

Introduction

This section will explore several other features of Ezycom that have been skipped to date because of their advanced nature. You should remember that all features explained in this section are optional and a BBS can be quite functional without them. We suggest you do not try to understand them till you have a good grasp of the first five chapters and you feel comfortable using Ezycom and at least have a tested and functional system.

File & Message Area Groups

The use of groups allows file and message areas can be categorised into groups that share a common theme. It is mainly used in conjunction with file and message area templating. For example one use of grouping could be to allow all Amiga related areas to be grouped into one perceived area, totally separate from all IBM areas. Special commands in the questionnaire language can be used to allow users to select the groups they wish to view (see Appendix A).

In the configuration for each message and file area there is an option to configure the group to which that message/file area belongs to (do not confuse this with Echo Group for messages). The groups can be configured using any of the letters of the alphabet (A through to Z). To ALWAYS enable access to a certain message/file area no matter what the current group settings are you can make the group a * group (ie Global). Note that file and message areas use the SAME group ie. group A in the message areas is ALSO group A in the file areas. You might like to choose group A for Amiga and group I for IBM for example.

With the use of the questionnaire language group commands (see Appendix B) and the group settings, it is possible for the users to select which groups they wish to see. All they have to do is turn on the groups they want and turn off the groups they do not want. Then whenever they do a new files listing, combined read, message area change, file area change, search for files, or any other global type command on message or file areas, then only those groups the user has selected will be displayed.

Note: Groups are NOT a security feature and the user will STILL be allowed to access areas they can normally access even if they have the group turned off or if you make it available using /F=<area> or /M=<area> commands.

Users can now select which groups they wish to select, but if they have all groups turned on, then they still could be presented with many file/message areas when doing area change commands. It is possible to override the group commands on the Goto/Gosub Menu command (with /F=+ or - or /M=+ or -), the change file area, change message area (and equivalents), and all global message area/file commands. To override group settings the sysop MUST place a /G=<group> on the Data line. The <group> is either a letter from A through to Z, or * (meaning ALL groups). For instance, to change to a file area only in the IBM group, a /G=I would be used on the Data line of the menu command. So using a totally separate menu for IBM files, the sysop could use /G=I command on all global type commands in the file area and this will allow only IBM file areas to be viewed and/or be changed into. Using the /CG=<group> option on a Goto/Gosub Menu command eliminates the need to use totally separate menus for each group you have on your system. This effectively templates the group for a group menu.

A problem now arises when a user changes between two overriding groups. The problem is when they go into the other group (Eg. Amiga) they will still be in an area of the group they were last in (Eg. IBM). To overcome this, an option has been added to the /F= /M= command. This option allows you to specify the <group>, which the user should be placed into.

For Example:

```
Type : 1                (Goto Menu)
Data : FILEMENU /F=A
```

This would place the user into the last Amiga file area they were in. If the user has not yet been in an Amiga File Area, then they are placed in the first available Amiga File Area (or the first global area should one of these come before any Amiga ones).

The best way to learn groups is to experiment with them and see what happens. You should at least have tried message/file area templating before you begin to tackle groups however. Be sure to seek help from a support site if you are still lost or re-read this section of the manual a few times and then try again.

QWK Offline Mailing

Ezycom features a built in QWK offline mail processing facility, a feature quite absent or implemented through a third party door in other packages. QWK is a mail packet standard that has been around for quite some time now and there are mail reader programs for just about every computing platform in common use. There are often many to choose from on each platform too. Some common ones include The Silly Little Mail Reader for DOS, WinQWK for Windows, KWQ for OS/2 2.1 PM and QBLUE for the Amiga. The number available is growing daily.

QWK allows users to download all the mail of interest to them in a single compressed bundle for reading later when they are no longer connected to the BBS, hence the term offline mail. They can then reply to messages they read and their mail reader will then make up a reply bundle to be sent back to the BBS on their next call. The BBS then processes this as if it were written online. This allows much greater participation in mail networks and so is a boon for any sysop trying to encourage users to write mail.

Configuring Your System To Create QWK Mail

There are a number of settings throughout CONFIG that you need to set-up in order for QWK to work. On the Message Areas menu you will find an option titled (strangely enough) QWK Mail. Selecting this option brings up another menu that has four options for you to configure.

- . Unique QWK Filename - Here you define the 8 character filename that all QWK bundles from your BBS will bear to distinguish them from other systems. Eg. If your system was called DOGS BBS, you could use DOGS-BBS and so any QWK packets from your system would be named DOGS-BBS.QWK and any reply bundles sent back would bear the name DOGS-BBS.REP.
- . Maximum Messages - This is the maximum number of messages you will allow a user to scan out at once in total. The value you put here will largely depend on your disk space. Count on requiring around 1.6K of space for each message you allow for per node you have on air (since more than one user can do this at once). These files are built in the TEMP path (per CONFIG) and so this is the drive the space is needed on. Pointing this to a sufficiently big RAM drive will speed QWK building up massively.
- . QWK Message Board - Any BAD QWK mail will end up on this message board. One would normally point this to the same area as their bad echomail area.

- . Receive Own QWK - If this is set to Yes, then any messages posted by the user will also be included in downloaded QWK bundles otherwise they will be skipped during building.

There are also some other things you have to make sure you have configured.

- . Be sure to set a QWK Name for each message area on your system you want to be downloadable. If no name is defined here, then it will not be selectable by users for their QWK bundles.
- . Message areas must also have the Combined setting set to Yes for them to be selectable in a QWK bundle.

Ezycom looks at all security settings when scanning out mail so users CANNOT get access to messages they would normally not be allowed to whilst online. Be careful also if you move message areas around (using ALT-M in CONFIG or by using EZYUTIL). QWK works on an area number basis only and so depending on how regularly your users send back replies, an area may have moved since they last did so and their message could end up bad or in the wrong area (and get you into trouble when the conference moderator sees it). Ezycom will also complain if there is not enough space on the specified drive to build a user's requested QWK bundle.

To allow users to download QWK mail you should set-up a special menu that allows them to do the following:

- . configure their combined settings including by global means
- . set their compression preference
- . set their default download protocol
- . reset their last read pointers
- . download QWK bundles
- . upload QWK bundles
- . allow them to set maximum messages per bundle/area
- . allow them to set the maximum age of messages to bundle

The applicable menu commands to do all this can be found throughout Appendix A.

Netmails In QWK

Ezycom implements special support to allow netmails to be correctly posted using QWK. Any messages bundled into downloadable packets from netmail areas will automatically get a **From: <network address>** line inserted (where <network address> will contain a valid FTN number) at the top of the message to assist the user in replying. When a user replies they should use a **To: <network address>** statement in the same place at the top of the message. Ezycom will automatically process this message as per usual once it has this information.

Remote QWK Maintenance

Ezycom also supports remote ADD and DROP of QWK areas. It will look for these messages whenever a QWK .REP bundle is uploaded and act on them accordingly.

Questionnaires

A Questionnaire is simply a script or series of commands that Ezycom can execute. Ezycom has a VERY powerful set of commands that will allow you to do almost anything you like including running your entire BBS out of a questionnaire file. Questionnaires are so named because they were originally invented for asking users a series of sysop customised questions and then storing the answers given. These days they do that plus much more. Questionnaires will be very simple to learn for anyone with programming experience. Those without any programming experience should experiment using simple commands at first and then move on to more advanced commands. Appendix B is a complete reference to all the available commands including examples on how to use them. The commands are introduced gradually in order of complexity and are grouped together by type.

You will need to find a suitable text editor to make questionnaire files. The popular shareware editor QEdit or even DOS's EDIT command will do this task nicely. Questionnaire files bear the extension .Q-A and must be located in the Ezycom system directory. They are executed using menu type 12.

Special Questionnaire Files

There are some special questionnaire file names reserved for particular purposes in Ezycom. When the time is right and Ezycom detects the presence of these files, it will automatically call them. The purpose of each is outlined below.

REG-EXP.Q-A

This is a questionnaire defined by you that Ezycom will automatically run when a users registration has run out. This is only used if you have enabled either rego days in the Limits manager in CONFIG or you have specified an expiry date in the user file for a particular user.

NEWUSER.Q-A

This allows you to define a new user questionnaire which is presented to each new user after they have finished answering login configuration questions. Be sure to have enough login time set for new users in CONFIG to answer login questions as well as answer this questionnaire if you have this enabled. MENU CMNDs are NOT available in this questionnaire.

NEWUSER2.Q-A

This allows you to define a secondary new user questionnaire. This one is run after new user record has already been written so MENU CMNDs are now valid.

EZYUTIL - A Powerful Collection Of Tools

Most of Ezycom's many general purpose utilities are tucked away nicely into a utility called EZYUTIL. There are some very powerful options available from this seemingly insignificant utility and so a large section of this chapter has been devoted to discussing each of these in turn.

Message Importing

To import a message file into your message base use the following command line :

- A<number> This is the message area to post the contents of the file into ie. the message area number in CONFIG.

- F<from_name> This is who the message is to be from. (Note: you must use underscore characters where there are spaces in the name eg. Peter_Davies).

- T<to_name> This is who the message is to be sent to (once again underscores need to be used where appropriate)

-N<5D address> This is the full 5 dimensional network address to send the message to (should it be a netmail message). There are also some optional parameters for use in conjunction with this option in order to specify the status flag(s) to place on the message being posted. They are:

PVT Private Status
KS Kill/Sent Status
FILE File Request Status
DIR Direct Status
C Crash Status

-S<subject> This is the subject of the message to be imported (once again, place underscores where spaces are needed).

-L<filename> Full path and filename of message text to import.

For Example:

```
EZYUTIL -IMPORT -A1 -FPeter_Davies -Tall -SHi -LTest.TXT
```

Automatic word wrapping is carried out on any lines that are too long in the text file that you are importing.

Quickly Re-arranging Message Areas

You can use EZYUTIL to quickly sort message areas using a variety of sorting methods. Use -SORTMSG to activate this command and use the following command line options to control its action:

-BYGROUP If this option is present then EZYUTIL will sort message areas by message area group and then by message area name.

-BYTAG If you specify this option then message areas will be sorted by echo tag and then by area name

-BYAGROUP Use this option to sort by the echo area group, then either the message area name or message area tag.

-FROM<area number> Use this to specify which message area to begin sorting from (as per the area number in CONFIG). EZYUTIL will default to area 1 if you do not specify this option.

-TO<area number> Use this to specify the highest message area that EZYUTIL should sort to. It will default to the highest area you have defined if you do not specify this option.

While sorting EZYUTIL will move all the messages within the areas around, it will move the message area entries in CONFIG and it will update combined and last read pointers in the user file. It will also update the netmail boards and other references to message boards (such as the bad area) elsewhere in CONFIG. Naturally it will not update batch files and menus that reference areas specifically however so you should check for this carefully after it has finished. You MUST NOT carry this function whilst users are online to your system. Also if you are in any mail networks, ensure that ALL pending echo/netmail has been scanned out and that all echomail message areas have pending linking completed on them before sorting message areas. This should not be a problem if you always link after mail tosses and always scan new mail out straight after users log off.

Pruning Batch History

You can use EZYUTIL to prune back your download batch history data file so that it does not get too big.

-BATCHOLD<days> This specifies how many days to keep batch history for. 7-14 days should be quite adequate in most cases. Note however that the data file for batch history is a linked list so it never shrinks in size, so this option merely frees up entries. After some time however it should stop growing and remain static in size.

Rapidly Deleting Certain Messages

This feature of EZYUTIL allows you to specify certain text to find in messages areas and when found EZYUTIL will cause the deletion of those messages from your message base. The -STRIPMSG option activates this function and the other command line options are as follows:

-L<filename> Use this to specify the filename of a special text file that controls message deleting. This file supports the following commands, each instance of which has to be on a separate line.

S means search the Subject for the following text.
F means search the From field for the following text.
T means search the To field for the following text.
B means search the From & To field for the following text.

For Example:

```
STest
TThe Sysop
FIdiot
BStupid
```

The search is non-case-sensitive and the text only has to be a sub-string of the appropriate part of the message. Spaces should NOT be underscored.

-A<area> This is an optional field. If present it is used to tell the message stripper to only search the specified message area. By default all message areas will be searched.

Undeleting Messages

One function of EZYUTIL also allows you to undelete specific messages. Use the following command line:

```
EZYUTIL -UNDELETE
```

You will then be prompted for the message area number from where you wish to undelete the messages that it contains within. If you select a valid message area, then EZYUTIL will undelete all the messages in that conference that have been marked as deleted. Only messages that were deleted AFTER the last MSGCOMP will be undeleted however. After a MSGCOMP, you can NOT retrieve any messages that were deleted.

Sorting Your Node Manager

EZYUTIL can sort your up/downlink node manager so that all nodes appear in numeric/domain order. Use the following command line:

```
EZYUTIL -SORTNODE
```

All your links will be sorted into ascending order while the pointers in your export lists are also being updated for each message area. It may take quite some time to do if you have a complicated message export set-up.

Sorting Your Netmail Folder

To quickly sort/renumber the messages in your netmail folder (*.MSG) use the command:

```
EZYUTIL -SORTMSG
```

Rescanning Echomail For New Downlinks

Often when you connect up downlinks to new echomail areas they will want some mail to start their areas off. Use the -RESCAN option to achieve this manually (they can use Areafix to do it remotely). This option has a couple of parameters:

- A<area number> Use this to tell EZYUTIL which echomail area (as per CONFIG) to rescan the mail out from.
- U<address> This is the full 5-dimensional address of the node in your node manager you want to rescan the mail out to.

EZYUTIL will generate the necessary information for EZYMAIL to later rescan the most recent messages (up to the maximum specified in CONFIG) out to the system specified. All messages will carry to @RESCANNED kludge to prevent dupe loops.

Stripping Log Files

EZYUTIL also allows you to easily prune back your system log files if you make use of the -STRIPLOG parameter. Use the following command line parameters with this:

- L<logfile> Use this to specify the name of the Ezycom log which you wish to be stripped.
- D<days to keep> Use this to specify the number of days of log which you wish to keep. For example: -D7 would keep the last 7 days of log file.

You are best to run this function whilst no part of Ezycom is active else the log file you are trying to prune could be in use and you will get a share violation.

