by using the [W]rite Mask option of the user editor and entering the number of the mask you wish to save it under.

To apply a mask, just enter the number of the mask to apply while in the user editor. This makes validating new users a cinch!

TIP: To keep better organized, save masks corresponding with the over-all level you wish to give to the user. For example, if you wanted a new user to have level 15, you would apply mask number 15 to validate that user.

While a user is on-line, you may enter the user editor, with their account loaded, by pressing F5. To edit a user who is not on-line, use the [U]ser Editor function from the SysOp menu. Several search options are presented. The following search options are available:

[E]dit by Alias/Real Name/User #
Searches by the user's alias, real name, or user number. You may enter the full name, or a partial string to search on. Not case sensitive.

[N]ew User Search
Scans the user log for all "new users." New users are defined by RATSoft as anyone having a user level of 0 or 1. If no new user mask is defined, RATSoft sets all users to level 0. If you wish to use this option, and use a new user mask, the level in the mask should be 0 or 1 unless you wish all new users to have a "general access level" on their first call.

[O]n-line
Edits the user currently on-line.

[L]evel Search
Searches for all users having a given level or higher.

[D]ays Ago
Finds all users who have not called in a given number of days.

[U]ndelete Users
Locates all user accounts which have been deleted. Note that RATSoft will fill deleted accounts when a new user applies.

[M]ass Mask Application
This is not a search option, but rather a utility which provides a convenient way to apply a mask, or portion of masks to all users or select user based on search options.

The masks must already exist, and you may select which portions of the mask to apply. For example, you may only wish to apply the level, file level, and database level, of mask number 4 to all users who have access to conference D.
To accomplish this, simply follow these instructions:

* Set the conference search for conference D.

* Select mask number 4

* Since you only need to apply 3 settings from the selected mask, [C]lear all options, and select the LEVEL, FILE LEVEL, and DATABASE LEVEL options.

You're done. You may optionally be prompted for confirmation at each user located, and dump a list of users modified to your printer. If you make a mistake, you can find a back up of your password data file named PASSWORD.BAK in your RATSoft folder.

User Log Print-Out : PASSPRNT.PRG

The User Log Print-Out Utility, PASSPRNT.PRG, will print a detailed list of all your users to either your printer, in condensed form, or to a disk file.

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Chapter 10

Text Files

Text Files

Text files may have attributes set control such things as page breaks, variable tags, or abort ability. To modify the attributes currently on a file, use the F option from the SysOp commands, or type TEXTUTIL from RATDOS. Use the 'S'et Attributes option, and enter the file name of the file you wish to set attributes on. Following the prompts, you may change the status of page breaks, variable tags, and conditions.

Variable Tags

Variable tags provide an easy way to access user information and display it to your users. Take the following line, for example:

Welcome to {9}, {5}!

{9} represents the name of your BBS system, and {5} represents the name of the caller currently on-line. RATSoft would display this somewhat like:

Welcome to Example BBS, Joe User!

In addition to user information, there are variable tags used for color, which are defined differently for each translation according to your TRANLATE.DAT file. Each time a user logs onto the BBS, RATSoft changes variable tags {51} to {79} according to information provided in the TRANLATE.DAT for the user's translation. The advantage of such variable tags is that you may create text files which use color sequences, and are also universal, avoiding the need to create seperate text files for different translations. You may edit or change these variable tags with the Data Editor (See: The Data Editor/TRANLATE.DAT).

In addition to the {xx} notation for variable tags, the first 100 variable tags (0-99) may be represented with a preceding ampersand. For example, &50 and {50} are the same to RATSoft. Ampersand tags must always have the ampersand (&) followed by two numbers. For example, &1 is not valid, but &01 is. However, {1} is valid, as is {01}, or {001}, etc.

Variable tags are not shown to the user, but the information they represent, is filled in instead. Extensive use of tags can may look messy in your text editor, but make a strong statement to your users.

Variable tags may be used anywhere RATSoft outputs text, which includes text files, prompts, menus, etc. A complete list of tags:

Variable Tag Description

0	No use, sends an ampersand (&)
1	Date
2	Time
3	Reported Modem Connect String
4	Caller's Bps Rate
5	Caller's Alias/Name
6	Caller's Time Allowed for Today
7	Time Remaining
8	Last Caller to the System
9	System ID (Name)
10	SysOp ID (Name)
11	System Phone Number
12	Current Conference Caller is Located In
13	Account Note
14	Real Name
15	Last Call Date
16	Last Call Time
17	First Call Date
18	Computer Type
19	Number of Downloads

20	Number of Uploads
21	Downloads in Kilobytes
22	Uploads in Kilobytes
23	Kilobytes downloaded from Files Databases
24	Kilobytes uploaded to Files Databases
25	Messages Posted
26	Ratio Status for... Uploads:Downloads
27	U/L-k:D/L-k
28	Posts:Calls
29	Files Database U/L-k:D/L-k
30	Translation Name
31	Upload to Download Ratio
32	Upload to Download Kilobyte Ratio
33	Post to Call Ratio
34	File Dbase Upload/Download Kilobyte Ratio
35	Function: Waits for Character
36	Street Address
37	Account Note, in Quotes (only if present)
38	Current Message Base Title
39	Current Message Base Sponsor
40	Current File Area Title
41	Current File Area Sponsor
42	Over-all Access Level
43	File Section Access Level
44	Database Access Level
45	City and State
46	Zip Code
47	Voice Telephone Number
48	Data Telephone Number
49	User's Calls to BBS
50	Color Codes, varies with translation (see TRANLATE.DAT), Start
79	Color Codes, End
80	Total Calls to System
81	System Calls Today
82	Definable Tag (same as {100})
83	System Downloads Today
84	System Uploads Today
85	System Files Database Downloads Today
86	System Files Database Uploads Today

87 System Messages Posted Today
88 RATSoft Version ID (i.e.: 1.6l)
89 RATSoft Version Date Stamp
90 Clear Screen
91 Number of New Messages in all Conferences
94 Expiration Date
95 Current Day of the Week
96 Number of New Messages in current Conferenceonly
97 Sends a vertical bar (|)
98 Number of New Files, Current Conference
99 Inserts Space for all VT52/ANSI translations
100 Definable Tags, Start
120 Definable Tags, End
121 Number of Days since Last Call
122 Total Time on System
123 Time Charged (this call only)
124 Command Log
125 Country
126 Birthdate
127 Next yes/no routine defaults to "yes"
128 Next yes/no routine defaults to "no"
129 Sets marker
130 Jumps to marker, set by 129, on current line
131 Numerical expression for zero is "No"
132 Numerical expression for zero is "None"
133 Numerical expression for zero is "0"
134 Function, calls "Press any Key to Continue..."
135 Account Number
136 Maximum Posts/Day
137 Maximum Downloads/Day
138 Maximum DB Downloads/Day
139 Maximum DB Uploads/Day
140 Maximum Attaches/Day
141 Maximum ARC Utils/Day
142 Maximum Calls/Day
143 Downloads Today
144 Uploads Today
145 Calls Today
146 Posts Today

147	ARC Utils. Today
148	DB Downloads Today
149	DB Uploads Today
150	File Attaches Today
151	Maximum Banners
152	Total Number of Banners Added
153	Terminal Width
154	Connection Time for Current Call
155	Age
156	Caller ID Phone Number String
157	Caller ID Name Identification String
158	Number of New Files, all Conferences
159	ID Number of Last Mask Applied to Account
160	Name of Last Mask Applied to Account
200	Sends CR/LF

Not all tags are available everywhere. For example, do not use the tags for message bases outside of a message base, or file section tags outside of a file section.

Text Files

All "text" files for RATSoft reside in the \TEXT\ folder. "Text" files refers to normal text files, InfoForms, databases, and even scripts. All of these files may use the TXT extender, or their own extenders.

RATSoft determines how to treat a file by looking at the first line in the file. Text files usually do not have headings, unless attributes are used, but InfoForms and databases require these headers or RATSoft just treats them as normal text files. Each type is explained below with examples.

InfoForms

InfoForms are RATSoft-style questionnaires. RATSoft stores all InfoForms and keeps them permanently unless you delete them. They are not necessary for normal

operation. Often SysOps use an InfoForm for a new user questionnaire in the NEWUSER2.TXT file.

```
[InfoForm]
1

1. What is your real name?

*
```

The first line, which reads [InfoForm], tells RATSoft it is to treat the following file as an InfoForm.

The second line contains 1. This is the number of the InfoForm which RATSoft will store all the information under. You may then view the InfoForm from the user editor using the [V]iew InfoForm command. If this number is 0, the answers are dumped to your system log instead of being permanently stored in seperate files.

When an asterisk (*) is encountered, the user is prompted to enter up to 5 lines of information. You should always tell your users that each answer in an InfoForm can be up to 5 lines, and a [RETURN] on a blank line always ends the current question.

For your convenience, you may name InfoForms with an .INF extender, but the header information is still required.

General Information on Databases

RATSoft supports three basic types of databases, each having their own advantages. Before creating a database, you should always choose the database format which best suits your needs. Each type is listed below with detailed explanations:

Type I or Regular Database

These are the simplest of all databases, and are easy to set up. Using a text editor, these databases can be quickly and easily created.

An example of a Type I database:

```
[Type_I] Select [RETURN=Exit]:

System Information

|0|1|C:\RATSOFT\TEXT\HARDWARE.TXT
1. Hardware
|0|2|C:\RATSOFT\TEXT\SOFTWARE.TXT
2. Software
|0|3|PCMD:[e-ml:2]
3. Leave Feedback to Co-SysOp
```

In the above example, [Type_I] tells RATSoft to treat the file as a Type I database. Remember this must be the VERY FIRST line in the file! The second line contains the prompt which will be shown at the end of the file. Everything following the second line is the text which will be shown to the user, with the exception of those lines beginning with a vertical bar (|). These lines tell RATSoft what key-presses to accept, at what levels, and what files to show or commands to execute. The format for these lines are: |<minimum level>|<key>|<cmd:>device:\path\filename.ext

<minimum level>
The minimum level the user must have before they are permitted to use that function. The range is 0 (all users) to 255 (SysOps only).

<key>
The key press which activates that function. This should always just 1 character.

The last parameter is the name of the file which is is linked to the given key-press. An optional command may precede the file name, which can perform certain functions. **<cmd:>** can be **PCMD** for menu functions, DOWN to download a file, **EXEC** to execute a file, RS to execute a RATSoft module, or if no command is given, it is treated as a normal text file. In the above example, the **PCMD** function is used to allow the user to leave feedback to user number two, through the use of the [e-ml:2] command. If you wanted to have a user download a file, you could use something similar to:

```
|0|1|DOWN:C:\FILENAME.ZIP
```

Or if you wanted to execute an on-line game using RATSoft's FoReM Door, you would do something similar to...

```
|0|1|RS:C:\RATSOFT\FORMDOOR.TTPC:\
GAME.TTP -L
```

Type II or Menu Database

These databases are extremely versatile, as they are basically a file made up of simple commands. They are useful for creating seperate menus, and can really add some life to your BBS through the use of extra menus, help menus, and other goodies. Below is an example of a Type II database, which to the user will appear the same as the Type I database above:

```
[Type_II]
Prompt = {200}Select [RETURN=Exit]:
Display {

System Information
1. Hardware
2. Software
3. Leave Feedback to Co-SysOp
}
```

```
Attrib = XA
1;Hardware{200}[show:HARDWARE]
2;Software{200}[show:SOFTWARE]
3;Feedback to Co-SysOp{200}[e-ml:2]
\;Exit{200}[quit]
;Invalid Command!{200}[quit]
```

As you can see, this appears a bit more complex, but with that complexity comes a great deal of versatility over a Type I database. In the example above, the first line contains [Type_II] will tells RATSoft to treat this as a [Type_II] database.

