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FBBS v0.9

Preliminary Manual
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The manual and software that are included in the FBBS v0.9 package were written in their entirety by Fernando Borcel. Even though I have revised this manual and the software, **I MAKE NO WARRANTY OR REPRESENTATION, EITHER EXPRESS OR IMPLIED, WITH RESPECT TO THE MANUAL AND SOFTWARE, THEIR QUALITY, ACCURACY, MERCHANTABILITY, OR FITNESS FOR A PARTICULAR PURPOSE. AS A RESULT, THIS PACKAGE IS SOLD "AS IS," AND YOU, THE USER, ARE ASSUMING THE ENTIRE RISK AS TO ITS QUALITY AND ACCURACY.**

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INTRODUCTION

A little history...

FBBS is a project that started about 2 years ago, in 1988. I discovered the hard way that going to college and writing a major program were not compatible, so I dropped the project for about a year. I began serious layout and programming around March of 1989. Version 1.0 is expected to be complete by the end of February of 1990.

I've had a test version of FBBS running for the last 4 months or so here in Corvallis, OR, and thanks to the help I received from many of my users, FBBS is so far a success.

More FBBS

We're only one step away from reaching version 1.0! The main differences between this version and 1.0 will be

- Support for external applications (i.e. doors) for FBBS, Second Sight (RRH), Mansion, and WWIV.
- More built-in transfer protocols
- Support for external transfer protocols (i.e. file doors)
- Completion of the Macintosh interface (windows will scroll, cut, copy, and paste, etc.).
- And I might surprise you with something else...

SHAREWARE NOTICE

This program is NOT public domain. If you like it and find it useful, please send \$50 to the following address:

Fernando Borcel
c/o FBBS
P.O. Box 3004-110
Corvallis, OR 97339

Please make checks payable to Fernando Borcel.

Registration Privileges

What do you get for your \$50, besides moral gratification and the program itself? The **key** to this program. FBBS has a key code which prevents you from using certain features unless you have the necessary key which unlocks it.

The locked program will cause:

- Limited Message Boards
- Limited messages per board
- Limited File Bases
- Limited files per base
- Limited megabytes per base
- No External Applications
- No Tabby (i.e. FidoNet Echoes)
- And an message at the end of each session saying <your name> hasn't paid the fee for FBBS yet!

You will hopefully find these limitations encouraging enough so you send me the money as soon as possible, and not overly annoying. It's the "nicest" way I could come up with in order to make sure most people would be willing to pay. No pressure. Just send the money in **tomorrow** or I'll send my Suicide Brigades after you!

Paying the fee will give you some privileges (other than crossing out the "Limited's" and "No's" in the list above:

- Newer versions of FBBS (all the way up to version 1.9) will be compatible with your "key." This means that your upgrades up to version v1.9 will be free.

- You will only have to pay a fraction of the registration fee for v2.0 when it comes out, which will have many improvements and additions, such as multi-user with multi conference capabilities.

You're to give this program away in it's original package ONLY!

MANUAL ORGANIZATION

This is a fairly informal manual. It's organized as follows:

[This space intentionally left blank]

SETTING UP FBBS

The first time you run FBBS, most files will be automatically created for you, and placed into a folder called “FBBS Files”, which will also be created by FBBS. The “UserFile”, one of the most important files of a BBS, will also be created for you and will be empty until you log on for the first time.

Some files are automatically created for you, other files, however, require you to specifically create them, as is the case with the menu files FBBS reads from the disk each time a menu is shown to the user. All these files must be placed in “FBBS Files”, the folder FBBS looks into when it needs most of its files.

You will surely want to create message boards and file directories. FBBS will automatically create folders in which a file section is based when you create the file section. All files downloaded to that area will be placed into its corresponding folder. Likewise, all files within a file section folder are downloadable, whether or not their name appears in the file list. A file list is just a text file. There is one file list per file directory. The file is called “.filelist”, and it can be modified by you in any way you want. FBBS will use a standard format for files that are added, in the form

File Name	Size	Description
-----------	------	-------------

Again, FBBS does **not** look up names in this file, but in the folder itself. This file is only used so that the caller knows which files are available in the directory.

If you change the name of a folder in which a message board or a file section folder is contained, you will also have to change the “path” on the Message Board/File Area Editors, or FBBS will not be able to find them. This will not cause FBBS to crash, but you’ll get “File Not Found” messages more often than not.

FILES FBBS NEEDS

FBBS uses some *reference* (or lookup files), in which information about such things as users, message boards, and file sections (n/a) are stored. These files are created by FBBS the first

time it runs. All these files are empty, and you add new records to them by following the procedures explained below. Currently there are three reference files: **UserFile**, in which all the users' records are kept; **MesgBoards**, in which all the message boards' descriptions and attributes are stored, and **FileSections**, which contains attributes of each file section **Menu Display** (Text File Menus)

FBBS uses Text files as menus. These can be modified in anyway you want. Default files are provided, but you're encouraged to create your own menus, to stand out from the rest.

In addition you can use VT100 ANSI commands, which are represented with some special symbols. ANSI codes used by FBBS, and how you can put some life into your menus is explained in one of the appendices.

All the menu files reside in the folder named "FBBS Files". The menus currently used are "Main Menu", "Mesg Menu", "File Menu", "Boards Menu", "FSections Menu", and "Ext. Appl. Menu". You should maintain consistency between the command keys in the text menu and the menu configuration, for example, if "G" means "Goodbye" (logoff) in the main menu, then "G" in the messages menu should also mean "Goodbye". How to configure your menus is explained below.

In the "Main Menu" file:

M)essage Boards

In this case the "M" stands out, and is the "Key" that takes the user to the message board section. We will see how to configure menu keys later in this manual, under the Setup menu description. In the case of the "Boards Menu" file, an item could look something like this:

G) General Section

or...

HSX) Human Sexuality

In this case too, "G" and "HSX" represent the "keys" to those boards. If you change the keys in the configuration, make sure you amend the appropriate menus too, or you will have very confused users.

Main Menu

This menu is FBBS's waiting lobby. From here a user can go to the Message Bases, File Bases, to the Miscellaneous Files section, use several of the board's utilities, et cetera.

Mesg Menu

This menu controls all the mailing functions such as read, write, delete, and answer messages, et cetera.

File Menu

This menu controls all the file transfer functions such as upload and download a file, et cetera.

Boards Menu

It contains a list of message boards that are available to the users, and the "keys" that take the users to said boards. (e.g. "<G> General" could be a line in this file.)

FSections Menu:

It contains a list of file sections that are available to the users, and the "keys" that take the users to said sections. (e.g. "<IBM>" to access the IBM files section.)

Ext. Appl. Menu

(n/a)

coSysOp Menu

FBBS will display this menu when the SysOp or the coSysOp select "*" from the Message menu. The keys in the coSysOp menu are fixed.

Closed System

This file will only be used if you left the Open System box in the New Users Defaults dialog unchecked. In that case, only users that already exist in the UserFile can use the system, and no new users will be accepted. FBBS will show this file to the user, which will usually contain information on how to contact you in order to gain access to the BBS, or it may just say "Sorry, but this system is closed to new users." After the file is displayed, FBBS will hang up the modem and wait for the next caller.

Trashcan and Trashcan Message

The **Trashcan** file contains a list of user names, real names, and phone numbers, that are unwelcome to your BBS. Just write the names of those people you don't want in your BBS in a line. You can enter comment lines (e.g. to remind yourself who the user is, or whose phone number it is) by making the very first character in a line a pound sign (#). For example:

```
# This is a comment line
# I hate John Smith! (His number is 123-4567
John Smith
123-4567

# I also hate Joe Robinson (can't remember his number)
Joe Robinson
```

And that's all you need. Comments are absolutely optional. When FBBS sees a **new user** whose name is, for instance, John Smith, or whose phone number is 123-4567, the file **Trashcan Message** will be shown, and FBBS will hang up and delete his user record.

Binary List

The "Binary List" is located in the "FBBS Files" folder. It contains a list of file types that should be transmitted as Binary files, rather than as MacBinary files. Macintosh file types are a string of 4 characters. The Binary List files contain such types, one in each line. For example, FBBS creates files of type "IMAG" (**without the quotes!!**) when it's a MacBinary file. So "IMAG" (and case **does** matter) should be included in that file. ZTerm creates binary files of type zBIN. These are generally files created on other computers.

Files of type "arc*" are PC-ARC archives, files of type "GIFf" are GIFF pictures, and so forth. You needn't worry about this if you're unfamiliar with Macintosh file types.

Help Files

Help files are also located in the "FBBS Files" folder. There are three on-line help files provided: Main Help, Mesg Help, and File Help. When a user requests help at any of those three menus, the appropriate file will be displayed. You can make any modifications to these files if you find it necessary. The commands are explained with their default settings and names (such as they are in the menus provided).

NOTE: Feel free to make any modifications at all to the menus' configuration (as explained below) and appearance. Keep in mind that FBBS uses these files for **display** only, and does not check for correctness or consistency.

