Dantel

46508
40 MAP EDITOR

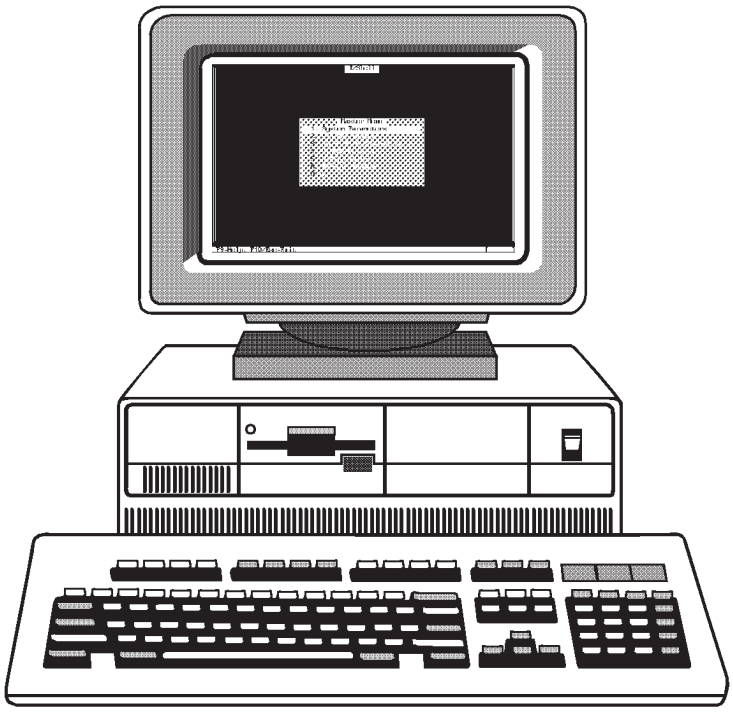


Table of Contents

About this Practice:

This practice has been reissued to:

- Document up-issue of the product to incorporate enhancements for operating on PC's with clock speeds in excess of 200 MHz.

Reissued Practices: Updated and new content can be identified by a banner in the right margin.

UPDATED

Issue date: September 1999

CAUTION

- Install or remove modules from the shelf only when the power is off. If you install a module in the shelf with the power on, the internal circuitry may suffer damage and the product warranty will be void.
- Remove and install circuit boards only in a static-safe environment (use antistatic wrist straps, smocks, footwear, etc.).
- Keep circuit boards in their antistatic bags when they are not in use.
- Do not ship or store circuit boards near strong electrostatic, electromagnetic, magnetic, or radioactive fields.
- For more complete information on electrostatic discharge safety precautions, refer to Bellcore™ Technical Reference # TR-NWT-000870.

ORDERING INFORMATION

NOTE: This section lists the different options available for this product. To order any of the available options, contact Dantel Inside Sales through our toll-free number, **1-800-432-6835.**

UPDATED

OPTION NUMBER	FEATURES
C22-46508-02	40 MAP T/Shell (Version 1.9)

INSTALLATION

The T/Shell program can be installed on an IBM™-compatible computer equipped with the following:

- 640K of memory
- CGA/EGA/VGA color (recommended), monochrome, or LCD monitor
- One serial port
- One 3.5" diskette drive
- One hard disk drive
- DOS version 3.0 or later

This chapter explains how.

To install the software program on your computer:

1. Turn on the power to the computer and monitor. Wait for the DOS (Disk Operating System) prompt to appear.
2. Insert the 46504 software disk from Dantel into the diskette drive.
3. Select the hard disk drive (normally C) where the program is to be installed. At the prompt type **MD TSHELL** to make a directory called TSHELL. Press Enter.
4. At the prompt type **CD TSHELL.** Press Enter.

WARNING:

Do not copy this software into any directory where a copy-protected version of T/Shell already exists. Refer to step 4 of **"To install the software program in your computer"** for a list of copy-protected versions.

The following T/Shell programs, and all earlier versions of these programs, are copy-protected. Current versions are not copy-protected. Do *not* copy any T/Shell program with a version later than those listed here, into a directory that has T/Shell programs with these versions or lower.

UPDATED

Status Monitor GPP Editor	B22-46502-XX, Version 2.0
TL1 GPP Editor	F22-46504-XX, Version 2.2
40 MAP Editor	C22-46508-XX, Version 1.3
41 MAP Editor	C22-46512-XX, Version 1.1
X.25 Sync Editor	B22-46513-XX, Version 2.1
X.25 Cascade Editor	A22-46516-XX, Version 1.0
TL1/NMA Converter Editor	A22-46521-XX, Version 1.0
X.25 Cascade Editor	A22-46522-XX, Version 1.0
Status Monitor GPP Loader	A22-46703-XX, Version 1.0

CONTINUED . . .

If you do not know the version number of a T/Shell program that is already installed on your computer, go to the first screen of the program. Press the F1 (Info) key to display the version number.

5. Type **COPY A:*.*** This assumes that the disk is in drive A. If it is in a different drive, type the letter of that drive.
6. Press Enter to copy all the files into your TSHELL directory from the disk in your diskette drive.
7. After the software has been copied into the TSHELL directory, store the disk in a safe place.

STANDARDS

This section describes those commands, key, and standards common to all Dantel software packages.

SOFTWARE STANDARDS

HIGHLIGHT

A highlighted option in a menu is the currently selected option. To activate an option, do either of the following:

1. Press Enter if the option is highlighted.
2. Type the letter of the hot key. A hot key is a specific key that can open an option. With a color monitor, a hot key is indicated by a yellow letter. With a monochrome monitor, a hot key is indicated by a capital letter. In the Master Menu, the hot keys are the option numbers. When you use the hot key method, the option does not have to be highlighted.

F3

Opens the Terminal Emulation mode in most cases.

F8

Saves the entries that you make to the database configuration. If there is more than one entry field on a line, the cursor must be in the first field in order to save the information. See rule 1 of **F10 & Esc**.

F9

Activates on-line help.

F10 & Esc

In most cases the F10 and Esc keys work interchangeably. The following rules apply to these keys:

1. When editing a group of fields, returns the cursor to the first field. When editing the first field, they exit that window.
2. When at a submenu, they return cursor to the previous menu.
3. When at the Master Menu, they exit the program.

Up Arrow

The up arrow usually does one of the following two things:

1. Selects the preceding option from a menu.
2. Selects the previous field within an option.

Dn Arrow

The down arrow usually does one of the following two things:

1. Selects the next option from a menu.
2. Selects the next field within an option.

FIELD EDITING STANDARDS

The software program checks each field for the correct type of entry. If a valid entry for a certain field is alphabetic and a numeric key is pressed, the computer beeps.

When editing fields, the following keys are active:

KEY	FUNCTION
Enter	Accepts the field.
Ctrl-Z	Erases the current field.
Ctrl-R	Restores the default value.
Back Arrow	Deletes the previous character.
Ctrl-H	Lists the editing keys that are available.
Left Arrow	Moves the cursor *left* within the field.
Right Arrow	Moves the cursor *right* within the field.
Ctrl-Home	Moves the cursor to the *start* of the field.
Ctrl-End	Moves the cursor to the *end* of the field.
Del	Deletes the current character.
Ins	Toggles insert mode.
Ctrl-Left Arrow	Moves the cursor *left* to the previous word.
Ctrl-Right Arrow	Moves the cursor *right* to the previous word.
Ctrl-K or Alt-K	Deletes to the end of the field.
Ctrl-D	Calls up the Default Box if there is one.

There may be times when the screen cannot display all the data. In such cases, use special keys to scroll different parts of the data onto the screen.

Usually these special keys are active only when the cursor is at the first item (far left) in a given line of data. The special keys and their functions are as follows:

KEY	FUNCTION
Up Arrow	Moves the cursor up one line. When the cursor is on the top line, the previous line scrolls into the window.
Down Arrow	Moves the cursor down one line. When the cursor is on the bottom line, the next line scrolls up into the window.
Home	Brings the first page of data into the window.
End	Brings the last page of data into the window.
PgUp	Brings the previous page of data into the window.
PgDn	Brings the next page of data into the window

DEFAULT BOX

When defining certain fields, a default box appears to aid in the selection process. The default box displays the valid selections for the current field that is being editing. Select from the default box or type the entry. To select from the default box, use the keys below, then press Enter.

KEY	FUNCTION
Tab	Moves the select bar down one selection.
Shift-Tab	Moves the select bar up one selection.

NOTE:

The arrow keys are not active in these default boxes. Choices can be made only with the TAB or SHIFT-TAB keys.

The T/Shell software program with the 46508 40 MAP Editor lets you configure how 46020 Multiple Alarm Processor (MAP) hardware modules will operate.

To start the T/Shell program:

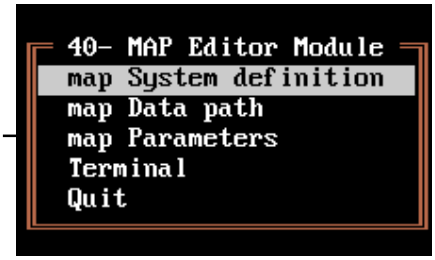
1. Make sure that you are in the TSHELL directory.
2. Type **TSHELL.**
3. Press Enter. The Dantel logo appears, followed a few moments later by the Master Menu. Here is an example of the Master Menu:

4. If you wish to change the system parameters, highlight *System Parameters* and press Enter.

   The System Parameters window appears. It lets you configure the system for LCD or color mode, menu verification, and pulse or tone dialing. Refer to the ***System Parameters*** section of this chapter. When you are finished, the Master Menu appears.
5. At the Master Menu, highlight the *Map 40 Editor* option.
6. Press Enter. The 40 MAP Editor Module menu appears:

WARNING:

Always exit the program cleanly. This means that you must select the Quit option from the Master Menu whenever you want to leave the T/Shell program. NEVER turn off the computer without properly exiting the program. Doing so could corrupt the data files.



CONTINUED . . .

From this menu, you can fully interact with the T/Shell software. (A brief description of each option on the 40 MAP Editor Module menu appears below.)

7. Highlight an option.
8. Press Enter.
9. Go the the chapter that explains the option you selected.

MAP System Definition - Does the following:

- Creates T/Shell configurations that define how 46020 modules will operate.
- Uploads and downloads configurations between the computer and 46020 modules.
- Generates reports on the configurations.

MAP Data Path - Sets the DOS path where T/Shell configuration files created by the program will be stored.

MAP Parameters - Does the following:

- Sets the communications parameters for uploading and downloading T/Shell configurations between the computer and 46020 modules.
- Specifies where to store reports on configurations on your computer.
- Sets the defaults that the T/Shell software will use to configure alarm levels.

Terminal - Allows you to use a terminal emulator program to communicate with devices, such as the 46020 module, that have a terminal interface.

Quit - Returns you to the T/Shell Master Menu.

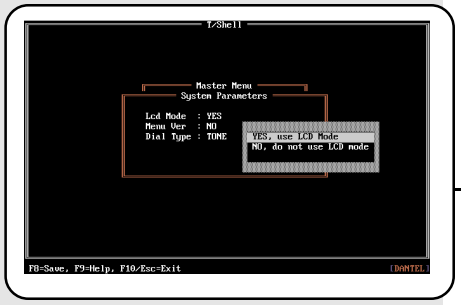
F1 Command Key - Displays the product name, version, and product number of the software.

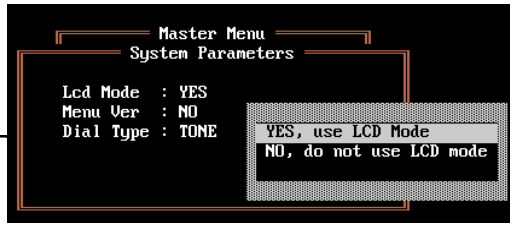
System Parameters

After you select the System Parameters option from the Master Menu, the System Parameters window appears. It lets you configure the system for the following:

- LCD or color mode
- Menu verification
- Pulse or tone dialing

Here is the System Parameters window:





To change the parameters:

1. Use the Tab key to select the desired value.
2. Press Enter.

If you do not want to change a value at a particular field, press Enter to advance to the next field.