Automatically Building File Areas

EZYUTIL provides you with a very quick way to automatically file areas. This is especially helpful if you are in the habit of adding new CD-ROM discs to your BBS which normally have thousands of files, hundreds of directories and hence would require many hours of work to set-up. This is no longer necessary. Run EZYUTIL with the `-MAKEFILEAREAS` parameter using the following options:

- `-L<file list name>` This is the filename (NO path) of the file description list to find. Normally this would be `FILES.BBS`
- `-A<area number>` This is the file area number to start creating file areas onwards from.
- `-D<drive>` This tells EZYUTIL which drive to search (including the colon). The entire contents of this drive will be searched for the file list name given. When found, that path will be added into your file database along with the contents of that directory.
- `-R<replacement path>` This allows you to substitute a different drive or network path for the `<drive>` used in the `-D` option. Ezycom can handle full network style paths if need be.
- `-T<template area>` This will cause EZYUTIL to use the specified file area as a skeleton setup to copy to all the areas it creates carrying across such settings as security, group etc.

For Example:

```
EZYUTIL -MAKEFILEAREAS -LFILES.BBS -A100 -DD: -T10
```

This will search for `FILES.BBS` all over `D:` and any directories where it finds `FILES.BBS` will be added to the File Areas and File Paths part of `CONFIG`, starting at file area/path 100 using area 10 as a template for creating the new areas.

Importing File Area Headings

EZYUTIL can also save you lots of time when creating new file areas by automatically importing titles for those areas from a text file. Run EZYUTIL with the `-FILEHEADERS` parameter and use the following options:

- `-A<start area>` This tells EZYUTIL at which area to start inserting headings from.
- `-L<list filename>` This specifies the name of the text file that contains the headings themselves. This file should have the area titles listed one per line.

File Area Information

EZYUTIL can export file area configuration information to a file called `FILES.TXT`. This file contains the configuration settings for ALL the file areas on your system. It is placed in the system path eg. `C:\EZY`. Use the following command line:

```
EZYUTIL -EXPORT -FILEAREA
```

Below is example of what each looks like when it is outputted to `FILES.TXT`

```
File Area Num: 25
File Area Name: Ezycom BBS Support Files
Upload File Area: MS-DOS - *NEW* UPLOADS!!
Area Path: I:\MS-DOS\EZYCOM\
File Group: I
User Security: 10
User Flag A: -----
User Flag B: -----
User Flag C: -----
User Flag D: -----
Upload Security: 0
Upload Flag A: -----
Upload Flag B: -----
Upload Flag C: -----
Upload Flag D: -----
Sysop Security: 100
Sysop Flag A: -----
Sysop Flag B: -----
Sysop Flag C: -----
Sysop Flag D: -----
Minimum Age: 0
Sort By: Alpha
Offline Allowed: Yes
Master List: Yes
Age Check: Yes
Conversion: None
Message Base Information
```


Similarly to the file base, EZYUTIL can also create an information file for the message base. The file created is called MESSAGES.TXT. Once again an example of what to expect is shown. Use the following command line to achieve this:

```
EZYUTIL -EXPORT -MESSAREA
```

```
Mess Area Num: 21
Mess Area Name: Fidonet Ezycom Support
Mess Area Tag: EC_SUPPORT
Mess Area Type: Echomail
Mess Area Kind: Public
    Mess Group: I
    AreaMgr Group: E
        Days Kill: 30
        Receive Kill: 14
        Count Kill: 999
    Kilobyte Kill: 0
    Read Security: 10
        Read Flags A: -----
        Read Flags B: -----
        Read Flags C: -----
        Read Flags D: -----
    Write Security: 10
        Write Flags A: -----
        Write Flags B: -----
        Write Flags C: -----
        Write Flags D: -----
    Sysop Security: 100
        Sysop Flags A: -----
        Sysop Flags B: -----
        Sysop Flags C: -----
        Sysop Flags D: -----
    Alias Allowed: Real Names Only
    Combined Access: Yes
    Initial Combined: No
        Age Test: Yes
        Keep Private: No
        Show Seenby: No
        Clear Seenby: No
            Visible: No
            Uplink: 3:713/618
            Origin Aka: 3:622/407
            Origin Line: Lake BBS. NSW, Australia (049) 562853
            Seenby: 3:622/407
            Export List: 3:622/402 3:622/403 3:622/410 3:622/413
3:711/437 3:713/618
```


Message Base Statistics

EZYUTIL can generate a set of statistics for your message base. The file created is called STAT<area>. This will tell you such things as the number of participants in that message area, the average message length in bytes then a list of user names along with the number of messages posted by that user, the total length in bytes for all their messages posted and an average of the length of their messages posted. At the end of the file there is a section showing the person that posted the longest message and the person that posted the shortest message. This text file could be imported into the message base using the EZYUTIL message import command to show the users the statistics of the message area being used. The file will be placed in the current directory and has no extension.

For Example:

```
EZYUTIL -MBS -A27
```

would produce a STAT027 file in current directory showing the aforementioned information. An example file has not been included here to save space.

Adding Rumours

You can use EZYUTIL to add new rumours to your rumour file from a text file. The source file should be a text file with one line rumours (one per line) that are no longer than 79 characters each.

For Example:

```
EZYUTIL -RUMOURADD -LC:\NEW-RUMO.TXT
```

would import rumours from a the text file C:\NEW-RUMO.TXT

Deleting Rumours

As well as adding rumours, EZYUTIL can also delete them after they are over a set number of days old.

For Example:

```
EZYUTIL -RUMOUROLD10
```

would delete rumours older than 10 days (ie 10 days or more since they were added to the rumour file)

EZYLINK - Fast Message Subject Linking

This is a small, quick utility to allow you to reply-link messages in echomail areas that have received new mail since you last ran MSGCOMP -LINK. It is not designed to replace MSGCOMP. It would normally be used immediately after tossing new echomail with EZYMAIL so that you do not have to wait for the next run of MSGCOMP in order to have all replies to messages, linked together. EZYLINK (unlike MSGCOMP) will also run with users online.

File Points - What Are They?

File Points are a file credit management system that do not incur the problems associated with the normal File/Kilobyte Ratio Systems. The unique feature of file points is that when user(s) download a file, the uploader of that file is given credit for the download. So if user(s) upload old/boring files that will not be popular, then they will not receive many (if any, depending on the configuration) filepoints for their upload. This system encourages user(s) to upload decent files as the more times files they uploaded are downloaded by others, the more points they get and so the more downloads they can take. Please note this is a registered only feature of Ezycom.

ANSTOAVT - Convert ANSI to AVATAR

This small utility will convert your .ANS (ANSI) files to .AVT (Avatar) files. You should run this any time you change your ANSI screens.

Example 1:

```
ANSTOAVT MESS.ANS
```

Wild cards are also supported so if you wish to convert all your .ANS files, type

Example 2:

```
ANSTOAVT *.ANS
```

This will convert all of your ANSI screens to AVATAR screens.

EZYADOPT - Advanced Features

There are actually two previously neglected (on purpose) features of EZYADOPT. These were left out (and are not documented in the command line help for EZYADOPT) due to their very advanced (and dangerous) nature. They will now be carefully explained.

Normally when EZYADOPT is run, it will scan every area on your entire system and build a Paradox database of every file on your system noting its path. This is done because it is completely possible that a file may be in a path but not be in the area that path is normally pointed to by. For instance if you have a Games file area that normally resides in E:\GAMES you can move a file from that area to a totally different one without physically moving the file (ie. you only move the description). The database entry in Ezycom has a pointer to the path so it knows where to find the file so this is not a problem. Trouble is if you assume that a file is not in the database because it is not listed in the area normally associated with that path, then you could be very wrong. Thus importing the file could mean you will end up having two copies of the same file in the system without meaning to (ie. two file descriptions in different areas pointing back to the same physical file). This is perfectly okay if you would like the same physical file in different areas. But consider the affect on this has if several hundred files are in this situation.

One of the most common uses of Ezycom's path independence feature is to merge a number of smaller directory collections into one larger logical file area, most often on CD-ROM discs. The opposite is also true, you may wish to break one LARGE file area up into smaller more manageable ones even though they are all in the same physical directory. Since EZYADOPT imports any files it finds in a path that are not already in the system, you could end up with one fine mess unless an exhaustive check is done on the file base first, in this case the building of a fast access reference database where filenames and their path can be quickly checked. So this is how EZYADOPT normally works.

That is all fine and well but if you have a VERY large file base (say half a dozen CD-ROM discs) then this build can take quite some time and you may only be trying to import a couple of new files in say a TIC file echo that have just arrived. A lot of time is wasted here if you know that all the files in the path are in fact only ever found in the default area for that path. So EZYADOPT has two special switches to allow this assumption, these being -AFROM<path #> and -ATO<path #>. They work identically to the -FROM and -TO commands only the areas in question will be the only ones checked. You should ALWAYS use both parameters together and combine them with the normal -FROM and -TO options so that only the area(s) that this is safe to use on are in fact touched. Leaving off the -ATO parameter for example will cause all paths from the starting path onwards

to be scanned, quite dangerous. So always exercise extreme caution when using these command line options. To be safe, make regular backups of your file database so that any mistakes can be quickly un-done. Normally you would use identical ranges on both parameter sets. If you choose not to do this, be VERY careful about what you give.

LANGEDIT - Ezycom's Complete Prompt Editor

LANGEDIT is a complete language file editor for Ezycom. It allows full sysop customisation of virtually all prompts that Ezycom uses. It is very simple to use so little space is devoted to discussing it . Once loaded the following keys are available:

Up/Down	Use these keys to move the highlight bar up and down the prompts, one at a time.
PgUp/PgDn	These two keys allow you to move up and down the prompts one screen full at a time.
Home/End	These two keys will take you to the first and last prompts respectively.
CTRL-D	Pressing this will reset the current prompt to its default text and colour.
CTRL-S	This will bring up a pop-up search string box and allow you to search prompts for a particular series of characters. You will find this useful for quickly locating a prompt in order to edit it.
CTRL-R	This will repeat the last search (if any).
CTRL-A	This option will throw away all changes made and exit.
ESC	This option will exit and SAVE all changes.
F1	This brings up the help screen.

If you press ENTER on a prompt you will then be able to edit that prompt. A pop-up editing box will appear and the following keys are available:

- | | |
|---------|---|
| Up/Down | Use these keys to move between the different editable fields in the pop-up editing box. |
| Space | When on the colour field, pressing space will cycle through the colours the current prompt can be. The actual prompt text will also cycle in colour as you do so. |
| CTRL-A | This will abort any changes and return to the prompt list. |
| ESC | Save changes and return to the prompt list. |

Custom Page Tunes

Ezycom has the ability to play page tunes while the user is paging the sysop. They take the form of PAGExx.EZY files in the Ezycom system path. This first tune should be named PAGE01.EZY, the second PAGE02.EZY and so on.

These are plain text files and they contain either a comment (indicated by a semi-colon ; at the start of the line), the TONE [hz] [1/100's second] command or the WAIT [1/100's second] command. The [hz] indicates the frequency (pitch) of the tone to be played. Following is a table of frequencies together with their respective musical notes.

Note	Octave 1	Octave 2	Octave 3	Octave 4	Octave 5	Octave 6
6						6
C	45	134	268	536	1071	2145
C#	71	142	284	568	1136	2273
D	75	150	301	602	1204	2408
D#	80	159	319	638	1275	2551
E	84	169	338	676	1351	2703
F	90	179	358	716	1432	2864
F#	95	190	379	758	1517	3034
G	100	201	402	804	1607	3215
G#	106	213	426	851	1703	3406
A	113	225	451	902	1804	3608
A#	119	239	478	956	1991	3823
B	127	253	506	1012	2025	4050

For Example:

To play middle C for 1 second and then wait (have silence) for 1 second your page file should contain:

```
TONE 45 100  
WAIT 100
```


Introduction

Ezycom was designed from the ground up for use as a multi-line BBS system. Consequently Ezycom operates very quickly and efficiently in such an environment and is very aware of the fact that it is in this mode and will behave differently as a result. Because of the VERY advanced nature of this topic it is suggested that you do NOT try to get Ezycom to run multi-line until you are sufficiently comfortable with the package in general. This is one of the reasons that discussion of this topic has been left until the very last chapter of this document. Setting up for multi-line operation is a complex task at first and requires you to always be thinking of the consequences of any of your actions on active nodes. This chapter goes to great lengths to explain things as simply as possible. Much example configuration is also given to assist you on this steep learning curve.

Software You Will Need

Ezycom will support up to 250 nodes on a single BBS system but it cannot provide multiple lines without the use of some third party products. These products fall into two major categories - multi-tasking software and network software/hardware. Which one of these you use depends on personal preference, the size of the system you intend to run and how much money you have to spend doing so. The two main groups of software and how to make them do what you want, will now be discussed at length.

Multi-tasking Software

Multi-tasking software allows multiple independent DOS sessions to run on a single machine, each session thinking it has the machine all to itself. Ezycom implements multi-line support by allowing multiple copies of itself to be running in memory simultaneously via one of these multi-taskers. Ezycom has been tested successfully with Desqview, OS/2 and Double DOS (although DoubleDOS has not been tested extensively). Internal support and detection of Taskview, Topview and MultiDOS is also available but none of these systems have been tested. When operating in all these environments, Ezycom will give up CPU time slices when it is not busy so that the CPU is free to give time to other tasks that are running.

Of all the multi-taskers available, we recommend only two of them depending on what you wish to do. Desqview from Quarterdeck Office Systems is probably one of the easiest, cheapest and fastest options. We suggest you use a 386DX or better if you wish to run a viable multi-line system. You should also be looking at 4 megabytes of memory or more depending on how many lines you wish to run. OS/2 2.1 from IBM is another excellent option if you have a machine with 8MB of RAM or more (it can be run in 4MB if you jettison the Workplace Shell). Ezycom operates very rapidly in this environment although setting up for this is somewhat more complex. These environments will now be dealt with in turn.

Running Multi-line with Desqview

Desqview from Quarterdeck Office Systems is by far the most common multi-tasker used in the operation of multi-line BBS systems. The latest version available at press time was Version 2.64. Desqview is relatively simple to configure although some options may seem cryptic at first. The main hurdle comes from getting your batch files to do things correctly since a multi-line system under Ezycom relies very heavily on its batch files for smooth operation.