WORKING WITH TABBY

SETTING UP FBBS TO WORK WITH TABBY

FBBS has been designed to support **Michael Connick's TabbyNet**. *TabbyNet* is a commercial program written to allow Macintosh based bulletin boards to communicate with the FidoNet community.

There are two requirements for you to be able to run TabbyNet with this program:

- You must have **registered** your copy of FBBS.
- You must have TabbyNet **version 2.0 or newer** in the same folder as FBBS.

Read the TabbyNet manual very carefully, and configure Tabby as the TabbyNet manual tells you. You must put all the Tabby related programs in the same folder as FBBS for the whole thing to work, or you'll get lots of complaints from the Macintosh System trying to launch a "missing or damaged" application.

When FBBS is launched, it will look for the presence of one special file Tabby creates to tell a BBS when the next event is. This file is called "Next Event". It tells FBBS when an event is supposed to begin and to end. FBBS will read this file, and post an event to be "triggered" at the specified time, in which TabbyNet will be launched.

IMPORT/EXPORT FEATURES

FBBS doesn't need any Import/Export utilities to transfer from Tabby Generic files to FBBS message boards. FBBS will automatically look for the "Generic Import" file created by Tabby, and transfer the messages to the corresponding boards. FBBS will also export messages to the "Generic Export" file, the file Tabby reads containing mail to deliver to other systems, when a message is written in a board set as "Echo" board.

HANDLING CRASHMAIL

FBBS is also capable of handling *Crashmail*. Briefly, crashmail is a way by which many FidoNet nodes call (*crash into*) each other to exchange crashmail. When FBBS detects a modem connection (and of

course, when Tabby is present), it will tell the remote caller to hit the <ESC> (escape) key or to wait for 10 seconds. If the time expires or the user hit the <ESC> key, then FBBS will start a normal logon procedure. On the other hand, FidoNet mailers send a special character called **TSYNCH** to announce themselves as non-human callers. FBBS will recognize this character if it's sent during those ten seconds or instead of the name, and launch TabbyNet so that it can handle the mail event. TabbyNet will handle the call, and when it's done it will launch FBBS again. FBBS will take the new messages picked up by Tabby from the remote system and deliver them into the appropriate message bases.

Sending NETmail

When you designate message board as ECHO, and give it a category number of 0 (zero), it will become a NETmail area. (See below on how to create/edit message boards). To send NETmail to an user on another system, you'll enter your message as you would when you leave a normal message, except that you'll need to add the user's node number in the "**To**" field. If you're sending NETmail for Fernando Borcel, at node 152/208, you'll need to write the following when prompted:

To: Fernando Borcel @ 152/208

That's it! Then you just go on to enter the subject and the message itself, as in a normal message. Note that FBBS will not check for the correctness or existence of the address. It will place whatever is after the @ in the destination node field that Tabby expects.

MENU REFERENCE

FILE MENU

Export Message

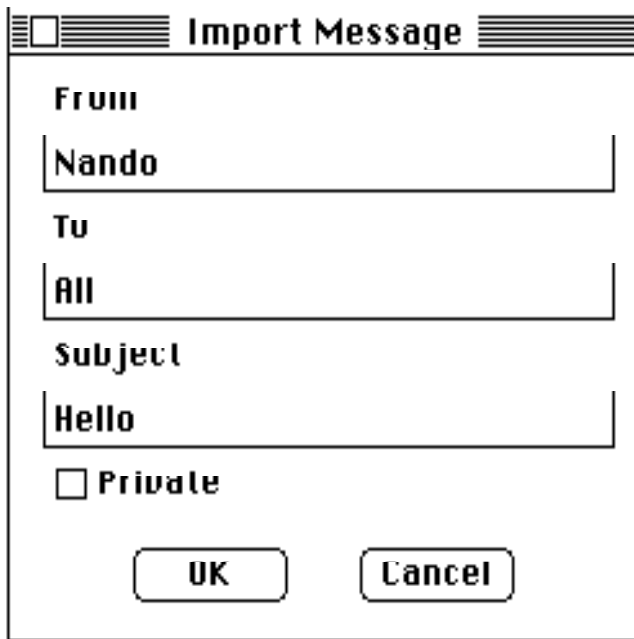
This command allows the SysOp to place the current message (i.e. the message last read in the current message board) in a TEXT file. You will be asked to select where to place the text file (and what to call it) with a standard file dialog. The default title of the file will be the subject of the message you're trying to export. The saved message will contain a header, which will be a reminder for you to know where the message came from. The header looks like:

```
* Posted On General
* Date: 23:15 - Mon, Jan 29,1990
* From: John Smith
* To: Fernando Borcel
* Subject: Hello
```

followed by the message body.

Import Message

This command will lets the SysOp choose a TEXT file to be saved in the current message board. When you select it from the menu you will be asked to select a text file, and then a dialog which will allow you to set the message's header will be shown to you:



The screenshot shows a window titled "Import Message". It has a standard Mac OS-style title bar with a close button (a small square with a diagonal line) on the left. The window contains three text input fields. The first is labeled "From" and contains the text "Nando". The second is labeled "To" and contains the text "All". The third is labeled "Subject" and contains the text "Hello". Below these fields is a checkbox labeled "Private" which is currently unchecked. At the bottom of the window are two buttons: "OK" and "Cancel".

The “From” box always defaults to the SysOp’s name, but you can set it to be anything you want. The “To” box always defaults to the “All String” (as set by you in the Miscellaneous Strings dialog), but again, you can address it to somebody specific. Don’t forget to add the node address of the recipient if you’re sending NETmail, or Tabby will return it to you as “Undeliverable mail.” The “Private” checkbox determines whether the message is public or private, and it will be enabled or disabled according to the settings of the destination board (e.g. you cannot post a private message in an echo board, so in that situation it will be disabled.) The “Subject” defaults to the name of the file you’re trying to import.

This command, used in conjunction with *export message* allows you to move messages from one board onto another, adding a header to show the origin of the message, as shown above.

Copy Path

Copying the full path of a file in the clipboard for later pasting is a quick shortcut for setting up the Miscellaneous Files section, which will be explained in full detail below. All you do is select any file from the standard file dialog, and its path gets automatically copied into the Text Edit Clipboards.

Quit

Back to the Finder!!!

EDIT MENU

This early version of FBBS does NOT support any of the standard Macintosh editing features, such as cut and paste, on the BBS Monitor window. However you can use this menu with any of the dialog boxes, and with most Desk Accessories.

ONLINE MENU

SysOp Available

You can toggle it by selecting it again and again. Basically, what this does is allow the user to ring you when he's calling for chat. If you ARE available, FBBS will beep a few times (only LOCALLY) and if you don't come to answer the call it will show the user a message saying that you're not around. If you had disabled the SysOp Available item (i.e. without the check mark), then the same message will be displayed, but the Mac will not beep. A record will be made in the Log file saying that the user tried to reach you, and for as long as the user remains on-line, the "Online" menu will be hilited.

FBBS will remember the status of the SysOp Available flag when you quit from the program. So next time FBBS is launched the SysOp available condition will be the same as before.

Local Mode

You can log on to your own board with the Local Mode command. Basically everything is the same as calling off a phone. You're asked for a name and a password, which can be your own or somebody else's (that's up to you who you want to log on as.)

You will usually want the the modem to be off the hook when you go into local mode, so people trying to call will get a busy signal, instead of a No Carrier message. The default modem command when entering local mode is "ATH1", but you can change this by changing the settings in the modem strings (which is explained below).

Monitor

Even though FBBS does all it can in order for text to go as smooth and fast as possible, under certain situations text display can be slowed down enough to bother the remote caller. If you're running FBBS under MultiFinder in the Background, you may want to consider hiding the "Monitor" window. When you place FBBS back as a foreground task, just select Monitor from the Online Menu, and the monitor window will be displayed again. FBBS will remember if the monitor was showing or not from the last time you ran FBBS. So if you had the monitor hidden and quit from FBBS, next time you launch the program the monitor will still be hidden.

Hang Up

This item will allow you to hang up on a user at any time. You can hang up on someone in 3 different fashions: 1. *Out Of Time* will set the user's time left to 0. This will not work if in chat mode or while transferring, since FBBS doesn't check for time left during those periods. 2. *No Message* will just hang up the modem. No message or warning of any type will be given. And 3. *Noise* will send 10 seconds of random noise before it hangs up. (Credits to Michael Folkes for this one!).

USERS MENU

New Users Defaults

Some SysOps give a lot of access to their users right from the start. Some give them only 10 minutes, and access to one or two message boards until they can verify these new users. You can set all the parameters for any new user from the New User Defaults dialog box.