If you have changed some fields and all the remaining fields are acceptable, press F8 to save the changes.

At the last field (Dial Type), if you change the value, press Enter to save all changes to the system parameters. If you do not change the value of the dial type, press Enter or F8 to save any other changes to the system parameters.

NOTE:

If you change the LCD mode, you must exit the program to DOS and restart the T/Shell program.

System Parameters options:

LCD Mode - If you are using a monochrome monitor or a laptop computer with a monochrome LCD display, select *YES, use LCD mode.* If you are using a color monitor, select *NO, do not use LCD mode.* This field defaults to NO, do not use LCD mode.

Menu Ver - The Menu Ver field allows you to configure the method of opening menu options when using hot keys. A hot key is a specific key that can select a menu option. Selecting *YES, use menu verification* will force you to press Enter after you press a hot key. Selecting *NO, do not use menu verification* allows you to open an option just by pressing a hot key. This field defaults to NO, do not use menu verification.

Dial Type - If your computer is connected to a telephone line, select pulse or tone dialing. If your computer is not connected to a telephone line, it does not matter whether you select pulse or tone dialing. This field defaults to Tone Dialing.

MAP SYSTEM DEFINITION

NOTE:
In this manual "definition" and "configuration" are synonomous.

The MAP System Definition option of the 40 MAP Editor Module menu lets you do the following:

- Create T/Shell configurations to operate 46020 modules equipped with 46640-01 firmware. Each configuration has its own name.
- Upload and download configurations between the computer and 46020 modules.
- Generate reports about configurations.

Here is the 40 MAP Editor screen with the MAP Menu:

NOTE:
Whenever you access the MAP Menu from the 40 MAP Editor Module menu, you must choose *Select MAP* first.

To select an option:

1. Highlight an option. For brief descriptions of the options, refer to the next section on ***Menu Overview.***
2. Press Enter.
3. Go to the section of this chapter that explains the option that you selected.

MENU OVERVIEW

Here are brief descriptions of each option in the MAP Menu:

SELECT MAP

Opens a new file so that you can create a configuration or selects an existing configuration to edit.

EDIT PASSWORD/CONFIG

Lets you select the following:

- The address of the 46020 module to which you will download the configuration.
- The password to access the configuration.
- A description to identify the configuration.

DATA PORT DEFINITION

Configures the devices attached to the data port of the 46020 module.

MAP PORT DEFINITION

Configures the data port to communicate with 46023-12 Smart Multiple Alarm Combiners or to communicate directly with other DCP or DCPF devices (such as another MAP).

RESPONDER DEFINITION

Configures the master and printer ports.

EXTENDED PROVISIONING

Configures the following special features:

- Derived Display - Alarms that occur under a specific set of conditions.
- Downloaded MAP Options - Conditions for reporting certain kinds of alarms, and conditions for polling certain kinds of devices for alarms.
- Controls - Special instructions to operate controls.
- Extended Device Failure - An advanced feature for reporting alarms.

TRANSFER

Provides utilities for the following:

- Downloading the configuration to a 46020 module.
- Uploading a configuration from a 46020 module.
- Communicating with the 46020 module using Printer Syntax.

REPORTS

Generates reports on the configuration.

UTILITIES

Copies the files associated with the configuration for the following purposes:

- To backup the files.
- To transfer the files to another computer.
- To use the files as the basis for creating a new configuration.
- To delete the configuration from the computer.

QUIT

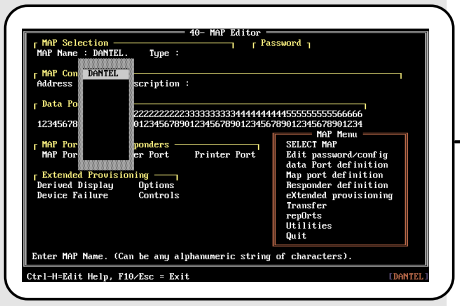
Exits the MAP Menu and returns to the 40 MAP Editor Module menu.

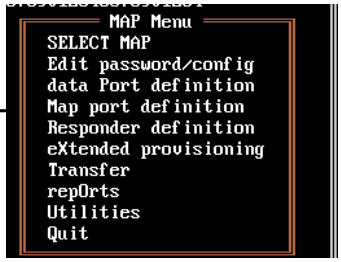
SELECT MAP

The Select MAP option lets you create a T/Shell configuration or select an existing one to edit.

Before you can use most of the options in the MAP Menu, you must either open a file to create a configuration or select an existing configuration.

Here is the 40 MAP Editor sceen with the MAP selection fields:





Below are the instructions for entering a system name.

MAP NAME

A T/Shell configuration must have a name. If there are existing configurations, a default box appears with their names.

To select an existing name:

1. Use the Tab key to highlight a name.
2. Press Enter.

CONTINUED . . .

3. If the configuration has a password, type it and press Enter. If there is no password, just press Enter. To create a password or to change an existing one, refer to the next section on ***Edit Password/Config.***

To create a new system name:

1. Enter a name.

   The name can have a maximum of seven characters. The name must use characters that form a valid DOS file name. You can use all alphabetic and numeric characters except those that are reserved by DOS, such as the period and space.

2. Press Enter.

3. The following question appears at the bottom left corner of the screen:

   Not there. Wish to add (Y/N)?

   Type **Y** to add the new name. If **N** is typed, you will be prompted for another name.

   The T/Shell program places a default value of *40 MAP* in the Type field. This indicates the type of configuration file created.

WARNING:

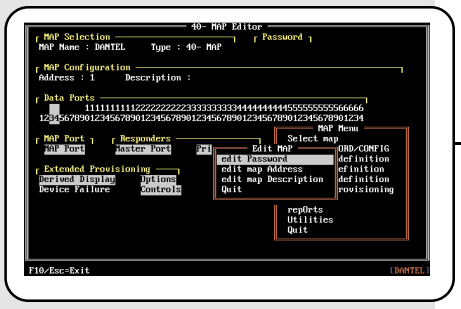
Refer to the *Utilities* section of this chapter for information on copying configurations. Do not use the DOS copy function.

EDIT PASSWORD/CONFIG

The Edit Password/Config option lets you to create or change the following:

- A password to access the configuration.
- The address of the 46020 module.
- A description to identify the configuration.

Here is the 40 MAP Editor screen with the Edit MAP menu:



Below are the instructions for entering a password, an address for a MAP module, and a description of the system configuration.

EDIT PASSWORD

This option lets you create or change a password to access the configuration.

CONTINUED . . .

To create or change a password:

1. Highlight *Edit Password*.
2. Press Enter.
3. Type up to eight characters.
4. Press Enter.
5. Retype the password. This is a safety feature to insure that you typed the password correctly the first time.
6. Press Enter.

EDIT MAP ADDRESS

This is the address of the 46020 module. If the computer is going to communicate with the MAP through the master port of the MAP, the address must be the same as the address setting of switch S1 on the MAP. If the computer is going to communicate with the MAP through the printer port of the MAP, the address must be the same as the address setting of switch S2 on the MAP. The default address is 1.

To change the address:

1. Highlight *Edit MAP Address.*
2. Press Enter.
3. Type the address. Acceptable values are 1-255.
4. Press Enter.

EDIT MAP DESCRIPTION

Entering text in this field is optional. You can enter text to remind yourself about the purpose or function of the configuration.

To create or change a description:

1. Highlight *Edit MAP Description*.
2. Press Enter.
3. Type a description.
4. Press Enter.

DATA PORT DEFINITION

This option lets you configure the MAP's data port for communications with various devices.

The configurations of the master and printer ports determine how you can configure the data port:

- If the MAP uses DCP, DCPF, or TABS protocol on the master or printer port, you can configure the data port to report a maximum of 4,096 alarms (64 displays) and to operate a maximum of 4,096 controls. A display is a group of 64 alarms or controls.
- If the MAP uses TBOS on the master port *only*, you can configure the data port to report a maximum of 512 alarms (8 displays) and to operate a maximum of 512 controls.
- If the MAP uses TBOS on the master and printer ports, you can configure the data port to report a maximum of 1,024 alarms (16 displays) and to operate a maximum of 1,024 controls. The MAP routes alarm displays 1-8 to the alarm center through the master port and displays 9-16 through the printer port.

NOTE:

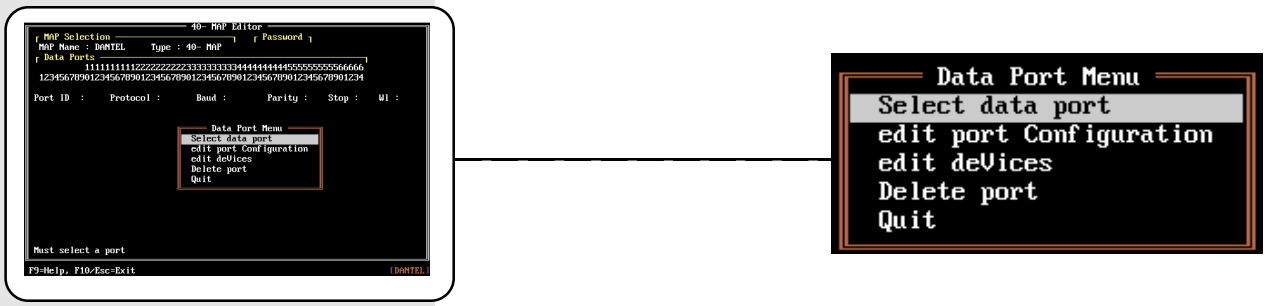
Configure the master and printer ports before configuring the data port (refer to the *Responder Definition* section of this chapter).

The MAP's data port communicates with devices through Multiple Alarm Combiners (MACs). A MAC has eight ports. The MAP can communicate with a maximum of four MACs (32 ports):

- You can use all 32 ports with DCP, DCPF, or TABS protocols on the master and printer ports.
- You can use a maximum of 8 ports (assuming one display per port) with TBOS protocol on the master port only.
- You can use a maximum of 16 ports with TBOS protocol on the master and printer ports.

A data port configuration contains the port's address (1 through 32), communications protocol, and each device connected to the port.

Here is the Data Port Menu:



SELECT DATA PORT

This option selects a data port. You can select a data port to configure it for the first time or you can select a port to change its configuration.

A section on the screen that is titled *Data Ports* shows all the port addresses. The port addresses are shown vertically. For example, a 2 shown above a 6 represents port address 26. Any number that is highlighted by a vertical bar means that port has been configured.

To select a new port:

NOTE:
You can configure ports 1-32 only. The MAP does not use ports 33-64.

1. Highlight *Select Data Port.*
2. Press Enter.
3. In the *Port ID* field, type the port's address (1 through 32).
4. Press Enter.

NOTE:
Do not select the E2 or E236 protocols. these protocols are no longer supported.

5. Use the Tab key to select a protocol.
6. Press Enter. The default settings for parity, stop bits, and word length appear.

To select a previously configured port:

1. Highlight *Select Data Port.*
2. Press Enter.

   Any ports already configured appear in a default box to the left of the Data Port Menu.
3. Use the Tab key to highlight the address.
4. Press Enter.

EDIT PORT CONFIGURATION

This option lets you change the protocol, baud, parity, stop bits, and word length on the data port.

To change a data port's parameters:

1. Highlight *Edit Port Configuration.*
2. Press Enter.

   Below are instructions for changing the parameters.

EDIT PROTOCOL

This option lets you change the protocol.

To change the protocol:

1. Highlight *Edit Protocol.*
2. Press Enter.

   You can not change protocols except to toggle between DCP and DCPF protocols. If you need to change to a different protocol, you must delete the port and then reselect the port.
3. Use the Tab key to select DCP or DCPF protocol.
4. Press Enter.

EDIT BAUD

This option lets you change the baud.

To change the baud:

NOTE:
If you are selecting a baud for a MAT or CPM, those modules will not operate at 19,200 baud.

1. Highlight *Edit Baud.*
2. Press Enter.
3. Use the Tab key to select a baud.
4. Press Enter.

EDIT PORT DETAIL

NOTE:
Do not change the default settings if you are configuring MATs or CPMs.

