

MTEZ DATA COMMUNICATIONS SOFTWARE WITH EXPRESSFAX TELEFACSIMILE MODULE

KEYBOARD MACROS

[ALT-0] through [ALT-9] can be defined to automatically type commonly used strings.

When initially entering MTEZ, the keyboard macro file "MTEZ.KEY" is loaded. To change the macro file to another file, press [L], and then enter the new macro file name desired.

NOTE: Remember to save the macros by pressing [S]. MTEZ does not automatically save them for you.

If the Enquiry (ENQ) options in the General Setup Menu is set to ON, the string which is placed in the Alt-0 slot will be sent when an ENQ (Control-E) is received. Some terminal emulations use this to answer an ENQUIRY which was sent by the host system. This is a host-independent setting, most do not require or use ENQ.

HANGUP THE MODEM

By pressing [ALT-H], or selecting Hangup from the Menu System, you can hang up the modem during a connection. This is used if you decide that you want to end communications early, without waiting for the other system to hang up on you. During the hangup, the word "Hangup" will flash in the upper left of the screen and the DTR light on the modem should go OFF and ON, if you have an external modem.

NOTE: If pressing [ALT-H] has no effect, your modem may not have DTR configured properly (see your modem manual for details).

TOGGLES

Echo	By pressing [ALT-E], or selecting Toggle/Echo, you can change from locally echoing characters to not echoing characters. FDX and HDX are displayed on the status line, indicating Full Duplex and Half Duplex. Full Duplex means that characters are echoed by the local terminal. When operating with a personal computer, in almost all situations FDX should be used.
Printer	By pressing [ALT-L], or selecting Toggle/Printer, all characters displayed on the local terminal's screen are also sent to the printer. If there is not a printer attached to the printer port, the computer may lock up. If this happens, you will have to re-boot your computer.
Log	By pressing [ALT-F1], or selecting Toggle/Log, all characters displayed on the local screen are also saved into a text file in the \MTEZ directory. After pressing [ALT-F1], you are given the option to: append the log to the current file, overwrite the current file, or specify a new name. The default save filename is MTEZ.LOG.

CR/Newline	Pressing [ALT-F3], or selecting Toggle/Newline, changes what is transmitted when [ENTER] is pressed or what happens when a LF is displayed. If the top status line shows NL (New Line) then pressing [ENTER] will generate a CR/LF combination and a received LF will position the cursor on the left margin, as well as perform a linefeed. When the status line shows CR, pressing [ENTER] will generate a CR and displaying a LF will simply position the cursor one line down (default).
Files Directory	Pressing [ALT-F6] displays a list of files, similar to getting a "DIR" in DOS. You can navigate through the directory structure of your disk in several ways. Pressing [C] will allow you to specify a new directory. Also, pressing [ENTER] on an entry marked "<DIR>" will change to that directory.
Changing Current Directory	Pressing [ALT-F7] will allow you to change the current directory. You will be in the new directory when you exit MTEZ or shell to DOS.
Clear Screen	Pressing [ALT-C] in terminal mode will clear the screen.
Screen Dump	By pressing [ALT-G], or selecting Screen Dump, the current screen is written out to the screen dump file. This file is specified in the General Setup Menu.
Transmit a Break	By pressing [ALT-B], or by selecting Xmit Break from the Menu System, a modem break signal is sent. In MNP mode, a modem packet called "LN" is sent by the MNP protocol.
Auto Answer Mode	Pressing [ALT-Y], or selecting More/Answer from the Menu System will instruct MTEZ to enter Answer Mode. Answer Mode will wait for an incoming call in much the same way that Host Mode does, except it does not enter the Host Mode. While in Auto Answer Mode, if you select Half Duplex (HDX), all characters received will be also echoed back to the sender.
Chat Mode	Pressing [ALT-O] will bring up a dual-window chat mode. If you are talking to a person through the terminal mode, or in a "CB" simulation (like the one on CompuServe), the chat mode will separate your typed characters from those that are received from the Host system.
Reinit Modem	If you have turned on/off your modem, and you want to ensure your modem is initialized properly, you can press the [ALT-J] sequence. This will cause the proper modem initialization string to be sent to the modem.
Terminal Setup	Depending on the terminal emulation selected, the [ALT-U] keystroke will bring up a terminal setup screen. At the time of the writing of this manual, only the ANSI terminals support this option, but other emulations will have this option added as time permits.

