9 Securing your system

9.1 Creating security levels

Security Data File

In Config under Data File Locations you will find the Security Data File as shown below: This screen will allow you to create different levels of access for the callers to your system. Every caller has a security level. You will use these security levels to determine what a caller will be allowed to do on your system.

> ***PowerTip:*** *Most sysops use the same Security Data File for all their nodes which is just fine. However, you can have separate Security files for each node if you choose. Why? If your second node is a 2400 line, you might want to increase the time on-line for callers to that node.*

The following is an explanation of each of the settings in this file. Each setting applies to that security level only.

Level: Each security level is denoted by a number. You can have as many levels as you want for your system. The security levels range from 1 to 255. Most sysops do them in increments of 10 and use 150 as the highest level (reserved for the sysop). Plan ahead here and determine what security levels you will need and enter them all at once.

Time: This is the amount of time in minutes allowed on-line per day. This version of PowerBBS does not allow you to restrict the number of calls per day or time allowed on per call.

K-Limit: This is the number of kilobytes allotted for download per day. This number is not cumulative: If a caller doesn't use his K-Limit for that day, it is lost forever.

Month Limit: This is the number of megabytes allotted for download per calendar month. Again, this number is not cumulative.

> **Note: If a caller does not maintain her ratio, she will not be allowed to download any files until she meets that ratio.**

Msg. Ratio: This number is really more of a percentage than a ratio. 100 means the caller must leave a message 100% of the time (every time she calls). 50 means the caller must leave one message for every two calls. 25 means she must leave one message for every 4 calls.

Files Ratio: This is the ratio of uploads to downloads. 100 means a caller must upload one file for each file he downloads. 25 means a caller must upload one file for every four he downloads. Even if your callers have a good files ratio, they cannot download past their K-Limit and Month Limit.

Bytes Ratio: This is the ratio of upload bytes to download bytes. 100 means a caller must upload at least the same number of bytes that he downloads (100%). 25 means a caller must at least upload 25% of the bytes he has downloaded. This is a more fair method of comparing uploads to downloads. Even if your callers have a good bytes ratio, they cannot download past their K-Limit and Month Limit.

Internet Max Mnth: This is the maximum number of Internet messages that you will allow your callers to send per month.

> ***PowerTip:*** *Since you have to subscribe to Internet, it is recommended that you limit the number of Internet messages allowed unless you charge your callers for access. If you don't, then you'll be really surprised when you get that Internet bill!*
>
> **Note: Entering zero (0) for any of the ratios disables that ratio. In other words, if a security level has zero for the Files Ratio, PowerBBS will not track that ratio.**

There is a button on the edit screen of the Security Data File marked Forums. This button will allow you to enter the numbers of private forums to which a given security level will have access. Be sure to read the chapter on the message system for more details about restricting access to forums.

To use this feature you must first click on the security level for which you want to modify the forums. Then click the Forums button. On this screen enter the numbers of the private forums to which the given security level will have access. Remember to edit the forums for each security level.

9.2 Default security information

There is a separate section of Config called Sec Level. Click on this button to see the screen of default security level information for your entire BBS. This is one of the ways you will be using security levels to restrict what your callers can do while on-line.

Level Given to New Users

When a caller first logs on to your system, this is the security level they will be given. Some sysops give everyone the same security level. However, most sysops use several different security levels. This is simply the default security level given to all new callers. You can use other methods to change a callers security level (discussed later).

Forum Area Change

Even though there is an Area Change command you can place on a menu and thereby restrict which security levels can access that command, there is another way your callers can change forums. As explained in the chapter on the message system, when a caller is reading mail and reaches the last message in that forum, PowerBBS will ask the caller if he wants to move to the next area. If the caller's security level is lower than this entry he will not be able to change forums in this manner. This setting has no effect on the Area Change command when not reading mail.

Abort Intro Screens

When a caller logs on, PowerBBS will ask that caller if he wants to abort old intro screens. If the caller answers Yes, he will only see those screens which have been update since the last day he called. Set this entry to the lowest security level you want to be able to abort the intro screens. Any caller with a security level will have view all of the intro screens, both old and new. In case you forgot, the intro screens are HELLO1 - HELLO9.

Delete a Message

This is the minimum security level needed to delete a message. A caller can only delete messages to or from himself. Most sysops set this number to zero.

Reply to a Message

This is the minimum security level needed to reply to a message. Replying to a message is an option from the Read Mail sub-menu. You will have the Read Mail command on one of your menus and have a security level for that option. This setting will allow you, the sysop, to permit a caller to read messages yet prevent him from replying to those messages. Ideally this setting should be the same as the security level that you assign the Enter a Message command on one of your menus.

Search Files Intro

This setting is the minimum security level required to be able to search for new files when a caller logs on. There are menu commands for searching for new files and listing files. You can have these commands on a menu at set a minimum security level to access these commands. If you are running an adult board, you may not want your callers to see some of the descriptions for your GIFs or other files until they are verified. Use this option to prevent callers from seeing those descriptions when they log on.

> ***PowerTip:*** *Want to reduce the number of things a caller must do before getting to the Main menu of your BBS? Set this option to be higher than every security level on your system. PowerBBS will not ask any of your callers if they want to search for new files!*

Minimum Security Level Needed to Enter an Internet Message

If you have Internet forums on your BBS, you may want to let your callers read those messages, but not be able to write messages until they pay a fee. Use this setting to restrict which callers can enter Internet messages. This security level overrides the security level given to the Enter a Message menu command or the Reply command setting (see above).

> **Note: The next six options apply to the Sysop menu command. You should place this menu command on your Main menu with a high security level to access this command. These six options will allow you to further refine what a sysop can do on your system. You might make a special security level of 140 for sub-sysops. Set this as the security level to access the Sysop menu command. Then set higher levels in the next six options for those commands you don't want your**

sub-sysops to be able to access.

Activity Log

This is the minimum security level needed to view the activity log.

Drop to DOS

This is the minimum security level needed to drop to DOS using REMOTE.BAT. Be very careful in allowing sub-sysops to access this command. In a short time they can destroy your entire BBS!

Message Pack

This is the minimum security level needed to pack the message bases. This setting has no bearing on your events.

DOS Function

This is the minimum security level needed to perform a DOS function. This is similar to dropping to DOS except the caller can only perform one command at a time. Again, be very careful about giving someone access to this command.

List Users

This is the minimum security level needed to list users from the Sysop menu. There is a standard menu command that performs the exact same function. This setting has no bearing on that menu command. This setting comes into play if you choose not to place the List Callers command on your BBS, and you only want Sysops to perform this command.

Update Users

This is the minimum security level needed to update your users file. Again, be very careful about giving someone access to this command.

Level Needed to Read, Kill Any Message

Anyone with this security level will be able to read and delete any message on your system. Sysops use this feature to monitor the message files and remove obscene or obnoxious messages. Be sure you trust a person thoroughly before giving them this security level.

Note: The next three options are ratios as explained earlier in this chapter. They only come into play when there are no ratios given for a security level. The fourth option is the minimum security level needed to bypass these ratios altogether.

Download/Upload Bytes Ratio

This is the ratio of upload bytes to download bytes. 100 means a caller must upload at least the same number of bytes that he downloads (100%). 25 means a caller must at least upload 25% of the bytes he has downloaded. This is a more fair method of comparing uploads to downloads.

Messages/Calls Ratio

This number is really more of a percentage than a ratio. 100 means the caller must leave a message 100% of the time (every time she calls). 50 means the caller must leave one message for every two calls. 25 means she must leave one message for every 4 calls.

Download/Upload Files Ratio

This is the ratio of uploads to downloads. 100 means a caller must upload one file for each file he downloads. 25 means a caller must upload one file for every four he downloads.

Minimum Security Level Needed to Bypass Ratios

The above three ratios are defaults. This setting is the minimum security level needed to bypass these ratios altogether. You can use the above set of ratios or the ratio settings set per security level. The choice is yours.

9.3 Securing your files

You must read the chapters on the file system and the message system. It describes how to set up files for your system and how to restrict access to your forums. You will be able to restrict access to your forums by security level. You can then place sets of file listings in those forums thereby keeping callers with lower security levels away from those files. You can also set up your Download Security Data File and Upload Security Data file in Config under Data File

Locations.

The following are some other things that you can do on your system to protect your files.

Using security levels in your menus

Note: Read the chapter on changing and creating menus for instructions on how to make the changes described below.

Sysops running an adult BBS may have adult files in every forum of their BBS. Therefore it is vitally important to prevent unverified callers from downloading those files. It is also important that they don't see these file descriptions. Many of these descriptions are quite graphic and not intended for young eyes.

In the file menu for your BBS, set the minimum security level for the following menu commands:

List Files
Download Files
Read a Text File
View Inside a ZIP
New Files (see also Default Security Information earlier in this chapter)
Search File List

By setting the security level for each of these commands you will prevent unverified callers from downloading or seeing any references to the files on your system.

9.4 Updating a caller's security level

As noted earlier in this chapter, every caller is given a default security level. The most obvious way to upgrade the security level is by manually updating that caller's information while he is on-line or by using the sysop menu. However, there are other ways as well.

Questionnaires

Be sure to read the section on creating questionnaires for a complete explanation. For our purposes here you must take special notice of the questionnaire command that upgrades the caller's security level. When a caller completes a questionnaire you can automatically upgrade their security level.

Call Back Verifier

The Professional version comes with a Call Back Verifier. Be sure to read the section of the manual concerning this feature. Be sure to take a look at the part concerning the CALL5 file. In this file you can automatically upgrade a caller's security level upon successful completion of call back verification.

PowerLang

PowerLang is the built in programming language for PowerBBS. Be sure to read the chapter about PowerLang in this manual. The command to review is UP_SEC which permits you to upgrade a caller's security level from inside of a PowerLang program (POW). You may want to write a POW that will allow you to interact to the responses of your callers (unlike a questionnaire) before upgrading their security level.

9.5 Keeping callers out of your BBS

At some point you will have a rude caller on your BBS. If you want to keep that caller out, edit that caller's account via the sysops menu and select Dead and Locked Out. The next time that caller tries to call back, he will be told that he is locked out of the system. Of course, this won't keep him from calling back under a different name. But at least it will help.

PowerTip: *If a locked out caller calls your BBS and sees he is locked out, he may try to call back under a different name. You will see in your activity log when a locked out caller tries to log on. So be wary. If you get a new caller that same night, it just might be that caller using a different name!*

Caller ID

PowerBBS supports Caller ID if you have a modem that can send that information to PowerBBS. Caller ID is a great way to keep tabs on your callers. See the chapter on customizing your system for more information.

Call Back Verifier

If a caller has already been verified, the CBV will not allow any other caller to be verified using that same number. See the chapter on customizing your system for more details.

Packing your USERS file

The section on events in the chapter on customizing your system explains how to pack your USERS file. Be aware that all callers marked as Dead and Locked Out are deleted from your USERS file when you pack it. This means that the caller you locked out will be free to call back with that same name again. To prevent this from happening, place that name in your Junk Users file in Config under Data File Locations. When a caller tries to use a name that is in the Junk Users File, PowerBBS will force that caller to choose a different name. You will see this in your activity log. If you do, you know that the rude caller is trying to call back!

10 Teleconference

PowerBBS comes with a powerful and very entertaining teleconference system. If you are running multiple nodes, your callers will be able to join together into a teleconference where they will be able to talk to one another, send action commands, and even create their own private teleconference areas.

10.1 Overview

In order to use the teleconference feature you will need at least two nodes on your BBS. If you are running a one line system and choose to set up a local node for yourself, do not set your local node as zero. If you do, you will not be able to use the teleconference feature. Many sysops set up a local node as the last node on the system. In other words, if they have two outside lines, they make a third node and call it node 3.

Getting into teleconference

Your callers can enter teleconference via Menu Command 12, Who is On-line, Node Chat. When a caller selects this command he will see two options: Enter Room or One to One Chat. The Room option is the actual teleconference feature. One to One chat will be discussed at the end of this chapter.

After selecting Room, your caller will have a choice of whether to enter an already existing room or to create his own room. By default there is always one room called the Main Lobby. You, the sysop, can pre-define more rooms to be available. Your callers can also create their own rooms while on-line.

Talking to other callers

While in teleconference, a caller simply types what he wants to send to other callers. When he is ready to send his message, he simply presses Enter. All of the other callers will then see his message. The caller can type more than one line of text while in teleconference; it is not sent until he presses Enter.

While a caller is typing a message, he will not be interrupted by other messages. When he sends his message, he will see the other messages sent by other callers. This makes the teleconference much easier to use, especially when you have several callers in teleconference at once.

So what is a room?

A room is like a mini teleconference within teleconference. America On-Line uses rooms as do other powerful BBS systems. If you are familiar with those rooms, you will have no trouble learning about rooms in PowerBBS. When a caller is in teleconference, he is always in a room. By default he enters the Main Lobby. While in a room, he will see what other callers are typing *after* they press Enter to send the message. Likewise, he can type his own response and press Enter. When he does, all of the other callers in teleconference will see what he sent.

A room is merely a way of dividing up the teleconference. Callers in a room only see messages from other callers in the same room. Suppose you were running a six line BBS and all six of your callers were in teleconference at once. If they were all discussing the same topic and were in the Main Lobby, they would be happy. *Why?* Because they would be able to see messages from all of the other callers in teleconference.

But suppose that two of the callers, say Benny and Joon, wanted to break away for a romantic interlude? Benny could create a private room and invite Joon to join him. He could name this room something like "Benny's Paradise." There would now be two rooms in teleconference: Main Lobby and Benny's Paradise. Benny and Joon would only see messages from each other. The other four callers would only see messages amongst themselves. And because Benny made his room private, none of the other callers could join that room unless Benny explicitly invited them.

What else can my callers do?

Besides have a lot of fun? Your callers can send action commands. An action command is a word that sends a special message in teleconference. An action command can be simply a single word or it can be a single word followed by the name of another caller in teleconference. You, the sysop, will be able to create your own set of action commands. PowerBBS comes with a few already, but you can add or change these as you see fit. More on this later.

Here is a simulated teleconference with action commands from the view of James.

```
JAMES        >Grin
Text Sent
JAMES is grinning at everyone for some reason!
JAMES        >
SWEETS       >Hey! How did you get that message to pop up?
JAMES        >Grin sweets
Text Sent
JAMES is grinning at SWEETS for some fool reason!
JAMES        >I used the action commands. Type /A to get a list of the action commands
              available. You can use one word commands by themselves or two word commands
              to another caller in the room.
Text Sent.
JAMES                                    >
SWEETS                                   >Oh, I get it! Thanks!
```

PowerTip: *Most of the commands in teleconference that require the name of another caller only need enough letters of the other caller's name to differentiate that caller from other callers on-line to work! For example, James could have typed "Grin Sw" to send the Grin action to Sweetcheeks, assuming that nobody else in teleconference had a name that began with "Sw".*

Secret actions

Secret actions are only seen by the sender and the recipient. Only two-word actions can be secret actions. To send a secret action, append an exclamation point (!) to the end of the action. To send the above example as a secret command, James would have typed:

```
JAMES                                    >Grin Sweets!
```

Sweets and James would have been the only ones to see that command.

Displaying a list of actions

In your \POWRBBS directory you can have a file called ACTION. This is a plain text file that should contain a list of the actions on your BBS. To see a list of these actions, type /A and press Enter.

Whispers

To send a private message to another caller in teleconference that only you and the other caller sees, type /NAME; Message where NAME is the name of the other caller followed by a semicolon (;). For example if James wanted to send a private message to Sweets, he would enter:

```
JAMES                                    >/Sweets; Let's blow this place and meet for
dinner!
```

Only James and Sweets would see this message.

User registries

If you register PowerBase, the PowerBBS database add-on, you can set up one database as a user registry (see the chapter of PowerBase for more details). Once you have set up a user registry in PowerBase, your callers can look up other the user registry entries of other callers from within teleconference.

To look up another caller's user registry, type /R NAME where NAME is the name of another caller. If the other caller is on-line, you need only type enough letters of the name to identify that caller from the rest of the callers on the system. For example, if Sweets was on-line and no other callers on-line had names beginning with SW, you would simply type /R sw and press Enter. If Sweets had a user registry entry, you would see it displayed on your screen.

Note: If the registry entry you want to see belongs to a caller who is not on-line, you must enter the full name of the caller.

If you want to edit your own personal user registry entry from teleconference, simply enter /E.

Entrance and exit messages

Your callers can have special messages that display whenever they enter or leave teleconference. These messages are created by the caller and can be up to 60 characters long. These messages can be changed at any time! To create an entrance message, type /L Message. To create an exit message, type /O Message. For example, James could create an

entrance message by entering:

```
JAMES                                    >/L Look out ladies, here I am!
```

In our example, Sweets would see the following when James joined teleconference:

```
SWEETS                                   >
JAMES> Look out ladies, here I am!
```

PowerTip: *This is a very popular feature on many BBSs. Be sure to let your callers know that they can create an entrance or exit message at any time. Every time they use the /L or /O command, PowerBBS creates a new entrance or exit message. PowerBBS saves this in the user's record, so they don't have to create every time they call.*

Seeing who is on-line

To see the other callers on-line, type /W and press enter. Optionally, you can simply press Enter to see a list of the other callers on-line. If a caller is in teleconference, the Who is on-line display shows what room each caller is in.

Inviting other callers into teleconference

To invite another caller into teleconference, use the /I NAME command. This will send a message to the caller indicated by NAME asking them if they want to join you in teleconference. If they answer yes, they will be whisked away to teleconference. If they answer no, you will see a message indicating that the caller denied your request.

Note: You cannot invite a caller into teleconference if that caller is in a door, entering a message, transferring a file, or in some other part of the BBS that cannot be interrupted. You will see a message that says "Node unavailable for chat" when this happens.

If James wanted to invite Sweets to teleconference, he would enter:

```
JAMES                                    >/I Sw
Paging SWEETS
```

Ignoring other callers

If another caller is being a pest, you can ignore all messages from that caller while in teleconference by using forget. To forget a caller, type /F Name. To unforget that caller (see his messages again), type /U Name. If Sweets was getting tired of James sending her secret actions, she would enter:

```
SWEETS                                   >/F James
Ignoring James
```

If Sweets remembered that James is her husband and decided she didn't want to ignore him any longer, she would enter:

```
SWEETS                                   >/U James
UNIgnoring James
```

Seeing time left on-line

To see how much time you have left on-line, type /T and press Enter.

Quitting teleconference

To quit teleconference, type /Q and press Enter. You will return to the last menu you were at before you entered teleconference. If you have an exit message, this message will be displayed to the other callers when you leave.

10.2 Rooms explained in detail

As explained earlier in this chapter, rooms are simply mini teleconferences. A good analogy would be to compare teleconference to a CB radio. Each channel on a CB radio would be a room. You can only be tuned in to one channel on the CB at a time. The most commonly used channel on a CB radio is channel 18, the trucker's channel. This is similar to the Main Lobby in teleconference. It's the place where most people hang out.

If a caller creates another room, or if you, the sysop, pre-define other rooms, those can be considered different channels on a CB. However, the rooms in PowerBBS are much more powerful than CB channels. Rooms can be either private or public. And each room can have a moderator to oversee the goings on in that room.

A caller creates a room

When a caller enters teleconference, he has a choice of entering the Main Lobby or creating his own room. If he creates his own room, PowerBBS will ask him for a name for that room. He can enter anything he chooses here. Then PowerBBS asks him if he wants to close the rooms to invitation only. If he answers yes, he has created a private room. If he answers no, he has created a public room. Regardless, he is now considered the moderator of that room.

Note: A caller can also create a room by using the Join command (/J). If a caller types /J and presses Enter, PowerBBS will allow him to join another public room or create his own room. He will not see private rooms listed at all.

Public rooms

Public rooms are rooms that any other callers can join. A caller can join a room when he enters teleconference or by using the /J command. He will see a list of the available rooms. He need only enter the number of that room to join it. He will not see private rooms listed.

Private rooms

A private room is one that is closed to invitations only. This means that other callers will not be able to join that room by using the /J command. The moderator will have to invite other callers individually to join his room. Remember, the moderator is the caller who actually created the room.

To invite another caller to a room, the moderator will type /I NAME where NAME is the name of another caller. The other caller will see a message asking her if she wants to join the moderator in his teleconference. If the caller answers yes, she will be whisked away into the moderator's private room. The caller being invited into a room can be in teleconference or almost anywhere else on your BBS.

Other callers invited into a private room can also invite other callers into that room. However, as you will see, the moderator can kick out undesirables!

The moderator is all powerful!

Whoever creates a room is the moderator. She is then all powerful. If the moderator quits a room while other callers are still in that room, the first caller she invited in becomes the new moderator. Once a moderator quits a room, they have lost their moderator status.

If a caller in a private or public room is annoying other callers, the moderator can kick out that caller by using the /K NAME command. For example, if Sweets created a private room and invited James to join her, she could also kick him out. Here's is what she would enter:

```
SWEETS                                    >/K James
Kicked JAMES Out!
```

A caller who is kicked out of a room cannot re-join a room unless the moderator invites that caller back into the room. Up to 200 people may be kicked out of a room.

10.3 Configuring action commands

You've just seen action commands in operation. Now it's time to learn how you can configure your own action commands.

ACTION.DAT

In your \POWRBBS\ directory you will find a file called ACTION.DAT. This file contains the actions for teleconference. You can add as many commands to this file as you would like. The key to remember is that an action command can be either a one-word or two-word command or both. A two word command must be sent to another caller (see Grin Sweets above). Here is a sample from the ACTION.DAT file.

A one-word version of the *shrug* action command

```
shrug,|CHATNAME| is shrugging indifferently.
```

The first word is the name of the action that your callers will type. In the ACTION.DAT file this must be followed by a comma. After the comma is the action itself. You can use whatever MACROs you choose. The CHATNAME macro is used to refer to the person who actually typed the action. CHATNAME always displays the name the caller is using in teleconference. Remember, callers may choose to use their handle in teleconference instead of their real name. CHATNAME will always pick up what name they are using and display in properly.

A two-word version of the *shrug* action command

```
@shrug,|CHATNAME| is shrugging ~his~her~its~ shoulders at @@.
```

Since this is the two-word version of the action, the action word must start with a @ in your ACTION.DAT file. Your callers won't use the @, but they must supply the name of the other caller (shrug sweets). The @@ represents the chat name of the caller who is receiving the action (sweets, in our example).

Notice the ~his~her~its~ part of this command. This part of the command is used if you are tracking the gender of your callers. PowerBBS will determine the gender of the caller and display the proper word in its place. We used *its* for callers who choose anonymous as their gender. The ~his~her~its~ part of the command can be used in either one word or two word commands. Just remember to start, separate and end this part of the command with a tilde (~).

Note: You don't have to use his/her/its. You can use whatever you need here to differentiate the gender of the caller (him/her/it, guy/gal/goober, masculine/feminine/androgenic).

Profanity filter

If you want to filter out profanity from your teleconference, you can add those nasty words to your ACTION.DAT file. When a caller types that word and sends it to other caller callers, PowerBBS will replace that word with ****. Here is a sample entry in ACTION.DAT to filter out certain words:

```
|Booger
|Liberal
|Conservative
```

Multiple action files

If you choose to set up sysop defined rooms in your BBS (explained later), you can have a separate set of actions for that room. The structure of the file is the same as for ACTION.DAT. However, you must give the file a different name. We suggest that you end the file name with DAT. You can use whatever you choose for the first part of the file name.