Sample Desqview Configuration

Program Name: Lake Macquarie BBS (Line 1)
Keys to Use on Open Menu: L1 Memory Size (in K): 480
Program: C:\STARTBBS.BAT
Parameters: 1
Directory: C:\

Writes text directly to screen: [Y]
Displays graphics information: [N]
Virtualize text/graphics (Y,N,T): [Y]
Uses serial ports (Y,N,1,2): [N]
Requires floppy diskette: [N]

Advanced Features (F1)

System Memory (in K): 0 Maximum Program Memory Size (in K):
Script Buffer Size: 1000
Maximum Expanded Memory Size (in K): 300
Text Pages: 1 Graphics Pages: 0 Initial Mode:
Interrupts: 00 to FF

Maximum Height: 25 Starting Height: 25 Starting Row: 0
Maximum Width: 80 Starting Width: 80 Starting Column: 0

Close on exit (Y,N,blank): [] Uses its own colors: [Y]
Allow Close Window command: [N]
Runs in background (Y,N,blank): [Y]

Uses math coprocessor: [Y] Keyboard conflict (0-F): [0]
Share CPU when foreground: [Y]
Share EGA foreground/zoomed: [Y]
Can be swapped out (Y,N,blank): [N]
Protection level (0-3): [0]

If you use the previous example configuration as a guide you should not have too much trouble getting Desqview to go. We suggest 2:2 ticks for foreground to background time slicing if you want smooth operation. Set the Disk Buffer for EMS to 0 if you want the fastest disk access although if you run Desqview on a network station/server, you cannot set this option to zero. The maximum EMS size actually controls access to all external types of memory (XMS, EMS, DPMS etc). 300K allows enough room for most programs to swap out to (such as Ezycom) or for overlay buffers. If you run any DPMS compliant programs (such as EZYADOPT) you should allocate AT LEAST 1024K of this memory else these programs will not work under Desqview. You will only need to allocate this much memory to the session you actually run Desqview in though.

Running Multi-line with OS/2

OS/2 2.1 is the latest instalment of IBM's powerful 32-bit operating system. It provides an excellent platform for running a stable multi-line Ezycom system due to OS/2's crash protection mechanisms. However due to OS/2's layered structure and the myriad of settings available for DOS sessions, there is quite some configuration to do before you can even begin to fire up nodes.

Using SIO/VSIO/VX00

First of all we highly recommend you get hold of a third party package called SIO (Serial I/O) by Ray Gwinn (author of the X00 FOSSIL driver for DOS). The SIO package contains a complete drop in replacement set of communications port drivers for IBM's standard supplied drivers. Actually apparently IBM now recommend Ray's drivers over their own. In addition, a special virtualised version of X00 is provided known as VX00 to give FOSSIL driver emulation in DOS sessions under OS/2 in a VERY efficient manner. This is most important as you will probably otherwise have great trouble getting high speed modems to work under OS/2. Ray's drivers also provide full support for the 16550 AFN FIFO'd UART chip (a MUST for any multi-line system) and full flow control, buffering and CPU time slicing is delivered automatically. If you are running more than 2 ports under OS/2 and indeed sharing interrupts, SIO is the only

driver that will properly allow you to do so. SIO also allows port speed locking for high speed modems, just like its DOS X00 counterpart and will support very high speed communications effortlessly. To install the drivers, simply place SIO.SYS in your OS/2 directory (eg C:\OS2) and VSIO.SYS + VX00.SYS in your emulated DOS directory (eg C:\OS2\MDOS) and then look for the COM/VCOM.SYS lines toward the bottom of your OS/2 CONFIG.SYS and REM them out. After them insert the following lines to run a node on COM2 locked at 38400 baud:

```
DEVICE=C:\OS2\SIO.SYS (COM2:38400,2F8,IRQ3)
DEVICE=C:\OS2\MDOS\VSIO.SYS
```

You will need to restart the system for these changes to take affect. Select Shutdown and then re-boot to do this.

DOS Settings

Create yourself an object that will start a DOS session (full screen) and go into the DOS Settings notebook change the following settings:

- . Add the following line into the DOS_DEVICE option (be sure to note the two spaces between 0 and C:\...)

 SIZE=0 C:\OS2\MDOS\VX00.SYS
 SIZE=0 C:\OS2\MDOS\ANSI.SYS
- . Set DOS_FILES=20
- . Set DOS_HIGH=ON
- . Set DOS_UMB=YES
- . Set EMS_MEMORY_LIMIT=0
- . Set DPMI_MEMORY_LIMIT=2
- . Set HW_TIMER=ON
- . Set IDLE_SENSITIVITY=95
- . Set INT_DURING_IO=ON
- . Set XMS_MEMORY_LIMIT=400
- . Set XMS_HANDLES=8
- . To prevent communications port conflicts also go and set all SIO_Allow_Access_COMx settings to No EXCEPT for the port that this session uses (note you need to have VSIO installed for these options to appear).

Save these settings by closing the notebook. Open the session and you should now find that OS/2 loads VX00.SYS and ANSI.SYS high in that session (only). This session is now ready for Ezycom's use.

SHARE.EXE - File Sharing

Ezycom's file locking routines require SHARE to be loaded when using a DOS environment. Network environments normally do this for you. Do not confuse share when used in this respect to that way that it is used in DOS 4.x (it still MUST be specifically loaded in DOS 4.x). This should be loaded outside your multi-tasker and can be loaded high. Virtually all multi-taskers will require this except OS/2 which has it built in. A common problem that occurs when this is not loaded is that internode communication do not work. Whenever a sharing violation occurs, Ezycom pops up a blue box with the name of the locked file in it. Ezycom will continue to try and access this file unless you press ESC to abort access attempts or until the file becomes available. If you see this box come up you are probably running something when you should not be running it, for example using USERCOMP while a user online. Be aware that many CPU cycles are soaked up by the attempted accesses to the file so it is in your best interests to abort the attempt as soon as possible after realising your mistake. You may find the open file monitor (shareware) available for Desqview useful for locating sharing problems. Be sure to allow about 15-20 file handles PER node you wish to run at once (ie your FILES= line in CONFIG.SYS).

STARTBBS.BAT

In order to call up each line, some environment variables need to be set first to ensure that node will operate correctly. STARTBBS.BAT is an example batch file that shows you how to do this. A single parameter representing the node to fire up is passed to this batch file. From that, many variables are set and then that node can safely be brought on air. Notice also that an ANSI driver is loaded too (in this case, Desqview's ANSI driver). Under most multi-taskers one must load the ANSI driver within in each process. Under OS/2 we already took care of this in the session set-up but for Desqview and many other multi-taskers, you will need to load it specifically in this batch file. This example also assumes that the serial port corresponds with the node number. If not, you could pass two parameters to STARTBBS.BAT, one for the node, one for the comport and substitute the appropriate parameters into the batch file shown.


```
@ECHO OFF
```

```
CLS
SET TASK=%1
SET DSZLOG=C:\EZY\DSZ.%1
SET DSZPORT=%1
SET TCNODE=%1
C:
DVANSI
CLS
BBS %1
```

The Directory Layout

When using Ezycom in multi-line operation you do not have to place each line in separate directories. Ezycom has been written in such a way to allow all nodes to be run in the one directory. As every node is in one directory a problem might arise with using different configurations for each node. This can be solved by copying the configuration CONFIG.EZY to CONFIG.<node> (Eg. CONFIG.1). Then Ezycom will ALWAYS load CONFIG.1 for node 1. You can also have a few nodes reading the same CONFIG.EZY in one directory and have other nodes reading a different CONFIG.EZY in a another directory. This might be desirable if you had say 4x2400 baud modems and 4x9600 baud modems for instance. Ezycom looks for CONFIG.<node> firstly then CONFIG.EZY in the CURRENT directory and then CONFIG.EZY in the system path (pointed to by the EZY environment variable). So you have the freedom to use separate directories for each node if you wish but you only need ONE copy of the EXEs and these should all be located in the Ezycom system directory pointed to once again by the EZY environment variable.

For Example, to edit CONFIG.2 type:

```
CONFIG -N2
```

However if Ezycom is being used with either the QUICKED or TOPED full screen editors, then each line of Ezycom MUST be run in separate directories eg. C:\EZY\NODE1, C:\EZY\NODE2 etc. If EzyEdit, Gedit or the Internal Editor is being used, then Ezycom can run every line in one directory if so desired.

Not only can CONFIG.EZY be arranged using this CONFIG.<node> method, but all the other configuration files including EVENTS, PROTOCOL & MODEM can be also. The only exceptions to this rule are CONSTANT.EZY, MESSAGES.EZY, FILES.EZY and ECHOMGR.EZY. Ezycom will ALWAYS locate these files in the system path and their location can not be overridden. So it is quite possible to have different events for each node using EVENTS.1 for node 1 and EVENTS.2 for node 2. Do not forget that to edit any configuration files for nodes other than 1, you MUST place a -N<node> on the command line of CONFIG else the %TASK% environment variable must be correctly set.

IMPORTANT:

Ezycom stores the all settings specific to modems in a file called MODEM.EZY. In a multi-line environment you may choose to share the same modem configuration or you can copy MODEM.EZY to MODEM.<node> where <node> is the node number you wish to use it for. EZY and indeed CONFIG will automatically pick up the correct modem configuration. This is useful if you have similar modems or groups of them. The COM port parameter (-P) on the Ezycom command line will override the port setting stored in here so it is simple to share configurations across nodes with the same modems. Be aware though that without a valid and available modem configuration, Ezycom will abort upon loading.

Multi-Ports, Doors & Other Things

Ezycom supports up to 8 nodes locally, that is COM1 through COM8. You must however be able to configure your FOSSIL driver to this. Remember that any external programs you use (Eg. Door Games) will also have to support it generally if they use the FOSSIL you will not have any problems.

When using external programs you MUST make sure they are multi-node capable. If not, then you need to only allow one user to access them at anyone time using some special drop file testing in your batch file for starting that door. Another method would be to restrict certain doors to nodes using the Menu Option 'Node'. If you have any problems with multi-node operation, please do not hesitate to write us a message in our Support Conference or contact your nearest support site.

Multi-line Using Networks

Ezycom has been fully tested with both Lantastic from Artisoft and Netware from Novell. Ezycom works basically like a Multi-tasker in a network. It does not need to know anything about the network. You must however load SHARE (or equivalent) on the File Servers of the Network (in the case of Lantastic).

Ezycom Utilities - Do's & Don'ts

Although Ezycom can have multiple nodes running at the same time a lot of it's utility programs will not function while nodes are active. Following is a quick guide to what you can and cannot do.

EZYMAIL will function fine while one or more lines are running, as long as you are using a different log file for EZYMAIL than the other nodes running. For instance, if node 1 was running, and you wanted to run EZYMAIL, then you might run EZYMAIL as node 2. Note this does not mean you have to run EZYMAIL as another node after a user logs off a node (when you are scanning out mail they have written). The log file is not open after Ezycom shuts down that node so it is safe to run EZYMAIL on that node. EZYNET and EZYPACK function the same way.

IMPORTANT: Although you can simultaneously fire up multiple copies of EZYMAIL, EZYNET and EZYPACK, they will not run because the first copy to fire up will write a EZYMSG.NOW drop file to the Ezycom system directory and all utilities will refuse to run after this until it is removed. Should something go wrong, Ezycom will ignore and delete this file should it be more than 5 hours old.

MSGCOMP should NEVER be run with any node active. It will check for both active users and for the EZYMSG.NOW file before proceeding. It also creates this file while running so should something go wrong, do not forget to delete it later else no mail will toss/scan. If the system still thinks there is someone online when there is not, delete the ONLINE.BBS file in the Ezycom system directory also.

USERCOMP should never be run with nodes active else your user file could be totally destroyed.

EZYIDX does not correctly function while any nodes are active. This prevents you from adding new files to your database while users are online. To overcome this you can logon locally and upload the files.

FEDIT only locks out the file area it is currently working with. If a user attempts to access this area they will be told that maintenance is currently being done on it and to try again later.

Some functions in EZYUTIL are dangerous to run with active nodes. These cases have been noted in the previous chapter and will not be repeated here. Exercise caution.

In a BinkleyTerm style environment, EZYMAIL, EZYNET & EZYPACK also detect .BSY drop files so they will not try to pack to mail archives that are in mid-transfer on another node. Instead the unpacked PKTs will be left lying around where EZYMAIL will find them on its next run and automatically bundle them provided it is now safe. If a .BSY file is more than 5 hours old, EZYMAIL will automatically remove it.

Special Files For Multi-line Use

When running a multi-line system there are a number of special files that you can place in the Ezycom system directory (note the location) that will be used/acted upon by Ezycom for special features that only work in multi-line mode. The name and purpose of each of those files will now be discussed.

NODEINFO.<node>

This file should contain a one liner advert that will show up in the who's online list when that node (indicated by the extension) has no-one logged in on it. It may say something like 'Call (049) 562853 for 14,400 baud'. You may use a maximum of 70 characters and you can also use smart colour codes (see appendix C) to put colour into this display.

USERDOES.<node>

When this file is present its contents will be displaying in the status field in a who's online list when ever a user on that node goes into a door. You can use this to indicate to other users, which door the user on that node is actually in at present. You may use a maximum of 25 characters in this file (no smart codes allowed) since this is all that will fit in the Status column. You can create the file as follows:

Assuming you pass *N as the first parameter to your GAME.BAT that runs the door, then in the batch file %1 would equal the node so:

GAME.BAT

```
ECHO Playing - BRE League 751 > C:\EZY\USERDOES.%1
REM Load Game Here
DEL C:\EZY\USERDOES.%1
```

Thus the who's online list would say 'Playing - BRE League 751' for a user if they were inside this door. Be sure to delete the file after you leave the door.

EZYEX???.<node>

As soon as Ezycom detects the presence of this file it will exit IMMEDIATELY with the errorlevel indicated by ????. However only the node indicated by <node> will exit. You can use this to take a node off the air very quickly. Naturally if a user is in a door or in the middle of a file transfer this will not work. But if they are anywhere else within the BBS, the system will normally detect the file almost immediately and obey, booting the user off and exiting back to the DOS with the specified errorlevel.

For example: If you placed a file called EZYEX150.2 in the Ezycom system directory, then node 2 would immediately exit with an errorlevel of 250.

Appendix A

Menu Commands

Ezycom has a very rich set of very flexible and useful menu commands. Over time you will find a great many uses for them. This appendix lists and explains the function and usage of each command available. A few conventions have been used in this appendix:

<....> Means that is a necessary option and must be included for the menu command to function correctly

[....] This means that it is optional information.

| This means "or". Eg. 1 | 2 would mean 1 or 2, but not 1 and 2.

Option 0 Display

Data None

This command simply does NOTHING and is included for display line purposes only.

Option 1 Goto Menu

Data <MENUNAME> | /TOPMENU
 [Password]
 [/F=<file area template #>| + | - | <group>]
 [/M=<message area template #>| + | - | <group>]
 [/CG=<current group setting>]
 [/NC]

This command allows the movement from the current menu to another. The menu name which Ezycom will move to when activated is indicated by <MENUNAME>. The <MENUNAME> must not include the .MNU extension as this is appended by Ezycom automatically. If '/TOPMENU' is used instead of a <MENUNAME>, then the user will be moved to their TOP MENU when selecting this option as defined in their user record. A [Password] may also be specified. The user must then type in the password correctly before he/she can gain entry to the menu. As stated in the Menu Templating documentation the /F=, /M= & /CG= commands are valid for the Goto Menu Command. The Optional

Option 5 Display Text File

Data <Textfile>

This command displays a <textfile> to the user's screen. This command does NOT support MENU hotkeys. The <textfile> name should not include the extension as Ezycom automatically determines this (ASL/ASC/ANS/AVT) according to the user's current Terminal Emulation Options.