This option lets you change the parity, stop bits, and word length.

To change the parity, stop bits, and word length:

1. Highlight *Edit Port Detail.*
2. Press Enter.
3. Use the Tab key to select the type of parity.
4. Press Enter.
5. Use the Tab key to select one or two stop bits.
6. Press Enter.
7. Use the Tab key to select the word length.
8. Press Enter.

DELETE PORT

This option lets you delete the configuration for the data port.

To delete a data port configuration:

1. Highlight *Delete Port.*
2. Press Enter.

CONTINUED . . .

3. The message **Delete Port #X (Y/N)?** appears in the lower left corner of the screen. The X is the number of the port. Type **Y** to delete the configuration. Type **N** if you do not want to delete the configuration.

EDIT DEVICES - DCM PROTOCOL

From the *Edit Devices* option of the Data Port Menu, you can configure a data port that communicates with devices that use DCM protocol. Devices that use DCM protocol are Multiple Alarm Transmitters (MATs) and Control Point Modules (CPMs).

To configure devices that use DCM protocol:

1. Highlight *Edit Devices.*
2. Press Enter. The DCM menu appears. Brief descriptions of each option in the DCM menu appear below.
3. Go to the the *Find* subsection for instructions on how to configure a MAT or CPM.
4. Go to the the *Edit* subsection for instructions on how to edit a MAT or CPM configuration.

Find - Selects a MAT or CPM to configure or selects an existing configuration to edit.

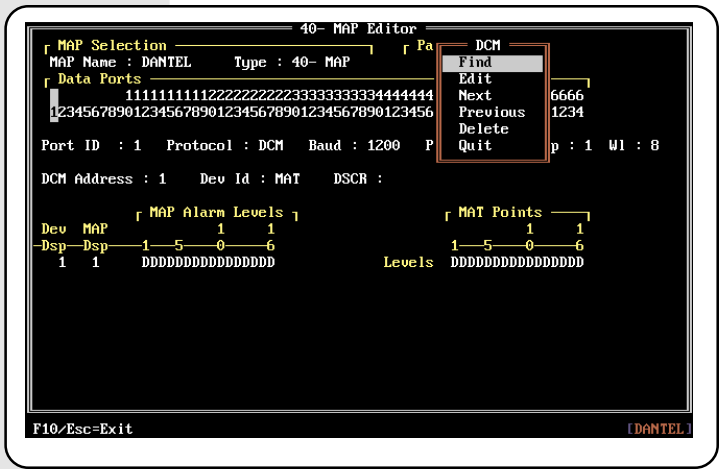
Edit - Edits an existing configuration.

Next - Selects the next MAT or CPM configuration to edit. MATs are shown first, then CPMs.

Previous - Selects the previous MAT or CPM configuration.

Delete - Deletes the configuration of the MAT or CPM. When you select this option, the message **Delete the current address? (Y/N)** appears. Type **Y** to delete the configuration. Type **N** if you do not want to delete the configuration.

Below is the 40 MAP Editor screen for a MAT. The *MAP Alarm Levels* and *MAT Points* fields do not appear if no MATs are configured.



FIND

To configure a MAT or CPM:

1. Highlight *Find*.
2. Press Enter.
3. In the *DCM Address* field, type the address of the MAT or CPM. Acceptable values are 1-128.

NOTE:
The address setting on the MAT or CPM must be the same as the address you type.

4. Press Enter.
5. In the *Dev Id* field, use the Tab key to select *MAT* or *CPM*.
6. Press Enter.
7. The following question appears at the bottom left corner of the screen:

   Address not there. Wish to add?

   Type **Y** to add the address. If you type **N**, the screen prompts you for another address.

8. In the *MAP Dsp* field, type the location in the MAP's memory where you want to store alarm or control information for the MAT or CPM. Acceptable memory locations are 1-64.

   The following information will help you to choose a memory location:

   - The memory location you select determines the order in which the MAP reports alarms to the alarm center. The MAP reports the alarms in numerical sequence, starting with memory location 1 and ending with memory location 64.
   - If the master port uses DCP or DCPF protocol, memory locations 1-32 are for MAP address 1 and locations 33-64 are for address 2.
   - If the master port uses TABS protocol, you can use all 64 locations.
   - If the master port uses TBOS protocol, use the locations that you assigned in the *Section Number to Respond* field when you configured the master port. If the printer port uses TBOS protocol, use the locations that you assigned in the *Section Number to Respond* field when you configured the printer port.
   - Each memory location represents a display. A display is a group of 64 alarms. Alarms from a maximum of four MAT addresses can be stored in each memory location. Each MAT address represents 16 alarms.
   - You also can assign a maximum of four CPM addresses to a memory location. Each CPM address represents 16 controls. You can assign CPMs to the same memory locations as the MATs; for example, you can assign four MATs and four CPMs to MAP location 1.

CONTINUED . . .

9. Press Enter.

   If the message **Memory Conflict - Any key to cont:** appears, it means the display is full. You must type a different display location in the *MAP Dsp* field. If you are having difficulty locating unused memory, see the ***Reports*** section of this chapter for viewing a Memory Available report.

   When you press Enter, the *MAP Alarm Levels* field is set to the default alarm levels. This field controls the operation of 46017 Summary Audible Alarm Modules (SAAMs) and 46019 Summary Alarm Modules (SAMs). Unless you use these modules, do not change the default settings. Refer to the ***MAP Parameters*** chapter to change the defaults. The alarm levels do not operate with CPMs.

   You cannot change the *Dev Dsp* field. If you are configuring a CPM, the fields for *CPM Points,* and *CPM Periods* are not used. If you are configuring a MAT, refer to the ***Edit*** subsection below for changing the *MAT Points* field.

10. Repeat steps 1-9 to configure additional MATs or CPMs.

EDIT

To edit a MAT or CPM configuration:

1. Press the N (Next) or P (Previous) key until you find the MAT or CPM that you want to edit.
2. Highlight *Edit.*
3. Press Enter. The Edit MAT or Edit CPM menu appears.

   Instructions for editing the device description, and the memory and alarm levels appear below.

To edit a MAT or CPM description:

1. Highlight *Edit Description*.
2. Press Enter.
3. In the DSCR field, type a description of the MAT or CPM. Do not exceed 20 characters.
4. Press Enter. Do not press F8.

EDIT MEMORY AND ALARM LEVELS

To edit the MAP display number or alarm levels:

1. Highlight *Edit Memory and Alarm Levels.*
2. Press Enter.
3. Change the display number.

CONTINUED . . .

4. If you do *not* want to edit the MAP Alarm Levels, press Enter. Do not perform the remaining steps.
5. If you want to edit the MAP Alarm Levels, press F4.
6. Change the alarm levels.

   The MAP Alarm Levels field controls the operation of the 46017 Summary Audible Alarm Modules (SAAMs) and 46019 Summary Alarm Modules (SAMs). Unless you use these modules, do not change the settings. The alarm levels do not operate with CPMs.

   The cursor appears beneath the first of the 16 alarm levels in the field. Move the cursor to the alarm level you want to change (using the left and right arrow keys) and type a new alarm level (letters A through D).

   All 16 alarm points can be set to the same level by holding down the Ctrl key and pressing F1 (level A), F2 (level B), F3 (level C), or F4 (level D). You can substitute the Alt key for the Ctrl key.
7. Press F4 to return the cursor to the *MAP Dsp* field.
8. Press Enter. Do not press F8.

CAUTION:

If you changed the number in the *MAP Dsp* field in step 3, the number returns to its original value. Re-enter the number that you typed in step 3.

EDIT MAT LEVELS

To edit the alarm levels for MAT points:

1. Highlight Edit MAT Levels.
2. Press Enter.
3. Change the alarm levels.

   The cursor appears beneath the first of the 16 alarm levels in the field. Move the cursor to the alarm level you want to change (using the left and right arrow keys) and type a new alarm level (letters A through D).

   All 16 alarm points can be set to the same level by holding down the Ctrl key and pressing F1 (level A), F2 (level B), F3 (level C), or F4 (level D). You can substitute the Alt key for the Ctrl key.
4. Press F8 or Enter.

CAUTION:

This caution applies only to a 46010-03 MAT. If the alarm levels in the *MAT Points* field are different from the switch settings on the module, the levels at the MAT will change when the configuration file is downloaded to the module. However, the alarm levels will revert to the switch settings if power to the MAT is turned off and then turned back on.

EDIT ALL

To edit all MAT fields:

Follow the previous directions for ***Edit Description*** and ***Edit Memory and Alarm Levels.***

EDIT CPM POINTS

This option is not used.

EDIT CPM PERIODS

This option is not used.

EDIT DEVICES - DCP OR DCPF PROTOCOL

From the *Edit Devices* option of the Data Port Menu, you can configure a data port that communicates with devices that use DCP or DCPF protocol.

To configure devices that use DCP or DCPF protocol:

1. Highlight *Edit Devices.*
2. Press Enter. The DCP menu appears. Brief descriptions of each option in the DCP menu appear below.
3. Go to the *Find* subsection for instructions on how to configure devices that use DCP or DCPF protocol.
4. Go to the *Edit* subsection for instructions on how to edit a definition.

Find - Selects a device to configure or selects an existing configuration to edit.

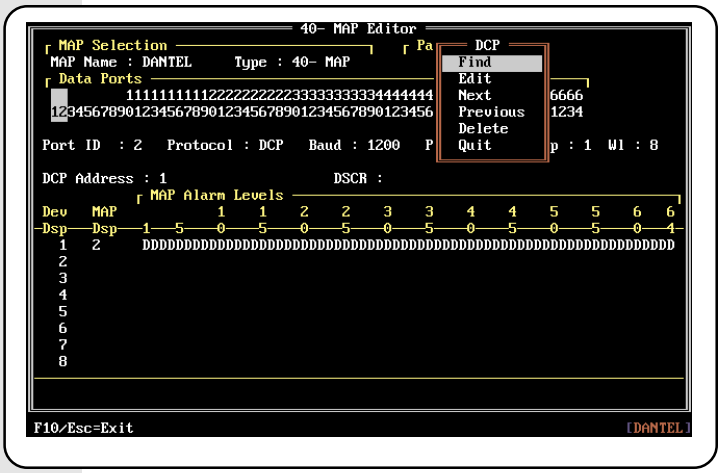
Edit - Edits an existing configuration.

Next - Selects the next configuration to edit.

Previous - Selects the previous configuration.

Delete - Deletes the configuration. When you select this option, the message **Delete the current address? (Y/N)** appears. Type **Y** to delete the configuration. Type **N** if you do not want to delete the configuration.

Below is the 40 MAP Editor screen for a device that communicates with DCP protocol. The *MAP Alarm Levels* field does not appear if no DCP or DCPF devices are configured.



FIND

To configure a DCP or DCPF device:

1. Highlight *Find*.
2. Press Enter.
3. In the *DCP Address* field, type the address of the device. Acceptable values are 1-255 (256 is not used).

NOTE:
The address setting on the device must be the same as the address you type.

4. Press Enter.
5. The following question appears at the bottom left corner of the screen:

   Address not there. Wish to add?

   Type **Y** to add the address. If you type **N**, the screen prompts you for another address.
6. In the *DSCR* field, type a description of the device (optional). Do not exceed 20 characters.
7. Press Enter.
8. The cursor appears in the *MAP Dsp* field beside *Dev Dsp* (device display) 1. The *Dev Dsp* column lists the alarm displays coming from the device. A display is a group of 64 alarms.

   In the *MAP Dsp* field, type the location in the MAP's memory where you want to store the alarm display information. Acceptable memory locations are 1-64. Each memory location represents one display.

CONTINUED . . .

The following information will help you to choose a memory location:

- The memory location you select determines the order in which the MAP reports alarms to the alarm center. The MAP reports the alarms in numerical sequence, starting with memory location 1 and ending with memory location 64.
- If the master port uses DCP or DCPF protocol, memory locations 1-32 are for MAP address 1 and locations 33-64 are for address 2.
- If the master port uses TABS protocol, you can use all 64 locations.
- If the master port uses TBOS protocol, use the locations that you assigned in the *Section Number to Respond* field when you configured the master port. If the printer port uses TBOS protocol, use the locations that you assigned in the *Section Number to Respond* field when you configured the printer port.