The Prompt command defines the prompt which RATSoft will display before waiting for a user key press. A prompt may be up to 32k (32,767 bytes), and multiple prompt lines can be used for extended prompts.

The Display command notifies RATSoft to display everything after the { to the }. Remember to include both the brackets or RATSoft may become confused as to what exactly you're trying to display!

Attrib contains the attributes for the database. There are currently only two attributes, "A" and "X". "A" tells RATSoft to accept any key as valid, and if a key is not defined, the "default" is used. In the above example, the "Invalid Command" line is the default, and the defined key is a blank space, which tells RATSoft this is the default function for undefined keys. If the "A" attribute is not used, RATSoft will only accept the keys which are defined in the menu. The "X" attribute tells RATSoft to run through the menu once, then exit. If the "X" attribute is not used, the menu will repeat itself until a [quit] command is accepted.

The remaining lines in the example are the key and command definitions.

These command strings are identical to menu function files, and follow the format of:

<key>;<command string>

<key> is the key to accept. While in a Type II database, "\" is considered a RETURN, and " " (a blank space) the default function. These can be any character (including control characters), but should always be upper case if letters are used.

Another example, using some of the more advanced commands:

```
[Type_II]
Prompt = {200}Select Option [?=Menu,
RETURN=Exit]:
Menu {

User Utilities

F. Leave Feedback
Q. Quick Logoff
U. User's Listing
T. Top User List
}
Do = [menu]
Attrib = A
F;Feedback{200}[feed]
Q;Bye!{200}[bye]
U;User Listing{200}[exec:USERLIST]
T;Top User List{200}[exec:TOPUSER]
?;Help!{200}[menu]
\;Exit{200}[quit]
```

In this example, instead of Display the Menu command was used. This command is almost identical to the Display command except that the text between the { and } is buffered, and NOT displayed. The advantage of buffering this text is that it may be re-displayed at any

time while in the menu with the use of the [menu] menu function. With Display, once the text has been displayed there is no way to recall it while in the database.
Since Menu does not display the text, the command Do = [menu], displays the menu for the first time. A key definition for the question mark (?) has been included to re-display the menu using the [menu] command if the user should so desire.

The Do command can contain perform any function or string of functions.

Type III or Files Database

These databases were designed merely for files. They are not nearly as flexible as the above two examples, but they were not intended to be. Type III databases can best be compared to "G-Files" or "General Files" which are common on PC bulletin boards. They are often text files, archives, or other files which the user wishes to view while on-line or download. The user may upload and download from these databases, and all files which are linked to a Type III database are edited in an identical fashion to those which are located in the file areas.

RATSoft's Text File Utility (TEXTUTIL.RAT) offers an option to create these databases out of common text files, as the headers of these files tend to be rather complex. You should never edit one of these files using a text editor, but convert it back to pure ASCII first.

To create a Type III database, using a text editor, create an ASCII title for the database, for example:

Log-on Bulletins

Find all the latest on-line news and events here! Upload new on-line mags or press releases here!

In this example, this is to be used as the logon bulletins, so the file will be saved as LOGONBUL.FDB in the \TEXT\ folder (LOGONBUL.TXT is also acceptable). Next, using [F] from the SysOp commands, or by typing "TEXTUTIL" from RAT-DOS, use the "[C]onvert text file >> database" option. By following a few simple problems, the file will be converted into a Type III database which RATSoft can use.

By entering then entering the database, you may add, delete, or edit files linked to the database by using the "$" SysOp function. All files are edited through the normal file editor, but note that the level associated with the file refers to the user's database level, where in the file sections, it refers to the user's file level.

NOTE: Never use a text editor to edit a Type III database! To edit the title text, use TEXTUTIL's "[R]evert database back to raw text" option, edit the file, then "[C]onvert text file >> database". No files linked to the database will be lost.

Older Database Files

Prior to version 2.0, databases were identified to RATSoft in a different way. These files are still fully compatible with version 2.0 up, but the old style was scrapped due to the fact it confused some SysOps. These older files have a futuristic "2" (decimal value 18) character (control-R) as the first byte in the file, followed by one of the following keywords:

ATTRIB: Text file attributes
DB: Type I database
RST_ADV.MENU: Type II database
XFER_DB: Type III database
SCRIPT: Script
EXEC: File executed before text file is displayed

Scripts

The actual programming of scripts is explained in the next chapter, but RATSoft will treat any text file as a script if the [Script] heading is used.

Also, scripts may be incorporated into text files through the use of special commands. See the chapter on Script Language for more information.

Conditions

Messages, system and section news files, text files, and Type II databases can utilize conditions, although they are most commonly used in messages. Aside from Type II databases and text files, conditions are set through the use of the /O option in the message editor. Each message or news file may have up to five different conditions set, these are:

LEVEL min-max, DB LEVEL min-max, FILE LEVEL min-max
User's overall level (LEVEL), database level (DB LEVEL), or file level (FILE LEVEL) must be between 'min' and 'max'.

AREA area code
The user must live in the 'areacode' area code.

TIME min-max
The user must have between 'min' and 'max' minutes remaining.

BPS min-max
The user's bps rate (modem rate) must be between 'min' and 'max'.

Examples of each type of condition:

LEVEL 3-10
DB LEVEL 1-5
FILE LEVEL 1-255
AREA 909
TIME 1-5
BPS 9600-38400

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Chapter 11

Scripts

Scripting Language

With the RATSoft script language, the possibilities with your BBS become endless. RATSoft Script uses familiar BASIC commands in a structured format. This means you will be using logic instead of line numbers. With any language, it is best learned with specific explanation and examples, so let's begin:

General Rules and Limitations

All string names may not exceed 10 characters, including the suffix.

Each script may have...

* Up to 500 string variables, and 500 numeric variables
* Up to 10 string arrays, and 10 numeric arrays
* All strings are suffixed with a dollar sign ($)
* All numeric variables are suffixed with a pound or number sign (#)
* All strings have a limit of 32 kilobytes, or 32,767 bytes.
* All numeric variables are handled in 4-byte integer format.

Legal string names

test$(1)
cmd$
c$
num#(50)
count#

Illegal string names

string_array$(50)	String Name too Long
number	No '#' suffix

Reserved Variables

TIMER#	Returns the value of the system clock, in '200th'of a secondintervals.
DTA#	address of Disk Transfer Access (DTA)
PRN#	Status of parallel interface, TRUE if available (printer on), othewise FALSE

All output must be in string format. For example, the statement "OUT a#" would not be valid, but "OUT STR$(a#)" would be.

The Commands

BGET$

Retreive a block of data from an open file

Syntax: data$=BGET$(length#)

The BGET$ function is used to retreive a block of data, 'length#' bytes in length, from an OPEN'ed channel.

RETURNS: The block of data read from the open channel, in raw data format

BPUT$
Write a block of data to a file

Syntax: BPUT$(string$, length)

Opposite of the BGET$ function, BPUT$ writes a block of to the OPEN'ed channel.

EXAMPLE:
```
OPEN("C:\TEST.DAT",UPDATE) ; Open "TEST.DAT" in Update
data$=BGET$(5) ; BGET$ 5 bytes, returned in data$
IF data$="WRITE" ord ; If data$ contains the word "WRITE" out
  out$="DATA"          ; "DATA" to the file
  BPUT$(out$,LEN(out$))
ENDIF
CLOSE ; Close  open channel
```

NOTES: This small program is completely useless, but shows examples of the BGET$ and BPUT$ command

RETURNS: A negative value if an error occured, otherwise 0.

BYTE (function/command)
Read/Write a 1-Byte Integer

Syntax: Function Usage: val#=BYTE(loc#)
Command Usage: BYTE(loc#)=val#

Reads/write a 1-byte integer from/to memory location 'loc#'. BYTE's have a range of 0 to 255.

SEE: CHAR, LONG, WORD

B...(num#,bit#)
Bit manipulation

Syntax: result#=BTST(val#,test_bit#)

result#=BCLR(val#,clr_bit#)
result#=BSET(val#,set_bit#)

These three functions, BCLR, BTST, and BSET, clear, test, or set bits within a given value.

RETURNS:
For BCLR, the new value
For BTST, TRUE if the given bit is set, FALSE if not
For BSET, the new value

CENTER

Output a line to screen and modem, centered

Syntax: CENTER text$
CENTER "text"

Writes a line of centered text on the screen followed by a CR/LF. If a trailing ';' is given, no CR/LF is appended.

SEE: CNTR$, OUT

CHDIR

Change current drive and directory

Syntax: CHDIR pathname$

Changes the current drive and directory GEMDOS is currently set to. Note that under most languages, this is handled by two functions (Dsetdrv() and Dsetpath()), but may be accomplished with one command here.

EXAMPLE: CHDIR "C:\RATSOFT\"

CHAR (function/command)
Read/write a null-terminated string

Syntax: Function Usage: string$=CHAR(loc#)
Command Usage: CHAR(loc#)=string$

Reads/writes a null-byte (ASCII value 0) terminated string from/to memory location 'loc#'.
SEE: BYTE, LONG, WORD

CHECK_PATH
Check/create path

Syntax: CHECK_PATH(pathname$)

Checks to see if 'pathname$' is an existing directory. If it is not, it is automatically created, starting with the inner most directory outwards.

RETURNS: FALSE if successful, a negative value in the event of an error

CHR$
Convert ASCII value to string

Syntax: char$=CHR$(ascii#)
Converts the ASCII value 'ascii#' to it's string equivalent.

RETURNS: A single character corresponding to the ASCII value

EXAMPLE:
OUT CHR$(65); *Outputs the letter 'A', as the ASCII value for an upper-case 'A' is 65*

CLOSE

Close a file previousled opened with OPEN

Syntax: CLOSE

Flushes all file buffers, then closes the currently OPEN'ed file. This command is automatically carried out when a script terminates.

RETURNS: Nothing

CNTR$

Centers a line of text cent_text

Syntax: $=CNTR$(text$)

Centers a line of text by creating a string of leading spaces until the line is centered, based on the user's current screen width.

SEE: CENTER

CONF

Returns the name of a conference

Syntax: cnf$=CONF$
cnf$=CONF$(c#)
cnf_num#=CONF#

Provides the name or number of a conference.

RETURNS:

For CONF$, the name of the current conference
For CONF$(c#), the name of conference 'c#'
For CONF#, the number of the current conference

CONFIG$

Get an element of the RATSoft configuration

Syntax: c$=CONFIG$(elem#)
c#=CONFIG#(elem#)

Provides access to RATSoft's configuration file, CONFIG.DAT, which contains useful information such as path names.

