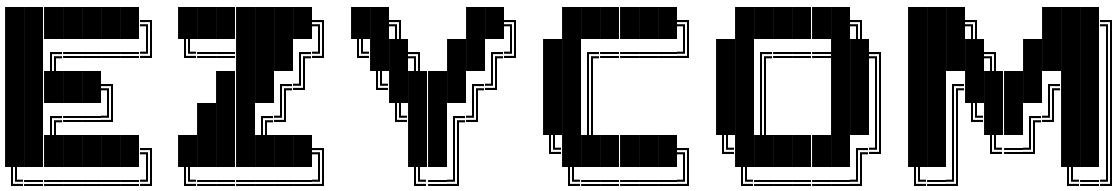

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Operating System Requirements

Ezycom 1.10 will run on under any version of MS/PC-DOS version 3.3 or later although version 5.0 or 6.0/6.2x are recommended. If you wish to run multiple lines under DOS with Ezycom, you will however need to use a program such as Quarterdeck's Desqview or Microsoft's Windows Version 3.1. Ezycom has been tested with both of these and works very well with either environment although Desqview is recommended if you want speed! Ezycom also runs very well in a DOS session under IBM's OS/2 Versions 2.0, 2.1 & OS/2 WARP. However, running Version 2.0 with the Service Pak installed is not recommended. It seems IBM introduced some DOS problems with this upgrade for 2.0. Service Paks for other revisions are fine though.

Hardware Requirements

Ezycom can run on any IBM PC or compatible. A modem with Hayes compatible 'AT' commands and one which is capable of hardware flow control (CTS/RTS) is also required. At least 450K of free memory is required to run Ezycom correctly, although 600K+ is preferable. A hard disk is also required, and a minimum of 7 megabytes of free space before beginning installation is recommended. It is also advantageous to have a memory manager installed such as QEMM from Quarterdeck Office Systems. If you have EMS memory, XMS memory or Extended memory, Ezycom can make use of this. It can directly use EMS to Swap itself out to or to load the Overlay into. It can also indirectly use EMS/XMS or Extended memory if this is made into a RAM Disk and the overlay/swap files are placed on there.

Installation

If, you are converting from an old version of Ezycom, read the WHATSNEW.110 file FIRST for upgrade information. The rest of this chapter is for new users of Ezycom.

Ezycom requires one other program to run it successfully stand alone. That is a FOSSIL driver. X00 by Ray Gwinn and BNU by David Nugent have successfully been tested with Ezycom. See their respective documentation for how to install those programs.

If you are going to use Ezycom in a mail Network which is Fidonet compatible, you will also require a Mailer. BinkleyTerm, Portal Of Power, InterMail, D'Bridge and Front Door have both been successfully used with Ezycom. Ezycom has its own Fido compatible mail tosser/scanner and so does not need ANY additional software besides the front end mailer.

In your CONFIG.SYS add the following lines...

```
FILES=40
BUFFERS=30
```

The first line tells DOS how many files can be open at once. Ezycom needs a minimum of 40 files if you plan to use network mailing. The second line tells DOS how many buffers are to be open. Generally, 30 is good, as it does not use too much memory, and it speeds up disk access dramatically over not having any at all.

In your AUTOEXEC.BAT add the following lines depending on the drive you set EZYCOM to run on:

```
SET EZY=C:\EZY
SET TASK=1
```

The first command tells Ezycom where to find it's system directory. It can optionally be the directory where your BBS runs from. The second command tells Ezycom the node number to execute Ezycom under. Note: -N overrides this variable.

Ezycom comes in one of two forms, either as two .ARJ archives or on two disks. You WILL need of copy of ARJ.EXE somewhere in your path to install Ezycom as Ezycom does NOT come with a copy.

If you have the two disks, simply copy the entire contents of them to a temporary directory somewhere (ie at the C:\ prompt type MD TEMPDIR and then CD TEMPDIR followed by COPY A:*.*). If you have the two archives, extract them to this directory (ie replace the last step with ARJ E EZY110-?.ARJ). Once you've finished you should have a series of files such as EZYMAIN.ARJ, EZYUTIL.ARJ and most importantly, an INSTALL.EXE now in this temporary directory.

Now type INSTALL at the DOS prompt and you will be will be asked to specify the full drive and directory in which to install Ezycom. The default is C:\EZY as this is the most common place to install Ezycom to, but you may change this as you wish.
Once you have selected the path to install Ezycom to, a box will then pop-up allowing you to input the sysop's name and alias (if applicable) and the name and location of the BBS (see chapter 2). Use the cursor keys to move up and down to change these entries. Press ENTER on the bottom entry once you have finished. The install process will now proceed to create all the necessary directories, unpack all the archives and install a sample system setup including menus, for you to examine.

You are now ready to start configuring Ezycom. Move on to Chapter 2.

Chapter 2

Basic Configuration

Introduction

By now you should have Ezycom unpacked and installed with a simple default configuration and you will have had a little fiddle with it. Having done a simple login you will be familiar with the basic look of Ezycom. This section of the document deals with all the basic configuration settings that Ezycom has. The information in this section will help you get Ezycom fully functional as a simple stand alone BBS. Later chapters will deal with the more advanced (and optional) features of the package.

CONFIG

CONFIG is the central configuration utility for Ezycom. It allows you to configure most of Ezycom features using a simple, friendly and yet powerful pull-down menu system. You access these by moving the cursor on the option you want to change then hit ENTER. Some options pop out menus to further lists of options, accessed in the same manner. You will have to set up many of these options in order to get Ezycom up and running as a functional BBS. If an option or a group of options is skipped, do not worry, it is probably not relevant to the basic functioning of Ezycom and is thus covered in a later chapter.

Firstly start by moving to the Info menu and then ENTER on the Site option. This information is mainly used for your system's IEMSI packet (see later) and for validating your key once you've registered Ezycom. These options are as follows:

. Sysop Name - Put your real name here. Messages redirected from 'Sysop' will be sent to this name.

. Sysop Alias - You can optionally specify an Alias for yourself here.

. System Name - Your BBS name eg. Lake Macquarie BBS

. System Location - This is where your BBS is located eg. Adamstown, NSW, Australia

Once you're finished here, press ESC to exit from the Site option.

Setting Up System Paths

Moving across to the far right you will see a menu entitled Other. Select the Paths option from this menu using ENTER. This option allows you to set-up most of the directories that Ezycom requires for its functioning. The relevant ones for now are used as follows:

. Overlay Path - This is where Ezycom looks to find its overlay file (EZY.OVR). You can set this to a RAM disk for improved efficiency if you so wish.

. System Log - This is the path and filename for where Ezycom will write its log file. If you place a *N in the log name, it will be translated into the current node number. So EZY*N.LOG would actually become EZY1.LOG for node 1.

. Maintain Log - This is where Ezycom writes the logs for all the utilities that come with it. You should NEVER have this the same filename as the other log if you are running more than one line unless you use the *N parameter in a simular manner to the previous option. Each Ezycom utility has a unique identifier for logging, so if you place a *T in the maintenance log name, many logs will be written out for each utility.

. Swap File - When Ezycom swaps out its memory, it can (sysop definable) swap itself to DISK. This is the path and filename to the swap file(s). The extension is not allowed as Ezycom will append its own extension depending on the node number. EZYFILE & EZYMAIL will append different extensions so they can be run at the same time as nodes.

. RIP, AVT, ANS, ASC & ASL Files - These are the paths to where the BBS's text files are kept. They may all point to the same directory if you like. Since ANSI files are the most popular, you may like to put .ANS on a RAM disk and leave the rest on your hard disk.

. Menu Files - Your menu files (*.MNU) are stored in this path. This may be a RAM disk or fixed disk path.

. Menu 2nd - This is a second menu path for when the first path points to a RAM disk. Take the situation where you alter a menu on a RAM disk. All modifications are stored to the RAM disk, not on a fixed disk. Placing a path here causes all menu modifications to be stored on this path as well (ie. both paths will be kept in sync).

. Message Base - This is the location of Ezycom's message base. It should be noted that you MUST use the SAME user base with the message base. You can NOT have several message bases per user base or vice versa without totally destroying last read pointers. You may find it useful to place the message base on its own drive to reduce fragmentation on your system drive. This also helps to keep mail processing space and message base space separate.

. File Base - This is the location of where the filebase is stored, the database of all the files downloadable from your BBS. Some speed gains and fragmentation reduction can be achieved from having this on a separate drive also.

. File Index - The Fast Find Index is stored here. This is a fast index to EVERY file downloadable on your BBS system.

. File Sec - The FILESEC.EZY is stored in this path. This option is provided to allow you to place this file on a RAM disk for speed of access.

. User Base - This is quite simply where the database that stores your BBS user records is located.

. Fattach Path - Defines where any files attached to messages will be held.

. Node Message - This is where the internode communication files are stored. If you plan to use the built in multi-user chat, it might be advisable to point this path to a RAM disk. Only 10k maximum should be required in the RAM disk.

. Temp Path - This is where Ezycom stores its temporary files, whilst a user downloading for instance.

. Upload Path - This is a TEMPORARY path where ALL uploads will actually be placed during the upload process. If the upload is aborted, then the file is left in this directory for later resumption unless you have the CONFIG option Delete Incomplete Uploads set to Yes (see later). It is advisable to have a daily maintenance routine to delete all files in your upload path. (Remove aborted uploads).

A statement like:

```
ECHO Y | DEL C:\EZY\UPLOADS\*.*
```

would delete them. This path MUST be unique and NOT be used anywhere in the file base system.

. Outside Page - If you wish your the page bell to use other tunes besides the default beeping or the tune files, you can use Page modules written for Ezycom. EZYSB102 is one such page program. It plays Sound Blaster VOC files. Please see the documentation accompanying such programs for more details on this.

Once you've finished modifying these options ESC will take you back to the previous menu.

General System Wide Options

The next set of options you should configure are found in the System submenu. Press ENTER on this option and you will find a series of options to control general system behaviour.

. Inactivity (Mins) - If the user online has not hit a key within the time period defined in this option, he/she will be automatically logged off. The user will however get a 30 second warning before disconnection. 5 minutes is a good value for this option.

. Local Inactivity Timeout - This determines if the previous option applies to users (such as the sysop) logged in locally. Normally you would set this to No unless for some reason you want it to log you off locally after the defined time of inactivity. Use ENTER to toggle this option.

. Multiline - This places Ezycom into multiline aware mode and thus tells it to perform duties such as internode messaging, user to user chats and other various updates. Use ENTER to toggle the option.

. Multi Tasker - Allows you to toggle how Ezycom detects if your system is running under a Multi-tasking environment such as Desqview or OS/2. Just hit ENTER to toggle through the supported options. Setting Auto-Detect means each time Ezycom loads it will try to detect which environment it is running under for you. Sometimes it may be necessary to force a particular environment.

. Allow Extended IBM Chars - This allows users to type in Extended (high-ASCII) characters. For example, if your users are not always English speaking, then their name might include some Extended IBM characters. Disabling this option helps reduce the affects of line noise however as this will be filtered out.

. Swap Out on Jump to Dos - With this set to Yes, when Ezycom jumps to DOS it will swap out to either XMS, EMS or your hard disk (depending on the setting for swapping) this will give you more memory in DOS on the swap out.

. Top Menu - The name of the first menu Ezycom is to display. This can be any menu you like but it must be in the menu path as defined previously in CONFIG.

. Log to Printer - This will send all the Log information to your printer, except for local logins (naturally).

. Printer Port - This is the port that Ezycom will send the Log to if the previous option is enabled. This can either be LPT1 to 3, or COM1 to 4. Make sure that you do not log to the comport being used for modem communications. ENTER toggles through the various options available.

. Password Echo Character - This is the character that the user will see when they enter their password on your system. An asterisk '*' is always a good choice.

. Internode Message Freq (s) - This is how often (in seconds) Ezycom checks for inter-node messages on multi-node systems. Internode messages are ONLY checked for within User/User chats or while the user is moving around menus.

. Age Check, minimum Age - If you intend to have message areas and/or file areas that have information that maybe X-Rated or you feel that young users should not have access to these areas, all you have to do is set the age limit that your users have to be over to get access to those areas. You also have to set this option in your menus otherwise it won't work for specific menu options but age checking is always done automatically by the system on file/message areas.

. Utility Date Format - Toggles the two date formats that Ezycom can use when writing log files. These are either DDMMYY or MMDDYY.

. Use EMS for Overlays - Tells Ezycom if it is allowed to use your EMS memory (if you have it) for its overlay files. This will speed the system up if set to Yes when EMS is present.

. Type of Swapping - This option allows you to define what type of swapping is used in Ezycom. The swapping techniques vary and in each case an order of preference is shown. XMS/EMS is the fastest (ie try for XMS, if not then try EMS). All options fall back to DISK.

. Enclosing Brackets - This defines the characters that will be used as enclosing brackets in Ezycom.

. Left Bracket/Right Bracket - This defines the left and right brackets used in Ezycom prompts etc. Edit the left one then press ENTER and you will be able to edit the right one.

. Minimum Time for Call - This setting determines how long a call must last (in minutes) for it to be counted as a call for that user on that day. You can use this in conjunction with the Limits manager to control the number of times a user may call in a given day. Be sure to set this high enough so as to ensure that brief calls (eg. those terminated due to line noise) do not get counted.

. Show Sysop in Who Online - Using this setting you can determine whether or not the sysop will show up in the Who's Online List when he/she is logged in a multi-node situation. If set to No, then users will not be able to tell when the sysop is logged in.

Defining Settings For New Users

The next option on the Other menu is a submenu called Newuser. This section allows you to set all the options that control the behaviour of a new user's login procedure

. Ask NewUser Home/Voice Phone - This option controls whether you want your New Users to be asked for their home/voice phone number. Again, most options in this area toggle with the ENTER Key.

. Ask NewUser Data/Bus Phone - This determines if you wish to ask new users for their data/business phone number as this often differs from their home/voice phone number.

. Use Forced Phone Format - This allows you to set if you want to use a forced phone format which is configurable in the next option.

. Forced Phone Format - Use this to define the format of your forced phone number style here, using '#' for where you'd like numbers to be and a '-' where a hyphen should be forced to appear.

The next nine settings are all simple toggle options that control the main options/questions a new user should be presented with when they are logging on for the first time. Use the ENTER key to toggle through the settings on each. Some have Yes, No and Ask options (Ask meaning the user will be prompted for an answer). When Ask is set there are is also a further option shown in brackets. This indicates the DEFAULT answer to the question so that the user may press ENTER and get this answer automatically. You will find this useful for novice users because it gives them a good guide as to what its normal to select in each case and so if they panic and press ENTER, the best setting will be chosen.

. Ask NewUser for Alias - If your system allows an alias to be used, then you can use this option to prompt the new user for one. Should they not enter one, their real name becomes their alias by default. Once defined, a user can login using this alias in lieu of their real name (the will still actually be logging in as their real name however) but as their alias is often shorter, it will save them time.

. Ask New User for Date of Birth - This controls whether the a new user should be prompted for their date of birth. This information can then be used as a security check (see later) and allows the user's age to be shown on the status bar. You should have a good reason for disabling this option as it disables a lot of useful features in Ezycom along with it.

. NewUser Ansi - Controls whether a new user should be able to select ANSI colour graphics or not.

. NewUser Avatar - This is like the above only it controls whether a new user should be able to choose AVATAR graphics.

. NewUser Full Screen Editor - Allows the new user to choose whether or not to use an external full screen editor (such as EZYEDIT or Gedit). Such editors are like a word processor with full screen editing facilities. Should the user choose No, they will be given the internal line editor when they wish to write messages.

. NewUser Clear Screens - This determines whether or not new users want their screen cleared between menus etc. If set to No, screen clearing codes where-ever found, will be ignored.

. NewUser More Prompt - Allows the new user to select whether they wish to be prompted for more text whenever the screen reaches the number of lines they defined in their screen length. If a user selects No for this option (or you force No) then Ezycom's powerful file list tagging feature is rendered completely useless.

. NewUser IBM Characters - Determines if the new user wants any IBM chars to be sent. Non-IBM users with non 100% emulation terminals may want to turn this off in order to filter out any high ASCII characters.

. NewUser Date Format - Depending on your user's country of origin, they may prefer all date prompts in one form or the other. They may have either the DD-MM-YYYY or the MM-DD-YYYY formats. The toggleable default is in brackets.

. NewUser Security - This is the security level that all new users to your system will get when first logging in. Set a low value so you can enhance it as you feel. You can override this if you set one in the NEWUSER.Q-A file but more on that later.

. NewUser Flags - The Flags are labelled A..D with each flag having 8 settings that is to say A1..A8, B1..B8 and so on. You can use these flags to enhance your Security Levels. You might use this for instance to force a user into a bulletins menu or to only let them answer a questionnaire once. An X indicates the flag is set for that position so if the A flag shows --X--X-- then flags 3 and 6 have been set to on.

. Minimum Password Length - This controls the minimum length of the Password your new user is to choose. The longer the better but do not go overboard.

. Minimum ANSI/AVATAR Baud Rate - This Sets the minimum speed can login in and be able to select/use ANSI/AVATAR graphics. Any user logging on below this speed will get plain ASCII graphics only.

. NewUser File Points Credits - This sets the initial amount of file points a user receives when logging in for the first time.

. NewUser Netmail Credit - This allows New Users the option to use Net Mail from their first logon. Set this to something small unless you want new users to be able to post unlimited amounts of netmail. Otherwise, you had best be sure that security control on netmail areas prevents them from doing so.

. NewUser Topmenu - You can if you wish, have new users placed into a different top menu (first menu) than the default. Use this to specify that menu. Be sure that it exists and that it is in your menus path.

Configuring The Logon Process

The next option on the Other menu is a submenu titled Logon. This section contains options that are used to set the way Ezycom handles each Logon attempt. These options are given in two columns.

Column 1

. Forced Password Change (Calls) - This allows the sysop to set how often users will be forced by the system to change their password. For example, setting it to 30 means every 30 calls they will have to select a totally new password. This will make your system more secure and decrease the possibility of people hacking your user's accounts.

. Ask for Date of Birth (Calls) - This is also a Security feature that Ezycom uses to make sure that the user logged on, is in fact who they say they are. If you set this to 10 for example, then on every tenth call, users will be asked to enter their date of birth.

. Ask for Phone Number (Calls) - This is also a Security feature. The user will be asked to enter their Phone Number (Last four digits) to stay logged on to the system. You set the number of calls between asking for this check.

. WatchDog Message Board - This tells Ezycom where to post a message concerning possible unauthorised use of a user's account. This message should let the User know that someone has tried to log in under their password and failed. A good place for this message is the Sysop's Conference if you allow users to read messages in this area. A file called WATCHDOG.ASL must be placed in the Ezycom system directory, which is a plain text file, that contains the message you wish to send to the user.

. Bad Login Message Board (0=Off) - When a user unsuccessfully attempts to login Eg. they have forgotten their password, placing a non-zero value in this field means the user will be given the option of writing a message to the sysop and it will be posted to the area number specified in this option. As with the above, point it to the message board where sysop mail goes. If this board uses aliases then the sysops alias will be used when posting.

Note: Ezycom also has a special feature to deal with users in

this lost password dilemma. If you go and blank out the user's password in EZYED, then next time they login they will not be asked for a password but will be forced to input their phone number & date of birth. If they manage to get this right, they will then be prompted for a new password in the usual manner. This can save you (the sysop) a lot of time (and money from having to call people and remind them what their password is).

. Minimum Logon Security - This is the lowest security level that you will allow users to login under. Eg. If you set New User Security Level to 5 but have a level lower than this for Users that may have Upset you, you can give them this access. Users between security level 1 and this security level, can logon between the times allocated by low security start and end time.

Note : Users with Security Level 0 are ALWAYS barred from the system (the lock-out key sets this also).

. Number of Logon Attempts - If the user gets their password wrong this many times while attempting to login, they will not be allowed to continue. If you have set the WatchDog Message to a message board the user will be notified when he/she successfully logs on next. If you have Bad Login Message Board set to a non-zero value, the system will also ask them if they wish to post a message to the sysop about not being able to login, before being forcibly logged off.

. Allow OneWord Logon Names - This is for systems that allow their users to login under an Alias (first time on) or those that allow Users to use there First Name as a Login Name. Setting this option to yes is generally not advisable due to the increased possibility of name double-ups. However, should an alias consist of a single word, this can be used to login regardless as this setting only affects the choice of real names.

. Minimum Logon Baud Rate - This is the slowest Baud Rate at which Ezycom will allow users to gain access to your system.

. Minimum Slow Baud Rate - This is the baud rate control from the next option.

. Slow Baud Start/End - These the hours between which you allow users with SLOW modems to access your system, using the speed as defined above.

. Low Security Start/End - These are the hours between which you allow users that have a Security level less than that set in the Minimum Logon Security. Eg. If the minimum security was 5, then those users from security levels 1 through to 4, can only logon between these times. A start and end time of 00:00 indicates theses users can logon all the time. But any other time intervals where the start and end times match indicates these users can NEVER logon.

Column 2

. Initial Logon Time - This defines the maximum time a new user is given to reach the WELCOME.Axx screen. This must be enough time for the new user to answer all the questions about their terminal configuration and also to answer NEWUSER.Q&A (see later) should you have one defined. 10-15 mins should be fine for this option.

. 1st Rego Exp Warning - This is when Ezycom will first let the user know that their registration is about to expire. On the number of days before expiry that you set here, the user will receive a warning message during login. Eg. 7 days.

. 2nd Rego Exp Warning - The user will be notified again about their registration expiring soon. This expiry warning should be LATER (closer to the expiry date) than the first warning for it to function correctly. Eg. 2 days.

. Check for Mail - With this option you are able to toggle whether you want the system to Check for NEW Mail at each Logon, Ask the User each Logon or Never ask the user. If you pick not to ask or check for mail, make sure that you have an option in one of your menus to do so manually or the user will never know when they have new mail. The option in brackets after the Ask setting shows the default result if ENTER is pressed instead of a Yes or No answer.

. Check for Files - This is similar to the Mail Checking option above but applies to New Files on your system. A new file check looks for files that are new since the LAST time that user DID a new file scan, NOT new files since their last login.

. Fast Local Login - With this option set to Yes, all local logins will skip WELCOME and NEWS screens. Setting this to No means all the usual login screens be shown when logging in locally.

. Show User's Password - This option when set will display the remote user's password on your screen. Not a good idea if your BBS is in public view. Regardless of this setting, the user will still see the password echo character defined previously.

. Ask for Local Password - If you have this option set to Yes you will have to enter your password when logging into the system locally as will any users.

Note: The sysop's name is automatically assumed if you press

ENTER at the name prompt. Doing this with this with the above option set to No will cause an immeidate login of the sysop upon pressing ENTER at the name prompt. Combine this with Fast Local Login set to Yes and a single key press gets you almost to the main menu.

. Allow Sysop Remote - If set to No, the sysop will not be able to login remotely. It is advised that unless you ever need to be able to login remotely that you set this to No as a security precaution.

. Auto Detect ANSI - With this option set, Ezycom will Auto-detect ANSI colour graphics on the remote terminal (or try to) and if the test is passed, even the initial LOGO.ANS screen will be displayed before the name prompt. If the User has another graphic setting in his/her user base record, that one will be used. Setting it to YES & NU means the result of the detect will be used to assume some New User settings so they will not be asked if they wish to use ANSI.