9. Press Enter.

   If the message **Memory Conflict - Any key to cont:** appears, it means the memory location is being used. You must type a different display location in the *MAP Dsp* field. If you are having difficulty locating unused memory, see the ***Reports*** section of this chapter for viewing a Memory Available report.

   When you press Enter, the *MAP Alarm Levels* field is set to the default alarm levels. This field controls the operation of the 46017 Summary Audible Alarm Modules (SAAMs) and 46019 Summary Alarm Modules (SAMs). Unless you use these modules, do not change the default settings. Refer to the ***MAP Parameters*** chapter to change the defaults.

10. The cursor moves to the next line. The computer assigns the next consecutive memory location to the *MAP Dsp* field. If the next consecutive memory location is being used, you must type a number in the *MAP Dsp* field. Fill in the *MAP Dsp* and *MAP Alarm Levels* fields for as many alarm displays as you need.

11. When you finish, press F8 to save the information.

12. Repeat steps 1-11 to configure additional DCP or DCPF devices.

EDIT

To edit a DCP or DCPF definition:

1. Press the N (Next) or P (Previous) key until you find the DCP or DCPF device that you want to edit.
2. Highlight *Edit*.
3. Press Enter. The Edit DCP menu appears.

CONTINUED . . .

Instructions for editing the device description, and the memory and alarm levels appear below.

EDIT DESCRIPTION

To edit a description:

1. Highlight *Edit Description*.
2. Press Enter.
3. In the DSCR field, type a new description of the device.
4. Press Enter.

EDIT MEMORY AND ALARM LEVELS

To edit the MAP display number or alarm levels:

1. Highlight *Edit Memory and Alarm Levels.*
2. Press Enter.
3. Select the *MAP Dsp* number that you want to change. To select the *MAP Dsp* number

   Use the up and down arrow keys

   or

   Press F1 and type the number of the *Dev Dsp* where you want to move the cursor.
4. Change the *MAP Dsp* number.
5. If you do *not* want to edit the MAP Alarm Levels, press Enter and then F8 (Finish). Do not perform the remaining steps.
6. If you want to edit the MAP Alarm Levels, press F4.
7. Change the alarm levels.

   The MAP Alarm Levels field controls the operation of 46017 Summary Audible Alarm Modules (SAAMs) and 46019 Summary Alarm Modules (SAMs). Unless you use these modules, do not change the settings.

   The cursor appears beneath the first of the 64 alarm levels in the field. Move the cursor to the alarm level that you want to change (using the left and right arrow keys) and type a new alarm level (letters A through D).

   All 64 alarm points in the display can be set to the same level by holding down the Ctrl key and pressing F1 (level A), F2 (level B), F3 (level C), or F4 (level D).
8. Press F4 to return the cursor to the *MAP Dsp* field.
9. Press Enter.
10. Press F8 (Finish).
11. End of this section.

CAUTION:

You can substitute the Alt key for the Ctrl key. If you do this, you will change the levels on *all* displays.

CAUTION:

If you changed the number in the *MAP Dsp* field in step 4, the number returns to its original value. Re-enter the number you typed in step 4.

EDIT DEVICES - TBOS PROTOCOL

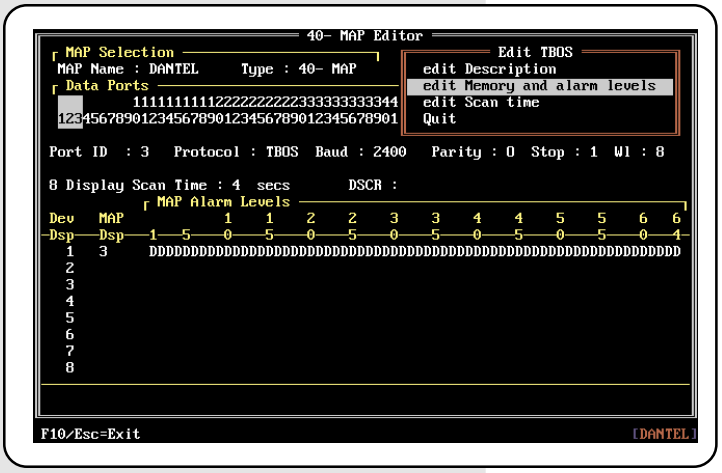
From the *Edit Devices* option of the Data Port Menu, you can configure a data port that communicates with devices that use TBOS protocol.

To configure devices that use TBOS protocol:

1. Highlight *Edit Devices.*
2. Press Enter. The TBOS menu appears. Following are brief descriptions of each option in the TBOS menu.

Edit - Configures TBOS devices or edits an existing configuration.

Delete - Deletes the configuration. When you select this option, the message **Delete the current address? (Y/N)** appears. Type **Y** to delete the configuration. Type **N** if you do not want to delete the configuration.



Here is the 40 MAP Editor screen for a device that communicates with TBOS protocol.

3. Highlight *Edit.*
4. Press Enter. The Edit TBOS menu appears.
5. Highlight *Edit Description.*
6. Press Enter.
7. In the DSCR field, type a description of the device. Do not exceed 20 characters.
8. Press Enter.
9. Highlight *Edit Memory and Alarm Levels.*
10. Press Enter.
11. The cursor appears in the *MAP Dsp* field beside *Dev Dsp* (device display) 1. The *Dev Dsp* column lists the alarm displays coming from the TBOS device. A display is a group of 64 alarms.

In the *MAP Dsp* field, enter the location in the MAP's memory where you want to store the alarm display information. Acceptable memory locations are 1-64. Each memory location represents one display.

The following information will help you to choose a memory location:

- The memory location you select determines the order in which the MAP reports alarms to the alarm center. The MAP reports the alarms in numerical sequence, starting with memory location 1 and ending with memory location 64.

CONTINUED . . .

- If the master port uses DCP or DCPF protocol, memory locations 1-32 are for MAP address 1 and locations 33-64 are for address 2.
- If the master port uses TABS protocol, you can use all 64 locations.
- If the master port uses TBOS protocol, use the locations that you assigned in the *Section Number to Respond* field when you configured the master port. If the printer port uses TBOS protocol, use the locations that you assigned in the *Section Number to Respond* field when you configured the printer port.

12. Press Enter.

    If the message **Memory Conflict - Any key to cont:** appears, it means the memory location is being used. You must type a different display location in the *MAP Dsp* field. If you are having difficulty locating unused memory, see the ***Reports*** section of this chapter for viewing a Memory Available report.

    When you press Enter, the *MAP Alarm Levels* field is set to the default alarm levels. This field controls the operation of 46017 Summary Audible Alarm Modules (SAAMs) and 46019 Summary Alarm Modules (SAMs). Unless you use these modules, do not change the default settings. Refer to the **MAP Parameters** chapter to change the defaults.

13. The cursor moves to the next line. The computer assigns the next consecutive memory location to the *MAP Dsp* field. If the next consecutive memory location is being used, you must type a number in the *MAP Dsp* field. Fill in the *MAP Dsp* and *MAP Alarm Levels* fields for as many alarm displays as you need.
14. When you finish, press F8 to save the information.
15. Highlight *Edit Scan Time.*
16. Press Enter.
17. Enter the time. Acceptable values are 2-12 seconds.
18. Press Enter.

To edit a TBOS definition:

1. Highlight *Edit Description*.
2. Press Enter.
3. In the DSCR field, type a new description.
4. Press Enter.
5. Highlight *Edit Memory and Alarm Levels.*
6. Press Enter.

CONTINUED . . .

7. Select the *MAP Dsp* number that you want to change. To select the *MAP Dsp* number

   Use the up and down arrow keys

   - or -

   Press F1 and type the number of the *Dev Dsp* where you want to move the cursor.

8. Change the *MAP Dsp* number.
9. If you do *not* want to edit the MAP Alarm Levels, press Enter and then F8 (Finish). Do not perform the remaining steps.
10. If you want to edit the MAP Alarm Levels, press F4.
11. Change the alarm levels.

    The MAP Alarm Levels field controls the operation of the 46017 Summary Audible Alarm Modules (SAAMs) and 46019 Summary Alarm Modules (SAMs). Unless you use these modules, do not change the settings.

CAUTION:
You can substitute the Alt key for the Ctrl key. If you do this, you will change the levels on *all* displays.

    The cursor appears beneath the first of the 64 alarm levels in the field. Move the cursor to the alarm level that you want to change (using the left and right arrow keys) and type a new alarm level (letters A through D).

    All 64 alarm points in the display can be set to the same level by holding down the Ctrl key and pressing F1 (level A), F2 (level B), F3 (level C), or F4 (level D).

12. Press F4 to return the cursor to the *MAP Dsp* field.
13. Press Enter.
14. Press F8 (Finish).
15. Highlight *Edit Scan Time.*
16. Press Enter.
17. Type the time. Acceptable values are 2-12 seconds.
18. Press Enter.

CAUTION:
If you changed the number in the *MAP Dsp* field in step 4, the number returns to its original value. Re-enter the number you typed in step 8.

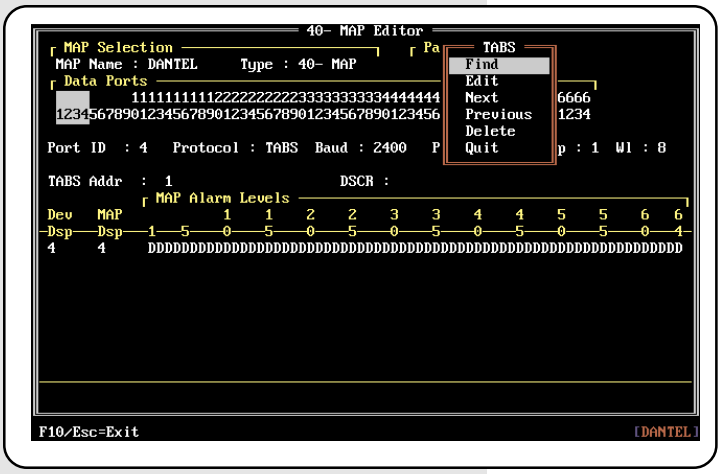
EDIT DEVICES - TABS PROTOCOL

From the *Edit Devices* option of the Data Port Menu, you can configure a data port that communicates with devices that use TABS protocol.

To configure devices that use TABS protocol:

1. Highlight *Edit Devices.*
2. Press Enter. The TABS menu appears. Brief descriptions of each option in the TABS menu appear below.
3. Go to the *Find* subsection for instructions on how to configure devices that use TABS protocol.

CONTINUED . . .



4. Go to the *Edit* subsection for instructions on how to edit a configuration.

Find - Selects a device to configure or selects an existing configuration to edit.

Edit - Edits an existing configuration.

Next - Selects the next configuration to edit.

Previous - Selects the previous configuration.

Delete - Deletes the configuration. When you select this option, the message **Delete the current address? (Y/N)** appears. Type **Y** to delete the configuration. Type **N** if you do not want to delete the configuration.

Here is the 40 MAP Editor screen for a device that communicates with TABS protocol. The *MAP Alarms Level* field does not appear if no TABS devices are configured.

FIND

To configure a TABS device:

1. Highlight *Find*.
2. Press Enter.
3. In the *TABS Address* field, type the address of the device. Acceptable values are 0-31.

NOTE:
The address setting on the device must be the same as the address you type.

4. Press Enter.
5. The following question appears at the bottom left corner of the screen:

   Address not there. Wish to add?

   Type **Y** to add the address. If you type **N**, the screen prompts you for another address.
6. In the *DSCR* field, type a description of the device (optional). Do not exceed 20 characters.
7. Press Enter.
8. The cursor appears in the *Dev Dsp* (device display) field. The *Dev Dsp* column lists the alarm displays coming from the device. A display is a group of 64 alarms. Type a display number. Acceptable values are 0-65535.
9. Press Enter.
10. In the *MAP Dsp* field, type the location in the MAP's memory where you want to store the alarm display information. Acceptable memory locations are 1-64. Each memory location represents one display.

CONTINUED . . .