Action display files

When a caller enters teleconference or uses the /A command, he will see a list of the actions available for that room. For the Main Lobby this file is called ACTION (ACTION.DAT is the data file that contains the actual actions). ACTION is a plain text file. List your action commands in this file.

PowerTip: *List the actions in ACTION in alphabetical order, divided up by one word and two word actions. Your callers will appreciate this!*

10.4 Customizing your teleconference

You may choose to simply let your callers use the Main Lobby or create their own rooms, all of which will share the same ACTION.DAT file. Any caller with a high enough security level to access the Who is on-line menu command on your menu will be able to join teleconference. However, if you need more power, PowerBBS has it!

CHAT.DAT

CHAT.DAT is a chat data file that you may create in your \POWRBBS directory. In this file you can create rooms in teleconference that will always be available to your callers. You can assign a moderator in advance for these rooms, set it to be private or public, and even specify which security levels you want to be able to access that room. Furthermore, you can also assign a custom set of action commands for each room.

Note: CHAT.DAT is a text file that you create yourself. Use Windows Notepad or any other text editor that you choose.

PowerTip: *If you have both minors and adults on your BBS, you can create adult and teen rooms. Assign specific security levels to adults and minors. Then create a room for adults and a room for teens. By specifying which security levels can access these rooms, you can keep teens out of the adult room and adults out of the teen room!*

Creating a room in CHAT.DAT

Using a text editor, create \POWRBBS\CHAT.DAT. To create a room that will always be available to your callers, use the following syntax:

```
R;[Room Title];[Private Y/N];[Moderator];[Optional Security Levels]
```

The following will create a public room called PowerBBS Support with no moderator. Since no security levels are specified, all callers may join this room.

```
R;PowerBBS Support;N;NONE
```

The following will create a public room called Teen Chat with Jack Sprat as the moderator. Only callers with security levels of either 30 or 50 will be allowed to enter this room.

```
R;Teen Chat;N;Jack Sprat;30;50
```

The following will create a private room called Flirts Nook with Desiree Cousteau as the moderator. Only callers with security level 40 will be allowed to enter this room. Because it is a private room, the moderator must be there first to invite in other callers.

```
R;Flirts Nook;Y;Desiree Cousteau;40
```

Using separate actions for each room

Unless you specify otherwise, each room in teleconference will use the actions listed in the ACTION.DAT file. If you want a room to use a different actions file, you must specify this in the CHAT.DAT file. Don't forget to create the action data file and the action display file as outlined earlier in this chapter. The following is the syntax for specifying different action files.

```
A;[Existing Title of Room];[Action Data File];[Action Display Screen]
```

Note: You can only specify a specific action file for a room that you have created at the beginning of the CHAT.DAT file

The following will assign the ADULT.DAT action data file to the Flirts Nook room that we created earlier.

```
A;Flirts Nook;C:\POWRBBS\ADULT.DAT;C:\POWRBBS\ADULT
```

Be sure to include the full path to the files listed above. Also, remember **not** to put a file extension on the action display file.

What we have done

If you entered all of the examples into your CHAT.DAT file, you will have created three different rooms in addition to the Main Lobby: PowerBBS Support, Teen Chat, and Flirts Nook. The Flirts Nook room will use a different set of action commands, probably of an adult nature. PowerBBS Support and Teen Chat will use the default action data file, ACTION.DAT.

Chat character

By default, PowerBBS uses a > after the callers name to indicate where text is going to be displayed. If you want to use a different character, you can specify it in the CHAT.DAT file. The following is the syntax for changing this character:

```
>[Character to use]
```

To change the character from a > to :, enter the following:

```
>:
```

Your teleconference would then look like this:

```
JAMES                                          :
```

10.5 One to One Split Screen Chat

When a caller selects the Who is on-line command, he has a choice of entering a Room or a One to One Split screen chat. Everything we have discussed so far concerns the Room option (teleconference). If your callers would prefer to chat one on one with another caller, they can choose the split screen chat.

When they choose this option, they will be asked for which node to send a chat request. After they enter the node number, PowerBBS will send a request to that node asking if that caller wants to join the first caller in chat. If the caller responds with a yes, both callers will be brought into split screen chat. The screen will be divided in half.

The top of the screen is where the caller types. The bottom of the screen is where the caller will see what the other caller is typing. Unlike in teleconference, each caller will be see what the other is typing as he types it. In teleconference, the other callers don't see anything until the caller who is typing presses Enter.

Limitations of Split Screen Chat

Only two callers can be in split screen chat at once. Action commands are not available, nor are rooms or any of the other commands in teleconference. Most callers will prefer teleconference over split screen chat. It's a lot more fun. Be sure to let your callers know about the features you have in teleconference. It will be sure to be a big hit.

Quitting split screen chat

Either caller can quit the split screen chat by pressing Ctrl-Z.

11 Multiple Nodes

11.1 Getting started

If you want to run more than one node with PowerBBS, you can. Nodes can be local only or remote nodes. Each remote node requires a separate phone line and modem. Contact your phone company about getting another phone line for your BBS. Most phone companies provide roll-over phone lines. This allows you to give out one phone number for your BBS. The phone company takes care of forwarding the call to the next open phone line. If all of your numbers are occupied, the caller gets a busy signal. Some lines can be set to roll over in one direction only. It tries line 1, 2, 3, then 4. If a caller tries to dial one of your rollover lines directly (say line 4) and that line is busy, the call won't roll over to line 1. The caller gets a busy signal. Some phone companies offer a special feature for BBSs with multiple lines. If a line rings 3-4 times without an answer, the phone company will route the call to the next available line. This feature is great if one of your modems dies while you are not there.

Local vs. Remote

You can have as many local nodes on your BBS as you would like. A local node is not hooked up to a modem. It is used by you to log on from your computer. If you are running a single line BBS, you may want to create a second node that is local only. This will enable you to log on to your BBS without taking your remote node off-line.

A remote node is a node that uses a modem and a phone line. Remote nodes are the nodes on which you will receive phone calls. See the sections on modems and Windows for more information regarding Com ports. Basically, you can have up to eight remote nodes on one computer. This is a limitation of Windows. In order to run eight nodes, you will need eight modems, eight phone lines, and most likely a multi-port card since standard I/O cards only have two plugs for external modems. See the chapter on modems for more information.

You need a separate PowerBBS Data File for each node!

As we discussed at the beginning of this manual, the PowerBBS icon's command line starts PowerBBS with a PowerBBS Data File (DAT file). The default installation of PowerBBS comes with a DAT file called C:\POWRBBS\POWRBBS.DAT. If you want to add a second node to your BBS, be it local or remote, you will need to create a second DAT file. You will use this DAT file to start a second copy of PowerBBS. You will have one copy of PowerBBS running for each node on your BBS.

11.2 Creating a second DAT file

Before creating a second DAT file, get the first one working properly before attempting to create the second node's DAT file. This will save you a lot of trouble. When you are ready to create a second DAT file, start Config with the first DAT file. Select File, Save As, from the menu. Enter the file name of the new DAT file and click OK.

> ***PowerTip:*** *Call the DAT files POWRBBS1.DAT, POWRBBS2.DAT, etc. where the number is the node number. You can save these files in your \POWRBBS\ directory.*

You now have two DAT files. Since you just saved the new one, you will be editing this file in Config. Look at the title bar of Config to see the name of the DAT file you are editing. You will need to go through Config and change each and every entry marked with an asterisk (*) to be different for that node. Any entry with an asterisk must have an entry unique from every other node. The following are the sections you will need to change: Modem, Options #2, Options #3, Data File Locations, File Locations #1, and File Locations #2.

Modem

Make sure that you are using a different Com port for each node. Also, make sure each node has a different number.

Options #2

If you are testing your uploads, remember to create a different batch file for each node. If your second node is a

local node, you really don't need to test uploads. After all, are you going to upload a bad file to your system? If you are running FrontDoor or another mailer, you probably will only start FrontDoor for one node.

Options #3

If you intend to allow your callers to use the built in QWK mail options, you will need a separate directory for each node. This directory is used by PowerBBS to ZIP and UNZIP the mail packets. If you don't create a unique directory for each node, your callers will be very unhappy when they get another caller's mail!

Data File Locations

You will definitely need a different Event Data File for each node. If you don't change this file name, PowerBBS will run your events twice: Once for each node! If you are running live programs (doors), you will need to create a second set of batch files to start your doors. Be sure to create a second Live PGMS Data File and enter the batch file names in it.

File Locations #1

You will need to create a separate transfer directory for each node. This directory is used as a temporary holding place while PowerBBS transfers files to and from your callers. The Display Output file is used to show the results of DOS commands and the test uploads batch file. The DSZ listing file is used if you use external protocols for file transfers. The Live Programs Batch File that PowerBBS creates must have a unique name for each node. If you don't provide a unique name for PowerBBS to use when you run a door or an event, they won't work.

File Locations #2

You had better use a different file name for the Current Caller's Information or your node status button and teleconference will not work properly. We suggest USERINF1.BBS, USERINF2.BBS, etc. The Error file will be used to track errors on that node. The location of the DOOR.SYS drop file absolutely must be unique for each node or your doors won't work. Be sure to include the full path and file name for this file, including the DOOR.SYS part.

11.3 Setting up Program Manager

Copying your icons

Once you have created a second node of PowerBBS, it is time to do a little housekeeping in your PowerBBS program group in Program Manager. First, you will need a different icon to start PowerBBS. Click once on the PowerBBS icon. Select File, Copy, from the menu. Select the target program groups as PowerBBS.

> ***PowerTip:*** *If you have Windows 3.10 or higher, hold down Alt and click and drag the icon. When you release Alt, Windows will copy that icon!*

Click once on the new icon and select File, Properties. Edit the command line to start use a different DAT file in the command line. Simply change POWRBBS.DAT to the new DAT file name (POWRBBS1.DAT or whatever). In the Description text box, enter PowerBBS Node 1 or whatever you want to call that icon. While you're in the Program Properties dialog box, click the Change Icon button and select a different icon for this node, preferably one with the same number as the node number! Click OK to return to Program Manager.

> ***PowerTip:*** *If you have Windows 3.10 or higher, hold down Alt and double-click on an icon to edit the program properties.*

Create a new Config icon

Since you now have more than one DAT file for PowerBBS, you might as well create a second icon to start Config with that DAT file. Like the PowerBBS icon, the Config icon also has a command line that includes a DAT file. Change this icon the same way that you copied and changed the PowerBBS icon. Don't forget to change the description for this icon so you know which DAT file you are opening.

Words of wisdom

At some point in time you will need to make changes to your DAT files. If you change a setting in one DAT file, make sure you change it in the other DAT file. For example, if you decide to use the credits option, be sure that you check this option in both DAT files.

However, many of the options do not be need to changed in both DAT files. For example, if you add another bulletin to your Bulletin Data File, you only need to add it for one node. *Why?* Because unless you've changed things while I wasn't looking, both DAT files are using the same Bulletin Data File (see Data File Locations in Config). You

also need only make changes in one of your nodes for the Forum information. *Why?* Because they both use the same Forum Data File (see Data File Locations in Config).

Don't worry, you'll get the hang of it after a while!

11.4 Networks and PowerBBS

You can run PowerBBS from a network. This will allow you to have callers from different computers all log on to PowerBBS at once. PowerBBS uses files on disk to communicate with other nodes. This means that you can start copies of PowerBBS from your server as well as your workstations. Your callers will never know the difference.

Install PowerBBS on the server

To run PowerBBS from a network, install the PowerBBS files on your server. Make sure the workstations have full access to the PowerBBS directories on the server because they will to be able to read as well as write to those directories. The only files you will need on the workstation are the PowerBBS DLLs listed below. They must be installed in the \WINDOWS\SYSTEM\ directory of each workstation, unless, of course, your workstations start Windows from the server.

Note: You will not have any PowerBBS related files on the workstation except those listed above. This is the same whether you are running a peer to peer network or client-server network.

Set up your DAT files

You will need a separate DAT for each node of PowerBBS, even those nodes run from a workstation. The Com port you choose for a node is the Com port for *that* computer, but I'm sure you knew that. You will need an icon for each node you are running from the workstation. This icon will start PowerBBS from the server.

PowerTip: *When you add an icon in Windows that points to a file located on the server, Windows will warn you that this program may not be available later (if the network goes down, for example). Click OK. This is just what you're supposed to do!*

Peer to Peer networks

Note: Windows for Workgroups has been tested and found to function flawlessly with PowerBBS. It is an excellent choice for a small peer to peer network.

Peer to peer networks are a little more tricky to set up because there is really no server or workstation. For our purposes the server is the PC that contains the PowerBBS files. Remember, you will only install PowerBBS on one of the PCs. The other PCs will start PowerBBS from the server.

Each PC on the network can access the drives from the other PCs. This makes for an interesting jumble of drive letters. The following is an example of a two PC peer to peer network. Each PC has two hard drives. One PC has a CD-ROM drive.

Computer #1

Hard Disk	PC 1 Name	PC 2 Name
1	C	E
2	D	F
CD	M	M

Computer #2

Hard Disk	PC 1 Name	PC 2 Name
1	E	C
2	F	D

What this means

When you install a hard disk in a computer, it is automatically given a drive letter starting with C. Each of these computers have two hard drives. These four drives are named C and D on both computers. When you use a peer to peer network, you "log on" to another PC's hard drives. The software asks you for a drive letter to use. Most often you will

pick the next available drive letter.

Suppose you are sitting at PC 2 and want to connect to PC 1's first hard drive (C:). You use your network software, usually File Manager, to connect to the other PC's drive. It asks you for a drive letter to use. Since you already have a C: and a D: on your computer, you pick E:.

So now what do you have? PC 1's C: drive is PC 2's E: drive, that's what. In the above example we connected each computer to the other computer's drives following the example in the above paragraph. The only exception is the CD drive. Since our software let us call the CD drive M on PC 1, we used that same drive letter on PC 2 when we connected to it. At least in this case both computers call the same drive by the same drive letter!

The problem I am about to present is not unique to PowerBBS. All software running on a peer to peer network has to get around this problem. Suppose you create a third node for PowerBBS to use on PC 2. You copy the DAT file for one of PC 1's nodes and save it on PC 1 (remember, all the PowerBBS related files except the DLLs are located on the server).

Now edit this DAT file while you are on PC 2. Look under Screen Locations #2 in Config. Where does this DAT file say the Bad Ratios Screen is? If you left this setting as the default, it will say C:\POWRBBS\SCREEN\BADRAT. Leaving Config open, start the Windows File Manager on PC 2 (which is where you are working). Click on the C: drive icon at the top of the screen. Where's the PowerBBS directory? You don't see it, do you? That's because PC 2 calls PC 1's C: drive E:! Remember how we logged on to PC 1 and connected the drive earlier?

> ***PowerTip:*** *If this is confusing, don't worry about it. It's a tough concept to handle. Stick with it and you'll get it after a while. To help you understand this a bit better, pretend you are married (if you're not already). You call your mother Mom. Your wife calls your mother Mom-in-law. Your mother is the same person. She just has a different relationship to you than she does to your wife. It's the same thing with peer to peer networks!*

How this affects PowerBBS

The problem we have here is that PC 2 is looking on the C: drive for files that are really on the E: drive. You will have to modify all of the entries in your DAT files for the nodes run from the workstation. Fortunately, you can get 75% of this done very quickly.

The PowerBBS Data Files for each node are plain text files. You can edit them in a text editor that can do a search and replace, you can search for all occurrences of C: and replace it with E:. Unfortunately, Notepad cannot do this. However, Windows Write can. Open up your DAT file with Write. When it asks you if you want to convert the file to Window Write format, answer No! Use the Find and Replace options of Write to change all the references of C: to E:. Now use File, Save As, to save the file. At the bottom of the Save As dialog box, select Text Files (*.TXT) as the Save File as Type option. Be sure the correct file name and location are there and click OK.

> **Note: Because the drive pointers are all cockeyed on a peer to peer network, you must run Config only for those DAT files that will be run from that PC. Edit PC 1's DAT files only from PC 1. Edit PC 2's DAT files only from PC 2.**

There are a number of other data files in PowerBBS that must be changed to reflect the proper drive as seen from the workstation. Though you may be tempted to modify the following files with a text editor, don't! If you are off by just one byte in one of these files, you can disable your BBS entirely. If this happens, delete that file and let Config create it again. The following is a list of files that need special attention.

Test Upload Batch File
Event Data
Live Programs Data - Batch files must be updated
Bulletin Data - Make a second one to use for all of the workstation nodes
Files No Charge Data File - Make sure you have entries for both drives
Questionnaire Data - Make a second one to use for all of the workstation nodes
Upload Security Data - Make sure you have entries for both drives

Source Directory

If you are using a peer to peer network you must have a different Source directory for the nodes on the workstation. If you will recall, the Source directory is where you place all of your *.MNU menu files and *.POW PowerLang files. The menu files are self contained units. They look for the menu display file as specified in the menu

editor. Therefore, you will have to have two versions of each menu file (but not the display file).

Copy all of the files in your Source directory for the server's nodes to the source directory you will create for the workstation nodes. We suggest you call this directory \POWRBBS\SOURCE2\. This setting is specified in Config under File Locations #1.

Edit each of your menu files for the workstation's Source directory and change the drive letters for the locations of the menu display file and menu help file. Edit each of your PowerLang programs to make sure that any commands that point to a drive are actually pointing to the correct drive.

Forums

You will need to have a separate Forum Data File for the nodes run from your workstation. This file is specified in Config under Data File Locations. We suggest \POWRBBS\DATA\POWRCNF2.BBS for the nodes run from the workstation. Copy the original POWRCONF.BBS file for the server's nodes to POWRCNF2.BBS. Then run Config from the workstation and edit one of your workstation nodes. Go to Config under Forums and edit *each and every one of your forums!* Make sure that they are pointing to the proper drive.

> ***PowerTip:*** *Here's a shortcut for doing the above very quickly. Edit the forum. Press Tab until you reach the first field you need to change. Press Home. Press Delete. Type the new drive letter. Press Tab to move to the next field. Repeat this process.*

Download Directories Data File

You must edit each Download Directories Data File you have for your forums. For each directory you have listed, insert a new line and add that same directory. Only this time, use the correct drive letter for the workstation nodes. It's all right to use the same file for both the server and workstation nodes as long as you do this.

Files Listing Data File

You will need to have a separate File Listings Data File for your workstation's nodes. If you don't, callers on your workstation's nodes will not be able to access your file lists. Simply copy the server's File Listings Data Files to new names. Use those new names in Config under the appropriate forums. Edit those files to look at the proper drive.

12 PowerLang

PowerLang is the built in programming language for PowerBBS. It is very similar BASIC. PowerLang programs are called POWs because their file extensions are always POW. Using POWs will allow you to add new features and options to your BBS. There are over 50 commands in PowerLang. Take these PowerLang commands, add in the PowerBBS MACROs, color codes and built in menu commands, then sprinkle liberally with your imagination and you have the recipe for a very powerful BBS. Remember, we call it *Power*BBS!

It is beyond the scope of this manual to teach you programming. However, we will discuss some simple sample POWs and explain how they work. Writing more complicated POWs is really nothing more than writing a series of smaller programs and putting them altogether.

What you can do with PowerLang

PowerLang will allow you to display information to your callers, get information from your callers, read and write information from files, run doors, run menu commands and manipulate some information about your callers. Many sysops have written POWs and posted them on the Support BBS for free or for a small fee. We at PowerBBS can write custom POWs for your for a small fee.

POWs can be used to create simple doors such as a graffiti wall or a quotes door. You can use a POW to write a personality test that will keep score based on the caller's answers and then write a bulletin. PowerLang allows you to send messages. See the appendix for more information about a General Store POW that makes use of this feature. Just use your imagination.

12.1 Getting started

Where to place your POWs

POWs should be placed in your \POWRBBS\SOURCE directory. This setting is in Config under File Locations #1. POWs are usually numbered. If you want to start a POW from a menu or a screen (PL:### MACRO), they must have a number. If you intend to start a POW from a menu the file name must be between 0 and 255 (0.POW to 255.POW). POWs that are only started from other POWs can have any name you choose — they don't have to have a number.

Limitations of PowerLang

There are four different types of PowerLang variables: String, Character, Integer, Boolean. You can have up to 255 variables of each type. They are explained below:

String: A string variable can hold any up to 90 characters. Valid characters are any characters found in the ASCII character set. String variables are denoted by the letter S and a number. Valid string variable names are S1 to S255.

Character: Character variables are special string variable types. They can hold only one character at a time. They are used to hold the response from a user to the Get_Choice command. Character variables are denoted by the letter C and a number. Valid string variable names are C1 to C255.

Integer: An integer variable can only hold a whole number between 0 and 32000. Integer variables are denoted by the letter I. Valid integer variable names are I1 to I255.

Boolean: Boolean variables are also called logical variables. They can hold only one of two values: Yes or No, True or False. Boolean variables are denoted by the letter B and a number. Valid boolean variable namses are B1 to B255.

12.2 Types of PowerLang commands

We have divided the PowerLang commands into four broad categories:File, Variables, User Interface, and Program

Control. All of the PowerLang commands are explained in the Appendix.

File related commands

PowerLang contains a comprehensive set of file related commands. With PowerLang you will be able to determine whether a file exists. You will also be able to manipulate sequential data files allowing you to open, read, write, and close these files. You can only have one file open for sequential access.

PowerLang also provides binary file access. With these commands you will be able to open multiple files for binary access. With these commands you will be able to read and write to strings of any length (subject to string variable limitations) at any position you choose in the file.

Variable related commands

These commands will allow you to manipulate the four variable types including comparing, cocatenating, deleting, converting and determining the length of strings. Other commands will allow you to assign, increase and decrease integers. You will also be able to manipulate boolean variables.

User Interface related commands

These commands will allow you to present information to and receive input from your callers. There are built in commands for pausing, getting choices and getting Yes/No responses. You will also be able to write information to the screen and place the cursor at any position on the screen using the GOTOXY command.

Program Control related commands

This is a very broad category. Any command that didn't fit into the above three categories was placed here. These commands include those to let you run PowerBase databases, menu commands, doors and other POWs. There are also commands for controlling the execution of the program including If...Endif and Goto statements.

12.3 Starting POWs

There are three different places from which you can start a POW: Menus, screens, and other POWs.

Starting a POW from a menu

The most common place from which to start a POW is a menu. Please refer to the section on configuring menus for a more detailed explanation. POWs that are to be started from a menu must be named with a number between 1 and 255. Valid POW file names for menus are 1.POW to 255.POW.

Note: When adding a POW to a menu, be sure to change the CGM option to G for PowerLang!

Starting a POW from a screen

If you would like a POW to be run from a screen, use the PL:### MACRO. See the section on MACROs and screens for more information. The PL:### MACRO must appear at the beginning of a line. Most sysops place the macro on a line by itself.

Placing a PL:### MACRO in an ASCII file is usually not a problem. Place it at the beginning of a line all by itself. Placing one in an ANSI file is a little more difficult. The first step is to create and save the ANSI file as you normally would. Then open the ANSI file in a text editor such as Windows Notepad. It is preferable to place the PL:### MACRO at the end of the screen to avoid problems. In Notepad with the ANSI file open, press Ctrl-End. This will move your cursor to the end of the file. Press Enter. This will put you on a blank line. Enter the MACRO here. It should look like this:

```
[0m
|PL:007|
```

The above example shows the last line of the original ANSI file which will contain untelligible ANSI codes. Below that is the MACRO that will start 7.POW, which must be located in your \POWRBBS\SOURCE directory.