. IEMSI Sessions - This allows users to logon to Ezycom using the IEMSI protocol. Just set it to Yes to turn it on. Combined with NU (Yes & NU) it means that if a new user logs in with IEMSI, most of their set-up details will be assumed from the information in their IEMSI profile and they will only have to answer a few questions. Terminal packages such as Communique', Terminate and Front Door all support this method of login. It automates the login process and passes information in both directions about the general configuration in use. It also automatically sets many login preferences such as whether a New File Scan is wanted.

. Auto Detect RIP - This will tell Ezycom whether or not to attempt to detect if there is a RIP (Remote Imaging Protocol) capable terminal on the other end. Ezycom will make a note in the log about the terminal name/version detected if successful. If you do not intend to support RIP graphics then set this option to No. You may however find that setting this to Yes is a good way to survey how many users have such a terminal.

Online Control Keys & Macros

A number of useful key combinations can be configured from the Alt/Ctrl submenu off Other.

The Alt-Function keys enable you to set options that can be executed while users are online in much the same way as a Type 7 exit (see later). These options could include for example include running FEDIT or running EZYMENU etc.

For Example:

Alt-F1 EZYED.EXE

Now pressing Alt-F1 while in Ezycom would run EZYED

The Ctrl-Function keys are macros that are used inside of the Ezycom chat mode. By pressing Ctrl-Fx it will display the pre-defined macro you have set-up.

Controlling The Page Bell

Ezycom allows you to very precisely configure your user's ability to page you (audibly request you to talk with them). All these settings are controlled from the Paging submenu off the Other menu in CONFIG. As most people are home more on the weekend than the rest of the week, Ezycom allows configuration of acceptable paging hours on a daily basis.

. Maximum Pages per Session - Allows you to control how many times a user may page you in any one call. Any further attempt to page you after this will result in them only being allowed the option to post you a message instead.

. Number of Page Files - Sets how many page tunes you have in your Ezycom system directory. These are files named PAGExx.EZY where xx is a two digit number starting at '01' and working up. This allows Ezycom to randomly choose a different tune to use each time a user pages you. Should you not specify any page files, the default beeper tune will sound.

. Page Length (secs) - This determines how long the page sound/tune will play before telling the user you are apparently not available.

. Ask for Page Reason - Setting this option to Yes will force the user to supply a reason for wanting to chat. This will help you determine why it is they want you and whether you really wish to answer the page bell. This reason is also retained as part of the status bar info in case you wish to see why a user paged you when you were not around (ie. the [Want Chat] indicator is flashing on the status bar).

. Page Start/End (Day) - Use each of these options to define Start and End times for each day of the week in which your page bell will be allowed to sound.

. Message to Sysop Area - Should you not answer your page bell, and this option be set to a non-zero value, the user will be asked if they wish to leave you a message instead and it will be posted in the area pointed to by this number.

. Use Sysop's Alias in Chat - When in chat mode to users, setting this to yes means your ALIAS will be used in a full screen chat ie. your alias will appear on the dividing line.

. Auto Capture Chat - If you want all your chats to users automatically captured to a text file without you having to remember to do it, set this option to Yes.

The Login Chimer

In the Sound submenu (off Other in CONFIG) you will see two options entitled Incoming Call Ball Start/End Time. If you set a start and ending time this will enable a bell (Speaker) chime when a user logs on while Ezycom is in stand alone mode (ie when Ezycom is doing the phone answering). A start time of 00:00 and end time of 00:00 enables full 24 hour chimes, whereas a start time of 00:01 and end time of 00:01 disables it completely. Any other times will enable it only during those times (note that the time is in 24 hour format so 23:00 means 11pm).

Special Access Settings

The Access submenu (off Other) allows you to set-up some special access features in Ezycom. These features are all optional and you probably won't wish to use them, but they are explained now anyway. Refer back to this section later when you feel ready to use them. Two of these features are as yet not implemented anyway.

. Guest Account - This allows you to set-up a special account with special privileges. This is often used for software support in that it allows you to define a special account, normally with widely known details such as a user name and password, and then have a special set of menus (the tope one of which is pointed to by the menu on that account) that are normally very different to the rest of your BBS and very specific to your purpose. This option simply specifies which account in EZYED (you must create the user account before this will work) that the guest access applies to. This account is special because it is the ONLY account that is allowed to have simultaneous logins on a multiline system.

Note: ANSI/AVATAR/Full Screen Editor settings are reset on this account each time someone logs into it. The download statistics are also reset upon a user logging out from it.

. Keyboard Password - This password is used to lock out all the special "Alt" keys from the local keyboard. When an "Alt" key is pressed, the user is prompted for a password. If the user types in the correct password, then the "Alt" keys become free to use for the remainder of the session. You will find this very useful if your BBS runs in a public area.

. Logon Password - This password is used to stop users logging onto your system unless they know this password. If they do not get it correct, then they are denied access to the system. (Not Yet Implemented).

. Newuser Password - This password is used to stop new users gaining an account on your BBS unless they know this password. (Not Yet Implemented).

Configuring Colours In Ezycom & Utilities

The Screen main menu in CONFIG deals with setting related to the screen output that Ezycom gives. You can configure the colours used in most places throughout Ezycom from here.

. Messages/Files - This submenu allows you to configure the colours used in prompts/fixed format information for file/message areas. You can toggle the colours used in quoted parts of a message, the options bar at the bottom of a message during reading and all the colours in the file list. As you toggle the options, the result will appear in the examples shown on the screen. Use the given numeric keys to cycle through the available colours for the option shown beside each.

. Windows - Using this option you can fully customise the colours used in CONFIG itself to display the pop up windows and option entry boxes. Toggle the colours on the frames, hi-lighted options etc and the example window will show the result of your changes. Again use the numeric options listed to do this.

. General - From here you can toggle the colour options on the user name prompt and the colours used on the status bar while a caller is online. Once again, the resulting look is instantaneously shown by the examples on screen and the numeric keys cycle through the various available colours.

. Default Colour - Use this to set all the colours back to Ezycom's defaults. You might find this useful if you totally muck up your colour selections. Be aware, you get no warning before this option takes affect. Hitting ENTER on it will immediately change the colours.

. Default Mono - This will set all the colours to default colours suitable for monochrome monitor based systems (such as laptops or BBS's running on older systems). Again this is a no warning immediate action option.

Video Behaviour Options

At the bottom of the Screens submenu is another submenu called Options. Here you will be able to tell Ezycom how it should operate with your system's video display, like how it writes to the screen for example. The following points should help when filling out this section.

. Direct Screen Writes - This tells Ezycom if you want it to write the information directly to the screen or use the BIOS (slow).

. Check for Snow - If you have an old CGA Card, Ezycom may cause snow on your screen due to the way it writes to the screen. If you enable this option, Ezycom will check your system set-up and if it detects snow it will do its screen writes in a way so as to prevent it occurring.

. 40/50 Line Mode - If you have a EGA/VGA card and screen, you can utilise its enhanced capabilities by setting this option to Yes. This will display more lines on the screen depending on the Card/Screen you have. This will enable you to see more files and more of a message on the screen at any one time.

. Screen Blanking - When Ezycom is in Waiting for Caller mode, you could possibly get screen burn in if your monitor is left on all that time. Setting this option to a time period in seconds will tell Ezycom to BLANK the screen after waiting that time, thus SAVING your monitor. Note this only works in standalone mode.

The Manager

The Manager menu in CONFIG contains many very important submenus full of settings vital to Ezycom's primary function. Such settings as security levels, system events and file compression settings can be found here.

Managing Security Levels

Ezycom allows you to define up to 65536 different security levels, each with its own individual characteristics. These settings are laid out in two columns for each security level in the Limits submenu. To create a new security level you hit the INS key and all the options will be blanked or be at defaults.

Type the security level number that you wish to define, then fill out the blanks as you see fit for that level. Each option is explained for you below.

Column 1

. Security Level - Naturally this is where the security level number you are currently working on is defined.

. Maximum Time - This sets the maximum time per day that you allow for this security level.

. Baud Daily K limit - Here you will see that for each valid baud rate you can define a daily kilobyte limit for this security level at that connect speed. This is important as a 2400 bps user can only get one sixth the amount of files in the same period of time as a 14400 bps user can so it may be necessary to vary the limit for each speed. A setting of Zero does not disable the limit, it actually sets it to Zero (ie NO downloads). Setting 65000 will effectively gives users on this security level an unlimited download limit for the given speed(s).

. Global Daily K - Type in a value on this option and each baud rate will immediately be set to that limit. If you wish to give an across the board limit, this will be easier than typing each one in separately.

Column 2

. Downloads per One Upload - This sets the Download Ratio Factor (by number of files) for this security. This is the number of Downloads a user on this level can have before he/she must Upload a file. This ratio means that when it is set to one, a user must upload 1 file for every file he/she downloads. When the ratio is set to 2, the user must upload 1 file for every 2 files the user downloads. When the ratio is set to 3, the user must upload 1 file for every 3 files the user downloads, and so on. To disable this option, set the ratio to Zero.

. Initial Download Credit (Files) - This setting sets how many files the user can download before the files ratio is enforced. That is, if set to 1, a user can download 1 file before he/she has to upload. Setting the credit to 0 means the user must Upload BEFORE he/she can download, provided of course a file ratio was previously defined. Essentially this option is for allowing a ratio grace period for new users.

. Downloads in k per One K Uploaded - This is simular to ratio by files except it applies to kilobytes. For instance, if this was set to 5, then for every kilobyte the user uploads, he/she can download 5 kilobytes.

. Initial Download K Credit - This is the initial free kilobytes credit you give the user. The examples used above are similar to this situation, except that the ratio applies to kilobytes not files.

. Post Call Ratio (%) - This is a percentage. Just enter the percent of calls to message ratio you want this security to have. Setting the percentage 100% means that a user MUST post one message for every call he/she makes. Setting the percentage to 200% means the user MUST post 2 messages for every call he/she makes. Setting the percentage to 50% means the user MUST post 1 message every two calls he/she makes. Setting the percentage to 0% disables the option for this security level.

. Initial Message Credit - Again the initial credit gives the user some "breathing space" before the post call ratio is enforced.

Note: The previous two options have no affect unless menu access controls are used to limit access to other functions such as downloads on the basis of this setting.

. Number of Days till Rego Expires - This is used to calculate when this user level's registration date will expire. At the point of expiring, REGEXP.Q-A is executed at logon for that user (see the section on Questionnaires for more details). Setting this value to 365 would mean that the registration for a user on this level would expire 365 days after the date set in the rego date field of that user's record (this is usually the date of when they first logon although you can modify this date as required using EZYED).

. Maximum Time in Bank (mins) - This is the maximum time in minutes a user on this security level, may build up in the bank before they will no longer be able to deposit more time.

. Maximum Time to Deposit per Day - Use this to control the maximum amount of time users on this security level can deposit in the bank each day.

. Maximum Time to Withdraw per Day - This allows you to control how much time users on this level can withdraw each day from the time bank.

. Maximum K in Bank - This option controls the maximum number of kilobytes a user may store in the bank before they will no longer be able to deposit more kilobytes.

. Maximum K to Deposit per Day - This controls how many kilobytes users on this level can deposit into the bank each day.

. Maximum K to Withdraw per Day - This is the opposite to the above, controlling how many kilobytes a user on this level can withdraw from the bank each day.

. Maximum Calls per Day - A useful feature, this allows you to control how many times per day a user on this level can call your BBS. This setting uses Minimum time to call setting (explained previously) as a threshold. That value must be reached for a call to be counted against this setting for a user on this level.

Notes: To delete a security level just hit the DEL key. Hit

'P' to get a Pick List of all the security levels you have set-up. Moving between the security levels can also be achieved by using the PgUp and PgDn keys.

Managing System Events

A system event is merely something your system must do at a particular time of the day. You can use system events to do things like daily maintenance, process mail, make a new master file list and hundreds of other things.

To create an event just hit the INS key and you will be able to enter a number of settings for that event.

. Start Time - Simply the time (in 24 hour format) when this event must start.

. Status - Toggle this to enable or disable this event.

. Errorlevel - This defines the errorlevel at which this event will exit at. Your batch file would then trap this errorlevel and take appropriate action.

. Days Active - This option will give you a submenu that allows you to set which days this event will occur on. You can set individual days or move down the bottom and use the All On/All Off options to globally change the days.

Events -Things To Remember

. If a user is on-line when an event should take place, they are automatically dropped off so that the event can be processed.

. Events are triggered 5 minutes earlier than the actual start time, so it can be possible for Ezycom to come back on-line before the actual event start time. If this occurs, Ezycom will NOT trigger the event again, it will continue as per normal.

. If Ezycom is not running when an event occurs, then Ezycom will NOT execute the event when fired up.

. Events are also checked for each time a user logs in. If one is approaching and that user's normal time limit would cause them to over-run that event, then their time will be cut back to 5 minutes before that event and they will be informed so. The user is however allowed to bank that lost time in the time bank later if they so wish.

. The command line parameter for passing the time till the next system event from a front-end mailer (-T) takes precedence over any events defined in Ezycom.

Notes: Use DEL to remove events and press 'P' to bring up a

Pick list of your events. PgUp and PgDn will also scroll through your defined events.

Compression Settings

In the Manager menu of CONFIG you will find two menu options Compression and UnCompression. These settings are used for a wide variety of operations within Ezycom including online master list making, QWK offline mail packet production network mailing and even in other external file management utilities. You probably need not concern yourself with these settings as the defaults are quite satisfactory and will work provided you have all the listed programs somewhere on your system PATH. However, a brief explanation follows should you wish to alter anything here.

Compression

This is where you define the compression command line parameters for your archiver utilities. Beside each supported method is the actual command line passed to the appropriate utility. If you are sending mail with old echomail processors using LHA, then you might have to replace the -tm with -otm.

```
ZIP  :    PKZIP.EXE      -ao
LHA  :    LHA.EXE        a -tm
ARJ  :    ARJ.EXE        a -ey
ARC  :    PKARC.COM      -oct -a
PAK  :    PAK.EXE        A /O /WA /L
ZOO  :    ZOO.EXE        a:
SQZ  :    SQZ.EXE        a /m4
RAR  :    RAR.EXE
```

UnCompression

This is where you define the decompression command line parameters for your archive handling utilities. The defaults are shown below:

```
ZIP  :    PKUNZIP.EXE    -o
LHA  :    LHA.EXE        e /cnm
ARJ  :    ARJ.EXE        e -y
ARC  :    PKXARC.COM     -r
PAK  :    PAK.EXE        e /wa
ZOO  :    ZOO.EXE        -e
SQZ  :    SQZ.EXE        x /o1
RAR  :    RAR.EXE
```

Configuring Modem Settings

This section is used to control your modem itself. If you do not set these options correctly, communication with your modem may not function as it should. If you are having problems getting your modem to answer, the problem is likely to lie somewhere in your settings here.

- Comport - This merely specifies which communications (serial) port your modem is connected to ie. 1 for COM1, 2 for COM2. Ezycom supports COM1 to COM8.

- Maximum Baud Rate - Sets the maximum baud rate your modem supports. To select a baud rate press RETURN till the correct baud rate appears. This is the speed your modem will be initialised at. Valid baud rates are 300, 1200, 2400, 4800, 9600, 19200 & 38400.

- Locked Port - This is usually set to No for most slow modems (2400 or lower) but for high speed modems it is usually Yes. The Maximum Baud Rate (above) should be set to the locked speed if this option is set.

. Lower DTR when BUSY - This is not advised, but in some countries it is illegal to have the modem off-hook (holding the line open to make it busy) when the BBS is not available for calls. Use this option to lower the DTR signal on the comport instead. This will ensure the modem cannot answer calls whilst this is the case. For most modems, this normally prevents the modem from auto-answering an incoming call.

. Off Hook - After a caller disconnects or Ezycom logs a user off, your BBS may process mail or do other things before becoming available to answer the next call. If this is the case, use this option to cause Ezycom to immediately take the modem off-hook on exit whilst this is occurring (hence making the phone line seem engaged) and to prevent it from ringing until the modem is next initialised ready for another caller.

. Init Response - This the response sent back by your modem after a command has been issued. This is usually set to 'OK'.

. Ring String - This field allows you to define the ring response from your modem when a ring signal has been detected as the result of an incoming call. Usually this is set to 'RING'.

. Modem Delay - Many modems cannot accept command strings at full speed. Because of this, an inter-character delay (in tenths of a second) is needed. For high speed modems this can often be set to 1 or 2 but for most modems set it to a value between 4 and 8. If you are having trouble getting an OK back from the modem, try increasing this value.

. Force Answer - This determines if Ezycom should answer the phone or whether the modem should. If you select Yes then Ezycom will send a manual answer string to the modem to make it answer. Make sure ATS0=0 is in your Init String (or in it's stored active profile) for this option to work (else both Ezycom and the modem will try to answer a call). If you select No then the modem will have to answer the call. Make sure you have ATS0=1 (or higher) in your init string (or profile) for this option. However the recommend setting is Yes as it proves Ezycom is up and running otherwise if the system crashes, users will still get connected, but the BBS will not respond.

. Answer Delay (1/10s) - This is the delay (in 10ths of a second) that Ezycom will wait after receiving a RING signal, before it sends the Answer command to the modem. Some modems will not answer reliably if this option is not carefully set. Experimentation will find the most suitable setting for your modem. 7 is a good value to start at.

- Start Time - This allows you to define the start time for when Ezycom is to begin answering the line. Make sure Force Answer is set to Yes. This is useful if you are only running a part time BBS.

- End Time - This defines when Ezycom will cease to answer the modem. Note both these times are in 24 hour format.

- Init Tries - Here you can specify how many times Ezycom will send the initialisation string to the modem before giving up should it not get an appropriate response back. Usually you set this to a value between 5 and 10.

- Init String 1 - Type your modem initialisation string in here. This is the command which is sent to the modem to initialise it and prepare it to answer calls. Use the pipe '|' symbol on the end of your string to achieve a carriage return in the string. If your modem has an Active Profile in NVRAM it is more convenient to store all your settings in there and use a simple ATZ| to recall them on each initialisation.

- Init String 2 - This is used if you want to send more than one initialisation string to your modem.

- Set Busy String - Use this to put your modem into the busy state ie. hold the line open or off hook. Usually you would set this to 'ATH1|'.

- Manual Answer String - If you selected Yes to Force Answer, then this is the string that is sent to your modem to force it to answer the call. The default is 'ATA|'.

- No Carrier String - This is the response your modem sends to the computer when loss of carrier (connection) occurs. Normally this would be 'NO CARRIER'.

- Fax Connect String - Ezycom has built in support for Fax/Modems. When an incoming call is detected to be a fax (by a string that matches the one set in this option), Ezycom will exit with errorlevel 10 from which you can get your batch file to fire up fax receiving software (such as BGFAX).

- Send BREAK to Modem - This option tells Ezycom to send a break signal to your modem when clearing the FOSSIL buffer. This is mainly for use with high speed modems with internal buffers (such as the US Robotics Courier HST). If you are not sure whether to place this option On or Off then LEAVE IT OFF! Used incorrectly it can do more harm than good.

Setting Up Baud Rates

Also found on the Modem menu in CONFIG is a submenu called Baud Rate Setup. Here you will find a scrolling list of valid baud rates (use PgUp and PgDn to view them) and two settings belonging to each (other than the baud rate itself).

. Efficiency (CPS) - This is used to measure the efficiency of a transfer Usually this is worked out on 10 % of the modem baud rate (since transfers occur in 10 bit words). For example 300 baud would be 30, 1200 baud would be 120 and so on. However for HST modems this is not quite true as a HST can do 1600(cps) or greater for 14400 baud. For HST users the best setting would be about 1650(cps). This efficiency setting is used to work out download time estimates.

. Connect String - This is the connect string that the modem passes to Ezycom for a given baud rate. For example CONNECT 2400, CONNECT 9600. Make sure you end the CONNECT for 300 baud with a pipe '|' or else all CONNECTs will look like 300 baud! This setting only affects Ezycom in standalone mode.

All speeds through to 28,800 bps are predefined for you and so Ezycom will readily support all V.FC, HST, PEP and V.34 modems with no effort on your part. However to accomodate even newer speeds you will find 3 extra speed options at the bottom of the list. Here you may enter each field as desired. The maximum definable speed is currently 115200 bps. You may also alter the current list of speeds if you wish to eliminate speeds you do not use. The choice is yours as the limits manager reads its list direct from here. Be sure to check security limits when you make changes here.

Conclusion

This brings us to the end of the most basic configuration options in Ezycom's CONFIG utility. The next section will deal with the more complicated issues of setting up file and message areas. By now you should have a good understanding of the basic features of Ezycom and be feeling ready to launch into file and message areas. If you are still lacking confidence with some of the features discussed in this section, go back and read over them again now. Be sure to have a fiddle with them while doing so before moving on to the next chapter.

Chapter 3

File & Message Areas

Introduction

Probably the two main and most used services that a BBS offers are file transfer and electronic mail services. Ezycom provides a powerful implementation of both these service types. While it is relatively simple to set-up these services, the shear quantity of available options that Ezycom provides for you to control them is often overwhelming to the new sysop or even to converting sysop who is new to Ezycom.

This section of the documentation will attempt to de-mystify the many features they encompass. In order to simply this introductory look at message areas, you will note relatively no mention of network mail. This topic is covered at length in its own chapter later on. If you are a relatively experienced sysop, you may need to only briefly scan this section to get to main ideas and then move onto the electronic mail section.

File Areas With Ezycom

Ezycom provides you with one of the fastest and most flexible database file systems available in BBS packages today. The current version provides for up to 65535 distinct file areas and/or up to 65535 different paths on which the contents of these may reside. Ezycom is TOTALLY path independent so files in the same physical path can be very easily broken up into several logical file areas and yet still retain their link with their common path. This provides for some interesting possibilities, for example, files can exist in one path but be available from more than one area. The scope is enormous and it is hoped you will enjoy taking advantage of this.

Creating File Areas

The majority of Ezycom's file-base system is controlled from the File Areas menu in CONFIG. The file areas themselves are defined in the submenu also named File Areas. Upon selecting this option you will find yourself in a scrollable (by PgUp and PgDn) list of all the file areas. You may as always also use the Pick List (press 'P') to move between areas. The Home key will take you to the first option, End will take you to the last and pressing CTRL with the PgUp & PgDn keys will take you to the first and last areas respectively. Each file area has a number of options. The purpose of each of these will be explained now.

. File Area Name - This is simply a description for the file area that will show up in all file scans, area lists and so on. If you support multiple computer types on your system, it is wise to specify which computer these files are for as part of the description. Note also how the file area number is show in brackets before the area name.

. Area Path - This is the DEFAULT path for this area. Whenever files are PHYSICALLY moved to this area they will be placed in the path shown here. Paths are defined elsewhere in the configuration and will be explained in the next section. Notice this option also shows the file path number in front of the actual path. To modify the path being used, you may either type its number manually if you happen to know it or use the 'S' key to bring up a scrollable list of all paths and pick it from there visually.

. Upload File Area - Whenever a file is uploaded to this area, it will be placed into the area indicated by this option. This is useful because it allows you to place all files for say IBM area into an IBM Upload area rather than allowing files to be directly uploaded into individual areas (which can present problems). You may wish files to go to an hidden area for processing by you or possibly to a public area where suitable warnings about the files being unchecked are posted. The path the files will end up in is the default path for the upload area specified. Once again, you may either enter the number for the area required or use the 'S' key to visually search for the area.