The following information will help you to choose a memory location:

- The memory location you select determines the order in which the MAP reports alarms to the alarm center. The MAP reports the alarms in numerical sequence, starting with memory location 1 and ending with memory location 64.
- If the master port uses DCP or DCPF protocol, memory locations 1-32 are for MAP address 1 and locations 33-64 are for address 2.
- If the master port uses TABS protocol, you can use all 64 locations.
- If the master port uses TBOS protocol, use the locations that you assigned in the *Section Number to Respond* field when you configured the master port. If the printer port uses TBOS protocol, use the locations that you assigned in the *Section Number to Respond* field when you configured the printer port.

11. Press Enter.

    If the message **Memory Conflict - Any key to cont:** appears, it means the memory location is being used. You must type a different display location in the *MAP Dsp* field. If you are having difficulty locating unused memory, see the ***Reports*** section of this chapter for viewing a Memory Available report.

    When you press Enter, the *MAP Alarm Levels* field is set to the default alarm levels. This field controls the operation of 46017 Summary Audible Alarm Modules (SAAMs) and 46019 Summary Alarm Modules (SAMs). Unless you use these modules, do not change the default settings. Refer to the ***MAP Parameters*** chapter to change the defaults.

12. The cursor moves to the next line. After you enter the next *Dev Dsp* number, the computer assigns the next consecutive memory location to the *MAP Dsp* field. If the next consecutive memory location is being used, you must type a number in the *MAP Dsp* field. Fill in the *MAP Dsp* and *MAP Alarm Levels* fields for as many alarm displays as you need

13. When you finish, press F8 to save the information.

14. Repeat steps 1-11 to configure additional TABS devices.

EDIT

To edit a TABS definition:

1. Press the N (Next) or P (Previous) key until you find the TABS device that you want to edit.
2. Highlight *Edit*.
3. Press Enter. The Edit TABS menu appears.

Instructions for editing the device description, and the memory and alarm levels appear below.

EDIT DESCRIPTION

To edit a description:

1. Highlight *Edit Description*.
2. Press Enter.
3. In the DSCR field, type a new description of the device.
4. Press Enter.

EDIT MEMORY AND ALARM LEVELS

To edit the MAP display number or alarm levels:

1. Highlight *Edit Memory and Alarm Levels.*
2. Press Enter.
3. Select the *Dev Dsp* that you want to change. To select the *Dev Dsp*

   Use the up and down arrow keys

   or

   Press F1 and type the number of the *Dev Dsp* where you want to move the cursor.
4. Change the *Dev Dsp* number and press Enter. If you do not want to change to *Dev Dsp* number, press Enter.
5. Change the *MAP Dsp* number and press Enter. If you do not want to change to *MAP Dsp* number, press Enter.
6. If you do *not* want to edit the MAP Alarm Levels, press Enter and then F8 (Finish). Do not perform the remaining steps.
7. To edit the MAP Alarm Levels, press F10 to move the cursor to the *Dev Dsp* field.
8. Press F4.
9. Change the alarm levels.

   The MAP Alarm Levels field controls the operation of 46017 Summary Audible Alarm Modules (SAAMs) and 46019 Summary Alarm Modules (SAMs). Unless you use these modules, do not change the settings.

   The cursor appears beneath the first of the 64 alarm levels in the field. Move the cursor to the alarm level that you want to change (using the left and right arrow keys) and type a new alarm level (letters A through D).

   All 64 alarm points in the display can be set to the same level by holding down the Ctrl key and pressing F1 (level A), F2 (level B), F3 (level C), or F4 (level D).

CAUTION:

You can substitute the Alt key for the Ctrl key. If you do this, you will change the levels on *all* displays.

CONTINUED . . .

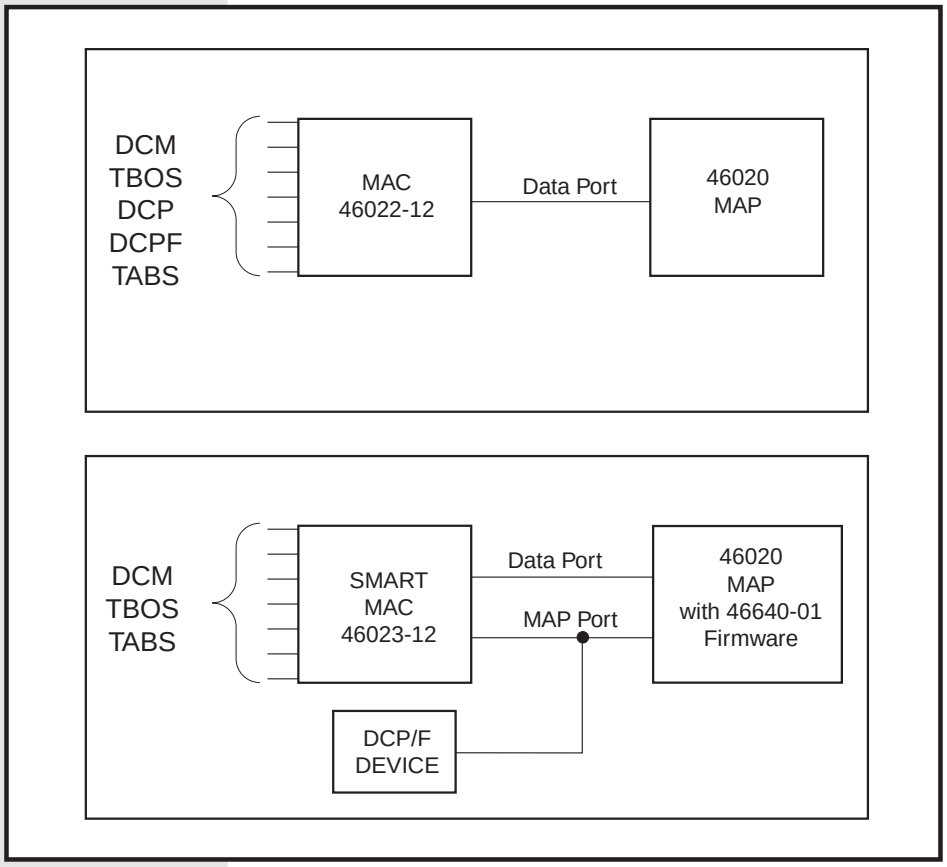
10. Press F4 to return the cursor to the *Dev Dsp* field.
11. Press F8 (Finish).

MAP PORT DEFINITION

NOTE:
You must configure the MAP Port Definition even if the MAP is connected to regular MACs (refer to Fig. 1).

The MAP Port Definition option lets you configure the MAP port. The MAP port is part of the data port. The MAP port is used when the MAP communicates with 46023-12 Smart Multiple Alarm Combiners (MACs) or when the MAP communicates directly with other DCP or DCPF devices (such as another MAP). Refer to Fig. 1.

FIG. 1 - DATA PORT CONFIGURATION



Switch S5-1 on the MAP must be set in the DOWN (ON) position when the MAP is connected to 46023-12 Smart MACs or DCP or DCPF devices.

Switch S5-1 on the MAP must be set in the UP (OFF) position when the MAP is connected to regular MACs.

DEFINE MAP PORT

This option lets you configure the protocol of the MAP port.

To configure the MAP Port:

1. Highlight *Define MAP Port.*
2. Press Enter.
3. Use the Tab key to select a protocol (DCPF is recommended).
4. Press Enter. The default values for all of the other fields will appear. The MAP Port Menu reappears.
5. If you are *not* using 46023-12 Smart MACs, stop here.
6. If you are using 46023-12 Smart MACs, go to the ***Edit Port Configuration*** subsection to change the protocol, baud, parity, stop bits, or word length, or go to the ***Edit Devices*** subsection to configure the devices connected to the MAP port.

NOTE:

Switches S1-5 through S1-8 on the 46023-12 module must be set for the same protocol.

EDIT PORT CONFIGURATION

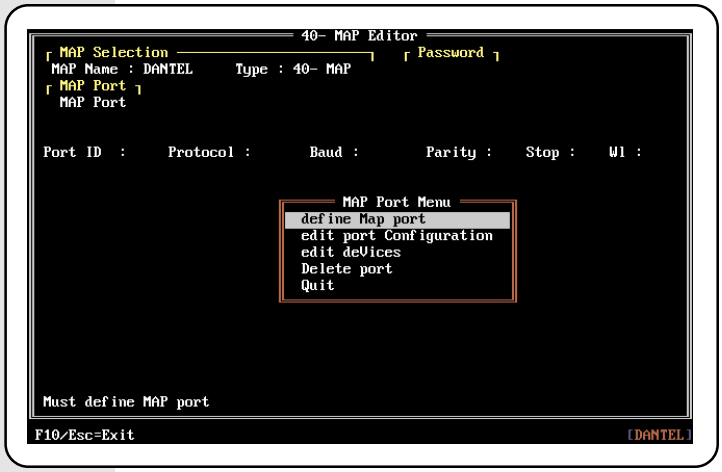
This option lets you change the communications protocol, baud rate, parity, stop bits, and word length on the MAP port.

To edit the port's configuration:

1. Highlight *Edit Port Configuration.*
2. Press Enter.

Instructions for changing the communications parameters appear below.

Here is the 40 MAP Editor screen with the MAP Port Menu.



EDIT PROTOCOL

This option lets you change the protocol.

To change the protocol:

1. Highlight Edit *Protocol.*
2. Press Enter.
3. Use the Tab key to select a protocol.
4. Press Enter.

EDIT BAUD

This option lets you change the baud.

To change the baud:

1. Highlight *Edit Baud.*
2. Press Enter.
3. Use the Tab key to select a baud.
4. Press Enter.

EDIT PORT DETAIL

This option lets you change the parity, stop bits, and word length.

To change the parity, stop bits, and word length:

1. Highlight *Edit Port Detail.*
2. Press Enter.
3. Use the Tab key to select a parity.
4. Press Enter.
5. Use the Tab key to select one or two bits.
6. Press Enter.
7. Use the Tab key to select a word length.
8. Press Enter.

EDIT DEVICES

This option lets the MAP poll Smart MACs and other devices that use DCP or DCPF protocol.

Observe the following conditions when using Smart MACs and DCP or DCP devices:

- The DCP or DCPF devices must have different addresses from any Smart MACs.

CONTINUED . . .

- ♦ The DCP or DCPF devices must use the same protocol (DCP or DCPF) and communication parameters as the Smart MACs.

To use Smart MACs or DCP or DCPF devices:

1. Highlight *Edit Devices*.
2. Press Enter.
3. The DCP menu appears. In this chapter, go to the section on ***Edit Devices - DCP or DCPF Protocol*** for instructions for defining the devices.

DELETE PORT

This option lets you delete the configuration for the MAP port.

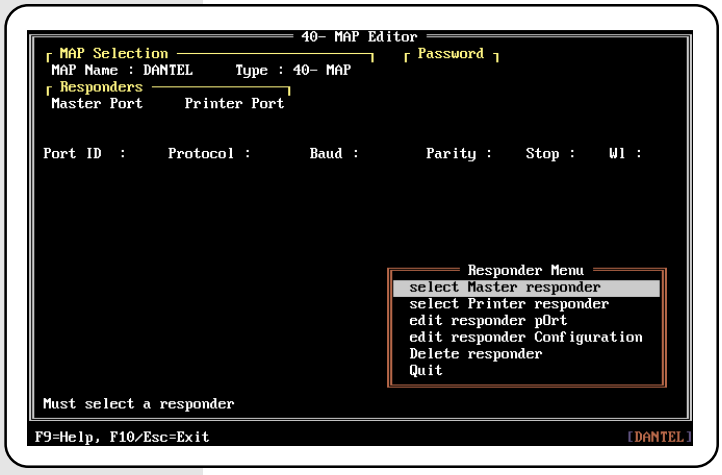
To delete the MAP port configuration:

1. Highlight *Delete Port*.
2. Press Enter.
3. The message ***Delete MAP Port (Y/N)?*** appears in the lower left corner of the screen. Type **Y** to delete the configuration. Type **N** if you do not want to delete the configuration.