Starting one POW from another

Starting one POW from another is somewhat unusual. You would use the Run "POW NAME" command. The problem with this command is that it will quit the current POW and not return unless you explicitly run the original POW again. If you do, the original POW will start from the beginning.

Deciding where to start a POW

If you want a POW to be run as a choice for the user, place it on one of your menus. The caller can then run this POW just like any other menu option. If you want a POW to be run whenever a caller sees a certain screen, attach it to that screen using the PL:### MACRO.

> ***PowerTip:*** *Some sysops have a daily event to dial out, get the weather, and create a screen to display it to the caller. If you make this into a HELLO screen, your caller will see it whether he wants to or not since it is updated every day. If you would rather give your callers an option to see the weather, write a POW and attach it to the STATS screen. The POW will ask the caller if he wants to see the weather. If he does, the POW displays that file. If not, the caller goes right to the BBS!*

12.4 Learning by example

As stated earlier, it is beyond the scope of this manual to teach you programming. However, by seeing a few sample POWs you may be able to learn how to write your own PowerLang programs. Refer to the Appendix to see an explanation of how each command works.

Mailing List Database

This sample POW can be used to create a mailing list of your callers. It will ask the caller if he wants his name included on your mailing list. If the caller answers Yes, the POW will place his information in a file. Notice the use of MACROs and color codes in PowerLang in this example. This POW would be work best if placed on a menu.

```
****60.POW****
Activity "Started Newsletter POW"
ClearScreen
Display "@4@Hi, |FIRST|!"
Display "@5@     Our BBS offers a free newsletter mailed to your home. Would you"
Display "@5@like a copy mailed to you? Y/N ";
Get_YesNo B1
If ! B1
                        Activity "Decided not to add name and address"
                        Display ""
                        Display "@7@Let me know if you change your mind!"
                        Get_Return
                        Return_To_BBS
Endif
Activity "Add name and address to our mailing list!"
Display ""
Display ""
Assign_String S1 "|NAME|"
Assign_String S2 "|ADDRESS|"
Assign_String S3 "|........CITY.......|"
Assign_String S4 "|STATE|"
Assign_String S5 "|ZIP|"
Append "C:\POWRBBS\DATA\MAILING.TXT"
Write_File S1
Write_File S2
Write_File S3;
Write_File S4;
Write_File S5
Close
Display ""
Display "Thanks!"
Get_Return
Return_To_BBS
```

The important things to note in this POW are the use of MACROs and the Write command. Notice that we first

assign the MACROs to string variables. We then write the values of the strings into a file. The semicolon at the end of some of the Write commands means *don't start a new line*. By default each Write command puts the information in the variable on a new line. By using the semicolon, we are able to get the city, state and zip all on one line in our file!

Note: Notice the Activity commands. The commands write the information in quotes to your activity log. They will allow you to keep track of what your callers are doing. These commands are optional, but they are a good idea!

Check the current forum

This handy little POW can be used in place of Menu Command 15, Enter a message. Edit your menu and replace the entry in the CGM column with a G for PowerLang. The Code will be the number of the POW (47).

```
****47.POW****
Display "@7@|FIRST|,"
Display "@4@You are about to enter a message in the |FORUM| Forum!"
Display "Is this correct?"
Display
Display "Yes, this is the right forum!"
Display "No, I want to change forums first!"
Display
Display "Enter choice: Y/N";
Get_YesNO B1
Display
If B1
                        Run_Menu_Command "15"
                        Return_To_BBS
Endif
If ! B1
                        Run_Menu_Command "1"
Endif
```

Leave a message before hanging up

This nifty little POW can be used in place of Menu Command 4, Goodbye. Change the Goodbye command on each of your menus to run this POW instead of the Goodbye menu command.

```
****74.POW****
Display "@7@|FIRST|,"
Display "@5@You are about to log off of our BBS."
Display "@4@<C>@5@ontinue with log off"
Display "@4@<L>@5@eave a comment to |SYSOP|"
Display "@4@<R>@5@eturn to the BBS"
Display
Display "@7@Enter Choice: C/L/R ";
Get_Choice CLR C1
Display
If C1 = "C"
                        Goto END
Endif

If C1 = "L"
                        Change_Area "0"
                        Run_Menu_Command "14"
                        Goto END
Endif

If C1 = "R"
                        Return_To_BBS
Endif

:END
Activity "Logged off using this nifty POW at |CLOCK|"
Display "@7@Thanks for calling! See ya later, alligator. :)"
|You may want to type a goodbye screen here instead of displaying a message
End_Call
```

12.5 File related PowerLang Commands

Append

Structure: Append "Path\Filename to open file for Append"
Description: This command will open a file to write to. If the file is not found, it is created. The Write_File command will write to the end of the file. The file is **not deleted**, data is written to the end of the file.
Examples: Append "Hiscore.Dat"Append "BBS"Append "D:\Powrbbs\Blt\Blt4"

Close

Structure: Close
Description: Closes the currently open file (If a file is currently open)
Examples: Close

Delete_File

Structure: Delete_File "Path\Filename to delete"
Description: Deletes the file you specify in quotes
Examples: Delete_File "C:\Junk.Txt"

File_Close

Structure: File_Close [Integer variable]
Description: Closes a file that you have opened with File_Open. The integer variable is the file handle you specified when you opened the file. You must close the file; PowerBBS will not do it for you.
Example: Give_Value S1 :"C:\GAMES\GAMES.DAT"

```
Give_Value I1 "1"
File_Open S1 I1
File_Close I1
```

File_Create

Structure: File_Create [String variable]
Description: Creates the file as named in the string variable. If the file alread exists, this command will erase that file and create a new one.
Example: Assign_String S1 "C:\POWRBBS\GAMES\PLAYERS.DAT"

```
File_Create S1
```

File_Exists F_ile_Exists

Structure: FILE_EXISTS "Path/File Name"F_ILE_EXISTS [String#]
Description: Built in command flag that is used to detect if a file exists on disk. The F_ILE_EXISTS version will alow you to use the contents of a variable to supply the name of the file to check.
Examples: If File_Exists "C:\AUTOEXEC.BAT"

```
                Display "The file you asked for exists!"
EndI
Display "Enter the name of the file to check for existence: ";
Input_String 25,1
If F_ile_EXISTS S1
                Display "Yes SI, exists!"
EndIF
```

File_Open

Structure: File_Open [String variable] [Integer variable]

Description: Opens a file for random access. The file name is contained in the string variable. The file handle is contained in the integer variable. Other commands will require the file handle.

Example:
```
Give_Value S1 :"C:\GAMES\GAMES.DAT"
Give_Value I1 "1"
File_Open S1 I1
```

File_Read

Structure: File_Read [Integer variable] [Number of bytes] [String variable]
Description: Reads from the file handle specified by the integer variable into the string variable the bytes specified by Number of bytes at the current file position. Use File_Seek to control the file position. The integer variable must be a handle to an open file.
Example:
```
Give_Value S1 :"C:\GAMES\GAMES.DAT"
Give_Value I1 "1"
File_Open S1 I1
File_Read I1 25 S2
```

File_Seek

Structure: File_Seek [Integer variable 1] [Integer variable 2] [Method]
Description: Moves the current file position in the file specified by the file handle in Integer 1 to the offset specified in integer 2. The three possible methods are:

0 = Seek offset from start of file
1 = Seek offset from the current file position
2 = Go to the end of the file

Example:
```
Give_Value S1 :"C:\GAMES\GAMES.DAT"
Give_Value I1 "1"
File_Open S1 I1
File_Read I1 25 S2
To_UpCase S2
Give_Value I2 "0"
File_Seek I1 I2 0
File_Write I2 25 S2
```

File_Write

Structure: File_Write [Integer variable] [Number of bytes] [String variable]
Description: Writes the string variable to the file handle specified by the Integer variable with the number of bytes specified at the current file position. Use File_Seek to control the file position. The integer variable must be a handle to a currently open file.
Example:
```
Give_Value S1 :"C:\GAMES\GAMES.DAT"
Give_Value I1 "1"
File_Open S1 I1
File_Read I1 25 S2
To_UpCase S2
Give_Value I2 "0"
File_Seek I1 I2 0
File_Write I2 25 S2
```

Note: Number of Bytes in both File_Read and File_Write can be either a constant (as in the examples) or an integer variable.

Open_File

Structure: Open_File [String variable or filename in quotes]
Description: Opens the specified file for reading. This command is different from File_Open which opens a file for random access. This file is opened for line by line access. You can only have one file open at a time with the Open_File command.
Example:
```
Open_File "C:\POWRBBS\ACTION"
Assign_String S1 "C:\GAMES\PLAYERS"
```

Open_File S1

Read_File

Structure: Read_File [String Variable]
Description: Reads a line from the file opened with Open_File and places that string into a string variable. Each time you use this command on a file, PowerLang moves the file pointer to the next line in the file.
Example:
```
Assign_String S1 "C:\GAMES\PLAYERS"
Open_File S1
Read_File S2
Display S2
```

Write_File

Structure: Write_File [String variable][;] [/String Length]Write_File "Text to write"[;]
Description: You must first open a file with Append in order to use this command. Write_File will write the contents of a string variable or the information contained in quotes into the end of the file opened with Append. Since you can only have one file open at a time with Append, you don't need to specify the file. The semicolon (;) is a optional paramater. This prevents the command from entering a carriage return into the file. The /String Length Paramater forces the command to write the string variable with a fixed number of spaces, regardles of how long the variable is.
Examples:
```
Write_File S2
                    Write_File S2;
                    Write_File S2; /5
                    Write_File "516-873-8032"
                    Write_File "516-873-8032"";
```

12.6 Variable related PowerLang commands

Assign_Bool

Structure: Assign_Bool [Boolean variable] [TRUE or FALSE]
Description: Assigns a boolean variable a value of TRUE or FALSE. This command is the same as Set_Flag but is used for compatiblity with the structure of other Assign type commands.
Example:
```
Assign_Bool B1 TRUE
                    :AGAIN
                    If B1
                                        Read_File S1
                                        If S1 = "BOB"
                                                    Set_Flag B1 NO
                                        Endif
                                        Goto AGAIN
                    Endif
```

Assign_Int

Structure: Assign_Int [Integer variable] [Value]
Description: Assigns Value to an integer variable. Unlike Give_Value, this command does not require quotes.
Example: Assign_Int I1 37

Assign_String

Structure: Assign_String [String#] "Path/File Name"
Description: Assigns what is in quotes to a string variable. The variable does not need the S indentifier. The quotes are required and you many not enter quotes inside of the quoted string.
Examples:
```
Assign_String 1 "C:\AUOTEXEC.BAT"
    If F_ile_Exists S1
        Display "YES S1 EXISTS"
    EndIF
```

Cat_String

Structure: Cat_String [String varible 1] [String Variable 2] [String Variable 3]
Description: Cocatenates (joins) two string variables into a third string variable.
Example:
```
Assign_String S1 "James"
    Assign_String S2 "Carr"
    Cat_String S1 S2 S3
    Display S3
    |Would display JamesCarr
```

Char_String

Structure: Char_String [String variable] [Position] [Character variable]
Description: Inserts a character variable into a string variable at the position indicated.
Example:
```
Assign_String S1 "Jmes"
    Give_Value C1 "a"
    Give_Value I1 "2"
    Char_String S1 I1 C1
    Display S1
    |Would display James
```

Copy_String

Structure: Copy_String [String variable to] [String variable from] [Position] [# Characters]
Description: Copies from part of one string to another string starting from the specified position and continuing for specified number of characters.
Example:
```
Give_Value S1 "|HOMEPHONENUM|"
    Give_Value I1 2
    Give_Value I2 3
    Copy_String S1 S2 I1 I2
    |This will copy the area code from S1 to S2
```

Dec

Structure: Dec [Integer Code] [Integer Code]
```
    Dec TIME [integer Code]
    Dec SAFE [integer Code]
    Dec CREDITS [integer Code]
```
Description: Decreases the value of the integer. If I1 = 6 and I2 = 10, Dec I1 I2 results in I1 being 4. You can Decrease the user's credits, time or safe by using this command.
Examples:
```
Dec I5 I7
    Dec TIME I1
    Dec SAFE I1
```

Delete_String

Structure: Delete_String [String variable] [Position] [# Chars]
Description: Removes from the string variable the number of characters specified in # Chars starting at Position.
Example: Give_Value S1 "|HOMEPHONENUM|"

```
Give_Value I1 2
Give_Value I2 3
Delete_String S1 I1 I2
|This will delete the area code from S1
```

Give_Value

Structure: Give_Value S1 "Text"

```
Give_Value I1 "number"
Give_Value S1 "MACRO"
Give_Value C1 "Character"
```

Description: Assigns the variable (either string, character or integer) a new value which is contained in quotes.
Examples: Give_Value S9 "JAMES CARR"

```
Give_Value I1 "13"
Give_Value S1 "|NAME|"
Give_Value C1 "Q"
```

Inc

Structure: Inc [Integer variable or constant] [Integer variable or constant]

```
Inc TIME [integer Code]
Inc SAFE [integer Code]
Inc CREDITS [integer Code]
```

Description: Increases the value of the integer. If I1 = 6 and I2 = 10, Dec I1 I2 results in I1 being 4. You can increase the user's credits, time or safe by using this command.
Examples: Inc I5 I7

```
Inc I5 43
Give_Value I1 "20"
Inc TIME I1
Inc SAFE I1
```

Int_To_Str

Structure: Int_To_Str [Integer variable] [String variable]
Description: Converts the integer to a string.
Examples: Int_To_Str I1 S1

Length_String

Structure: Length_String [String variable] [Integer variable]
Description: Determines the length of a string and assigns that value to the integer variable.
Example: Give_Value S1 "|NAME|"

```
Length_String S1 I1
```

Pos_String

Structure: Pos_String [String variable 1] [String variable 2] [Integer variable]
Description: Examines String variable 1 for the character in String variable 2 and assigns the position of that character within the string to the integer variable.
Example: Assign_String S1 "Quit"

```
Assign_String S2 "U"
Pos_String S1 S2 I1
Display I1
|This would display 2
```

Set_Flag

Structure: Set_Flag [Boolean Variable] [YES/NO]
Description: Sets the boolean variable to either true (yes) or false (no).
Examples: Set_Flag B1 YES

```
:AGAIN
If B1
        Read_File S1
        If S1 = "BOB"
                Set_Flag B1 NO
        Endif
        Goto AGAIN
Endif
```

String_Char

Structure: String_Char [String variable] [Position] [Character variable]
Description: Extracts a character from a string variable at position and places that character into a character variable.
Example: Assign_String S1 "James"

```
Give_Value I1 "3"
String_Char S1 I1 C1
Display C1
|Would display m
```

Str_To_Int

Structure: Str_To_Int [String variable] [Integer variable]
Description: Converts a string to an integer
Examples: Str_To_Int S1 I1

To_UpCase

Structure: To_UpCase [String variable]
Description: Converts the string variable to upper case.
Example: Assign_String S1 "james"

```
To_UpCase S1
Display S1
|Would display JAMES
```

Up_Sec

Structure: Up_Sec [Old Security Level] [New Security Level]
Description: Updates a user with security level [Old Security Level] to [New Security Level]. This **only** updates

user if he has the security level specified.
Examples: Up_Sec 10 20

12.7 User interface related PowerLang commands

ClearEOL

Structure: ClearEOL
Description: Clears the line from the cursor position to the end of the current line. This command only works for ANSI callers.
Example: GotoXY 5 7
ClearEOL

ClearScreen

Structure: ClearScreen
Description: Clears the screen
Examples: ClearScreen

Display

Structure: Display "[Text to be displayed]"[;] or Display S1[;] or Display I1[;]
Description: Display sends text to the caller, and writes the info on the local monitor.
Usage: Text in quotes can be anything **except** quotes (""). If a semicolon (;) is placed at the end of the line, no return carriage return is sent or written on the monitor. If no semicolon is present, carriage return is sent and written on the local monitor. To display a string or integer, just enter the code of the string, integer. You **must** include the S or I. If you use color macros (@1@ for example), PowerBBS will color the text if, and only if, the caller has selected a color monitor.
Examples:
```
Display "Welcome to Quotable Quotes! "
Display "@7@Enter your name: @4@";
Display I1
Display S1;
Display S1
```
You may use the following color codes with the Display command:

Color	High Intensity	Low Intensity
Default	@0@	
Blue	@1@	@10@
Green	@2@	@11@
Cyan	@3@	@12@
Red	@4@	@13@
Magenta	@5@	@14@
Gray	@6@	@15@
Yellow	@7@	
Brown	@8@	
White	@9@	

Get_Choice

Structure: Get_Choice [Ok_Char_String] [Charactever variable]
Description: Forces the caller to select one of the letters specified in OK_Char_String. and assigns the character variable that value. Remember to use a variable number!
Examples: Get_Choice YNQ C1

Get_Choice ABCDEFG C4

Get_Return

Structure: Get_Return
Description: Forces the caller to type RETURN
Examples: Get_Return

Get_YesNo

Structure: Get_YesNo [Boolean Variable]
Description: Forces caller to type Y or N. If Y is pressed the boolean variable is assigned True If N is pressed the boolean variable is assigned False.
Usage Use this command to get yes or no answers from your callers.
Examples: Get_YesNo B1

```
If B1
    Display "Thanks for placing your order!"
Endif
```

GotoXY

Structure: GotoXY [X position as integer] [Y position as integer]
Description: Moves the cursor to the coordinates specified by X and Y where X is the row and Y is the column. This command only works for ANSI callers. X and Y can be constants or integer variables.
Example: GotoXY 5 7

```
ClearEOL
```

Input_String

Structure: Input_String [Max String Length] [String variable]
Description: Gets a string from the caller in a combination of any characters up to the Max String Length. The value of the string input is given to the string variable. The maximum string length is 90.
Usage: Use this command to get information from your callers such as the topic for a POW that will be used to send a message or a quote for quotes POW.
Examples: Input_String 50 1

```
Input_String 25 2
Input_String 40 S3
```

Number_Input

Structure: Number_Input [Number Format] [String variable]
Description: Used to get information from the caller in a special format. The result is placed in the string variable. The Number Format is the same used in the script questionnaires. In the Number Format, wherever a # is placed, the caller must enter a number. Anything else in the format is displayed to the caller and placed in the string variable.
Examples: Display "Enter the number to send a fax: ";

```
Number_Input (###) ###-#### S1
```

Wait

Structure: Wait [MilliSeconds to Pause]
Description: Waits for the certain time in milliseconds. 1000 = one second
Examples: Type_File "C:\WEATHER\LOCAL"

```
Wait 5000
```

12.8 Program control related PowerLang commands

| (Comment your program)

Structure: | Any comments you want. This has no effect on your program
Description: Use this command to indicate that a line is simply a comment PowerLang will ignore it.
Example: |Get the caller's phone number
Number_Input (###) ###-#### S1

Activity

Structure: Activity "Info to be written to Activity Log"
Description: Writes info to the Activity Log. Information in quotes can be no larger than 75 characters.
Examples: Activity "Added BBS to BBS Listed"
Activity "Loaded Viewage program"

Change_Area

Structure: Change_Area "Forum to change to"
Description: Will change to the forum selected in quotes.
Example: Change_Area "0"

Dos

Structure: Dos "Dos Command Line"
Description: Shells to DOS, and runs the command in quotes. When the shell is complete, if the log file is found, it is displayed and then erased.
Examples: Dos "Dir >|LOG|"

Dos_Windows

Structure: Dos_Windows "DOS batch file to start a door"
Description: Runs a a door. PowerBBS automatically creates a DOOR.SYS file as specified in Config under File Locations #2.
Examples: Dos "C:\POWRBBS\DOORS\LEMON1.BAT"

End_Call

Structure: End_Call
Description: Ends the call for the current caller. This can be used instead of running Menu Command 4, Goodbye.
Example: Display "I don't like you very much. See ya!"
End_Call

Goto

Structure: Goto [Section of POW]
Description: Goes to a certain section of the current POW. These sections are denoted with a colon (:) and a one word name in all caps.
Examples: Display "Quit Y/N ";
Get_YesNo B1
If B1
Goto END
Endif
:END

Return_To_BBS

If (EndIf)

Structure: If [!] [Boolean variable]
If [!] [Character variable] = "Character"
If [!] I1 = I2
If [!] S1 > S2
If RIP
If MONO
If ANSI
If S1 = "String"
Endif

Description: The If statement will evaluate to true or false. If the expression is true, PowerLang will run the commands contained between the If statement and the Endif statement. If statements can compare integer values for greater than,equal to, or less than. The If statement can compare a string to an expression contained in quotes. For boolean variables the If statement does not need an equals (=) sign. The ! operator means NOT. In the case of NOT statements, if the expression is not true, the commands between If and Endif are run.

Examples:

```
If B1
                    Display "B1 = True"
                    Display "This statement is still run"
Endif
If ! B1
                    Display "B1 = False"
Endif
If C1 = "A"
                    Display "The Character #1 is equal to A!"
Endif
If ! C1 = "A"
                    Display "The Character #1 is NOT equal to
A!"
Endif
If I1 > I2
                    Display "Integer I1, is greater than I2!"
Endif
If I1 = I2
                    Display "Integer I1, is equal to I2!"
Endif
If I1 < I2
                    Display "Integer I1 is less than I2!
Endif
If S1 = "FEVER"
                    Display "That's right! Good Answer!"
Endif
If ANSI
                    Type_File "C:\WEATHER\LOCAL.ANS"
Endif
If MONO
                    Type_File  "C:\WEATHER\LOCAL.ASC"
Endif
```

```
If RIP
                                        Type_File "C:\WEATHER\LOCAL.RIP"
Endif
```

Note: You can place If statements within another If statement.

Examples:
```
If C1 = "A"
                                        If C2 = "J"
                                                Display "You have selected All
Jokes"
                                        Endif
                                        Display "You selected All quotes"
                                Endif
```

Return_To_BBS

Structure: Return_To_BBS
Description: Quits the current POW and returns the caller to the BBS
Examples:
```
Display "Thanks for entering a quote!"
                                Get_Return
                                Return_To_BBS
```

Run

Structure: Run "Full path to another Powerland program"
Description: Quits out of the current POW and runs the POW specified in quotes. PowerLang will not return to the original POW.
Examples Run "C:\POWRBBS\SENDIT.POW"

Run_Dll

Structure: Run_Dll "Name of PowerBBS.DLL to run"
Description: Runs the DLL specified in quotes. The DLL must be written specifically for use with PowerBBS. See the author of the DLL for more details. A DLL is an external program that integrates with PowerBBS. It will run much faster than any PowerLang program or DOS door. Any PowerLang program can easily be converted into a DLL using C or Pascal.
Example: Run_Dll "C:\POWRBBS\CREDITS.DLL"

Run_Menu_Command

Structure: Run_Menu_Command "Menu Command # "
Description: Runs one of the built in menu commands.
Example:
```
Display "Leave a message for the sysop? Y/N ";
                                Get_YesNo B1
                                If B1
                                        Run_Menu_Command "14"
                                Endif
                                Return_to_BBS
```

Run_Menu_File

Structure: Run_Menu_File "Menu to run"
Description: Will run and display a PowerBBS menu file
Example: Run_Menu_File "1.MNU"

Run_PowerBase

Structure: Run_PowerBase "Number of database to run"
Description: Runs PowerBase with the database identified by the number in quotes. This database must already be

configured in PowerBase.