Some of the more useful elements are:

CONFIG$(1)	Official BBS title
CONFIG$(2)	SysOp's name (same as {10})
CONFIG$(5)	BBS name (same as {9})
CONFIG$(6)	System password
CONFIG$(7)	BBS telephone number (same as {11})
CONFIG$(25)	Path to RATSoft
CONFIG$(26)	Path to InfoForms
CONFIG$(27)	Path to text files
CONFIG$(28)	Path to file mail (f-mail)
CONFIG$(29)	Work path
CONFIG$(30)	Path to help files
CONFIG$(31)	Path to databases
CONFIG$(32)	Path to section news
CONFIG$(33)	Path to auto-messages
CONFIG$(34)	Path to voting booths

RETURNS: For CONFIG$, element 'elem#' in string format. For CONFIG#, the value of element 'elem#'

CUR_DIR$

Return the current drive/directory

Syntax: path$=CUR_DIR$

Provides the current drive and directory GEMDOS is currently pointing to, in the format: x:\PATH\.

RETURNS: Current drive and directory

SEE: CHDIR

DFREE

Number of free bytes on current drive

Syntax: free#=DFREE

Gives the number of available (free) bytes on the current drive.

RETURNS: Number of bytes

EXAMPLE:

```
OUT "Show number of free bytes on which drive? ";
dr$=UPPER$(KEY$)
CHDIR dr$+":\"
OUT "There are "+STR$(DFREE)+" free bytes on drive
"+dr$+"."
```

DIM

Dimension a string or numeric array

Syntax: DIM array$(field#)
DIM array#(field#)

Dimensions an array. All arrays must be DIMensioned before being used, or an error will occur. Each script may contain 10 of each type of array, each having up to 32,767 elements.

DO [UNTIL] ... LOOP

Entry condition loop

Syntax: DO [until <condition>]<commands>LOOP

Forms an entry condition loop, the opposite of REPEAT ... UNTIL.

EXAMPLE:

```
n#=1
DO UNTIL n#=5
OUT STR$(n#)
n#=ADD(n#,1)
LOOP
```

DOes loop until n#=5, outputing 1 through 4.

SEE: REPEAT ... UNTIL, EXIT IF

DOS

Use GEMDOS file function

Syntax: DOS(cmd#,file$)

Performs various file functions through the use of GEMDOS. 'cmd#' may be one of the following:

1 - Create folder/directory
2 - Kill folder/directory (must be empty)
3 - Kill a file

RETURNS: 0 if no error occured, otherwise a negative value

EXAMPLE:

```
OUT "Filename.Ext to KILL: "
file$=INPUT(12,TRUE)
IF DOS(3,file$)<>FALSE
OUT "An error occured while killing: "+file$
ENDIF
```

EOF

Determine if pointer is at end of file

Syntax: flag#=EOF

Determines if the end of the file currently OPEN has been reached.

RETURNS: If end of file, TRUE, otherwise FALSE

ENV

Write Command String to RATSoft Environment

Syntax: ENV string$

Writes a string to RATSoft's command environment to be processed when control is returned back to RATSoft. The format for these command strings is as follows:

BM:device:\path\filename.ext [FREE]
Marks a file in the user's batch que. If the optional parameter word FREE is included at the end, the file is marked as "free" and not counted against the user's ratios.

EXAMPLE:
EN"BM:D:\RATSOFT\ATARI\FILES\MYFILE.LZH FREE"

EX:[device:][\path\]filename.ext [command_line]
Executes a script upon returning to RATSoft. This will allow you to execute a script from another script without using up any additional memory. Note, however, that variables do not carry over.

EXAMPLE:
ENV "EX:SCRIPT"

CM:[menu functions]
A string of menu functions to be performed upon return to RATSoft.

EXAMPLE:
ENV "CM:[feed][qoff]"

EXIST

Check to see if a file exists

Syntax: EXIST(file$)

Checks to see if the given file exists.

RETURNS: If file 'file$' exists, TRUE, otherwise FALSE

EXIT

Exit script

Syntax: EXIT

Terminates execution of the script currently in process.

EXIT IF

Conditional exit from loop

Syntax: EXIT IF [condition]

Exits a REPEAT ... UNTIL or DO ... LOOP loop if condition '[condition]' is met.

EXAMPLE:

```
DO
OUT "Enter two numbers [0=Exit]:"
OUT "Number 1: ";
num1#=VAL(INPUT$(5,FALSE))
EXIT IF num1#=FALSE          ; Exit loop if num1# = 0
OUT "Number 2: ";
num2#=VAL(INPUT$(5,FALSE))
OUT "Number 1 + Number 2 = ";STR$(ADD(num1#,num2#))
LOOP
```

FPRINT
Show a text file, or InfoForm

Syntax: FPRINT(file$,break#)

Displays the text file or performs the info-form 'file$'. If 'break#' is TRUE, the user will not be able to abort the output. FPRINT will recognize text files, info-forms, and text files with attributes, but will not act upon other scripts or databases.
RETURNS: A negative value if an error occured

FSFIRST/FSNEXT
Directory Searches

Syntax: stat#=FSFIRST(mask$,atrib#)
stat#=FSNEXT

Performs a directory search matching files/directories to the mask supplied by 'mask$', and according to the attributes as set by 'atrib#'.This function is for more advanced programmers who are familiar with the usage of the DTA.

RETURNS: A non-zero value when the last entry has been located.

EXAMPLE:
*The following program displays a directory of all *.RAT (RATSoft modules) located in the RATSOFT folder (C:\RATSOFT\).*

```
f_loc#=ADD(dta#,30) ; Get DTA file location
stat#=FSFIRST("C:\RATSOFT\*.RAT",-1) ; Search
C:\RATSOFT\*.RAT, -1 ; all attributes set
DO UNTIL stat#<>FALSE ; Loop until last file is found
 file$=CHAR(f_loc#) ; File name
 OUT file$ ; Display file name
 stat#=FS
NEXT
LOOP
```

FUNCTION
Define a function

Syntax: FUNCTION [func_name]

Defines a function named [func_name], which may be called using @[func_name]. Functions may either return strings or number values through the use of the RETURN function.

All functions must be terminated with an ENDFUNC statement. [func_name] may not be longer than 10 characters.

EXAMPLE:

```
n1#=1
n2#=5
addition#=@add  ; Add two values together
multiply#=@mul ; Multiply two values together
FUNCTION add
RETURN ADD(n1#,n2#)
ENDFUNC
FUNCTION mul
REUTRN MUL(n1#,n2#)
ENDFUNC
```

GL_MASK$
Formatted input routine

Syntax: line$=GL_MASK$(inputbox#,mask$)

GL_MASK$ is based on an internal routine in RATSoft which forces user input in a specific format. This is useful for date entry, telephone numbers, or other input which requires a strict format. If 'inputbox#' is true, input boxes are used. 'i'mask$' contains the mask, which is a string of characters as follows:

^A (or ALT+keypad 1): 0-9
^B (or ALT+keypad 2): A-Z (all caps)
^C (or ALT+keypad 3): A-Z, a-z
^E (or ALT+keypad 5): 0-9, A-Z, a-z
^F (or ALT+keypad 6): 0-9, A-Z, . (filenames)
^G (or ALT+keypad 7): 0-9, A-Z, :, \, . (filenames)
^Z (or ALT+keypad 26): Any character

'^A' may be generated by holding the CONTROL key and typing 'A'. (Alternate/keypad combinations available with TOS 2.xx+ only)

RETURNS: String with formatted input

EXAMPLE:

```
OUT "Input the date [mm-dd-yy]: ";
date$=GL_MASK$(TRUE,"^A^A/^A^A/19^A^A")
; User is shown " / /19 " and must fill in blanks based on
; the ^A mask, which accepts only numbers
```

GOTO

Resume program execution at a label

Syntax: GOTO [label]

GOTO stops program execution and immediately goes to the given label. All conditions and loops are terminted.

SEE: [label]:

NOTES: *If you're familiar with structures prorgamming, you should be aware that GOTO's really serve little purpose and are considered taboo.*

Due to their abrupt nature, GOTO's should be avoid except for extreme cases.

HANGUP
Drop modem carrier

Syntax: HANGUP

Drops the modem carrier, therefore logging off the user currently online.

IF ... [ELSE] ... [ELSE IF] ... ENDIF
Decision making statements

Syntax: IF [condition]
<code>
(ELSE)
<code>
(ELSE [IF [condition]])
<code>
ENDIF

Conditional decision making commands.

EXAMPLE:
```
OUT "Guess my number: ";
a$=INPUT(3,FALSE)
IF a$=""
EXIT
ENDIF
n#=VAL(a$)
IF n#=a#
OUT "You guessed my number!"
ELSE IF n#>a#
OUT "My number is lower!"
ELSE IF n#<a#
OUT "My number is higher!"
ENDIF
```

INPUT$

Get a string from user

Syntax: string$=INPUT$(length#,inputbox#)
Gets a line of text (terminated by a CR) from the user, not exceeding 'length#' characters. If 'inputbox#' is TRUE, VT52 or ANSI input boxes are used.

RETURNS: String, the CR is dropped.

EXAMPLE:

```
OUT "What is your name? ";
name$=INPUT$(30,TRUE)
```

INSTR/RINSTR

Search for a string within a string

Syntax: loc#=INSTR(string1$,string2$,n#)
loc#=RINSTR(string1$,string2$,n#)

Locates a string within another string, starting the search from either the left (INSTR) or right (RINSTR) beginning with the 'n#'th character. If 'n#' is FALSE, the search is started from the left most or right most character in the string.

RETURNS: Location of 'string2$' within 'string1$' or FALSE if no match was found.

EXAMPLE:

```
test$="This is a test"
loc#=INSTR(test$,"is",0)
loc2#=RINSTR(test$,"is",0)
OUT STR$(loc#) ; Outputs 3, as "is" is found in "This"
OUT STR$(loc2#); Outputs 6, as the word "is" is first
located from the right at position 6.
```

KEY/KEY$

Gets a character from the user

Syntax: char#=KEY
char$=KEY$

Gets a single character from the user. No return is required.

RETURNS: KEY: ASCII value of the key received
KEY$: The actual character in string format.

LEN

Give the length of a string

Syntax: length#=LEN(string$)

RETURNS: The length of the string.

LOC

Gives the location of the file pointer

Syntax: point#=LOC

RETURNS: The location of the file pointer of an OPEN'ed file, relative to the number of bytes from the beginning of the file. Returns an
negative value if an error occurs.

LOF

Gives the length of a file

Syntax: length#=LOF

RETURNS: The length of the OPEN'ed file in bytes. Returns a negative value if an error occurs.

LOG/LOGMSG

Send a message to the system log

Syntax: LOG msg$
LOGMSG msg$

Sends a line to the system log. LOG uses the normal routine, which only places messages in the log if a user is online (not local). LOGMSG places the message in the log regardless of whether the user is remote or not.

LONG (function/command)

Read/Write 4-byte Integer

Syntax: Function Usage: val#=LONG(loc#)
Command Usage: LONG(loc#)=val#

Reads or writes a 4-byte integer from or to memory location 'loc#'. Note that this must reside on a even memory location, or your system will crash. Long integers have a range of around negative two billion to positive two billion.