RESPONDER DEFINITION

This options lets you configure the communication parameters for the master and printer ports of the MAP.

Here is the 40 MAP Editor screen with the Responder Menu.



SELECT MASTER RESPONDER

This option lets you configure the master port.

NOTE:
The switch settings on the 46020 module for protocol, baud, parity, stop bits, and word length must be the same as these selections. If they are not, either change the switch settings on the module or change the settings on the screen (refer to *Edit Responder Port* in this section).

To configure the master port:

1. Highlight *Select Master Responder.*
2. Press Enter. In the upper left corner of your screen, *Master Port* is highlighted in red or, if you have a monochrome monitor, is blinking.
3. Use the Tab key to select the protocol.
4. Press Enter. The default settings for the *Baud, Parity, Stop,* and *Wl* (word length) fields automatically appear.
5. Configure the protocol (refer to ***Edit Responder Port*** in this section).

SELECT PRINTER RESPONDER

This option lets you configure the printer port.

NOTE:
The switch settings on the 46020 module for protocol, baud, parity, stop bits, and word length must be the same as these selections. If they are not, either change the switch settings on the module or change the settings on the screen (refer to *Edit Responder Port* in this section).

To configure the printer port:

1. Highlight *Select Printer Responder.*
2. Press Enter. In the upper left corner of your screen, *Printer Port* is highlighted in red or, if you have a monochrome monitor, is blinking.
3. Use the Tab key to select the protocol.
4. Press Enter. The default settings for the *Baud, Parity, Stop,* and *Wl* (word length) fields automatically appear.
5. Configure the protocol (refer to ***Edit Responder Port*** in this section).

EDIT RESPONDER PORT

This option lets you change the protocol, baud, parity, stop bits, and word length on the master and printer ports.

To change a responder port's parameters:

1. Highlight *Edit Responder Port.*
2. Press Enter.

Instructions appear below for changing the parameters.

EDIT PROTOCOL

This option lets you to change the protocol.

NOTE:
The switch settings on the 46020 module must match this configuration.

To change the protocol:

1. Highlight *Edit Protocol.*
2. Press Enter.
3. Use the Tab key to select a protocol.
4. Press Enter.

EDIT BAUD

This option lets you to change the baud.

NOTE:
The switch settings on the 46020 module must match this configuration.

To change the baud:

1. Highlight *Edit Baud.*
2. Press Enter.
3. Use the Tab key to select a baud.
4. Press Enter.

EDIT PORT DETAIL

This option lets you to change the parity, stop bits, and word length.

NOTE:
The switch settings on the 46020 module must match this configuration.

To change the parity, stop bits, and word length:

1. Highlight *Edit Port Detail.*
2. Press Enter.
3. Use the Tab key to select a parity.
4. Press Enter.
5. Use the Tab key to select one or two stop bits.
6. Press Enter.
7. Use the Tab key to select a word length.
8. Press Enter.

EDIT RESPONDER CONFIGURATION

This option lets you configure options for the master or printer port. The communications protocol that you have specified for the active port will determine which configuration parameters are required.

To configure or change a port configuration:

1. Highlight either *Select Master Responder* or *Select Printer Responder* to choose the port you want to configure or change.
2. Press Enter. In the upper left corner of your screen, the port selected is highlighted in red or, if you have a monochrome monitor, is blinking.

Following are configuration instructions for each protocol.

DCP OR DCPF PROTOCOL

A 46020 module equipped with 46640-01 firmware can report two DCP or DCPF addresses. One DCP or DCPF address contains 32 displays of information.

To configure the DCP or DCPF parameters:

1. In the *Address* field for *Displays 1-32,* enter the address of the 46020 module as set by switch S1 (master port) or S2 (printer port). The address can be from 1-255.
2. Press Enter.
3. In the *Address* field for *Displays 33-64,* enter the next consecutive address. If displays 33-64 will not be accessed, type **N** instead of an address.
4. Press Enter.
5. In the *Disable Point 64 Device Failures* field, type either an **N** for no or a **Y** for yes. For more information about this feature, refer to the ***Extended Device Failure*** section of this chapter.
6. Press Enter.

TBOS PROTOCOL

The *Section Number to Respond* field represents the locations in the MAP's memory where alarm information is stored, as defined in the following table:

Section Number	MAP Memory Locations	Section Number	MAP Memory Locations
1	1-8	9	33-40
2	9-16	10	41-48
3	17-24	11	49-56
4	25-32	12	57-64

NOTE:
The MAP uses sections 5-8 and 13-16 for controls. Do not assign these numbers for alarms.

The MAP can report 16 displays of TBOS alarms, eight through the master port and eight through the printer port. These displays can be stored in any section number listed above.

To configure the TBOS parameters:

1. In the *Section Number to Respond* field, type a section number from the preceding table.
2. Press Enter.
3. In the *Disable Point 64 Device Failures* field, type either an **N** for no or a **Y** for yes. For more information about this feature, refer to the ***Extended Device Failure*** section of this chapter.
4. Press Enter.

TABS PROTOCOL

To configure the TABS parameters:

1. In the *Address* field, enter the address of the 46020 module as set by switch S1 (master port) or S2 (printer port). The address can be from 0-31.
2. Press Enter.
3. In the *Max Display* field, enter a number from 1-65.

   This field represents the maximum number of displays to transmit when polled. A message at the bottom of the screen indicates the highest display number that has been assigned. The number must be one higher than the last display number that you assigned when you configured the data port. If the last display number that you assigned was 32, then enter 33.
4. Press Enter.
5. In the *Disable Point 64 Device Failures* field, type either an **N** for no or a **Y** for yes. For more information about this feature, refer to the ***Extended Device Failure*** section of this chapter.
6. Press Enter.

DELETE RESPONDER

This option lets you delete the current configuration for the master or printer port.

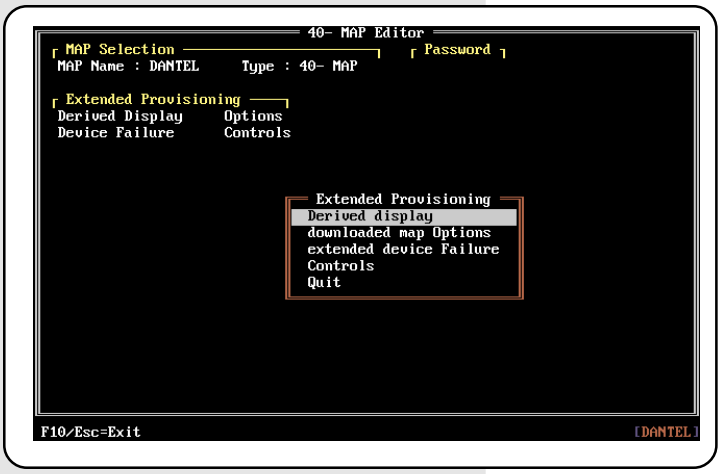
To delete a master or printer port configuation:

1. Highlight either *Select Master Responder* or *Select Printer Responder* to choose the port configuration you want to delete.
2. Press Enter. In the upper left corner of your screen, the port selected is highlighted in red or, if you have a monochrome monitor, is blinking.
3. Highlight *Delete Responder*.
4. Press Enter.

CONTINUED . . .

5. The message **Delete Master (or Printer) Port (Y/N)?** appears in the lower left corner of the screen. Type **Y** to delete the configuration. Type **N** if you do not want to delete the configuration.

EXTENDED PROVISIONING



This option lets you define several optional features. Here is the 40 MAP Editor screen Extended Provisioning menu:

To select an option:

1. Highlight an option. A brief description of each option appears below.
2. Press Enter. In the upper left corner of your screen, the option that you selected is highlighted in red or, if you have a monochrome monitor, is blinking.
3. Go to the subsection that explains the option that you selected.

Derived Display - A point in a derived display is set or cleared based on the results of the evaluation of the terms defined for that point. A term is an individual point or device failure. A derived display requires a full display of MAP memory.

Downloaded MAP Options - This lets you to select various options to download with the definition file to the MAP.

Extended Device Failure - This is an advanced feature for experienced users who have a special need for more control during device failure processing. The standard (default) device failure routines are adequate for most system configurations.

Controls - The MAP uses control forwarding to process control commands that it receives through the master or printer port. When the MAP receives a control command, it searches the Control Forwarding Table. If a compatible entry is found, the command is routed out the data port. The MAP also translates commands from one protocol to another; for example, a DCP command could be translated and forwarded to a DCM device.

DERIVED DISPLAY

The Derived Display option menu appears. The *Edit* option lets you create and change a derived display. The *Delete* option lets you delete the derived display.

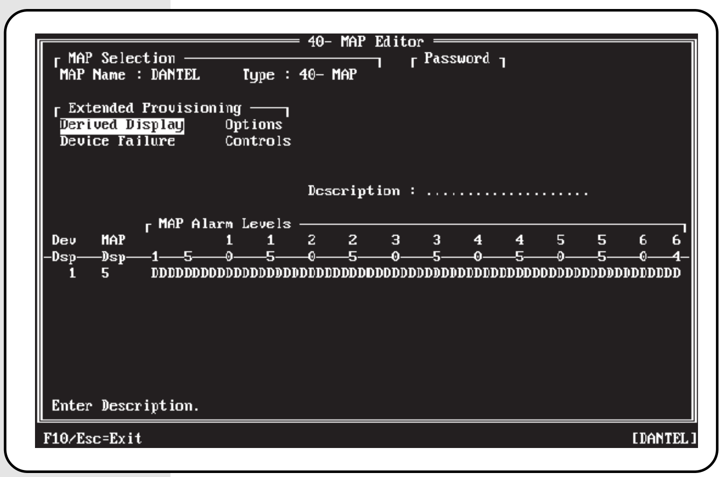
EDIT

To create or change a derived display:

1. Highlight *Edit* in the Derived Display menu.
2. Press Enter. The first of the two derived display editing screens appears:
3. In the *Description* field, enter a description (optional) that identifies the derived display.
4. Press Enter.
5. In the *MAP Dsp* field, type the location in the MAP's memory where you want to store the derived alarm information. The number can be from 1-64.
6. Press Enter.

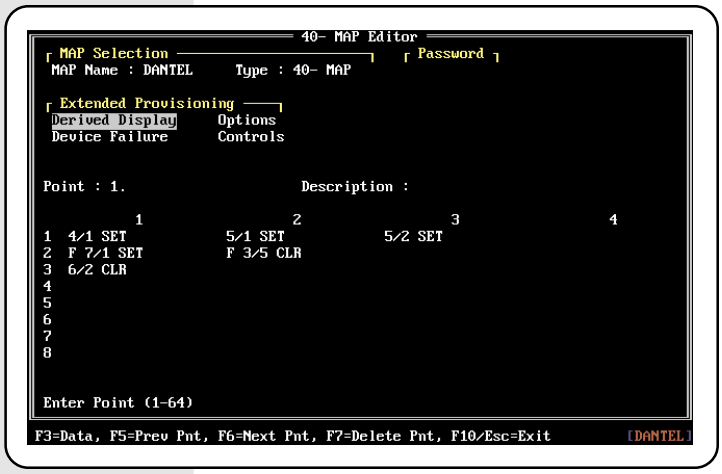
If the memory area has been assigned already, the message **Memory Conflict - any key to cont:** appears. Enter a different memory location in the *MAP Dsp* field. If you have difficulty locating unused memory locations, refer to the Memory Available Report in the ***Reports*** section of this chapter.

If you are creating a derived display, the T/Shell program enters the values of D in the *MAP Alarm Levels* field and advances to the second of the two derived display editing screens. Here is the second screen:



CONTINUED . . .

7. To edit the *MAP Dsp* or *MAP Alarm Levels* fields, press F3 (Data) if you are in the second editing screen. The first editing screen appears.



8. To change the *MAP Dsp* field only, go to step 11.
9. To change to *MAP Alarm Levels* field, press F4.

   Position the cursor under the alarm level that you want to change by using the left and right arrow keys.

   Type the letter (A through D) of the new alarm level. Continue this procedure until all changes have been made to alarm levels for the selected MAP display.