New User Defaults			
Mesg. Clearance	<input type="text" value="A"/>		
Files Clearance	<input type="text" value="A"/>		
Calls Per Day	<input type="text" value="2"/>	DL/UL Ratio	<input type="text" value="10"/>
Minutes Per Call	<input type="text" value="30"/>	Use Ratio After	<input type="text" value="200"/> Kb
<input type="checkbox"/> No Read	<input type="checkbox"/> No Uploads	<input checked="" type="checkbox"/> Open System	
<input type="checkbox"/> No Write	<input type="checkbox"/> No Downloads	<input checked="" type="checkbox"/> Questionnaire	
<input type="checkbox"/> No Private			
<input type="checkbox"/> No Alias			
<input type="button" value="OK"/>		<input type="button" value="Cancel"/>	

Mesg. Clearance is a **set** of letters (i.e. you can have more than one letter in this field), from A to Z, that will be given to a new user by default. In this case, a new user will have a clearance of "A", which means s/he will be able to access any message board with Clearance "A".

Files Clearance is similar to Mesg Clearance, but it sets the default access of new users to file sections, instead of Message Boards.

Calls per Day is the number of calls the user will be allowed to place in the system in a given day, and Time On Per Call is the time limit for each of those calls. It is recommended that you set the value of "Time On Per Call" to at least 5 minutes, to give the new user enough time to sign on and leave you a message asking for verification.

DL/UL Ratio sets the default ratio which an user must keep in order to be able to do any downloads. A Download/Upload ratio of 10 means that a user must upload 1 Kb for every 10 he or she downloads. To disable DL/UL Ratio just set it to zero.

Use Ratio After is a global setting. It tells FBBS when to enforce DL/UL ratio. A User Ratio After 200 Kb settings means that

any the user will be able to download 200Kb before FBBS check for DL/UL ratio. A User Ratio After 0 Kb will not allow the user to download anything until he or she uploads something.

Open System, when checked, allows anybody calling and signing up as a new user. Not being checked makes your system a "Closed System", which means that you yourself have to create each and every user before they are allowed to use the system. So you must provide them with a "user name" and a "password", and use the "Edit Users" function to create an entry in the UserFile.

Questionnaire, when checked, will ask the user a set of basic questions. The text of the questions can be modified to a certain extent, but FBBS has no custom questionnaire capabilities as of now. To modify the text in these questions, please read the section on "Custom Strings".

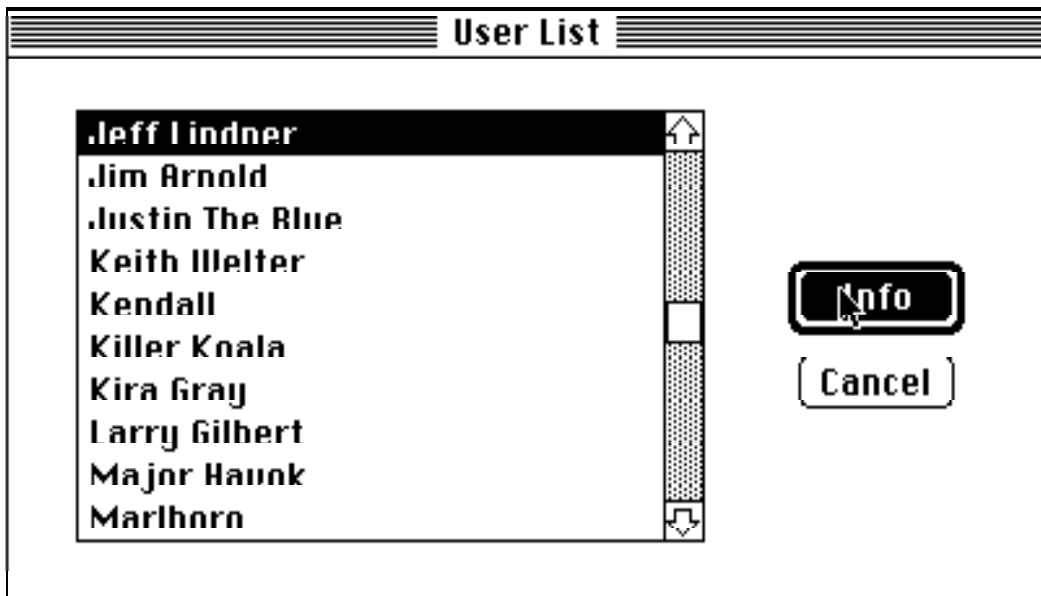
The other boxes just set what the user can and cannot do when using the system. All these settings will be recorded in the user's record, and will not be changed until you do it personally, by giving him more access to areas, more time, or whatever.

Edit Users

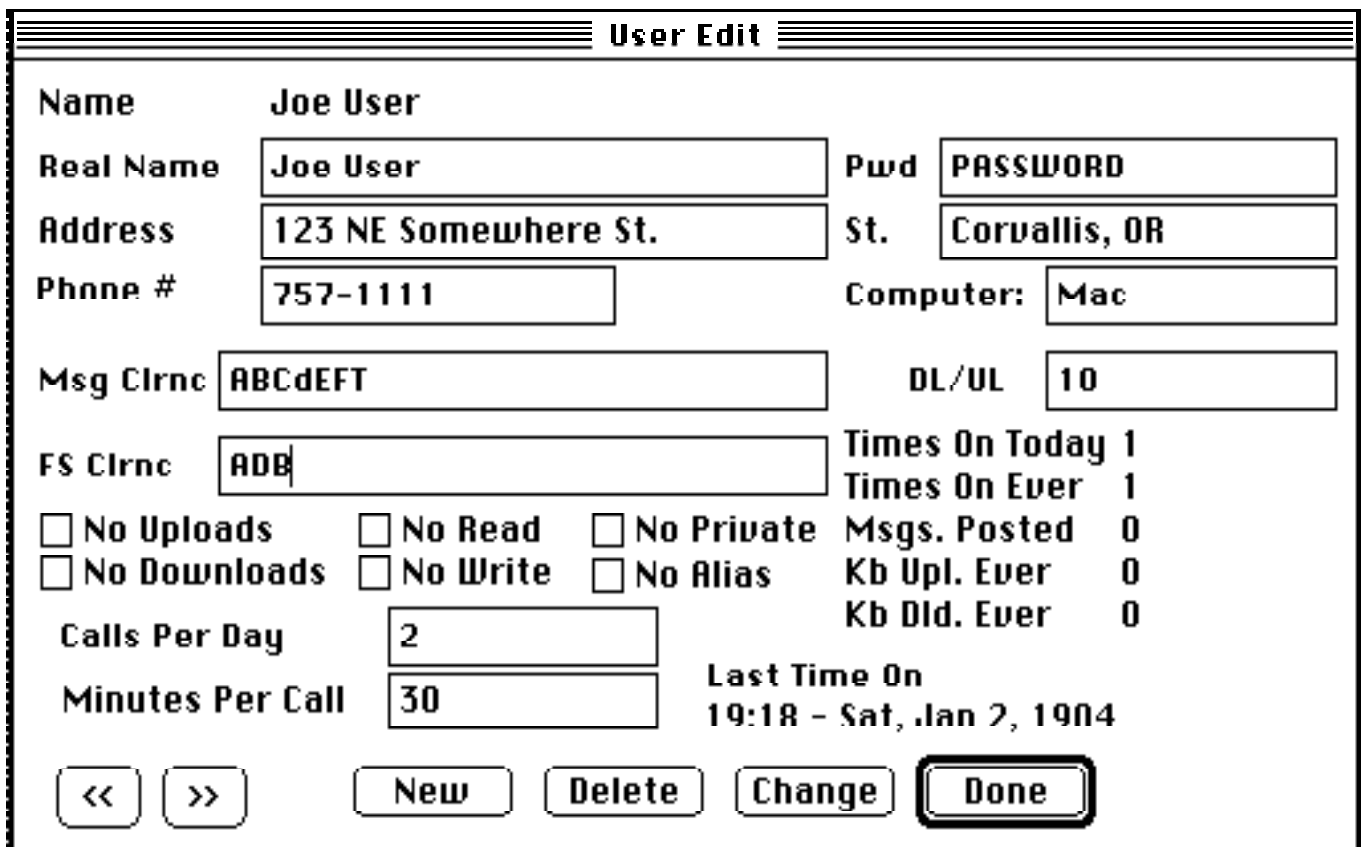
First you set the New User Defaults, so people who just come in will have their basic access. Now you can modify any user in the system, give him or her more access to sections (or less, by that matter), or even remove them from the system.

Initially, you will be shown a sorted list of all users in your system. Select a user and hit the "Info" button to get the full user record.

NOTE: Due to constraints in the way the Macintosh's List Manager works, a list can't be larger than 32K. Therefore FBBS is limited to about 1,000 users. This number, however, should be large enough for about 99 percent of all private Bulletin Boards.



Now you have a user record open, you will first notice the basic info: Name, Password, Real Name, Phone Number, etc.



You can edit many things in a user record, as the time an user is allowed in the system, his clearance, etc, or just observe others, such as the user name, the number of messages posted, and the last time the user called.