FILE TRANSFERS

There are seven file transfer protocols supplied with MTEZ: ASCII, XMODEM,

XMODEM/CRC, YMODEM, YMODEM Batch, YMODEM-G and YMODEM-G Batch. Each of these is supported in the upload and download directions.

NOTE: Use YMODEM-G if at all possible, on an Error Corrected connection for maximum throughput.

If you do not have an error corrected modem and you do not have the MNP Add-On module, or if you did not connect in MNP, you cannot use the YMODEM-G protocols. These protocols assume that the link is already error corrected, and cannot otherwise be selected.

UPLOAD

To upload a file (send from your computer to a host computer), you must first tell the host computer to begin receiving the file(s). Then press [PGUP] or File/Send from the Menu System. MTEZ will then give you the available transfer protocols (YMODEM G protocols are only available when an MNP link has been established). After selecting the transfer protocol, you are then asked for the name of the file to send. Files are sent from the upload directory specified in the "Send File Dir" entry in the General Setup Menu, unless otherwise specified by the upload filename. The default upload directory is \MTEZ\SEND.

DOWNLOAD

To initiate a file download (send from a host computer to your computer), you first have to tell the host computer to begin sending the file(s). After doing so, press [PGDN] or File/Recv from the Menu System to display the available transfer protocols. Cursor to the appropriate protocol and press [ENTER]. MTEZ will then scan the screen for a valid DOS file name. If the file name selected by MTEZ is not what you wish to call the file, it may then be changed. If a "batch" protocol is selected, you are not prompted for a name, as the name is provided by the sender as part of the batch protocol. Files are received into the "Received File Dir", unless otherwise specified by the filename. The default directory is \MTEZ\RECV, which is specified in the General Setup Menu.

FILE TRANSFER PROGRESS

After you have selected the method of transfer and the filename, the file transfer begins. During the file transfer, MTEZ gives you information about the percentage complete (or the number of bytes transferred, if receiving a file in non-batch mode).

A file transfer progress box is also displayed during a file transfer. It shows information about the progress of the file transfer. Below is a list of the information displayed:

Protocol	tells you which file transfer protocol is being used.
File Size	tells the file size. If you are receiving a file this will be blank as you do not know the size of the incoming file. Some protocols, such as YMODEM Batch, will specify the file size during a receive.
Byte Count	shows the number of bytes sent of received so far.

Packet Size	shows the number of bytes in the current packet.
Avg File CPS	shows the average Characters Per Second of the transfer.

Examples: These examples of file transfers assume that you are connected to a standard type of BBS (Bulletin Board System), where files can be uploaded and downloaded using the available file transfer protocols. After you have connected into a service, you will have to find your way into the file transfer section of the BBS.

Select a Filename

You need to know a filename which is available for downloading. Remember, each BBS is slightly different from the rest, and the BBS you call may not work the same as the one in these examples.

You decide on a program named TMAP.COM. TMAP.COM is a shareware program which is available on many major bulletin board systems. When the BBS requests the Filename, enter TMAP.COM

Now that you have entered the desired filename into the system, you must decide on a file transfer protocol. Since in this example you are in MNP error correction, you probably will select one of the -G protocols, since they work faster over the error corrected link.

Select a Protocol

You have to specify the protocol twice, once on the BBS, and then later in MTEZ, both must be the same protocol. You decide on YMODEM-G, since the 1024 byte packets make the transfer go faster, and you are on an error corrected link.

After you have selected the BBS's transfer protocol, you are done entering information to the BBS.

Board Indications

Now, depending on the BBS, it should tell you that it is ready to transmit the file to you. If your BBS does not, then simply continue with the file transfer on your end of the link.

This BBS will wait until you have started the transfer. You will have to tell MTEZ to begin the download, or else the BBS will time out, returning you to the BBS's file transfer menu.

Return to Menu

By pressing [ALT-/], the Menu System is brought up.

After the menus are up, you can move to any function within MTEZ. You are trying to get into the File functions, so either use [<-] or [->] to move the cursor bar, or press [F].

Select Downloads

If you use the cursor key, once you move the cursor over the File option, you will have to press [ENTER]. Otherwise if you pressed [F], you will be

immediately moved to the next menu selection.

Select Send or Receive a File

By selecting Receive for receive a file, you are moved into the file protocol selection menu. By using the cursor keys [Up Arrow] or [Down Arrow] you will select the same protocol requested on the BBS. Press [ENTER] to complete the selection process.

Select a Filename

After the protocol is selected, MTEZ tries to figure out the name of the file which you are going to transfer. MTEZ puts its best guess on the filename entry line, and allows you to edit the name in case MTEZ was wrong.