. File Group - You may or may not wish to use this option. Ezycom allows files (and indeed message areas) to be grouped together in a manner to suit the sysop's needs. For example, if you have IBM files and Amiga files you may wish to group the IBM files with the letter 'I' and Amiga files with the letter 'A' and then use special menu options (explained later) to make it so only one group or the other containing those types of files, shows up at the user's request. It is probably best to leave this option till you gain an understanding of menu commands.

. Conversion - This allows you to ensure that all files in this area conform to a given archiving method. Use ENTER to toggle through the various available options. Ezycom uses the Checked flag along with its EZYFILE utility (see later) to determine whether a file should be converted. It is often best to only set this option for Upload areas and so set None for areas you do not wish to convert files in.

- Off-line Allowed - This option has 3 different settings available. Setting it to No means that if a file in the database is found not to be present in its path location, then it will be DELETED from the database during maintenance. Setting this to Yes means that the file will be simply marked as Offline and not be deleted. Setting this option to Yes & Keep Offline means that any files marked Offline will not be checked during the next run of EZYFILE for an online status again (ie. they will stay marked as offline regardless of whether that/those files now exist again). This option is useful if you have CD-ROM disks online that you rotate every day or two through a single drive (or multiple drives but have more disks than drives). Set Offline Allowed to Yes for this to work and be sure to run a filebase maintenance (see later) after changing disks.

- Sort by - This controls the sorting of the file list. There are once again three possible settings. None means no sorting of this area list will be done. Alpha means alphabetical A to Z sorting will be done. Date means a most recent to oldest file date sorting will be done on this area. The latter is useful for public upload area as the newest files will always appear at the top. Generally Alpha sort is the best one to use, it makes finding files a lot easier. Note however that sorting is not done on the fly. EZYFILE (see later) is required to be run to achieve the sorting.

- Use in Master List - This specifies whether or not this area should be included in any master lists generated. There are several options available. **Ezymast** means this area can be included in a list made by the Ezycom utility EZYMAST (see Chapter 5). **Online** means this area can be included in a master list generated online by the appropriate menu command (see Appendix A). Naturally **Online & Ezymast** means it can be in both and **No** means not at all.

- User Security - This specifies the security level required to access this file area. It will not show up in file lists etc unless the user has this security or higher. Note however that this has nothing to do with the ability to access files in this area. That is still controlled by the security on the relevant file path.

- User Flags - Like the above this controls which flags a user must have set to access this area.

- Sysop Security - This specifies the sysop security access for this area so that files with Security status set (for instance) will show up when viewing the area.

- Sysop Flags - Similarly this controls the flags required for sysop status in this area.

. Minimum Age - If you type a number here a user must be this age or older to have access to the FILE LIST for this area.

. Show in New Files - When this option is set to Yes, this area will be checked for new files when a user requests a New File Scan. Set this option to No for CD-ROM areas since these will not get new files added to them. This will save a lot of time during new file scans.

. No Descriptions - Set this to Yes if you do not wish Ezycom to request a description after a user uploads a file to this area. Setting this option to No means a user will always be asked to describe their upload(s) when uploading to this area.

Note: Alt-D can be used to completely delete the file area

currently being shown However, everything including the actual database files is deleted so be careful!

Setting Up File Area Paths

The next option down on the File Areas menu in CONFIG is the File Paths submenu. This is where all the paths where file areas are actually located, are defined. The ability to access these various file paths is controlled from here also. The options available are as follows. Use PgUp & PgDn to move between paths as well as 'P' to get a pick-list to visually select the path to examine. The Home & End keys take you to the first and last option respectively and pressing CTRL along with PgUp & PgDn takes you to the first and last path configurations respectively. Typing the number of the area you wish to go to will also take you to the required area quickly from a pick list.

. File Path - This is a fully qualified DOS path name and must be valid for this file path to actually work. It should include the drive name and all the sub-directories one must traverse to get to the actual directory. If you leave the trailing back-slash off, CONFIG will automatically add it for you.

. Files.BBS - This is the path to the file list for this area for the purpose of adopting files not already listed in it. The default is FILES.BBS in the path specified for this area.

. Dnld Security - This defines the minimum security a user must have in order to download files from this file path. Notice this is not file area, but file path. The path and file area have independent security controls. This also affects the ability to use the menu option to view archives in this path (see later).

. Dnld Flags - Like the above this controls what flags a user must posses to download files from this path.

. File Area - This defines the default file area for this path. Any stray files found in this path (but not listed) during an appropriate run of EZYFILE will be automatically added to this file area's list for you. Once again either a number of pressing 'S' will allow you to set this area easily.

. Password - If you enter a password here, any time a user wishes to download a file from this area, they will need to enter this password.

. Sec Action - This defines the type of response from Ezycom a user will get when they attempt to access a file in this path that they are not allowed to.

. CD Rom Path - Defines whether this path is on a CD-ROM or not. This is used for special handling in EZYFILE since it cannot write to such paths.

. CD Rom Stack - This option is used to enable and control Ezycom's internal support for CD-ROM juke boxes (such as the Pioneer DRM 6 Stack family). Each jukebox drive on your system should use a unique queue number. Multiple requests to disks in that drive will then be automatically queued by Ezycom so that your drive does not go wild trying to keep all your users happy. A setting of 0 means this area will not be queued in any way.

. Free Path - This specifies whether files downloaded from here count against a users daily kilobyte limit or not. They still however need to have enough time to download the files they select. Anything downloaded from a Free path does not get recorded against a user's download record (although it is logged naturally).

. Adopt Files - If you set this to Yes, then Ezycom will attempt to adopt files found in this path that are not already in the file database whenever EZYADOPT or EZYFILE is run.

. Min Age - Placing a number here (in years) will control the minimum age a user must be to able to access files in this path. This is normally used to prevent under age access to x-rated material and the like.

Note: Alt-D once again completely deletes the settings for the

currently displayed path.

Miscellaneous File Area Options

The next option on the File Areas menu is another submenu called Misc which contains many general options for file area control. Each will now be explained in turn.

. Usable File Areas - Setting this only to the required level will speed the filebase up dramatically. The absolute maximum is 65535 but in practice you are not likely to need anywhere near this many. You can always increase this value at a later date.

. Minimum Upload Space (k) - This specifies how much free space (in kilobytes) there must be on the destination path's drive for an upload to be allowed to take place. Any less than this value and the upload request will be refused by Ezycom. This prevents users from filling your hard disk completely.

. Show Colour in File Areas - Determines whether any colour codes that happen to be embedded in file descriptions will be processed. Yes means that coloured descriptions will be shown.

. EZYFILE Conversion Swap - This tells EZYFILE whether to Swap out Memory (leaving 4k resident) when processing DOCONV.BAT (archive conversion). You can select either EMS, XMS or DISK. Two other options, XMS/EMS and EMS/XMS, exist to allow EZYFILE to check for the existence/use of these memory management devices in the order shown.

. FEdit View Swap - Simular to EZYFILE conversion swap only this controls swapping when you choose to view a file/archive in FEDIT, the file area manager (see later).

. Swap Out on Upload Checks - This setting is only used if you use the UPCONV.BAT file that comes with Ezycom. After an upload, if UPCONV.BAT in present in the Ezycom directory, it will check the file(s) uploaded for integrity, scan for Viruses (if you have and use Scan by McAfee) and convert archive types if needed. So if you set this option to Yes it will give the running programs plenty of room to do its work.

. Minimum Ignore FPs Sec - This option sets the minimum security level that your users must have in order not to have to not worry about being caught by the filepoint ratios.

. FPs credited for Download (%) - This sets the percentage of a filepoint that should be given to the uploader of the file a user has downloaded. That is, the more downloads a file gets, the more filepoints the uploader will receive.

. Time of Upload FPs Given (%) - This sets the percentage of filepoints given, when the user UPLOADS a file to the system. You may wish to set this to NULL, so that the user ONLY receives filepoints for POPULAR files. That is, files that are downloaded.

. 1 File Point is worth (k) - This tells Ezycom how many kilobytes a file point is worth. Any amount you think fit could be used here anywhere from 1k to 255k. The higher the amount in k, the less accurate filepoints is. That is, if you set this to 30k, downloading a 10k file is free in terms of filepoints. Setting this option to 0k, DISABLES the filepoints system.

. Upload Time Credit Factor (%) - This is the percentage of time a user receives for uploading a file. Eg. 100% would mean that the user loses no time for uploading, whereas 200% would give the user double the time back that he/she spent uploading.

. Min Description Length - This is the minimum length of the description(s) you wish the user to give for file(s) he/she has just uploaded to your BBS.

. Max Description Length - This is similar to the above option only it sets the maximum length of a description that an uploader can give.

. Delete Incomplete Uploads - If this option is set to 'Yes', Ezycom will kill any incomplete uploads. But if you do set this, Zmodem or any other protocol that allows recovery of aborted uploads, will not function correctly.

. Move Local Uploads - When you (the sysop) locally upload files to the BBS, you can set this option to Yes so that the files will be deleted from their original location after being copied to BBS. For safety reasons but, you may want to set this to 'No' so a copy is made of the file(s) you upload and they are not deleted from their original location, handy should something go wrong during the uploading process.

. Copy files from CD before Dn - This option allows you to enable copying from CD-ROM disks before download. If a user has tagged files that are on a CD-ROM disk, they will be copied to a temporary directory immediately prior to the download beginning. This is very useful if you have slow CD-ROM drives or have a CD-ROM juke box where it is not practical for multiple users to be accessing different CD-ROM discs simultaneously.

. Maximum Ks for CD Download - Use this option in conjunction with the previous one to control how many kilobytes can be copied to the hard disk from a CD in any one run. If you have multiple lines then you may find it necessary to use this option else users could accidentally fill you hard disk if several users decided to download large quantities of files off of a CD-ROM disk at the same time. Be careful not to set this value too low else larger files will not be downloadable. Any files that exceed this limit will be kept in the batch so the user may download them after the first quantity has been sent. A setting of Zero disables this control.

. Local Up/Dnloads Only FD - With this option set to yes, uploads and downloads during a local login will only be allowed to/from floppy disk drives. This option is useful for controlling file transfers in a school environment (registered version only).

. Keep Batch History - If you set this option to yes, should a user lose carrier or logoff without downloading all files that they have tagged, these will be noted in a special data file. Then when the user next logs in, just before they get to the first menu., they will be asked if they wish to re-add the unsent files to their batch. The file(s) presence will be checked for directly so be aware if you rotate CD-ROM's that the file may no longer be present on the system when the user comes to reclaim it for their batch (registered version only).

Note: Be sure to use EZYUTIL (see Chapter 7) to keep the batch history data file in trim as on a heavily used system, it could get very large.

Controlling The Look & Feel Of File Lists

Ezycom allows complete control over the look and feel of the file lists it displays. This feature of Ezycom is configured from the File List submenu in CONFIG. Each option will be explained briefly now.

. User File Display - This option allows you total control over the way file lists will look to users when they are online. The following is a table of codes that are used to define the file list format.

Code	Data Displayed	Width (chars)
#f	Filename	12
#k	Filesize in kilobytes	4
#b	Filesize in bytes	7
#t	Time required to download	3
#a	Date that file arrived on system	8
#d	File date	8
#n	Indicates if the file is new (displays an asterisk)	1
#p	File points	user defined
#s	Displays an `S' if security status is set	1
#u	Displays the name of the user who uploaded the file	user defined
#c	Number of downloads for this file	user defined
#r	Take a new line	n/a
#l	Description	up to 80

The colour of options being displayed is also configurable using pipe `|' colour codes (see Appendix A - Menu Option 90).

Example:

```
|G#f |M#kk |B#d |W#n(#c) |YUploaded By: #u#r|W     #l#r
```

Note how you can insert constant text such as the `k' after the kilobyte file size and how you can use spaces to manipulate the positioning on the screen, particularly leading spaces on the description which cause the whole description to by tabbed inward. Codes may be used in any order or arrangement you wish and colour codes may be inserted where-ever they are needed.

. Sysop File Display - This is like the previous option except that it configures how the sysop's file list display will look. Information that you may wish to see that you do not want users to see, can be shown this way. If you want the same list, make this option identical to the previous one.

. Chars in File Points - This defines the number of characters that the file points display will use. The default is 4.
. Chars in Uploader - This defines the number of characters that the uploader's name will use in the file list display. The default is 20 and 35 is the maximum since this is the maximum length a user name can be.

. Chars in Dn Count - This defines the number of characters to use in the download counter display.

As you can probably well see, there is plenty of scope for creativity in the look and feel of your file lists allowing you to set your system apart from others around you.

Securing Specific Files

In the File Sec submenu of the File Areas menu, you can configure Ezycom to have special settings on specific files in the filebase. You can use these settings to put a password on a specific file or group of files and or you can make such files free. Press INS to create a new entry, DEL to delete the currently displayed entry or ENTER to edit that entry. Like most other options, 'P' gives a pick list view of defined entries, PgUp and PgDn move up and down between entries. The Home and End keys move to the first and last fields of the current entry and CTRL when combined with PgUp and PgDn will move to the first and last entry respectively.

. Filename - This is the file that the listed options will apply to. This can contain wildcards such as '*.GIF'. Note that Ezycom will 'translate' wildcards for performance reasons into something like '????????.GIF'.

. Security - This is the minimum security level needed to download/view the file(s) listed.

. Flags - Like the previous option, these are the required security access flags for the file specification on this entry.

. Password - If a password is placed here, then the user will have to supply the correct password to download/view the file.

. Sec Action - This works the same as the option for download paths in the earlier part of CONFIG. This will control what sort of reason a user will be given if they are unable to tag/view the file(s) specified in this entry.

. Free File - A free file does not count against a users daily download total. Setting this to Yes enables this effect. You may find this useful for say your master file list or your membership application form.

. Age Check - If this is set to yes then Ezycom will check the user's age against the age set elsewhere in CONFIG. If the user is younger than the test age, then they will not be allowed access to the specified file(s).

Time Saving Global Functions

The File Areas menu also contains a powerful submenu called Global. Here there are many useful options for making widespread changes to your file area configurations. They will save you time if used correctly. However used incorrectly and the results can be disastrous. Be careful with these options. Each is now explained in some detail.

Set Default Security

Selecting this option will enable a pop-up window that shows a number of options that deal with security on all aspects of the file base.

- (U)ser File Area Security - If you use this option you will be setting the user security for ALL of your file areas. This maybe the best option to use if you have many file areas that all your users have access to and you only have a few areas that normal users don't have access to. Then you just have to go to each special area and change them individually.

- (S)ysop File Area Security - As with the previous option this sets all the file area sysop securities. If you have different sysops for different file areas you would/should have different security levels for each sysop. If they are the same, all of them would be sysops of each other's areas. The other way to make them different is to use the flags (see next sub-section)

- (P)rotocol Security - This will set the security level needed for any user to gain access to the file transfer protocols. If set too high, none of your users will be able to upload or download files from your system.

- (F)ile Path Security - This will set the level of security needed to gain access to all of the file paths in use on the system.

- (I)ndividual File Sec - If you have files that you want protected by a separate security level you can set them all to the same security level with this option.

- (Q)uit - This naturally quits this option and returns you to the Global menu.

Set Default Flags

Like the previous option, this option also displays another pop-up window.

```
(U)ser File Flags,       (S)ysop File Flags,
(P)rotocol Flags,             (F)ile Path Flags,
(I)ndividual File Flags or    (Q)uit :
```

Each option in the list is the virtually the same as the previous sub-menu and affects the flags in the same way. The only difference is that a flag window pops up upon selecting the type of action to take. If you set an 'X' on one of the flags, then all of the records will have that flag set On. If you set an 'O' on one the of the flags, then all of the records will have that flag set off. Leaving flags as '-' will cause Ezycom not to touch that flag.

Set File Area Conversion

This displays a smaller pop-up window which allows you to change the conversion type globally. It will look something like:

```
SPACE=Change, ENTER=Accept and ESC=Quit : None
```

By toggling the displayed option with the space bar you can set the default conversion type to None, ZIP, LZH, ARJ etc. Then if you hit the ENTER key, Ezycom will set all areas to that type of conversion. Hit ESC to exit with NO change.

Set File Area Sort

This option works simular to the previous one only it applies to the type of file list sorting you wish to use globally. Again by hitting the space bar you are able to toggle between the options, which are None, Date or Alpha. The ENTER and ESC keys behave the same as with the previous option.

Set File Area Offline

Once again a simular selection box will pop-up for this option. This time the options are No, Yes or Yes & Keep Off. These globally set the Offline status allowed for file areas as previously explained earlier in this chapter.

Miscellaneous Global Options

The rest of the Global menu contains five other much simpler options:

. Set Master File List - You only have two options in this pop-up window Yes or No. Again the space bar will toggle this, ENTER will process the request and ESC will exit. This will of course globally set whether areas should or should not be included in a master file list made by EZYMAST. It does NOT affect online master lists.

. Set CD Rom Drive - This is to set the drive letters of CD-ROM drives if you have them. The options are C to Z for the drive letters. This option basically sets the CD Rom Flag to Yes for ALL paths that are on the specified drive.

. Set Security/Not Found - With this option you can set Files or Paths to respond with 'Not Found' or 'Not Enough Security' as you require when a user cannot access a file.

. Centre File Area Names - As the name implies, this option will Centre all your file area names so when you display them to your users in an ANSI, ASCII or AVATAR you can be sure they will all be Centred. Ezycom will left and right pad area names with spaces.

. UnCentre File Area Names - This is exactly the same as the previous option, except that it does the reverse ie. it removes all leading and trailing spaces from all the file area names.

File Transfer Protocols

Ezycom comes with its own external protocol engine called EZYPROT. It is a fully FOSSIL and multi-tasker aware engine and so is made to work regardless of whether you have locked com ports or not. Its is a very nice clean looking engine featuring status graphs and many other pieces of useful information that is updated throughout the transfer. The protocol engine comes with XModem, XModem CRC, XModem-1K, XModem-1KG, YModem, YModem-G and ZModem. These protocols automatically dupe check on the fly. In other words, when a new file is sent, it checks to see if its already on the BBS and if so, stops that file from being sent. If the user is using ZModem, then the file is simply skipped. But if YModem is being used, then the whole transfer is aborted unfortunately. Single file transfers are different since Ezycom stops the user from uploading the duplicate file before it passes to EZYPROT.

Ezycom also comes with sample set-ups for Moby Turbo (in registered versions of DSZ), Lynx, Puma and HSLink. They have been disabled in case you do not have these protocols set-up. If these protocols are installed, then the DSZLOG environment variable MUST be set for these to work. Normally this would look like:

```
SET DSZLOG=C:\EZY\DSZ.1  for node 1
SET DSZLOG=C:\EZY\DSZ.2  for node 2 (and so on)
```

Setting Up A Protocol

Ezycom allows for virtually any protocol to be installed for use by users of your BBS system. Installing new protocols is something that requires quite a good deal of fiddling however and it is not recommended for the beginner to try this just yet. You will need to do some reading into the documentation that comes with the protocol as well as this documentation in order to get it working correctly.

We recommend you come back to this section at a later date unless you specifically wish to set-up a protocol now. You may however wish to quickly glance through this section to get a general idea of the options available and what they do.
You may define up to 60 different protocols for Ezycom. There are many options you can set for each defined protocol. These are as follows:

. Name - This is the name of the protocol whose set-up is defined by this record. Eg. Zmodem, Puma etc. Ezycom will use this to display the name to the user online.

. Key - This is a ONE character key that the user will hit to gain access to this protocol. This should be a unique key ie. not used by another protocol.

. Status - The status tells Ezycom what the protocol will be able to do. This option can be toggled to either Upload, Download, Both or to Disabled. Use the ENTER key to toggle the status of this option. If the protocol is disabled it will NOT be shown to users.

. Batch - This option tells Ezycom if the protocol is able to handle batch uploads or downloads (more than one file in a single run, one after the other).

. BiDir - This is for the new bi-directional protocols. If you wish Ezycom to be able to detect files that may have been uploaded during a download for instance, then you should enable this. One such bi-directional protocol is HSLink.

. Log Name - This is the name of the log file used. The most common one will be C:\EZY\PROT1\DSZ.*N. The *N will translate to the node being used in a multi-line environment.

. Ctrl Name - If the protocol is capable of a batch transfer it will most likely need a control file to tell it what files to download. Thus you would set this to something like C:\EZY\PROT1\FILES.*N. As in the previous section the *N will translate to the node being used at the time of calling the protocol.

. Minimum Security - This is the minimum security the user must have to gain access to this protocol.

. Flags - This will display a standard pop-up window for flag editing. Users will have to have the flags specified in order to use this protocol.

. Download Command - This is the actual command line that will be sent to the protocol itself to get the protocol begin a transfer. Make sure that you read the documentation on the protocol to get it right. All the usual Type 7 menu option control codes (see later chapter) can be placed in the command line to pass information such as port and baud rate. One SPECIAL translation character exists exclusively in a transfer protocol exit though. The hash '#' character translates to the filename of the list of ALL the files that will be sent in this session. Using this is important because if you are using a BATCH protocol, the number of files in the batch could exceed the maximum command line length allowed by DOS for parameters (128 characters) so only a few files would be sent. '#' is nearly ALWAYS used on batch protocols.

. Download Ctrl - Use this to define the control character(s) used by a protocol with batch capability. Once again, a special character exists here that will be translated. The at symbol '@' will translate into the full path and filename of a file to be downloaded. If multiple files are being sent, then each line will contain a path and filename. Text can also be placed in here. For example if you put 'Send @' in this field, then this will translate into 'Send C:\FRED1.ZIP' on the first line of the control file and "Send C:\FRED2.ZIP" on line 2 and so on.

. Download Log Key - This is the key used by the protocol to log the download in the log file.

. Download Err Key - This is the error key used by the protocol if there is an error that aborts the sending of the file. As it is possible otherwise for users to receive "FREE" downloads by aborting downloads near the end, it is in your best interests to have aborted downloads LOGGED.

. Dnload Err2 Key - This is the second error key if the protocol has one.

. Upload Command - Like the download command this is the actual command line required by the protocol to upload a file to your BBS. Two SPECIAL characters exist for translation before the protocol is executed. The '#' is again used but this time it indicates the upload directory WITH a trailing backslash. If you do NOT want a trailing backslash, simply add a full stop '.' after the hash symbol. Also a '$' symbol can be used to indicate the filename of the file to be uploaded. This is only for use with NON-BATCH protocols as they generally require the filename of the file to be uploaded (eg Xmodem).

. Upload Log Key - This is the key character used by the protocol in the log file it uses.

. Upload Err Key - This is the error character that is used by Ezycom to determine files that were aborted during the upload process. Primarily this is used to delete aborted uploads, provided the sysop has configured Ezycom to do it.

. Upload Err2 Key - This is the second error key if the protocol supports one.

. Efficiency (%) - This is how efficient (percentage wise) the protocol is under normal circumstances. Ezycom uses this to work out how long the download will take.

. Log : FileName - This is the position of the filename in words in the log file. In a DSZ Log format, the position is 11.

. Log : CPS - This is the position of the CPS rate in words in the log file that the protocol generates. In a DSZ Log format, the position is 5.

As always, you can get a pick-list of protocols using 'P', move between protocols with PgUp & PgDn, move to the first and last fields using Home & End and CTRL combined with PgUp and PgDn will move to the first and last protocols respectively.