Msg Clrnc (Message Boards Clearance) sets the access this particular user will have. Clearances in this box can be of three types: *SysOp*, which is denoted by a “!” by itself, *Regular User*, which is denoted by letters in the range “A” to “Z” (all capitalized), and *coSysOp*, being the letters in the range lower-case “a” to “z”. These letters are directly related to the clearances set in the Message Boards. If you create a message board with clearance “A”, all users whose clearance **contains** the letter “A” will be able to access that board. The SysOp (clearance “!”), can access any and all boards. You can choose some user to become a coSysOp in say, area “A”. To do this, this user’s clearance should contain the lower case letter “a” instead of the capital “A”. When this user switches to any board whose clearance is “A”, he will have coSysOp access, as explained below.

FS Clrnc (File Sections Clearance) is identical to Message Boards Clearance, except that it sets clearances for File Sections only. There’s no current support for coSysOps in the File Sections. A SysOp clearance (i.e. an exclamation mark “!”) in this field doesn’t make the user a SysOp, but it grants a user unlimited access to file sections.

DL/UL Ratio sets the ratio which the user must keep in order to be able to do any downloads. A Download/Upload ratio of 10 means that a user must upload 1 Kb for every 10 he or she downloads. To disable DL/UL Ratio just set it to zero.

The check boxes below “Clearance” (No Uploads, No Downloads, No Read, No Write, etc) limit the user's freedom in the system. So, setting No Downloads will keep the user from downloading any files (this is good for people who abuse the system by just downloading files and leaving).

Calls Per Day is the number of calls the user is permitted between the hour 0:00 and 23:59 of the same day. Setting this field to zero will ban a user from your system without deleting his or her record. *Minutes Per Call* is the time allowed for each INDIVIDUAL call. This time is not cumulative, which means the user will get the same amount of time every time the user logs on. Be careful when

setting this last two fields. Giving someone 10 times per day and 90 minutes per call will allow this person use the system up to 900 minutes each day! Being the SysOp you should set these two fields to some reasonable large amount. I set them both to 1000, just to pick a nice round number. If the number you pick is humongously big, the Macintosh can transform it to some random value, and you can end up with ridiculous amounts of time. That means, FBBS will not check for range in this case. If you say 100, 60, -1 or 29739473297 is all fine by FBBS.

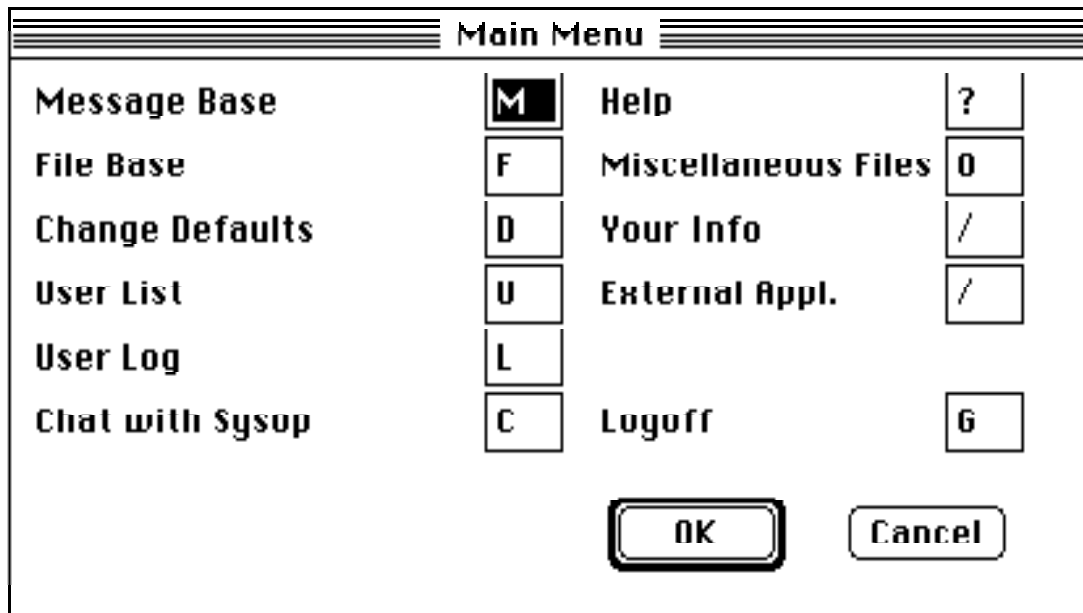
You can also navigate through the user file by using the >> (forwards) and << (backwards) buttons.

NOTE: To save any modifications you make you MUST hit the "Change" button, or your modifications will be lost.

SETUP MENU (Menu Configuration)

Edit Main Menu, Edit Files Menu, and Edit Messages Menu

All three items work in the same basic way. You're presented with a dialog box which allows you to customize and configure your remote menus. Each menu item must get a single character key. FBBS will automatically capitalize all keys entered. No single letter can represent more than one item within a menu.



There are two special characters: the / (slash) and the * (asterisk).

A "/" indicates that the item is to be made inactive. In this example, "M" is the command for the Message Base, "D" will edit the user defaults, and the File Base is marked as "/", which means that there isn't a File Base.

An "*" is reserved to FBBS. This menu item is used by the coSysOps and by the SysOp to change users' access.

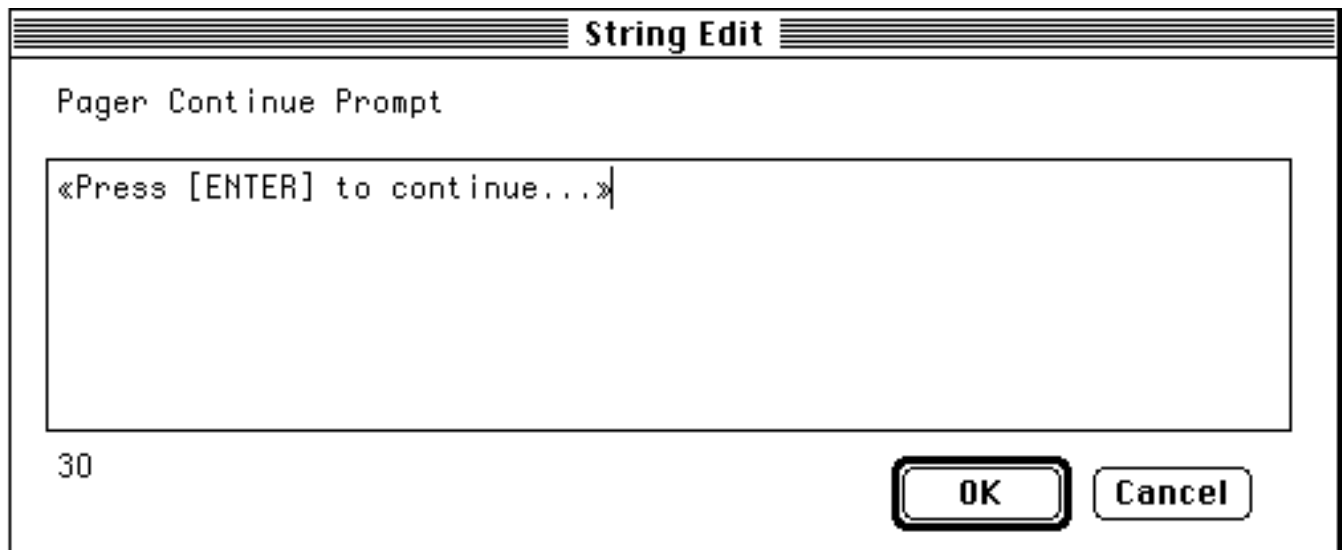
All changes you make take effect immediately after you click OK.. You should also modify the appearance of the menu you've just reconfigured. See above for menu appearance.

Custom Strings

One of the nicest things about FBBS is that it allows you to change just about every string instantly. This plus the fact that you can also easily change the looks of your menus, allows your FBBS system to look totally different than any other FBBS. You also have a set of variables that you can use to be included in these strings. For example, \$NAME is one of those. In the "Logoff String" you could say something like "Bye \$NAME! Thanks for calling XXX BBS!!". There's a complete list of these variables in one of the appendices. Customizing a string is very easy: Choose the Custom Strings item, and select a string from the list presented to you.



A box with the current contents of said string will now be shown:



The length of the string is also shown at the bottom of the window. Bear in mind that any string longer than 255 characters will be truncated. You should also put the carriage returns where YOU want them (try to ignore the word wrap around in the dialog box). Most screens are 80 characters wide.

There are two of these strings that are of great importance to FBBS. One of them is the one labelled *Name of SysOp*. That string must contain your name such as it's known in your system. If you call yourself SysOp or any other name, it's fine. Just make sure that if you are John Doe in your system, you write John Doe in the Name of SysOp string. Hope I made this point clear. What this string does is basically look up when someone sends a message to the user "SysOp" (literally). Then that string is replaced with the name found in the SysOp string. It is also used when sending mail in a board which is for the SysOp only, so that the mail can be routed to you (i.e. in the "To:" line it will show your name, rather than "To: SysOp").