Example: Activity "Viewed the User Registry at |CLOCK|"
Run_PowerBase "1"

Send_Filename

Structure: Send_Filename "Path\Filename"
Description: Will send the file specified in the "Path\Filename"
Example: Display "Would like to download more information about registration? Y/N ";
Get_YesNo B1
If B1
Send_FileName "C:\POWRBBS\FILES\REG.TXT"
Endif

Send_The_Message

Structure: Send_The_Message
Description: This command will send a message. This is a special command that requires the use of two integer variables, one boolean variable, and at least four string variables to be set **before** the Send_The_Message command is entered. The following are the variables you will need to set to use this command:

I1	Total number of lines in the message
I2	The forum into which the message will be sent.
B1	TRUE if the message is private; FALSE if it is public.
S1	To whom the message will be sent.
S2	From whom the message will be sent.
S3	Topic of the message.
S11	The first line of the message. Each line of the message must be entered in consecutive string variables starting with S11 and going up (S12, S13, S14, Etc.). The I1 variable must agree with the number of string variables you have assigned for the message.

Example:
```
Assign_String S1 "|NAME|"
Assign_String S2 "Sysop"
Assign_String S3 "Welcome, new user!"
Assign_String S11 "Welcome to our BBS! If you should ever have any questions,"
Assign_String S12 "feel free to send me some E-Mail!"
Assign_String S13 " "
Assign_String S14 "Your Faithful Sysop"
Assign_Bool B1 TRUE
Assign_Int I1 4
Assign_Int I2 0
Send_The_Message
```

Set_Dollars

Structure: Set_Dollars "Amount"
Description: This command will allow you to charge money for sending files to your callers. If you want to restrict users to what thay can download based on the amount of money that they contribute to your system you must frist edit the *Dollars* field from the *Update Users Command*. This amount should be the amount they donated. The call Set_Dollars to set the amount required to download the file.
Example: Set_Dollars "5"
Send_Filename "C:\POWRBBS\800BBS.TXT"

Note: The dollars field can be updated for each user from the Sysop menu.

Type_File

Structure: Type_File "Path\Filename"
Description: Types a file to the caller and the local screen.
Usage: Use this command to display a file already on disk to the caller.
Examples: Display "Would you like to view the weather? Y/N";

```
Get_YesNo B1
If B1
    Type_File "C:\WEATHER\LOCAL"
Endif
```

Type_File_List

Structure: Type_File_List "Path\Filename"
Description: This command is the same as Type_File except that if the file is in the format of a PowerBBS file list, PowerBBS will color the file automatically.
Example: Type_File_List "M:\FILES.BBS"

13 PowerBase

13.1 Getting started

PowerBase is a database add on for PowerBBS. It requires a separate registration fee. This add-on will allow you to present dBASE compatible databases to your callers. Callers will be able to view the records in single record or browse mode, add records, edit records, place orders, download a file from a record, and E-Mail the person who posted the record. You will be able to create custom display screens for your databases, restrict access to your databases, and run them from the database manager, a menu, or a PowerLang program.

Note: It is assumed that you have a working knowledge of databases and their uses.

In order to use the database option, you must have the Menu Command 99, PowerBase, on one of your menus. The default installation of PowerBBS places this command on your Main menu. From this menu you will be able to add, create, edit, and delete your databases. You can add a database you already have to PowerBase or you can create a new database. Each database will be assigned a number, starting at one.

13.2 Adding a database

If you want to create or add a new database, select the Add option from the PowerBase menu. Enter the full path and file name to the database. If this file does not already exist, PowerBase will ask you if you want to create it. Answer yes to create a database by that name. If you are creating a database with PowerBase you should include a DBF file extension on the file.

Description

Enter the description of the database. This is for your reference

DBMS

Select the type of dBASE compatible file you wish to create. If you are adding a database that already exists, select that database type. If you are creating a database, select any database type you want.

PowerTip: *dBASE III is the most universal of the databases available. dBASE IV is almost as universal, but it is more powerful. If you already have a database program, use that type of file.*

Note: The next four options are only seen if you are creating a database with PowerBase.

Number of fields

You can have up to 200 fields in your database. In order to create your database, PowerBBS must know in advance how many fields it will have. A little planning here goes a long way.

Field Name

This is the name of the field. Though PowerBase does not use this name directly, other database programs will. Valid names must begin with a letter and may not contain any spaces. Begin a field name with BMP if you want callers to be able to download a file from this database. See Image Directory.

PowerTip: *If you want to allow your callers to edit a record they posted or receive mail from other callers directly from PowerBase, include a field called POSTUSER.*

Type

A field must be either Character, Date, Logical, Memo or Numeric. Choose a field type based on the information that you expect the field to hold. If you select a Memo field, PowerBase will ask you what type of Memo file to create (Memo fields are stored in a separate file). You should pick the same file type for the memo file as you did for the database type. After you pick the type of memo file, you must specify the full path and file name for that file. You should use the same name as you used for the database except with a DBT file extension.

Length

This is the length of the field. Date, Logical and Memo field lengths are set automatically. Character fields may be up to 255 characters long, however such a field size is unmanageable for your callers. Try to keep the length of character fields under 80. Numeric fields can be up to 19 characters long and have up to four places after the decimal point (asked separately). The number of decimal places is not added to the length of the numeric field. Choose a length for numeric fields large enough to hold the largest number you will ever expect in this field.

View Screen

Enter the path to the custom view screen for the single record view of this database. This file does not have to exist before you create the database; you can create it later. These files are named like other display files in PowerBBS. Specify the name of the ASCII version of this screen. If a caller has a color monitor, PowerBBS will look for a file by that name with a C appended to it and use that file. If you want to use the default screen, just press Enter.

Starting PowerLang File

You can use PowerLang files to control the entry of data into each field. Each field will have its own POW. PowerBase will use the number you specify here for field #1. The POW for field #2 will be one higher. These POWs must be located in your Source directory. Even if you don't use POWs for data entry, you must enter a starting POW number.

> ***PowerTip:*** *Make the starting POW number end in a one. For example, 5001. This way the POWs will be numbered in the same way as your fields: Field 1, 5001.POW; Field 2, 5002.POW; etc.*

Minimum access needed to add a record

Specify the minimum access level your callers will need to add a record to your database. By default any caller with a security level of 150 or higher will be able to add records to your database.

Maximum number of posts per user (except 150 levels)

Enter the number of posts each caller can make to your database. Set this number to one for a user registry database. Set this number to be very high if your database will have multiple entries from the same caller. Caller with a security level of 150 will be able to post as many records as they want. To prevent callers from posting a record, enter a zero here.

Select PowerOrder

If you want this database to be a PowerOrder database, answer yes (explained later).

Is this a user registry database for use with Chat?

Answer yes if you want this to be the database to use with teleconference for the user registry feature (explained later).

Image Directory

If you named a field beginning with BMP, your callers will be able to download the file specified in that field directly from PowerBase. This is the directory where those files will be located.

Browse Header

If you want to use a custom browse header (explained later), enter the ASCII version of this file name here.

Browse Item

If you want to use custom browse items (explained later), enter the ASCII version of this file name here.

Do you want to create a key index?

PowerBase can order records by an index. If you want PowerBase to create this index for you, answer yes.

Key Type

If you answered yes to the above, PowerBase will ask you for a key type. Select the type of index key that matches the type of database that you chose earlier.

Index Path

Enter the full path and file name to the index file for this database. dBASE IV indexes have the extension MDX. dBASE III index files have the extension NDX.

Key Expression

Enter a valid key expression for the index. This is what PowerBase will use to index the file. Valid expressions can

be a single field name or two field names joined by a plus (+) sign: NAME or LAST + FIRST.

Tag Name

If you are using an index capable of tag names (dBASE IV), enter the name of that tag here. Valid tag names are the same as valid field names.

Key Length

Enter the number of characters that will be used for the key. Usually this is the sum of the lengths of each field in the Key Expression.

That's it

That's all there is to adding or creating a database with PowerBase.

13.3 Using the databases

Remember, each database is numbered. When you use the PowerBase menu command you must select a database number to use. PowerBase will start off in single record view using your View screen. Depending on the type of database (Order, Image), there will be different options while using this database.

Calling a database from a menu

If you want to let your callers start a database directly from a menu, you must add a menu option to start that database. The CGM type is B for PowerBase. The Code is the number of the database. When a database is added to a menu, your callers will skip over the database sub-menu screen and go directly to that database.

Calling a database from a menu

If you want to start a database from a POW, use the Run_PowerBase command. This command will operate the same as running a database from a menu. You must specify the number of the database to the Run_PowerBase command.

Basic commands

The basic commands for PowerBase are self explanatory. They allow your callers to move through your database a single record at a time or in increments of ten records. The Browse option will display multiple records to your callers in a row and column format.

Memo View

If you have a memo field in your database, PowerBase will use the PowerBBS message editor to allow your callers to add or edit memo fields. When the user simply picks view, PowerBase will type the contents of the memo field to the caller.

E-Mail User

If you used a field with the name POSTUSER and that field contains the name of the person who added the record, your callers can send E-Mail directly to that caller from PowerBase. The message is automatically sent to Forum 0 and the topic is PowerBase Reply.

Search

If a caller picks search, he can select a field to search and enter text for which to search. PowerBase will show him each record that matches his search criteria.

Packing the database

Records in dBASE compatible databases are not deleted when you select Delete. They are simply marked to be deleted. Your callers will not see these fields, but anyone with security level 150 will. To remove deleted records from a database and rebuild the index, select Pack from the PowerBase menu. Select the database you want to pack. Be sure that no other callers are using this database when you try to pack it.

Edit a database

To edit a database (choose display screens, index, etc.), select Edit from the PowerBase menu. Then select the database. The options from this menu are described earlier in this chapter.

> **Note: You cannot add more fields to a database while in PowerBase. You must use another program to do this or create the database from scratch. If you create it from scratch, you must delete that database first!**

Delete database

Select Delete Database from the PowerBase menu to delete a database. Then select the database you want to delete. Make sure no callers are using that database when you do this. When you delete a database, all databases with a higher number are renumbered to be one number lower. If you start a PowerBase database from a PowerLang program or a menu, be sure to update it with the new database number!

13.4 Data Entry

When you added a database to PowerBase, you specified a starting POW number. The POWs are used to assist the caller in data entry. However, they are optional.

Sample POWs

The following are examples of how POWs that be used. It is assumed for this example that the first field is called POSTUSER and that the starting PowerLang number is 5001. The third field is a memo field and the fourth is a BMP field for an image database. PowerBBS automatically takes the value of S1 and places into the current field.

```
****5001.POW****
Display "You are about to enter a record into the database!"
Display "You cannot quit this until you have entered information in every field."
Get_Return
Display "Putting in your BBS Name"
Wait 1000
Assign_String S1 "|NAME|"

****5002.POW****
Display "How old are you?"
Input_String 2 S1
|PowerBase converts the S1 into a number for numeric fields
Display "Wow! You're old!"

***5003.POW****
Display "Tell us about yourself! When you press Enter, you will be in the"
Display "full screen editor. Press Ctrl-Z when you are done."
Get_Return

****5004.POW****
Display "Enter the name of a GIF of yourself. If you enter a name of a file"
Display "that is not on our system, you can upload it using Z-Modem!"
Input_String 12 S1
Display "Thanks!"
```

13.5 Order Entry databases

If you specify a database as being a PowerOrder database, your callers will be able to place orders directly from this database. They will have three additional commands on the menu: Order, Mark Item, and View Marked Items. Callers can use Mark to select items to order. Viewing marked items will show them what they have selected and let them delete entries.

Required fields

If you create a PowerOrder database, you must have at least two fields: PRICE and INFO. Other fields are optional. PRICE is a numeric field that will contain the price of the item. INFO is a brief description of the item.

ORDER.POW

The actual order is done by a file called ORDER.POW that you must create. You can set up ORDER.POW to do whatever you want. The following is an example ORDER.POW that writes the order to the file you opened with the APPEND command.

```
****ORDER.POW****
Display "Thank you for placing an order with us.  As soon as we can verify"
Display "your credit card, your order will be shipped out as soon as possible."
Display
Display "Please select the credit card you wish to use:"
Display
Display "[1] American Express"
Display "[2] MasterCard"
Display "[3] Visa"
Display
Display "Select: ";
Get_Choice 123 1
Display
Display "Please select the shipping method:"
Display
Display "[1] UPS"
Display "[2] UPS BLUE (2nd day)"
Display "[3] UPS RED (next day)"
Display "[4] Snail Mail"
Display "[5] Priority Mail"
Display
Display "Select: ";
Get_Choice 12345 2
Display
Display "Name of Credit Card Holder: ";
Input_String 25 1
Display
Display "Enter your credit card number: ";
Input_String 25 8
Display
Display "Enter expiration date: ";
Input_String 25 9
Display
Display "Shipping Address [1 of 2]: ";
Input_String 40 2
Display
Display "Shipping Address [2 of 2]: ";
Input_String 40 3
Display
Display "City: ";
Input_String 20 4
Display
Display "State: ";
Input_String 20 5
Display
Display "ZIP: ";
Input_String 10 6
Display
Display "Would you like this order placed now? (Y=Yes; N=Abort Order) "
GET_YESNO B1
If ! B1
   GOTO END
```

```
EndIf

Display "Saving order to disk..."
APPEND "C:\Orders"
Write_File "-------------------------------------------------------"
Write_File "Entered by |NAME| on |DATE| |CLOCK|"
IF C1 = "1"
   Write_File "Charge American Express"
EndIf
```

```
IF C1 = "2"
   Write_File "Charge MasterCard"
EndIf
IF C1 = "3"
   Write_File "Charge Visa"
EndIf

IF C2 = "1"
   Write_File "Ship UPS"
EndIf

IF C2 = "2"
   Write_File "Ship UPS BLUE"
EndIf

IF C2 = "3"
   Write_File "Ship UPS RED"
EndIf

IF C2 = "4"
   Write_File "Ship Snail Mail"
EndIf

IF C2 = "5"
   Write_File "Ship Priority Mail"
EndIf

Display "Your Total Order is: ";
Display "|PBASEORDER|"

Write_File "   Name of Card Holder: ";
Write_File S1
Write_File "    Credit Card Number: ";
Write_File S8
Write_File "       Expiration Date: ";
Write_File S9
Write_File "Shipping Address [1/2]: ";
Write_File S2
Write_File "Shipping Address [2/2]: ";
Write_File S3
Write_File "                  City: ";
Write_File S4
Write_File "                 State: ";
Write_File S5
Write_File "                   Zip: ";
Write_File S6
Write_File_To_Order
CLOSE
:END
```

Notice the special command Write_File_To_Order. This command writes the order information to the file you opened with APPEND.

13.6 User Registry databases

You can select one database to use a User Registry database. This database must have a field called POSTUSER to work. Callers will be able to view other caller's registry entries directly from teleconference with the /R NAME command. See teleconference for more details.

13.7 Image directory

If you name a field beginning with BMP callers will be able to download the file name listed in this field. The directory containing this file is specified in the Image Directory setting in PowerBase. If a caller enters a file name in this field, PowerBase will look for this file in the image directory. If this file is not found, the caller will have a chance to upload that file using Z-Modem. PowerBBS will place this file in the proper directory.

PowerTip: *Entries in this file do not have to be graphics. You can place any file type here that you choose. However, the field name must still begin with BMP.*

13.8 Display files

PowerBase menu

If PowerBase finds a file called PDBMENU in your \POWRBBS\ directory it will use this file as the display screen for the PowerBase menu. You should list the names and numbers of your available databases on this screen. You can have ASCII and ANSI versions of this file.

View screen

If you specify a custom view screen for a database, PowerBase will use that file to display single records to your callers. This file name is specified when you add or edit a database. You can have ASCII and ANSI versions of this file.

Browse header and browse items screen

If you want to use a custom browse display, you must create a browse header and browse item screen. These file names are specified when you add or edit a database. The Browse Header screen will contain the line or lines to be displayed above the actual field to be displayed during a browse. The Browse Items screen will contain the actual field MACROs that you wish to display. This file should only have one line. PowerBase will use it for each line in browse mode. You can have ASCII and ANSI versions of this file.

Field MACROs

Field MACROs work just like other MACROs. Each field in your database will have its own MACRO called |FIELD:#| where # is the field number. Optionally, you can place dots after the field number to tell PowerBase how many characters to display. If you don't use any dots, PowerBase will use the full length of the field by default. Examples: |FIELD:1|, |FIELD:3....|, |FIELD:7.....|. In the sample view screen, FIELD:8 is a memo field. It only shows one line of the memo. The caller must select Memo View to see the rest.

```
****SAMPLE VIEW SCREEN****

         ******The Ladies Room Movie Review Database******

1. Posted by  |FIELD:1.................|
    2. Title  |FIELD:2.................|
    3. Genre  |FIELD:3.................|
4. Lady Stars  |FIELD:4.................|
5. Male Stars  |FIELD:5.................................................|
    6. Brief  |FIELD:6.................................................|
   7. Rating  |FIELD:7|
   8. Review  |FIELD:8.................................................|

                          Entry |REC#| of |#RECS|
                 Press <M>emo view to see the complete Review

****SAMPLE BROWSE HEADER SCREEN****

        *********The Ladies Room Movie Reviews*********
Rec Title                    Genre                          Rating
-------------------------------------------------------------------
```

```
****SAMPLE BROWSE ITEMS SCREEN****

|REC#| |FIELD:2.............| |FIELD:3.....................| |FIELD:7|
```

PowerTip: *Saving color view screens in TheDraw can be tricky with all of these MACROs. Try saving the file with the Maximum Line Length set to NONE! This should keep the MACROs from being split across two lines.*

Special MACROs

|REC#|	Current record number
|#RECS|	Number of records in database
|DATABASE|	Name of database

14 Telnet

Before we get started

The Telnet option is a PowerBBS add-on and must be purchased separately. Contact the Support BBS for the latest pricing information. The Telnet feature is implemented as a DLL. Telnet connections are not cheap, but they are very rewarding. If you are interested in learning more about Telnet, leave a message in the proper forum on the Support BBS. This chapter of the manual assumes a lot of knowledge on your part.

Note: Many thanks to PowerBBS sysop Mark Newton for writing this chapter of the manual!

How the TCP/IP Telnet Out option works

To implement TCP/IP Telnet for PowerBBS is quite simple. After you find your Internet provider and are able to get the Winsock application to work with your provider or network, linking PowerBBS to Winsock is quite simple. It can be done in less than 10 minutes. The hardest part will be setting up Winsock to communicate with your Internet provider, however most providers are familiar with Winsock and will be able to help you. Each Winsock implementation is slightly different and may require a different setups depending on your provider. The PowerBBS support staff cannot give you any specifics on how to get Winsock to work. This is something you must do on your own. In the manual we will provide you with some places to get a Winsock application, but due to the many different combinations of setups, it is not possible to give you any specific help if it is a problem with Winsock and your provider.

The user can Telnet out virtually as if the other BBS or Telnet service is linked to your BBS. It offers seamless integration and often very good speeds. You can set it up so that the caller can specify the exact address of the Telnet site or you can offer menu items that allow the user to simply choose where they would like to go from a pick list.

There is a message displayed on the top while the caller is in the Telnet out session so that you know that the user is in Telnet mode. You can not see what a user is doing in Telnet out. This is because of performance problems when a user does a file transfer through the TCP/IP connection. You can, however, do a local Telnet and get a display because there are no provisions for a Telnet file transfer with a local login. The activity log will show information about the IP address that the user connected to and the length of the connection.

An IP log file is created that contains the IP address of people telneting in and which node they are connected to. This is sort of like a caller ID log of all your incoming Telnet connections. This also serves as an error log that should be referred to for any technical problems you may have.

Basic Set Up

Required Files:

bbscom2.dll (special one for allowing Telnet)
bbsteln.dll
bstcpip.ini
winsock.dll (provided on your own with it's own utilities to provide your Internet connectivity).
??.pow (the .POW file that starts your Telnet session)

BSTCPIP.INI:

```
[setup]
NameServer=152.160.1.1
LogFile=C:\POWRBBS\IPLOG
Compatibility=NO

[Screen]
ScreenFile=C:\POWRBBS\TELNET
```

[Setup] explained

You should change the IP address shown in the example to the address of the Directory Name Server (DNS) for your TCP/IP Connection (your Internet provider should be able to tell you the address to use). This IP address provides a

way for PowerBBS to convert the foobar.com to 127.0.0.1 address. Without specifying a name for a server, you would always have to know the numeric address.

The logfile section allows you to set the name and location of the IP log file. C:\POWRBBS\IPLOG will show the IP address of all incoming connections (just like caller ID) as well as any errors that might have happened. If you have any problems with the TCP/IP Telnet option please include your a copy of your IPLOG with any of your technical questions. It will often provide a clue to what is going wrong.

The compatibility flag is in the [Setup] section because of some inconsistencies in the Winsock implementation and the two possible ways Winsock vendors have used the socket handles. Most Winsock versions we tested work well with the default value 'NO'. These packages included the Microsoft, Trumpet and SuperTCP versions. NetManage Chameleon requires that you set the compatibility entry to 'YES'. If you have problems with receiving any visual display back from a Telnet site and just get the "User In Telnet Out" display and you are not using a package mentioned above you may want to try changing the compatibility to 'YES' . After changing you will be sure to restart windows.

[Screen] explained

There is a built in Telnet instruction screen that will show the user instructions for a standard Telnet out procedure. If you would like to create your own screen for the Telnet out function you may specify it in the BSTCPIP.INI file which should be located in the same directory as the BBSCOM2.DLL. Simply add the section [Screen] as shown sample above. The filename follows the PowerBBS standard for screens, as in the example below. In the BSTCPIP.INI you only specify the ASCII screen just like when specifying screens in .POW files when running PowerBBS. Once again if that entry does not exist the built in default screen will be shown.

```
TELNET       This is the screen to display for ASCII callers
TELNETC      This is the screen to display for ANSI callers
TELNETR      This is the screen to display for RIP callers.
```

Basic PowerLang program

PowerBBS allows for the startup of any DLL file with the use of a PowerLang File (.POW) using the DLL API. To get a quick start you simply have to create a simple 2 line .POW that looks like this:

```
Assign_String S1 ""
RUN_DLL "BBSTELN.DLL"
```

This will allow the user to specify his own Telnet address to Telnet out to. Please see the instructions on calling a POW from a menu item if you are unfamiliar with doing this.

Note: It is very important to make sure that the S1 variable is cleared before you run the BBSTELN.DLL. This is done by line one of the sample POW.

Defining the non-standard port numbers (other than port 23)

In TCP/IP two things are actually needed before you make a connection. In addition to the name IP address you also need to know the port number. The default port number for the Telnet service is 23 and does not need to be specified. This is the port number used by incoming Telnet connections to PowerBBS as well as default for outgoing Telnet. However, there are some Telnet destinations that require a different port number. The Telnet Out function allows the use nonstandard port numbers by simply adding the port number to the end of the name or IP address separated by a colon.

Example:

```
127.0.0.1:1234 or foobar.com:1234
```

where the port number in above examples are 1234.

Protocols

In local tests the best protocol for Telnet seems to be standard Y-modem, X-modem or Kermit. Ymodem-G and Z-modem at times overflow TCP/IP. This may be a generic problem with Telnet even when connecting via Telnet to other BBSs on the Internet. Z-modem seems to be unreliable, but it has been successful on PowerBBS. It might not be 100% reliable.

Kermit is now built in to version 3.5 by adding the letter M and Kermit to your protocol setup in the configuration program. Kermit is commonly used over the Internet and should be available if you offer Telnet In services.