DSZ Style Logs

Below is a brief layout description for a standard DSZ style log. This may help you set-up some protocols which can use this style.

```
                CPS Rate
                  v
Z 10007 2400 bps 240 cps  0 errors   0  512 C:\CONFIG.SYS
^                                                  ^^^^^
Upload Log Keyword                                 Filename
```

Message Areas

Some of Ezycom's most useful functions stem from its powerful electronic messaging features. Ezycom features one of the world's fastest message database formats and support for this format is growing daily. Other major shareware packages such as Odin Sorenson's very popular mail reader known as GoldEd Version 2.41 (and later) allows the sysop to use a powerful message utility directly compatible with this format. A vast majority of the settings in CONFIG related to message areas are for the configuration of networking mailing. These settings will not be discussed in this section and can be found in a later chapter in the Advanced Features section of this manual. So any options skipped here you can safely assume you do not need to know about for the time being. Only options necessary to get simple local electronic mail functioning will be mentioned here.

Defining Message Areas

In CONFIG you will find a menu entitled Message Areas. On this menu you will find another menu option of the same name. Selecting this option brings up a large window that will allow you to configure each of the individual settings a defined message area can have. The relevant settings for now are discussed below.

. Msg Area Name - Place a unique title for the message area here to identify it from all others. Try to make the name of the area reflect the contents of the messages that the area will contain. The message area name can be up to 30 characters long. To effectively disable an area, just remove the area name (press CTRL-Y to delete the field when in edit mode on it).

. QWK Name - If you want users to be able to download this area as part of a QWK offline mail packet (see later) then you MUST define a unique name here (up to 12 characters long) that offline mail readers can use to identify the area with.

. Alias - Use this option to control the use of real names or aliases in this message area. There are 4 possible settings :

  USE ALIAS - Only the user's alias can be used in this message area.

  USE ALIAS, ASK FOR ALIAS - This enables the user to be prompted to use different alias to their default, as long as it is not already used by another user on the BBS.

REAL NAMES ONLY - Only real names can be used in this area. This is particularly used for Fidonet echomail conferences.

ASK FOR ALIAS - This gives the user the option to write a message in the area using an alias. The alias selected however can not be used if it already exists on the BBS.

. Message Type - This option tells Ezycom what type of messages this area will contain. There are currently six different types of message areas you can configure in Ezycom and the ENTER key will toggle through them. All except two of these (Local and Allmail) are used for network mailing and need not concern you for now although a brief description is given of each following:

Local - Allows for the exchange of messages only between users of the BBS. Names will be checked upon posting.

Netmail - Allows you the sending and receiving of private messages to any user on another BBS that is also part of the same mail network that this area is connected to.

EchoMail - Allows the exchange of messages between users on BBS's that are linked to the same network and the same echomail conference that this message area is set-up for. Usually these messages are public and deal with a specific topic.

PassThru - This option if enabled, tells EZYMAIL that the conference is for forwarding only ie. no mail for this area will be unpacked into your message base but any inbound mail will be forwarded to those in your export list.

WaitThru - This option is mainly used by Hubs and Hosts of networks. If a conference is in WaitThru mode, it is not active. It does however allow a node to turn a conference on at his Hub site by making his Hub request the conference from his Host.

AllMail — Messages posted to 'All' in this type of area will be shown to All users who have not read them yet on a New Mail Scan. Use this for public announcements that you want all users to see.

. Message Kind - Here you can control the status of messages posted into this area from your BBS. They may be one of three different types. Use ENTER to toggle through these options:

Public Only — These are message areas that contain messages that any user can read on the BBS, given that they have read security for that area.

Public/Private — This allows for posting of both public and private messages in this area. When leaving a message in one of these areas, the user will be prompted to select if they would like it marked private or not.

Private Only — Messages posted in this area will be marked private. Private messages are distinct from public messages in that only the user who the message is addressed to or the user who wrote it, can actually read it (the sysop aside naturally).

. Message Group - This option allows you to group message areas together. Using this in conjunction with menu options (see later) you can for instance break your message areas up into groups such as IBM & Amiga related message areas. You may then set-up a menu option that allows accessing of only that type of message area. This works the same way as file area groups (see previous section).

. Kill Old Msgs - This setting is used by Ezycom's MSGCOMP utility (see the chapter on maintenance) to determine how long a message can reside in a message area before being deleted. If you set this field to 7 for example, then all mail older than 7 days will be removed. If set to ZERO then the age of messages in this area will be ignored.

. Kill Recv Messages - This works the same as Kill Old Msgs except that MSGCOMP will not delete a message until the specified number of days after the message has been read (received). If this field is set to ZERO then this option is ignored.

. Kill Max Msgs - This is the maximum number of messages that can remain in this area after MSGCOMP has been run. For example, if you set Kill Max Msgs to 100, then MSGCOMP will not start deleting messages till 100 messages have been reached and then will maintain the area at 100 (failing any other settings causing message to be deleted). When the number of messages exceeds the limit you define here and you invoke MSGCOMP, old messages get removed till the number of messages is equal to the maximum number you have specified.

. Kill Max Kilobytes - This is the simular to Kill Max Msgs except instead of controlling how many individual messages an area can hold, it is controls how big the message area can be in kilobytes. This is especially useful for those sysops who have limited disk space.

. Read Security - This is the minimum security level required by the user to read mail in this area. Security levels can be set from 0-64000. If for example the read security is set to 100, then only users with security 100 and above can read the messages in this area. If however you wish all users to have read access to the area then set Read Security to 0.

. Write Security - This is the minimum security level required by the user to write messages in the area. This option works the same way as Read Security except that it applies to writing messages in this area.

. Sysop Security - This is the security level required to carry out sysop functions on the message area. This enables the sysop to read all messages in the area even if they are private, delete messages, edit users, forward messages, export messages to disk or to the printer and also edit the message header.

. Read Flags - These are the flags required to read mail in the area. There are 32 flags available from A1 to D8. These flags work in conjunction with the Read Security level. Use ENTER to bring up the pop-up flag box.

. Write Flags - These flags work the same as the Read Flags except they work in conjunction with the Write Security.

. Sysop Flags - These flags work the same as the Write Flags except they work in conjunction with the Sysop Security.

. Combined - This option determines whether the user is allowed to have combined access to this Message Area. Combined access is where a user can do a Mail Check and/or Globally Read New messages for any number of conferences without having to change into specific areas to do so. Normally this would be set to Yes, but under some circumstances a No might be required. The user also has the ability to turn combined areas Off. But if this option is set Off they can NEVER turn this area on. Use Int Combined (see below) if you want them to have it Off to start with but be able to turn it On at a later date. This setting also controls the ability for a user to access this area in a QWK packet download (see later).

. Age Check - Typing a number in this option (in years) will make Ezycom test the users age before allowing them to access this message area. It stops them Reading and Writing to this area if they are too young.

. Int Combined - This controls whether new users automatically initially get combined access to this area by default.

. Use Template - This controls whether this area should appear in the list of available areas when the user selects the change message area menu option (see later). Thus if this is set to Off, then the only way they can get to this area is if you specifically have a menu option that reads/writes to this area explicitly.

. Local Attaches - Use this setting to control whether this area (if a local type) will accept file attaches to messages posted to it. (registered version only)

. Force Mail - This option forces this area to be scanned during a mail check. In normal practice you would have this option set to Yes else users could miss mail addressed to them in this area unless they go and physically look for it. This would be due to them not having this area set on in the combined area configuration.

Notes: By pressing PgUp and PgDn you can scroll through each

message area in numerical order. By pressing 'P' a pick list window will be displayed allowing a visual selection of the required message area. Use the Up and Down arrow keys to move about the options within each area as well as Home and End to move to the first and last options. CTRL pressed along with PgUp and PgDn will take you to the first and last areas respectively. You may also type the number of the area you wish to go to. Alt-D will completely delete a message area although the actual messages themselves (if present) will not be deleted till the next time MSGCOMP is run with the -CLEANUP parameter. Pressing ENTER on any option either toggles it or selects it for modification by either direct entry or through a pop-up list of available choices.

Moving Message Areas About

Using ALT-M you can quickly and easily move or re-arrange messages areas. Go to the area you wish to move, then press ALT-M. You will then be given a pick list of available areas including empty ones. Choose where you wish to move the message area to (using the Up/Down and PgUp/PgDn keys) and all messages in that area will be moved, along with the configuration for it once you press ENTER on the desired new location in your message base. All user last read pointers are also updated automatically and other references to the original area number in CONFIG such as the watchdog board number (should you move this area for instance) are updated. The ESC key will abort the move function. Notice you can also move one area on top of another. Be careful as you may do this by accident and there is no way to reverse the process once done. Be aware, menus are not checked for references to specific message areas so you should take care to make sure you don't have menu options pointing to a non-existent or the wrong area as the result of using this feature.

Special Message Related Security Settings

The Message Areas menu contains a submenu entitled Security. A few of the settings in this menu are relevant at this stage and will now be explained.

. Local File Attach Security - This is the minimum secuirty level a user must have to be allowed to upload and attach a file to a message in a local area. Local file attaches allow users to send private files to each other via the BBS (registered version only).

. Security to Update Users - This is the minimum security level to allow (usually the sysop) to upgrade users from the message reader by pressing 'U' or from the user listing by selecting 'Edit'. In either case you can edit the user's security level and flags.

. Request Receipt Security - This sets the minimum security level needed to ask for a receipt on a message being posted. If you the user has this security level or higher, they will be asked if they require a receipt. If they ask for one, Ezycom will send a message back to that user when the recipient has received that message. You MUST have a file called RETRECPT.ASL in your text file path for this feature to work. A sample of RETRECPT.ASL in the SETUP.DAT file that comes with Ezycom. This file handles all the smart text codes except the change current colour ones (see later).

. Upload Message Security - When writing a message, this is the minimum security a user must have to be asked whether they want to upload a pre-prepared message (in ASCII format). This text file must NOT contain any high-ASCII or control codes (including a CTRL-Z terminator) else it will be rejected by the system for security reasons. If a user is having trouble uploading a message, this is probably why they cannot.

Miscellaneous Message Feature Settings

The Misc option on the Message Areas menu controls a number of the more general features of Ezycom's message facilities. They are now explained.

. Usable Msg Areas - This setting defines the maximum number of message areas that will be used. Although the maximum is 1536 areas (65535 in the future), if you are only using 200 areas for example, the system will perform much quicker if you make this setting 200 instead. This setting works in multiples of 16 so any number that is does not have 16 as a factor will be rounded up to the nearest such number. The minimum setting is 32. Last read pointers are rebuilt upon exiting CONFIG when this setting is changed so DO NOT change this setting with any Ezycom nodes active.

. Quote String - This is the quote string used in the message editor. By default this option is '@>' which means the original message writer's initials (ie the one whom you are replying to) followed by a '>' will be placed in the message text. So if you replied to a message from Peter Davies, it would place a 'PD>' in front of any quoted text.

. External Editor - This is the DOS command line that will be used to call up a full screen external message editor such as EzyEdit or Gedit. All control codes used in a type 7 menu command are supported. For example *P for comm port, *B for baud rate and *T for time remaining.

. Old Style MSGTMP - This option allows the System Operator to configure which style of External Full Screen Editor drop format Ezycom should support. Currently, two formats exist, the MSGTMP format, and the MSGTMP.<node> format. The MSGTMP format is the most common, and this is used by QuickED and TopEd full screen editors, whereas the other format is only used by programs such as EzyEdit and Gedit which directly support Ezycom. The first two editors place a very big restriction on Ezycom, in that for every node used, there must be a separate directory for each node. EzyEdit and Gedit interface better with Ezycom allowing all nodes to run in the one directory if so desired. See the section on multi-node operation for more information.

. Show Full Messages - After a message has been replied to, use this option to control whether the whole original message should be redisplayed or not. Setting this to No means only the header and options bar will be redisplayed after you have replied to a message. This feature is most comforting to those at slow baud rates.

. Write messages to Self - Some users may find it helpful to be able to write messages to themselves so that next time they login they will be reminded of something. Setting this option to Yes will enable this feature.

Global Message Area Functions

In a simular manner to file areas, the Global submenu of Message Areas allows you global and very powerful control over most settings on message areas. They have the advantage of saving time by allowing you to set values for all message areas at once, instead of editing each individual area. You will probably not need these options at this stage, but you may find it helpful to understand how to use them so that you can make use of them later after you have established a few message areas in your message base.

. Set Default Security - If you select this option (by pressing RETURN) you will be presented with another small pop-up window

```
(R)ead Security     (W)rite Security
(S)ysop Security    (Q)uit
```

  By selecting the appropriate option will be able to set that type of security on EVERY message area to that level in one hit. This is useful if you have mostly the same access on all your areas with only a few exceptions. It is quicker to change a couple of areas back than to set hundreds of areas individually. The 'Q' option naturally quits from this menu.

. Set Default Flags - This works in exactly the same manner as Set Default Security but changes the Read, Write or Sysop flags for all message areas to the given flag settings. Flags not specified to be On or Off will not be touched however thus this option works identically to the global file area flag change options.

. Set Maximum Kilobytes - This option causes another window to open where you just type the value you wish to set all the Maximum Kilobytes fields to. Once ENTER is pressed, this field in all message areas will then be set to this value.

- Set Maximum Messages - Select this option and type the value you wish to set Kill Max Msgs field to in each area and then press ENTER. All message areas will then be set to this value.

- Kill Messages After XX Days Old - Give this option the value you wish to set Kill Old Msgs field to in each area and then press ENTER. All message areas will then be set to this value.

- Kill Recv Messages After XX Days - Enter the a value for the Kill Recv Messages field and press ENTER. All message areas will then be set to this value.

- Centre Message Area Names - This centres the Message Area names on all defined message areas. To carry out this operation just press ENTER on this option and all message area names will be centred (by padding left and right with spaces). You might find this option useful for neat, centred message area name displays in your menus.

- UnCentre Message Area Names - This reverses the above process. You may not want to have you message area names centred any longer so use this to left justify them again (remove all padding).

Conclusion

This now draws us to the end of this two chapter section on the basic configuration of Ezycom's primary features. By now you should be quite familiar with Ezycom's most used features and have a pretty much functional BBS system ready with exception to your very own menu structure. The next chapter will thus attempt to de-mystify Ezycom's menu flexible system.

Chapter 4

Working With Menus

Introduction

Ezycom allows you as sysop complete freedom over the layout and style of your menu system. You can make the menus appear exactly as YOU want as apposed to some other packages where you are very much held to whatever the BBS software author thought looked great. The availability of this feature introduces a certain degree of complexity into the Ezycom BBS package because you have to understand the menu system in order for you to build the system that you want. Included with Ezycom is a sample set-up. This allows you to have a look at a full blown and ready to go menu system and will help to give you ideas for your own system as well as introduce you to menu structural concepts.

Types of Menu Structure

First of all you must make a decision on the style of the menu structure. A structure appears much like a tree. A 'function' oriented structure would look like:

Here we have begun with a TOP menu. This is the name given to the first menu that is loaded when you run Ezycom. You can configure the name of this menu in CONFIG if you so wish but it defaults to TOP. In this example, the TOP menu then allows various ranges of options which includes allowing movement to/from other menus such as FILES, UTILITIES, MESSAGES and GAMES.

Allowing Movement Between Menus

When defining the previously described menu structure, you can use the GOTO or GOSUB commands to allow movement between these menus. From these menus you would most likely want to be able to move back to the TOP menu. This can be done in three different ways. First of all you could use the GOTO command. This would move you to whichever menu you place in the optional data field of the menu entry. You could also use RETURN FROM GOSUB. This would return you to the menu which previously called the current one using GOSUB. This becomes important when you consider that if for example you had the MESSAGES menu coming off the TOP menu and also off the FILES menu, you could never be sure when at the MESSAGES exactly which menu actually called it, should you wish to return to it. Using a GOSUB and then a RETURN FROM GOSUB, the system would automatically return you to the menu that called it. The other option is GOTO MENU AND CLEAR GOSUB STACK. This is similar to the GOTO menu type, except that it also CLEARS any previous information about the menu stack (GOSUBs make a menu stack which is simply a list of menus previously called with GOSUB)

EZYMENU - Ezycom's Menu Editor

EZYMENU is a utility used to build/modify your menu system for Ezycom. Upon first loading, you are greeted by a Menu called NONAME.MNU. You can either load another menu by pressing F3, or you can create a new menu using F6. If we were making the previously drawn menu structure, you would press F6. Then type in the name TOP. This would create the menu TOP and give it the same information as the current menu (NONAME). To load a different menu on start-up with EZYMENU use the command line parameter '-L<filename>'.

For Example:

To load SYSOP.MNU on start-up type

EZYMENU -LSYSOP

Creating & Defining The Function Of a Menu Entry

You may now set about defining the ways in which you will move to the other menus such as FILES & MESSAGES. Press ENTER to edit the current menu line. You will now be editing the first menu line of the menu called TOP. In this mode you actually define the capabilities of this entry and for the purposes of this example you will setting up the options necessary to allow users to move to the menu called FILES. The many menu control fields will now be explained using the example structure to illustrate.

. **Display** - This is the information that will be displayed to the user for this Menu option. This could be something like "[F] File Area". Although there are 90 characters available for use in the Display information you should note that even when using special control characters (explained later), that the displayed line length should never exceed 79 characters on the screen, or else weird visual side effects will occur.

. **Data** - This is where specific information for the menu command you are about to use should go (referred to as Optional Data). Since we will be using the GOTO command, we need to place the name of the menu we intend to call in this field. We are calling FILES so FILES will be placed in the Data option.

. **Menu Type** - This is a number that represents a code which tells Ezycom the type of menu option we are using in this entry. For GOTO the Menu type is 1, so a **1** will be placed in the Menu Type field. Optionally, you could press F1 to scan through a list of all the menu types if you can not remember the code number for the one you are wishing to use.

  Note : Once you have defined the menu type, any

  optional/compulsory data for this menu type will be shown down the bottom of the screen in the Data information field. You should use this as a reference for options to place in the Data field explained above. Consult the appendix for a full explanation of all available menu options.

    For example - For a type 1 command, the data options are:

    <Menu filename> ie. the menu filename MUST be given (shown by < >)
    [password] ie. a password is optional (shown by [ ])

. **Hotkey** - The hot key is the key you wish to use to activate the menu command. In our example, an **F** would be placed in this field. Hot simply refers to the fact that it can be pressed at any time even if this menu is still being drawn on the user's screen.

. **Automatic** - This should be left as **No** for our current example. This will be explained at length later in this section.

. **Security** - This option has two components. The first part defines the way in which the security level test will be applied to this menu option. The default is **Greater than/equal to**. This means that a user must have a security level greater than or equal to the one specified in the 2nd part of this option in order for them to be able to select this option. Use the Space bar to toggle between the different options.

The options available are:

Greater than/equal to
Greater than
Less than/equal to
Less than
Equal to
Not Equal to

Consequently it is possible to have very complex controls over access to menu options in Ezycom. In our example, as you would probably want all users to have access to this menu, the test would be Greater than/equal to and the security level would be 0.

. **Flags** - These are the Flags which the user MUST have to allow them to use the menu option. Pressing **X** on a flag while editing the flags fields tells Ezycom that the USER must have that flag ON to use this option. Leaving an entry as is or pressing a **-** on it means that you do not care whether the user has the FLAG or not. You can also place an **O** on a flag to specify the user must have this flag OFF in order to use this menu option.

. **Foreground** - Using Space you can toggle this field to change the foreground (written text) colour to be used when displaying the **Display** field for this menu option.

. **Background** - This is simular to the foreground colour only this option controls the background colour when displaying the **Display** field of this menu option.

. **Time Online** - This is the amount of time the user must have been online (for the current call) before they can access this menu option. Setting the value to 0 means users will always have access to this menu option. However if you set the **Menu Time** flag in EZYED (see next chapter) for a user, this field will not affect that user.

- **Start Time/End Time** - These two options control the start and end times (if any) during which this menu option can be selected by a user. The time is entered in 24 Hour format ie. 13:00 is 1:00pm. Setting both times to **00:00** will make the menu option function ANY TIME of day. However setting them to say **00:01** and **00:01** would make the menu option only function at 1 minute past midnight. In our example, you would leave these as the default ie. all the time.

- **Node** - This tells Ezycom which node (line) number can access this menu option. In multiline environments, it might be desirable to have different menu options for different nodes. Setting this to **0** allows all nodes to activate the menu option. Setting this option to **1** for example, would only allow a user logged into node 1 to activate it.

- **Baud** - This is the minimum baud rate that a user must be connected at for this menu option to be available. Setting this to **0** allows all baud rates to access it.

- **File Points** - Use this option to set the minimum number of file points that a user must have left in order to select this option. If you are using file points on your system, you could for instance use this on the Download key so that they cannot even begin to attempt a download until they earn more file points by uploading.

- **Age Test** - This is a flag that allows you to restrict access to this menu option depending on the users age compared to the minimum age defined in CONFIG (usually 18 years of age). If this flag is set to **Yes**, then no one with an age less than 18 can use this menu option.

- **Test Post/Call** - If a user's post call ratio is not in balance, then setting this option to **Yes** will prevent them from using this menu option. You might use this to stop file area access to the user until he/she writes more messages for instance. Use the **Ignore Message Ratio** flag in EZYED (see next chapter) to exclude specific users from this test when enabled.

- **Test Kilobytes** - To stop a user from selecting this menu option when their kilobyte file ratio is out of balance, toggle this setting to **Yes**. The **Ignore Ratios** option in EZYED (see next chapter) can be used to allow individual users to override this setting eg. you for example.

- **Test Files** - This is the same as **Test Kilobytes** only it is controlled by the ratio on the number of files. It is also overridden by the same option in EZYED.

. **Local Only** - Sometimes you may want a menu option that can only be selected from the local console (ie. by you). Setting this to option to **Yes** means users cannot press this option but you can press it from the local keyboard. They will see the result as if they pressed it.

Useful Options Available While Editing Menus

You will notice several function keys and other keys listed down the bottom of the screen while editing a menu option. A brief description of each follows:

F1	This brings up a pick list of available menu options in case you forget the number. Note however that this works any time in option edit mode and so you do not have to be on the menu type field to press it.
F2	This will immediately write all changes to the menu file.
F5	This allows you 'preview' what the menu will look like, complete with colours and all. If you are using an Auto ANSI/Hotkey Display Type 40 command (see later) then this will also come up. Note however that ALL control codes (see later) will be IGNORED.
CTRL A	Use this key to scrap/abort any changes you have made to this option and return to the options pick-list.
ESC	Same effect as F2 only this returns you to the menu load option pick-list where as F2 does not.

Back to our example menu structure.....

Press ESC to save the current menu option. You should notice that the pick list now shows that menu option at the top. You can now complete the other menu options for getting to the UTILITIES, MESSAGES & GAMES menus in the same way.

To make a new entry before a current one, move that entry and then press the INS key. To add a blank entry to the end of the current ones press the + (plus) key.

After you have finished you should save the menu using the F2 key. The TOP menu has now been completed. It will allow users that logon to your system to go to all the menus laid out in your menu structure.

Now you can make the Second-Level menus. To begin with, just make the menu options to allow users to return to the main menus. As stated before, you can use the GOTO command to accomplish this. If you use GOSUB commands from the TOP menu to the others instead, you may then use a RETURN FROM GOSUB command to get back to the TOP menu. The choice is yours.

After defining the basic menu structure, all the options must be placed in each menu. It is entirely up to you to work out which options will be in each menu. A complete list and description of all the menu options available in Ezycom can be found in the reference section of this document. Be sure to have a good look through these now, in order to become familiar with the hundreds of possible functions available to your BBS system. You might for example wish to place options such as File List, Download, Upload and other file related options in your FILES menu for instance. You can create as simple or as complex a menu structure as you like using the above process. Have a fiddle with some menus of your own. Remember however that you will need to login to Ezycom locally to try them out.