The next string is the *All* string, which in most cases shouldn't be modified. When someone sends messages to everyone else in the system, they should send it to the name contained in that string (*All* is the standard and the default, but you may choose whatever you want —at your own risk).

The *Questionnaire* strings are relatively important as well. If a question is empty (i.e. 0 characters in it), then it will be skipped. That's in case you want to know the phone number but not the address, etc. If you'd rather want the users not to answer the questionnaire altogether, just disable the "Questionnaire" checkbox in the new users settings.

Modem

FBBS will currently only work with Hayes compatible modems. The support for the command set is minimal. The modem needs to be able to send string commands such as CONNECT (**including the connection speed**), NO CARRIER, RING, etc. FBBS looks for these strings to initiate or terminate a connection. If your modem doesn't complain about the original settings of the Modem Strings, I suggest you don't change them. I also suggest reading your modem manual thoroughly if you're not sure about your modem's commands.

More about modems: You must set your modem so that it **will not** be in auto answer modem. FBBS will detect an incoming call and send the appropriate command to the modem. Therefore, if your modem defaults to auto answer, you should set the register S0 to 0.

Modem Strings																		
BBS Init	ATHX1Q0U1M0E0S12=20																	
Terminal Init	ATH4Q0U1M0E1S12=20																	
Hang Up	ATHX4Q0U1M0E0S12=20																	
Local Mode	ATH1																	
Guard Time (1/50ths. sec)	60																	
<table> <tr> <td colspan="2">Supported Speeds</td> <td colspan="2">Handshake</td> <td rowspan="4"> <input type="button" value="OK"/> <input type="button" value="Cancel"/> </td> </tr> <tr> <td><input checked="" type="checkbox"/> 300</td> <td><input type="checkbox"/> 4800</td> <td><input type="checkbox"/> Hardware Handshake</td> <td><input checked="" type="checkbox"/> Drop DTR to Hang Up</td> </tr> <tr> <td><input checked="" type="checkbox"/> 1200</td> <td><input type="checkbox"/> 9600</td> <td></td> <td></td> </tr> <tr> <td><input type="checkbox"/> 2400</td> <td><input type="checkbox"/> 19200</td> <td></td> <td></td> </tr> </table>		Supported Speeds		Handshake		<input type="button" value="OK"/> <input type="button" value="Cancel"/>	<input checked="" type="checkbox"/> 300	<input type="checkbox"/> 4800	<input type="checkbox"/> Hardware Handshake	<input checked="" type="checkbox"/> Drop DTR to Hang Up	<input checked="" type="checkbox"/> 1200	<input type="checkbox"/> 9600			<input type="checkbox"/> 2400	<input type="checkbox"/> 19200		
Supported Speeds		Handshake		<input type="button" value="OK"/> <input type="button" value="Cancel"/>														
<input checked="" type="checkbox"/> 300	<input type="checkbox"/> 4800	<input type="checkbox"/> Hardware Handshake	<input checked="" type="checkbox"/> Drop DTR to Hang Up															
<input checked="" type="checkbox"/> 1200	<input type="checkbox"/> 9600																	
<input type="checkbox"/> 2400	<input type="checkbox"/> 19200																	

BBS Init is the string FBBS sends to the modem to initialize it. When you change to terminal mode, you may want different settings (e.g. you may want to hear the modem speaker, etc.) The *Hangup String* will be sent to the modem to hang this up. It should be similar (if not equal) to the init string. The *Local Mode* string is sent to the modem when you go into local mode. You may set it to put the modem off hook, so callers will get the impression that the BBS is busy, or you may leave it empty (remember, FBBS will only pick up the phone if it's waiting for a caller. FBBS doesn't wait for a caller while in local mode). FBBS will automatically hang up the phone when leaving local mode. FBBS will wait for the *guard time* plus a prudential extra time (about 1/2 second) before and after sending the escape sequence ++ +. FBBS operates under a wide range of speeds. As mentioned above, the modem needs to tell FBBS the speed at which the connection was made, so that FBBS can set the serial port accordingly. The string:

CONNECT 1200

will hint FBBS to transmit and expect data at 1200 baud. The string

CONNECT 9600

will do the same, but at 9600 baud, and so on. The string

CONNECT

by itself is assumed to be 300 baud. The command X1 (ATX1) is what usually tells the modem to utilize a more detailed description of the status messages. Set the speeds your system supports by checking the speed check boxes. If you have a 2400 baud modem you may set 300, 1200, and 2400. Setting a speed higher than the maximum your modem can support will cause your system to malfunction, since FBBS will default to the highest speed.

Any speeds the modem supports which are not checked will cause FBBS to hang up on any caller connecting at that speed. For example, if you have a 9600 baud (you lucky bastard!) and don't want anybody calling at 300 baud, don't check the 300 box.

Finally, the Handshake options. Macintosh Plus' and newer support DTR and CTS (DCD) lines. DTR stands for "Data Terminal Ready." If FBBS drops DTR, the modem will hang up. This is a nicer and faster way to hang up the modem than the +++ (pause) ATH sequence. Make sure your modem is set to hang up on loss of DTR. *Hardware Handshake* is a serial line which tells FBBS when Carrier was lost. This feature may NOT work on many Macs and modems, so use it with care. Also, if FBBS locks up shortly after bootup, there's a good chance your modem doesn't like hardware handshake. Turn off the modem and reboot FBBS, and uncheck the Hardware Handshake box.

SECTIONS MENU

You can have many different Message Boards and File Bases for users to access. They can be divided up in SIG's (Special Interest Groups), and they can have a number of different access settings.

Edit Message Boards

This command will allow you to create, modify and delete message boards (message bases/conferences/forums/areas, or whatever you want to call them), using this dialog:

Message Board Edit			
Board Name	Writers' Forum		
Change File	Hard Disk:DDS:LN Mail:Writers Forum		
Menu File	Mesg Menu		
Clearance	A	Max. Messages	50
<ul style="list-style-type: none"> Flames [F] Hacking [H] Movies/Arts [M] Cooking [CK] AD&D Echo [ADD] Writers' Forum [W] Trivia [T] HS Forum [HS] 	Category <input type="text" value="12"/> Key <input type="text" value="W"/>	<input checked="" type="checkbox"/> Echo Board <input type="checkbox"/> Read Only <input type="checkbox"/> For Sysop <input checked="" type="checkbox"/> No Private <input type="checkbox"/> Private Only <input checked="" type="checkbox"/> Alias <input type="checkbox"/> Real Name	
	<input type="button" value="New"/>	<input type="button" value="Delete"/>	
	<input type="button" value="Change"/>	<input type="button" value="Done"/>	

Name is the name of the message board. FBBS will place the name of the board in the message boards prompt, to indicate the caller which board he or she is using.

Menu: You can use an alternate menu file (which MUST be in the FBBS Files folder). Just enter the name of the file you want to use as a menu. If you leave this field empty, the file "Mesg Menu" will be used.

Clearance: Use just a single letter, from A to Z. Users whose clearance (explained below) includes that letter will be granted access to this area. You can create restricted access boards this way.

Set the maximum number of messages to keep around in the database in the Max. Messages box. When a message database reaches the limit of messages, the oldest message will be physically deleted and the database compressed.

The Key box contains the string by which a user will access a board. For example the board FBBS creates by default is called "General", and its key is G. A key can be a string containing from one to three characters, with no spaces.

The check boxes set the features of the board, such as echo, mail for the SysOp only, board with support for Aliased names, etc. The *Echo* box makes the board a Tabby compatible area. Messages entered in that area will be imported for Tabby to deliver to other systems, and messages obtained by Tabby from other systems will be placed in these areas.

The *Read Only* box should be set if you don't want to allow anyone but the SysOp and CoSysop(s) to write messages in that board.

You can check the *For SysOp* box for the "Sysop Mail" or "Sysop Feedback" areas. Mail sent there will be addressed to the sysop automatically.

If a message area has the *No Private* flag set, only public messages will be posted. Likewise, if the *Private Only* box is checked, only private mail will be allowed in such board. Only the SysOp and CoSysOp(s) will be given a choice on whether to post public or private in these areas.

The *Alias* checkbox allows users to post under an alias. FBBS won't let the user post under an alias which is someone else's user name.

The *Real Name* box will read the Real Name of the user from the user file when posting a message. This option is very useful when you carry National and International conferences, which enforce use of real names as opposed to handles.

A unique feature of FBBS is that when importing echomail messages, if a message is addressed to a user's Real Name rather than to the user's Username, FBBS will change the To field so that it's addressed to the Username. For example, I go by "Nando" on my board. Messages coming in addressed to "Fernando Borcel" get changed to "Nando."