Option 6 Bulletin Menu

Data <1-8 character name>

Displays the <1-8 character name> file in the text file directories. The user is then prompted for the remaining part of the file name (8 - <length of file>). The file is then displayed. No extension should be placed in the filename.

Option 7 Run Program In DOS Shell

Data <program to execute> [parameters]

The <program to execute> is the name of the program you wish to run. If a COM or EXE file is being executed then just the name of the program AND extension is required. You should however specify a full pathname just to be sure.

Example Data: C:\EZY\EZYED.EXE

However, if a batch file is being run, then a command line interpreter needs to be loaded (ie COMMAND.COM).

Example Data: C:\COMMAND.COM /C GAME.BAT

Instead of specifying the entire path to COMMAND.COM, the COMSPEC environment variable can be used to retrieve the path. In this case, the C:\COMMAND.COM would be replaced by *C.

Example Data: *C /C GAME.BAT

On executing a Type 7 Shell, Ezycom writes two files, EXITINFO.<node> and DORINFOx.DEF. The name for DORINFOx.DEF is configurable and can be changed with the list of special commands later. The EXITINFO.<node> holds Ezycom specific information, that it uses to run. On returning to Ezycom after the Type 7 Shell, Ezycom reads in the EXITINFO.<node> file to process any information that might have been changed.

There are many allowable command line options for a Type 7 shell and they are as follows:

*F User's First Name
*L User's Last Name
*H The FOSSIL driver is left hot during the Type 7 shell. Generally this option is not used.
*M Swap out Ezycom leaving it using only 9K of RAM. This enables larger programs to be executed in the Type 7 shell although swapping can take a few seconds if disk swapping is used.
*P Comport Number
*R User Record Number
*G ANSI On/Off On=1 Off=0
*V ANSI/Avatar On/Off
 3 ANSI & Avatar
 2 Avatar
 1 ANSI
 0 ASCII
*A Users Alias (Real Name if there is no alias)
*C COMSPEC Environment variable (COMMAND.COM)
*S User's Security Level
*N Node : Format 1..250
*9 Node : Format DORIN + F01..250 - This format could be used for renaming/copying DORINFOx.DEF to a naming convention that some door programs might prefer.
*0 This switch is replaced by the current file area template number.
*1 This switch is replaced by the current message area template number.
*2 This is the upload path for the current file area template.
&V This is the same as *V, except that it places the *V information in the DORINFOx.DEF and DOOR.SYS files.
&A This is the same as *A, except that it places the Alias of the user in the DORINFOx.DEF and DOOR.SYS files instead of the user's real name.
&O This is the same as *O, except that it places the locked baud rate in the DORINFOx.DEF and DOOR.SYS files instead of the effective baud rates ie. if the comport is locked.
*D1 This option creates the DORINxxx.DEF on executing the Type 7 Shell where xxx is the *9 Node Format.
*D2 This option creates the DORINFO1.DEF on executing the Type 7 Shell.
*D3 This option creates DOORx.DEF on executing the Type 7 shell where x is the *N node Format
*D4 This option creates a doorway compatible DOOR.SYS file in executing the Type 7 Shell.
*! This option stops the clock when the user is in the Type 7 Exit. That is, the user does not loose anytime in the shell (useful for external chat programs).

- *# This option turns off the Want Chat Flag.
- *B This is the users effective Baud Rate. If the user is local then the baud rate is set to zero.
- *O This is the users actual Baud Rate between the computer and modem. If the comport is NOT locked, then it is the same value as the effective Baud Rate.

For Example:

```
GAME.EXE *F *L *P
```

If Peter Davies were logged in this would translate to:

```
GAME.EXE Peter Davies 1
```

Option 8 Version Information

Data None

This option displays the current version of Ezycom and information about who the copy is registered to (where applicable).

Option 9 Logoff

Data [/NOHANGUP] [/ERR=<errorlevel>]

This option displays GOODBYE.A* (if it exists), before hanging up the user. If the /NOHANGUP flag is used, then the users Carrier is not dropped during the termination of the call. The [/ERR=<errorlevel>] command tells Ezycom that you wish to exit Ezycom with an errorlevel. The errorlevel must be from 20 through to 255. There is a one second delay to allow the modem buffer to clear before the modem is hung up by Ezycom.

Example Data: /NOHANGUP /ERR=25

If both of these options are used together with some intelligent batch file programming, it is possible to make a relogon option.

Option 10 System Usage Graph

Data None

This option displays a graph of system usage for the node number that the user is logged into. This information will begin from when TIME<node>.BBS was created.

Option 11 Page SysOp

Data String to Display to User (about chat)

This option pages the sysop for a chat request and sends the data line to the user. A suitable line for Data might be "Paging Sysop for a Chat... Please Wait...".

Option 12 Execute Questionnaire

Data <questionnaire name>
 [output file] | [/NOWRITE] [/NOLOG]

This option executes a Questionnaire. The Questionnaires are named <questionnaire name>.Q-A in your system directory. [output file] is the name of the answer file you wish to use. If you do not wish anything to be outputted from the questionnaire, use the /NOWRITE option. This will prevent zero byte files being created even if the questionnaire does not write anything to an answer file. The /NOLOG option tells Ezycom not to log the fact that the questionnaire was executed. See the section on questionnaires and the Appendix B reference for information about Questionnaires.

Option 13 List Users

Data [/A] [/C] [/S] [>=<security>] [<=<security>]
 [=<security>] [<<security>]
 [><security>]

This option displays a list of all the users on the system. Various options exist for this option and they are:

/A Show user's aliases instead of real names
/C Displays user's comments, instead of their location
/S Displays user's security, instead of number of calls
>=<security> User's security must be equal to or greater than
 the security to be displayed
<=<security> User's security must be less than or equal to
 the security to be displayed
=<security> User's security must be less than or equal to
 the security to be displayed
<<security> User's security must be less than the security
 to be displayed
><security> User's security must be greater than the
 security to be displayed

Option 14 Time And Date

Data None

This option displays time statistics about the user on-line.

Option 15 Exit To DOS With Errorlevel

Data <errorlevel>

This option exits Ezycom with <errorlevel> which must be in range from 20 to 255. Ezycom can re-login the user using the -R option. This option would only be used if the door games are so big that they can not run inside of a Type 7 Shell even with Swapping. The same parameters apply to this option as for Option 7.

Option 16 Change Location

Data None

This option allows the user to change his/her location.

Option 17 Change Password

Data None

This option allows the user to change his/her password.

Option 18 Change Screen Length

Data None

This option allows the user to change his/her screen length.

Option 19 Toggle Screen Clearing

Data None

This option allows the user to toggle whether screen clearing codes should be sent to him/her.

Option 20 Toggle 'More' Prompt

Data None

This option allows the user to toggle whether they will be given a more prompt after each screen of text.

Option 21 Toggle ANSI Graphics

Data None

This option allows the user to toggle ANSI Graphics.

Option 22 Check For Mail

Data [/G=<groups>]

This option allows the user to check for mail waiting. Optionally, the groups option can be used to override the user's groups settings and thus for instance force scanning of specified groups. The user is given the option either to read the mail, not to read the mail and/or mark the mail as already received (useful for sysops of other BBS's who call and find a whole load of echomail for them that they have already read on their own system).

Example Data: /G=ABC

Option 23 Read Messages

Data <message board> | /M

This option allows the user to read a particular conference. If /M is placed in Data, then the current message area template is used, otherwise the message board selected is used.

While reading messages the user/sysop is presented with various option keys. They are:

[A]gain Display the message again.
[L]ast Go back to the previous message.
[N]ext Move to the next message.
[R]eply Reply to the current message.
[W]rite Write a message.
[D]elete Delete the current message.
[F]orward Forward the message to someone else.

[E]dit Edit properties of the current message. Also allows you to move/copy the message to another area upon saving the changes.

[G]et Allows the reader to download any file attaches to this message (registered version only).

[K]eep Keep the message unread.

[!] Shows hidden information in the message.

[S]top Stop reading messages.

[U]pdate Update the user whom the message is from ie. edit their user record Alt-M (Local Only) Fully Update User who the message is from.

e[X]port (Local Only) Export the message to Disk. If the filename is PRN/LTP1/LPT2/LPT3, then the message is printed.

In the [E]dit mode, various attributes of the message can be edited. The most powerful feature is the No-Kill flag. If this is set to On, then MSGCOMP will NEVER delete the message until such times as the message is deleted by a User.

Option 24 Scan Messages

Data <message board> | /M

This option is the same as Option 23 except that none of the message body is display to the user.

Option 25 Quickscan Messages

Data <message board> | /M

This option is the same as Option 24 except that the information displayed is on one line, allowing an even more brief view of the messages.

Option 26 Delete A Message

Data <message board> or /M

This option allows the user to delete individual messages for a particular message area. The user can only delete message(s) if they are a) are a Sysop of that Message Area, b) They wrote the message and it is not an echomail message or c) They have received the message and it is not an echomail message. If the user does not fall into one of these categories, then they will not be able to delete the message(s).

Option 27 Post A Message

Data <message board> | /M
[/T=<to_user_name>] [/S=<subject>]
[/L] [F=<net address>]

Post Message allows users to post a message into a conference pointed to <message board> or /M (the current message area template). The menu creator can FORCE the name of the user to whom the message is to be posted to by placing a /T=<to_user_name> in the data line. Note that when using this command, if the name has TWO words, an underscore must be placed between them. If you use the name SYSOP it will automatically be translated to the sysop's name (or the sysop's alias if the area is set to use aliases).

Example Data: /T=Peter_Davies

The subject can also be forced as well. This can be accomplished by using the /S=<subject> field. As with the /T option, an underscore MUST be used to separate words.

The /L option can be used to log the user off immediately after he/she posts the message. If the user does not post the message, they are logged off anyway.

The /F option allows you to force a message being posted in a netmail area to go to a particular network address, useful if you connect with a UUCP style Internet gateway.

In a multi-node environment, if the user to whom the message is being posted happens to be logged into another node of the BBS at the time of posting, they will receive notification of the presence of a new message for them automatically.

Option 28 Select Combined Area

Data [/G=<groups>]

This option allows the user to individually select which message areas they want on/off. Combined area settings are used for global reading and are now also used for controlling which message areas QWK will extract mail from for downloading. Type the area numbers you wish to toggle On/Off. 'Range' toggles also work.

User Input Example: 10 15 5-8 20 100

This toggles the status of areas 5,6,7,8,10,15,20 & 100. Use the /G=<groups> option to override any group settings the user has.

Option 29 Read New Messages (Global)

Data [/SCAN | /LIST] [/G=<groups>]

This option allows the user to read all messages which he/she has not read. Optionally /SCAN can be used to tell Ezycom to do scanning for new mail, instead of actually reading new mail. Optionally /LIST can be used to tell Ezycom to list the messages. The user's groups can also be optionally over ridden with the G=<groups> command.

Option 31 List Files

Data <file area> | /F
 [/NEW]
 [/G=<groups>]

View a file list for <file area> or /F (current file area template). Simply, if the user has access to the file area they can view the file list for it. If /NEW is used, then only NEW files in that file list will be displayed. Optionally the user's groups for viewing can be over ridden using the /G=<groups> command. While viewing the file list, the user is given an option to add to batch (if more prompt is turned on). The user can add files to the batch using filenames (wildcards supported) or by typing in the number of the file. For Example: 1 2. Instead of typing in the numbers of the files for say 1 to 10, the user could also do 1-10. It is suggested that you make up a standard message to send to all new users telling them how to use this feature. It makes file batching VERY quick.

Option 32 Download

Data None

Using this option, users can download files from anywhere on the system, so long as they have access to the file areas in question. This option also supports all the download batch interaction commands.

Option 33 Upload

Data <upload area> | /F

This option allows the user to upload files to the system. If <upload area> is used, then uploads are ALWAYS uploaded to that file area. No redirection can take place. If /F (current file area template) is used, then uploads are placed in that file area's template upload area. That is if the current file area's upload area is pointed to another file area, then uploads would be placed in that other file area.

Option 34 View Archive or GIF Info

Data None

This option allows users to view the contents of ZIP, LZH, PAK, ARC, ZOO, SQZ GIF and ARJ files anywhere on the system, as long as they have download accesss to those files. In the case of a GIF image it will give the image dimensions (resolution), number of colours and the revision level of the image.

Option 35 File Scan (Keyword)

Data [file areas to search and/or /F]
[/G=<groups>]

This option allows users to search through the file areas by using a keyword. Data can Optionally contain a list of file areas that can be used to search. If, Data is blank, then all file areas are searched. The user may also optionally select start and ending dates for the search to be done for.

Example Data: 1 /F

This would mean that first of all, file area 1 is scanned, then the current file area template is scanned. If they were reversed on the Data line (ie '/F 1'), then the current file area template would be searched first then file area 1.

Again Optionally, /G=<groups> can be used to override the user's groups for viewing.

Option 36 File Scan (File name)

Data [file areas to search and/or /F]
 [/G=<groups>]

This option allows users to search through the file areas by using a filespec. A filespec is a file specification. This can include DOS/UNIX valid wild cards such as * and ?. For example to list all files, *.* would be used. As with Menu Type 35, the file areas to search can be selected for this Menu Type. They work in EXACTLY the same way as Option 35. Again, the user's groups for viewing can be overridden using the /G=<groups> option.

Option 37 New File Search

Data [file areas to search and/or /F]
 [/G=<groups>]

This option allows users to view new files since the last time they executed this option, or the view new files option at logon. For instance, if the user logged on, and did not did a new files list in that session, then the next time they do a new files list, they will see all the files since the last time the did this option, not the last time they logged on. The Data also allows the specification of which file areas to scan. The file areas are listed EXACTLY the same way as with Option 35. Optionally, the /G=<groups> can again be used to override the current user's groups for this command.

Option 38 View Text File

Data None

This option allows users to view text files that are in file areas. The user is asked for the filename of the text file to view. Note that this is a GLOBAL option, so the users do not have to be in the correct file area to view the text file.

Option 39 Display Fully Named Text File

Data <Textfile Name>

This option allows the viewing of a textfile name, specified by <Textfile Name>. This filename should also include the extension.