Pre-defined Telnet sites

The PowerBBS Telnet feature offers support to use a POW to start a Telnet session to a pre defined Telnet site. To use this function create a POW that assigns the path and name of a file that is the ASCII screen to display for this site. The name of that file can be at most seven characters in length and should not have any extension. You may create one, two or three files, using the same name convention as for all PowerBBS screens, that is, add C to the name for the

ANSI screen and R for RIP screen. You should also create a file with the same name as you used above but with the file extension IP. This file should contain a single text line with the IP address of the site to Telnet to. It should be in the standard aaa.bbb.ccc.ddd Internet dot notation.

The .POW file would look something like this:

```
Assign_String S1 "C:\INTERNET\FOOBAR"
RUN_DLL "BBSTELN.DLL"
```

In the directory C:\INTERNET create the following files:

```
FOOBAR       This is the screen to display for ASCII callers
FOOBARC      This is the screen to display for ANSI callers
FOOBARR      This is the screen to display for RIP callers.
FOOBAR.IP    This is the file that contains the IP address, e.g. 127.0.0.1
```

If the pre-defined remote Telnet site requires some login/password or anything else and you don't want your callers to have to enter this, you can create a script file to do this. The script file should have the extension .SCR. This sometimes used on BBS's that are accessed through an UNIX machine where you would first need to logon to the UNIX machine as a pre-defined user before connecting to the actual BBS.

A script file could look like this:

```
E:Login: S:BBS E:Password: S:passme
```

Each line start with a command letter E or S followed by colon and a text string. The E: command (Expect) will wait for the text following the command to be received from the remote Telnet site. Once the text has been received from the remote end the next line in the script will be executed, if this is the last line the caller will be connected to the remote site as normal.

Note: The text must match exactly and is case sensitive so you must know the text to scan for exactly as the remote side will send it.

The S: command (Send) will send the text following the command to the remote side. There should be no blank lines in the script file! for the file would for the above example be FOOBAR.SCR .

Note: If you create a menu of several pre-defined sites in a POW and you do not want to have any specific screen shown while doing the actual connect, simply do not create the FOOBAR, FOOBARC and FOOBARR files in the above example. Your assign_string should still be the same and you need to create the FOOBAR.IP and if needed the FOOBAR.SCR.

Finally create a menu entry that executes this POW file.

Telnet In — How it works

It is possible to setup up to 15 Telnet nodes with PowerBBS. Each node would require a separate com port address specified by teln1 ... teln15 in the modem configuration in the configuration program. If you are considering a 15 node Telnet line, I would suggest investigating getting a 56k digital phone line or an ISDN line if you are not connected to the Internet through a local area network. Just remember when setting up the nodes that although theoretically you can setup a large amount of nodes, every node will cut the performance of the other nodes. Too many pieces will slow down the connection to an unusable connection. As with normal phone line nodes you must make sure that the node is setup with its own configuration files. (See running multiple nodes elsewhere in the manual). When the caller calls in he connects just like he would with a regular phone connection. The AT commands specified in the modem setup are ignored for teln1-teln15 nodes.

Setting up PowerBBS is basically the same.

At this time their is no support for external DOS doors. So when installing your nodes please be sure to disable any door programs you may have. This is a feature that should be available at a later time. In addition to doors, you must make sure that any upload checking programs are either disabled or that the output to a com port or video port is turned off. Once again this is something we hope to offer at a later time.

Tips on finding the right Winsock TCP/IP Stack

During the testing process we have tested many different types of TCP/IP stacks. There are many good selections in both the public domain and commercial world. Most Winsock applications work very similarly. They have become

the standard for TCP/IP in Microsoft Windows systems. We have found that all the Winsock stacks that we tested worked well with PowerBBS. Some stacks support Ethernet connections to a LAN, some provide access to the serial link (SLIP) for dial up access or both.

It is likely that many PowerBBS users will get their connectivity from a dial up SLIP on a part time or 24 hour basic. I feel it is important to mention that if you intend to provide a 24 hour SLIP connection, an important feature to look for would be a redial if the SLIP drops carrier. During testing it was not uncommon for the modem to drop carrier at least once a day or maybe more. If you seriously want to maintain your connection, you may want to find one that offers the redial feature. NetManages Internet Chameleon provides this feature as well as a very easy setup. This product is available commercially, and a demo copy is available at ftp.netmanage.com in the winsock directory. The demo version as of this writing has a bug in the call back feature, but it has been fixed in the commercial package. The Internet Chameleon package is limited to just SLIP, PPP, or ISDN connections. But Netmanage Chameleon NFS is also available and provides an ethernet connection.

Commercial Windows Based Winsock Vendors

NetManage (Chameleon)
10725 N. De Anza Blvd.
Cupertino, CA 95014
Telephone: (408) 973-7171
Contact: Tamara Scott (Tell her you are using PowerBBS)

Frontier Techonologies, Inc. (Super TCP/IP)
10201 N. Port Washington Road
Mequon, WI 53092
Telephone: (414) 241-4555

Walker Richer & Quinn, Inc. (Reflection)
1500 Dexter Avenue North
Seattle, WA 98109
Telephone: (800) 872-2829

Shareware Windows Based Winsock Stack
Trumpet for Windows
FTP Site: ftp.utas.edu.au
Directory: /pub/trumpet/wintrump
Filename: wtwsk10a.zip
Latest Public Release: 1.0 A Latest Beta: 1.0 B-6

15 Internet

15.1 Overview

Before we embark on installing Internet on PowerBBS, you need to have an idea of how it will all look when you're done. First of all, you will have two major software packages on your computer: PowerBBS for Windows and the WinNet Mail Server Package. Your users, however, will only see PowerBBS for Windows. And for the most part, so will you!

Once PowerBBS is set up for Internet access, your BBS will look a little different than it did before. You will have one forum that your callers will use to send/receive mail to/from Internet. You might also have several other forums which your callers will use to send/receive articles to/from Internet. There are over 6.000 newsgroups available right now. Many of those newsgroups will have lots of messages every day. Others will not have many messages at all. You'll have to start and stop many newsgroup subscriptions until you get it the way you want it.

Every caller on your system will have an Internet address. When you set up PowerBBS to access Internet, you will create a system name for your BBS. When anyone who has access to Internet wants to send mail to one of your callers, they need only address the mail to **first_last@*yoursystem*.win.net**. Internet and PowerBBS will take care of the rest. If your callers want to send a message to someone who has an Internet account on another system, they need only leave a message in your Internet forum to **their_friend@*theirsystem.*whatever**. PowerBBS and Internet will handle the rest.

As for newsgroups, you callers will be able to read the articles from a newsgroup simply by reading the messages in the appropriate forum on your BBS. It looks like normal mail except for the Internet header information at the top of the message. If they want to post an article to a newsgroup, they need only leave a message to **ALL** in that forum on your BBS. PowerBBS and Internet will handle the rest.

You, the Sysop, will determine how often your system gets mail from Internet. Personally, I have set up my BBS to get mail and news twice a day (6:00 am & 6:00 pm). How often you move mail is your own decision. Just be sure to tell your callers what times you send and receive mail so they won't get upset when mail doesn't arrive when they think it should.

Internet Addresses

Your callers might have only one name on your BBS (if you permit it) or two names. If they have a one word name, their Internet address is just their one word followed by an @ and your system name .Win.Net. *For example*: **grendyl@ladiesroom.win.net**. This is what someone would use to send mail to me on my BBS if I permitted one word names. If you only allow two word names, then the sender must use an underscore between the first and last name: *For example:* **james_carr@ladiesroom.win.net**. As long as the sender addresses the mail properly, your callers will get it!

To send mail to the following systems via Internet, use these addresses:

CompuServe: User IDs on CompuServe are usually separated by commas. You will need to replace the commas with periods to send mail to CompuServe. Example: **70562.3003@compuserve.com**

America On-Line User IDs on this system are usually handles. Example: **grendyl@aol.com**

Prodigy: User IDs on this system are usually numbers. Example **shnb98b@prodigy.com**

Genie: User IDs on this system are usually letters and numbers. Example: **xty5787@genie.com**

Delphi: User IDs on this system are usually handles. Example: **hendo@delphi.com**

15.2 Setting up PowerBBS for Internet access

Here is an overview of the basic steps for making WinNet work with PowerBBS.

1. Download the latest version of WinNet.zip. It is available from the Support BBS as well as from America On-Line and other major BBS systems.

2. Install the WinNet mail program.

3. Create your account with the WinNet program. As of this writing, the cost of accessing Internet via this service is $8 per hour. You can either pay the long distance charges or you can use their 800 number to get rates a little below normal long distance rates. How much you spend depends on the volume of mail you move and the number of newsgroups you get. It is impossible to estimate this number, but expect to pay as little as $15 a month to $100 a month. Most sysops find that they fall into the $25-40 range if they have several newsgroups. My best advice is to start small and move your way up.

4. Subscribe to whatever newsgroups you wish. You can add and delete subscriptions via the WinNet mail program at any time.

Note: After setting up everything correctly, subscribing and unsubcribing to Newsgroups will be the only time you need to manually access the WinNet mail program at all!

5. Add or modify your existing forums in PowerBBS for the import and export of mail.

6. Create INTIMP.BBS and INTEXP.BBS files to tell PowerBBS how to import and export mail to and from the Internet server.

7. Create the IMPORT.BAT and INTEXP.BAT files that PowerBBS will use to move the mail in and out of your BBS.

8. Set up your event(s) for exchanging mail using the INTEXP.BAT file created earlier.

9. Let PowerBBS do the work for you! This is all you have to do!

Installing WinNet Mail

If you haven't already downloaded this file from the Support BBS, AOL, CompuServe or wherever, go get it now. I'll wait. Go ahead. I'm waiting. Got it? Good!

STEP 1. Create a *temporary* directory and copy the WNMAIL.ZIP file to this directory. Run the pkunzip program (commonly available ShareWare from PKWARE) to unzip the WNMAIL.ZIP file in this directory.

STEP 2. From the Windows program manager File menu, or directly from the Window's File Manager program, Run the SETUP.EXE program supplied with the WinNet distribution. Use the More Information button to get more information on each screen.

Note: You must install the WinNet mail server program on the same DRIVE as PowerBBS. It must also be installed in its own directory, usually \WNMAIL. Do not install it under the \ POWRBBS directory.

STEP 3. Run the option to set up your account. This will ask you for billing and credit card information. The only item that is specific for PowerBBS is the **EMail Name** used with WinNet. Be sure this is set to **RFrey**, the **System Name** should be the name of your particular BBS. My BBS is called The Ladies Room so I call *my* system name **ladiesroom.** The system name you choose is what will come after the **@** and before the **.win.net** in the address of Internet mail sent to your system. After you have filled out this information, the program will call the Computer Witchcraft WinNet server and submit your account request. After a one minute pause, the program will call back to verify that the account was accepted.

All account requests will be accepted unless the System Name that you choose under SETUP is already taken by another WinNet customer. If the account request is not successful, you will need to re-run SETUP, select a different System Name, and re-run the account program.

Although WinNet was originally intended as an application for an individual to connect to the Internet, PowerBBS uses WinNet to connect your entire BBS and all its users to the Internet! The only time you will ever access this program directly is to add and delete newsgroup subscriptions**.** You will get all of your mail and articles right from PowerBBS.

NewsGroup Subscriptions

After you have set up WinNet and your account has been established, you are ready to add some newsgroup subscriptions. It's a good idea to get a book (I like *The Internet Directory* by Eric Braun) and learn about the various newsgroups. You can subscribe to newsgroups at any time, but now is as good a time as any. You can (and probably will) add and delete newsgroup subscriptions at any time. However, you must add and delete newsgroups subscriptions from within the WinNet Mail program.

15.3 Settings in Config

If you are setting up PowerBBS for Internet access, you should have one forum for private Internet mail. You can also have as many newsgroup forums as you want. The only restrictions are that you may **not** use forum #0 as an Internet forum. Period. The forum you create for private Internet mail must be between forum numbers 1-199 inclusive. I use forum #1, but you can use any forum that you would like. The newsgroup forums can be any forum(s) numbered from 1-999 (the current limit of PowerBBS forums).

The forums you use for Internet must have special names. The forum for private Internet mail must be called **INTERNET**. *Did you get that?* The forum for private Internet mail must be called **INTERNET**! Make sure the forum *you* set up for private Internet mail is not a "*public messages only*" forum. The forum names for Internet news groups must begin with **INTNN.** *Did you get that?* The forum names for Internet news groups must begin with **INTNN**! For example, I subscribe to the newsgroup called alt.sex.stories. This forum is called **INTNN Erotica** on my BBS.

After you have established the new forums for Internet, you must tell PowerBBS that you will be accessing Internet. You have to do this by changing the start-up parameters for PowerBBS. Edit the properties of the **icon** for starting up PowerBBS (alt-double click on the icon or File Properties). Add the **/I command line switch**, i.e.: C:\ POWRBBS\POWRBBS C:\POWRBBS\POWRBBS.DAT /I. You must do this to enable all the special features of PowerBBS to work with Internet.

Getting Internet mail into and out of PowerBBS

First you will create a dummy user. Give that dummy user a security level of 150. For our example, let's call the dummy user **JOE NET**. You can create a dummy user by either Adding a new user from the Sysop menu or by logging in under this name. Regardless, you must give this user a security level of 150 (or whatever level **you** use as Sysop of the system). Be sure to give this caller a password in case any of your callers get wise and try to use this name (they will see it from Who's On-Line if they log onto another node during an Internet mail run). If you intend to use **Joe Net** for PowerMail, you should update this user's profile to be a QWK Mail user. You do not need to make any changes regarding Max Internet messages per month for Joe Net.

You will have to create four files for PowerBBS to use to exchange mail. Name the files as follows to avoid conflict with QWK mail. The first three entries below can have any name you choose. I chose these names to help me stay organized. The fourth entry below **must** be called IMPORT.BAT. This may conflict with your QWK Mail routines so you will have to modify your QWK Mail routines to work around this limitation.

INTEXP.BBS **-** Tells PowerBBS from which forums to export mail and to what part of Internet to send the mail.

INTEXP.BAT **-** The batch file that will be set up as the event for your Internet connections. This batch file uses INTEXP.BBS and IN_OUT.EXE to export the mail from the BBS.

INTIMP.BBS - Tells PowerBBS what to do with the mail that WinNet gets from Internet.

IMPORT.BAT - The batch file that PowerBBS will use along with INTIMP.BBS and IN_IN.EXE to actually get the mail into PowerBBS.

INTEXP.BBS

Use your favorite text editor to create an the INTEXP.BBS file. PowerBBS will use this file to pull out messages from your BBS and send them to Internet. The file **must** follow the format described below.

Sample INTEXP.BBS file:

```
|10
;powerbbs
6,6,0
2,alt.bbs,0
```

The first line is a message counter. Set it to **|10** to start with. It must begin with a pipe symbol. PowerBBS will use this number to automatically keep track of messages.

The second line is the system name of your BBS that you created when you first set up WinNet Mail. **;ladiesroom** is the system name that I used for my system. Your system name will be different. Remember, when people send mail to your callers, this is the system name they will use: **first_last@*ladiesroom*.win.net**. Be sure to precede this line with a semicolon.

The rest of the lines (there are two here but there could be many more) are a little trickier. Each of these lines will consist of three items separated by commas. I will explain what each item means and then relate that to our sample INTEXP.BBS file.

First Item: This item is the PowerBBS forum number from which you will be exporting mail. Remember the restrictions on forum numbers described above. You will have one line for each Internet forum on your BBS from which you want to export mail.

Note: You can import a newsgroup into a forum, but you do not have to export mail FROM that forum. It is up to you.

Second Item: This can only be one of two things. **If the first item on the line is the number of your forum for private Internet mail, this item must match the first item**. In my case, my Internet forum for private mail is **6**, so this entry in INTEXP.BBS is **6,6,0**. In all other cases, this item will be the name of the Internet newsgroup to which you want to export mail.

Third Item: This item is the message pointer that PowerBBS uses to keep track of messages. Set this number to 0 to start with. PowerBBS will take care of it in the future.

Example #1: 6,6,0

This INTEXP.BBS entry is for private mail. *How can you tell?* Because the first two items are identical. The first item is a 6. This tells PowerBBS to export the mail from forum #6. The second item is also a six. This tells PowerBBS to export the mail as private E-Mail. Obviously, this sysop has chosen forum number 6 for his private Internet mail. *Of course, he called this forum what?* Think about it! He called it **INTERNET**! Very good. The last item is a 0 because the event has never been run. Once you run the event to send Internet mail, this number will automatically increase one number for each piece of mail that is to be exported from this forum.

Example #2: 2,alt.bbs,0

This INTEXP.BBS entry is for exporting a newsgroup. The first item tells PowerBBS that the mail to export is in forum #2. Item #2 tells PowerBBS to send this mail to the **alt.bbs** newsgroup. The third entry is a 0, which is just the message counter as described above.

Your INTEXP.BBS file will only have entries for the Internet forums from which you want to export mail. Do not list any forums that are not Internet forums. You will have one entry for your private Internet mail. The first two items for this entry in the INTEXP.BBS file will be the number for that forum. For all other Internet forums, it will be the number of the forum followed by the newsgroup name.

Another example

The following is another example of an INTEXP.BBS file from Adam Baker's BBS. As you can see, he has had many messages imported into his BBS (the message pointers are very high). Notice also that Adam uses forum #5 for private Internet mail. We know this because the first two items on that line (5,5,720) are identical. His system name is **azbbbs**.

Adam's INTEXP.BBS File

```
|1168
;azbbbs
5,5,720
2,rec.humor,4662
4,alt.fan.letterman,746
6,comp.os.ms-windows.misc,3506
7,alt.dragons-inn,16
8,alt.fan.mst3k,40
9,clari.news.almanac,37
```

INTIMP.BBS File

Use your favorite text editor to create the INTIMP.BBS file. PowerBBS will use this file to place the messages from Internet into your BBS. The file **must** follow the format described below.

Sample INTIMP.BBS file:

```
;ladiesroom
0,6
comp.bbs.misc,2
```

The first line is the system name of your BBS that you created when you first set up WinNet Mail. **ladiesroom** is the system name that I used for my system. Your system name will be different. Remember, when people send mail to your callers, this is the system name they will use: **first_last@*ladiesroom*.win.net**. Be sure to precede this line with a semicolon.

The rest of the lines (there are two here but there could be many more) are a little trickier. Each of these lines will consist of **two** items separated by commas. I will explain what each item means and then relate that to our sample INTIMP.BBS file.

First Item: The first item on this line will either be a 0 or the name of an Internet newsgroup. The 0 signifies private Internet mail. You will use the 0 on only **one** entry (the one for your private E-Mail, of course). Otherwise, you will enter the name of the newsgroup for which you will be importing mail.

Note: Please note the entry for private Internet mail is different than the INTEXP.BBS file's entry! In the INTIMP.BBS file, the first item for the line for private mail will always be a 0.

Second Item: The second item will be a PowerBBS forum number. Use this number to tell PowerBBS where to place the mail. The entry for private mail will be the number of the forum you called **INTERNET.** For the rest of the entries, the number for the second item will be the PowerBBS forum number of the corresponding **INTNN Name** forum.

Example: 0,6

This entry in the INTIMP.BBS file tells PowerBBS to place all private Internet mail directly into forum #6, which is called (c'mon) **INTERNET.**

Example: comp.bbs.misc,2

This entry in the INTIMP.BBS file tells PowerBBS to place the newsgroup articles from **comp.bbs.misc** directly into forum #2, which is called **INTNN Stuff About BBSing.**

Your INTIMP.BBS file will only have entries for the newsgroups which you intend to import and for your private Internet mail. You will have one entry for your private Internet mail.

Another example

The following is another example of an intimp.bbs file from Adam Baker's BBS. Note that Adam's INTIMP.BBS and INTEXP.BBS files don't agree. He has elected to have several network newsgroups imported into the same forum. This can be done without any problems. Be careful, because users may not know exactly which newsgroup their posts will be sent to, if you will also be exporting mail from this forum. It's a good idea **not** to export articles from a forum that imports several different newsgroups. Folks on Internet can get pretty uptight when they see articles about David Letterman in the Dungeons and Dragons newsgroup!

You can also have a network news group as a "read only" forum by just **not** adding it's information to the INTEXP.BBS file. Sometimes you only want your callers to be able to read the articles from a newsgroup, but not write articles to them. Usually you do this to save money or if a newsgroup does not accept postings (like those in the ClariNet News hierarchy). Notice his entry for private Internet mail is 0,5. The 0 means private mail and the 5 means put it in forum #5.

```
Adam's INTEXP.BBS File
;AZBBBS
0,5
comp.os.ms-windows.misc,6
alt.dragons-inn,7
alt.fan.mst3k,8
clari.news.almanac,9
rec.humor,2
rec.humor.funny,2
clari.news.interest.quirks,2
comp.protocols.misc,2
comp.society.cd-digest,2
alt.butt-keg.marmalade,2
alt.fan.letterman,4
```

INTEXP.BAT File

You will create an **event** in your Config Events Setup. It will use the INTEXP.BAT file to export Internet mail.

The import of the mail will then be automatic. More on this later. Use your favorite text editor to create your INTEXP.BAT file. In our running example, it will look as follows with all of the text being on one line:

```
in_out c:\powrbbs\powrbbs.dat JOE NET ladiesroom c:\powrbbs\intexp.bbs
```

Here is what it does. The first part of this line is **in_out.** This calls the program IN_OUT.EXE located in your \ POWRBBS directory. This is the program that PowerBBS uses to export mail from the BBS.

The next part is C:\POWRBBS\POWRBBS.DAT. This is the name of the **dat** file of the node for which you are running the Internet event. This node **must** be a node connected to an outside line.

The third part is **JOE NET.** This is the name of the dummy user that you created earlier. Remember, this dummy user must have the same security level (usually 150) that you have as sysop. PowerBBS will use this dummy user to "log in" to the BBS and get the mail out.

The fourth entry is **ladiesroom.** This is your Internet system name that you created earlier. This is needed for PowerBBS to properly convert the mail for Internet.

The fifth and final entry is the **full** path and filename of the INTEXP.BBS file that we have already created. This file will tell IN_OUT.EXE what messages to take out of PowerBBS and where to send them on Internet. In our case this entry is C:\POWRBBS\INTEXP.BBS. You must have this file in order for **in_out** to work properly.

Example: INTEXP.BAT by Adam Baker

```
c:\powrbbs\in_out.exe c:\powrbbs\powrbbs.dat JOE NET azbbbs c:\powrbbs\intexp.bbs
```

Notice that the only difference between our example and Adam's example is the system name. His system is called azbbbs. You must put **your** system name for your INTEXP.BAT. The true guts of the INTEXP.BAT file is contained in the INTEXP.BBS file.

IMPORT.BAT File

The second half of the Internet Mail Event is the import of the new messages into the PowerBBS message bases. You must create this batch file in order for PowerBBS to actually import the mail into your messages bases.

Remember, this file must be called IMPORT.BAT.

In our running example, it will look as follows with all of the text being on one line:

```
in_in c:\powrbbs\powrbbs.dat JOE NET powerbbs c:\powrbbs\intimp.bbs
```

Here is what it does. The first part of this line is **in_in.** This calls the program **in_in.exe** located in your \ POWRBBS directory. This is the program that PowerBBS uses to import mail into the BBS.

The next part is C:\POWRBBS\POWRBBS.DAT. This is the name of the **dat** file of the node for which you are running the Internet event. This node **must** be a node connected to an outside line.