Category is an integer number used for echo and NETmail. A category number 0 indicates NETmail. Anything greater is the same as the category number used by Tabby for the Echomail conferences. A category must be in the range 0 to 999. Refer to the Tabby manual for further explanation. If the Echo checkbox is checked,

then the board will be a Conference (echo board). If it's not checked the category number will just be ignored.

NOTE: There should only be **one** NETmail area. If you have more than one, only one will be used. Just double and triple check your category numbers to be the same as Tabby's.

To create a new message board, enter the name of the board, clearance, Key, and the number of messages you want the board to hold, and click on New. You will be prompted to create a new database in which all messages for the newly created board will be stored. If you hit New holding the Option key down, then that will allow you to use message database created a priori. Message board databases can be stored anywhere. Beware that if you move the database file, or if you change the name of any of the folders in the database's path, you'll have to use the "Change Path" button to tell FBBS where to find the database.

The Delete button deletes the board from the message boards reference file, and optionally removes the database that corresponds to that board.

You can navigate and inspect other boards by clicking the items in the scrolling list, which tells you the name of the boards, followed by their "key" enclosed within square brackets.

NOTE: For any modification to take place, you must click "Change".
Edit File Directories

FBBS supports as many file sections as you can fit in your disk. File sections are created and edited with a dialog box very similar to the Edit Message Boards dialog box.

Section Name is the name of the file section. It will be placed in the File Menu prompt to indicate the user which file section he or she is in.

The *Key* is the string that lets the user select the file section of his or her choice.

The file “File Menu”, which is in the “FBBS Files” folder, is used by default when displaying a menu. If you want to use an alternate menu, you write the name of the text file you wish to use in the *Menu File* box. The alternate menu file must also be in the “FBBS Files” folder.

Only those users who have the *Clearance* shown in the Clearance box will be able to access that particular file section.

If you changed the path of the folder in which the files for this particular file sections are, or if you want to use a different folder for this section, you should select the new folder by clicking on *Change Path*. You will be prompted to select a new “.filelist” file (explained below).

If *No Uploads* is checked, nobody but the sysop will be able to upload files to this section. Likewise, if *No Downloads* is checked, nobody will be able to download files from this section, with the exception of the SysOp.

You can limit the size your file sections, both by actual size (KiloBytes) and/or by the number of files the file contains. When any of the limits is reached, nobody but the SysOp will be able to download files to that particular file section. If these checkboxes are not checked, then users will be able to upload files until the disk fills up.

If you don't want slow speed transfers to take place in a particular file section, just set the *Min XFer Speed* to the slowest speed you want to allow for that section. Anyone except the SysOp calling remotely at a speed slower than the one indicated will not be allowed to perform any transfers.

The *Delete* button deletes the selected file section from the "File Sections" file. It will not, however, delete the folder in which the files are contained. If you want to delete this folder, you'll have to do it manually.

To create a new file section, you have to enter the Section Name, Key, and Clearance, and click *New*. If you leave Menu File empty, FBBS will use "File Menu." Min. XFer Speed defaults to 300 baud. You will be prompted to create a folder in which to hold the files for that file section.

The following takes place when you create a new file section: FBBS will attempt to create the folder you specified. If it can't create it, it will beep and abort the operation. FBBS will not overwrite a file or a folder with the same name as you specified. If it successfully created the folder, the next step will be to create a file called ".filelist" within that folder. This is just a TEXT file, in which the names, sizes, and descriptions of the files users upload are saved. FBBS uses this file **only to display** it to the user who requests a file listing. **Any file whatsoever in the folder can be uploaded, whether or not its name is in .filelist.** You can place a file in a file section folder without making an entry in the .filelist file and tell some user that such file is there, without making it public to anyone else. You can also edit the .filelist file in any way you want. FBBS will just add a line with the file name and description at the end of

.filelist. If you want to use an existing folder as a file section, you can just save a .filelist file in it.

If you select New with the **Option Key** down FBBS will use an existing folder instead of creating one.

You can view and edit other file sections by selecting one from the scrolling list.

Edit External Applications: (n/a)

TERMINAL MENU

Terminal Mode

When you select this item, FBBS becomes an ASCII terminal. The default speed is the maximum speed set by you in the "Modem" settings.

Send XModem

Allows you to send a file via XModem. It automatically senses CRC or CheckSum from the receiving (commanding) computer.

Receive XModem

Receives a file via XModem. It tries to send the file via CRC. If the receiving computer fails to recognize CRC, it drops to CheckSum. It automatically recognizes TEXT, MacBinary, or Straight Binary.

Capture Text

Anything coming through the Modem serial port is captured in a text file until you select this item again to stop capture or you go back to BBS mode. Line Feeds are automatically stripped and/or converted to carriage returns, depending on the way the transmitting computer sends its text.

Send Text

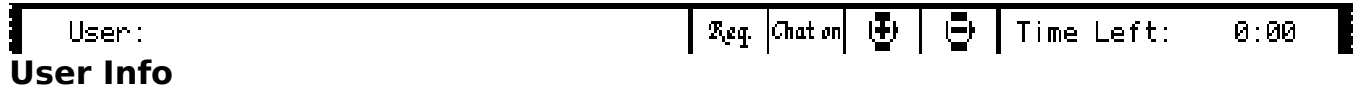
It sends a text file.

Speed

The speed gets initially set to the highest speed supported by your BBS when switching to terminal mode. It will be set back to the highest available speed when going back to BBS mode.

THE STATUS BAR

Some common commands have been removed from the menus and placed in a status bar instead.



Clicking on the “User:” box will bring up a window where you can view information about the user currently logged on.

Chat Request

If the user has requested to chat with the SysOp, the “Req.” box will be highlighted.

SysOp Break-in

Select *Chat On* when you want to chat with the user who's currently on-line. This will freeze whatever the user is doing at the moment, alert the user of your presence, and put you both in chat mode. Notice that the time left for a user will stop, and it will resume as soon as you select this command again to end the chat. You will also notice that with users that have ANSI graphics enabled, everything you type will be highlighted (or “bold face”), and everything the other party types will be in plain text.

Sleep time is not disabled by Chat, so if you stay idle for too long, FBBS will end the current session.

Allow 5 More Minutes

The watch with the + sign adds 5 minutes to the user's time left. You can add as much time as you wish, except when TabbyNet is present, in which case you won't be able to go over the time in which TabbyNet must be launched.

Take Out 5 Minutes

Reduces the time left by 5 minutes. FBBS will only let you reduce the time down to 10 seconds, to avoid accidentally logging someone off.

Time Left

This box displays how much time (in minutes and seconds) the user has left for this call.

LOGGING ON!

Now that you have set up the system, you are ready to log on as a new user, and then as the SysOp. Just follow the steps...

- Select Local Mode from the Online Menu

When a successful connection is detected or when you enter Local Mode, the first thing FBBS does is display the "Welcome" file. This, and all the files discussed in this section, reside in the "FBBS Files" folder. The Welcome file usually contains the BBS identification screen, but it can be anything you want.

New Users

A few steps take place when a new user signs up:

- a. Selection of a password takes place,
- b. A file called "NewUserFile" will be displayed. This file generally contains rules concerning the system, orientation of the system, expectations of the SysOp from the users, and whatever you want to add that only needs to be read by new users.
- c. If you checked "Questionnaire" in New Users Defaults, the user will be asked a few questions, taken from Custom Strings (those strings preceded by the word "Questionnaire.") Questions left blank (i.e. containing zero characters) will just be skipped.

If the new user hangs up anywhere before this point, his record will not be kept in the user file. Past this point, the New User Defaults will be copied into the user record, and this will be saved in the user file. Now the normal logon procedure will be followed:

- a. The "Logon" file will be shown. This file usually contains announcements from the SysOp that are of general interest (e.g. new additions to the system, as file bases or message boards, or whatever you want).
- b. Now the user stats are shown. These stats use some of the Custom String variables. The appearance of the stats can be modified from within the Custom Strings window.

c. FBBS will determine if an upcoming Mail event (i.e. TabbyNet event) will occur within the user's allowed time. If so, it will warn the user that his time has been adjusted. If the time the user has left after adjusting for a mail event is less than half of his normal time, FBBS will not count the current call against his daily limit.

d. Automatic new mail search now takes place. FBBS will list all the boards to which the user has access where there is new mail waiting for him. Boards to which the user does not have access will not be searched.

e. The Main Menu is shown, and we're ready to roll!

SysOp

All mighty user of the system. From local it can do virtually anything, from remote his powers are diminished to coSysOp, for security reasons. There are two basic things you need to know to make yourself the SysOp of your FBBS system, after signing up as a user:

- Select "Edit Users" from the Users menu to make yourself the SysOp of the system.

Open your own user record and replace whatever is in "Clearance" with a "!" (exclamation mark). Again, don't forget to click on the "Change" button to make the changes permanent. From this point on, you are the SysOp. Give yourself all the time you want.

- Select "Custom Strings" from the Setup Menu.