Example Data: C:\EZY\SOLUTION\PQ3.SOL

Option 40 Display Text File With Hotkeys

Data <FileName> | /MENU

This option allows the displaying of AVT/ANS/ASC/ASL with the use of Menu Hotkeys. Typically this option would be used as an automatic option at the top of a MENU. The <FileName> should NOT include an extension.

Example Data: QUICKF

The /MENU command can be used instead of the filename. This option automatically replaces itself with the FileName of the current Menu. For example, if Ezycom was in the Menu TOP and if the /MENU command was used in the Data, then Ezycom would display the TOP.A* textfile.

Option 41 Toggle Full Screen Editor

Data None

This option allows the user to toggle the use of the full screen message editor.

Option 42 Toggle IBM Extended Characters

Data None

This option allows the user to toggle the user of the IBM Extended Character Set. This will tell Ezycom whether to use the .ASC files or the .ASL files for menu display to ASCII (non ANSI or AVATAR) users.

Option 43 View Nodelist

Data /M | <msgboard> | /N=<network address>

This option allows you to view a nodelist which has been indexed with EZYNODE. If /M is used on the command line, then the current message template area is used to view the nodelist. If <msgboard> is used, then that message board's nodelist will be used. If /N=<network address> is used, then that <network address> is used to view the nodelist. Note that when viewing the nodelist from a message board, only echomail or netmail areas will work.

Example Data: /M (Current Message Area)
 1 (Message Board 1)
 /N=3:622/407 (Net Address 3:622/407)

Option 44 Reset Combined Areas

Data [/G=group]

This option allows the user to set all of their combined areas to either ON, OFF or the DEFAULT values. This is also how users control which areas they wish to get mail from when using QWK offline mail (see later). Use the /G=group option to override any group settings the user has.

Option 45 Display Text File -w- Pause

Data <FileName> or /MENU

This option displays the text file, then asks the user to press enter when it has finished being displayed. Again the /MENU command can be used to substitute the MENU name for the filename. The FileName should not include paths or extensions.

Example Data: QUICKF

Option 46 Display Fully Named File -w- Pause

Data <TextFile>

This option displays <TextFile> to the screen and pauses at the end. This option is basically the same as option 39 except in this option, the FULL pathname should be given.

Example Data: C:\EZY\FILES\PQ3.SOL

Option 47 Make A Log Entry

Data Text to Place in Log

This option allows an entry in the log to be generated. Typically this would be an automatic option, and would be used to indicate that the user moved into a menu on the board. The smart text codes of @ and ` can be used to indicate the current file area template and the current message area template respectively.

Option 48 Download Specific File

Data <filename> [/FREE] [/FREETIME]

This option allows the user to download the file pointed to be <filename>. <filename> should be a full path and extension of the file. Optionally the /FREE switch can be used to signify a free download for the user (ie the file does not count against their download record). You might use this for downloading a membership form from a menu for instance. The /FREETIME option means all time constraints and system events will be ignored when downloading this file.

Option 49 Select Message Area

Data [text file] [/G=<groups>] [/RETLIST]

This option gives the user a list of message areas and changes the current message area template to the message area they select. If you want to make your own list of message areas, then place the filename (no extension) of the textfile to be used instead in the Data line. Optionally, /G=<groups> can be used to override the default user's groups for this command. The /RETLIST option tells Ezycom to immediately begin listing areas instead of giving the user the option to pick an area without first viewing the list of areas (ie. skips the need to type '?' all the time).

Option 50 Select File Area

Data [text file] [/G=<groups>] [/RETLIST]

This option is basically the same as Option 49, except that it changes the current file area template instead. Optionally, /G=<groups> can be used to override the default user's groups for this command. /RETLIST has the same function here as for Option 49.

Option 51 List Today's/Yesterday's Callers

Data [/A] [/Y]

This option displays a list of todays or yesterdays callers to the Bulletin Board Service. If /Y is placed in Data, then Yesterday's callers are shown, otherwise Today's callers are shown. If /A is used in Data, then aliases are used instead of real names.

When a list of today's callers is displayed, a DidWhat? field is shown. They represent certain actions the user did while online. These are:

N NewUser
R Read Messages
S Sent Messages
D Downloaded
U Uploaded
P Paged Operator
C Chatted with Sysop or other Users (multi-line chat)
O Outside Ezycom (type 7/15 shell)

Option 52 Show Users On-Line

Data [/A]

This option displays a list of users who are currently online. This option works across networks and/or multitaskers to show every user who is using Ezycom at this time. If the /A switch is used on the Data line, then Aliases are shown instead of real names. Users logged in locally (eg. the sysop) will be shown with the baud rate as 'Local'.

Option 53 Toggle "Do Not Disturb"

Data None

This option allows the user to toggle the Do Not Disturb mode. This mode stops users on other lines from sending a message to their node.

Option 54 Send An Online Message

Data [/A]
 [/N=<node> /M=<message>]

This option allows the user currently online, to send a one line message to a user on another line. The message arrives only while users are in the menu system, not while they are reading messages or in an menu option and more. If the /A switch is used, aliases are shown instead of real names. The /N combined with /M will send a predefined message to a predefined node. Any spaces should be indicated using an underscore character.

Example Data: /N=1 /M=Howdy_Dude!_Wanna Chat?

Option 55 Download ANY File

Data None

This option allows user(s) to download files from ANYWHERE on the system. They can specify a full pathname to download the files. This option should only be made available to the Sysop or not used at all. It can be a major security risk otherwise.

Option 56 Import Text File To Message

Data <message board> | /M
 [/U=<from_username>]
 [/T=<to_username>]
 /S=<subject>
 /L=<text file>

This option is used for importing a text file into the BBS. The main use for this option would be to post a message to a newuser. The <message board> | /M specify which message area the message will be posted in. The /U command specifies the 'From' user name. All spaces in the names must use an UNDERSCORE character.

For Example: /U=Peter_Davies

If the /U command is left out, then the from user name defaults to the name of the user currently online. The /T command is mostly the same as the /U command, except that it specifies the name of who the message is to be posted to. If, the /T command is omitted, then the message is posted to the name of the user online. The /S command specifies the subject of the message and is NOT an optional parameter. The /L commands specifies a fully qualified filename (path, name and extension) of the file which contains the message to be imported into a message area and is also NOT an optional parameter.

This command supports the Ctrl-F/K smart text codes in the text file to be imported.

Option 57 Change Voice Phone Number

Data None

This option allows the user to change his/her home voice phone number.

Option 58 Change Data Phone Number

Data None

This option allows the user to change his/her business/data phone number.

Option 59 Toggle mailbox hold

Data None

This options allows the user to toggle whether his/her mail is on hold. If a user is going away on vacation, then this will ensure that all their mail is still waiting for them (and does not get deleted) until after they get back and read/reply to it.

Option 60 Mail forwarding

Data None

This option allows the user to turn on forwarding of his/her mail to another user on the system. A user may want to redirect all their mail to someone else whilst they are away on vacation for instance.

Option 61 Toggle Avatar Graphics

Data None

This option allows the user to turn Avatar Graphics On/Off.

Option 62 List Transfer Batch

Data None

This option displays the current contents of the user's download batch.

Option 63 Erase Transfer Batch

Data None

This option displays the current This option erases the entire contents of the user's download batch.

Option 64 Add Files To Batch

Data None

This option allows the user to add files to his/her download batch.

Option 65 Erase One File From Batch

Data None

This option allows the user to erase single or multiple files (using wildcards) from the download batch. The file number from the batch can also be used (with or without a preceding minus '-' symbol). List Batch will show the numbers.

Option 66 Multiline Conference

Data [/A]

This option allows live chatting between two or more users on different nodes of the Bulletin Board. The optional /A switch forces Aliases instead of Real Names to show whilst in chat. Users can type /HELP for a list of commands available whilst in chat. A user line(s) of conversation are sent to all nodes as soon as Enter is pressed. Auto wrapping occurs so users need only press Enter when they wish to send.

Option 67 Change To Area With Unread Mail

Data [/RETLIST] [/NEWMAIL]

This option is the same as option 49 (change to message area) except that the user is told if there is new/unread mail in an area, indicated by a [NEW] in front of the message area name in the list. The /RETLIST option also has the same affect as described in option 49. This option will display the number of unread (new) messages in each area in [] before the area number. If there are more than 999 messages, [***] will be shown instead. If the /NEWMAIL option is used, then only areas containing unread mail will be shown to the user.

Option 68 Online Master List

Data [/FREE] (Free Download)
 [/RAW] (Allow Raw File Download)
 [/ZIP] (Allow ZIP Compression)
 [/LZH] (Allow LZH Compression)
 [/ARJ] (Allow ARJ Compression)
 [/ZOO] (Allow ZOO Compression)
 [/PAK] (Allow PAK Compression)
 [/ARC] (Allow ARC Compression)
 [/SQZ] (Allow SQZ Compression)
 [/RAR] (Allow RAR Compression)
 [/SWAP] (Swap Out Ezycom on Compression)

This option allows the user to download a master list that is generated online and on the fly. /RAW, /ZIP, /LZH, /ARJ, /ZOO, /PAK, /ARC, /SQZ allow the sysop to define which archive formats are allowable for the download of the master list. /RAW is means uncompressed and if no formats are specified, ALL are assumed to be available. The /SWAP command will tell Ezycom to swap out leaving only 8K of memory resident while producing the list. If the /FREE command is used then the download is free. It is recommended that systems with large filebases do not use this option and just make a master file list each day instead (during maintenance for instance).

Option 69 Toggle local display

Data ON | OFF | TOGGLE

This option turns on/off the local display when a remote user is on-line (does nothing in local mode). If ON is used, then the display is turned ON. If OFF is used, then the display is turned OFF. If TOGGLE is used, then the display is turned ON or OFF depending on its current state.

Option 70 Toggle Date Display Format

Data None

This option allows the user to toggle between using the American (MM/DD/YYYY) and European (DD/MM/YYYY) date formats.

Option 71 Change Colour Setup

Data <1..8> <+ | ->

This option allows the user to change colours for the display of message/file areas. The <1..8> is which colour to change. If "+" is used, then the colour number is incremented by one. If "-" is used, then the colour number is decremented by one.

Option 72 Change Alias

Data None

This option allows the user to change his/her alias to any other name as long as it is not already in use by another user (either as their real name or as their alias).

Option 73 Change Comment

Data None

This option allows the user to define a comment about him/herself, or change the current one to something else.

Option 74 Clear Screen

Data None

This option simply clears the screen, if the user has clear screen codes set to On.

Option 75 Display .ASC -w- HotKeys

Data <FileName>

This option is the same as Type 40 except that only ASC/ASL menus can be displayed. This can give the user fast menus, but still have ANSI/AVATAR for other options like the Full Screen Editor for instance.

Option 76 Select Default Protocol

Data None

This option allows the user to select a default protocol for downloading and uploading. This removes the necessity to choose a protocol each time the user wishes to do a transfer (ie saves time).

Option 77 Deposit Time Or Kilobytes

Data /K | /T

This option allows the user to deposit time or kilobytes into their time or kilobyte bank respectively. The /K switch, forces the kilobytes bank. The /T forces the time bank.

Option 78 Withdraw Time Or Kilobytes

Data [/K]

This option allows the user to withdraw time or kilobytes from their time or kilobyte bank respectively. The /K and /T switches work the same as for option 78.

Option 79 Display Best User Stats

Data [/M] Display Best Messages
 [/C] Display Best Caller
 [/UP] Display Best Uploader (Files)
 [/DN] Display Best Downloader (Files)
 [/FP] Display Best File Points
 [/UK] Display Best Uploader (KiloBytes)
 [/DK] Display Best Downloader (KiloBytes)

This option displays a best users list. If no options are specified, then all best lists are displayed. It is possible to have more than one best list displayed at a time using a combination of the options.

Option 80 Disable GLOBAL For This Menu

Data None

This option disables functions on the GLOBAL menu for the menu current menu, thus rendering any normally global options, inactive. This should be used as an automatic option and should be the first line in the MENU.

Option 81 Create Door Information Files

Data [DOORWAY=<filename>]
 [DORINFO=<filename>]
 *A Place Alias in the Files to written.
 *O Place the Locked Port Baud Rate (MaxBaud) in the
 Files to written.
 *V Use Avatar Standard for Graphics Flags in
 DORINFOx.DEF.
 *9 Use F01..250 for Nodes 1 to 250
 *N Use 1..250 for Nodes 1 to 250

This option writes the doorway DOOR.SYS and/or DORINFO1.DEF file(s) to the filenames of your choosing. The subset of type 7 parameters listed can be placed in any parts of the command line and will be translated into their meaning.

Example Data: DORINFO=DORIN*9.DEF *A *O *V

Option 82 Select compression type

Data None

This allows users to choose the type of compression to use on QWK bundles.

Option 83 Download .QWK bundle

Data None

This allows users to begin bundling and later begin downloading a QWK mail archive. Selecting this option gives a submenu where users can also toggle whether they wish to receive their personal mail and whether they wish to receive new mail or not. Once download is selected, bundling of the QWK files will begin. The user is given constant updates as to the status of the bundling. Local downloading of QWK is also allowed and you will be prompted for a path to download to after the bundle is ready for transfer. Pressing ESC during bundling will abort building and allow the user to choose whether or not to download what has been done so far. If carrier is lost during bundling, the process is immediately aborted.

Option 84 Upload .QWK bundle

Data None

This allows users to send QWK reply bundles to the BBS ie replies to messages they downloaded. Local uploads are also allowed in the same manner as local QWK downloads.

Option 85 Toggle full/combined mail check

Data None

This allows the user to toggle whether a New Mail Scan (at login or from a menu option) checks ALL areas or only those turned on in their combined area setup. The latter case is best not used otherwise users will miss new mail to them in areas not in their combined setup.

Option 86 Set .QWK options

Data /MAXMESS | /MAXAREA | /MAXOLD

Use this option to allow users to place restrictions on the size of their QWK bundles. The /MAXMESS option allows the user to set the maximum number of messages per bundle (up to the limit you've set in Config). Use /MAXAREA to allow users to select the maximum number of messages that can be scanned out from each area they have selected. The /MAXOLD option allow the user to control the maximum number of days old that messages scanned out, are all allowed to be.

Option 87 Toggle Flags

Data <flag><flag-bit><status>

This option allows you to toggle the status of flags from a menu option. Status can be:

- to turn the flag off
- + to turn the flag on
- * to toggle the flag (on becomes off, off becomes on)

Data Example: A8+ - will turn flag A8 on.

Option 88 Reset Lastread Pointers

Data None

This option allows the users to globally reset their lastread pointers (used mostly for QWK) to either the beginning or the end of each area. The user is also given the option to quit should they have accidentally selected this option.