The third part is **JOE NET.** This is the name of the dummy user that you created earlier. Remember, this dummy user must have the same security level (usually 150) that you have as sysop. PowerBBS will use this dummy user to "log in" to the BBS and send the messages.

The fourth entry is **ladiesroom.** This is your Internet system name that you created earlier. This is needed for PowerBBS to properly convert the mail from Internet to put into your BBS.

The fifth and final entry is the **full** path and filename of the INTIMP.BBS file that we have already created. This file will tell IN_IN.EXE where to place the messages that have been received from Internet by way of you WinNet Mail package. In our case this entry is C:\POWRBBS\INTIMP.BBS. You must have this file in order for **in_in** to work properly.

Note: PowerBBS will take the contents of the IMPORT.BAT file and combine it with its own commands to create an IMPORT1.BAT file (described below). In order for this to work properly, you must press Enter after you type the last (or only) line in your IMPORT.BAT file. I say this because sometimes people don't press Enter after they type the last line of a batch file. Trust me here!

Example IMPORT.BAT by Adam Baker

```
wait 120
c:\powrbbs\in_in.exe c:\powrbbs\powrbbs.dat JOE NET azbbbs c:\powrbbs\intimp.bbs
```

Adam imports a lot of information into his BBS. Therefore, he has added an extra line to his IMPORT.BAT file called **wait 120.** This line tells PowerBBS two wait two extra minutes (that's what the "120" refers to, but it could be a higher or lower number) before importing the mail. You will see later that PowerBBS already waits three minutes. This entry makes PowerBBS wait a total of five minutes. You will see later why this needs to be done. Notice that the only other difference for this example is the system name, which is **azbbbs** for Adam's BBS. You will put your system in this position. The real guts of the import routine is contained in the INTIMP.BBS file.

AUTOEXEC.BAT

The only entry you need to make here is to put your \WNMAIL directory into your path statement. That's it.

Putting it all Together Setting up Your Event

You will set up an event on your BBS for **one** of your nodes. This event must run C:\ POWRBBS\INTEXP.BAT. In the Events dialog box, you **must** check *Run Internet Connection After Event.* PowerBBS will run this event at the times you have specified.

Note: You will not set up an event for the IMPORT.BAT file, PowerBBS will run that file after an Internet event all by itself!

PowerBBS will run the INTEXP.BAT file at the time specified by your event. This will essentially result in **JOE NET** logging into your BBS and exporting all of the messages as specified in your INTEXP.BBS file. When this conversion is done, PowerBBS will automatically run the UUCICO.EXE program (located in you \WNMAIL directory! *Not in the \Powrbbs directory as the original PowerBBS documentation had instructed)*. This program will dial the server (Computer Witchcraft) and send the mail you exported from your BBS and receive any waiting mail for your system. You don't need to step in and do anything. Just let PowerBBS do its thing.

After the UUCICO.EXE program is done exchanging mail, the WinNet Mail program will pop up an icon on your system called Mail Manager (or "Mail Man") and convert all of the information into a recognizable format. Depending on how much mail you get, this can take a few seconds or several minutes. **At the same time** WinNet is converting the mail, PowerBBS will pop up a DOS window (or icon). In this DOS window, PowerBBS will be running a batch file called IMPORT1.BAT. If you've been paying attention, you might be wondering where IMPORT1.BAT comes from. We haven't made a file with that name!

Every time PowerBBS runs an event with *Run Internet Connection After Event* checked, it will create a file called IMPORT1.BAT (assuming you use node 1 for the event) in your \POWRBBS directory. You do not need to modify this file. PowerBBS creates it automatically by adding a **wait 10** statement and adding in your IMPORT.BAT file. Basically, the IMPORT1.BAT file is a combination of IMPORT.BAT (that you created) and some internal stuff that PowerBBS adds. The IMPORT1.BAT file is created **every** time you run an Internet event. You will never need to modify this file. Actually, you **can't** modify this file since it is recreated **every** time your run an Internet event!

The WinNet system **must** take care of the exported messages before the import procedure is started. PowerBBS will not start IMPORT1.BAT until WinNet is done.

That's All There Is!

Once you have made the four files we discussed and set up your event, that's all there is. Remember, your event will simply run the INTEXP.BAT file. PowerBBS will take care of calling the server and then running the IMPORT.BAT file. Yes, it's that simple!

15.4 Internet and your callers

User IDs on Your System

When you set up your account with WinNet, you gave it a system name. All mail to users on your system must be **first_last@yoursystem.win.net**. My system name is **ladiesroom.** To send mail to me on my system, address it to **james_carr@ladiesroom.win.net**. My system allows one-word names (this is different than the handle option). My wife has a one word name she uses on our system called **sweetcheeks**. If you wanted to send her mail on our system via Internet (to tell her what a great job I did on this file), address it to **sweetcheeks@ladiesroom.win.net**.

If anyone sends mail to your system using ***whatever*@yoursystem.win.net** then **your** system will get the mail. Internet has **no idea** whether ***whatever*** is actually a user on your system. For example, if you sent a message to my system addressed to **barney_rubble@ladiesroom.win.net** it will arrive on my system. I will see a message in my forum for private Internet forum addressed to **Barney Rubble.** However, since there is no caller on my system, no one will ever get the mail. Only, I, the sysop, will be able to see it or kill it.

Likewise, if someone sends Internet mail to one of your callers and uses the proper system name, it will arrive on your system. However, unless you give that caller access to the INTERNET forum, they will not be able to see it.

Personally, I limit access to my INTERNET forum using security levels. So, everyone on your system will have an Internet address, but it's up to you whether they will actually be able to use it!

Telling Your Users Their Internet Address

I have modified my **stats** screen to display the current caller's Internet address. Since I allow one word names on my system, I had to add the following:

If you have a one word name on our BBS, your Internet address is:

```
|NAME|@ladiesRoom.Win.Net
```

If you have a two word name on our BBS, your Internet address is:

```
|FIRST|_|LAST|@ladiesRoom.Win.Net
```

Notice that I use the underscore (_) character between the FIRST and LAST name MACROs. The only drawback here is that the caller will see **two** Internet addresses, a correct one and an incorrect one. Trust me, your users will understand!

Allowing Internet Access for Your Users

You don't need to do anything special to give your users an Internet address. It's automatic. However, you **will** need to modify each user's account to give him a maximum number of Internet messages per month and whether they have access to FTP Mail. You can also set the number of maximum Internet messages allowed per month under Config, Data File Location under editing Security Level information.

Note: Users are defaulted to 0/0 (meaning they cannot leave any Internet mail) and they are defaulted to not having access to FTP Mail.

Since you can make private forums or set a security level to access a forum, you have complete control over how your users access Internet on your BBS.

Checklist for Setting up Internet and PowerBBS

_____ Download the WinNet mail program.

_____ Install this program on the same drive as PowerBBS.

_____ Set up your account using the WinNet Mail program. Remember to select a unique system name for your BBS. Set the E-Mail name to RFrey.

_____ If you want to have any newsgroup subscriptions, start these subscriptions using the WinNet Mail server program now. You can always change this later using the WinNet Mail package. Discussion about PowerBBS is currently happening in the comp.bbs.misc newsgroup. We hope to soon have our own comp.bbs.powerbbs newsgroup. Please join us on comp.bbs.misc. There's lots of good information out there!

_____ Use PowerBBS Config to create your forum for private Internet mail. Call this forum INTERNET. Set the security level to access this forum high enough to suit your needs.

_____ Use PowerBBS Config to create your newsgroup forums. Call these forums INTNN Whatever Name. Again, decide on a security level to suit your needs.

_____ Create a dummy user called JOE NET. Give this user a password and a security level of 150 or whatever your sysop security level is.

_____ Create your INTEXP.BBS file as described above.

_____ Create your INTIMP.BBS file as described above.

_____ Create your INTEXP.BAT file as described above.

_____ Create your IMPORT.BAT file as described above.

_____ Put the \WNMAIL directory into your path statement.

_____ Use PowerBBS Config to create an event for the Internet mail exchange. Be sure to use the INTEXP.BAT file as your Batch file to run. Be sure to check the Run Internet Connection After Event option.

_____ Modify your icon for starting PowerBBS to include the /I switch to enable the Internet routines.

_____ Verify that UUCICO.EXE is in your \Wnmail directory.

_____ Verify that IN_OUT.EXE, IN_OUT.EXE, UUDECODE.EXE and UUENCODE.EXE are in your \Powrbbs directory.

_____ Leave a private message in your private Internet forum to james_carr@powerbbs.win.net and let me know if this file helped. It will be a good test. Also let me know your BBS Name and Phone Number and I'll see that you get added to the PBBS/Internet Sysops List, a group of PBBS Sysops on the Net who share tricks, tips and lists of the most recent versions of useful PowerBBS applications.

_____ Several hours before you are ready to test the system, leave a message to yourself via Internet. You can use America On-Line, CompuServe, Genie, Delphi, Prodigy or whatever. Just be sure to leave several hours lead time for the mail to be processed. You must have already established your account with WinNet. Your Internet address will be your_name@yoursystem.win.net.

_____ Start PowerBBS and let the event run. If all goes well you should get a message from yourself and I should get a message. I will reply to all messages I receive.

_____ If it doesn't work, go over this document again. If you still get stuck, call the Support BBS and leave a message for James Carr telling me exactly where you think it is failing. Feel free to enclose the four files we have created here.

16 Echo mail

Echo mail is a generic term for exchanging mail between BBSs. PowerBBS directly supports echoing QWK mail and indirectly supports FIDO style mail via FrontDoor. Echoing mail is not something for the light hearted. It takes hard work and planning to get set up. The best thing to do is to wait until you've got the rest of your BBS up and running and then tackle echoing mail.

16.1 QWK based mail networking

The easiest method of echoing mail is via QWK packets. Basically you will write a batch file to run as a PowerBBS event for one of your nodes. This batch file will extract messages from your BBS and convert them to a REPly packet. Next it will use a DOS based communications program to dial another BBS using that program's script utility to automate the process. While on-line with another BBS, the script will download a QWK packet and upload the REPly packet. Then the batch file resumes control and converts the QWK packet and imports into your BBS.

You will need to create three files to accomplish this: The batch file, EXPORT.BBS and IMPORT.BBS. The last two files will determine which of your forums will send and receive mail. We will discuss each of these files in detail.

Getting started

Before we get started you will need to add a dummy user to your BBS. This dummy user will be used by the batch file to log on to your BBS during the batch file. Add a user via the sysop's menu. We suggest that you call this user Joe Qwk. Give this dummy user a security level high enough to access your forums, but not high enough to be a sysop or else your private mail will be exchanged. This dummy user doesn't need a password, but you can give him one anyway.

EXPORT.BBS

Create an EXPORT.BBS file with a text editor. This file must be located in your \POWRBBS\ directory. It will be used to determine from what forum numbers on your BBS you want to extract mail and assign the corresponding forum numbers for the BBS that will receive the mail. The following is a sample EXPORT.BBS:

```
****EXPORT.BBS****
;pOWERbbs IS WHERE IT ALL HAPPENS
69,10
70,1
71,2
```

The first line must begin with a semicolon, followed by a line of text. This is the tag-line for your BBS that will be added to the end of each message exported. It is usually an advertisement for your BBS.

The format for the next line applies to the rest of the lines in this file. The first number is the number of the forum on your BBS from which you want to export mail. The second number is the forum number on the BBS into which the mail will be sent. Separate these two numbers with a comma. You can export from only the first 200 forums on your BBS.

Note: Messages from forum 0 cannot be exported.

IMPORT.BBS

Create an IMPORT.BBS file with a text editor and place it in your \POWRBBS\ directory. It will be used to determine into which forums you want to place the incoming mail. The format of this file is just the opposite of EXPORT.BBS.

```
****IMPORT.BBS****
10,69
1,70
2,71
```

Unlike EXPORT.BBS, this file does not have a line for your tag-line. The first number is the forum number from

the incoming BBS's mail packet. The second number is the forum number into which you want those messages placed. These two numbers must be separated by commas. If any of the incoming messages are marked private and the forum to which the mail is being sent does not accept private mail, the message will be placed in forum 0.

GETREP.EXE

This program will extract messages from your BBS and create a REPly packet. It places the *.MSG file in the directory specified in Config under Options #3 for QWK Mail. The format for this program is as follows:

```
GETREP [PATH\FILE POWRBBS.DAT] [DUMMY USER] [REPLY PACKET NAME] [EXPORT.BBS]
```

The first argument on the command line must be the name of your DAT file for that node of PowerBBS (C:\ POWRBBS1.DAT). The second item is the name of the dummy user you created earlier (Joe Qwk). The third item is the name of the REPly packet to create for the receiving BBS. The last line is the full path to your EXPORT.BBS file.

Example:

```
GETREP C:\POWRBBS\POWRBBS2.DAT JOE QWK LADIESRM C:\POWRBBS\EXPORT.BBS
```

UPQWK.EXE

This program will be used to convert the QWK packet you downloaded from the other BBS to a REPly packet to be imported into your BBS. The format of this command is as follows:

```
UPQWK [PATH\FILE POWRBBS.DAT] [DUMMY USER] [QWK PACKET NAME] [IMPORT.BBS]
```

Example:

```
UPQWK C:\POWRBBS\POWRBBS2.DAT JOE QWK C:\TELIX\DN\POWERBBS.QWK C:\POWRBBS\IMPORT.BBS
```

The big batch file

The following batch file is a sample of how to use the above programs to echo QWK mail. For our example we are using Telix as our terminal program. We have written a Telix script that calls the BBS and does the actual exchange of mail. You will need to read the manual for your terminal program to learn how to write this script.

```
****QWK_SAMP.BAT****
C:
CD \powrbbs
GETREP C:\POWRBBS\POWRBBS2.DAT JOE QWK LADIESRM C:\POWRBBS\EXPORT.BBS
PKZIP LADIESRM.REP C:\MAIL2\LADIESRM.MSG
REM COPY THE REPLY PACKET TO THE TELIX UPLOAD DIRECTORY
COPY C:\MAIL2\LADIESRM.REP C:\TELIX\UP
REM CLEAN UP WORKING FILES
DEL C:\MAIL2\LADIESRM.*
ECHO RUN TELIX WITH A SCRIPT
CD \TELIX
TELIX QWKMAIL.SLC
ECHO CONVERT THE INCOMING QWK PACKET
CD \POWRBBS
UPQWK C:\POWRBBS\POWRBBS2.DAT JOE QWK C:\TELIX\DN\LADIESRM.QWK C:\POWRBBS\IMPORT.BBS
REM CLEAN UP THE TELIX WORKING DIRECTORY
DEL C:\TELIX\UP\LADIESRM.REP
DEL C:\TELIX\DN\LADIESRM.QWK
CD \POWRBBS
```

PowerBBS specific feature

If you will be calling a PowerBBS system or have a PowerBBS system call your system, set up the user account on either end to be a QWK Mail User. This is done via the sysop's menu. Whenever you want to call to exchange mail with a PowerBBS system, log in as #Q#Your Name. This will put PowerBBS in a special mode to automatically send the reply packet, receive the QWK packet, update your pointers, then log off. This will save you from having to write a script to accomplish this.

Other BBS systems

If you want to exchange mail with a BBS that is not using PowerBBS, you will have to contact the sysop of that BBS to see if there is anything specific you need to do.

16.2 FIDO style echo mail

PowerBBS can be used to connect with FIDO compatible networks, but not without a lot of work and some other software. This is a complicated undertaking, but it can be well worth the effort. Since PowerBBS has an open interface to many add-on packages, you will be able to choose from many different third party programs to toss your mail.

Disclaimer

There are only a few things you will have to do to PowerBBS to use echo FIDO mail. The problem is that you will have to do a lot of work with other packages to accomplish this. We will be able to offer support for the components of this system that are PowerBBS related. However, you will need to contact the makers of your third party applications for the majority of your support.

The programs you will use will come with documentation. You must read this documentation thoroughly. These packages will also offer support via their own BBSs. Please do not call the PowerBBS Support BBS for support on third party programs. We will not be able to help you. However, feel free to leave a public message to ALL asking for assistance. Other PowerBBS sysops are already running FIDO style echo mail programs and may be willing to help out.

FrontDoor

To run FIDO style echo mail you will need a program that will answer the phone. Based on the type of caller, this program will either pass the call to your BBS or take the call itself and process mail. Furthermore, this program will have its own set of daily events that it will run. You will not be able to run any events directly from PowerBBS for any node that is running a front door type program.

We recommend FrontDoor. It is a shareware package and is available for download from the Support BBS. Read the documentation that comes with it. Try to have a good understanding of this program before attempting to use it. FrontDoor has an excellent support team and will be glad to offer assistance.

Note: FrontDoor is shareware. If you continue to use it, please register.

PowerBBS and FrontDoor

If you will be running FrontDoor or any other mailer, you must tell PowerBBS. In Config under Options #2, check Run FrontDoor or other Mailer. You must specify two files for FrontDoor. The first is the batch file that will start FrontDoor, usually FDRUN.BAT. The other is the file that will tell PowerBBS the connect rate. Remember, when you start a node that uses FrontDoor, FD actually answers the phone. If it passes the call on to PowerBBS, it must tell PowerBBS information about the connection. We will discuss these two files in more detail later.

The five key batch files

If you are running FD, you must download EXEBBS.EXE from the Support BBS if you do not already have it. The EXEBBS program actually writes to the USERINFO.BBS file to store the current baud rate before reloading PowerBBS. It will be used in our batch files.

```
****DOBBS.BAT****
EXEBBS

****LOCKBBS.BAT****
EXEBBS 38400
REM LOCKS THE BAUD RATE

****LOCAL.BAT****
EXEBBS LOCAL
REM STARTS POWERBBS IN LOCAL MODE
REM ASSIGN THIS TO A FUNCTION KEY IN FRONTDOOR

****STOP.BAT****
EXEBBS EXIT
```

EXEBBS.DAT

This program requires the presence of EXEBBS.DAT in your \POWRBBS\ directory. This file contains one line, the path and file name of the Current Caller's Info (Config, File Locations #2). Make sure you are using the file for the

same node from which you are running FrontDoor.

```
****EXEBBS.DAT****
C:\POWRBBS\USERINF1.BBS
```

Events in FrontDoor

FD will control all of the events for that node. You will not be able to use the Event Data File in Config for this node. If you intend to run Internet from FrontDoor, contact the Support BBS for the latest information on accomplishing this.

Tossers

If you are running FD, chances are you are doing it to run FIDO mail. You will need to pick up some software to accomplish this for you. There are many good tossers available. Pick one that suits your needs and is easy to use. Ask around. Call other PowerBBS sysops running FD and see what they use.

InterPCB

This program is fairly easy to use. However, do not download a version higher than 1.31 because it has been known to have problems. InterPCB 1.31 is available on the Support BBS. This program will convert the PowerBBS message files into a FIDO compatible format.

ConfMail, Gecho, IMail

These are programs used to handle the incoming mail packets. They *should* work with InterPCB, but you will need to test things out yourself. ConfMail is a relatively simple program to set up. Gecho is set up a lot like FrontDoor, which should make it easier to learn. This program also has an excellent set of help screens. These are alone worth the price of registration.

FOSSIL driver

If you are going to run FrontDoor, you will need to load a FOSSIL driver. We recommend that you load it in CONFIG.SYS if possible. X00.SYS has been known to work well with PowerBBS and FrontDoor.

The Support BBS

Though PowerBBS does not offer direct support for FD, other PowerBBS sysops may be willing to help out. Log on to the Support BBS and check the latest BBS listing. If you see a sysop who is running FD, leave him a message asking him if he would be kind enough to lend a hand. Take a look in the file listings for sample batch files or even help files written by other sysops. Rob Henderson, a PowerBBS sysop, has graciously uploaded his FD and InterPCB batch files to the Support BBS.

16.3 Planet Connect

Note: Many thanks to PowerBBS sysop David Cagle for submitting this portion of the manual!

Serious sysops that want to supply users with maximum amounts of Internet newsgroups should strongly consider using a service such as Planet Connect. PowerBBS now allows you to import newsgroups straight into your BBS via Planet Connect Satellite System. The following is a mini guide on how to get and setup your Planet Connect Satellite System.

Contact:
Planet Systems, Inc.
1065 Cosby Hwy
Newport, TN. 37821
Phone 615-623-8300
Fax 615-623-8751
BBS (HST) 615-623-8203,
(V32) 615-623-8111

Features

Features include: FIDONet Conferences (entire FIDONet Backbone — messages are forwarded back to Planet Connect BBS), weather radar, satellite views, and maps; channel guide of national TV networks, shareware distribution networks, USA Today, Decisionline nets, FIDONet, Rime, NaNet, ILink, RoseNet, Intelec, U'n'Inet, Planet Earth, City 2 City, Microsoft, Echo-Net, & SmartNet Internet/Usenet News Groups - 1500 newsgroups are available for posting on your PowerBBS System.

Prices

Satellite Hardware: Consult Planet Connect for the size dish you need in your area. Subscription rates are available from Planet Connect. The pricing is based on the number of phone lines as well as the items you choose.

Suggested hardware requirements

Use a 486DX/33 or higher for your BBS. It is suggested that you install a LAN and use a workstation to process the mail. You will also need at least 8megs of RAM, a 400 M hard drive or larger, and one available serial port for the Satellite Data Receiver (Com1,2,3, or 4).

The system can be run on a single computer, providing that you can take your board off line for a number of hours. Setup time takes about three to five hours. Planet Connect will send you a video giving you step by step instructions on the complete hardware setup. Once you have completed the hardware setup and install the Plant Connect software, you are ready to go.

Config

Download time starts at 7:30 Eastern time and the complete cycle of the satellite is over nine hours. Internet is sent on the second half of the cycle. Those that do not want FIDONet can time their event to start after FIDO finishes, which is about 10:30 to 11:30 (times are subject to change!). Internet files are dumped into the \NEWGRP\ directory in a zipped form. (All directories are made by the Planet Connect software. You can change drive location in the \PLANTEC\ ACONFIG.SKY & \PLANTEC\CONFIG.SKY files).