   All 64 alarm points in the display can be set to the same level by holding down the Ctrl key and pressing F1 (level A), F2 (level B), F3 (level C), or F4 (level D).

CAUTION:
You can substitute the Alt key for the Ctrl key. If you do this, you will change the levels on *all* displays.

10. Press F4 to return the cursor to the *MAP Dsp* field.
11. To change the *MAP Dsp* field, type the new memory location.
12. Press Enter. The second editing screen appears.

CAUTION:
Do not press F8 (Finish), even if you do not want to go to the second editing screen.

13. To configure or change the alarm points, go to the next step. To exit the derived display screens, press F10. The Derived Display menu appears.
14. In the *Point* field, type the number of the alarm point that you want to configure. The alarm point can be from 1-64. The alarm point is one of the points shown in the previous screen in the *MAP Alarm Levels* field.

    Here are brief descriptions of the command keys that you can use while the cursor is in the *Point* field:

    F3 - Data - Returns to the previous screen.

    F5 - Prev Pnt - Displays the next lower point that is configured.

    F6 - Next Pnt - Displays the next higher point that is configured.

    F7 - Delete Pnt - Deletes the current point.

CONTINUED . . .

15. Press Enter.
16. In the *Description* field, type the description (optional) associated with this alarm point.
17. Press Enter.
18. Type the alarm terms in as many fields as required. Refer to ***Defining Alarm Terms*** below. Press Enter after you type the terms in a field. Use the arrow keys to move the cursor to another field.
19. When you finish typing the alarm terms in the fields, press F8 to save them.
20. Repeat steps 14-19 for other points.
21. When you finish defining all the points required, press F10 or Esc to return to the Derived Display menu.

DEFINING ALARM TERMS

Column numbers 1 through 4 appear horizontally across the center, and row numbers 1 through 8 appear vertically along the left edge of the screen. Each field in this matrix can hold one term that will evaluate to a true or false condition. A term represents the status of a specific alarm point or device.

You can position the cursor in any row or column by using the four arrow keys. Here are descriptions of the command keys that are active while editing these fields:

F2 - Show Internal - This option is not used.

F5 - Blank - Deletes (blanks) the term.

F8 - Save - Saves the terms and positions the cursor in the *Point* field.

F9 - Help - Displays a help screen.

Refer to the screen on page 41 when you read the following information.

Alarm Point Terms

The three terms in row 1 and the one term in row 3 are alarm point terms. The term in row 1 column 1 (4/1 SET) is true if the alarm assigned to point 1 of MAP display 4 is active (SET). If this alarm is not active, this term is false.

The term in row 3 column 1 (6/2 CLR) is true if the alarm in point 2 of MAP display 6 is not active (is CLR). If this alarm is active, this term is false.

The general format for this command is the following:

display/point condition

In the above command, *display* is the MAP's memory location that contains the alarm information, and *point* is the number of the specific alarm point in that display.

CAUTION:

The memory location number that you type may not be the same as the memory location number that you used when you configured the data port. If the memory location that you used when you configured the data port is 1-32, type the same number. If the memory location is 33-64, add 32. For example, for memory location 33, type 65.

CONTINUED . . .

Condition is either SET (the usual case) if the term is to be true if the specified alarm is active or CLR if the term is to be true if the alarm is not active.

Device Status Terms

The two terms in row 2 are device status terms. Terms beginning with *F* are device status terms. The term in row 2 column 1 (F 7/1 SET) is true if the device assigned to character 1 of MAP display 7 has failed (is SET). If this device has not failed, this term is false.

The term in row 2 column 2 (F 3/5 CLR) is true if the device assigned to character 5 of MAP display 3 has not failed (is not SET). If this device has failed, this term is false.

The general format for this command is the following:

F display/character condition

In the above command, an *F* signifies that the term is a device status term.

Display and *character* identify the device being monitored. This is the position in the MAP's memory where the alarms and/or controls from the device are stored. A character represents eight points in a display. The character value 1 represents points 1 through 8, a value of 2 represents points 9 through 16, etc.

Condition is either SET (the usual case) if the term is to be true when the specified alarm is active or CLR if the term is to be true when the alarm is not active.

In the screen on page 40, the term F 3/5 CLR refers to the device that has its alarms and/or controls assigned to points 33 through 40 in memory location 3.

Determining an Alarm

To determine whether there will be an alarm condition at a specified point, all defined terms in each row are examined. The result for each row will be false if one or more of the terms in that row is false. Rows containing no terms are ignored. The final result will be true if one or more of the row results are true; otherwise the result will be false. If the final result is true, the alarm point in the derived display will be set; otherwise it will be clear.

DELETE

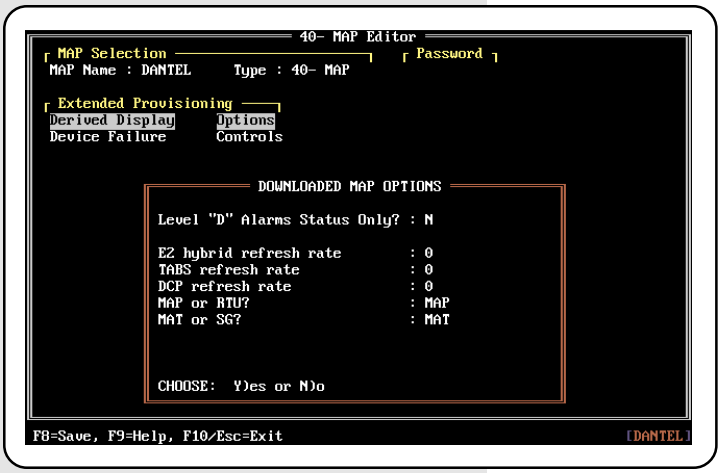
This option lets you delete the derived display.

To delete the derived display:

1. Highlight *Delete* in the Derived Display menu.
2. Press Enter.
3. The message **Delete Derived Display (Y/N)?** appears in the lower left corner of the screen. Type **Y** to delete the display. Type **N** if you do not want to delete the display.

DOWNLOADED MAP OPTIONS

The Downloaded MAP Options window appears:



To change the options:

1. Type a value.
2. Press Enter.

If you do not want to change a value at a particular field, press Enter to advance to the next field.

If you have changed some fields and all the remaining fields are acceptable, press F8 to save the changes and return to the Extended Provisioning menu.

Here are descriptions of each option:

Level "D" Alarms Status Only - This determines whether level D alarms are reported on the printer port. If this parameter is set to Y, level D alarms are treated as status points and are not reported on the printer port. If this parameter is set to N, level D alarms are reported on the printer port. This field defaults to N.

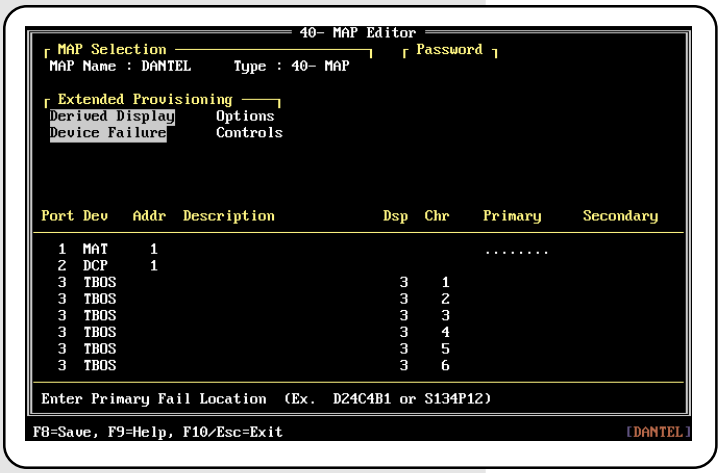
Refresh Rates - The refresh rates for E2, TABS, and DCP protocols appear on the screen. These options control the number of polling list cycles that will occur between full database refreshes. Valid responses are 0 to 255. These fields default to 0.

MAP or RTU - This option is not used with the 46640-01 firmware. Always leave this option set for MAP.

MAT or SG - This option is not used with the 46640-01 firmware. Always leave this option set for MAT.

EXTENDED DEVICE FAILURE

Here is the editing screen for extended device failures:



The extended device failure feature permits the MAP to have device failures set any bit in memory locations 1-32 or any bit in the DCP status lines (129-138). Each bit of a memory byte that is used to store device failures may be a logical *or* of multiple device failures. For example, if any one of five devices fail, a bit is set and it will be cleared only after all five devices return to a normal state.

Device failure locations also can be used as terms in a derived alarm.

Each device failure can refer to one or two device failure memory locations (primary and secondary). Both primary and secondary locations can contain either a memory or status location, but both can not refer to the same location.

The two types of entries in the device failure table are memory entries and status line entries. The examples below describe each of these entries:

Memory Entries

Memory entries are usable with master and printer ports configured with any protocol.

D23C5B1 represents the location Display 23, Character 5, Bit 1.

D1C8B2 represents the location Display 1, Character 8, Bit 2.

Valid ranges for these values are 1 to 32 for displays, 1 to 8 for characters, and 1 to 8 for bits.

Status Entries

Status entries are usable with master and printer ports configured with DCP or DCPF protocol only.

S133P28 represents the location Status Line 133, Point 28.

S129P6 represents the location Status Line 129, Point 6.

Valid ranges for these values are 129 to 138 for status lines and 1 to 32 for points.

NOTE:

The extended device failure feature and normal DCP device status lines are mutually exclusive methods of handling device failures. As soon as one device uses the extended device failure mode, all devices must use that mode or their device failures will not be recorded.

To edit the extended device failure screen:

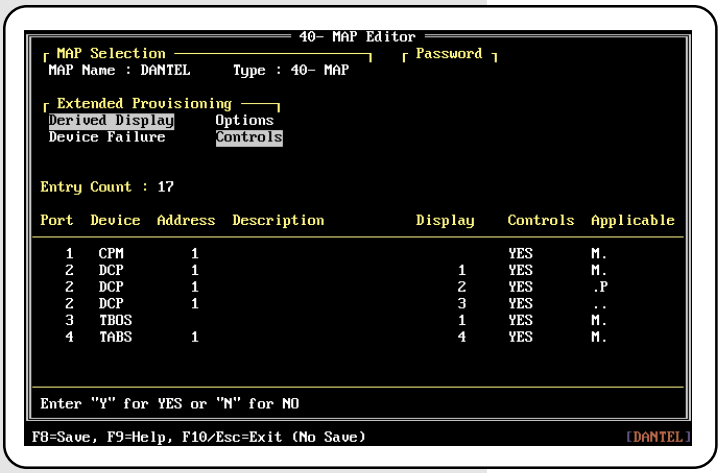
1. Type a location in the *Primary* field.
2. Press Enter.
3. Type a location in the *Secondary* field (optional).

CONTINUED . . .

4. Press Enter.
5. Repeat steps 1-4 for all the fields that you want to use for extended device failures.
6. Press F8 to save. The Extended Provisioning menu appears.

CONTROLS

Here is the editing screen for controls:



The T/Shell program generates this table automatically based on configuration parameters that you entered for control devices and the responder ports.

The T/Shell program uses the data in this screen to generate the Control Forward Table. You can view this table by selecting the *Control Forward Table* option in the MAP Reports menu (refer to the ***Reports*** section of this chapter). The MAP uses this table to determine which control points to activate.

The only parameter that you can change on this screen is in the *Controls* column. Yes means that you can operate controls, and No means that you can not operate controls. Only enable controls that you will use since the number of control entries is limited.

The maximum number of entries is indicated in the *Entry Count* field. The T/Shell program will verify that sufficient space is available prior to downloading the configuration file.

To change the controls:

1. Use the up and down arrow keys to position the cursor in that field for the corresponding device display.
2. Type **Y** or **N**.
3. Press Enter.
4. Repeat steps 1-3 until all controls are set properly.
5. Press F8 to save the changes.

Here are descriptions of each parameter:

Port - This column represents the MAP data port that is assigned to the device.

Device - This is the type of control device.

Address - The address of the device is in this column. This column is blank for a TBOS device.

Description - This column contains the device description. This is the same description that appears in the *DSCR* field on the Edit Devices screen.

CONTINUED . . .