Option 89 Display Rumour

Data None

This option will go through a rumours file and randomly select a one line rumour and display it. This option is most useful as an automatic option after a type 40 command to display a rumour at the bottom of a menu before the prompt is displayed. This is a Registered Only feature.

Option 90 Add Rumour

Data None

This allows the user to add a rumour to the rumour file up to one line in length. Colours can be embedded into these rumours using either of the following schemes:

Method	Method	Colour
1	2	
b	01	Blue
g	02	Green
c	03	Cyan
r	04	Red
m	05	Magenta
p	06	Magenta (Purple)
Y	07	Brown
w	08	Light Gray
B	09	Light Blue
G	10	Light Green
C	11	Light Cyan
R	12	Light Red
M	13	Light Magenta
P	14	Light Magenta (Light Purple)
Y	15	Yellow
W	16	White

Lower case means dull, upper means light.

For Example:

```
|01P|02e|03t|04e|05r|06 D|07a|09v|10i|11e|12s
```

or

```
|bP|ge|ct|re|mr|y D|wa|Bv|Gi|Ce|Rs
```

would produce a rumour saying "Peter Davies" with colours. Again, this is a registered only feature.

Option 91 Delete Rumour

Data [/DELETEANY]

This option allows a user to delete a rumour that THEY have entered. Adding the DELETEANY option allows any rumour to be deleted and this option would typically only be used in this way by the sysop. Again, this is a registered only feature.

Option 92 List Rumours

Data [/SHOWUSERNAMES]

This option will list all rumours in the rumours file. If the /SHOWUSERNAMES option is present, then the name of the user who wrote each rumour will also be shown. Typically this option is used only by the sysop. This is a registered only feature.

Appendix B

Questionnaire Commands

One of the reasons Ezycom is so flexible and extensible is due to its questionnaire language. These commands range from the simple to very complex type. This appendix is intended as a complete reference to all the available commands including some examples on how to use them. You will find it useful to keep this appendix at hand should you be writing a questionnaire file.

Throughout this appendix, <var num> is referred to and has a range of 1 through to 50. All commands are case in-sensitive so for example Quit, QUIT and quit are all the same and constitute a valid command.

Commands For Producing Screen Output

All the commands following are used to produce output to the user screen.

CLEARSCREEN

CLEARSCREEN clears the user's screen if he/she has the clear screen flag set to ON.

For Example:

```
CLEARSCREEN
```

will simply clear the user's screen.

CHANGECOLOR <foreground color> <background color>

CHANGECOLOR or CHANGELOUR (either spelling works) changes the current foreground and background colours to those specified in the command.

For Example:

```
CHANGECOLOR 15 0
```

would change the current colour to White with a Black background.

The colour code assignments are:

Foreground	Background
0 - Black	0 - Black
1 - Blue	1 - Blue
2 - Green	2 - Green
3 - Cyan	3 - Cyan
4 - Red	4 - Red
5 - Magenta	5 - Magenta
6 - Brown	6 - Brown
7 - LightGrey	7 - LightGrey
8 - DarkGrey	
9 - LightBlue	
10 - LightGreen	
11 - LightCyan	
12 - LightRed	
13 - LightMagenta	
14 - Yellow	
15 - White	

DISPLAY "<message>"

This displays a message to the user. It does NOT automatically place a carriage return on the end. Use the | character to force carriage return(s).

For Example:

```
DISPLAY "High"  
DISPLAY "High|"  
DISPLAY "||This will skip two lines"
```

The first command simply prints High to the screen. The second will move the cursor to the beginning of the next line after displaying High again after the other High. The third command uses multiple | characters to skip lines before displaying something.

DISPLAYLOC "<message>"
DISPLAYCOM "<message>"

These two commands are similar to DISPLAY except they only display either to the local screen or to the communications port. DISPLAYLOC will only display the message to the local screen (ie. the BBS end) and DISPLAYCOM will only display to the communications port. Circumstances may arise where you may only want one or the other, for instance you may want to make a note come up during a script while a script is running for your reference. Can be useful for debugging.

DISPLAYASW <var num> & LISTANSWER <var num>

DISPLAYASW or LISTANSWER display the <variable number> to the user WITH a carriage return.

For Example:

DISPLAYASW 1

would display the contents of variable 1 to the screen AND would take a new line afterwards.

DISPLAYFLAG <flagnum A-D><flagbit 1-8>

This option displays the current status of a user's flag.

For Example:

DISPLAYFLAG A1

would display 'ON' or 'OFF' depending on the value of the user's flag A1.

DISPLAYGROUP <group>

DISPLAYGROUP will display the current status of a group (A through to Z). If the particular group is ON, then ON is displayed, or if it is OFF, then OFF is displayed.

For Example:

DISPLAYGROUP A

GOTOXY <xpos> <ypos>

GOTOXY moves the text cursor to position that is defined in the command line. Note that this does NOT work in ASCII mode.

For Example:

GOTOXY 10 20

DISPLAY "This is at 10th position on line 20"

Commands For Producing File Output

The next few commands are used for producing output to an answer (.ASW) file.

POSTINFO

POSTINFO writes the users name and the current time and date to the answer file.

For Example:

```
POSTINFO
```

OUTPUTANSWER "<message>" [var num]

OUTPUTANSWER writes <message> and then the variable contents to the answer file. The [var num] is an optional parameter and allows just <message> to be written to the answer file if so desired. The <message> also supports all the CtrlK/F commands, such as Ctrl-FA.

For Example:

```
SETVARS "High" 1
OUTPUTANSWER "Current Value of Var 1 " 1
OUTPUTANSWER ""
OUTPUTANSWER "Ctrl-FA"
```

(The Ctrl-F represents Control F key)

CREATE

CREATE deletes the current Answer file and restarts it. This can be used ANYWHERE within a questionnaire file. If you are creating DOOR files this option should prove to be useful.

For Example:

```
CREATE
```


Commands For Getting Input

The next series of commands are using for getting and controlling input from the user.

WAITENTER

WAITENTER displays the enter prompt, and waits till Enter is pressed.

For Example:

```
WAITENTER
```

would write 'Press [Enter] to Continue: ' on the screen and then wait for ENTER to be pressed before continuing.

CAPITALIZE <ON/OFF/FIRSTLETTER>

CAPITALIZE or CAPITALISE (either spelling will work) turns ON or OFF the capitalising of all input statements from now on in the questionnaire. FIRSTLETTER is a special option that will capitalise the first letter of every word and force lower case on every other letter.

For Example:

```
CAPITALIZE ON
```

would force all following input into capital (upper-case) letters only.

ASK <length> <var num>

ASK will ask the user for a string (A sequence of characters). The string length maximum is that defined with <length>. The result is placed in <var num>. If used in conjunction with CAPITALIZE then the text entered can be forcefully capitalised. The <var num> can be a number from 1 to 50. Length can be from 1 to 255.

For Example:

```
ASK 20 1  
DISPLAYASW 1
```

would ASK the user for a string of maximum length 20 characters, and store it in variable 1.

GETCHOICE <key list> <var num> [default]

GETCHOICE waits until a key in <key list> is pressed and stores the result in <var num>. If a [default] key is in the command, then if ENTER is pressed, the default key will be placed in <var num>. If GETCHOICE is used in conjunction with Capitalise ON or FIRSTLETTER, then all input is capitalised.

For Example:

GETCHOICE YN 1 Y

Would wait until either Y(es) or N(o) or ENTER is pressed. If, ENTER is pressed, then Variable would contain Y.

Example 2:

GETCHOICE YN 1

Is exactly the same as the previous example but if ENTER is pressed, it is ignored ie. the user MUST type in Y(es) or N(o).

Commands For Modifying User Settings

The next series of questionnaire commands are used to modify various user settings that are stored in their userfile. Normally one would use these commands as the result of the user carrying out some specified action so these commands are often found following some sort of test.

SETFLAG <flagnum A-D><flagbit 1-8> <ON/OFF/TOGGLE>

This option is used to set the user's flag to a value. ON would turn the user's flag on, OFF would turn the user's flag OFF, and TOGGLE would turn the user's flag OFF if it was ON, or ON if it was OFF.

For Example:

SETFLAG D8 ON

would set this user's flag D8 to ON.

SETSECURITY <security>

SETSECURITY changes the user's current security level to that defined in the command.

For Example:

SETSECURITY 100

would set this user's security level to 100. If you set the user's security to zero they will immediately be locked out.

SETIGNOREFP <ON/OFF/TOGGLE>

SETIGNOREFP sets the file points ignore flag ON or OFF for the user.

For Example:

SETFP OFF

would set the file points ignore flag OFF for this user.

SETANSI <ON/OFF/TOGGLE>

SETANSI sets ANSI graphics ON or OFF for the user.

For Example:

SETANSI OFF

would set ANSI graphics OFF for this user.

SETAVATAR <ON/OFF/TOGGLE>

SETAVATAR sets AVATAR graphics ON or OFF for the user.

For Example:

SETAVATAR TOGGLE

would turn avatar graphics OFF if it was ON, or ON if it was OFF for the user.

SETFSE <ON/OFF/TOGGLE>

SETFSE sets the ANSI Full Screen Editor ON or OFF for the user.

For Example:

SETFSE OFF

would turn off the full screen editor for this user.

SETRATIO <ON/OFF/TOGGLE>

SETRATIO sets the File Ratio Ignore Flag ON or OFF for the user.

For Example:

SETRATIO ON

would activate file ratio checking on this user (should the system have any).

SETPOSTCALL <ON/OFF/TOGGLE>

SETPOSTCALL sets the Ignore Post Call Ratio Flag ON or OFF for the current user on-line.

For Example:

SETPOSTCALL TOGGLE

would set the postcall ratio ON if it was OFF or ON if it was already OFF for this user.

SETMNUTIME <ON/OFF/TOGGLE>

SETMNUTIME sets the Ignore Menu Time Restrictions, that is time on-line/start time/end time, ON or OFF for the current user on-line.

For Example:

SETMNUTIME ON

would set this user's ignore menu time restriction setting to ON.

SETCOMMENT <var num>

SETCOMMENT sets the user's comment field the variable number. Only the first 40 characters of the variable number are used.

For Example:

```
SETCOMMENT 1
```

would set the user's comment line in the user file to the contents of variable 1.

SETGROUP <group> <ON/OFF/TOGGLE>

SETGROUP sets the current group (file and message) for the user. <group> is the group letter (A through Z), which you wish the command to act on. Instead of specifying a group, "*" can be used to globally set ALL groups ON or OFF (TOGGLE is NOT support for Global Group Setting). The second switch (ON|OFF|TOGGLE) sets the user's group to either ON or OFF or TOGGLE the group.

For Example:

```
SETGROUP * OFF  
SETGROUP A ON
```

This would set all groups off, then set Group A to ON.

SETTOPMENU <menuname>

SETTOPMENU sets the user's top menu field to <menuname>. Menuname should NOT include the .MNU extension.

For Example:

```
SETTOPMENU TOP
```

would set this user's top menu to TOP.

SETDELETED <ON | OFF | TOGGLE>

SETDELETED will set the user's deleted flag as per the option after it. If a user is marked as deleted they will not be logged off. However next time they call they will have to login as a new user and the deleted account will be purged during the next run of USERCOMP.

For Example:

```
SETDELETED ON
```

would set the user's deleted flag in the user file to On.

SETTIME + | - | = <#<var num>> | <time>

SETTIME allows you to change the user's current time online from a questionnaire. You can do this be either increasing or decreasing their time be a specified value or by giving a new value either directly or indirectly through a variable. Using this and other commands you could implement a time gambling facility on your BBS for instance.

For Example:

```
SETTIME +50  
SETTIME =10  
SETTIME +#25  
SETTIME =#15
```

these examples show this command using a direct increase by 50 mins, a specific time left change to 10 mins, increasing time by the value currently in variable 25 and setting the time left to the contents of variable 15. (Registered version only).

SETFP + | - | = <#<var num>> | <filepoints>

This option works identically the SETTIME option only it works on file points.

For Example:

```
SETFP = 10  
SETFP +10
```

would increase the user's file points by 10 or set it to 10 (registered version only).

SETREGRESET

SETREGRESET resets the user's registration date to Today's Date. This would typically be used for REGEXP.Q-A. As the user's registration has just expired, his/her registration date is then started again, but you would lower his/her security level. So when he/she paid you more money, then all you have to do is increase their security level again and they are back on target.

For Example: (REGEXP.Q-A)

```
DISPLAY "Your Registration has Just Expired|"
SETREGRESET
SETVARS "*S" 1
IF 1 = 10
    DISPLAY "You didn't re-register... You now have    DISPLAY
"hardly any time per day|"
    SETSECURITY 5
ELSE
    SETSECURITY 10
ENDIF
```

SETPAGELOGON <ON | OFF | TOGGLE>

SETPAGELOGON allows you to change the Page At Login setting for a user in a questionnaire. When a user has this option set to ON, a short page will be emitted whenever they login (good for VIP users).

For Example:

```
SETPAGELOGON ON
```

will set this option to on.

Conditional Branching & Subroutines

The next series of commands are quite advanced and may take a little getting used to if you have no programming experience. These commands allow you to write questionnaire scripts that will take different actions based on some test condition as well as allow you to jump about your script as required, re-using statements for efficiency.

```
:<label>  
GOTO <label>
```

Ezycom also allows you to move around a script using GOTOs. These are common in BASIC languages. A GOTO moves the current position in the script to the next command after the :<label> marker. If Ezycom finds a :<label> without GOTOing to it, it is simply ignored. The labels are NOT case sensitive.

For Example:

```
:JumPiT  
DISPLAY "Enter Something "  
ASK 4 1  
IF 1 = ""  
    DISPLAY "Please Enter Something|"  
    GOTO jumPiT  
ENDIF
```

the above example will keep asking the user to input something up to four characters long until they enter something other than a blank line (see conditional testing - next)

```
GOSUB <label>  
RETURN [label]
```

GOSUB is like GOTO except that a RETURN statement at the end of the subroutine returns control to the command on the next line after the GOSUB which called it.

For Example:

```
GOSUB test  
DISPLAY "After Gosub|"  
QUIT  
  
:test  
DISPLAY "In Gosub|"  
RETURN test
```


In the previous example, "In Gosub" will be displayed then "After Gosub" will be shown on the next line. Note that placing the subroutine name after the RETURN is NOT mandatory but is useful for readability.

```
IF ... [ELSE] ... ENDIF
```

This is a very powerful way of manipulating responses from the user. Ezycom's IFs can be up to 65,000 levels deep. The ELSE is optional. All IF blocks must eventually be terminated by an ENDIF statement else script execution results can be unpredictable.