SEE: BYTE, CHAR, WORD

LPRINT

Send a line of text to printer

Syntax: LPRINT text$

Sends a line of text to the printer, if it is available. You

may use this command in your programs without the worry of the system "hanging up" should the printer be offline. If the printer is offline, the command is ignored.

LSET$/RSET$

Set a string within a padded string

Syntax: string1$=LSET$(string2$,string3$)
string1$=RSET$(string2$,string3$)

Sets a line of text to the left or right of a padded (space filled) string.

EXAMPLE:

```
string2$="                    "
OUT "Input your name: ";
string3$=INPUT$(20,TRUE)
name$=LSET$(string2$,string3$)
```

MID$

Returns the mid-section of a string

Syntax: string$=MID$(string2$,start#,length#)

RETURNS: The mid-section of a string, starting at position 'start#' in the string and 'length#' characters in length.

EXAMPLE:

```
OUT MID$("This is a test.",11,4) ; Outputs "test"
```

MSG_SAVE

Outputs the message buffer

Syntax: MSG_SAVE

Stores the message buffer utilized by the WW_INPUT command to the OPEN'ed channel.

OPEN

Open a file for reading or writing

Syntax: OPEN(file$,MODE)

Opens file 'file$' in mode 'MODE'. MODE may be one of the following:

APPEND: The file is opened and the file pointered positioned at the end of the file. File must exist,

INPUT: File is opened for reading. File must exist.

OUTPUT: File is opened for writing. If the file exists, it is over-written, other-wise a new file is created.

UPDATE: File is opened for both reading and writing. The file pointer is positioned to the start of the file. The file must exist.

EXAMPLE:

```
OUT "A simple text editor"
OUT
OUT "File to write to: ";
file$=INPUT$(200,FALSE)
IF file$<>""
OPEN(file$,OUTPUT)
OUT
OUT "Press [RETURN] on a blank line to end input"
OUT
DO
l#=l#+1
OUT "#"+STR$(l#)+": ";
line$=INPUT$(80,FALSE)
EXIT IF line$=""
WRITE line$
LOOP
CLOSE
OUT "File saved."
```

OUT

Output a line to the screen

Syntax: OUT string$
OUT "expression"

Outputs a line of text to the screen and modem. Variable tags, color codes, and strings may be included. All output must be in string format. The last character is a semi-colon (;) a C/R is not appended to the end of the line.

EXAMPLE:

```
OUT string$
OUT "expression";
OUT "test "+STR$(test#)+" string "+string$
```

PAGEBREAK

Change the status of the page break routine

Syntax: PAGEBREAK=ON
PAGEBREAK=OFF

Alter the status of the page break routine, or the "More" routine. If ON, the BBS stops ever 'x' lines (as set in the user's profile) to prevent text from scrolling off the user's screen.

PAUSE

Pause for 50th's of a second

Syntax: PAUSE(time#)

Pauses for 'time#' 50th's of a second.

PRINT
Print line of text on screen

Syntax: PRINT exp$

Prints a line of text on screen, but not to the modem. The syntax for PRINT follows that of OUT.

EXAMPLE:
PRINT "This is an example of PRINT"

PROMPT$
Gives a system prompt

Syntax: p$=PROMPT$(num#)

RETURNS: Prompt #'num#' as defined in the PROMPT.DAT file.

RANDOM
Produce a random number

Syntax: num#=RANDOM(max#)

RETURNS: A random integer between 0 and 'max#'

READ$
Read a line of text from a file

Syntax: text$=READ$

RETURNS: A line of text, as read from an OPEN channel. The script is haulted and an error returned if no channel is open. The linemust be terminated by a CR or

LF.
SEE: OPEN, WRITE.

REPEAT ... UNTIL

Exit condition loop

Syntax: REPEAT
<code>
UNTIL [condition]

Repeats the statements between the REPEAT and the UNTIL statements until the UNTIL condition is met.

Example:

```
REPEAT
OUT "Hit [SPACE] to Continue... ";
a$=KEY
UNTIL a$=" "
```

SEEK/RELSEEK

Move File Pointer

Syntax: SEEK(loc#)
RELSEEK(bytes#)

RETURNS: A negative value if an error occured.

Moves the file pointer to a specific location relative to the beginning of the file (SEEK), or moves the file pointer 'bytes#' bytes forward or backwards (RELSEEK).

EXAMPLE:

```
SEEK(32)
; Move file pointer to the 32nd byte
RELSEEK(-32)
; Moves file pointer back 32 bytes, or to the beginning
```

```
RELSEEK(32)
; Moves file pointer forward 32 bytes
```

SHELL/BBS_SHELL

Execute Program/Module

Syntax: SHELL(file$,cmd$)
BBS_SHELL(file$,cmd$)

Both functions call another program with the command line of 'cmd$'. Use SHELL for all non-RATSoft programs, and BBS_SHELL for all RATSoft modules.

EXAMPLE:

```
OUT "Filename to add to archive: ";
file$=INPUT$(100,FALSE)
SHELL("C:\LHARC.TTP","a D:\ARCHIVE.LZH "+file$)
```

NOTES: BBS_SHELL passes RATSoft's environment table to the spawned program. This should only be used with RATSoft modules!

SPACE$

Return a String of Spaces

Syntax: string$=SPACE$(len#)

RETURNS: A string of spaces, 'len#' bytes in length.

SPEC_FLAG (function)

Return Status of Speciality Flag

Syntax: set#=SPEC_FLAG(num#)

RETURNS: TRUE if speciality flag 'num#' is set, otherwise FALSE.

SPEC_FLAG (command)
Set/Clear Speciality Flag

Syntax: SPEC_FLAG(num#,val#)

If 'val#' is TRUE, speciality flag 'num#' is set, if FALSE, it is cleared.

UPPER$
Convert String to Upper Case

Syntax: str1$=UPPER$(str2$)

RETURNS: 'str2$' converted to upper case.

USERBYTE/USERWORD/USERLONG
Read User Information

Syntax: val#=USERBYTE(loc#)
val#=USERWORD(loc#)
val#=USERLONG(loc#)

RETURNS: A single byte integer (USERBYTE), 2 byte integer (USERWORD), or 4 byte integer (USERLONG), at offset 'num#' in the user account information.

***NOTE:** Specific locations for user information can be obtained from the support systems. As the information is constantly changing, it was not included here.*

WIN_OFF/WIN_ON
Turn Status Window On/Off

Syntax: WIN_OFF
WIN_ON

Turns the status window at the bottom of the screen on or off. If you wish to execute a program from a script that requires a full screen, such as many online games, use WIN_OFF to remove the window. Remember to always restore the window with WIN_ON.

WORD (function/command)
Read/Write a 2-byte Integer

Syntax: Function Usage: val#=WORD(loc#)
Command Usage: WORD(loc#)=val#

Reads/writes a 2-byte interger from/to memory location 'loc#'. 'loc#' must reside on an even address, or the still will crash or "hang." A WORD has a range of -32767 to 32767.

WRITE
Write Line to Open Channel

Syntax: WRITE text$

Writes 'text$' to the OPEN'ed file with a CR/LF, which may then be read again with the READ$ command.

SEE: CLOSE, OPEN, READ$, SEEK/RELSEEK

WW_INPUT

Formatted Input of Text with Word Wrap

Syntax: line#=WW_INPUT(maxline#,prompt$)

RETURNS: The number of lines inputted.

Allows the user to input a maximum of 'maxline#' lines with word wrap enabled. 'prompt$' contains a prompt which is displayed before each line, prompting the user for input. The function is terminated by a blank line or the maximum number of lines being reached.

EXAMPLE:

```
OUT
OUT "Input your comment [up to 3 lines]..."
OUT
line#=WW_INPUT(3,">")
```

SEE: INPUT, KEY/KEY$, MSG_SAVE

YESNO

Yes/No Routine

Syntax: yn#=YESNO(default#)

RETURNS: TRUE if 'YES', FALSE if 'NO'.

Calls RATSoft's YES/NO routine. If 'default#' is TRUE, the default response is YES, if FALSE the default is NO, if 2 no default is used.

ADD/SUB/MUL/DIV

Mathmatical Operations

Syntax: val#=ADD(num1#,num2#)
val#=SUB(num1#,num2#)
val#=MUL(num1#,num2#)

val#=DIV(num1#,num2#)

RETURNS: The result of the mathmatical operation on 'num1#' and 'num2#'. Adds (ADD), subtracts (SUB), multiplies (MUL), or divides (DIV) 'num1#' and 'num2#'. The advantage of using this over normal operations is it avoids a messy string of operators which can become confusing.

In place of the command a#=b#+1, use a#=ADD(b#,1), in place of a#=b#*3, use a#=MUL(b#,3), etc.

Script Formatting and Errors

RATSoft comes with a TTP (TOS-takes-parameters) utility which converts script into a format acceptable to the script processor. The script processor can be rather picky with formatting, and the provided utility will correct any formatting errors which are discovered.

From RAT-Dos, type the following to format a script:

S_CHECK [device:][\path\]script.scp

For example, to format your GAMES.SCP file, you might use:

S_CHECK C:\RATSOFT\TEXT\GAMES.SCP

Note this utility does not check for programming errors, but only formats the script!

Script errors are often a result of an missing function or a syntax error. The different between "END IF" and "ENDIF" may not mean a lot to you, but to the script processor it's the difference between un-recognized jibberish and a legitimate function.

It's rather easy to crash your system using scripts, remember you are actually programming your

computer! If you have trouble with a script, review examples of other scripts, or feel free to upload your problem script to a RATSoft support sysop to review.

Example Scripts

Script programming examples were included with your RATSoft package. Some where installed with your RATSoft package, and may be found in your \TEXT\ folder with a .SCP extender. Others, which are not used by the default installation, but were included to provide programming examples, can be found in the EXAMPLES folder on disk 2.

The best way to learn how to program in script is to look at other scripts!

RATSoft/ST™

The Ultimate BBS Software

Chapter 12

Rat Dos

RAT-DOS

RATSoft incorporates an MS-DOS style command line. If you are familiar with the MS-DOS style of working with files, you should find RATSoft's DOS shell very easy to use.

Commands are as follows:

Optional parameters are listed in brackets. For example, [device:][\path\]filename.ext
All the following filenames would be valid: FILE.ZIP, C:\TEXTFILE.TXT, C:\RATSOFT\RATSOFT.PRG, C:.ZIP, and \DIR\FILE.ARC.*

x:
Change current drive.

Example:
C:, changes default drive to C:

:label
Batch files only. Defines a label within a batch file.

CHDIR [device:][\path\]path
CD [device:][\path\]path
Change current directory.

Examples:
CD \util\ *(Change directory to \UTIL\ )*
CD .. *(Backs up one directory)*

COPY[device:][\path\]file1.ext[device:][\path\]file2.ext
Copies a file or a group of files.

Example: COPY C:*.PRG C:\UTIL\
(Copies all files on the root of drive C with a PRG extender to the C:\UTIL\ folder)

***NOTE:** Copy may also be used to print files by "COPY"ing the file to the parallel port. For example, COPY C:\TEXTFILE.TXT PRN:.*

DELETE [device:][\path\]filename.ext
DEL [device:][\path\]filename.ext
ERASE [device:][\path\]filename.ext
KILL [device:][\path\]filename.ext
Deletes a disk file, or all files matching the given mask.