Download Progress Screen

Once the filename is entered, the file download (receive) should start. There may be a little bit of data handshaking between the two computers, but once the transfer starts the transfer progress screen is displayed.

End of File Transfer

After the file has been transferred, the transfer progress screen will disappear, and the BBS should notify you a successful transmission.

EXIT TO DOS

By pressing [ALT-x], or by selecting Quit from the menu, you are given the option to exit to DOS.

Selecting [Y] will hangup the modem, if you are currently "on-line", and then exit to DOS. Pressing any other key will leave you in MTEZ.

Temporary Exit to DOS

By pressing [ALT-F4], or selecting Shell, from the Menu System, you can temporarily "shell" to DOS. When you are finished running programs in the DOS shell and you want to return to MTEZ, simply type:

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C>EXIT [ENTER]
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and you will be returned to MTEZ where you left off. If you have shelled to DOS while you are on-line to a host service, you will still be connected to that service while you are shelled, and you will also still be charged on-line charges. Some on-line services will log you off after certain amounts of inactivity time.

EDITOR

If you have the Protocol and Emulation Add-On Module, and you wish to use the MTEZ full screen editor, you should leave the Editor entry of the General Setup Menu blank. If you do not have the Protocol and Emulation Add-On Module, an editor, such as EDLIN, can be specified in the General Setup Menu. Pressing [ALT-A], or selecting Editor, MTEZ will ask you for the file you wish to edit. Type in the name or press [F4] to display a directory of files. Pressing [ENTER] will then enter the file that is highlighted.

While in the editor, the modem link will continue to be maintained, although the session will not. If a logon session requires occasional keystrokes to maintain the connection, return periodically to MTEZ and press a non-destructive key. See General Setup Menu for more information pertaining to the editor's drive, path and filename.

TERMINAL MODE

If you choose not to use the Menu System, you will end up in terminal mode after starting MTEZ. When you are in terminal mode, you are talking directly to the modem port, and you have to use the [ALT]-key commands to get around MTEZ.

Even when the Menu System is selected, after a call is made, you are put into terminal mode during the modem connection. At the end of the connection, MTEZ returns you to the Menu System. To return to the terminal mode, you simply select Terminal.

While you are in the terminal mode, all of the [ALT]-key sequences are available for you to use, or you can press [ALT-TAB] to return to the menu system.

TIMER/LINK INFO

If you want to know the current session is going while you are on-line, while not using a file transfer protocol, you can press [ALT-T].

The name and version of the current communications driver is displayed, along with the elapsed time. The elapsed time is the length of time that you have been connected to the other modem. This is very useful information for billing, etc.

If you are using the MNP Add-On Module, some additional error correction related information is also displayed.

The Error Correction Level is the error correction level that was negotiated between the modem that you called and MTEZ. MTEZ will try to negotiate the most efficient connection possible because each error correction implementation has different capabilities and capacities.

The MNP Series ID is the ID (or NAME) of the manufacturer of the connected modem (or MNP software). MagicSoft has an ID of 28.

The rest of the screen shows you the TRANSMIT and RECEIVE statistics of the current session. If the number of "duplicates" is high, then there has been a lot of noise on the phone line, and these would have been errors on your screen.

The maximum speed is the fastest recorded transfer of characters between the computers. If compression was negotiated between MTEZ and the other modem, then this speed may be faster than the connect baud rate.

FIFO 16550 SUPPORT

MTEZ automatically detects and enables the FIFO's in a 16550 UART or Hayes Enhanced Serial Port (ESP). This allows for improved performance when MTEZ

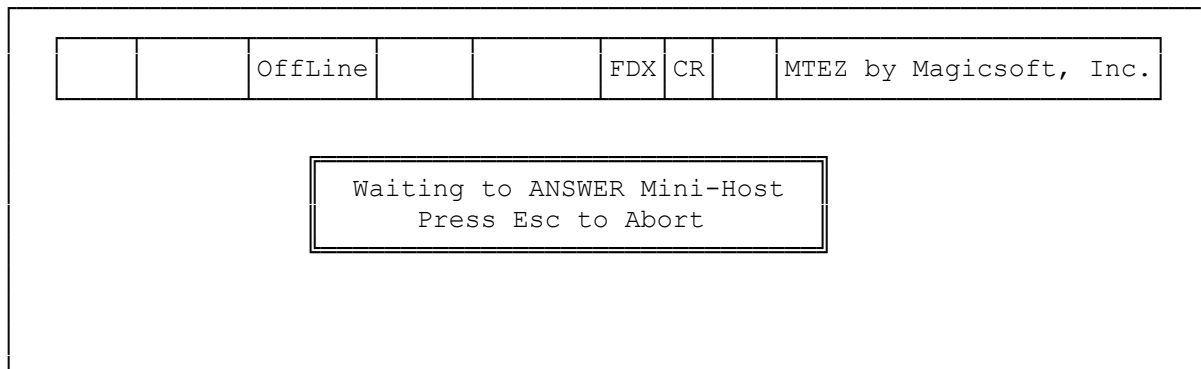
is used under certain multitasking operating environments (such as OS/2s DOS box, DesqView or Windows) at high baud rates. If MTEZ has enabled the FIFO's of your serial port, the message "FIFO" will appear after the current COM port display in the Timer/Link Info screen.