Aconfig.sky #

```
# This is a basic set up for the PC. You will have to edit the
# destination locater. grp 5 will be the directory to your inbound mail
# directory. grp 6 will be the location of where you want the incoming
# weather files to go. You can put any directory you want in the last
# 2 listings. Now if you have the SKYDRIVE=  statement in the .INI file
# reflecting a drive other than C: then you will have to change all the
# C: in the destination locater to reflect the other drive. Eg. if you
# have SKYDRIVE=F: in the INI file then you will have to change each
# destination locater to F:. So grp 1 would be F:\SKYDATA\SKYINFO/ and this
# would be the same for each destination. the forward slash has to be at
# the end of each directory. Once this is done then you will have to
# run the program called MAKECFG.EXE which will be in the PLANETC directory
# now on your HD. Running this program will create a file called CONFIG.SKY
# that the Planet Connect requires and will not run without.
#
#
#
#         net  grp  usr    major minor topic type    destination         limit
:rulebase, *,   1,   *,      *,    *,    *,  disk, D:\SKYDATA\SKYINFO/,   *
:rulebase, *,   2,   *,      *,    *,    *,  disk, D:\SKYDATA/,           *
:rulebase, *,   3,   *,      *,    *,    *,  disk, D:\SKYDATA/UPDATES/,   *
:rulebase, *,   4,   _SKYID, *,    *,    *,  disk, D:\SKYDATA\PERSONAL/,  *
:rulebase, *,   5,   *,      *,    *,    *,  disk, D:\BRIDGE\FILES/,      *
:rulebase, *,   6,   *,      *,    *,    *,  disk, D:\WEATHER/,   *
:rulebase, *,   7,   *,      *,    *,    *,  disk, D:\TV/,        *
:rulebase, *,   8,   *,      *,    *,    *,  disk, D:\CRS/,       *
:rulebase, *,   9,   *,      *,    *,    *,  disk, D:\RIME/,      *
:rulebase, *,  10,   *,      *,    *,    *,  disk, D:\ROSENET/,   *
:rulebase, *,  11,   *,      *,    *,    *,  disk, D:\NEWSGRP/,   *
:rulebase, *,  12,   *,      *,    *,    *,  disk, D:\PROSTAR/,   *
:rulebase, *,  13,   *,      *,    *,    *,  disk, D:\INTELEC/,   *
:rulebase, *,  14,   *,      *,    *,    *,  disk, D:\FUTURE/,    *
:rulebase, *,  15,   *,      *,    *,    *,  disk, D:\CELEPUB/,   *
:rulebase, *,  16,   *,      *,    *,    *,  disk, D:\UNINET/,    *
:rulebase, *,  17,   *,      *,    *,    *,  disk, D:\GLOBAL/,    *
:rulebase, *,  18,   *,      *,    *,    *,  disk, D:\GALAXY/,    *
```

```
:rulebase, *,  19,   *,      *,    *,    *,  disk, D:\FRENCH/,    *
:rulebase, *,  20,   *,      *,    *,    *,  disk, D:\HCN/,       *
:rulebase, *,  21,   *,      *,    *,    *,  disk, D:\CONNECT/,   *
:rulebase, *,  22,   *,      *,    *,    *,  disk, D:\USATODAY/,  *
```

Working with the bags

Once the data is in the correct directory it must be unzipped. After this is done the files will be in a *.BAG format . Now the files are ready to be split up and moved into the \WINMAIL\NEWS directory. This is done by the PLANET.EXE program provided with PowerBBS. Once in this directory, the bags are ready to be tossed by your IMPORT.BAT file. All newsgroups should be setup the same way that you do now! All personal mail and all newsgroup replies will be handled by the WinNet Mail program. Use this program the same way you do now. The main benefit of the satellite system is to save all that connect time you would have down loading hundreds of newsgroups.

The following is a sample bat file that works for me, crude but gets the job done!

```
D:\
CD \PLANETC
PTCCMAIN.EXE
IF ERRORLEVEL 100 GOTO EXIT
:EXIT
CD \POWRBBS
PKUNZIP D:\NEWSGRP\PCUSENET.* D:\NEWSGRP\
DEL D:\NEWSGRP\PCUSENET.*
PIQUE C:\NEWSGRP C:\NEWSS C:\POWRBBS\WS1NET.TXT  /K /O
CD\POWRBBS
PLANET D:\NEWSGRP C:\WNMAIL\NEWS 200 C:\POWRBBS\IMPORT.BAT
CD\POWRBBS
```

I tried each line one at time before setting up this file. I suggest that everyone try it the same way until you get the desired results.

Hints

If you have a workstation and you let the Planet Connect program run 24 hours a day, you may not want some of the files on your hard disk. Just change the backslash in the *.SKY file. The program will cycle until you have all the data from the satellite. We time our event to catch the beginning of Internet. To stop the Planet Connect program from the next cycle we put in the following line right after the PTCCMAIN.EXE line:

```
IF ERRORLEVEL 100 GOTO EXIT
:EXIT
```

This will stop the program from starting all over again.

Note: All unzipping, moving, and tossing times depend on your computer's speed!

The WinNet service should still be used for exporting mail and receiving private Internet mail. Just maintain your export mail setup as defined in the Internet setup of the manual. However, you do not need to receive any news groups from WinNet as this is taken care of by Planet Connect!

About Pique

Pique, pronounced 'PEEK', or 'PEAK', or even 'PEK', is a Usenet BAG file processor. If you don't deal with Usenet .BAG files or have any idea what they are stop reading now! Usenet .BAG files are distributed in the PC world by only two systems that we are aware of: The Planet Connect satellite system, and the Pagesat satellite system. If you purchase one of their dishes and subscribe to the respective services, you can have delivered to a computer the *entire* Usenet feed each and every day. How big is all of this? Try 40 to 80 megs a day!

Now, if you have an Internet mail/news processor on your machine that can handle .BAG files you could just toss all 40+ megs into your incoming news directory. Then let the BBS sort through it all and toss the newsgroups you want into their respective area on the BBS. However, this is not really practical. If you're running a Pentium for your BBS, it might not be so bad. But I'd be willing to bet that your callers would still feel the impact one way or the other.

Most people have what's called a "nanny" machine that processes their satellite data and shuts down after an entire feed to do processing. This is where PIQUE comes into play. Instead of tossing the entire .BAG feed into your news directory, you can use PIQUE to preprocess the BAG files. PIQUE will take a list of the newsgroups you want to receive and sort through the original .BAG files. It will pull out only the messages that are addressed to the newsgroups you want to receive. It will then place these messages into identically named .BAG files in another directory.

If you need to process more than 1,000 newsgroups (a limitation of PIQUE), you could do some batch file voodoo

and slightly alter the names of the NEWSxxxx.BAG files that were done during the first run of PIQUE. In other words, rename news????.bag new1????.bag, then run PIQUE again, this time pointing it to your second list of newsgroups. When you run PIQUE the final time, you can even instruct it to delete the original .BAG files as it goes.

Toss all the messages into your incoming news directory. Instead of 70 megs of text to process, your BBS will only have to work on exactly what you want. Your users will thank you!

PIQUE

Kurt Risser
1208 Garvin Place #2
Louisville, KY. 40203
Voice: (502) 636-1460
Internet: kurt.risser@shivasys.com
The Dance of Shiva BBS: 502.893.6360

17 PowerBBS and Windows

17.1 Hardware Considerations

Obviously, Windows will run best with the fastest processor you can afford. At the minimum you will need a 386 with 4M of RAM. Short of buying a new computer, there are a few other things you can do to speed up your machine.

RAM

Some say that RAM stands for Rarely Adequate Memory! Well, that can be the case sometimes. My own experience and tests by PC Magazine and other trade publications show that Windows "sweet spot" for RAM is 8M. There is a dramatic performance gain by increasing RAM for 4M to 8M. Beyond 8M, however, performance gains are small.

Why does it make a difference? Windows uses a swap file on your hard disk to simulate RAM (discussed later). Disk access is measured in milliseconds whereas memory access is measured in nanoseconds (billionths of a second). Furthermore, data transfer rates for RAM are significantly faster than that of a disk. If you are running short of RAM, Windows will use the swap file on disk more and more, thereby slowing down your system.

If you have 4M of RAM, you may have noticed that when you start the DOS prompt from within Windows you see your hard disk light flash a lot, and it takes several seconds for the window to appear. Or maybe when you close Windows program, you will see your screen only drawn halfway, see the disk light flash some more, then have the screen finish redrawing. This is a classic sign of inadequate RAM. This "disk thrashing" is Windows accessing the swap file. Imagine how much faster it would be if Windows wasn't going to the disk so much for memory. Sometimes the speed changes from upgrading to 8M of RAM are incredibly dramatic. With 1M SIMMs under $40, this is the single best investment you can make in your PC.

Swap Files

Most experts will agree that if you have 8M of RAM, you really only need a swap file of just 4M or less. However, if you run a large number of programs simultaneously, you may find you need a larger swap file. My recommendation is 4M. If you find you need more, then increase the size of the swap file.

Regardless, you should use a permanent swap file and 32 bit disk access. Set this in Control Panel under 386 Enhanced, Virtual Memory. Permanent swap files with 32 bit disk access are significantly faster than temporary swap files. If Windows will not let you make a swap file as large as you would like, yet you know that you have the disk space available, quit Windows and run the Defrag program that comes with DOS 6.0. Select full optimization to clear up more contiguous free disk space. You should then be able to make a larger swap file.

Minimum Time Slice

In Control Panel under 386 Enhanced you can change the minimum time slice that each virtual machine will receive. All Windows programs running at once are considered a single virtual machine. They share one time slice. Each DOS program running is considered a virtual machine and each gets a time slice to itself. The lower minimum time slice, the smoother multitasking will appear. However, this will slow your system overall. The default of 20 works fine and should be left alone.

SmartDrive

SmartDrive is a disk caching program that comes with DOS and Windows. A disk cache is a program that stores the information most recently accessed on your hard drive (and some good guesses as to what you need next) in RAM. Therefore, when a program needs some more information from the disk, the cache program checks to see if it is RAM first. If it is, the program gets it from RAM, which is much faster than getting it from disk.

The version of SmartDrive that comes with DOS 6.0/6.2 is the best version yet. I've tried other cache programs and they don't seem to be any faster or slower in real life conditions. Using benchmark software that tests your hard drive and report the disk access speeds is not a reliable indicator of how well a disk cache program works. Save your money and stick with SmartDrive.

If you have 4M of RAM, your cache should be 512K. If you have 8M of RAM, it should be 1M. A cache of 1M

will give you a "hit rate" of between 85% and 95%. This is very efficient. Increasing the size of your disk cache to get a few more percentage points may not increase your overall performance. Instead of making a 2M cache with 8M of

RAM, stick with 1M and let Windows use the other 1M for programs. This will keep Windows from swapping to disk for virtual memory as much, which will give you better speed improvement. If you have over 8M of RAM, feel free to tinker as much as you would like with the size of the cache. The speed gains will be marginal at best, but you might just get lucky!

The command line for SmartDrive in autoexec.bat for an 8M machine is:

```
smartdrv.exe C 2048 1024
```

This means to load SmartDrive with a cache size of 2048K before starting Windows and 1024K after starting Windows. By explicitly entering "C" you are telling SmartDrive to only read cache that drive. If you do not specify a drive letter, it will automatically do read and write caching. Write caching is dangerous because of the potential of your Windows system locking up before the cache has a chance to write the information to disk.

Hard Disks

Periodically defragmenting your hard drive will decrease the amount of time that PowerBBS uses to search for new mail at log-on. Other operations will speed up as well because this will make your disk more efficient.

Video Cards

A windows video accelerator card will improve the performance of PowerBBS and Windows in general. This is because your CPU will have less work to do since the video card will handle more of the screen redraws. Be aware, however, that accelerator cards can sometimes cause conflicts on your system with PowerBBS and other programs. Periodically check in with the manufacturer of your video card for updated drivers. For example, my video accelerator card's video driver causes my Excel graphs to reverse black and white when I print! In order to print an Excel graph, I have to switch to the standard Windows video driver. Go figure!

17.2 SYSTEM.INI Settings

When you start Windows, it uses the settings it finds in win.ini and system.ini to configure itself. These files are located in your \Windows directory. We will only discuss system.ini.

Many of the settings of system.ini are changed via the Control Panel program in Windows. Other settings can only be changed by manually editing the system.ini file. The vast majority of the settings in this file do not need any adjustment. Do not change any settings in system.ini unless you know absolutely what it does. A single incorrect setting in system.ini can be enough to crash your Windows system!

System.ini is divided up into several sections. Some or all of the following sections may appear in your system.ini file:

[boot]
[boot.description]
[drivers]
[keyboard]
[mci]
[NonWindowsApp]
[standard]
[386enh]

We will concern ourselves only with the settings relevant to PowerBBS. Though many sysops will never have to make any changes to this file, you may have to. Before making any changes, have a clear purpose in mind. If you are happy with the performance of your machine, do not tinker with it. In other words, if it ain't broke, don't fix it!

Note: Any changes you make to the system.ini file do not take affect until you restart Windows.

Always back up the system.ini file before you open it. Be very careful when editing this file. If you make one mistake, you can disable your entire system. This is why you need a back up.

[boot] Section

The only change you may need to make here for PowerBBS is to the comm.drv=filename setting. The standard communications driver for Windows is somewhat inadequate. We recommend wfxcom.drv from Delrina. It is freeware, works quite well, and is very reliable.

Download wfxcom.zip from the Support BBS. Unzip the file. Place the wfxcom.drv file in your \windows\system directory. Then, modify or add (depending on whether this entry is already in your system.ini file) the comm.drv=filename entry in system.ini to read as follows.

```
comm.drv=wfxcom.drv
```

Be sure to read the readme file that comes in the wfxcom.zip archive. The additional settings you can make in system.ini for wfxcom are discussed later.

[NonWindowsApp] Section

This section contains settings that affect the performance of non-Windows programs. For PowerBBS, this would include doors and events. If you don't run any doors, but you run DOS programs while running PowerBBS in the background, you should read this section as well.

CommandEnvSize

The CommandEnvSize=bytes specifies the size of the command.com (DOS) environment where bytes is the number of bytes Windows should use for the environment in a DOS window. The environment is where DOS stores all of your set commands and your path information. If you have a long path and/or a lot of set commands, you may need to set your environment to a high number such as 1024. If you ever get an "Out of environment space" message, you must increase this number.

Command.com is started whenever you run a DOS program or a batch file. The possible values for setting the CommandEnvSize are 0, and a number between 160 and 32768. A setting of 0 disables this setting in Windows and uses the setting that was in DOS before Windows started. You can set the environment size in config.sys using the shell=command.com /e:bytes setting. Replace bytes with a number between 160 and 32768. Most sysops find that settings of 1024 to 2048 are adequate. If you specify a number in system.ini that is smaller than that in config.sys, Windows will use the number found in config.sys. In other words, you only need to change this setting if you want a larger environment in DOS under Windows than you do for DOS outside of Windows. Because of this, you may never need to modify this setting in system.ini. Your best bet is to set this number in config.sys and leave system.ini alone.

[standard] Section

Windows runs in two modes: Standard and 386 Enhanced. You should be running Windows in 386 Enhanced mode. If you run it in Standard Mode, you will not be able to run any DOS programs at the same time your BBS is running. Therefore, you will not need to make any changes to this section.

[386enh] Section

This section is the most critical to the performance of PowerBBS and Windows in general. Though there are numerous settings in this section, we will only discuss those that relate directly to PowerBBS.

COM#AutoAssign

COM#AutoAssign=number | seconds indicate the how Windows will handle a situation where two programs contend for the same COM port and at least one of these programs is a non-Windows program. The # should be the port number. You can have one entry for each COM port on your system. These settings can and should only be modified by using Control Panel, Ports. However, you are better off leaving these settings at the default, which is 2. This means that a program can use the same COM port as another program two seconds after the first program gives up control.

COM#Base

COM#Base=address specifies the COM port address for each COM port where # is the number of the COM port. You can have a setting for each of the COM ports on your system. You can and should only modify this setting via Control Panel under Ports, Advanced. You should only modify these settings if you have an internal modem or multiport card. Your hardware documentation should tell what settings to enter.

COMBoostTime

ComBoostTime=milliseconds setting specifies the amount of time that Windows will allow a virtual machine to process a COM port interrupt. If a communications program (or door) is losing keyboard characters on the display, you can try increasing this time. Sometimes if a door is not functioning properly increasing this number will help. The default is 2. This setting can only be modified by editing system.ini.

COM#Buffer

COM#Buffer=number setting where # is the COM port number specifies the number of characters that Windows should buffer for that COM port. You can have a setting for each of your COM ports. The default is 128. You should only increase this number if you are experiencing lost characters during high speed communications. Microsoft says that increasing this number may slow down communications on a port. The best way to adjust this number is to increase it in increments of 128 until your problems disappear. This setting can only be modified by editing system.ini.

COMdrv30

COMdrv30=on/off should be off if you are using Windows 3.1. If you are using Windows 3.0 and are using the standard communications driver, setting this to on may increase performance. This setting can only be modified by editing system.ini.

COM#FIFO

COM#FIFO=on/off determines whether the FIFO buffer of a COM port's 16550 UART should be enabled (on) or disabled (off). The # is the number of the COM port. You can have a setting for each of the COM ports on your system. Since the default is on, you will probably never have to add this setting to your system.ini. If you have a 16550, you will always want this on. If you don't have a 16550, Windows will always make this setting off, even if you set it to on. This setting can only be modified by editing system.ini.

COM#Irq

COM#Irq=number where # is the COM port number specifies which hardware interrupt line is used on that COM port. You can have a setting for each COM port. This setting can and should only be changed via Control Panel, Ports, Advanced Settings. You should only change this if you are using a nonstandard IRQ for your modem. Many internal modems allow you to use a different IRQ for a COM port. It is very common for a sysop to use two internal modems where one is on COM2, IRQ 3 (standard setting) and COM3, IRQ 5 (non-standard setting). The sysop need only make the adjustment for the modem using COM3 since the default will work just fine for COM2. Follow the instructions of your hardware manufacturer for changing this setting.

FileSysChange

FileSysChange=on/off determines whether Windows File Manager receives (on) or doesn't receive (off) a message from a non-Windows program that has created, modified or renamed a file. If you set this to off, File Manager will not be updated automatically if a file is created, modified or renamed by a DOS program running under Windows. You will have to click on another directory and then back to a directory to see the updated files in the file list. The default is on. Microsoft claims that setting this to on slows down system performance, but does not indicate how much. It is up to you if you want to change this setting. This setting can only be modified by editing system.ini.

InDOSPolling

InDOSPolling-on/off is a bit complicated to explain and is not performance related. The default is off. If you are running a network other than Windows for Workgroups and are experiencing random General Protection Faults, you may need to set this to on. Other than that, leave it alone. This setting can only be modified by editing system.ini.

KeyBoostTime

KeyBoostTime=seconds specifies how much time in seconds that an application gets increased priority when it receives a keystroke. Use this entry to increase the response to keystrokes when several background applications are running. The default is .001. This setting can only be modified by editing system.ini.

MinTimeSlice

MinTimeSlice=milliseconds is the minimum time a virtual machine will be allowed to run before another virtual machine can take over. The default is 20. You can and should only change this setting in Control Panel under 386 Enhanced. A smaller value such as 10 may make multitasking appear smoother. However, Microsoft says that it will diminish overall performance.

PermSwapSizeK

PermSwapSizeK=kilobytes is the size of your permanent swap file if you are using one. This setting can and should only be changed via Control Panel under 386 Enhanced, Virtual Memory.

WinExclusive

WinExclusive=on/off determines whether Windows will get all of the computer's processing time if it is in the foreground. The default is off and should always be off for PowerBBS to run properly. This setting can and should only be changed in Control Panel under 386 Enhanced.

WinTimeSlice

WinTimeSlice=number,number contains two numbers. The first number specifies the relative processing time that Windows will get when a Windows application is in the foreground. The second number specifies the relative processing time Windows will get when a non-Windows program is in the foreground. This is explained later under the section on PIFs. Valid entries are from 1 to 10,000. These settings can and should only be adjusted via Control Panel under 386 Enhanced.

WFXCOM.DRV Specific Settings in SYSTEM.INI

You should replace the standard Windows communications driver with wfxcom.drv by Delrina. It is freeware and works very well. See the [boot] Section for details on adding this to your system. The following are the additional settings you can adjust in system.ini if you are using wfxcom.drv.

Com#TXSize

Com#TXSize=bytes is the number of bytes loaded into the transmit FIFO on each interrupt for a given COM port. The # indicates the COM port number. You can have a setting for each COM port on your system. The default value is 8 bytes. A setting of 16 bytes provides a reduction in interrupt overhead and increased performance with no change in reliability. The higher the number, the better your performance.

Com#RXSixe

Com#RXSize=bytes is the number of bytes that must be in the receive FIFO before an interrupt is triggered. The default is 14. Lowering this number increases reliability. A setting of 8 is recommended for most systems.

17.3 _DEFAULT.PIF, Control Panel, and PowerBBS

Whenever you run a door, PowerBBS uses the _default.pif file found in your \Windows directory. This PIF determines the settings that the door will use while running in Windows. PowerBBS comes with a _default.pif file. Move this file to your \Windows directory. You may need to make adjustments to this file depending on your system. The following are some guidelines.

Foreground and Background Priority

In the PIF Editor, click on Advanced to see the foreground and background priority settings. The foreground and background priority settings in a PIF and in Control Panel, 386 Enhanced are related. The sums of these numbers are used to determine what share of the processor a virtual machine will get depending on whether it is in the background or foreground.

All of Windows itself is a virtual machine. All Windows programs together share the processor time given to the Windows virtual machine. Each individual DOS program that you run from within Windows is also a virtual machine. Let's suppose you are running a two node BBS. The callers on each of your nodes are in doors. You are working in Quicken for Windows with two nodes of PowerBBS in the background. You have three virtual machines running: Windows (Quicken, PowerBBS, Program Manager), DOS door #1 and DOS door #2. These three virtual machines share the processor. The foreground/background priorities in Control Panel and _default.pif determine what percentage of the processor each virtual machine will get.

The most common mistake people make is to think that the foreground and background numbers they see in Control Panel only affect Windows programs and those they see in a PIF affect only the programs using that PIF. This is not true.

Allow me to illustrate. The following are the settings in Control Panel and _default.pif on a sample PC.

	Foreground	Background
Control Panel	200	100
_default.pif	200	100

Now, suppose that I am running a Windows application in the foreground. It doesn't matter which one because all Windows programs share one virtual machine. Suppose that a caller on my BBS is running a door in the background. What percentage of the processor do all the Windows programs get to share and what percentage of the processor does the door get? Let's find out.

Since Windows is in the foreground, we use its foreground number from Control Panel, 386 Enhanced (200). Since the door is running in the background, we use its background number from _default.pif (100). These two numbers total 300. This number represents the total priority number. You then divide the appropriate foreground and background numbers of the virtual machines running by this total priority number to get the processor percentage each one receives.

In our case Windows will get 67% of the processor time. How do I know? By dividing the foreground priority for Windows by the total priority number (200/300). What percentage of processor time does DOS door get? If you guessed 33% you are catching on (100/300).

Now, suppose we switch over to the DOS window to peek in on our caller playing a game. The DOS program is now in the foreground and Windows is in the background. So we take the Windows background number from Control Panel (100) and add it to the _default.pif foreground number (200) to get a total priority number of 300. Since we used the same settings in Control Panel as we did in _default.pif, we get the same numbers again. Only this time, since the DOS program is in the foreground, its processor percentage is now 67% (200/300) and Windows in the background is now getting 33% of the processor (100/300).

Another caller starts a door

Suppose that a second caller logs on and starts a door. We will then have two doors running in the background as we work on Quicken. Our total priority number is now 400. How do I know? I total the Windows foreground number from Control Panel (200), door number one's background number from _default.pif (100) and door number two's background number _default.pif (100). This gives me 400. Since Windows is in the foreground, it gets 50% of the processor time now (200/400). Each door only gets 25% (100/400 and 100/400).

As you can see, the more virtual machines you add (read DOS programs running), the smaller the cut of the processor that each one will receive. The less of the processor a virtual machine receives, the slower it will run.

More Scenarios

Suppose we change the settings to appear as follows. Notice the different background numbers.

	Foreground	Background
Control Panel	100	50
_default.pif	100	75

Now, suppose that we have Windows in the foreground and two doors in the background. What percentage of processor time does each get? Well, first total up the appropriate numbers: Windows foreground number from Control Panel (100), door one's background number from _default.pif (75) and door two's background number from _default.pif (75). We get 250 (100+75+75). The processor percentages are as follows:

All Windows stuff:	40% (100/250)
Door one	30% (75/250)
Door Two	30% (75/250)

As you can see, you have a lot of flexibility to change the processor time your doors get.