DELTREE [device:][\path\]pathname
Deletes an entire directory and all its contents, including all files and sub-directories.

DIR [device:][\path\][filename.ext] [/W]
Gives a disk directory. The optional switch, /W, gives s "wide"listing, or 4 files per screen rather than the normal 1.

ECHO [OFF/ON] [text]
Batch files only. Turns the echoing of commands on the screen on (ECHO ON), off (ECHO OFF), or echoes a line of text on the screen (ECHO this is a line of text).

GOTO label
Halts batch execution and re-starts at the given label.

MARK [device:][\path\]filename.ext
Marks a file in your batch que for downloading.

MOVE[device:][\path\]file1.ext[device:][\path\]file2.ext
Moves (deletes the source) a file or a group of files.

Example: MOVE C:*.PRG C:\UTIL\
(Moves all files on the root of drive C with a PRG extender to the C:\UTIL\ folder)

PAUSE
Batch files only. Halts a batch file and waits for a key to be pressed. A control-C terminates batch execution.

RECV [device:][\path\]path
Receives a file, or allows you to upload a file to the specified path. Intended for remote use only. Specify only the path, not the actual file name.

RENAMEdevice:][\path\]file1.ext[device:][\path\]file2.ext
RN [device:][\path\]file1.ext [device:][\path\]file2.ext
Renames file1.ext to file2.ext

RMDIR [device:][\path\]path
RD [device:][\path\]path
Deletes a directory. If the directory is not empty, RATSoft asks if you would like to delete the folder along with all its contents.

SEND [device:][\path\][filename.ext]
Sends, or downloads, a disk file. If no filename is given, the batch que is sent.

TYPE [device:][\path\]filename.ext [/C]
Types, or displays, a text file. If the file provided is an archive, you may select a text file to view from within the archive. If the optional switch /C is given, RATSoft

uses normal formatting, which includes translation all variable tags. Normally, a pure ASCII dump is performed.

VERBOSE [device:][\path\]filename.ext
Gives a verbose listing (contents) of an archived file.

DOS Batch Files

RATSoft will recognize and auto-run a few batch files, should they exist. These batch files must all reside in your main RATSOFT folder.

AUTOEXEC.BAT: Executed when RATSoft first boots

WAITRING.BAT: Executed from the wait-call screen when an incoming call is detected. RATSoft does not answer the line, but upon return will look for a file called CONNECT.STR in the main RATSOFT folder. If this file exists, it reads it as the CONNECT string, and proceeds with normal log-on procedures. This was provided for programs which may wish to intercept an incoming call and take control of the call from RATSoft if it is something else from a normal caller. For example, this could be used for a FAX reception program.

WAITCNCT.BAT: Executed once a caller has connected to the system. In this case, a CONNECT.STR is written with the connect string RATSoft received. Upon return, a normal log-on is initiated.

LOGON.BAT: Executed immediately before a user reaches the main menu prompt.

LOGOFF.BAT: Executed once a user has logged off the system. You may wish to use this file to execute system maintenance files after each call.

RATSoft/ST™

The Ultimate BBS Software

Chapter 13

Other Modules

Additional Modules

Schedular

Rather than using a system of batch files executed at certain times, RATSoft incorporates an advanced schedular option. RATSoft's schedular allows you to time events right down the very date, hour and time you wish to preform events. The schedular is capable of executing all GEM/TOS-based applications (PRG, TOS, TTP, GTP, APP), RATSoft modules (RAT), scripts (SCP), and batch files (BAT).

To add or edit an event, use the [S]chedular option in the SysOp commands. Adding an event involves providing some simple information...

Name of Event: A name to identify the event, such as "On-line Game Maintaince" or "Back-up BBS Data Files."

Path and File Name (locally, a file selector will appear): Select the complete path and file name of the file you wish to execute. Remember to only run programs which will run correctly with the schedular! In other works, programs which do not require user input, or can run in an automated mode. Once this program has been executed, no control is returned to RATSoft until the program has terminated.

Command Line: The command line parameters you wish to pass.

Date to Execute: Allows you to select a day of the week you wish to execute the event on (for example, every Saturday), a specific date (such as 07/01/94), or "No Date", which translate to every day at the given event time.

Time to Execute: The time at which the event is to be executed. If a pound (#) is used in place of the hour field, the event will be executed every hour at the given minute. For example, if you were to insert ##:30, the event would execute at 1:30, 2:30, 3:30, etc. Or you may specify a specific time, such as 12:00am, in which case the event would be executed immediately after mid-night maintance.

Priority: If the priority on the event is 6-10, the event will be executed EXACTLY at the time given. Normally, for prioirities 1-5, RATSoft will wait until the user online has logged off to execute the event. Users are not allowed onto the system 15 minutes prior to a priority 6-10 event, and any user who is online when a high priority event is slated to execute is politely logged off the system immediately. Higher priority events are useful for network mailers which may be required to run at an exact time.

System Back-Ups

In this less than perfect world, errors will happen! Therefore, it might be wise to create a small batch file which backs up important data files once or twice a day. RATSoft's most frequently accessed (and most important) files include the MESSAGE.DAT, FILEAREA.DAT, BBS_DATA.DAT, and PASSWORD.DAT files. An example batch file which would back-up these data files would look something like...

```
C:\
CD \RATSOFT\
REM Use *.DAT to back-up all data files...
STZIP -ar BACKUP BBS_DATA.DAT
PASSWORD.DAT
REM Backup MESSAGE.DAT and FILEAREA.DAT
from Atari Conference...
```

13.2 ADDITIONAL MODULES

```
STZIP -ar BACKUP ATARI\MESSAGE.DAT
ATARI\FILEAREA.DAT
REM Backup MESSAGE.DAT and FILEAREA.DAT
from IBM Conference...
STZIP -ar BACKUP IBM\MESSAGE.DAT
IBM\FILEAREA.DAT
```

You may then add the batch file to your schedular so it may run once or twice a day, automatically making a backup of all your important data files!

Voting Booths

The Voting Booth module, VOTE.RAT, allows the creation of up to 32 trackable voting booths, or voting polls. To create a new voting booth, enter the VOTE.RAT module (command [V] from the main menu with the default set-up). If no voting booths currently exist, you are automatically prompted to create a new booth. If other booths are in use, use the [C]reate option.

Following a few simple prompts, your new voting booth will be created in no time. If you choose to make the poll mandatory, all users will be required to vote before they are allowed to continue on the BBS. After creating a mandatory booth, remember to then enter that booth and add a few options!

All the data files for the Voting Booths are stored in the Voting Booth path defined in the configuration.

On-Line Games

Setting up on-line games can either be an easy or hair-pulling experience, depending on the game. RATSoft provides a utility called FoReM Door to mock FoReM/ST data files, which many on-line games require, or can make use of. FoReM Door

(FORMDOOR.RAT) writes a FOREM.DAT file for the user on-line, and can optionally create a DORINFO1.DEF file and pass along certain command line parameters.

FORMDOOR accepts a command line in the following format:

device:\path\game.ext <command_line> <-D> <-L>

Optional Switches:

-D: Write DORINFO1.DEF
-L: Pass "LOCAL" on the command line if the user on-line is calling from the console (local)

FoReM Door automatically switches the current drive and path to that of the on-line game, where FOREM.DAT is written, and optionally, DORINFO1.DEF. When setting up new on-line games, you should always refer to the path of the on-line game when you are requested for the path to your BBS. FoReM writes the FOREM.DAT and DORINFO1.DEF files to the BBS folder, where as FoReM Door writes these in the same folder as where the on-line game resides.

An example command line:

C:\BBS\GAME\GAME.TOS -L

Some games require a more complex set up, and a text file which is available from the RATSoft support boards explains specific set-ups for many of the common on-line games in use today with script and data file examples. This file is periodically updated.

Creating a menu for on-line games is very simple. An example script, GAMES.SCP, contains the set-up and FoReM Door parameters for about fifteen of the most

common on-line games in use today. You will need to modify the paths and devices refered to in this file for your own set-up, but the FoReM Door parameters should remain the same.

Optionally, you may use a Type I or Type II database to run on-line games.

An example of a Type I database:

```
[Type_I]
Select Game [RETURN=Exit]:

Online Games
-----------
|0|A|PCMD:[exec:FORMDOOR C:\BBS\GAME\GAME.TOS -D -L]
A. Example On-Line Game
```

...and a Type II example...

```
[Type_II]
Prompt = {200}Select Game [RETURN=Exit]:
Display {

Online Games
-----------
A. Example On-Line Game
}
Attrib = XA
A;Example!{200}[exec:FORMDOOR C:\BBS\GAME\GAME.TOS -D -
L]
\;Exit{200}[quit]
 ;Invalid Selection, Exiting...{200}[quit]
```

System Log Manager

In this day and age where the SysOp is responsible for more and more of what takes place on their BBS systems, many are keeping records of all their system logs by having their system logs sent to the printer. This can use precious amounts of paper, and be quite annoying with the printer constantly buzzing away.

RATSoft, as always, provides a solution to this common problem: Archives of your system logs. The RATSoft

System Log Manager (LOGFILE.RAT), can keep back-ups of all your system logs by date, and in archived form. Looking up a day past is as simple as entering the date.

To set-up the System Log Archiver, follow these simple steps: First, using a text editor, edit LOGFILE.DAT and change the "BackLogFolder" line to the folder where you would like all your archived system logs to be stored. The folder you specify will be created when needed, so it need not exist. Remember to allow for the space these logs will require over time! Secondly, add an event to your Schedular to compact the logs each night at mid-night, using the following parameters: No Date, 12:00am execute time, "PACK" as the command line, and a low priority.

When mid-night rolls around, the entries in your system log for the past day (the day which has just ended) are archived up, and may be recalled by using [V]iew System Log/[B]ack-Logs from the SysOp commands. System Log Manager keeps a record of all days archived, and a graph of an entire year can be pulled up in a flash to determine which days are available.

Even though the previous day has been archived, the entries remain in your RATSOFT.LOG file until you delete them when asked "Delete old days from log?".

FastOff

Fast*Off, the FASTOFF.RAT module, allows the SysOp to take files in a file section off-line or place them back on-line quickly and easily by just entering file numbers. SysOps who use CD-ROMs, removable media (such as cartridge drives), or other type devices may be frequently changing the files available for download on their system.

To use Fast*Off, enter the file sections in the conference which contains the files you wish to take off-line. Hit

ALTERNATE+D to enter RAT-Dos, and type FASTOFF. Select the file area which is to be worked on, and then specify which file numbers you wish to take off-line.

To put files on-line, follow the same methods as above, but choose the [O]nline option. In this mode, Fast*Off checks to see if the file is available (exists), and if so, the file is given an on-line status. In the event the file is not available, it is given an off-line status regardless of it's previous status as an off-line or on-line file.

User Purge

The User Purger, USRPURGE.RAT, will delete users based on their last call. You may run this utility from a Schedular event to delete users on a daily basis, or you may execute it from RAT-Dos.