Menu Templates

Ezycom has a special menu templating system which allows user defined menu systems to be less maintenance orientated. Instead of creating a File Menu for EACH file area, it is possible to (and it is recommended) that you define one File Menu for all/some areas. This can be accomplished by placing **/F** in the Data field in certain file area commands. This will tell Ezycom to use the current file area template number for use in this command. As an example, when doing a file list, instead of placing the file area number in the Data field, you could place a **/F** there instead. This tells Ezycom to do a file list of the current file area template number.

The problem now arises of how to tell Ezycom, which file area template to use. There are a number of ways in which this can be done and the most used method is the through the use of the **/F=** command, which is placed in the data field for the GOTO/GOSUB/GOTO MENU and CLEAR GOSUB STACK commands.

For Example:

```
Menu Type : 1                          (ie. Goto Menu)
Data : FILES /F=1
```

This tells Ezycom to GOTO the FILES menu and make the current file area template equal to File Area 1. This means any file functions in the FILES menu containing a **/F** in their data field would now act on File Area 1.

Ezycom also allows another way in which you can change the current file area, that is through the use of the Select the

Current File Area menu command. This menu option allows the user to select the current file area. This command would typically be placed in the FILES menu under a 'Change file area' worded option.

Ezycom also allows the current file area to be incremented/decremented by the use of +/- respectively. This can be done by placing the **+** or **-** after the **/F=** command.

For Example:

```
Menu Type : 1                          (ie. Goto Menu)
Data: FILES /F=+
```

This would tell Ezycom to GOTO the FILES menu, and increment the current file area by One. If the user does not have access to that file area (or there is none defined for that number), Ezycom keeps on searching till it finds an area that the user has access to. The **-** option works in exactly the same manner, except that it decrements the file area number. Often this option would be used to recall the same menu again but would change the current template area in the process of doing so.

The message areas also contain this templating approach, except that instead of using **/F** the **/M** is used. Thus it is easy to differentiate between file areas and message areas. The only other difference naturally is that the command to allow the user to select the current message area is Select Current Message Area instead of File Area.

Note: You can specify the '/M' and the '/F' in the same Data

field in order to simultaneously set the current file and message area templates.

Global Menus

Ezycom also allows up to 10 menu commands to be defined GLOBALLY. Thus instead of having say a command in EACH menu to return the user to the main menu (TOP), you could have a GLOBAL menu command to do this function. The name used for the global menu is naturally GLOBAL. If this is in the menus directory on loading Ezycom, then ALL menu commands in the GLOBAL menu will become globally available in all menus. If a normal menu has the same menu command as one in the GLOBAL menu, then the normal menu command will override the GLOBAL option whilst in that menu. It is also possible to Disable the GLOBAL menu for a specific menu, using menu type 80- Disable Global Menu command. This command HAS to be an automatic menu option (see next section) to function correctly.

Automatically Executing Menu Options

Ezycom allows for menu options to be automatically executed when a menu containing them is loaded. When combined with Menu Type 40 (Display ANS/ASC/ASL/AVT), you can display these pictures automatically every time the menu is loaded, or after a menu function has been performed in that menu. In this way you can use a custom screen to display menu options to a user instead of the using the menu itself to display the options. This allows you complete layout and design freedom over your menu's appearance. It also allows you to hide options. This is done by not putting any indication in your menu screen that a specified option is available, but having that option defined anyway. Unless the user has been told about it (or they press every key just to try), they will not know it is there.

For example, if you make the top line in a menu into a Type 40, and set **Automatic** to **Yes**, then the screen that you define in the **Data** field will be displayed every time that menu is loaded and the menu keys will be scanned for while it is being displayed. Since you are displaying a picture to the users, you will not want to have the Display lines shown to the users. To stop these from being shown, the only thing on the display line for each menu option should be a **;** (semi-colon). This stops anything being displayed. Leaving the display line blank is NOT the same thing and causes a blank line to be displayed on the screen after the screen is finished and can lead to a bouncing menu affect.

Special Menu Characters

Ezycom provides some SPECIAL characters that may be used in the DISPLAY line of each menu option.

^	This changes the colours between the highlight and the normal menu lines colours.
;	This stops a carriage return being placed on the displaying of that line. This should be placed ONLY at the end of EACH line.

The Ctrl-F/K smart text codes can also be embedded into the Display and/or Data options (see reference section).

Ezycom also provides a means for accommodating SPECIAL characters in the Data line of each menu option. You can do this by placing a $<hex code> in the menu line. The <hex code> is a two digit hexadecimal number. To place a $ symbol in the Data field as an example, the code would be $24. This feature's main inclusion was to cater for the placement of non-alphanumeric characters for use in the /SK= option (next).

Keyboard Stuffing

Ezycom allows characters to be stuffed into the keyboard buffer of the IBM PC on ANY menu option. This allows the simulation of a key press to Ezycom. For example, if there was a need to pass through one menu to get to another, you could stuff the keyboard with the character that the user needs to press to go to the other menu from the one in between. This option can also be used to press keys in external programs run by Ezycom.

For Example:

```
Type : 7
Data : GAME.BAT /SK=$0D
```

This would place a return character in the keyboard, so that when GAME.BAT is run, a return is pressed automatically. To simulate multiple key presses, just place them one after the other eg. /SK=ABCD$0D (be sure not to put spaces between them however).

Conclusion

By now you should at least be familiar with the basics of menu creation and the use of EZYMENU. Be sure to consult the reference section of this document for a complete list of menu commands and their capabilities.

Chapter 5

System Maintenance

Introduction

Once your system is up and running, it will require quite a bit of maintenance. Some of this must really be done on a daily basis and the rest can be done every week or two. How often you do a lot these tasks depends on how tidy and up to date you want to keep your system. For instance if you like to personally check users out before upgrading them, this is best done several times per week else users will get impatient waiting for access. Other things such as moving new files about could easily be left for weeks without too much of a problem. But once again, your users might get sick of waiting for you to do this too. This chapter of the document therefore explains in detail all the maintenance tools available to you and makes some suggestion as to when you should use them and how often.

File Area Maintenance

Ezycom provides a wealth of powerful tools for managing file areas. You will probably spend more time working with file areas than anything else. This section will explain how to use each of the tools provided.

FEDIT - Ezycom's File Area Manager

This is a fully menu driven file area editor that allows you to do things like move files between areas, delete and rename files and edit their descriptions. You can probably get away with using this only once per week, just to tidy things up. If you are running a larger multi-line BBS however it may be prudent to at least have a look around your file base using FEDIT every couple of days to make sure things are not getting untidy, particularly if you get a lot of files uploaded to your system.

When you first load FEDIT a scrolling list of all your file areas will appear, just as you defined them in CONFIG. Use the PgUp/PgDn and the Up/Down arrow keys to move from area to area till you locate the one you wish to work with. All areas you have defined will appear as well as those that are not used. FEDIT will automatically skip over these and the list will scroll up to the maximum number of areas you have allowed for in CONFIG (up to 65535 areas). Fedit will also take advantage of 43/50 line mode if enabled at the time of loading.

Once you have decided on which area to work with and it is highlighted by the selection bar, press ENTER and the contents of that area will brought onto the screen. This list will look very much like the file list in the BBS showing the filename, the date (or Offline if it is marked so) and the first line of the description. You will notice that offline files appear in a different colour so you will immediately notice them. Anything that is deleted will also be in a different colour and will automatically be skipped over should you scroll near it. Deleted files are not physically removed from the file base until such times as you pack it (see EZYFILE later in this chapter). Down the bottom of the screen you will als notice a statistics box showing various information about the file currently highlighted..

To move around within the file list use the up and down arrows to move the selection bar one line at a time. Use PgUp and PgDn to move a screen full at a time and use Home and End to move to the first and last entry respectively. You can also use the letter keys to jump to the first filename that starts with that letter (if there is one). So if you were at the bottom of an area for example, if you pressed 'D' then the pointer would immediately jump to the top most filename starting with the letter D, should there be one. The ESC key takes you back to the file area list should you wish to work on another area.

Tagging Files

Most of the management functions in FEDIT work for files you have previously selected by tagging them. There are a number of different ways a file can be tagged (and indeed un-tagged).

. Tagging Individual Files (CTRL-T) - While a file is highlighted, using this function will cause that file to become tagged, this being indicated by a triangle on each side of the entry on the screen.

. Tagging All Files (ALT-T) - Upon selecting this option you will find that you have tagged all the files in the file list for the current area.

. Un-Tagging Individual Files (CTRL-U) - This function will un-tag the currently highlighted file if it is tagged.

. Un-Tagging All Files (ALT-U) - This option un-tags all files in the current area that were tagged.

. Range Tagging (CTRLK-B/CTRLK-K) - Using the standard Word Star block marking keys, if you point to a file and type CTRLK-B (press CTRL and K together and then release them before pressing B) then you will be defining the first entry in a range of files to tag. If you then move down to where you would like to stop the range and press CTRLK-K (in the same manner) then all files from the current one up to the one you pressed CTRLK-B on will now be tagged. This is a very quickly way of tagging a large number (but not all of) the files in a given area.

Working With Tagged Files

Once you have tagged a series of files you can use a number of useful management functions to do things to that group of files. The options available are as follows:

. Logically Deleting Tagged Files (ALT-D) - This will delete the DESCRIPTIONS for all tagged files in the current area. Note it does NOT delete the files themselves however.

. Physically Removing Tagged Files (ALT-R) - This will physically delete all tagged files ie. both the file itself and the database entry. Care should be exercised when using this option.

. Physically Moving Tagged Files (ALT-P) - This will physically move all tagged files and their descriptions to another file area. When you first press ALT-P a list of file areas will appear from which you should pick the area to move the files to. Press ENTER to select the area or ESC to cancel the command. Once an area is picked FEDIT will move each file one by one to the new area showing you each file as it is moved. Fedit will also remember the last area moved to on sucessive moves.

. Logically Moving Tagged Files (ALT-L) - This function is simular to physically moving tagged files except that it only moves file descriptions and their associated information. The files themselves stay right where they are. Since part of the file base record for each file stores a pointer to the path number in which the file resides, this is no problem. This is how full path independence in Ezycom is achieved. This allows you to have a file area that is made up of files from all different paths or indeed to have the same path broken into several different file areas in order to reduce it's size or sort it into sub-categories.

. Mark Tagged Files Offline (ALT-O) - This will mark all currently tagged file as being offline. When a user does a file listing the files will be shown as Offline as will the file list is FEDIT after this command has been used.

. Mark Tagged Files Online (ALT-A) - This has the opposite affect to the above command and will mark all tagged files as being Online. The file date will now be shown in file lists instead of the Offline status.

Miscellaneous Single File Functions

There are a number of commands that can be used to do special functions with
individual files as apposed to working will all tagged files.

. Logically Delete Individual File (CTRL-D) - This will delete the file description of the currently highlighted file (note - it will NOT delete the file itself however).

. Physically Individual File (CTRL-R) - This will physically delete the selected file ie. both the file itself and the database entry.
. Logically Move Individual File (CTRL-L) - This will move the description and associated data for the currently highlighted file to another file area. However the file itself will continue to reside in its original path.

. Mark Individual File Offline (CTRL-A) - This will mark the currently highlighted file as Offline. The file date will now be replaced with the word Offline.

. Mark Individual File Online (CTRL-O) - This will mark the currently highlighted file as being Online. The Offline status will now be replaced by the file's date.

. Edit Uploader Of File (CTRL-S) - This will cause a user editing screen to appear so that you can alter any of the statistics that the uploader of the currently higlighted file possesses. You may use this to reward this user for sending you such a good file for example. This screen works identically to the one in EZYED (see later).

Editing Descriptions

Probably the most useful feature of FEDIT is its ability to edit the descriptions on files that are stored in the database. Pressing ALT-M while pointing to a file will cause a pop-up box to appear containing the current description ready for you to edit.

The cursor keys will allow you to move around the box. Insert or overwrite mode can be toggled using the Insert key. Delete and back space also work in the usual manner that they would in any text editor. It is important to note however that in most descriptions you do not force any hard carriage returns unless you want a specific formatting for the description. This is because Ezycom will automatically format the description when a

user is listing that file area on the fly depending on the width available at the time. In other words, when typing a description in, let FEDIT auto-wrap the text for you rather than pressing ENTER when you get to the end of each line as that is not REALLY the end of the line.

You will notice however that if you look at most imported descriptions (such as those imported from a FILE_ID.DIZ by the utilities such as EZYADOPT - see later) that little carrot ^ symbols will be shown at the end of each line. Normally you will find these on descriptions that feature a decorative box around them or the like. This will stop Ezycom putting in its own carriage returns and so it will not ruin the look of the description. Thus you too can also force your own hard carriage returns for the same purpose using the carrot symbol. Simply place the carrot where you want to force Ezycom to take a new line.

Pressing ESC will save the description and return you to the file list once again.

Colours

Using Fedit you can also place colour and control codes in file descriptions. Colours are placed in descriptions using the same codes as the Rumours facility in Ezycom uses (see Appendix A - Menu Type 90). So while in description edit mode (ALT-M) if you typed:

```
|BThis is in Blue and |Rthis is in Red!
```

then the appropriate parts of this description will show up in blue and in red when viewing the file list for this area on the BBS.

The CTRL-F and CTRL-K codes (see Appendix C) can also be used in the same manner if so required. Simply insert them in the description where required.

File Statistics

You will have noticed that when you have a file highlighted within an area that a box down the bottom of the screen shows various statistics about that file. If you press ENTER whilst pointing to a file, a pop-up box will allow you to edit these statistics. The purpose of each is as follows:

. Path - This shows the full physical path where this file resides. This may or may not be the same as the default path for this area due to Ezycom's path independence feature hence why it is important to show this information.

- Uploader - This will show the name of the user who uploaded the file. This is useful when combined with the special CTRL-S feature for editing user records and so allows you to reward users (or indeed punish them) for material uploaded.

- Private - This states whether the file is private or not ie. only visible to the sysop or someone with sysop security.

- No Kill - When a file has this option set to Yes, it can never be automatically deleted from the file base by age or for being off line in an area that does not allow off line files.

- Checked - This shows whether or not this file has been checked for integrity and the presence of a virus.

- Dnloads - This shows exactly how many times this file has been downloaded.

- Dn Date - Shows the last date on which a user downloaded this file. This is useful in assessing whether this file should be kept on line in the future and could be used by 3rd party utilities to automatically delete files that have not been downloaded for a specified time period. Combined with the Dnloads statistics, it is very easy to achieve sensible removal of old and disused files.

- Arvl Date - This shows the date upon which the file was first placed onto the BBS. This is used to determine whether a file is new or not when a user does a new file scan. Notice this allows for files to retain their original date and time stamp yet still show up in a new file scan.

To edit a statistic, simply move to it and change it. Type either a 'Y' or an 'N'' on yes/no type data. To abort any changes press Esc. If you wish to save all changes either move down when on the Uploader option or press CTRL-ENTER.

Viewing Files and Archives

Fedit also allows you to very easily view the contents of any file. If you press CTRL-V on the currently highlighted file, Fedit will automatically determine the type of file and will bring up a scrollable viewer box showing you the contents of this file.

- Text, Executable & Other Binary Files - If the highlighted file is a straight text file or is an .EXE or .COM or some other non-compressed file, a normal scrolling box showing the raw contents of that file will be brought up. You may then toggle between ASCII and HEX (hexadecimal) viewing mode using the F4 key as shown. Use the cursor keys to scroll in any one of four directions. If the file is a text file and is wider than the viewing box, you can move to the far right and the view will scroll horizontally. The Home and End keys will take you to the beginning and end of the current line respectively. CTRL-PGUP & CTRL-PGDN will take you to the top and bottom of the file respectively. PGUP and PGDN will move up and down one screen full at a time respectively. When you are done viewing the file, press Esc to return to the file list.

- Archives (Compressed Files) - If the highlighted file is an archive, Fedit will automatically determine which type of archive it is and will bring up a scrolling list of the contents of that archive. This list will show the file name, it's date, the original size of the file, its compressed size and the compressed size expressed as a percentage of the file's original size. Should you press ENTER on one of these files, Fedit will automatically call the decompression utility required, extract the file and then allow you to view the file in the same manner as Fedit views normal non-compressed files as above. Once you've finished viewing that file, press ESC and you will be returned to the archive contents list. ESC from here will allow you to return to the file area contents list.

Viewing Graphic Files

The power of Fedit's view facility does not stop at viewing files within archives. Fedit also allows you to view graphic files straight from the file area content list and indeed from within archives also. If you press CTRL-V on a non-compressed graphic file such as one with a .GIF extension, Fedit will automatically call up a definable viewer utility and cause that utility to bring up a view that file. When you exit from that utility, Fedit will return to exactly where you were before selecting that file for viewing. If the file you select is within an archive, Fedit will first extract that file and then call the viewing utility. In order for Fedit to know what to call up, you need to define .BAT files with special names and place them in the Ezycom system directory. The format of these filenames is FEDxxx.BAT where xxx is the extension of the file that should cause this batch file to be called.

Examples:

FEDGIF.BAT

```
@echo off
rem %1 is the Drive
rem %2 is the Path
rem %3 is the Filename (no extension)
rem %4 is the Extension (including ".")
cshow %2%3%4+
```

The plus '+' on the end of the CSHOW (a popular graphics viewer) command line causes CSHOW to immediately load and display the specified file.

FEDGL.BAT

```
@echo off
rem %1 is the Drive
rem %2 is the Path
rem %3 is the Filename (no extension)
rem %4 is the Extension (including ".")
grasprt %2%3%4
```

If Fedit cannot find such a file, it will default to ASCII/HEX viewing of that file. Note also there is nothing to stop you re-defining the viewer for .TXT or indeed .EXE files using this method. Simply create a batch file that calls you favourite utility to do so.

Command Line Parameters

Fedit has only one command line parameter and that is -S<security level>. Using this option Fedit will prevent the operator from looking at areas with higher access levels than the one specified and looking at passwords for and editing user accounts that are higher than the specified security level. Passwords will be shown as asterisks.

EZYIDX - Ezycom's Fast File Index Maintenance Tool

Part of the reason Ezycom can so quickly make use of its file database is due to a set of files known as the fast file index. This file is simply a list of EVERY filename available for download on your system along with a pointer to the path it is located in. This file MUST be kept up to date else files will not be downloadable. EZYIDX is the tool for doing this.

-BUILD	This creates/updates the fast file index. If you add files to your file areas or remove them, this should be run to fully update and sort the index. This should be run once every day to ensure your index is correct and up to date.
-SORT	This sorts the fast file index. This will make it faster if you do not happen to use -BUILD everyday (you should!).
-LIST<filename>	This creates a list of all available directories as per your file base. You would normally use this file for your front-end mailer so it can search your system during file requests (for example Front Door).
-FLSEARCH	This will make a FLSEARCH.CTL (QuickBBS File Area List) compatible file. Some doors may require this.
-DUPE	This will list & log duplicate files in your file base.
-N<node>	Node number to run EZYIDX under (1-250).

EZYFILE - Ezycom's File Base Maintenance Utility

The heart of Ezycom's file base maintenance lies in this utility. EZYFILE should at best be run once per night as part of your daily maintenance. It will keep your file area databases in shape and ensure that all is in order. EZYIDX should ALWAYS be run prior to using this utility to ensure the fast file index is up to date. As usual this utility is command line driven and each of these options is now explained in turn.

-SORT	This will cause EZYFILE to examine all your file areas and re-sort each of them into the order (if any) specified in CONFIG for that area.
-PACK	This option will make EZYFILE physically remove any file entries marked for deletion from the database. Deleted files and their descriptions still take space until they are Squeezed out of the database with this option.
-OFFLINE	This option will mark files as 'offline' if they are not found on your system. Also if files that are marked offline are found to be present, they will be marked as online again.
-DELPATH	This will mark files as either deleted or offline (depending on area settings) if their path is found present on the system but not the file itself.
-DELNOPATH	If a file's path is found not to be present on the system, then that file will be marked offline or deleted depending on the settings for that area.
-UPDATE	This option will check all file sizes and dates stored for each file in the database against those on the actual files themselves. Any difference will cause the new values to be placed into the database. This is useful for updating the size and date on your master file list for example.
-FROM<area #>	This specifies the file area to start maintenance at.
-TO<area #>	This specifies the file area to finish maintenance at.
-N<1..250>	Specifies the node number to log to.

Note: Download counters and file points information ready for USERCOMP to use (see later) are always updated regardless of the parameters that EZYFILE is run with.
The switches for EZYFILE can be combined if required to do multiple actions in a single pass eg. EZYFILE -SORT -PACK -FROM10 -TO50. Some options such as -UPDATE are best used with -FROM and -TO parameters else you will find it taking quite some time if you have CD-ROMs online. It is not neccesary to run an UPDATE process across CD-ROM areas.

EZYADOPT - Adding Files To Your Database On Mass

This is a very special utility for adding large quantities of files quickly to Ezycom's file base. It basically adds in any files that are present on your system that are not already in your file base. Naturally you need to have set-up your file areas and paths correctly before using this utility and MUST have file adoption allowed for the appropriate paths in CONFIG for EZYADOPT to work on that file path.

There are quite a few switches for this utility and they will be explained now.

-CDROM	To adopt files in CD-ROM areas, you MUST specify this switch.
-FILEID	This will cause EZYADOPT to use descriptions out of FILE_ID.DIZ/FILE_ID.CLR/DESC.SDI. If there is no such file, the description found in FILES.BBS will be used (as per usual). If there is no description for the file and it is a GIF image, then EZYADOPT will make the dimensions/colours into a description for you.
-IGNORECR	In some FILE_ID.DIZ descriptions, the standard import process used on the descriptions looks weird because by default EZYADOPOT will take notice of carriage returns. Specifying this option will disable this feature.

-DESC<pos> Some FILES.BBS files contain dates, file sizes, download counters and other information that is not used by Ezycom. Using this option you can tell EZYADOPT which column number to start importing the descriptions from. For example: EZYADOPT -DESC14 would tell EZYADOPT to start importing descriptions from position 14. If this option is not used on the command line, then EZYADOPT will import descriptions from the first space after the filename in FILES.BBS.

-COMMENT This will cause EZYADOPT to import descriptions that are space/tab indented. Normally EZYADOPT uses the pipe `|' symbol to locate lines of a long description. This option will make EZYADOPT work without pipes.

-FROM<file path #> EZYADOPT will by default scan all file paths (except for CD-ROM paths). You can specify a particular file path for it to scan by using -FROM<file path #> eg. -FROM10. If this is a CD-ROM area remember that EZYADOPT will NOT scan it unless the -CDROM switch is also used.

-TO<file path #> It is also possible to specify a range of file paths. If paths 20 to 30 needed to be scanned for adopting, you would use EZYADOPT -FROM20 -TO30

Upon completion, EZYADOPT will tell you how many files it sucessfully imported into Ezycom's file data base.

EZYMAST - Ezycom's Master File List Creator

Unlike some other BBS packages where you have to go and find a third party utility to generate a complete list of all files on your system, Ezycom provides you with such a utility as standard. This utility is known as EZYMAST and is very simple to use.

The command line switches for it are used as follows:

-M<filename> This is the full path and file name where EZYMAST should create the master file list itself.