Understanding that these numbers are relative numbers

The foreground and background numbers themselves have no real meaning. Only by adding up one virtual machine's foreground number and all of the other virtual machines' background numbers will these numbers have any real meaning.

For example, in our first example we used 200 and 100. We could have used 2,000 and 1,000. Or we could have used 20 and 10. Or 2 and 1. It wouldn't have made a difference as long as your remember that the numbers in Control Panel are relative to the numbers in a PIF!

What are the best settings?

I knew you were going to ask that. The default settings for Windows are 100/50 in both Control Panel and in their _default.pif. They could have used 10/5, 1,000/500 or 10,000/5,000 as long as they were consistent in both Control Panel and _default.pif. But here is where it gets a little sticky:

Since Windows did choose 100/50 as standard numbers, all the makers of DOS software knew this. When you buy a DOS program, many of them supply you with a PIF to use to start their program from within Windows. They have already included the foreground/background numbers in their PIF based on what Windows uses by default. If you tinker too much with the settings in Control Panel or _default.pif, you could cause some strange slowdowns on your system.

Suppose that you decided to use 10,000/5,000 instead of 100/50. So you change these numbers in Control Panel and in _default.pif. Since you were consistent between Control Panel and _default.pif, Windows will perform exactly as it did with 100/50. However, what if you use another PIF that hasn't been adjusted for your larger numbers in Control Panel? Suppose you start Quattro Pro for DOS. Quattro Pro's PIF (Q.PIF) uses 100 as the foreground number. So you start Quattro Pro and start working with it. It will run very slowly. Why? Because the background number for Windows in Control Panel is 5,000 and the foreground number for Quattro Pro is 100 (from Q.pif). That gives us a total of 5,100. Since Quattro Pro is in the foreground, it gets 100/5,100 or about 2% of the CPU time! Scary, eh? Take my advice and keep your numbers in the 100/50 range.

So what's the answer? Well, I use 100/50 in both Control Panel and _default.pif. With two doors running at once, Windows gets 50% of the CPU (100/200) and each DOS door gets 25% (50/200 and 50/200). I find this acceptable on my system. Most doors really don't need that much processor time since they are text based and usually not really doing that much. Besides that, the doors are limited in how fast they work because everything has to go through the modem anyway.

Since your doors will most often run in the background, you really only need to concentrate on the background number in _default.pif and the foreground number in Control Panel. If your callers say that your doors are a little slow, you can either increase the _default.pif background number or decrease the Control Panel foreground number. Some sysops find that 100/75 in both Control Panel and _default.pif works very well for them. Feel free to experiment.

Other settings in _DEFAULT.PIF

There are some other settings in _default.pif that you may need to adjust.

Window Title

If you don't supply a title in this section, the icon that pops up for a door or event will be the name of the batch file that is running, usually live.bat. If you want it to say anything else (like "PowerBBS") just type it in here. I leave this entry blank. Why? Because you must have a unique name for each node for the live.bat file (I use live1.bat, live2.bat, etc.) I can always tell what icon belongs to what node based on the window title that PowerBBS inserts when it starts the door. If I see live1.bat, I know it is the door for node 1.

Video Memory

Since almost all doors are text based, you can select Text for this option. Your door will then start a bit faster since it will require less memory. Only change this option if a door consistently gets messages that it does not have enough memory for its display.

Memory Requirements

The KB Required should be 128. The KB Desired should be 640. Just leave this as is.

XMS Memory

The required amount of XMS memory should be 300K. The limit should be -1 (as much as it needs). This will keep programs from crying about needing XMS memory.

EMS Memory

If you know that you have a door that requires expanded memory, you must set this option to the amount the program says it needs. Otherwise, leave it a 0.

Display Usage

I have found that doors start more quickly if I choose Windowed for this option. Actual performance will depend upon your system. If your doors have display problems using Windowed, change this to Full Screen.

Execution

You absolutely must have Background checked and Exclusive unchecked for PowerBBS to run doors properly. If you do not have Background checked, you callers will not be able to run doors!

Detect Idle Time

You can leave this checked. However, if you find a door is running slowly or improperly, clear this option.

Memory Options

Locking memory can increase the performance of a door but it may slow down the rest of your system. Consider experimenting with these options on your system.

Display Options

If you have problems with your screen restoring properly when returning from a door (I mean your Windows screens in general, not PowerBBS's screen in particular), you may want to check the Monitor Ports options. Otherwise, leave this unchecked for increased performance.

Emulate Text Mode and Retain Video Memory can increase performance but at the expense of memory. If you have 8M of RAM or more on your system, check these options. If not, leave them unchecked.

Appendix A — Menu Commands

The following is a list of the menu commands available in PowerBBS. Menu commands can be run directly from your menus or from the Run_Menu_Command PowerLang command. Each menu command is identified by a number before the command name. The descriptions of the commands are written as if they are being explained to the caller. This will allow you to copy and paste this information to create your own help files! At the end of the command you will see **Uses:** which will tell you the file, if any, that will be displayed to your callers. The default locations of these files are used.

> ***PowerTip:*** *You don't have to use the names of the commands exactly as we have entered them. You can call them whatever you want. Just be sure to change the letter needed to start the command in the menu file.*

1, Area Change

This command will display a list of the available forums on our BBS. Forums contain unique message areas and sometimes unique sets of file lists. Enter the number of the forum you wish to join and press Enter. Uses**:** \POWRBBS\SCREEN\FORUM

2, Read Bulletins

This command will display a list of the bulletins available on our BBS. Read the bulletins to find out more information about our BBS, high scores for games, and other useful information. Enter the number of the bulletin you want to view and press Enter. **Uses:** \POWBBS\BLT\BLT.

3, Clock

This command displays the time you called, the current date and time, amount of time used this call and the time you have left for this call. **Uses:** \POWRBBS\SCREEN\CLOCK.

4. Goodbye, Log off

Use this command to log off of our BBS. You will be asked if you are sure you want to hang up. **Uses:** \POWRBBS\SCREEN\GOODBYE.

5, Initial Welcome

Use this command to view all of our welcome screens, both new and old. **Uses:** \POWRBBS\SCREEN\HELLO#.

6, Live Programs, Doors

This command will display a list of the doors and other live programs we have available on our BBS. Type the number of the program you want to start and press Enter. **Uses:** \POWRBBS\SCREEN\LIVE and \POWRBBS\CONFIG\LIVE#.DAT.

7, News

This command displays the current news and description of the current forum. **Uses:** News File as given in Config under Forums. Different for each forum.

8, Page the Sysop

Need to get my attention? Use this command! You will be asked for a reason to chat with me. My computer will beep for about 10 seconds. If I am around, I will jump into a split screen chat with you. If I don't answer or if I have the pager turned off, you will be asked if you want to leave a message. **Uses:** \POWRBBS\SCREEN\NOCHAT.

9, Questionnaires

This command will display a list of the questionnaires available on our BBS. Select the number of the questionnaire you want to fill out and press Enter. **Uses:** \POWRBBS\WORk\QUEST and \POWRBBS\WORK\QUEST.DAT.

10, Update Settings

This command will allow you to update your account information. You will see a screen with a number next to each piece of information you can edit. Enter the number of the item you want to change and press Enter. You will then be able to change that information. **Uses:** \POWRBBS\SCREEN\UPDATE.

11, View Statistics

This command will show you the current statistics for the BBS, including some information about you! **Uses:** \POWRBBS\SCREEN\STATS.

12, Who is on-line

This command will show you the other callers who are currently on-line and give you the option of entering teleconference (Room option) or split screen chat (node to node chat). If you enter teleconference, type /? to see a screen with the list of commands. **Uses:** \POWRBBS\ACTION and \POWRBBS\SCREEN\CHATHELP.

13, Expert Toggle

This command will turn off and on the display of the menus. You will still be able to use the commands, you just won't see them. **Uses:** Nothing.

14, Comment to Sysop

If you want to send a message directly to me, use this command. The BBS will automatically fill out the TO: , FROM: and TOPIC: parts of the message. You will find yourself in the message editor. Just type the message and save it with Ctrl-Z. **Uses:** Nothing.

15, Enter a Message

Use this command to send E-Mail to another caller. The message will automatically be placed in the current forum. Use the Area Change command to change forums before entering a message. You will be asked to whom to send the message and the topic. The message can be either public for all to see or private, which only you, the recipient, and the sysop can see. Look at the top of the message editor screen for more information about the commands you can use while entering a message. **Uses:** Nothing.

16, Last Read Update

Our BBS keeps track of the last message you have read in each forum. If you want to set this pointer to a different number, use this command. Enter the number of the forum for which you want to change your pointer. You will see your current last message read pointer and the message statistics for that forum. Type the new number you want to use and press Enter. **Uses:** \POWRBBS\SCREEN\FORUM.

17, Read Messages

This command will first display a list of the commands you can use while reading messages. Read this screen to see the available commands. Most notably is the Reply command which is used to reply to a message you have just read. To begin reading new messages in the current forum, simply press Enter after selecting the Read Mail command. The BBS keeps track of those messages you have already read. The bottom of the screen will display information about the current message and forum. If you want to move backwards through messages you have already seen, type the minus sign (-) and press Enter. To resume going forward, type the plus sign (+) and press Enter. If you have marked messages using the Scan Message command, select <V>iew Marked messages to see just those messages. **Uses:** \POWRBBS\SCREEN\READM.

18, Scan Messages

Use this command to see a list of the new messages in the current forum. Use the <M>ark command to mark those messages for reading later via the Read Mail command. You can use the plus (+) and minus (-) signs to scan forward backwards through the messages in the current forum. **Uses:** Nothing.

19, Update Forum Information

Use this command to join forums. Joining a forum with this command will tell our BBS to search those forums for your new mail when you log on, automatically switch to the next joined forum while reading mail, and export messages from those forums when you download QWK Mail. You will see a list of the forum "networks" available on our BBS. Networks are just our way of dividing up our forums into logical blocks. Select the forum network you want to edit. You will see a list of the forums with either a Yes or No next to them. Yes means you have joined this forum, No means you have not. To toggle a forum on or off, just type that forum number and press Enter. To turn all forums on, use the <O>n option. To turn them all off, use the o<F>f option. **Uses:** Forum Network Data File.

20, View Forum Information

Use this command to see a display of the forums to which you have access and the forums you have joined. **Uses:**

Nothing.

21, Your Mail

Use this command to search for your new mail. The BBS will search those forums you have selected with the Update Forum Information command. This command operates the same as the prompt for new mail you see when you log on. Use this command to search for your new mail since the last time you checked. **Uses:** Nothing.

22, Download Files

Use this command to download a file from our BBS. If you have marked files from the List Files command, those files will already be in your download list. If you have not already selected a transfer protocol, you will be asked for what protocol to use. We recommend Z-Modem if you have it on your computer. If your ratios don't meet the requirements we have set on our BBS, you will not be permitted to download. Use the Your Stats command to see your ratios. Use Comment to Sysop if you have any questions. When you begin the transfer you will have the option of logging off after the transfer. **Uses:** \POWRBBS\SCREEN\DLOAD and \POWRBBS\SCREEN\RATIO.

23, List Files

This command will display a list of the file listings available in the current forum. Select the number of the file list you want to view. You can either view full descriptions or short two-line descriptions. While viewing the list of files, use the <M>ark command to mark a file to be downloaded later. Simply enter the letter(s) of the file(s) you want to mark. **Uses:** The File Listings Sub-Menu for the current forum.

24, New Files

Use this command to see a list of the new files on our system since a certain date. You will have a chance to enter the date for which you want to check for new files. Files with dates on or after the date you enter will be displayed to you. You will then have the choice of searching a single file list or all files. You can mark the files displayed for later download. **Uses:** File Listings Sub-Menu for that forum.

25, Protocol

Use this command to select protocol to use when transferring files. We recommend Z-Modem. You must use the same protocol on your computer as you select on our BBS. **Uses:** The protocols set in the Protocol Data File.

26, Read a Text File

Use this command to read a text file on our BBS. The available files are listed in our file lists. You can only select those files with the extension TXT. **Uses:** Nothing.

27, Search File List

If you are looking for a specific file or type of file, use this command. You will be asked the text for which you want to search. Type this text and press Enter. You will then be asked which file lists (or all lists) you want to search. The BBS will then display those files which have that text in the file name or description. You can mark files displayed here for later download. **Uses:** Nothing.

28, Test a File

Use this command to test an archive file (ZIP) to see if it is corrupt. You will be asked the name of the file to test. The file must be listed on one of our file lists and end with extension ZIP. **Uses:** Setting in Options #1.

29, Upload a file

Use this command to upload a file to our BBS. You will be asked for the name and description of the file. If you want this file to only be seen by me, the sysop, begin the description with an asterisk (*). If you have already selected a transfer protocol, the BBS will use that one. If not, you will be asked to select a protocol. We recommend Z-Modem. **Uses:** \POWRBBS\SCREEN\ULOAD and \POWRBBS\SCREEN\RATIO.

30, View inside a ZIP

If you need to see the files contained in a ZIP on one of our file lists, use this command. You will be asked the name of the file, which must have the extension ZIP. The BBS will then list the files contained in that ZIP. **Uses:** Settings in Options #1.

31, Edit Marked Files

If you have marked files for later download, use this command to see that list and edit it. **Uses:** Nothing.

32, Your Stats

Displays your current upload/download ratios. If you do not meet our ratios, you will not be permitted to download from our BBS. **Uses:** \POWRBBS\SCREEN\RATIO.

33, Sysop's Menu

Displays the Sysop's menu explained in the chapter on getting started.

34, Not Used

35, ASCII Upload

This will allow you to upload a file in ASCII mode. **Uses:** Nothing.

36, Not Used

37, Download Mail

Use this command to download a QWK Mail from our BBS. You will see a sub-menu with several self explanatory options. Hint: Be sure to reset your last message pointers after the download so you don't get the same mail twice. You will be able to pick a transfer protocol. We recommend Z-Modem. **Uses:** Nothing.

38, Upload Mail

Use this command to upload a QWK Mail REPly packet to our BBS. You must have already download a QWK Packet from us to do this. You will be able to pick a transfer protocol. We recommend Z-Modem. **Uses:** Nothing.

45, List Users

Use this command to see a listing of the users on our BBS. **Uses:** Nothing

46, Download Files Listing

Use this command to download a listing of the files on our BBS. You will be able to choose all file list or just a certain one. **Uses:** File Listings Sub-Menu for that forum.

55, Fax on Demand

Use this command to select a file from our BBS to be faxed to you! **Uses:** \POWRBBS\FAXLST

56, Send a Fax

Use this command to type a message to be faxed to a number of your choosing. **Uses:** \POWRBBS\FAXLST

57, Forum Statistics

Use this command to see the statistics for the forums on our BBS. You will see each forum listed with the number of messages in each and the number of new messages (those you haven't read). This is the same as picking the Area Change command and selecting, Stats. **Uses:** Nothing.

Appendix B — MACROs

Any of the MACROs listed below (unless otherwise noted) can be included in any display used with PowerBBS. You can also use these MACROs in your PowerLang programs and in your language files. MACROs must be in all capital letters and be surrounded with a pipe symbol (|) on each end. If you are using MACROs in a RIP file, use a tilde (~) in place of the pipe symbol to prevent errors.

Note: Callers to your system will not be able to use MACROs in a message unless they have sysop access to your BBS.

Macro	**Result**
|.......CITY.......|	City caller is calling from
|#RECS|	Number of records in PowerBase database (PowerBase only)
|ADDRESS|	Caller's address
|ANONYNAME|	Caller's anonymous name (handle)
|BAUD|	Caller's baud rate
|BBSCALLS|	Total number of calls made to your BBS from all users
|BIRTHD|	Caller's birthday
|BUSPHONE|	Caller's business phone number
|CHAT_HANDLE|	Displays whether caller is using handle in chat (On, Off)
|CHATNAME|	Name caller is using while in teleconference (used in ACTION.DAT)
|CLOCK|	Current time
|COM|	Com port number of current node (0,1,2,3,4)
|CREDIT_BYTE|	Number of bytes/credits awarded to uploader when file downloaded (POW only)
|CREDIT_NAME|	Name of caller who downloaded a file uploaded by someone else (POW only)
|CREDITS|	Number of credits caller has left
|DATABASE|	Name of current database (PowerBase only)
|DATAPHONE|	Caller's data phone number
|DATE|	Current date
|DIRS|	Number of file listings in current forum
|DLBYTE|	Total number of bytes downloaded by caller (to date)
|DLFILE|	Total number of files downloaded by caller (to date)
|DLKA|	Maximum number of kilobytes caller has available for download
|EX|	Expert mode (On, Off)
|EXPDAT|	Expiration date for caller
|EXPLEV|	Expiration security level for caller
|FAXPHONE|	Caller's Fax phone number
|FILES|	@+Full path\filename to file transfer list for that node
|FIRST|	Caller's first name
|FIRSTD|	First day caller called your BBS
|FORUM|	Name of current forum
|FORUMS|	Number of forums on your BBS
|GENDER|	Caller's gender (if tracking gender)
|GOOD_MR|	Caller's message ratio as good or bad
|GOOD_FR|	Caller's file ratio as good or bad
|GOOD_BR|	Caller's bytes ratio as good or bad
|HOMEPHONENUM|	Caller's home phone number
|INTMAX|	Maximum Internet messages caller is permitted to send per month
|INTMSG|	Number of Internet messages left by caller this month
|LAST|	Last name of caller

|LASTDT|	Last date caller called
|LEVEL|	Caller's security level
|LOG|	Full path and file name of log file
|LTI|	Last time caller called
|MDBL|	Monthly download byte limit in kilobytes
|MINLEFT|	Number of minutes left on-line for caller
|MINON|	Number of minutes caller has been on-line
|MBR|	Minimum download/upload bytes ratio
|MFR|	Minimum download/upload files ratio
|MMR|	Minimum message ratio
|MONITOR|	Caller's monitor type
|MSGS|	Number of public messages left by caller
|NAME|	Caller's name (use in TO: for broadcast messages)
|NAME25|	Caller's name filled out to 25 spaces
|NAMEOFCOMPUTE|	Caller's computer type
|NIDATE|	Day PowerBBS was last loaded
|NICALLS|	Number of calls since PowerBBS was last loaded
|NIMSGS|	Number of public messages left since PowerBBS was last loaded
|NIDL|	Number of downloads since PowerBBS was last loaded
|NIUL|	Number of uploads since PowerBBS was last loaded
|NODE#|	Current node number
|NOPAUSE|	Tells PowerBBS not to pause this screen during display
|PBASEORDER|	Total of order placed with PowerBase (ORDER.POW only)
|PBBSDAT|	Full path and file name of the PowerBBS DAT file for the current node
|PL:###|	### is the number of the PowerLang program to run from this screen. This MACRO must be on the beginning of a line. The POW must be in your Source directory.
|PROTO|	Caller's file transfer protocol
|QWK_HANDLE|	Displays whether caller is using handle for QWK mail (On,Off)
|REC#|	Current record number in PowerBase
|SAFE|	Time available in caller's safe
|SS|	Sysop status (In, Out) based on status of Pager Bell
|STATE|	Caller's state
|SYSOP|	Sysop's full name
|TON|	Time the caller logged on
|TRUEBAUD|	Caller's true baud rate (DCE rate from modem)
|ULBYTE|	Total number of bytes uploaded by the caller (to date)
|USRCALLS|	Total number of calls by the caller
|VER|	Current version number of PowerBBS
|WHO-ON|	Current callers on-line (all nodes)
|YBR|	Caller's download/upload bytes ratio
|YMR|	Caller's message/calls ratio
|YFR|	Caller's download/upload files ratio
|ZIP|	Caller's ZIP code

Appendix C — Partial list of PowerBBS BBSs

BBS	Sysop	Nodes	Phone	Baud
PowerBBS Support	Russell Frey	4	516-822-7396	57,600
Tembo BBS	Michael Lurie	1	-41,613,321,126	38,400
PC Systems Consultants	Vic Hart	2	206-226-1047	19,200
BulletPruf BBS	Tim Mayville	1	208-389-1207	38,400
CalamityVille	Brad Friedman	1	212-226-8564	57,600
SSP BBS	Mike Steinkamp	1	217-222-7627	14.4k
LTM Computer Systems BBS	Dale Shank	1	217-593-6545	14.4
Freedom's Expression	Roy Taylor	1	308-532-8802	14,400
Castle Holt BBS	James Duncan	4	317-571-1980	38,400
The Gilwell Connection	Richard Bickell	1	317-643-7302	38,000
Misery BBS	Mark Kern	2	317-884-9001	14,400
FastTrack BBS	Mark Reeves	2	318-674-8610	14,400
E.B.E	Bruno Rouy	3	33,130,658,298	28.8
Car 54 BBS	Don Vogt	1	405-372-1421	38,400
Midnight BBS	Tyler Guidice	2	406-585-7181	28,800
New Power BBS	Rob Di Salvo	8	407-750-7665	14,4
Mr Naturals' BBS	Chris Toth	4	408-338-7159	57,600
The Next Generation	Gary Powers	1	409-853-5877	57,600
Small-Biz Electronic Network	Fisseha H.Mariam	2	416-785-7195	19,200
CyberKinetics BBS	David Schmutz	3	417-777-2556	14,400
Lagniappe!	Dave Cagle	3	504-633-9515	14.4
Community Access BBS	Mark Liddington	4	510-777-1314	28,800
LNetBBS	Lloyd Goad	1	512-479-8029	14.4
The Help Desk BBS	Hughes Glantzberg	1	512-930-3414	57,600
humpty's digital underground	Patrick Timmons	1	613-723-8051	38,400
The Continuum	Lee Keels	1	704-552-8824	14,400
Salt Shaker BBS	Jeffrey Haney	1	714-850-1539	38,400
NAZNET	Robert Naspo	2	717-476-6808	57,6
The FreeLand BBS	Marty Cox	2	717-636-0131	14,400
PsiCop BBS	Riley G	2	718-331-5692	28.8
Spartan Tech BBS	Henry Eng	2	718-492-7566	19,200
Prometheus Rising	Francesco Moriconi	2	804-743-2547	28.8
The Windows Express	Robert Reese	1	804-745-3743	19.2
The Newtonian	Mark Newton	2	810-231-1207	28.8
W.A.S.T.E.D BBS	Jim Wesolowski	1	817-778-2506	38,300
Bits And Pieces	Mike Dahms	2	901-353-3550	14,400
Zoom's Alternative PowerBBS	Randall Bowen	2	910-346-6949	57,600
The World BBS!	Rob Henderson	2	914-255-4350	57,600
People Power BBS!	Joe Ross	2	914-878-3112	14,400

Appendix D — Related Products

Hayes
1-800-874-2937

Telcor
508-653-3999 Voice
508-651-0065 Fax
508-655-1762 BBS

Digiboard
612-943-9020

TurboCom
503-482-2744 Voice
503-482-2633 BBS

Flatline
208-338-5145 BBS

PowerNode, PowerNews, PowerStrip
Brad Friedman writes shareware Windows utilities for PowerBBS. They are available for download from the Support BBS

PowerLang Programming
James Carr writes custom PowerLang programs for a small fee. He has written a POW specifically for PowerBBS 3.5 to provide a General Store in PowerBBS. Callers can send other callers flowers and other gifts sent as messages. Contact James Carr on the Support BBS.

Denny Costello
Hardware distributor for modems and multi-port cards. Contact Denny Costello on the Support BBS.

Lots More
There are numerous other PowerBBS related products available on the Support BBS.