Example 1:

```
GETCHOICE XY 1 Y
SETVARS "Y" 2
IF 1 = #2
    DISPLAY "Y Was Entered|"
ELSE
    DISPLAY "Y Was Not Entered|"
ENDIF
```

In the above example, the system will wait for either X or Y to be inputted (and will default to Y upon enter being pressed. Depending on whether Y was inputted or not, a different response will be placed on the screen. IF and ELSE blocks may consist of as many statements as you want.

. Notice how line 3 above compares TWO variables to each other. This is a very powerful comparison feature.

Example 2:

```
SETVARS "X" 1
IF 1 = "Y"
    DISPLAY "Y Was Entered|"
ELSE
    DISPLAY "Y Was Not Entered|"
    IF 1 = "X"
        DISPLAY "X Was Entered|"
    ELSE
        DISPLAY "I Can not work it Out|"
    ENDIF
ENDIF
```


In this example, the output result would be "Y Was Not Entered" and on the next line "X Was Entered". Notice how the IF's can be nested ie. consist of many layers. It is often useful to use the indenting scheme as above in order for you to keep track of which statements belong to which level of nesting. This is especially useful when you go back to modify a questionnaire script some time after you wrote it.

Example 3:

```
:JUMPBACK
GETCHOICE WXY 1
IF 1 = "Y"
    DISPLAY "Y Was Entered|"
ELSE
    DISPLAY "Y Was Not Entered|"
    IF 1 = "X"
        DISPLAY "I actually wanted a W or Y|"
        GOTO jumpback
    ENDIF
    DISPLAY "W Was Entered|"
ENDIF
```

In this example, the script keeps waiting for the user to enter W or Y. Whenever an X is entered, it jumps back to the start for another Choice.

IFs can also use other testing methods besides the equality "=" test. They can also use "<=", ">=", "<", ">" and "<>" which mean less than or equal to, greater than or equal to, less than, greater than and not equal to respectively. This makes testing possibilities virtually endless.

Example 4:

```
ASK 1 1
IF 1 <= "M"
    DISPLAY "A letter less than or equal to M was "   DISPLAY
"entered.|"
ELSE
    DISPLAY "A letter greater than M was entered.|"
ENDIF
```

Example 5:

```
IF EXIST C:\AUTOEXEC.BAT
    SETFLAG A1 ON
ELSE
    SETFLAG A1 OFF
ENDIF
```


The previous example introduces a special extension of the IF command known as EXIST (registered version only). It works in the same way as the DOS batch file command of the same name does. The command tests for the existence of a file and takes conditional action on that basis. This command could be useful for tripping flags for file area access on a system rotating different CDs through drives on different days. You could test for the presence of identifying files and then set flags to lock out areas that are not available due to that CD being offline.

Example 6:

```
IF ICONEXIST FOOTROT.ICN
ELSE
    ... Download footrot flats icon files
ENDIF
```

Similar to the EXIST command, this command will send an enquiry to the remote user's RIP terminal to see if they have the specified RIP Icon. If the result is false, then you can use this to trigger a download of your icons file(s). If the user is in ASC/ANS/AVT mode will always return true.

Ezycom can also do numeric testing. Simply do NOT place quotes around the number you wish to be tested. If a number was expected in the variable, but a letter was placed there instead, then Ezycom gives the variable a value of 2,000,000,000. Although no commas can be placed in the command.

Example 7:

```
:JUMPBACK
ASK 4 1
IF 1 < 2000
    DISPLAY "The Number was less than 2000.|"
ELSE
    IF 1 = 2000000000
        DISPLAY "Please ENTER a numeric value.|"
        GOTO jumpback
    ENDIF
    DISPLAY "The Number was greater than or equal to "
    DISPLAY "2000.|"
ENDIF
```

You can also use IF to test whether or not a variable contains a numeric value or not. The condition is returned TRUE if the variable is a numeric value (contains no letters of the alphabet)

Example 8.

```
IF ISNUMERIC 10
    DISPLAY "Numeric Value"
ELSE
    DISPLAY "Not Numeric Value"
ENDIF
```

This again is a registered only feature.

Miscellaneous Commands

The remaining commands are also quite useful.

SETVARS "<text>" <var num>

SETVARS is a special command where you can set any of the 50 variables (each of maximum 255 characters), to a default value. This value can be anything from a number to a word. The <text> field also supports the Ctrl-F/K smart text codes.

Example 1:

```
SETVARS "Hi There" 1
```

would place "Hi There" in Variable 1.

Example 2:

```
SETVARS "Ctrl-FA" 1
```

would place the user's name in Variable 1.

A special code is available for the SETVARS statement. *E is the errorlevel returned from the last Type 7 Shell. If the program to be run in the Type 7 shell could not be found to run, then *E will give a value of 65535.

Example 3:

```
MENUCMND 7 TEST.EXE
SETVARS "*E" 1
IF 1 = 65535
    DISPLAY "File Not Found|"
ELSE
    DISPLAY "Errorlevel Returned "
    DISPLAYASW 1
ENDIF
```


MENUCMND <option number> [Data]

MENUCMND executes ANY of the menu commands, except for Menu Types 12 and 15. These are used exactly the same as the normal menu commands. Note that Menu Commands are NOT allowed in NEWUSER.Q-A. When using Menu Types 1 through to 5, Ezycom will NOT execute any automatic menu options in those menu until it exits the menu. You can also place variables in the data options for a menu command by putting % symbols around the variable number.

For Example:

```
MENUCMND 7 *C /C GAME.BAT %1%  
MENUCMND 27 1 /T=Peter_Davies
```

In the first example, the %1% would automatically be substituted with the current contents of variable 1. To use a normal % sign, simply place two % signs instead of one ie. %%.

QUIT

QUIT terminates execution of the script IMMEDIATELY. This is useful inside an IF statement or at the end of a GOTO.

For Example:

```
QUIT
```

would immediately quit the questionnaire.

GETFLAG <flag> <var num>

GETFLAG will take the status of <flag> and place in to the variable <var num>. The result will either be ON or OFF.

For Example:

```
GETFLAG A1 1
```

This will set variable 1 equal to 'ON' or 'OFF' depending on the status of the A1 flag.

UNDERSCORE <varnum>

UNDERSCORE will take the contents of <varnum> and replace any spaces in it with underscore characters. This is useful if you need to pass command line parameters from a variable to a Type 7 menu command for instance.

For Example:

```
SETVARS "This is a test" 1
UNDERSCORE 1
```

would cause the contents of variable 1 to read "This_is_a_test"

RANDOM <#var num>|<range> <var num>

RANDOM chooses a random number between 1 and <range> (max 65536) and places this into <var num>. You can also use a variable to specify the range.

For Example:

```
RANDOM 5 1
```

would pick a random number between 1 & 5 and place it into variable 1.

CREDITCARD <card var num> <card name var num>

This command allows checking of how valid a credit card number is. You need to specify the variable number that contains the card number you wish to check as well as a variable to hold the result of the check. The card name/type (either AMEX DINERS, VISA, DISCOVERY or MASTER) will be returned in the second variable. If the number is invalid then the variable will be returned blank (ie. no length).

For Example:

```
ASK 20 1
CREDITCARD 1 2
IF 2 = ""
    DISPLAY "That is not a valid Credit Card|"
ELSE
    DISPLAY "Credit Card Entered is "
LISTANSWER 2
ENDIF
```

This feature is available in registered versions only.

External Support Files

Throughout Ezycom's operation whilst a user is logged in, there are many files that Ezycom will check for the presence of at different times depending on what the user is currently doing. Some of these are used to control access behaviour, the rest are used to present sysop defined screens to users at appropriate points. Each of these is named below along with an explanation of where it is used and how.

External Access Control Files

The following files are all optional and control various types of access to your system.

TRASHCAN.CTL

This text file contains a list of user names specified by you to be unacceptable for use on your system. Place one name per line. The standard check that Ezycom does is to look for the Text you specify within the user's name. For example if you placed 'Sysop' in here it would not be allow a user who logged on as 'Fred Sysop' or 'Sysop'. Whereas if you placed a '*' in front of Sysop, for example '*Sysop' then 'Fred Sysop' would be allowed to logon, but 'Sysop' would not be allowed to logon.

NOTE: If you are allowing aliases on your system be careful they don't use a single name like "John". If this user was to be put in the TRASHCAN.CTL file then any user whose name contained "John" as a first or last name would not be able to logon the system. If you do want to stop the single word names, make sure you place a '*' in front of the name to stop this from happening.

ALIAS.CTL

This file is exactly the same as TRASHCAN.CTL, except that it works on Aliases instead of real names.

PHONENUM.CTL

This file contains phone numbers or partial phone numbers you know to be false or unacceptable. Place the phone numbers one per line.

For Example:

```
12-  
-123-
```

Then no user could logon with a phone number that contained 12-xxx-xxxx or xx-123-xxxx.

SECHECK.CTL

This text file contains names of users (one per line) whom you don't want to be forced to do security checks (eg birthdate/phone number), should you have them enabled.

BADFILES.CTL

This file contains a list of all the files that are NOT allowed to be uploaded to your system. Place one filespec per line and wildcards are allowed

For Example:

```
*.GIF  
PKZIP.EXE
```

Special Log Files

When certain special events take place, Ezycom will create special log files to tell you this has occurred. Following is an explanation of the purpose of these files.

PHONEDUP.LOG

If a user logs on using a phone number the same as another user, then you are notified in this file of the occurrence. Eg. John Doe logged on using same phone number as Jane Doe.

ERRORS.LOG

If any major internal errors occur, Ezycom will log the error to here. Report the details to your nearest support site. They may or may not be the result of bugs.

Graphic Support Files

Listed below are the AVT/ANS/ASC/ASL support files which you can define. All files must reside any/all of the appropriate AVT/ANS/ASC/ASL directories.

*** Means a default prompt will be displayed if the text file is not present.

ALIAS.Axx

This file is displayed before the new user enters their alias.

AREAHELP.ASL

This file is sent to any nodes that request help from the EchoArea manager.

DOBSEC.Axx

This is displayed before the user is asked for their date of birth for logon security verification.

DOWNHELP.Axx

This file is displayed when the user selects 'H)elp' from the download command.

EDITHELP.Axx

This file is displayed when the user selects help inside of the line editor.

FLSPHELP.Axx

This file is displayed when the user selects 'H)elp' from the file specification (Menu Type 36) search command.

FLnnnnn.Axx

These files can be implemented if you require Ezycom to display a comment/header file before displaying the files listed in the file area that the user is about to look at. The nnnnn is the file area number and this file should be placed in the same path as the file base information for the area in question is stored. So if you want a comment header file for file area 10 you would have a file called FL00010.ASC placed in the path for area 10's filebase (ie. C:\EZY\FILEBASE\AREA1\FL00010.ASC)

KEYWHELP.ASL

This file is displayed when the user selects 'H)elp' from the keyword search command (Menu Type 35).

LOCKOUT.Axx

This message is displayed when you either lockout a user (Alt-L), or a user who has been locked out tries to logon.

LOGO.Axx

This file is displayed just before the system asks the user for their name and password.

MAXPAGE.Axx

This file is displayed if the user exceeds the maximum number of pages specified in CONFIG.

NEWS.Axx

This file is displayed after NEWUSER2.Axx and WELCOME.Axx and before the check for waiting mail.

NEWUSER1.Axx

This file is displayed to a new user when they confirm that they have entered their name correctly. This might say something like 'Welcome to the system New User'.

NEWUSER2.Axx

This file is displayed before the NEWUSER.Q-A, but after the system questionnaire specified in CONFIG.

NOTAVAIL.Axx

This file is displayed when a user pages outside the paging hours defined in CONFIG.

ONCEONLY.Axx

This file is displayed to all users once and once only. Ezycom checks the date on the file and will only display it to the user if they have not already seen it. It is displayed after the WELCOME screens.

PAGEABRT.Axx

This file is displayed if the sysop aborts an attempted page by the user.

PAGED.Axx

This file is displayed after the user has paged the sysop but before the sysop answers. This could be something like your chat has been noted, the sysop will break in when available.

PAGESTOP.Axx

This file is displayed if the sysop aborts the current page and stops all further paging.

PASSWORD.Axx

This file is displayed before a user is asked to enter their system password.

PHONESEC.Axx ***

This is displayed before the user is asked for their phone number for security verification.

PRIVATE.Axx ***

This is displayed to newusers if the newuser security level is 0. It would advise them that the system is a PRIVATE system.

PROTHELP.Axx

This file is displayed when the user presses '?' at the list of selectable upload and download protocols.

REGWARN1.Axx ***

This is the last warning before registration runs out as defined in CONFIG.

REGWARN2.AXX ***

This is the first warning before registration runs out as defined in CONFIG.

READHELP.Axx

This file is displayed when the user selects help just after selecting to Read a message area.

SIGNATUR.ASL

This file is appended to the bottom of any message the sysop writes when logged into the BBS. It is often contains a standard sign off such as `Regards, The Sysop' to save you typing this everytime. However, it can also be used to show such things as your phone number or your internet e-mail address or some other witty lines of text.

SECnnnnn.Axx

This file is displayed when a user logs on with nnnnn security. For example if a user logged on with security 10, then SEC10.A* would be displayed to him/her.

TIMESLOW.Axx ***

This is displayed when a user logs in using a slow baud rate but is outside the hours this baud rate is allowed.

TIMSESEC.Axx ***

This is displayed when a user logs on below the minimum logon security, and has not logged on between the low security start and end times.

UPHELP.Axx

This file is displayed when the user selects 'H)elp' from the upload command.

WATCHDOG.ASL

This file is sent in a message to a user who has had a previous unsuccessful logon. Typically this message would say something along the lines of 'someone has tried to logon into your account and failed. Please change your password.'.

WELCOME.Axx

This file is displayed after the user logs on. You can use this file to show the user a colourful display about your BBS, welcoming them online.

WELCOME1.Axx

This file is displayed after the WELCOME.Axx. This can be used to tell the user more about your system.

WELCOME2.Axx

This file is displayed after WELCOME1.Axx.

WELCOMEhh.Axx

This file is displayed between 00:00 and 23:00. You can have an individual WELCOME screen displayed every hour. Eg. WELCOM11.Axx would be displayed between 11am and midday, WELCOM23.Axx would be displayed between 11pm and midnight each day.

Special Control Characters

These are control characters that can be placed in any of your RIP / AVT / ANS / ASC / ASL files. These functions will be initiated once the imbedded control character is reached within the RIP / AVT / ANS / ASC / ASL file. For example, to show the user's name you would have a control code of ^FA (Ctrl-FA). To wait for an ENTER key you would have a control code of ^A (Ctrl-A). To display the total system calls you would have a control code of ^FA (Ctrl-F A).