-H<headername> Use this option to specify the full path and filename of a text header file for your master list. This would normally be nicely presented heading telling the reader what your system is about and how to contact it, what speeds it supports etc.

-FROM<area num> Specifies the first area number to include in the file list being generated.

-TO<area num> Specifies the last area number to include in the file list being made.

Example:

```
EZYMAST -MC:\BBSFILES\1992.LST -FROM10 -TO25
```

This will create a master list of all the files in areas starting from area 10 and finishing at area 25, provided of course that the CONFIG for these areas allows each area to be included in a master list (see Chapter 3).

EZYMAST will also honour the date format specified in CONFIG so that if you have selected the US Date format, then all dates will be is US format in the master lists.

Special Archive Conversion & Testing Files

Two archive conversion files that are supplied with Ezycom to do all the conversions from one archive type to another archive type, as well as scanning the files inside the archives for any virii that might be hiding within. They are just batch files which means you can modify their behaviour easily.

You must have your archive utility programs somewhere in your PATH if you want to use these batch files. Also as they are designed to scan for virii you will also have to have McAfee's SCAN in your PATH somewhere as well. If you answer the phone with an ATS0=1 command, you should ONLY use DOCONV.BAT. If you however decide to use the UPCONV.BAT, you need to remember that the file is converted immediately upon the completion of any uploading and that it will take time to do the conversion(s) and worse still, the user may get impatient and hang-up. FILE_ID.DIZ auto importation also takes place via UPCONV.BAT so if you wish this to occur you MUST use this file.

Ezycom will test for the presence of each of these files at the appropriate time so if you do not what to convert after an upload, ensure that UPCONV.BAT is NOT in the Ezycom directory. Conversely removing DOCONV.BAT from the Ezycom directory prevents any run of file maintenance from doing the same.

Message Area Maintenance

Your message base is probably the single largest collection of related files on your system. It may total anything from a few megabytes in size to many hundreds. Your message base is like a garden. It will grow and needs to be pruned back regularly. The more mail networks you are involved in, the more obvious this will become as time goes on. By this stage you should have already configured a few message areas and will have configured some maintenance settings on them such as maximum messages per area and maximum days old. MSGCOMP is the main you will use to take action on these settings.

MSGCOMP - Ezycom's Message Base Maintenance Tool

This is Ezycom's message base compacter and will do maintenance on your message areas. Its function is to keep your message areas to at least those limits you set in CONFIG for each area. For example if you set Kill Max Msgs to 200 and the area has 300, MSGCOMP will delete the first 100 messages to maintain the area at 200. However if you set any of the message limits to 0 then MSGCOMP will ignore these fields. MSGCOMP should be run once a day in a nightly event and can ONLY be run while NO-ONE is online else it will abort with an error message. Do not try to run it otherwise.

The message compacter is limited to a maximum of 16,000 messages per message area and so if the number of messages in an area exceeds 15,000, it will automatically compress that message area to 15,000 messages. Depending on how much free RAM is available, MSGCOMP will handle more messages per area with an upper limit of 16,000. Ezycom itself and other utilities can handle up to 65,000 messages per conference. MSGCOMP will also check for file attaches on messages it is deleting and if found, it will delete the files that were attached also.

MSGCOMP also has six command line switches, explained individually below:

-LINK	This option will cause MSGCOMP to link together any messages within an area that share the same subject line. Only message areas that have had new echomail/netmail tossed into them since LINK was carried out, will be done however.

-LINKALL This will unconditionally LINK messages among ALL echomail and netmail areas whether they are linked already or not. Local areas are NOT linked as Ezycom does this when you reply to messages, so trying to LINK them would be wasting system time. MSGCOMP links the messages (makes reply chains), by matching those with the same subjects together.

-NODELETE This will stop MSGCOMP from deleting messages by days, received days, number of messages or number of kilobytes.

-CLEANUP This will tell MSGCOMP to delete areas that were used for conference(s) that no longer exist in your configuration set-up (ie. clean up stray database files).

-RAMDRIVE=<path> If you have a reasonably big RAM drive you can tell MSGCOMP to use it as a temporary and FAST packing location whilst it kills messages. During MSGCOMP you will see a (RD) after an area during packing when the RAM drive is being used. If the RAM drive is not big enough for some areas they will be packed on disk.

-FASTMAIL This will compress the fast mail index leaving only entries for mail belonging to users of your system. This will speed new mail checks on large message bases but will mean that new users will not get echomail that happens to belong to them until after the next time MSGCOMP is run.

-N<node> Allows you to specify the log file which MSGCOMP should log its progress to.

Maintaining Your User Base

Possibly the most common and often most time consuming thing you will find yourself doing as a sysop is maintaining your user base. Ezycom provides many tools for you to use to make this task a little easier.

EZYED - Ezycom's User Editor

Ezycom's easy to use menu driven user editor is known as EZYED. Using this utility you can alter any/all the settings on the accounts of users who use your system. You should try to use this utility at least once every couple of days.

On loading EZYED you will be presented with the first user in your Ezycom user base. This should normally be the Sysop as he/she would usually be the first person to use the system and should also have the highest security level. A number of options are available to you from here.

F1	Displays the online help screens for EZYED.
P	This gives you a very elaborate pick list for you to choose a user from. To move around in the pick list just use the arrow keys to go up and down one user at a time, or use the PgUp and PgDn keys to move up and down the list a page at a time.
E	This launches you in to the edit mode (more on this later).
F10	Toggles you to and from the two available display screens.
Arrow keys	These keys move you to and from the next and previous record (as do PgUp and PgDn).
F2	This option will give you a choice to search for someone either by their user name/alias or by the their security level. The search will bring up the first occurrence of the pattern you chose. For example, Name = 'Pet' will find the first record that has 'Pet' in the Name/Alias Field. Case is ignored in the search so 'Peter' is the same as 'peter'.
F3	This will continue the search using the last pattern used. When the search does not find a user to match the pattern, EZYED will tell you before taking you to the first user in your user base.

F4	This command allows certain global options to be performed on the user base. These include flag editing and group editing. When editing global flags, a '-' (minus) sign means do not change the flag, an 'X' symbol means turn the flag ON for all users and an 'O' symbol means turn the flag OFF for all users. When editing global groups, the setting that you make will affect all users, so every user will have that global group setting.
ESC	This will exit from EZYED.
INS	This will add a new record to your user base.
DEL	This key will toggle the Deleted flag of the user displayed.

Keys Available In Edit Mode

CTRL A	This will abort any changes made to this record.
CTRL P	This gives you a pick list of users.
CTRL S	This saves the record you are editing. ESC will do the same.
CTRL Y	This deletes the current line in a text field (eg. alias, location) while editing.
Arrow	These keys move you to and from the next and previous field entries.
PgUp/PgDn	These two keys move you to the next and previous records after first saving your changes.
CTRL Home/End	These keys will take you to the top and bottom of the page you are currently editing.
CTRL PgUp/PgDn	These keys will take you to the first and last records in your user file respectively.
ALT J	This will cause a jump (shell) to DOS. This also works when not in edit mode.
ESC	This will exit from edit mode.

The function keys (F1, F2, F3, F4, F10) work in exactly the same way as they do in display mode.

User Account Settings

You will notice that each account has a wide range of togglable settings available to it. All of these settings are changed by placing the highlight on the Yes or No display and then you tap the Space Bar to toggle between Yes or No. The meaning of these settings are as follows:

. Deleted - If this is set to Yes then the next time you run USERCOMP, this user will be deleted from the user base.

. Clear Screen - This will tell Ezycom whether or not to send screen clearing codes to this user when required.

. Continue - This tells Ezycom that this user requires a continue prompt to be sent when displaying file lists and screens longer than their screen length.

. ANSI Capable - This tells Ezycom whether the user will accept ANSI graphics characters/control codes or not.

. Don't Kill User - If this option is set to Yes, then even if the user has not called in the number of days you set to kill users when using USERCOMP, they will NOT be deleted from the user base.

. Ignore File Points - This option will stop the user from using his/her file points. The end result is this user will not be stopped by this powerful ratio system when downloading files.

. Full Screen Ed - This enables or disables whether this user uses the external Full Screen Editor (such as EzyEdit or Gedit).

. Quiet Mode - If enabled for this user, then they will not be able to be called by another node with the multi-node chat system.

. Ignore Ratios - This is similar to the ignore file points option but it applies to all the other file ratios used in the Ezycom package. So if this option is Yes and ignore file points is No the users can download all they like until their file points are used up (providing they don't exceed their daily download/time limit).

. Avatar Capable - This option will tell Ezycom to send AVATAR screen codes to this user when it is set to Yes.

. IBM Characters - When this option is set to Yes, Ezycom will send high-bit IBM characters to the user (frames, lines etc). Users of Non-IBM systems will likely have this set to No.

- Ignore Paging - If this option is set, then the user will be able to override all paging hours, hence be able to page the sysop 24 hours a day, seven days a week.

- Exclude User - With this option to Yes, the user will NOT show up in any statistical type lists eg. best user statistics, online user lists, last caller lists etc. The sysop may find this setting of use given the number of times the sysop may end up logging in each day. A user with this setting will however still show up in a Who's Online? list.

- Menu Time - If this option is set to Yes, then the user will NOT have to wait for the time restrictions on any of the menu options.

- No Page Sound - When a user pages you with this option set to Yes, no page sound will be heard. The user will however still be under the impression that he/she is paging you.

- Page On Logon - If you set this option to yes and this user logs on, five short beeps are sounded to indicate to you that a very important user has logged on. Note though that this option works 24 hours a day, 7 days a week and is NOT restricted by page times.

- Ignore Message Ratio - If this option is set to Yes, then the user will NOT have to comply with message ratio restrictions on menu options.

The rest of the settings for user accounts are fairly self explanatory and so will not be discussed.

USERCOMP - Keeping Ezycom's User File In Shape

USERCOMP is a user base compacter utility for Ezycom. You should run this utility at least once per day AFTER any message and file base maintenance. You MUST not run USERCOMP while a user is online to your system. There are several command line switches that can be used with USERCOMP. Each will be discussed separately below:

-S1	Sort the user list by security then surname.
-S2	Sort the user list by security then first name.
-S3	Sort the user list by security then alias.
-S4	Sort the user list by surname.
-S5	Sort the user list by first name.
-S6	Sort the user list by alias.
-D<days>	This will delete users who have not called the system for the number of days specified by <days>. Eg. If you use the option -D30 then all users who have not called for 30 days (or more) will be deleted, unless you have set Don't kill user in their user record.
-U<Security>	This will tell -D<days> option not to delete users with a security level greater than or equal to the one specified by <security>. Eg. If you set -U100 the users with security level 100 and above will not be deleted regardless of how long it has been since they last called.
-ADD	This option will add security zero users to TRASHCAN.CTL. (See the Appendix C for more information on TRASHCAN.CTL)
-P	This option will credit file points to uploaders whose files have been downloaded, provided this option has been implemented in CONFIG and you are registered.
-Bnnn	This allows you to assign how many users you want shown in your best users information screens. Eg. If you assign a setting of -B10 then the best 10 users will be shown. The valid range is 1-200.

-ALIAS	When USERCOMP makes the best user lists, it will make them up using the users' aliases instead of their real names if you give this switch.
-N<Node>	This will tell USERCOMP which file to log to. Range 1-250.

Any combination of these command line switches can be used simultaneously if you wish with USERCOMP.

For Example:

USERCOMP -S1 -D20 -P -B1O -ALIAS -N1

If you forget any of these switches, you can type

USERCOMP -?

at the DOS prompt for a quick reference.

Chapter 6

Mail Networking

Introduction

One of Ezycom's most powerful features is its ability to interact with Fidonet Technology Networks (FTN). The Fidonet concept was invented by Tom Jennings around May 1984 as a way to connect many BBS's together so that they could exchange electronic mail. His original concept with the help of many other BBS community notables has developed today into a solid and mostly reliable way of exchanging mail between BBS's. The network in which the technology began, Fidonet, now has over 26,000 member systems around the world. There are also literally thousands of other networks run by different groups using the same technology often referred to as 'other-nets'.

The shear size of these networks and the many different levels of technology in use within these networks, is the cause of a lot of late nights for new sysops. As a result, the next few pages will delve into the inner workings of these networks so that beginners will have some ground work for the later sections. If you are already quite familiar with the basics, you may the next three pages.

Network Hierarchy

As you may well have already imagined, a network with 26,000 participating BBS's must have some sort of operating structure else it could not possibly hope to do its job in a successful manner. In the case of FTN's this structure is derived from a file called the Nodelist. A nodelist is simply a text file which contains a list of all BBS's (nodes) in that network along with the administration structure that holds them together. Today, the full Fidonet nodelist exceeds 2 megabytes in size!

You may well have come across an FTN network address before but not understood it's meaning. The components of an address will therefore now be explained.

A typical full 5-dimensional Fidonet address may look as follows:

3:622/407.0@fidonet

Let's break each component (dimension) up:

. The 3 represents the zone which is typically a very large geographical area and in this case means the Pacific Basin (Australia, New Zealand). Other major zones in Fidonet include Zone 1 (USA & Canada) and Zone 2 (Europe).

. The 622 represents the network number (in this case, Newcastle - New South Wales). Typically a network is a defined by a geographical area such as a city or a group of towns. In more populated areas a city may consist of many similarly numbered networks because there are too large a number of nodes in the area to make one network manageable.

. The 407 represents the actual node's individual number within his/her network. These are typically numbered sequentially with the network co-ordinator taking the /100 address (the person who is responsible for that small part of the nodelist).

. The .0 is the point number. It is possible to have other nodes that hang off your system for example that are not listed in the nodelist but can still exchange mail using the same technology. Often mail intensive users opt to do this as do new sysops who do not want to take on full network membership just yet. You as the boss node (.0) allocate a number to each system who 'points' off of you. Normally you would allocate these sequentially so the first system would be .1 and so on. For most situations you can ignore the .0 for your address, it is not needed. Back before the days of 4 & 5 dimensional addressing, a method known as the fakenet was used for points. Ezycom neither supports this or recommends such an outdated method of point management. If your points cannot support the modern method, its time they changed software.

. The '@fidonet', the 5th and last dimension, is known as the domain. The '@' signifies that a domain name is following and is not part of the domain itself. The domain (when fully implemented) allows multiple networks to have conflicting Zones without getting the two confused. Mailers such as BinkleyTerm 2.56 or later are fully 5 dimensionally aware and use the domain name to its fullest potential. Ezycom is 5D in all respects when fully configured. Be sure to ask your network co-ordinator for the correct domain to use in each network you are in.

Other Aspects

Within the nodelist you will also notice other entries. The most notable ones are (briefly):

. Hub - In larger networks or networks that cover several small geographical areas, the network co-ordinator will often allocate hubs to break down the distribution of mail into smaller groups. Instead of everyone connecting to the net co-ordinator for mail, nodes are broken into smaller groups and are assigned a hub who picks up the mail from the net co-ordinator and then passes it on to these smaller groups thus reducing the load on that system. The only affect this has on addresses is normally in causing a jump to the next multiple of 100 and then sequentially numbering nodes from there.

. Region - A geographically based grouping of networks. Used for co-ordination purposes only and so has no part in the network address

There is also often quite a quantity of other information contained within the nodelist such as nodelist flag types and other announcements placed in there by the network hierarchy. These are part of comment lines and do not affect the nodelist structure. You may however find reading this information useful for understanding some of the conventions used in the nodelist.

Types Of Mail

There are two major types of mail transmitted within a FTN. These are echomail and netmail.

Echomail is probably the type of mail that you and your users will make the most use of. The term echomail is derived from the fact that every message posted within a specific area (known as a conference) is 'echoed' to every other BBS system who receives that conference. The nett result is discussions can be held over a local, national and even an international level with ease and very little effort on the part of the participating BBS's. Conferences have a specific topic and you should ensure that you and your users adhere to that topic else the moderator (the person in charge of that area) can have your feed access to that conference cut.

Typically echomail is public only so anything you post in there can be read by every user on every BBS that has access to that conference. There are however times when you will want to send a private message to someone on a distant member system. This is where netmail is used. Unlike echomail, netmail is point to point only and for all intents and purposes can only be read by the sender and the recipient. It only goes to one system, the one to which it is addressed where it will be received by the

person there to whom it is addressed. Often netmail is used for replies to echomail messages that would otherwise be off-topic or possibly not a good idea to post a public reply to (for example a response to a for sale advertisement giving your name and address). Netmail can either be routed (sent through other systems and eventually arrive at its destination) or be sent Crash (where it is sent directly to its destination). Its a good idea not to give your users access to crash netmail else you could end up with quite a phone bill if they write internationally bound netmails. Unless otherwise stopped by your mailer configuration, your system will happily dial up an international number and deliver the message for them.

You should now be familiar with mail network basics and be ready to start configuring Ezycom to work within such networks.

Mail Networking With Ezycom

Many components of Ezycom have to work together to allow it to efficiently interact with mail networks. Most of these components rely upon the settings in CONFIG to determine the way in which they behave. Following is a virtual step by step approach to configuring your mailing set-up that can be used each time you wish to make major changes to your configuration. It deals with each option in order of importance so that you may later skip components that do not require any changes but this procedure will ensure you do not forget things. An incorrectly configured system can cost you and many other systems a lot of money in unwarranted long distance charges so its important that you get it right.

Defining Your Network AKAs

On the Messages Areas menu in CONFIG you will find a submenu entitled Network AKA (AKA = Also Known As) that allows you to configure up to 16 different network addresses. Each time you join a new mail network you must first come here and enter in your address. Your main address (typically the first or most major network you join) goes in the top entry and all other addresses follow in which ever order you wish after this. Be sure to keep your Main (Primary) address consistent throughout your system, especially in other programs such as your front-end mailer. Simply press ENTER on an entry and another box will pop-up allowing you to enter each dimension of your address (by pressing ENTER on that dimension). The ESC key will allow you to exit from a field without changing it or to exit from the address box back to the AKA list after you have finished editing that address. If you're not sure about the correct domain name for each net, ask your host.

The Uplink/Downlink Manager

Your various mail feeds for echomail have to come from somewhere. Normally these come from a system known as an Uplink who is essentially someone who is up-stream from you. Most often this will be your network co-ordinator. On the other hand if you are a network co-ordinator yourself or you simply feed mail to certain systems (you may be a hub for example) then you will also have Downlinks as well as uplinksError! Bookmark not defined.. These are nodes that are 100% dependant on you for a feed to a particular conference. In other words the bulk of the mail they receive in that conference is passed to them through your system. Consequently ANY system you send or receive echomail to or from whatsoever MUST be defined in the Node Manager which can be found as a submenu off the Message Areas menu in CONFIG. Currently Ezycom allows up to 128 of these entries, ample for just about any system.

Each option will now be explained.

. Node Address - In a simular manner to your Network AKA set-up, enter the full address of the node you will be sending/receiving echomail from in here. Be careful to set the domain name correctly. This will be used for outbound naming when running with a fully 5-dimensional mailer (see later).

. Echomail Active - This is normally set to Yes. Use this to temporarily disable the processing of mail to this node without actually disconnecting them from the conferences they get from you. This can be useful if the person is going to be down for some time such as while away on holidays.

. Pack To - By default this address will be the same as the Node Address however if you press ENTER on this field you will be presented with a pick list of currently defined nodes. Move the highlighted option so that it points to the appropriate entry and then press ENTER again. This allows you to 'pack-route' echomail from one address to another and is a very powerful option. It is mostly used to eliminate lots of smaller mail bundles where your system sends mail for more than one FTN to the same physical system. Instead of having one or more special mail archives for each network you send to them, you can have it all placed into the one archive.

. Echo Manager Groups - In order to make it easier to control access to various conferences (and to make management easier overall) you can place echomail areas into groups, often on the basis of where you receive them from. The group consists of a single letter of the alphabet A..Z. A downlink may well be connected (or be allowed to connect) to multiple groups so up to 26 can be put here. Use CTRL-Y to delete all groups shown. Ezycom will automatically alphabetically sort whatever you put in. You can also enter an asterisk/star '*' character to enable all groups.

. Compress To - This option will allow you to choose the compression method which will be used on all mail archives destined for the system being configured. Press ENTER to toggle through the available choices. The node will usually inform you of their preferred method. Please note however that if Pack-To is active, the compression method for the Pack-To node will over-ride the setting here. It is regardless still a good idea however to keep them consistent for each physical system you feed.

. Password To Echomgr - This is the password that this node's automatic echo area manager will expect from any requests that your system sends it. This is used for wait-thru areas (see later) and allows any of your downlinks (with sufficient privilege) to cause your system to send requests to your uplink to turn on new echomail areas so that they can receive them through your system.

. Password from Echomgr - This is the password this node must use in requests to your Ezycom echo area manager (see later). Normally this password is the same as the previous one but for added security you may use different ones. Often this will also be the same as your mailer's session level password with this node.

. Mail Status - This option will determine the status of any mail bundles destined for the system. Use ENTER to toggle through the many options. Normal is the most common status and should be used unless you have a special reason not to. Crash status will mean the mail could be sent immediately by your mailer (at your cost) and Hold status means it can never be sent by your mailer and must be picked up by the node in question unless you manually alter the status on waiting mailer later on. The Direct version of each of these options means the mail cannot be routed through another system and so will only be sent (when allowed) straight to the system it is addressed to.

. Days to Hold Mail - This option will cause Ezycom to only allow mail to be awaiting delivery for the specified number of days before it will automatically be deleted. The test for this condition is based on the last date the mail archive was updated. Use Zero days to disable deletion of mail bundles. Systems that do not pick up for some time, especially if they are heavy mail takers, will cause a large quantity of your hard disk space to disappear over time. A setting such as 7 days is probably a good start.

. Send .PKT Type - This option will control the structure of the uncompressed mail packets that Ezycom will generate. It is quite important for outbound mail (it has no affect on inbound mail). Type 2 is a 2-dimensional only mail packet and contains no Zone or Point information. You can see this by looking at your Ezycom log after tossing mail and noting whether there is only a 2-D address listed next to the 'Tossed Packet From'. Thankfully most systems today generate Type 2+ packets which are fully 4-dimensional. Unfortunately this is not always the case though (strangely enough particularly among Fidonet administration) so you should check first with your uplink/downlink to ensure you choose the right packet type.

. Can Create New Echos - If set this to Yes, this node is allowed to send you new echomail areas and your system can be configured (elsewhere) to create them automatically as they arrive to save you manually doing so.

. Add to New Echos - This works in tandem with the previous option and will add this node to any new echos that arrive in any groups they are connected to. So not only will the new echo be created, but this node will immediately begin receiving mail from it.

. Allow 2D Security - This is a very special setting that is only used if you have to communicate with a 2 dimensional (type 2 - stone-age) mail system. Without this setting turned On for such a system, ALL mail from that system will be tossed bad should you have security (see later) enabled for a message area they feed to you. On the other hand if this option is enabled, Ezycom will check the net/node dimensions for allowable exports for the area in question and if it finds a match it will allow tossing into that area from this node. If you see only 2 dimensional addresses for PKT tossed entries in your log, then that system is only sending you Type 2 packets. You should then find out if they are capable of type 2+ and get them to switch otherwise be sure to use this option if you want a secure system.