The command line format for USRPURGE:

USRPURGE days <-Ilevel> <-W>

User Purger will delete all users who have not called in 'days' days. The optional switch -I tells User Purger to ignore (or skip) users who have an over-all level of 'level' or over. And the optional switch -W places User Purger in "Warning Mode", in which case, no actual changes are made to your PASSWORD.DAT file, but a list of users who would be deleted are displayed.

All results from passes are logged in the system log file.

For example, to delete all users who have not called in 3 months, skipping SysOps, use:

USRPURGE 90 -I255

RATSoft/ST™

The Ultimate BBS Software

Appendices

Trouble Shooting

RATSoft was designed to be compatible with almost everything. That does not, however, mean that problems are nonexistent. Some programs, merely by their design, may conflict with RATSoft. If your system has frequent, or even periodic, crashes please try the following:

Remove all accessories (ACC's) and AUTO folder programs. This can be accomplished simply by renaming all .ACC's to .ACX's, and .PRG's in the AUTO folder to .PRX. Turn the system off, leave it off for a few minutes, then re-boot. Run RATSoft, and let the system operate normally for a few hours. If the system runs smoothly, it would indicate an accessory or AUTO folder program (a TSR, perhaps) is conflicting with RATSoft. Add accessories and AUTO folder programs back to your system one-by-one until the culprit is found.

Other, more specific, problems are addressed below:

RATSoft bombs, or errors, while booting

This probably indicates a corrupted data file. Install RATSoft as a GEM-takes-parameters (GTP), or use a command shell, to pass the -D option on the command line. A boot log will be written to your system log. The last file listed in the boot log before the error occurred is most likely the culprit. Correct the data file, or replace it, then re-boot RATSoft.

This may also indicate a problem with too little memory available. If the first solution does not work, try freeing up some memory.

Another possibility is some AUTO.PRGs or ACCs that you are running may be causing a conflict with RATSoft. If you suspect this, turn off all of your

unneccesary AUTO.PRG files and all ACCs, then try running RATSoft and see if the problem is alleviated. If so, begin to install the AUTO.PRGs and ACCs back into the system one at a time. If after installing a certain PRG or ACC the system begins to have problems again, chances are, that's the culprit.

A very low setting of RATSoft's Memory base may also cause slow performance or crashes. Using the default setting is recommended. If crashing becomes a common problem on your system, try adjusting this number upwards(See chapter 3).

General Modem Problems

If having trouble with your modem, try the following:

Using the control panel, set the following options for the modem portion:

* 8 bit word size
* No parity
* 1 stop bit
* RTS/CTS (hardware) flow control

Then SAVE the desktop, or use the "SAVE" option of the MODEM.CPX.

Users complain of frequent "re-positioning" errors and aborted downloads when using Zmodem or Ymodem-G.

Hardware flow control is probably not working. Install a serial patch and re-boot your computer. Also, be sure your modem is set to work with hardware flow control (RTS/CTS) ONLY. No combination of software/hardware flow control should be used.

My Scripts Won't Run!

CAREFULLY check syntax! This is very important! The difference between "END IF" and "ENDIF" might not mean much to you, but to the script processor, it's the difference between a command and something completely foreign. Also pass all scripts through S_CHECK.TTP, which will correctly format your scripts for use.

Remember to use the example scripts as a guide in creating your own. The example scripts included with your copy of RATSoft will provide you with a wealth of information.

2400 baud or lower callers complain of a slow response time for control-C breaks.

You are probably using a high speed modem on your BBS. High speed modems buffer text from the computer before sending it to the remote modem, so the BBS is usually anywhere from 128 bytes to 4k ahead of the caller on-line. When the user presses ^C, RATSoft will stop immediately, however, the modem will still dump what it has buffered to the caller.

Technical Support

No piece of software is perfect. Heaven forbid you find a bug. However, if you do please report it immediately so other SysOps can be notified and corrective measures can be taken. All "bug reports" should be directly reported to the author, if possible.

Effective as of July 4th, 1993, RATSoft is Exclusively Distributed By:

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R0dent Laboratories Support BBS
(909)/989-3381 (Southern California)
24 hrs, USR Dual Standard

Approaching Oblivion
(801)/272-8370 (Salt Lake City, Utah)
24 hrs, V.32bis, V.42

APPENDIX B

Official European Support Sites:

System ST
+44 (0)533 413443
Currently 10pm-7am GMT, 9600

RATSoft also has an international support site on the General Electric Network of Information Exchange (GEnie). Just type (BBS) at any prompt.

CD-ROM Drivers

As this manual was being completed, there were currently only two CD-ROM drivers. Considering they both have major limitations, updates or new drivers will most likely appear with time. RATSoft uses only legal GEMDOS calls for all disk access, so you should have no trouble running RATSoft with any drivers, as long as they follow normal GEMDOS standards.

Considerations for the two drivers which are currently available, MetaDOS and ICD's MiNT-based driver, are listed below.

MetaDOS

MetaDOS was never officially released (or completed) by Atari. MetaDOS suffers from the inability to handle extremely large directories, which are often common on CD-ROMs.

If you choose to use MetaDOS, just follow normal installation proceedures.

ICD MiNT-based CD-ROM Driver

ICD has recently released a new CD-ROM driver for use on the ST/TT/Falcon. It utilizes MiNT. While it may accomplish what it set out to do, it does so VERY SLOWLY. Unless you are using a semi-fast to fast machine (nothing less than a 16mhz 68000), your BBS will crawl with MiNT installed. This has nothing to do with RATSoft, but the nature of MiNT.

Please note that if you do install MiNT, remember what it stands for: MiNT is NOT TOS. And that it is not. You may find some (or many) programs to be incompatible with MiNT installed, especially online games. RATSoft

has no compatibility problems itself, however. An example MINT.CNF is included here. No real modifications are needed, other than turning OFF BIOSBUF (BIOSBUF=NO), and not using fasttext or HARDSCROLL.

Yes, it is only 1 line, but in most cases, that is all you will need. The other default options are set up automatically.

If you have lines which read HARDSCROLL=xx or CON=u:\dev\fasttext, please comment them, thus turning them off. Place a "#" before the line, for example:

```
#HARDSCROLL=60
#CON=u:\dev\fasttext
```

These functions do not really affect the performance of RATSoft (RATSoft will run with these functions on), however, if BIOSBUF is not "NO", your screen output will be doing some very strange things.

Read Only Device Intercept Utility

Some archive utilities are very fond of temporary files. These are created for whatever reason the archive utility sees fit, often in situations where you would see no need for a temporary file -- but it's created anyway.

When working with a read-only device, a CD-ROM for example, you may only read from that device, and not write to it. The archive utility doesn't know this, attempts to create a temporary file, and it's bombs-away!

This little utility fits inbetween RATSoft (or any program for that matter), and simply checks to see if the archive you are accessing is located on a read-only device. If it is, it is copied to a work drive (a HD

usually), and then the archive utility is called, now accessing the archive from it's new location. A simple concept.

Installation

Run READONLY.PRG. Follow instructions. Done. Your archive utility is renamed with a leading "_", and the intercept program is named what your archive utility was. For example, STZIP.TTP becomes _STZIP.TTP, and the intercept prg is STZIP.TTP. No modificationswill be needed to your ARCHIVE.DAT,FILETOOL.DAT, or other data files.

Notes

* You may define which commands to intercept. This MUST be the first character on the command line. If you have trouble, specify "ALL".Normally, you will only need to intercept the delete, add (which is useless in the end, but will protect from crashing), update, freshen, and other such commands which involve re-arranging the archive.

* The copied file is deleted once the archive utility has been executed.

* The returned status code is that of the archive utility, and not a code generated by the intercept program.

Reference Material

Files Used by RATSoft/ST

This is a list of most of the files used by RATSoft. While you may notunderstand all their meanings at first, as you become more familiar withRATSoft, this list will come in handy when attempting to modify a datafile, change a text file, or other similar operations.

RATSoft and Utilities

***.RSC**
Resource files used by RATSoft and various utilities.

ACC.PRG
Accessory access, used by RATSOFT.PRG.

CONFIG.PRG
Configuration Editor

DATAEDIT.PRG
Data Editor

E2R_FILE.PRG
Utility which converts Express ST! file descriptions.

EXECMFRE.PRG
Program loader, use by RATSOFT.PRG.

F2R_FILE.PRG
Utility which converts FoReM/Turbo file descriptions.

PASSPRNT.PRG
SysOp utility which outputs a list of users with various attributes.

APPENDIX D

PW_UG.PRG
Utility which updates PASSWORD.DAT based on a given data file, usually called by the Upgrade Installer.

RATSOFT.PRG
Main RATSoft program

UPG_INST.PRG
Upgrade Installer, utility which automates the installation of on-line released RATSoft updates.

RATSoft Modules

BASEMARK.RAT
Mark/Un-Mark message area/file section module.

CALLBACK.RAT
Callback Verifier

CLEAN_UP.RAT
Maintenance module for cleaning up e/f-mail, attaches.

FASTOFF.RAT
Universal off-line/on-line utility module.

FILETOOL.RAT
File*Tool archive tool

FL_CLEAN.RAT
File area cleanup routines

FORMDOOR.TTP
On-line game gate-way

FS_CHAT.TTP
Full screen chat mode

FSE.TTP
Full screen editor

FZP.TTP
File transfer protocol module

HELPSYS.RAT
On-line help system

LOGFILE.RAT
Log file manager module

MASSMASK.RAT
Mass-Mask applicator

OTHERBBS.RAT
Other BBS list

S_CHECK.TTP
Script checker

SCHEDULE.RAT
Schedule editor

SCRIPT.RAT
Script processor

TEXTUTIL.RAT
Converts text files <-> database files.

TOP_DL.RAT
Top download list creator

TOPUSER.RAT
Top user list display

USERLIST.RAT
Extended user list

USRPURGE.RAT
User purge utility

APPENDIX D

VIEWARC.RAT
ARC/ZOO archive viewer

VOTE.RAT
Voting Booths

XYZ.RAT
XYZ protocol interface

Data Files/Other (*=Modifiable)

***ARCHIVE.DAT**
Archive utility definitions

BANNERS.DAT
Banners (one-liners before main prompt)

BBS_DATA.DAT
RATSoft data file

BBS_LIST.DAT
Other BBS List data file

***CALLBACK.DAT**
Callback Verifier data file

CALLERS.DAT
RATSoft caller log

CCMDSDEF.DAT
Alternative menu file definitions

CMD_FUNC.LST
List of menu functions

COLORS.DAT
Color palette data file
***COMPUTER.DAT**
List of default computer types

CONFIG.DAT
RATSoft configuration file

***DLB_PROT.DAT**
Batch download protocols

***DL_PROT.DAT**
Single-file download protocols

***FILECMDS.DAT**
Menu file - file sections

***FILETOOL.DAT**
File*Tool data file

***FREEFILE.DAT**
Defines "free" download periods

***INTRNATL.DAT**
International time/date definitions

***LOGFILE.DAT**
RATSoft log manager data file

***MACROS.DAT**
SysOp macros

***MAINCMDS.DAT**
Menu file - main menu

MASSMASK.DAT
Mass-Mask applicator data file

MESGCMDS.DAT
Menu file - message areas

MODEM_PS.RST
Modem pre-sets used by Configuration Editor

APPENDIX D

***MODULE.DAT**
Module execution functions

***M_STRING.DAT**
Wait-call F-key modem string definitions

ONELINE.DAT
One-liners

PASS_DEF.DAT
Password definition data file

PASSWORD.DAT
Password data file

***PROMPT.DAT**
Prompt definitions

***RATINGS.DAT**
Default file ratings

RATSOFT.LOG
RATSoft log file

SCHEDULE.DAT
Schedular data file

SOUND.DAT
Chat pager sound

SPECFLAG.DAT
RATSoft speciality flags

***SYSOPCMD.DAT**
Menu file - SysOp commands

***TRANLATE.DAT**
Translation definitions

***TXTCACHE.DAT**
Text cache definitions

***UL_PROT.DAT**
Upload protocol definitions

***USERLIST.DAT**
Extended user list definitions

***WAITEXEC.DAT**
Wait-call quick-execute program definitions

WS_COLOR.DAT
Color sequences for waticall screen

3rd party programs used by RATSoft

ARC.TTP
ARC v6.02 by System Enhancement Associates, Inc.