MINI-HOST

MTEZ can receive telecommunications calls, as well as make them. Mini-Host mode can be entered by pressing [ALT-Q] or by selecting More/Host from the Menu System. Mini-Host will use the default parameters specified in the Parameter Settings section of MTEZ.

Entering Mini-Host

When Mini-Host is started, MTEZ will answer the modem when an incoming call is received. Unless a password is specified in the General Setup Menu, anyone will be able to use your Mini-Host. When MTEZ is waiting for a phone call, the screen looks like:



Mini-Host Capabilities

Mini-Host allows incoming users to do various simple tasks. Users can type files from your SEND directory (see next section). They can list the files in your download (SEND) directory, and then download them using any of the protocols supported by MTEZ. The incoming user can also upload files into your RECV directory. If the incoming user would like to "talk" to you, they can even attempt to "chat" with you over the terminal.

You may customize the initial welcome screen that the caller sees when they log onto the Mini-Host. Instead of the standard "Welcome to MTEZ Mini Host..", MTEZ will send the file WELCOME from the MTEZ directory (normally \MTEZ), if it exists. You may use your editor to create and edit this file.

Answering Chat Request

If an incoming user attempts to "chat" with you, Mini-Host will alert you.

You then have the option to talk with the person or not. If you are going to talk to the incoming user, both of your entries will appear together in the Mini-Host window.

NOTE: The remote user and the SYSOP should not type at the same time. This causes the letters to be intermixed and neither would be able to understand the conversation.

Shell

The shell option will allow a remote user to run the Host's DOS prompt. From

the DOS prompt, the remote user is able to execute DOS functions on the Host computer. The shell function is not a remote control mode. There is a very limited number of programs which can be run. Selection of a program to execute remotely is very important, if the program does not direct I/O, or direct keyboard I/O, shell will not be able to control the program and will most likely not work as desired.

File Protection

The file directories have been separated into an upload and a download directory to prevent users from overwriting the downloadable files with ones that they would upload to your system. Then, according to your discretion, you can move files over to the downloadable directory. Remember, it is illegal to allow commercial software to be downloaded from your Mini-Host. Only freeware (free software) or shareware (pay if you wish) software should be in the download directory.

MTEZ does not allow users to access areas of your computer other than the upload and download directories. This protects your computer's confidential areas from accidental or purposeful deletion of changes.

TERMINAL EMULATION

MTEZ supports selectable terminal emulation. There are two "built-in" emulations in MTEZ: TTY and VT102. you select the emulation from the General Setup Menu.

TTY emulation supports only CR, LF, FF, TAB and BELL. VT102 terminal emulation is a full implementation that includes: printer pass-through, application keypad mode, ANSI color, scrolling region, etc. Double height and width characters and 132 column modes are not supported.

The following keys are "remapped" while in VT102 emulation (keys marked with an * are available only on a 101 key keyboard).

PC KEY	FUNCTION	ASCII VALUE
[Tab ->]	Horizontal Tab	TAB
[Del]	Delete	DEL
[Up Arrow] or Grey [Up Arrow]*	Cursor Up	ESC [A
[Down Arrow] or Grey [Down Arrow]*	Cursor Down	ESC [B
[->] or Grey [->]*	Cursor Right	ESC [C
[<-] or Grey [<-]*	Cursor Left	ESC [D
[Home] or Grey [Home]*	Home Cursor	ESC [H
[Ctrl]-[Home]	Clear Screen	ESC [H ESC [J
[End] or Grey [End]*	Line Feed	LF
[Ctrl]-[End]	Erase to End of Line	ESC [K
[Ctrl]-[PgUp] or Grey [Ins]*	Insert Line	ESC [L
[Ctrl]-[PgDn] or Grey [Del]*	Delete Line	ESC [M
[F1]	PF1	ESC O P
[F2]	PF2	ESC O Q
[F3]	PF3	ESC O R
[F4]	PF4	ESC O S

TECHNICAL SUPPORT

Problem Checklist

If you are having problems using MTEZ, you should check the following items before giving up and spending the time and money on a telephone call.