The next thing to do is write your login name in the "Name of SysOp" string found in "Custom Strings." This is very important, as it was explained above.

coSysOp

In FBBS v0.9, a coSysOp is a user who has some special privileges in **one or more** message areas within your system. You need to specify which areas you want each particular coSysOp to have these privileges in. When a coSysOp for one specific area changes to a message board in which he's not a coSysOp, he becomes

a regular user, and he won't be allowed to do anything but what that area permits.

Normal users' clearances are ALWAYS in capital letters. If you want to make Jim Smith your coSysOp for those sections whose clearance is T, for example, set Jim's clearance to "t" (lower case T) and delete the capital T. Easy? YES! As a coSysOp, Jim will be able to:

- a. Grant permission to users to access all boards with T clearance, and likewise, he can remove clearance from any user with T clearance.
- b. He can read private messages (even if not addressed to him), and leave private messages (even if the board won't allow for private message posting) within any board with T clearance.
- c. Delete any message in any board with T clearance.

NOTE: When a coSysOp modifies a user by granting or denying access, the coSysOp is affecting the user's access to **ALL** areas whose clearance corresponds to the one the coSysOp modified.

NOTE: For security reasons, a coSysOp (or a SysOp when calling from a remote computer) **cannot** access to other users' passwords, or change any information other than the specified above under any circumstances, unless of course he's sitting in front of your Mac!

Logoff Time

When an user logs off, FBBS will do some cleanup. It will put the modem off hook, and clean up all message boards modified by the user (i.e. in which messages were written deleted). Old messages will be removed from the message databases to preserve them within the limits set by the SysOp. Once a day, FBBS will clean up ALL message databases. It will change the numbering of the messages so that they go in sequence from 1 to the highest message. Don't interrupt FBBS while it's updating message boards, as some pointers may get lost.

[THIS SECTION IS NOT FINISHED YET. PLEASE REFER]
[TO THE ONLINE HELP FILES PROVIDED WITH THIS PACKAGE]
[AS A PRELIMINARY MEANS OF HELP]

USING FBBS

Menu Levels:

Setting Menu Keys:

Main Menu:

Message Base:

File Base:

Change Defaults:

User List:

User Log:

Chat With SysOp:

Help:

Miscellaneous Files:

Your Info:

External Applications: (n/a)

Logoff:

Message Board Menus:

Return To Main Menu:

Change Message Board:

Scan Headers:

Read Next:

Read Previous:

Read Continuous:

Read Reply:

Read Original:

Write Message:

Write Reply:

Delete Message:

Help:

Personal Mail -- find token <-- replace it!:

Logoff:

Using the Editor:

File Base Menus:

Introduction

Return To Main Menu:

Change File Directory:

Scan Files:

Download Files:

Upload Files:

Find Token: (Current Dir)

Find Token (All Dirs.):

Read ASCII file:

Help:

Logoff:

External Applications: (n/a)

APPENDIX A: ANSI Symbols Used by FBBS

FBBS has the ability to utilize a short set of “special characters” which can be replaced by ANSI codes when text is displayed to the screen. This set includes characters for HiLite (bold), Underline, and Reverse Screen (white on black). Likewise, it has characters to indicate unhilite, un-underline, and un-reverse. These characters were thought of so that they will be very easy to remember and use:

This is PLAIN text	This is PLAIN text
This is “BOLD” text	This is BOLD text
This is ‘UNDERLINED’ text	This is <u>UNDERLINED</u> text
This is «REVERSE» text	This is REVERSE text
This is “‘MIXED’” text	This is <u>MIXED</u> text

These text styles will show up in both the remote screen and yours, **if the caller has turned ANSI Graphics ON**. If the user has turned ANSI Graphics Off, only plain text will be shown.

Here is a complete list of all the special characters used by FBBS, and some examples:

Character	Keys	Function
“	Option-[Turn HiLite On
”	Option-Shift-[Turn HiLite Off
‘	Option-]	<u>Turn Underline On</u>
’	Option-Shift-]	Turn Underline Off
«	Option-\	Turn Reverse On
»	Option-Shift-\	Turn Reverse Off
≠	Option-=	All Plain Text
†	Option-t	Clear Screen (cls)
•	Option-8	(Reserved for Color)

All these characters (except •, which is reserved for now) can be used anywhere in any menu, help file, logon screen, “miscellaneous” text file (explained below), or custom string. Here is an example used in a hypothetical menu:

- With your favorite text editor, design the menu, preferably **without Introduction**

any special symbols, to reduce confusion. Here is an example of what it might look like (I sure hope yours looks better, tho!)

Messages Menu

```
M)ain Menu      N)ext
B)oard Change   P)revious
S)can Headers   +) Read Reply
...
...
...
```

...and the rest of the items. This is what the menu will look like to an user whose ANSI option is turned off, regardless of how many ANSI stuff you try to stick in the menu.

- Now add the special characters wherever you want them. In my case, I did it like this:

"Messages Menu"

```
"M")ain Menu      "N")ext
"B")oard Change   "P")revious
"S")can Headers   "+" ) Read Reply
...
...
...
```

and save the menu. When you log on, **and if your ANSI option is turned on**, your "Messages Menu" should look something like this:

Messages Menu

```
M)ain Menu      N)ext
B)oard Change   P)revious
S)can Headers   +) Read Reply
...
...
...
```

If it doesn't quite look like this, if items are shifted too much to the right or to the left, add or delete spaces wherever is needed. Keep in mind that these special characters will not occupy columns in the screen, but rather get translated into special codes that tell a VT100 terminal to switch to a different mode.

Also, you can mix any styles with each other, so you can have a chunk of text that is hilited, underlined, and reversed (order here doesn't matter). It might seem a little confusing right now, but play with it for a few minutes, and you'll find it very easy and straightforward. Also, notice that the keys " , and «, are all next to each other!

NOTE: The reverse screen mode is disabled in this version. Using it will have no effect on text attributes.

APPENDIX B: The Miscellaneous Files Section

FBBS supports another kind of section called “Miscellaneous Files”. This section has a tree (hierarchical) structure that allows you to separate text files into different categories, which can go down several levels. The maximum amount of levels FBBS will handle without crashing is 255, with 255 files / sublevels in each.

NOTE: This is only a prototype version of the Misc. Files Section. In future versions you will be able to edit the levels and contents of it by means of windows and buttons, just like the other sections in FBBS.

What goes in a Misc. Files Section? Anything from information about your system, rules for new users, BBS etiquette, your daily log and BBS lists are among the most common things. But there really isn’t a limit for it. You can have a humor section, with several sub sections (i.e. “soft” humor, raunchy humor, etc.), ASCII art, or you could have an advertising section, where businesses around your area pay you a certain amount to have an ad for everyone to see, or just about anything you want.

Since this section is still in developmental stage, I recommend not to have levels that are actually 255 levels down, but to have about 10 to 15 files/levels at each level. This is still going to allow you to have very many files!

How to design a Miscellaneous File Section for your system

Create a file named MiscFile and place it in the FBBS Files folder.

The basic syntax of a Misc. File line is:

[MENU] Menu Title [IS IN]path...

The words “[MENU]” and “[IS IN]” must be capitalized, and enclosed within a pair of square brackets. Therefore, “[MENU]” is a keyword, “MENU” is not.

First you need to know the keywords:

[MENU]	All lines must begin with the word [MENU]. It must be in the first column (i.e. the leftmost column) for a first level menu.
Menu Title	This is what is actually shown to the user to make a selection from.
[IS IN]	Tells FBBS that the next thing is the path to the text file which

path... goes with this menu.
 This is a FULL path to the file FBBS will read when the user selects this menu.

So for example, the first entry of your menu could look something similar to this:

```
[MENU] Information About My BBS [IS IN]HD:BBS:Some Folder:System Info
```

ended by a single carriage return.

NOTE: There are no spaces between “[IS IN]” and the file’s full path, nor at the end of the path, **unless** these spaces are part of the name of your disk (as in “<sp>HD” or the end of your file “System Info<sp>”, where <sp> is a space. Fortunately, FBBS has a function called “Copy Path”, under the File menu. Using this you can select a file, and its full path will be pasted into the keyboard, so all you need to do is write

```
[MENU] Information About My BBS [IS IN]
```

now go to the File menu, select “Copy Path” and now select “Paste” from the Edit menu. Now just enter a single carriage return at the end of the pasted path, and you can be sure FBBS will retrieve that file.

You can repeat this as many times as you want, and get a pretty nice list of Text files that are available to everyone to see:

```
[MENU] Information About My BBS [IS IN]HD:BBS:Some Folder:System Info
[MENU] BBS's around Town [IS IN]HD:BBS:Some Folder:BBS List
[MENU] New User Information [IS IN]HD:BBS:Some Folder:New User File
[MENU] BBS Etiquette [IS IN]HD:BBS:Some Folder:Etiquette
[MENU] Log of the Day [IS IN]HD:BBS:Some Folder:Today's Crap
```

and so on.