FZP.RAT
FreeZe Dried Protocols by Aaron Hopkins and Sean Price (modified for use with RATSoft).

LHA.TTP
LHA v2.01 by Roger Burrows

LHARC.TTP
LHARC v2.01x by Yoshi/Quester

STUNARC.TTP
un-ARJ by Jorge Cwik

XYZ.TTP
XYZ protocols by Alan Hamilton

ZOO.TTP
ZOO by Dhesi/Steffens

APPENDIX D

Text files (All text files are modifiable by SysOp)

TEXT\ADDBBS.TXT
Displayed before adding a BBS to the other BBS list

TEXT\BBSLIST.TXT
Menu for the other BBS list

TEXT\BDAYLATE.TXT
Displayed if the caller's birthday was in the last 30 days

TEXT\BDAYTDAY.TXT
Displayed if the caller's birthday is today

TEXT\CALLBAK0.TXT
TEXT\CALLBAK1.TXT
TEXT\CALLBAK2.TXT
TEXT\CALLBAK3.TXT
Callback Verifier text files

TEXT\CREDITS.TXT
RATSoft credits (default main menu option K)

TEXT\COLRCODE.TXT
List of color codes, shown from line editor option

\TEXT\CONDITON.TXT
Message conditions, shown from line editor option /Z, message area option Z, and message read option Z.

TEXT\DL_DB.TXT
Files database menu, shown from file databases option ?

TEXT\DOSSHELL.TXT
DOS Shell menu

TEXT\EDITFILE.TXT
File editor menu

TEXT\EDITHELP.TXT
Line editor menu

TEXT\EMAIL.TXT
E-mail entry menu, shown when user first enters e-mail

TEXT\ERROR_0.TXT
TEXT\ERROR_1.TXT
TEXT\ERROR_2.TXT
Displayed after an error and recovery

TEXT\EXPIRED.TXT
Shown when a user's account has expired

TEXT\FILEHELP.TXT
File section menu

TEXT\FILESTAT.TXT
File section status (default file section option Y)

TEXT\FILESYS.TXT
File SysOp function menu

TEXT\FLISTHLP.TXT
Full file description menu

TEXT\HANGUP.TXT
Displayed during log-on proceedures if the user had dropped carrier on their las call

TEXT\HISTWARN.TXT
Message base and file area SysOp warning file

TEXT\INFO.TXT
Information text file (default main menu option I)

TEXT\LOGOFF.TXT
Log-off screen

APPENDIX D

TEXT\LOGONBUL.TXT
Log-on bulletin screen

TEXT\LON_STAT.TXT
Log-on status screen

TEXT\MAILREAD.TXT
E-mail read menu

TEXT\MAINMENU.ANS
Main menu for ANSI users

TEXT\MAINMENU.TXT
Main menu for everyone else

TEXT\MSGHELP.TXT
message area menu

TEXT\MSGREAD.TXT
Message read menu

TEXT\NEWUSER.TXT
New user information, displayed after a user first types "NEW" to apply for an account

TEXT\NEWUSER2.TXT
New user information, displayed after the user has entered all needed information

TEXT\PRELOGON.TXT
Displayed when a caller firs connects

TEXT\SYSOPCMD.TXT
SysOp commands menu

TEXT\TEMPACNT.TXT
Displayed to callers using a guest account
TEXT\TIMES_UP.TXT
Displayed when a caller's time has expired

TEXT\TOPUSER.TXT
Top user list menu

TEXT\UL_VAL.TXT
Uploads Validator menu

TEXT\USEREDIT.TXT
User editor menu

TEXT\USERSTAT.TXT
User status (default main menu option Y)

TEXT\VARCODE.TXT
Variable codes list, line editor option /V

TEXT\WAITHELP.TXT
Wait call help screen

TEXT\WELCOME.TXT
Welcome screen (default set-up)

TEXT\GAMES.SCP
Example script file for on-line games

TEXT\LOGON.TXT
DISPLAYED AFTER LOGON FUNCTIONS

TEXT\BOOT_X.TXT
QUICK-BOOT LOGOFF TEXT
(1-8)

APPENDIX D

Variable Tags

Variable tags may be used anywhere RATSoft outputs text, which includes text files, prompts, menus, etc. A complete list of tags:

Description

0 No use, sends an ampersand (&)
1 Date
2 Time
3 Reported Modem Connect String
4 Caller's Bps Rate
5 Caller's Alias/Name
6 Caller's Time Allowed for Today
7 Time Remaining
8 Last Caller to the System
9 System ID (Name)
10 SysOp ID (Name)
11 System Phone Number
12 Current Conference Caller is Located In
13 Account Note
14 Real Name
15 Last Call Date
16 Last Call Time
17 First Call Date
18 Computer Type
19 Number of Downloads
20 Number of Uploads
21 Downloads in Kilobytes
22 Uploads in Kilobytes
23 Kilobytes downloaded from Files Databases
24 Kilobytes uploaded to Files Databases
25 Messages Posted
26 Ratio Status for... Uploads:Downloads
27 U/L-k:D/L-k
28 Posts:Calls
29 Files Database U/L-k:D/L-k
30 Translation Name
31 Upload to Download Ratio

32 Upload to Download Kilobyte Ratio
33 Post to Call Ratio
34 File Database Upload to Download Kilobyte Ratio
35 Function: Waits for Character
36 Street Address
37 Account Note, in Quotes (only if present)
38 Current Message Base Title
39 Current Message Base Sponsor
40 Current File Area Title
41 Current File Area Sponsor
42 Over-all Access Level
43 File Section Access Level
44 Database Access Level
45 City and State
46 Zip Code
47 Voice Telephone Number
48 Data Telephone Number
49 User's Calls to BBS
50 Color Codes, varies with translation (see TRANLATE.DAT), Start
79 Color Codes, End
80 Total Calls to System
81 System Calls Today
82 Definable Tag (same as {100})
83 System Downloads Today
84 System Uploads Today
85 System Files Database Downloads Today
86 System Files Database Uploads Today
87 System Messages Posted Today
88 RATSoft Version ID (i.e.: 1.61)
89 RATSoft Version Date Stamp
90 Clear Screen
91 Number of New Messages in all Conferences
94 Expiration Date
95 Current Day of the Week
96 Number of New Messages in current Conference only
97 Sends a vertical bar (|)
98 Number of New Files, Current Conference
99 Inserts Space for all VT52/ANSI translations

APPENDIX D

100 Definable Tags, Start
120 Definable Tags, End
121 Number of Days since Last Call
122 Total Time on System
123 Time Charged (this call only)
124 Command Log
125 Country
126 Birthdate
127 Next yes/no routine defaults to "yes"
128 Next yes/no routine defaults to "no"
129 Sets marker
130 Jumps to marker, set by 129, on current line
131 Numerical expression for zero is "No"
132 Numerical expression for zero is "None"
133 Numerical expression for zero is "0"
134 Function, calls "Press any Key to Continue..." routine
135 Account Number
136 Maximum Posts/Day
137 Maximum Downloads/Day
138 Maximum DB Downloads/Day
139 Maximum DB Uploads/Day
140 Maximum Attaches/Day
141 Maximum ARC Utils/Day
142 Maximum Calls/Day
143 Downloads Today
144 Uploads Today
145 Calls Today
146 Posts Today
147 ARC Utils. Today
148 DB Downloads Today
149 DB Uploads Today
150 File Attaches Today
151 Maximum Banners
152 Total Number of Banners Added
153 Terminal Width
154 Connection Time for Current Call
155 Age
156 Caller ID Phone Number String
157 Caller ID Name Identification String

158 Number of New Files, all Conferences
159 ID Number of Last Mask Applied to Account
160 Name of Last Mask Applied to Account
200 Sends CR/LF

Not all tags are available everywhere. For example, do not use the tags for message bases outside of a message base, or file section tags outside of a file section.

RATSoft/ST™

The Ultimate BBS Software

Index

A

Accessories 4.3, 4.6
Account Flag 9.2
Additional Modules 13.1
Alternate File Devices 3.12
Alternate Upload Devices 3.12, 6.2
Anonymous Messages 5.3
Ansi 3.13
Answer Phone 3.11
Arc Utility Options 8.10
Archive File Description 7.2
Archive Shell 7.5
Auto Messages 3.8
Auto Off-Line Flag 4.8
Auto-Starting Ratsoft 4.2
Autoexec.Bat 4.2, 12.4

B

B... 11.3
Banners 3.11, 8.4, 9.8
Batch Downloading 8.11
Batch Files 12.4
Bbs Ads 7.1, 7.3
Bbs Info 3.2
Bbs Name 3.2
Bbs_Data.Dat 8.18, 8.21
Bbs_Shell 11.24
Bget$ 11.2
Bidirectional 8.23
Bit Masking 9.1, 9.3, 9.4
Boot User 4.6
Boot-Up Files 4.1, 4.2
Bput$ 11.3
Byte 11.3

C

Call-Back Verifier 3.10, 8.18

INDEX

Callback.Dat 8.18
Callback.Rat 8.18
Caller Log 8.2
Cancel Search 6.8
Case Format 3.5
Ccmdsdef.Dat 8.2, 8.16
Cd-Rom Drivers C.1
Center 11.4
Change Byte Value 9.2
Char 11.5
Chat Hours 3.12
Chat Mode 4.4, 4.6, 4.7
Chdir 11.4, 21.1
Check_Path 11.5
Checkad 7.4
Chr$ 11.5
Clear Screen Code 8.16
Close 11.6
Cm 11.10
Cmd_Func.Lst 8.14
Cntr$ 11.6
Color Palette Changes 3.5
Color.Cpx 3.15
Colors 3.13
Command Key 8.22
Command Line 3.8, 8.21, 8.23
Conditions 10.13
Conf 11.6
Conference 3.13, 8.7
Conference Flags 9.4
Config$ 11.7
Config.Dat 3.1
Config.Prg 3.1
Configuration 3.1
Configuration String 3.6
Connect Command Line 4.2
Convert Archive Types 7.1, 7.2
Copy 12.1
Copyrights 1.1
Corrupted File Area 6.10