1. Check the modem cabling and make sure your modem is powered on. In the case of an internal modem, the power is drawn from the computer's power supply.
2. Have you selected the correct communications port? Computer's "talk" to modems through ASYNC or communications ports. MTEZ supports COM1 through COM4. You can use [ALT-P] to go to the Parameter Settings Menu, then you can change to the correct communications port.
3. Have you selected a baud rate that your modem can use? If you have set the baud rate to MAX, MTEZ will default to your modem's highest baud rate. If you have chosen a setting other than the maximum baud rate setting for your modem. A 1200 baud modem cannot interpret commands sent to it at 2400 baud.
4. Does your modem respond? The simplest method to verify that your modem is probably hooked up properly is to go to the Terminal Mode and type AT [ENTER]. If the modem responds with "OK", then your modem is hooked up correctly.
5. Have you selected the correct modem type? Different modems may require slightly different modem setup strings. Go to the General Setup Menu ([ALT-S]), move the cursor to the Modem Type item, and press [F2] to select the correct modem type.

If your modem still does not respond, you should refer to your modem manual. If you can't resolve your problem through the use of your manuals, call your local computer dealer or contact your modem manufacturer.

COMMON QUESTIONS & ANSWERS

At MagicSoft, we get a variety of questions about MTEZ. Below are some commonly asked questions and their answers.

- Q) When I go to the Dialing Directory and attempt a call, MTEZ responds with "You are currently On-Line, or your modem has Carrier Detect Overridden". What is going on?
- A) Your modem is not set up properly. Verify that you have selected the correct modem type for your modem. Then check to see if your modem has "dip" switches. If it does, refer to your modem manual for the proper switch settings. MTEZ needs DTR and CD to be controlled by the computer, not set ON. You should also check to see that you are on the proper Port ([ALT-P]).
- Q) Why can I only connect with MNP level 2 or 4 with my local BBS?
- A) MNP levels are negotiated during the modem connection sequence. The modem that you are calling may only support MNP level 2 or 4 or in some cases has level 5 disabled.
- Q) I press [ALT-H] but my modem does not hang up. What's wrong?

- A) If pressing [ALT-H] has no effect, your modem may not have DTR configured properly (see your modem manual for details). It is also possible that you have not selected the correct modem from the modem list (selected from the General Setup Menu).
- Q) When I transfer a .ZIP or .ARC file, I usually do not get more than 2400 baud of data throughput from my 2400 baud modem.
- A) MNP level 5 uses data compression to obtain data throughput rates which are greater than the actual modem connect rate. If you are transferring data which is already compressed, the MNP level 5 compression scheme cannot compress the data any more, so the data throughput is not higher.
- Q) After my modem connects with certain BBS's, I lose the first few seconds of data which is normally displayed by the BBS.
- A) If you call a non-MNP service with the MNP setting in the Dialing Directory set to attempt an MNP connection, MTEZ will attempt an MNP connection right after the modems establish carrier. During the MNP attempt (about 5 seconds), all data is discarded until MNP packets are received. If no MNP packets are received, a normal non-MNP connection is established.

To fix the problem stated in the question, set the MNP level for dialing directory entries which do not support MNP to None. This will ensure that there will be no conflicts because of MNP. MNP link establishment packet can have adverse effects on some non-MNP services. During the logon sequence for some dial-up services, an MNP packet can confuse the host modem making the connection completely useless. Again, if you know a modem does not support MNP, it is usually best not to attempt an MNP connection.

- Q) After my modem connects with CompuServe, some of the characters which are displayed are garbled.
- A) Some dialup services, like CompuServe, require EVEN parity and 7 data bits. In the Dialing Directory, you will have to set the Settings column to MAX,E,7,1.
- Q) After my modem connects with another computer, I always get double characters displayed on my screen.
- A) You have improperly selected your DUPLEX. You are currently in HDX (half duplex) where characters are echoed both locally and from the host system you are calling. By pressing [ALT-E], you can change to FDX (full duplex) where characters are only echoed from the host system.
- Q) When setting up an Auto Logon from within the MTEZ software, the "look for" area is too small to hold what I'm "looking for".
- A) You will want to use only the last 8 characters of what you are looking for.

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