The first set of control characters do not require ^F or ^K to precede the required function, but the others require ^F or ^K to precede them, as shown.

ASCII	Ctrl-Code	Description/Purpose
01	^A	Wait for [Enter] Key to be Pressed.
02	^B	Enable Abort with "S" key
03	^C	Disable Abort with "S" key
04	^D	Enable "Continue" Prompt
05	^E	Disable "Continue" Prompt
06	^F	@Insert User Parameter
07	^G	Beep at User's End
08	^H	Backspace
09	^I	Move Forward 8 spaces
10	^J	Line Feed
11	^K	@Insert System Parameter
12	^L	Clear Screen
13	^M	Carriage Return
22	^W	Pause for One Second
23	^V	Reserved for Avatar
24	^Y	Reserved for Avatar

User Parameters - CTRL-F Codes

Each of the following codes requires a Control-F followed by the indicated code.

ASCII Code	Character	Description/Purpose
65	A	Users Name
66	B	Location
67	C	Password
68	D	Bussiness/Data Phone
69	E	Voice Phone
70	F	Date Of Last Call
71	G	Time Of Last Call
72	H	Flag A
73	I	Flag B
74	J	Flag C
75	K	Flag D
76	L	Netmail Credit
77	M	Messages Posted
78	N	Date Format (DDMMYY/MMDDYY)
79	O	Security Level
80	P	Number Of Calls To BBS
81	Q	Number Of Uploads (Files)
82	R	Number Of Uploads (Kilobytes)
83	S	Number Of Downloads (Files)
84	T	Number Of Downloads (Kilobytes)
85	U	User/Sysop Comment
86	V	Screen Length
87	W	First Name (Only)
88	X	ANSI Status (ON/OFF)
89	Y	Continue Status (ON/OFF)
90	Z	Screen Clearing Status (ON/OFF)
48	0	Full Screen Editor Status (ON/OFF)
49	1	Quiet Status - Multi-line (ON/OFF)
50	2	Extended IBM Char Status (ON/OFF)
51	3	Time Banked
52	4	Kilobytes Banked
53	5	File Points
54	6	User's Alias
55	7	Date Of First Call
56	8	Date Of Birth
57	9	Subscription Expiry Date
97	a	Days Till Subscription Expiry
98	b	AVATAR Status (ON/OFF)
99	c	Ratio For Files
100	d	Credit For Files
101	e	Number Of Files Downloadable Till Ratio Expires
102	f	Number Of Files To Upload Till Ratio Is Even
103	g	Ratio for Kilobytes
104	h	Credit For Kilobytes

CTRL-F Codes (Continued)

ASCII Code	Character	Description/Purpose
105	i	Number of Kilobytes Left Till Ratio Expires
106	j	Number Of Kilobytes To Uploads Till Ratio Is Even
107	k	Default Protocol
108	l	Number of Kilobytes For File Points
109	m	Date Of Last New File Search
110	n	Post/Call Percentage For Security
111	o	Credit For Post/Call Ratio
112	p	Number Of Messages Behind Post/Call Ratio
113	q	Number Of Messages In Front Of Post/Call Ratio
114	r	Graphics Mode (Verbose)
115	s	User's Post Call Percentage
116	t	File Points Awarded Since Last Session
117	u	Hold Status Of The User's Mailbox
118	v	Who The User Is Currently Forwarding Mail To
119	w	Mail Check Uses Combined Settings or Full Check?
120	x	Maximum Messages Per QWK Bundle
121	y	Maximum Messages Per QWK Message Area
122	z	Maximum Days Old For QWK Messages
33	!	Change Colour To User's Message Quote Colour
64	@	Change Colour To User's Message Text Colour
35	#	Change Colour To User's Message Prompt Foreground
36	\$	Change Colour To User's Message Prompt Background
37	%	Change Colour To User's Filename Colour
94	^	Change Colour To User's File Size Colour
38	&	Change Colour To User's File Date Colour
42	*	Change Colour To User's File Description Colour
40	(Change Colour To User's Uploader Colour
41)	RIP Graphics Status (ON/OFF)

System Parameters - CTRL-K Codes

Each of the following codes requires a Control-K followed by the indicated code.

ASCII Code	Character	Description/Purpose
65	A	Total System Calls
66	B	Last Caller (Any Line)
67	C	Total Number Of Messages On System
68	D	Number Of Messages In Current Template Area
69	E	Maximum Kilobytes Downloadable
70	F	Number Of Times User Has Paged Sysop
71	G	Day Of Week (Verbose)
72	H	Total Number Of Users In Userfile
73	I	Time In 24 Hour Format
74	J	Today's Date
75	K	Minutes Connected This Call
76	L	Number Of Current Template File Area
77	M	Minutes Used Today (All Calls)
78	N	Number Of Current Template Message Area
79	O	Minutes Remaining Today
80	P	Download Kilobytes Left Today
81	Q	Daily Time Limit
82	R	Current Baud Rate
83	S	Day Of Week (Abbreviated)
84	T	Daily Download Limit
85	U	Time Till Next System Event (Minutes)
86	V	Time Of Next Event (24 Hour Format)
87	W	Node Number (Multi-line)
88	X	Disconnect Caller
89	Y	Name Of Current Message Area Template
90	Z	Name Of Current File Area Template
48	0	Time Before Last Invalid Menu Option Can Be Used
49	1	Start Time For Use Of Last Invalid Menu Option
50	2	End Time For Use Of Last Invalid Menu Option
51	3	Number Of Files In Current File Template Area
52	4	Total Number Of Files On System
53	5	Number Of New Users Today
54	6	Number Of New Messages Posted Today
55	7	Number Of New Files Uploaded Today
56	8	Total Files On System In Kilobytes
57	9	Last Caller's Alias
97	a	Ezycom Version Number
98	b<hex>	Changes Users Current Colour To <hex> - See Later

CTRL-K Codes (Continued)

ASCII Code	Character	Description/Purpose
99	c	Number Of Failed Logins Since Last Successful Login
100	d	Number Of Times User Has Called Today
101	e	The BBS Name
102	f	The User's Age

Sysop Function Keys

There are a wide variety of keys available to the sysop whenever a user is online to the BBS. The purpose of each of these keys will now be explained.

F1-F6	Toggling between these keys displays complete user information on the status bar at the bottom of the screen.
F7	Pressing this key displays your custom (if defined in CONFIG) status information. Consult the CONFIG section of this document for more information.
F8-F9	Provides help on all the ALT and Function keys.
F10	Turns the status bar on the bottom of the screen off. Press any of the other Function keys to turn it back on.
ALT-S	Allows you to change the online user's security level. Note that this freezes the user while you are doing so.
ALT-C	Brings online users into chat allowing you to "talk" to the user via the keyboard. Press escape to end the chat mode. The standard Alt-C brings up the full screen chat if the user has ANSI/AVATAR turned on or the line chat otherwise. To bring up the line chat specifically, press SHIFT at the same time as pressing ALT-C.
ALT-M	This is very useful feature for when you log on locally. It allows you to completely edit (page 1) of a user's record while reading mail from that user. You can use this for instance to upgrade a new user after they have sent an introduction message.
ALT-J	Performs a shell to DOS while the user is on line. Note that they cannot do anything whilst you are shelled out.

ALT-E Allows modification of Page 1 of the on-line user's settings.

ALT-P Toggles whether the user activity should be sent to the printer.

ALT-D Toggles the local screen on/off. Use this to control whether you want to see what the user is doing or not.

ALT-G Sends an ASCII bell character (character 0x07) to the user online to gain their attention.

ALT-H Disconnects (hangs up on) the user immediately.

ALT-N Displays fake line noise to the user and the local screen.

ALT-L Drops the user's security level to zero (0), thereby locking them out of the system and then logs them off. With a special switch on USERCOMP, you can have these names automatically added to your TRASHCAN.CTL file during your maintenance.

ALT-I Sends an inactivity timeout message to the user and then logs him/her off.

ALT-U Allows you to make up a message to send to the user and then hang them up immediately. Might be something like 'If you cannot be truthful, don't call back!' or 'BBS is going down due to electrical storm!'.

ALT-X Allows the sysop to edit certain system parameters for the current session. The statistics that can be edited are Next Sysop, Minimum Disk Free Space, Swap on Jump to DOS, Swapping Type, Number of Pages, Page Sound, User Ratios and Download Limit. Note that Type 15 Exits will reset some of these options.

Up Arrow Increases the user's time by one minute.

SHIFT-Up Arrow Increases user's time by ten minutes.

Down Arrow Decreases the user's time by one minute.

SHIFT-Down Arrow Decreases user's time by ten minutes.

Smart Colour Codes

Ezycom supports a colour changes which can be embedded in text files or in menus. CTRL-Kb initiates the colour changer and this is followed by a hex code to actually tell Ezycom what colour to change to. The <hex> code is a two digit hexadecimal number that indicates the colour to change to. The first digit indicates the background colour and whether the foreground colour should be blinking or not. The second digit is the foreground colour.

Foreground		Background	
Hex Code	Colour	Hex Code	Colour/Effect
0	Black	0	Black
1	Blue	1	Blue
2	Green	2	Green
3	Cyan	3	Cyan
4	Red	4	Red
5	Magenta	5	Magenta
6	Brown	6	Brown
7	Light Grey	7	Light Grey
8	Dark Grey	8	Black + Blinking
9	Light Blue	9	Blue + Blinking
A	Light Green	A	Green + Blinking
B	Light Cyan	B	Cyan + Blinking
C	Light Red	C	Red + Blinking
D	Light Magenta	D	Magenta + Blinking
E	Yellow	E	Brown + Blinking
F	White	F	Light Grey + Blinking

For Example: CtrlKb07

Would set the background colour to black (0) and the foreground colour to LightGray (7).

For Example: CtrlKb4F

Would set the background colour to Red (4) and the foreground colour to White (F).

For Example: CtrlKbCF

Would set the background colour to Red ((4) + (8) = C) and the foreground colour to White Blinking (F)

Runtime Errors

On rare occasions, Ezycom or one of its utilities may exit with a runtime error of some sort. This fact will be logged to a file called ERRORS.LOG in the Ezycom system directory. As the file suggests you should report this error to a beta test site if it continues to occur.

Cod e	Meaning	Code	Meaning
1	Invalid function number	157	Unknown media type
2	File not found	158	Sector not found
3	Path not found	159	Printer out of paper
4	Too many open files	160	Device write fault
5	File access denied	161	Device read fault
6	Invalid file handle	162	Hardware failure
12	Invalid file access code	200	Division by zero
15	Invalid drive number	201	Range check error
16	Cannot remove current directory	202	Stack overflow error
17	Cannot rename across drives	203	Heap overflow error
100	Disk read error	204	Invalid pointer operation
101	Disk write error	205	Floating point overflow
102	File not assigned	206	Floating point underflow
103	File not open	207	Invalid floating point operation
104	File not open for input	208	Overlay manager not installed
105	File not open for output	209	Overlay file read error
106	Invalid numeric format	210	Object not initialized
150	Disk is write-protected	211	Call to abstract method
151	Bad drive request struct length	212	Stream registration error
152	Drive not ready	213	Collection index out of range
154	CRC error in data	214	Collection overflow error
156	Disk seek error		

One needs to use common sense when determining the probable cause of an error. If you are lost, use the following as a guide:

- . Errors 100, 101, 152, 154, 156, 157, 158 all point to problems in your hard disk either physical or logical that are beyond software control. Reach for your hard disk diagnostic tools at this stage. It may also be helpful to defragment your hard disk after doing so.
- . Errors 2, 4, 5, 6, 12, 16 often point to either SHARE not being loaded (in a DOS environment) or insufficient file handles being available (increase the FILES= settings in CONFIG.SYS)

The rest of the errors may either point to you having a non-existent path defined for use by Ezycom in the CONFIG or it could be a bug in Ezycom itself. Please note that bug related runtime errors in full release versions are rare. Be sure to check this table before blindly reporting your problem, it could be your fault rather than Ezycom's.

Ezycom Errorlevels

When Ezycom exits after a user logs off or due to a type 15 menu exit, it returns an errorlevel that the batch file you ran Ezycom from should trap and act upon.

The errorlevels Ezycom produces are:

Errorlevel(s)	Meaning or Purpose
0	Normal exit
1	Set-up error
2	Software error
3	Fossil error
4	Modem Init Error
5	Echomail Was Entered
6	Netmail Was Entered
7	Both Echomail and Netmail Were Entered
8	Sysop on Next
9	No Initial Modem Carrier
10	Fax Connect Received
11-19	Reserved

Ezycom Command Line Parameters

The following is a list of command line parameters that are supported by Ezycom.

- Px Com port select (1-32).
- L Local logon.
- Bxxxxx Log user on at baud rate xxxxx (300-38400).
- Exx Exit after caller logs off at error level xxx
Range is 20-255.
- S Set local display to off (no local screen output).
- D Disable displaying of the status bar at the bottom of the screen.
- Fx Which status bar to display (1-10). This corresponds to the function key you normally press to get it when a user is online.
- T Time (in minutes) till next system event.
- R Re-logon user after Type 15 exit.
- Nxxx Node number if running Multi line.(1-250). This can also be used with the -R parameter when relogging a user back on a Multiline system eg. EZY -R -N2
- DEBMODEM This special parameter (for use in standalone mode only) will allow you to see all modem strings that Ezycom is processing when answering the phone etc. This should be used for debugging purposes only.
- DEBOPT This will turn on verbose logging when a user is logged into Ezycom. All menu options executed and their parameters etc will be logged to the system log file. However, since this uses a LOT of disk space this option is only useful for finding the cause of problems in your system that are proving difficult to pin-point. Only use it when necessary.

Support Services

Commercial customers should contact Gary Gillard for Support using one of the following numbers:

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BBS/Fax +61-3-775-0966
Fidonet 3:636/200 or 3:636/97

or by post at:

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c/o Mr Garry R. Gillard
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Suggestions/Bug Reports

If, you have any suggestions, bug reports or otherwise for Ezycom, please feel free to contact the author, Peter Davies.

Be sure to clearly state your suggestion, and a return address so that we may get back to you if required.

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Peter and the Ezycom Development & Beta Test Team can also be contacted in the FidoNet echomail conference named EC_SUPPORT. This echo is available world wide. The conference EC_DEV is also available to assist 3rd party Ezycom utility developers with any problems/queries they may have. EC_UTIL is a conference available for the support of Ezycom third party utilities. Look for these echos from a Fidonet feed near you.

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