. Max Num Msgs in PKT - This is a space conservation measure and is particularly useful if you feed a large quantity of the same conferences to a number of nodes. While tossing (processing inbound) mail, once an outbound PKT to one of your downlinks has this number of messages in it, it will stop tossing mail and automatically archive that packet and then continue tossing upon completion. Setting Zero will disable this option. A good working value might be 400. Count on the fact that average message size is about 1K so if you have say 6 downlinks that is at least 2.4MB of space that will be used up by this stage in the processing. Archiving at this point would normally at least halve the amount of space used.

. Max Bundle Size (k) - Once an archive gets within this specified size, a new archive will be started for that node. When an archive is updated, a complete temporary copy of the old archive has to be made on disk before the new PKT is added to it. So the bigger the archive gets, the more disk space you will need as you progressively wish to add more PKTs to it. Do a calculation simular to the above to determine the best size. Also be aware that the bigger the archive gets, the more space your downlink will need to unpack it because the complete contents must be extracted before the archive can be deleted on their end. A 2MB archive could produce 5MB of PKTs so that is 7MB of free space they would require to even begin to process that mail. Once again a value of Zero will disable this feature for that node.

. Packet Password - This adds a further and almost impossible to by-pass mail security feature to Ezycom. Passwords on packets prevents bogus systems from dropping off mail under an anonymous AKA that looks like (when tossed) it came from a valid system that you normally have mail exchanges with. Up to 8 characters can be used for this password. The node you are defining here must be capable of packet passwords else you will be unable to toss mail from their system. You MUST implement this feature when neither of your two systems have mail waiting for each other under this AKA else you will have problems tossing some of the mail as it will not contain a password since those packets would have been created before you set this option up. Any packets that fail will be renamed to have a .BAD extension and a note of the violation is made in the log.

Now that you have configured each of the systems you will be connecting to for mail you can now move on to the message area configuration to actually create the echomail areas themselves.

Configuring Network Message Areas

This section of the manual only deals with the components of the Message Areas configuration that relate specifically to mail networking. The other options have already been explained in detail in the first part of this document and it is thus assumed you know how to use these options by this stage and so they are not covered again.

To configure your mail network areas you need to look at the following options:

. Area Tag - This is a special unique name that is assigned normally by the echo conference creator to his or her conference and is used to identify the messages that belong in this area when mail is being tossed. As soon as you enter something in this field, the configuration will automatically set the Message Type field to Echomail for you. For example the area tag for the Fidonet Ezycom Support area is EC_SUPPORT. Your mail feed will supply you with a list of area tags and a description of what they are about. You will normally pick from this list, the conferences you wish to connect to.

Once this is set you should then check the Alias field and the Message Kind fields to ensure they are correct. All conferences with few exceptions are public only and some areas allow aliases while most do not. It is safest to assume initially that aliases are not allowed and that public is the only status allowed on messages in that area.

. EchoArea Group - This is used as mentioned previously to group echomail message areas together normally by their source so that you can control who can get access to them (by the node manager) and also be able to globally manage selected groups of echos. Be sure to correctly set this field as per the node manager. Do not confuse this field with Message Group which is normally used for grouping areas of simular subject and is not limited to echomail areas.

. Private - Some echos are meant to be private. This option will cause any private echomails to be imported with the private status maintained. Normally this status would be stripped. Check the particular conference rules.

. Import Seenby - Determines whether the SEEN-BY lines will be imported into the message base for this area. These lines are hidden at the bottom of a message and allow mail processors to determine which systems have already gotten that message and so it will not scan it out to them again. This information takes up valuable space however and is normally stripped on import. If you are however having dupe-loop problems (where mail goes around in circles), you may wish to turn this on for a short time in order to track down the source of the loop.

. Tiny Seenby - If you are acting as a domain (echo) gate between two different networks, this option allows you to completely strip all seen-by lines out of a message before forwarding it over this boundary so that foreign addresses will not show up on either side of the gate and confuse mail processors. Most systems will never use this option. Between any two different FTN's there should NEVER be more than one system doing this.

. Visible - Determines whether this conference is visible to all echo manager (Areafix) requests to your system (see later). Setting this Yes means the requestor will not have to have access to this area's group to actually see that it exists. They will however not be able to connect to it without access to it's group. This can be used to show compulsory conferences to people without allowing them access to the group so they can disconnect from them.

. Security - When Ezycom is tossing mail into this area, if the mail is coming from a system that is not allowed to have access to that area, then this option will prevent mail from being tossed from that node to that area. Such mail will then be tossed to a bad area (if defined) for your perusal later. This option should normally always be on and is useful for finding when systems are sending to you from an AKA different to the one you have set-up for them to send to you from.

. Origin Aka - If you press ENTER on this option a list of all your network addresses will pop-up for you to choose from. Press ENTER again to select one. Be sure to pick the correct network address for the network the conference in question belongs to else you will find yourself receiving nasty messages from those above you.

. Uplink aka - Again pressing ENTER on this option will give you a pick-list of nodes that you send/receive mail to/from. Pick the node whom the bulk of the flow comes from in this echo ie. the person who actually gives you your connection to the distribution chain for that echo at large. This is (or will be) used for forwarding requests for connection from your downlinks to this uplink via your system if this area happens to be a wait-thru area.

. Origin Line - This is a the greeting/advertising type line that goes on the bottom of every message posted in this area form your system. If you don't specify one, the default will be used. Note: Do NOT put the ' * Origin : ' part in as this is automatically done for you during processing of new outbound messages.

The bulk of the configuration for the message area is now done. All that remains now is to configure the seen-by and export tables.

. Seenby - This option is accessed by F8 and will cause a special easy selection box to pop-up that will show all your currently defined AKAs. Simply move throughout this box (the highlight will show you where you currently are) and use the ENTER key to toggle the little box beside each relevant address. The box indicates that this AKA is active for that conference. Normally you should only activate one AKA for any one conference and only the one for that network. If you hold a co-ordinator position or multiple addresses in the one network, its a good idea to enable all of the addresses for that network that you hold so as to prevent any possible dupe looping when confusion over which AKA you are using occurs. Notice how this box will stay open even if you PgUp/PgDn to another area? This is a useful way of quickly setting Seenbys in multiple areas and/or checking that they are correct. The pointer will remember where it was also even if you close the box (F8 again) until you completely exit CONFIG so if you are configuring many areas in the same network it will save quite a lot of time for you. Notice also that upon closing the window, any AKAs you have enabled will be listed beside the Seenby field.

. Export To - By pressing F10 you can configure this in the same way as you do for the seen-by table. This is where you define ALL the systems that you send/receive this conference to/from. This includes the Uplink system you defined in the option just above. A small square box beside the address indicates that node is active for this conference and once again PgUp/PgDn will work allowing you to move to other areas with this view still open. The only extra thing to be aware of is if you have more than 45 nodes in your node manager, you will need to use the 'Q' and the 'A' keys to move up and down between each screen full of defined uplink/downlink nodes. The status of the display is also maintained during movement between areas too so you do not have to press 'A' to go to the 2nd page after doing a PgUp/PgDn again.

Global Management Of Echomail Conferences

Altering export lists can get very tedious after a while, especially for a new node. Ezycom does provide an alternative way to add nodes to the seen-by and export lists. Go into the Global option at the bottom of the Message Areas menu in CONFIG. Here you will find among other things two options for echo control, specifically Global Export List and Global Seenby List. Selecting these options gives you an A)dd R)emove Q)uit menu. This menu will allow you to either add or remove a system from a group of echos or to add or remove an AKA from seen-bys in a given echo group.

Once you have picked the type of operation you will get a pick list. Choose the node/AKA to work with and then press ENTER and you will get an echo group list. By default all groups are affected (hence all are listed) but you should NOT allow it to proceed that way unless you want to change that setting in ALL groups regardless of network. Be very careful if you want to do that. Use CTRL-Y to delete all the groups listed and then type the ones you wish it to work with. Pressing ENTER will then carry out the request. If you then go and check in the message area(s) you should see your changes affected. This method for instance provides a very quick way of adding a node to several hundred echos.

Something worthy of pointing out at this stage is that the message areas only contain a reference to the appropriate entry in the node manager so if one of your nodes has an address change for some reason you need only change the address in the node manager. If someone else takes over a major feed the same also applies, just change the address in the node manager and when you check the area configuration you should see the correct address in the export list. You do NOT have to do a Global Remove followed by a Global Add.

Netmail Message Areas

When configuring a netmail board, all but one of the options previously mentioned are irrelevant. That exception is the Origin Aka which aside from general area settings, is the only thing you have to configure for a netmail area, that is of course, aside from setting the Message Type to Netmail in the first place. CONFIG will tell you if you try to use an option not meant for the message area type you have set. Once you have defined all your netmail boards (you MUST have one for each network you are in) you have to go into the Netmail Boards off the Message Areas menu and tell Ezycom the board number of the appropriate netmail board for each network AKA you have defined. If you are feeling lazy and are sure you have correctly defined all the netmail boards (one for each AKA) hit ENTER on the intelligent guess option and Ezycom will locate and set all the options for you automatically. It is however best to check them anyway to make sure you have not made a mistake.

General Network Message Options

Selecting the Network Misc option from the Message Areas menu will take you into a screen full of options to do with configuring your FTN operations. Each of the options is explained in turn below:

. Inbound Mail Path - This tells Ezycom where to find inbound mail archives destined for your system. Your front-end mailer will place them in a directory specified by you. These two directories should thus be the same.

. Outbound Mail Path - This is where Ezycom will place all outbound mail archives. This directory MUST be unique and is NOT the same as the PACKET directory which Front Door/Intermail mailers use for creating dynamic outbounds (see the section on Front End Mailer Types for more information).

. Binkley/Portal Path - This tells Ezycom exactly where to find/create OUTBOUND.zzz holding directories if you are using a Binkley style mailer. Normally you would set something like C:\BINKLEY and so any mail for zone 3 from your primary network would go into C:\BINKLEY\OUTBOUND.003.

. ARCmail 0.6 Compatability - This will force Ezycom to use the ARCmail 0.6 naming convention on mail archives. Ezycom uses a much more intelligent method of its own if you set this to No. However in Fidonet particularly, some older systems may not be able to cope with anything other than ARCmail 0.6 naming. More often than not though the naming method is irrelevant.

. Import Messages to Sysop - Most sysops prefer not to have private netmail addressed to them imported into the message base and instead have it left in their *.MSG netmail folder for direct manipulation by their mail reader. This option will allow you that choice.

. Real Name Kludge Line - In Alias message areas this option will cause a hidden @REALNAME kludge to be inserted in all the messages posted. This means the real name of the author can be readily identified. This may not be desirable especially in some Adult type echomail areas where embarrassment could be caused to the author of the message.

. Swap Out On Ezymail - Here you can control the swapping method that Ezycom will use while processing mail whenever it needs to fire up an archive processing utility. Use ENTER to toggle through the various options. Disk is always the ultimate (and slowest) fall-back. Best option is XMS/EMS since XMS is faster. Ezycom will try each method in order of priority in this case.

. Dupe Detection - This enables automatic echomail dupe detection in Ezycom. Instead of blindly forwarding/tossing mail your system has already seen before (as the result of a dupe-loop) Ezycom can detect such dupes and delete the messages without processing them further. To do this it uses a dupe table of 8000 entries which contains CRCs of the message header info for the most recently tossed messages backwards. This makes detection of dupes very fast and very reliable.

. Number Of Dupe Messages - This allows you to control the size of the dupe table that Ezycom maintains. You should set this to as high a value as memory will allow you to go to ensure that maximum effectiveness against in detecting dupes is achieved. EZYMAIL will indicate during startup how many dupes it is checking against or will state there is not enough memory to check using the table size specified here. You can have up to 999000 set here, although 10000 to 25000 is more workable. The larger the table, the slower mail will process.

. Keep EchoMgr Node Receipts - When a node in your node manager sends a request to your echo manager, this option allows you to keep a copy of those requests if you so wish. You may want to keep track of who has been doing such requests or if someone is having trouble with them you can help them because you will be able to see where they are going wrong.

. Bad Message Board (0=Off) - Placing a number here defines a message board where bad messages will go upon tossing. Bad messages are caused by security violations on an echo area ie. a system trying to send mail into an area that is not available to them.

. Unknown Area(s) Action - Probably one of Ezycom's more powerful features, this will allow you to cause new echo areas sent to you to be auto-created and even be fed to your downlinks automatically if the Node Manager specifies so. Set EchoMail* to enable this Registered Only feature. Optionally you can set new areas to pass through (which still allows auto-adding to downlinks) or to Kill whereby any messages to them will be killed without question.

. Kill Bad Archive(s) - Any inbound mail archives found to be corrupt (often incomplete) can optionally be killed upon discovery. Setting this option to No is probably a good idea in a Front Door/Intermail set-up however because a mail transfer may have aborted leaving only half the file received and if the archive is then deleted, the transfer cannot resume except from scratch should the transfer be tried again at a later date.

. Default Origin Line - This simply defines an origin line to use by default in the absence of a specific one in any of your message areas. As with the specific one, the ' * Origin: ' is NOT required as this is automatically placed in for you when new outbound messages are processed.

. Mark Netmail as Kill/Sent - Determines whether mail written on netmail boards and any other netmails that Ezycom generates, get a kill upon sending status. If you want to keep all netmails for manual deletion then set this option to No.

. Kill Null Netmail - Any netmails without a body text in them (eg. file attaches coming in) will be killed if this option is set to Yes.

. Maximum Messages To Rescan - If a node in your node manager issues a rescan request (ie. wishes to get old mail from an area he/she has just turned on so as to give their system something to start with) then this option will control the maximum number of messages that they can actually get (per area). This option has a maximum value of 999 and Zero disables this feature entirely.

. Delete Mail Bundles - Any mail bundles found lying around in a Front Door/Intermail type mailer environment that do not seem to have a netmail attached to them, will be killed if this option is set to Yes. Do NOT enable this in a BinkleyTerm/Portal Of Power environment.

. Binkley Support - This option is used to specify the style of outbound your front-end mailer uses. If you are using Front Door/Intermail, set this to No. If you are using Portal of Power, set this to Yes. If you are using BinkleyTerm 2.50 or higher, set this to Yes + 5D. The latter will enable full 5-dimensional mailer support ie. the use of domains, which allows two different networks to share the same zone number.

. Create OUT, DUO, etc - If you are running either Portal Of Power or BinkleyTerm (or any other Binkley style mailer) then enable this option so that EZYPACK will happily convert Crash/Hold etc *.MSG netmails to outbound bundles that this type of mailer uses.

Automatic Creation of Echomail Areas

Probably the most time consuming thing a new sysop can find him or herself doing is setting up new echos, especially if you have just joined a new mail network and have to add tens or even hundreds of new echos. Ezycom allows sysops using a registered version of Ezycom to avoid this very time consuming task through its ability to automatically create new echos as they arrive and even link up downlinks on the fly. The heart of this function is controlled from the New Echo Area option that can once again be found off the Message Areas menu in CONFIG.

Upon selecting this option you will see a pop-up box that shows all your defined AKAs once again as well as Group, Msg Board Start and Template Board fields beside each. This means for each network you receive (or indeed each AKA you receive from), you can configure a default echo group and starting position (message board number) for new (unknown) echos to begin being created at. Ezycom will start at this message area number and locate an empty area where it will quickly create the new echo for you. It automatically skips over used ones till it finds a suitable location to create the new area. When creating the area it uses the message area specified Template Board as a skeleton area to choose settings for most of the options (setting zero disables this component). EZYMAIL then automatically sets the uplink, seen-by and export list fields for you (including auto-added downlinks as per the node manager settings) and then proceeds to toss mail into this area (and to downlinks). Other options such as default security levels are configured elsewhere (see next section). A node MUST have access to the group defined for the appropriate AKA here else they will NOT be able to create areas despite their node manager setting.

The configuration in this section equally applies to pass-thru echos also and registration is not required for this feature. Pass-thru areas are simply ones that do not exist in the message base but contain mail that gets forwarded to downlinks.

Normally if the echos are of no interest to yourself or your users but a system you feed wants them, then you make them pass-thru so that they do just that, pass through your system. This is a fairly speedy process as they don't have to be tossed into your message base and merely go from one packet to another.

Be aware that once echos are created, they will not be completely ready for use by users. You will have to go and adjust the access levels on them and give a proper title to the message area (the default will be the echo-tag). You will also need to check message maintenance options (ie days, number, kilobytes etc) and set a proper QWK area name (which also defaults to the first 12 chars of the echo-tag). But overall you will save hours of otherwise tedious work.

Special Message Security Settings For Network Mail

In the Security option found off the Message Areas menu you will find quite a number of security controls related to echo and netmail. These are very much set and forget options although if you ever make any major changes to your security level system, it is a good idea to check these settings again. The options available are used as follows:

. Force Crash Mail Security - This is the minimum security level for which crash status on netmail messages will be forced ie. no choice is given, it is forced on. You are well advised not to give this to users unless you trust them with your life. Your front-end mailer could be going bizzerk delivering netmails all over the globe otherwise.

. Optional Crash Mail Security - This is the minimum security for which crash status is optional (up to the forced security). Upon attempting to write a netmail message, users with this security and above (up to the forced level) will be prompted as to whether they would like the message sent crash or otherwise.

. Netmail File Attach Security - This is the minimum security required for a user to upload and attach files to a netmail message. Be very careful of this as a user could attach large quantities of files to messages and you will pickup the tab for sending them to their destination via your front end mailer (registered version only).

. Netmail File Request Security - This is equally dangerous, at least for your wallet. If users have access to this option they can cause your system to do a file request to anywhere they like and your mailer will happily dial and try and pick-up whatever files they have requested (*.* maybe?)

All of the previous options should only be available to you and maybe co-sysops.

. Read Sec on New EchoMail Area - This defines the default read security on auto-created echo areas (see previous section). Normally you would set this to the same as the sysop security so you can prevent access to new echos until you have correctly completed their set-up.

. Write Sec on New EchoMail Area - Simular to the above this option defines the default write security on auto-created areas.

. Sysop Sec on New EchoMail Area - This defines the default sysop security on newly created areas.

. Reply Via Netmail Security - This is the minimum security a user must have in order to reply via netmail to an echomail message. This will automatically determine the appropriate netmail address using the hidden kludge lines present in most echomail messages (see later). If these kludge lines are not missing, Ezycom will ask the user to type the destination address manually.

. Request Receipt Security - This applies to local mail as well as netmail. A user with this security or higher can request a receipt to their message. In the case of netmail, a message will be sent back by the destination system once the message arrives to say that it did arrive and possibly what date/time that was.

Netmail Odds & Ends

There are three other options important to mail network operation that have yet to be mentioned. If you go into the Other menu in CONFIG and select Paths you will see three paths that relate to network operation.

. Netmail - This points to your front-end mailers *.MSG folder. All systems will have this. Be sure your mailer, your mail reader and Ezycom all point to the same place. This path should be unique (ie. not used for anything else).

. Nodelist - This tells Ezycom where your RAW nodelist files are stored so that Ezycom's nodelist compiler (see later) and ultimately Ezycom itself can find them for use in nodelist searching and other mail related functions. Be sure this points to the same place that your front-end mailer uses them from.

This completes our grand tour of the options in CONFIG that affect FTN operation. Now the usage of the actual utilities that do the mail processing will be explained.

EZYMAIL- Ezycom's Echomail Processor

The heart of Ezycom's echomail processing is handled by the EZYMAIL utility. This program is responsible for the de-archiving of all compressed inbound mail and processing it as well as generating all outbound echomail bundles. There are several command line options with which it can be run with. These function as follows:

-SCAN	Giving this option will scan out all waiting echomail. This function scans all echomail conferences and exports all messages that have not been exported before. It will export these messages to systems listed in your export list for each area, as appropriate.
-SCANALL	This is the same as -SCAN except that it will check every message area for outbound mail that is pending export rather than relying on the files that Ezycom creates to tell EZYMAIL where mail waiting to go out is situated.
-TOSS	This option will toss inbound echomail. This function is used to import mail packets into Ezycom echomail areas and to process pass-thru areas. If EZYMAIL detects a message for a conference in which you have systems defined in your export list, it will automatically forward the message to those systems. Complete information about all mail tossed is logged to the log file. Note: TOSS & SCAN are NOT mutually exclusive and can be combined in a single pass! The rest of the options following may also be combined with these two as needed.

-FULLCHECK	This will cause EZYMAIL to do a full check in inbound packets when tossing mail. Normally if you only have one system in your export list for an area, Ezycom just assumes the mail came from them and tosses it. Some utilities you may be running generate PKT files (for file announcements for example) and these would otherwise not be exported since it would assume the message came from the one and only export when in fact your system generated it.
-STOPFORWARD	This will allow processing of inbound mail but it will cause EZYMAIL to ignore up\downlinks while doing so. As a result no mail will be scanned out.
-VERBOSE	This will make EZYMAIL list how much mail was processed for each conference to the screen and to your log file.
-?	As with all Ezycom utilities, this will give you a help screen on command line options for EZYMAIL.

EZYMAIL also unpacks inbound compressed Netmail messages so they are ready for processing by another Ezycom utility called EZYNET (see next section) and any messages found to 'Sysop' will be re-addressed to the sysop name defined elsewhere in CONFIG. EZYMAIL is also very space conscious. It will unpack and process mail archives as it finds them (one at a time) rather than unpacking all mail archives immediately. It will also refuse to unpack mail if it calculates that there will not be enough free space to unpack them onto the current drive. If there is insufficient space for any given (uncompressed) packet to be tossed onto the drive where your message base resides, EZYMAIL will skip that packet. EZYMAIL has internal buffering and requires around 40 file handles to run when it is in full swing.

EZYMAILX - Ezymail On Steroids

This is a DPMI (DOS Protected Mode) version of EZYMAIL that has some advantages over the normal EZYMAIL. Note however that because it is a protected mode program it requires at least a 80286 to run.

Feature differences to the standard EZYMAIL include:

. This version can handle 63K messages (instead of only 16K) although this breaks most mail processors.
. It handles much larger dupe tables and is dependant only on available memory.
. Has more buffering and hence is faster
. However it requires MUCH more memory (the more, the merrier) and you should have at least 2MB spare to make it worth the trouble of running it.

If you are running in a multitasking environment you would be best to limit the amount of memory that EZYMAILX can grab else it will soak up everything it can lay it's hands on.

EZYNET - Ezycom's Netmail/Areafix Processor

EZYNET is used to import/export your Netmail to/from your front-end mailer. It also contains Ezycom's built in Echo Area manager (Areafix like utility) and will process these messages when found. EZYNET is FULLY Zone Gate aware and will correctly re-address netmail messages, as appropriate, should you be acting as a zone gate or should netmail destined for another zone be processed. The command line parameters for EZYNET are:

-EXPORT	This will export all pending netmail from Ezycom and place it in to the correct path for your front-end mailer to send.
-ZONEGATENO	This will disable EZYNET's built in zone gate function. Normally EZYNET will automatically re-address netmail messages for you if you are sending messages across zones. This will stop EZYNET from sending them through the Zone Gate.
-IMPORT	This will import all the netmail from the directory where your front-end mailer puts them and places them into your message base.

-USERSNO This parameter is used in conjunction with the -IMPORT parameter. It will disable EZYNET's special checking function for inbound netmail. The netmail checking function ensures that all netmail destined for your system actually have someone to go to on your system (ie. it checks the user file to make sure that user name exists). Should the user not exist, the mail is redirected to the sysop automatically along with an explanatory note. You would not normally disable this function without a good reason.

-ECHOAREA Also used in conjunction with -IMPORT, this parameter tells Ezycom's Echo Area processor look for messages sent to it and act upon them (see next section).