Cur_Dir$ 11.7
Current File Area 8.10

D

Data Editor 8.1
Data Files 8.1
Database Level 8.9
Database U/Ls Max 9.8
Databases 3.7, 10.6
Dataedit.Prg 8.1
Default Upload Folder 6.1
Del 12.2
Delete 12.2
Delete User 9.1, 9.5
Deletes File From Archive 7.2
Deltree 12.2
Denied Files 9.2, 9.6
Deny Free D/Ls 9.6
Determine Gif 6.7
Determine Mod 6.7
Dfree 11.8
Dialing String 8.19
Dim 11.8
Dir 12.2
Disk Copy 6.7
Disk Speed 2.7
Dl_Prot.Dat 8.22
Dlb_Prot.Dat 8.22
Do 11.8
Dorinfo1.Def 13.4
Dos 11.9
Dos Shell 8.4
Download File 8.2
Downloads Max 9.8
Drive Intercept Utility C.2
Dsc Filename Prefix 3.12
Dta# 11.2

INDEX

E

E-Mail 3.10, 8.4, 9.6, 9.8
Echo 12.2
Edit News File 8.5
Edit Text File 8.4
Edit User Credits 9.2
Env 11.10
Eof 11.9
Erase 12.2
Example Scripts 11.29
Execute Batch Files 4.5
Execute Program 4.5, 8.5
Exist 11.11
Exit 4.5, 11.11,
Exit If 11.11
Expired Accounts Mask 3.11

F

F-Mail Delete 3.10
Fastoff 13.6
Fatspeed 2.7
Feedback 3.12
Feedback To Sysop 8.5
File Area 8.10
File Area Default Folder 6.2
File Area Description 6.2
File Area Fixer 6.10
File Area Minimum Level 6.2
File Area Name 6.2
File Area Sponsor 6.2
File Area Uploads 6.9
File Attaches 5.1, 6.8
File Copy 6.7
File Free Status 6.7
File Jump 6.8
File Locate 6.7
File Mail 3.7
File Move 6.7

File Section 3.8, 6.1, 8.5, 8.9, 8.10, 8.12
File Set Search 6.8
File Tool 7.1
File Un-Delete 6.7
File Update 6.7
File Validation 6.9
File_Id.Diz 7.2
File_Id.Diz 7.4
File_Id.Dsc 7.4
Filearea.Bak 3.4
Filearea.Dat 8.7
Filecmds.Dat 8.1, 8.2
Filedata.Dat 8.21
Filelist Filename Prefix 3.12
Files Added By Sysop 7.3
Files Adding 6.3
Files Database 6.5, 6.9, 10.11
Filestat.Txt 8.3
Filetool Command Line 7.5
Filetool Functions 7.5
Filetool Menu 6.8
Filetool.Dat 7.1
Filetool.Dat 8.26
Foldrxxx.Prg 2.7
Forem.Dat 13.4
Formdoor.Rat 13.4
Fprint 11.12
Free Space Statistics 4.4
Free_Mem 4.6
Front End 4.2
Fsfirst 11.12
Fsnext 11.12
Full Window 8.23
Function 11.13

G

Games.Scp 13.4
Gem File Selector 4.7
General Data Functions 8.4

INDEX

General System Enhancement 2.7
Gl_Mask$ 11.13
Goto 11.14
Goto 12.2
Guest Account 9.5

H

Hang Up On User 4.7, 11.15
Hard Disk Optimizer 2.8
Help Files 3.8
Help System 2.3, 3.1, 4.7
High Speed Modems 2.6

I

Idle Time-Out 3.9
Idle Time-Out Local 3.9
If/Endif 11.15
Illegal String Names 11.2
Immediate Upload Credit 6.10
Infoforms 3.7, 9.1, 10.5
Input Box 8.16, 8.17
Input$ 11.16
Install.Prg 2.2
Installation 2.1
Installation To Hard Disk 2.2
Instant Upload Credit 9.6
Instr 11.16

K

Key 11.17
Key File 1.3
Key$ 11.17
Kill 12.2
Kill File 6.6
Kill File Upload 6.10

L

Launch Program 3.8
Legal Notices 1.1
Len 11.17
Loc 11.17
Local Area Codes 8.19
Local Log-Ons 3.3
Local Mode Only 8.21
Lof 11.17
Log 11.18
Log Nightly Device Stats 3.3
Log-On Bulletins Min Level 3.10, 10.11
Log-On Locally 4.4
Log-On Timers 3.8
Logfile.Rat 13.6
Logmsg 11.18
Logof.Bat 12.4
Logon.Bat 12.4
Logs Off User 8.7
Long() 11.18
Lprint 11.18
Lset$ 11.19

M

M_String.Dat 4.6
Macro 8.6, 8.24
Macros.Dat 8.24
Maincmds.Dat 8.1, 8.2, 8.16
Making A Backup 2.2
Manual Accuracy 1.2
Mark 12.2
Mask Show 9.2
Mask Write 9.2
Masks 3.10, 9.9
Mass Mask Application 9.11
Max Calls/Day 9.8
Max Conffiles/Day 9.8

INDEX

Max Posts/Day 9.8
Memory Base 3.11
Memory Buffers 3.5
Menu Database 10.8
Mesage.Dat 8.21
Mesgcmds.Dat 8.1, 8.2, 8.16
Message Area 8.6
Message Area Functions 8.9
Message Base Additional 5.3
Message Base Description 5.2
Message Base Editing 5.4
Message Base Entry Level 5.2
Message Base Extended 5.4
Message Base Message Max 5.2
Message Base Module 5.3
Message Base Name 5.2
Message Base Pathname 5.2
Message Base Sponsor 5.2
Message Bases 5.1
Message Bases Creating 5.1
Message Editor Max Lines 3.11
Message Environment 8.22
Message Module 5.1
Message Scan 8.8
Message.Bak 3.4
Message.Dat 8.7
Mid$ 11.19
Modem 3.6
Modem Configuration 3.6
Modem Considerations 2.4
Modem Initialization 4.2
Modem Problems A.2
Modem Re-Initialize 3.1
Modem String Send 4.5
Modem Technical Support 2.5
Modem.Cpx 2.4, 2.6
Module Execution Parameters 8.2
Module.Dat 8.20
Msg_Save 11.19
Multi-Tos 2.1

N

New File 6.8
New User Feedback 3.2
New User Notices 3.12
New User Search 9.10
New Users 3.10
News Files 4.9, 8.6
Next File 6.6
Numeric Variables 11.1

O

Off-Hook 3.3
Off-Hook During Logoff Mnt .3.4
Off-Line 6.6
Official Bbs Title 3.2
Older Databases 10.12
On-Line Games 13.3
Open() 11.20
Orphaned File Finder 6.11
Out 11.21
Overall User Level 9.7

P

Page Sysop 8.8
Pagebreak 11.21
Passprnt.Prg 9.11
Password 8.7, 8.9
Password.Dat 8.1, 8.7, 9.2, 9.3, 13.7
Pause 11.21, 12.3
Phone Format 8.19
Previous File 6.6
Print 11.22
Prn# 11.2
Profile Editing 8.7, 9.2, 9.4
Prompt$ 11.22
Prompt.Dart 8.16
Protocol Name 8.22

INDEX

Q

Quick Execute Program 4.4
Quick Ring Detection 3.5
Quick-Access Utilities 3.8
Quit 4.4, 8.6

R

Random 11.22
Rat Dos 4.6, 12.1
Rating.Dat 8.17
Ratsoft.Key 1.4
Ratsoft.Log 8.8
Ratsoft.Prg 4.1
Re-Boot Cpu Each Night 3.3
Re-Boot On Fatal Error 3.4
Re-Initialize Ratsosft 8.6
Read$ 11.22
Read_Me.Txt 1.3
Real Name Messages 5.3
Real Name Search 9.6
Real Name System 3.4
Recv 12.3
Registration 1.3
Relseek 11.23
Remove Window While Local 3.4
Rename 12.3
Repeat..Until 11.23
Reserved Variables 11.2
Reset 4.7
Reset User Time 9.2
Restrictive Function 8.7
Rinstr 11.16
Rmdir 12.3
Rset$ 11.19

S

Schedular 13.1
Schedular Force 4.4
Schedular Priority 13.2
Screen Saver 3.13
Script Errors 11.28
Script Formatting 11.28
Scripting Rules 11.1
Scripts 10.13
Section News 3.8
Seek 11.23
Send 12.3
Serial Number 3.2
Serial Port Patches 2.6
Set Account Flags 9.5
Set User Number 9.3
Settings 3.9
Shedular Execution 8.7
Shell 11.24
Space$ 11.24
Spec_Flag() 11.25
Specialty Flags 9.4
Sponsor Capabilities 6.2
Status Window Toggle 4.7
String Arrays 11.1
String Variables 11.1
String.Dat 4.5
Support 1.3
Support Fee 1.4
Sysop Alias 3.2
Sysop Commands 4.4, 4.8
Sysop Function 8.9
Sysop Mode 4.8
Sysop Name 3.2
Sysop Next Toggle 4.8
Sysop System Password 3.2
Sysop Temporary Access 4.8
Sysopcmd.Dat 8.1, 8.2, 8.16
System Back-Ups 13.2

INDEX

System Date 8.7, 13.5
System Log 3.5
System News File Add 8.4
System News Minimum Level 3.10
System Paths 3.7
System Requirements 2.1
System Time 8.7

T

Technical Support 1.4, B.1
Telephone Number 3.2
Temporary Sysop 8.21
Text Caching 8.24
Text Editor 2.8
Text Files 3.7, 10.1, 10.5
Throw Carrier 4.5
Time Checking 8.19
Timer# 11.2
Timers 3.8
Toggles 3.2
Tranlate.Dat 8.2, 8.8, 8.17, 10.1
Transfer.Dat 8.23
Translation 8.15
Txtcache.Dat 8.24
Type 12.3
Type 1 Database 10.7
Type 2 Database 10.8
Type 3 Database 10.11

U

Ul_Prot.Dat 8.22
Un-Compressed Files 7.2
Un-Hide Masked Charachters 3.3
Undelete Users 9.10
Updates 1.3
Updates.Txt 1.3
Uploads.Dat 6.10, 7.2
Upper$ 11.25

Usage Data 9.2
Use Printer Bells 3.3
User Credit 6.9, 6.10
User Database Level 9.7
User Edit By Alias/Real Name 9.10
User Editor 4.8, 8.8, 9.1
User File Level 9.7
User Information 8.21
User Log Off 8.4
User Purge 13.7
User Uploads 6.8
Userbyte 11.25
Userlist.Rat 8.8, 9.9
Userlong 11.25
Users Time Limit 4.8
Userstat 9.2
Userword 11.25
Usrpurge.Rat 13.7

V

Variable Tags 10.1
Verbose File 6.6
Visitor Status 9.1, 9.5
Visitors 3.10
Voting Booths 13.3
Voting Booths Minimum Level 3.10

W

Waitcall Screen 4.3
Waitcnct.Bat 12.4
Waitexec.Dat 4.5, 4.6
Waitring.Bat 12.4
Wanted Flag 9.1
Welcome Screen 8.16
Welcome To Ratsoft 1.2
Wildcarding 6.4
Win_Off 11.26
Win_On 11.26

INDEX

Window Size Change 4.7
Word() 11.26
Work 3.7
Write 11.26
Ww_Input 11.27

Y

Yesno 11.27