You can save this, and when a user (or you, of course) logs on and gets into the Miscellaneous Files section, he will get a list that will look more or less like:

Top Level

- 1) Information About My BBS
- 2) BBS's Around Town
- 3) New User Information
- 4) BBS Etiquette
- 5) Log of the Day

Select file [1-5], - to back up, Q to Quit:

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So the user will select, say file number 4, hit return, and the contents of HD:BBS:Some Folder:Etiquette (look above!) will be displayed.

Easy enough? Good. So far we've seen a "flat" organization, which means, everything is in the same level. Every menu will show you a file. Now for the tree structured Misc. Files section, which is almost as easy as the flat section. But first, let me explain what I mean by "tree structured" and "hierarchical": What this means is very simple. Instead of displaying a file when a menu is selected, this menu will show a **submenu**. And a submenu may be composed of other files and/or other submenus as well. How do you do this? It's actually very easy:

All you need to know is that a submenu is **exactly one level up** from its **parent** menu and that submenus **do not** have text files associated with them (i.e. do not have and [IS IN] string). A submenu can only have one parent, a parent can also have only one parent if its also a submenu, and so on all the way to the top level (i.e. those menu you just wrote, starting at column 1). Submenus are always **indented** with a **TAB** character. The top level has no tabs, level 1 has one tab, level 2 has two tabs, and so on.

So going back to our last example, which looked like:

```
[MENU] Information About My BBS [IS IN]HD:BBS:Some Folder:System Info
[MENU] BBS's around Town [IS IN]HD:BBS:Some Folder:BBS List
[MENU] New User Information [IS IN]HD:BBS:Some Folder:New User File
[MENU] BBS Etiquette [IS IN]HD:BBS:Some Folder:Etiquette
[MENU] Log of the Day [IS IN]HD:BBS:Some Folder:Today's Crap
```

we can build our hierarchical menu. Let's modify the second item, to support this kind of menus. Let's say that we'd like this item to contain BBS's around town, BBS's around the state, and 1-800 BBS's. So we will want to modify that item to:

```
[MENU] More BBS's
```

Notice that we stripped the "[IS IN]" stuff out of the menu. That automatically makes this menu a **parent**. But of course, you can't be a parent if you don't have any children, or it would be a misfit. Same thing happens here: We have to give this parent some children (or at least one):

```
[MENU] More BBS's
      [MENU] BBS's Around Town[IS IN]HD:BBS:Some Folder:Local BBS
      [MENU] BBS's Around the State [IS IN]HD:BBS:Some Folder:State Boards
      [MENU] 1-800 BBS [IS IN]HD:BBS:Some Folder:1-800 BBS list
```

So the whole thing will look like:

Introduction

```
[MENU] Information About My BBS [IS IN]HD:BBS:Some Folder:System Info
[MENU] More BBS's
      [MENU] BBS's Around Town[IS IN]HD:BBS:Some Folder:Local BBS
      [MENU] BBS's Around the State [IS IN]HD:BBS:Some Folder:State Boards
      [MENU] 1-800 BBS [IS IN]HD:BBS:Some Folder:1-800 BBS list
[MENU] New User Information [IS IN]HD:BBS:Some Folder:New User File
[MENU] BBS Etiquette [IS IN]HD:BBS:Some Folder:Etiquette
[MENU] Log of the Day [IS IN]HD:BBS:Some Folder:Today's Crap
```

Likewise, we can take any of the items in the submenu and make it a parent just by doing the same thing. Show hierarchy by indenting with TABS, or FBBS might become confused. Therefore, if you want to make “BBS’s Around the State” the parent of a submenu, you need to first, strip the [IS IN] and the path from it, and then write the submenu items directly below it, **intended with 2 TABS**, not one! You can go on and on like this, creating new “generations” of submenus. It’s very easy to understand, just play with it and remember the rules of thumb I gave you when I first explained hierarchy!

NOTE: If you have a text editor that “wraps lines around”, make sure you’re not placing a carriage return in between the breaking lines, or FBBS will act unpredictably.

APPENDIX C: Custom String Variables

There is a set of keywords in FBBS which have a special meaning when used in conjunction with the “Custom String Variables”. These special tokens are read and translated into a value that depends on factors such as who is currently logged on, what time of day it is, and so on. All you need to do to show these strings is stick them in somewhere in the string you’re editing. Here’s an example:

You could say:

Good bye, thanks for calling!

but it would look much better (I think) if you’d say:

Good bye, John Smith, thanks for calling!

In order to make this string look like this, just edit the Farewell String, and write

Good bye, \$name, thanks for calling!

\$name will be replaced by FBBS by the name of whoever is online at the time.

This is the list of variables at this time, and what each one does (case *Introduction*

is unimportant):

\$MAXCALLS: Maximum number of calls the current user is allowed to make in any single day, as set by the SysOp with the User Edit function.

\$NAME: Name of the user currently online. It can be used in a number of places, such as when the user logs on (Hello John Smith!), logs off (as we right just above), when he's not allowed to do something (Sorry John Smith, I can't let you do that!), etc.

\$ONEVER: Number of times the user currently online has called the system.

\$ONTODAY: Number of times the user currently online has called the system so far today.

\$POSTED: Number of messages left by the user.

\$REALNAME: The user's real name. (I personally don't like this one, since many users would rather go by a nickname, but it's up to you).

\$SYSOP: Your name, whatever you wrote in the SysOp Name, in the Custom Strings dialog. This is more of a generic variable, and you may or may not want to replace it where I left it, for example where a user calls you, the Calling SysOp string will be shown, and I wrote "Calling \$SysOp". If you go by "Jim" in your system, then the string shown to a user when he's trying to get a hold of you will be "Calling Jim"

\$TIME: What time is it?

\$TIMELEFT: How much time (shown as MM:SS) is left?

\$TIMELIMIT: The user's time limit for each call. (Don't get these time variables mixed up!)

APPENDIX D: Troubleshooting

This section gives a list of common questions and problems related to FBBS, and their possible solutions. Most problems can be solved relatively easily following the instructions below.

Program locks up shortly after bootup: Some modem really dislike Hardware Handshake, to the point of locking up the lines (and thus, the Macintosh). If this happens to you, reboot FBBS with the modem turned off, and uncheck "Hardware Handshake" from the Modem dialog box. Turn off the modem again, and go in and out of terminal mode to initialize the modem.

No menus displayed If you get a "File Not Found" message, chances are that your menus are not in the "FBBS Files" folder, or that this folder is not in the same directory (folder) as FBBS.

FBBS doesn't hang up If you don't have the "Drop DTR" option on, then make sure you're setting the Guard times correctly. If you do have the Drop DTR option on, then there may be 3 reasons: 1. You have a Mac which doesn't support DTR (e.g. a partially

upgraded 512 or 512Ke). 2. You didn't set your modem to hang up when dropping DTR (&D2 does the trick in my modem). 3. Your modem ignores DTR altogether, in which case you should uncheck the Drop DTR box.

FBBS can't connect There are also a few reasons for this. Is your modem in Auto Answer mode? It **shouldn't be!** Is your modem in "Verbose" mode? This it **should** be, so FBBS can detect RING's, and CONNECT's normally.

FBBS doesn't detect loss of carrier If this happens, just disable the "Hardware Handshake" option in the Modem dialog box.

Can't open files If when booting FBBS you get a message saying that it can't open some files, and it goes back to the Finder, it means that those files are busy. Reboot the Mac and try again.

Can't create a file section FBBS will not create a file section if you're trying to overwrite an existing file or folder by naming the folder you're creating the same as a file or folder on the same directory. It won't create a file section if your Mac won't let it create a folder for any reason. If your copy of FBBS isn't registered, you won't be allowed to have more than 4 file sections.

Can't create a message board Is there any room left on your disk? If your copy of FBBS isn't registered you won't be allowed to have more than 4 message boards.

Can't launch Tabby at a scheduled time FBBS can only have scheduled events in System version 6.0.1 or newer. It can, however, accept Crashmail calls. Update your System software to a new version.

Can't launch Tabby at all If you get a system error (other than "Tabby is busy or damaged"), then there's probably something interfering with the launching process. Try removing all your INIT's and CDEV's from your system, and put them back in a trial-and-error basis.

Out of memory FBBS needs a fairly big amount of memory. It will run on just 512Kb of memory providing that you don't have big things in memory, as some CDEV's (such as "SoundMaster", etc)

A word on INIT's and CDEV's INIT's and CDEV's are real nice quick and dirty programs, but there's only a few of them which may be considered irreplaceable. If you experience problems which aren't listed here, or can't be solved with my directions, try removing INIT's and CDEV's from your system folder. Eventually you will find the one (or more) that is giving you and FBBS a hard time. I have ran FBBS with GateKeeper for a long time and have not once had a problem (make sure you configure GateKeeper to allow FBBS modify FILE(Other). Again, it may be a bit of trial-and-error here too, but you might find that some silly INIT is interfering with FBBS.

APPENDIX E: Writing an External Application for FBBS

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GLOSSARY

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