-LIST -U<address> This option allows you to manually send full areafix style messages to a given node. This would be useful for new nodes that do not know how to use EchoArea yet. The address after the -U MUST be a fully qualified 5-dimensional address (ie. zone, net, node, point, domain).

-POLL -U<address> This option is used with BinkleyTerm to generate a POLL packet that will cause Binkley to dial a node. The address MUST be a fully qualified 5 dimensional address.

-? As with all Ezycom utilities, this will give you a help screen on command line options for EZYNET.

The Echo Area Manager

Echo Area is a part of the Ezycom netmail processor. It allows your downlinks (and indeed your uplinks) to make changes to their echomail profiles without them needing to bother you with manual requests. Echo Area will process them automatically without your intervention.

How To Use Echo Area From Remote

To access Echo Area, send a netmail message to your host addressed to the username 'EchoArea' or 'Areafix'. To safeguard your echomail profile, you must specify a password on the subject line of the netmail message. If you do not have a password, or you do not know what it is then contact your host.

The main use for Echo Area is to connect and disconnect from conferences at your host. To do this you simply tell Echo Area the Echo Tag of the conference(s) you want to pick up or drop.

For example, to add the Ezycom Support Conference (EC_SUPPORT) and drop the Remote Access Support Conference (RA_SUPPORT) you would send a message like:

```
To: EchoArea, 3:622/407
Re: foo
----------------------------------------
+EC_SUPPORT
-RA_SUPPORT
---
```

Note that the '+' sign in front of the echos to be added is optional and so it can be left out if you wish.

You may add/remove as many echos in the one message as you like using this method. The order in which you specify the echos does not matter either.

Note also the tear line (row of dashes) at the end of this example. Everything after the tear line is ignored, so you can also send comments or queries to your host. This is useful if you have a question relating to your conference set-up or have problems using Echo Area. The tear line is not necessary unless you wish to make such a note on the bottom of the message and can be left out completely when not required.

Once your request is processed, Ezycom will then write a netmail response back to you showing you a report of exactly what actions were taken (and pointing out any errors that occured). If you (or the remote system) process mail continuously, this response will be available for pickup shortly after the actual request was received and processed.

Echo Area Commands

There are several optional commands that can be invoked by either putting a parameter after your password on the subject line or by placing a control command in the message text. All parameters are preceded by a '-' character and commands are proceeded by a '%' sign. You may place as many of these together in your message as you like. All subject line commands must be separated by spaces and all control commands in the message text must each be on their own line.

-Q or %QUERY	The Query command will cause Echo Area to create a list of all the echomail areas that your system is connected to and send it back to you in a netmail message.
-L or %LIST	This is similar to the -Q command above, but it lists all the echomail areas available as well as the areas you are already connected to.
-U or %UNLINKED	This is the opposite of -Q in that it will create a list of all the echomail areas your system is not connected to (but are available for connection).
-R or %RESCAN	All conferences added in this Echo Area message, will be rescanned. Rescan means that all old messages up to a set limit in the area(s) are bundled up and sent to the requesting system as if they were new messages. This option will also post a message to the host system's operator informing them that a rescan was performed. All rescanned messages will carry the @RESCANNED kludge to prevent them causing dupe loops.

Note: The control command version of the rescan command is slightly different. While the '-R' version will rescan all areas listed, the '%RESCAN' will only cause a rescan on areas listed AFTER the command. This is useful if you only want to rescan a few of the areas you have added rather than all of them.

-H or %HELP	EchoArea will send back a netmail message containing information on how to use Echo Area including a complete list of commands.
-All or %+ALL	The All command will turn on all available areas to your system. Saves doing a long list of echo tags..

-NoAll or %-ALL The NoAll command is the exact opposite to the All command. It will turn all echomail areas off for your system.

The following commands have no subject line equivalents and can only be used in the message body.

%PAUSE This command temporarily turns off the mail for your system, while you are on holidays for example. The mail can then be later resumed with %RESUME. Note that no areas are actually turned off, the mail is just stopped (the equivalent of setting the EchoMail Active option to No in the Node Manager in CONFIG).

%RESUME This command resumes mail that has been previously paused using the %PAUSE command (or manually by the host sysop in the node manager).

%COMMENT Identical to the tear line, '---' at the end of a message. Everything on lines following a %COMMENT command is ignored.

EZYPACK - Ezycom's Netmail Pack Router

EZYPACK is a netmail archiver/pack router for Ezycom. It basically packs netmail into an archived mail bundle (where echomail is normally placed). This reduces transmission size and thus saves money and it also reduces the need for your front-end mailer to do much routing of netmail since this will now already have been done for it, hence the term pack routing. EZYPACK is also a BinkleyTerm style packer. It can convert *.MSG file attaches to Binkley outbound bundles as well as non-routable messages such as Crash status ones. It can also perform routing on these bundles. If netmails do not have either an @INTL or @MSGID kludge present, EZYPACK will do a nodelist lookup to obtain this information (where possible) else it will leave that netmail message alone. EZYPACK also supports Front Door 2.20 dupe detection.

Once again, EZYPACK is command line driven and its switches are:

-DEBUG Shows a listing of the internal routing, basically how EZYPACK understands your intended routing. You may want to capture this output to a file using DOS redirection.

-TESTMODE	Allows you to type the address of nodes where you might wish to send netmail. It will then tell you where it would send the mail to if given the chance to pack route it. The -C (Crash Mail) and -H (Hold Mail) are also valid after the address, as it is possible to route those messages to different addresses. Normally without these specifiers, any messages with this status are ignored by EZYPACK.
-VERBOSE	Verbose shows who the packed netmail is being sent from and sent to, and who it is being sent via. ie. a complete description of what EZYPACK is doing as it executes.
-L<filename>	This switch allows something other than the standard control file (EZYPACK.CTL) to be used for routing. Useful if you wish to have multiple routing procedures possibly depending on what time of the day it is. More than one file can be specified at once also. Use a space to separate each -L command.
-FATTACH	This enables the Binkley attach conversion feature of EZYPACK. During the search of the *.MSG netmail directory, EZYPACK will now look for any attach messages and if found they will then be converted to Binkley style attaches and thus will be ready for sending by your front end mailer.
-?	Like all Ezycom utilities, this will give you help on using EZYPACK.

Setting Up EZYPACK.CTL

This is the standard routing file. The command line routing (routing placed on the command line) is used in exactly the same way as routing in EZYPACK.CTL. It is not essential to have routing on the command line.

Comment lines may be placed in EZYPACK.CTL by placing a ';' at the start of the line. Each line indicates a new routing statement. To list exceptions to a global routing statement (Eg: 3:*), they must be placed on a line previous to the global routing statement. The command line can be considered as the 'top' line. Any files added for routing with -L<filename> are processed after EZYPACK.CTL (if present). Global routing can be done by using '*' or using a '-' for a range of consecutive nodes.

For Example:

```
*:622/*
3:622/*
3:622/407.* .*
*
```

EZYPACK recognises short form addressing. The short form is taken off the previous node listed, for example 3:636/204 205 would mean 3:636/204 3:636/205. However, all VIA lines (route mail via <address>) MUST include a fully qualified address consisting of at LEAST 3 dimensions.

EZYPACK is a FULLY 5D aware netmail packer and recognises 2000 different routings of netmail for one run in single route file. Using different control files and command lines, it is possible to make this limit endless assuming that 2000 is not enough.

Following are a series of routing examples. For the purpose of the examples it is assumed that 3:622/407 is one of your addresses.

```
3:622/407
```

This tells EZYPACK to pack netmail for all points of 3:622/407 ie. 3:622/407.1 etc. As this is one of my points, netmail is directly sent to the point instead of being boss routed.

```
3:622/407.1
```

This tells EZYPACK to pack netmail for 3:622/407.1 .

```
3:622/410
```

This tells EZYPACK to pack netmail for 3:622/410 and all of its points. Any netmail for the points will be sent to the boss node ie 3:622/410.

```
3:622/410.1 .*
```

Tells EZYPACK to pack netmail for 3:622/410.1 but directly send the netmail to it ie. not to route it via the boss node. Netmail for 3:622/410.0 or 3:622/410.2 etc will be sent to 3:622/410.0 however.

```
3:622/410
3:* VIA 3:54/54
```

Tells EZYPACK to pack netmail for all of Zone 3 and send it to 3:54/54. However, netmail for 3:622/410 and points will be packed and be sent directly to 3:622/410 as it was listed previously in the routing statements.

```
3:622/401-404 VIA 3:622/408
3:* VIA 3:54/54
```

This is exactly the same as the previous statement, except that netmail for 3:622/401 402, 403 & 404 will be sent to 3:622/408. The rest of the mail for Zone 3 will be sent to 3:54/54

Notice the '-' between 401 and 404. This indicates a range of nodes. The '-' only works on node addresses (ie. it will not work on zones, nets or points).

```
3:* VIA 3:54/54
*:  VIA 3:711/409
```

This would tell EZYPACK to route all netmail for Zone 3 to 3:54/54 and route netmail for other zones via 3:711/409

```
3:622/410 -C -H
```

This tells EZYPACK to pack netmail for 3:622/410 and all of its points including any Crash and Hold Mail. All mail is routed to the boss node as points were not specifically listed.

As you can well see, EZYPACK is very powerful and there are many different ways to achieve the same routing. Remember however that the .CTL file is processed sequentially so you cannot undo from below what you have done above. Some care must be taken in complicated routing situations to ensure that you do not end up with incorrectly routed netmail.

EZYNODE - Ezycom's Nodelist Compiler

This utility is used to compile FTN nodelists for each of your network AKA's so that Ezycom may use them. The nodelists are used for many things in Ezycom including validating netmail addresses, doing Zone and other address look-ups during mail processing and for online nodelist browsing by users.

Ezycom uses a very different style of nodelist compiling/viewing to many other BBS packages. It allows the sysop to configure the nodelists to be viewed for each address that the sysop has. In all, the sysop has a maximum of 16 network address. For each network address the sysop can have multiple nodelists. Ezycom has a maximum of 256 nodelists. This should not be any real limit though. This feature can be used to secure your network from unwanted user access, for instance if you allow your users to post messages into Fidonet, but not allow them to post messages into EZYNET (a network of Ezycom BBS's). It can also be used to make sure users only enter messages into Fidonet using your Fidonet address so that messages do not get cross-netted. It is almost most important that EZYNODE is setup correctly else full five dimensional routing will not work correctly as this relies on accurate nodelist and domain lookups.

Setting Up EZYNODE.CTL

EZYNODE requires a nodelist control file called EZYNODE.CTL and this should be located in your Ezycom system directory. Comments may be placed in this control file by placing a ";" at the beginning of the comment.

For Example:

```
;EZYNODE control file
```

This is a valid comment since the ";" precedes the comment. Blank lines are also ignored by EZYNODE.

EZYNODE accepts 6 different keywords. START, AKA, LIST, PLIST, DEFAULT and COST. A description of how each command is used and applied to the control file follows.

START	The START command tells EZYNODE that a NEW index should be created for the following AKAs/NODELISTs. Up to 25 START commands (indexes) may be present in EZYNODE.CTL (one for each AKA defined in CONFIG).

AKA <net address or ALL> The AKA command tells EZYNODE which network address should be used for this index. This is very important as only those network addresses that use the nodelists indicated after this command should be used. However a short cut command can be used called ALL. This will tell EZYNODE that all network addresses are to be used for these nodelists. If the ALL command is used for the network addresses, then no other network addresses should be stated.

For Example:

```
AKA 3:622/407
AKA 3:622/407.2
AKA ALL
```

After entering the AKAs for the index, the nodelists to be used for the index must be specified. This can be accomplished using the LIST or PLIST commands.

LIST <nodelist> [optional zones] <@domain>

The LIST command indicates that the nodelist that follows it compiles to the St Louis nodelist format, or in simpler terms that it has at least 1 Zone statement at the top of the nodelist.

For Example:

```
LIST NODELIST.* 1 2 3 @fidonet
```

If the [optional zones] are left out, then EZYNODE assumes that all Zones are to be processed. In this example, NODELIST.* will be compiled (the latest version of NODELIST in the nodelist directory). It is MOST important that the correct and a consistant domain name be used.

PLIST <nodelist> <zone to use> <@domain>

The PLIST command indicates that the nodelist which follows will be a private nodelist that does not contain any Zone statements. You MUST indicate which Zone EZYNODE is to use.

For Example:

```
PLIST EZYNODE.* 80 @ezybetanet
```

In this example, Ezycom's beta network nodelist will be compiled, but because no valid zones are in the nodelist, EZYNODE will use zone 80 for the zone address. Remember, the <zone to use> parameter MUST be present for the PLIST command to function as must the domain name.

DEFAULT <cost>	This sets the default cost for all network addresses, that are not matched using the COST statement. If no DEFAULT statement is specified, then a cost of 0 is assumed. The <cost> is the units of cost for each minute of transmission.

For Example:

```
DEFAULT 250
```

This will set the default cost to 250 units.

COST <phone number> <cost>	Sets the <cost> for a match of <phone number> in the network address where the message is being sent to. The first match that Ezycom makes in phone number searching, will be the one Ezycom will use the cost for. costing is global for all nodelists.

For Example:

```
COST 61-3 50
COST 61-49-    25
```

In the previous example, any phone numbers such as 61-49-56-2853 would cost 25 units. Whereas phone numbers such as 61-3-578-0968 would cost 50 units. If COST 61- 50 were placed before the line COST 61-49- 25, then ALL 61- phone numbers would cost the same, as the match for 61-49-56-2853 would first match 61-. Costing is currently not used by Ezycom so this part is not greatly important for the time being.

EZYNODE stores all its index files in your nodelist directory as defined in CONFIG in the Other sub-menu under Paths. Each index is named EZYINDEX.<index #>. EZYINDEX.00 contains path and netmail address information. EZYINDEX.COS contains phone number matching and costing information.

If you wish to sort the indexes (for viewing ease), run EZYNODE with the command line switch -SORT. As always, -? gives help information on EZYNODE.

An Example EZYNODE.CTL

```
; First Block will create EZYINDEX.01
START
AKA 3:622/407
LIST NODELIST.* 1 2 3 4 5 6
;
; Second block will create EZYINDEX.02
START
AKA 151:6122/100
LIST EZYNODE.*
```

Using Ezycom's Mailer Semaphore Support

Ezycom's mail utilities are capable of detecting the type of front-end mailer you are running and upon doing so, will generate appropriate semaphore files to make those mailers rescan their outbound bundles after new mail has be processed. The environment variable EZYSEM points to the directory where the semaphore file should be placed.

Front Door

If Ezycom finds the FD environment variable, it will update FDRESCAN.NOW and FMRESCAN.NOW after processing mail. The commercial versions of Front Door make a file called FDINSESS.<task> in the Front Door System Directory while a mail session is in process. If EZYMAIL detects one of these files then it will not attempt to process mail. Imagine what could happen if it was updating a mail bundle which was currently being sent in that session.

D'Bridge

If Ezycom finds the D'BRIDGE environment variable, it will update DBRIDGE.RSN after completion of execution. This tells D'Bridge to rescan its netmail.

BinkleyTerm

When Ezycom detects the BINKLEY environment variable specifically, it will create BTRESCAN.xx flags (where xx is the node number). These flags will be placed in a FLAGS sub-directory that hangs straight off where the outbound directory also is so if your outbound was C:\BINKLEY then the flags would be placed in C:\BINKLEY\FLAGS. Be sure to point your BINKLEY.CFG to here.

Front End Mailer Types

There are two distinctly different types or groups of front end mailers currently available that Ezycom is able to function with. These are the Front Door style *.MSG attach type (known as Dynamic mailers) and the BinkleyTerm *.FLO type (known as Static mailers). A brief explaination of each of these two types of mailers and what to watch out for when setting them up with Ezycom now follows.

Front Door *.MSG Style Mailers

These type of mailers use a dynamic outbound manager where bundles are built on the fly and are readily able to be altered/routed. Common front end mail packages that fit into this group include Front Door and Intermail.

Each mail bundle or file attach that is waiting to be sent to another system has a corresponding *.MSG (standard FidoNet message) in a netmail directory which tells the mailer where to send the file(s). To build a list of mail to go out, the mailer scans this netmail directory reading the addressing contained within each of the *.MSG files. From this it builds a list in memory of where everything is going taking into account any routing conditions you specify in the mailer's configuration (in the case of Front Door, in the ROUTE.FD file). The status of mail bundles in the outbound manager is derived straight from the status on the *.MSG message files themselves (unless routing overrides this). This makes it very simple to change the status of a bundle. One need only change the status on the appproriate messages using a message editor such a FM (supplied with Front Door) or GoldEd. However the mailer must then rescan the netmail directory to notice this change of status. On the fly altering of bundle status can also be done from the mailer directly but any changes here are lost should the mailer ever have to exit (eg. a user for your BBS calls in) or should it be forced to rescan for outbound mail.

Front Door style mailers offer the easiest and quickest Front End mailer setup, especially for the new sysop. However, if you are going to handle large volumes of mail for a number of up/downlinks, especially if you are running any inter-bbs games such as Barren Realms Elite (BRE), once the number of attaches gets into the hundreds, the mailer's dynamic bundling procedure will begin to take longer and longer to the point where it can take several minutes just to rebuild the dynamic bundles. It is therefore recommended that if you intend to do this, that you use a static type mailer instead.

Things to look out for:

. Your PACKET directory should NOT be the same as your outbound or inbound directories (which should also be different to each other). Front Door/Intermail use a temporary directory to store the dynamic outbound bundles. To speed rescanning up, you should point this to a RAM drive where possible and multiple nodes must also have SEPERATE packet directories. These are only used by the mailer and should not be used by any other software including Ezycom.
. Be sure to delete netmail regularly so that your netmail folder does not get much bigger than 150 messages or so else as explained before, rescanning your outbound will become unbearably slow.

. It is also a good idea to set the Kill Bad Archive(s) option in CONFIG to No. This is because a mail transfer may have aborted leaving only half the file received and if the archive is then deleted, the transfer cannot resume except from scratch should the transfer be tried again at a later date.

Binkley Style *.FLO Mailers

This type of mailer uses a static outbound manager and puts virtually all of the onus for mail routing up to the mail processor (EZYMAIL/EZYNET/EZYPACK). Common front end mailer packages that fit into this category including BinkleyTerm and Portal Of Power.

Each mail bundle that is waiting to go out is pointed to by *.FLO style file instead of a *.MSG file. This file is simply a text file that lists, one per line, the full path and filename to each mail archive or file attach waiting to go out as well as information in coded form on what to do once that file has been sent. The *.FLO file gets the first part of its name from the destination address that files within are going to (in hexadecimal base 16 notation). The first four characters of the filename represent the net address of the system it is going to and the last four, the actual node itself. So for a system at 622/407 (hex 026E/0197) a list of outbound files would be contained within 026E0197.FLO. So routing these files somewhere else merely involves changing the filename to reflect the new destination. Very simple indeed.

Each of these *.FLO files (along with the mail archives) is located in a specifically named directory depending on the zone which it is destined for. In a standard setup, *.FLO's destined for nodes in your primary address's Zone, are held within a directory called OUTBOUND. You normally configure the base directory that your OUTBOUND will reside on or hang off (for example C:\BINKLEY\). All BinkleyTerm aware software (such as Ezycom) then automatically look off this base directory for the OUTBOUND. Mail not destined for your primary address's zone and

instead for some other zone is placed in a directory again named OUTBOUND only this time it will have an extension (also in hexadecimal) that states which zone the mail is destined for. So if your primary node number was 3:622/407 and you had mail on hold for zones 2 and 15, the *.FLO files for this mail would be placed inside the directories OUTBOUND.002 and OUTBOUND.00F respectively (15 = 00F in hexadecimal).

What about points? Well mail for points is placed in a subdirectory off the appropriate outbound directory as per the zone. The name for this directory is identical to that which a *.FLO file to your address would be named (should you happen to send mail to yourself!) followed by a .PNT extension (so a *.FLO 3:622/407.1 would be placed in a directory ...\OUTBOUND\026E0197.PNT). The actual *.FLO file in here is then named from the point number. So 3:622/407.1 would be a in .FLO file 00000001.FLO. The net number component is obviously not used in the case of points and so is always set to 0000.

Outbound status is implemented using special naming on the extension of *.FLO files. The first character of the extension gives this status as per the following:

I	Important/Immediate - an attempt will be made to send this immediately
C	Crash - will be sent off when crash mailing is allowed and if the recipient supports it
F/N	Normal - will be sent in a normal sending event
D/O	Direct - will be sent directly to the system it is addressed - same as normal
H	Hold - will NEVER be sent on an outbound call. Can only be picked up.

So a *.FLO type file with the extension *.CLO would be interpreted by your mailer as crashmail. Normally you would have the *.FLO (or *.NLO) extension unless you have a specific reason for setting something else.

Other special extentions are also used within the outbound directories. These are:

*.?UT	This is a standard FidoNet uncompresed mail .PKT file. The same naming conventions are used for the filename and the ? in the extension is replaced by the status of the bundle. Normally only crash netmails would be sent like this.

*.REQ — This is a text file that contains file request information. Each line has a filename (or file spec) on it followed optionally by a password preceeded by a space and an exclaimation mark '!'. So for example, a file request of TEST.ARJ with password HELLO to 3:622/403 from 3:622/407, would be contained in a file 026E0193.REQ in OUTBOUND and the first line of the file would read

```
TEST.ARJ !HELLO
```

As mentioned previously, all filenames in *.FLO files are proceeded by one of the following characters:

^ — This causes the mailer to delete this file as soon as it has been sent.

— This will cause the mailer to truncate (set the file to zero bytes in size) as soon as the file is sent. Normally mail archives would have this status.

~ — Not all files in the *.FLO have been sent (the last mail session with this node was probably interupted). Files that have been sent already will be marked with this character so that the mailer knows where to continue from upon next connecting with this node.

Things To Look Out For:

. Be sure that the Binkley Path in CONFIG points to the base directory that your OUTBOUND.nnn (or DOMAIN.nnn) directories hang from.

. Ezycom will use the first eight characters of the domain name on the destination node's AKA to determine the name of the outbound directory to place *.FLO files in when running in FULL 5 dimensional mode (only possible with BinkleyTerm 2.50 or later to date). Be sure that these names match those you have defined in your front-end mailer's configuration else it will not be able to find them. Ezycom is fully capable of operating in two networks sharing the same zone when in 5D mode. It will rely on domain and nodelist lookups so ensure that you have correctly setup and used EZYNODE else the 5D support will NOT work.

. Messages with File Attach, Crash, Direct & Immediate status need to be converted to Binkley style outbound bundles. Use EZYPACK -FATTACH to do this (InterBBS games such as Barren Realms Elite will require you to do this). Be sure to also allow the creation of these bundles by enabling the corresponding option in CONFIG under Network Misc. Any routing in EZYPACK.CTL is considered unless over-ridden. This allows you to file-route non-crash/direct/immediate file attaches via other nodes if need be.

. The Delete Mail Bundles option must NOT be enabled else all of your waiting outbound mail will get deleted each time EZYMAIL is run since none of it will have a *.MSG attach.

Conclusion

This brings us to the end of the very complex task of setting up Ezycom for network mailing. You will probably need to constantly refer to this chapter as you configure your mailing setup. If you are still lost after having read this chapter several times and tried the things mentioned, then contact an experienced mail network person near you for help. The information presented is already quite exhaustive and is well beyond the usual scope of this type of document. Nothing beats one on one help from an experienced network sysop.