Display - This is the device's display number. This is the same number that appears in the *Dev Dsp* field of the Edit Devices screen used to define that device.

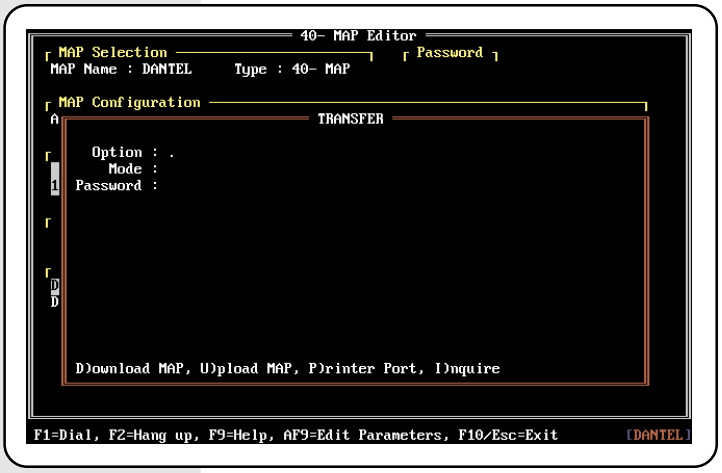
Applicable - This column indicates whether you can activate control points through the master (M) and/or printer (P) port. Two periods (..) mean that these control points cannot be activated through either port, regardless of the parameter setting in the *Controls* field.

TRANSFER

The Transfer option lets you do the following:

- Download the configuration to a 46020 module.
- Upload a configuration from a 46020 module.
- Communicate directly with a 46020 module using Printer Syntax.
- Request a 46020 module to identify itself.

Here is the 40 MAP Editor screen with the Transfer window:



Before beginning the transfer process:

1. Press Alt-F9 to check the communications parameters. Refer to the chapter on ***MAP Parameters*** for descriptions of the parameters.
2. Check the address of the 46020 module. The address is shown in the 40 MAP Editor screen. Press F10 to exit the Transfer window and display the full 40 MAP Editor screen. The address must be the same as the switches on the 46020 module for the master or printer port through which you will be transferring data.

   If you will be *downloading* through a port that uses DCP or DCPF protocol, then only one of the DCP/DCPF addresses must be the same as the module's switches.

   If you will be *uploading* a configuration, the address also must match the address in the configuration in the 46020 module.

TYPES OF TRANSFERS

Downloading

This operation allows the currently open MAP database to be downloaded to the 46020 MAP module. Any configuration already present in the MAP is erased.

Uploading

This operation allows the database currently in the 46020 MAP module to be uploaded to the open MAP database in T/Shell. This is used for storing, checking, or changing the database currently in use. Any configuration already present in the database is erased.

Inquire

This operation requests and displays the MAP's identity information. This can be used to confirm the connection between the computer and the MAP module. Successful completion of this function verifies the physical connection, communication parameters, and MAP address.

Printer Port

This operation opens a terminal emulation program to the MAP's Printer port and allows the use of Printer Syntax commands when the Printer port is configured for DCPF protocol. For a list of available commands, refer to the Printer Syntax section of the 46020-40 Multiple Alarm Processor practice. When the Printer port is configured for Printer Syntax, use the Terminal function of this T/Shell.

This operation is available only when the computer is:

- Connected directly to the Printer port of the MAP; or,
- Connected to a General Purpose Processor (GPP) and the GPP is connected to the Printer port of the MAP. (Refer to the section Indirect Transfers)

Indirect Transfers

It is possible to execute any of the above four transfer operations through a 46062-00/-02/-03/ or -22 General Purpose Processor (GPP) when that GPP is polling the MAP's Master or Printer port. Connect the computer to the Master or Printer port of the GPP.

When Indirect Upload or Download is chosen, the type of GPP is requested. Valid entries are Status Monitor or TL1 GPP.

The Indirect Transfer communication parameters (ALT-F9) must match those of the GPP, not the MAP.

NOTE:
When connecting to the GPP through a packet network, set DCPR mode in the communication parameters (ALT F9) to Y.

NOTE:
In order to successfully perform an Indirect Transfer through a TL1 GPP, that GPP must have loaded C22-46501-02, Version 3.00 or higher, Operating Software.

NOTE:
Before performing an indirect download, ensure that the Master Port Responder is at the correct baud rate. Failure to do so may stop communication between the MAP and the GPP. The MAP would then have to be reconfigured again on-site to resume normal operation.

To transfer files over a modem:

1. Press F1. A Hayes-compatible modem is required. The dial type (pulse or tone) is selected from the *System Parameters* option of the Master Menu.
2. Enter the telephone number.
3. Press Enter.
4. After the other end answers, you may upload or download a configuration. See instructions below.
5. When you finish uploading or downloading the configuration files, press F2 to hang up the modem.

DOWNLOADING THE T/SHELL DATABASE CONFIGURATION

NOTE:
If there is a configuration already in the 46020 module, that configuration will be erased when the new one is downloaded.

To download the configuration:

1. At the *Option* field, type **D**. Press Enter.
2. At the *Mode* field, type **D** if the computer is communicating directly with the 46020 module. Type **I** if the computer will be communicating indirectly with the 46020 module through a 46062 General Purpose Processor (GPP). Press Enter.
3. A warning box will be displayed asking whether the transfer selected in steps 1 and 2 is to be performed. Press Enter to continue the downloading process or **N** and Enter to discontinue the operation.
4. If the 46020 module has a password, type it in the Password field and press Enter. If the MAP has no password, just press Enter.
5. If **D** was selected in step 2, the transfer will begin at this point. If Indirect mode is being used (**I** in step 2), type the address of the 46062 GPP module in the *GPP Addr* field. Press Enter.
6. If the 46062 GPP module has a password, type it and press Enter. If there is no password, just press Enter.
7. Enter the type of GPP. Valid choices are “Status Monitor” or “TL1 GPP.” Press Enter.

UPLOADING A T/SHELL DATABASE CONFIGURATION

To upload a configuration:

NOTE:
The configuration in the 46020 module will be uploaded into the configuration in your computer and will replace any data in the configuration in your computer.

1. At the *Option* field, type **U**. Press Enter.
2. A warning appears advising that the data about to be uploaded will overwrite any data in the configuration in the computer. Type **Y** and press Enter to continue or press Enter to discontinue the operation. If a configuration that you want to keep is going to be overwritten, exit the Transfer window, choose *Select MAP* from the MAP Menu, and create a new configuration.

CONTINUED . . .

3. At the *Mode* field, type **D** if the computer is communicating directly with the 46020 module. Type **I** if the computer will be communicating indirectly with the 46020 module through a 46062 General Purpose Processor. Press Enter.
4. A warning box will be displayed asking whether the transfer selected in steps 1 and 2 is to be performed. Press Enter to continue the uploading process or **N** and Enter to discontinue the operation.
5. If the 46020 module has a password, type it and press Enter. If there is no password, just press Enter.
6. If **D** was selected in step 3 the transfer will begin at this point. If indirect mode is being used (**I** in step 3), type the address of the 46062 GPP module in the *GPP Addr* field. Press Enter.
7. If the 46062 GPP module has a password, type it and press Enter. If there is no password, just press Enter.
8. Enter the type of GPP. Valid choices are "Status Monitor" or "TL1 GPP." Press Enter.

IDENTIFYING THE 46020 MODULE

To request the 46020 module to identify itself:

1. At the *Option* field, type **I**. Press Enter.
2. At the *Mode* field, type **D** if the computer is communicating directly with the 46020 module. Type **I** if the computer will be communicating indirectly with the 46020 module through a 46062 General Purpose Processor (GPP). Press Enter.
3. A warning box will be displayed asking whether the transfer selected in steps 1 and 2 is to be performed. Press Enter to continue the transfer or **N** and Enter to discontinue the operation.
4. If the 46020 module has a password, type it in the Password field and press Enter. If the MAP has no password, just press Enter.
5. If **D** was selected in step 2, the transfer will begin at this point. If Indirect mode is being used (**I** in step 2), type the address of the 46062 GPP module in the *GPP Addr* field. Press Enter.
6. If the 46062 GPP module has a password, type it and press Enter. If there is no password, just press Enter.
7. Enter the type of GPP. Valid choices are "Status Monitor" or "TL1 GPP." Press Enter.

COMMUNICATING WITH PRINTER SYNTAX

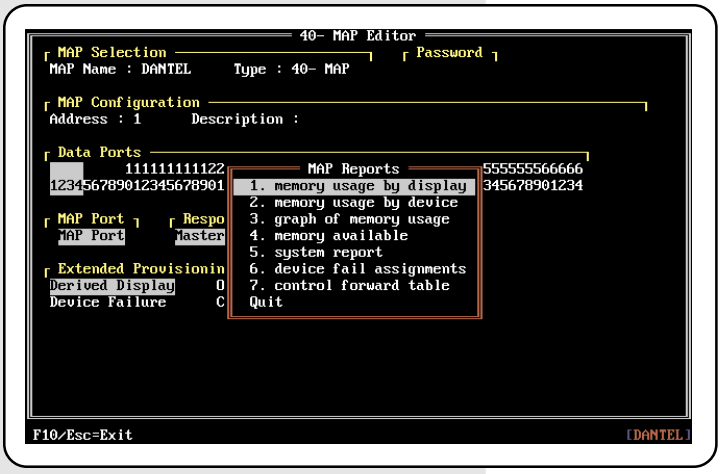
NOTE:
For Printer Syntax commands, refer to the 46640-01 firmware manual or the 46020-40 MAP manual.

1. At the *Option* field, type **P**. Press Enter.
2. At the *Mode* field, type **D** if the computer is communicating directly with the 46020 module. Type **I** if the computer will be communicating indirectly with the 46020 module through a 46062 General Purpose Processor (GPP). Press Enter.

CONTINUED . . .

3. A warning box will be displayed asking whether the transfer selected in steps 1 and 2 is to be performed. Press Enter to continue the transfer or **N** and Enter to discontinue the operation.
4. If the 46020 module has a password, type it in the Password field and press Enter. If the MAP has no password, just press Enter.
5. If **D** was selected in step 2, the transfer will begin at this point. If Indirect mode is being used (**I** in step 2), type the address of the 46062 GPP module in the *GPP Addr* field. Press Enter.
6. If the 46062 GPP module has a password, type it and press Enter. If there is no password, just press Enter.
7. Enter the type of GPP. Valid choices are "Status Monitor" or "TL1 GPP." Press Enter.

REPORTS



The Reports option lets you generate reports on how the 46020 MAP module is configured. Most of the reports can be sent to either the screen, a file or a printer.

Here is the 40 MAP Editor screen with the MAP Reports menu:

To select an option:

1. Highlight an option. A brief description of each option appears below.
2. Press Enter.
3. Go to the subsection that explains the option you selected.

NOTE: *When you configured the data port (and the responder ports if you are using TBOS protocol), you assigned alarms and controls to memory locations 1-64. Actually the MAP has 128 memory locations, 64 for alarms and 64 for controls. In the reports, memory locations will be shown as 1-128. Here is how to compare the locations you assigned to alarms and controls with their actual locations in memory:*

LOCATIONS ASSIGNED	ACTUAL MEMORY LOCATIONS
Alarms	
1-32	1-32
33-64	65-96
Controls	
1-32	33-64
33-64	97-128

Memory Usage by Display - Contains MAP memory statistics for all devices on all ports in the requested range of MAP displays. Statistics are presented in order by display number.

Memory Usage by Device - Contains MAP memory statistics for all assigned displays on all ports. This report is grouped by communication protocol.

Graph of Memory Usage - Shows the MAP's memory usage in graph form.

Memory Available - Lists all displays containing unallocated memory space. This report is arranged in display number order.

System Report - Displays the configurations for all ports (master, printer, data and MAP port), devices, derived display, and controls. Information in this report is very similar to that displayed on the screen while configuring the MAP.

Device Fail Assignments - Contains a complete list of all configured ports and devices that have device failure locations assigned to them.

Control Forward Table - Lists of all control forwarding assignments.

MEMORY USAGE BY DISPLAY

To generate a report:

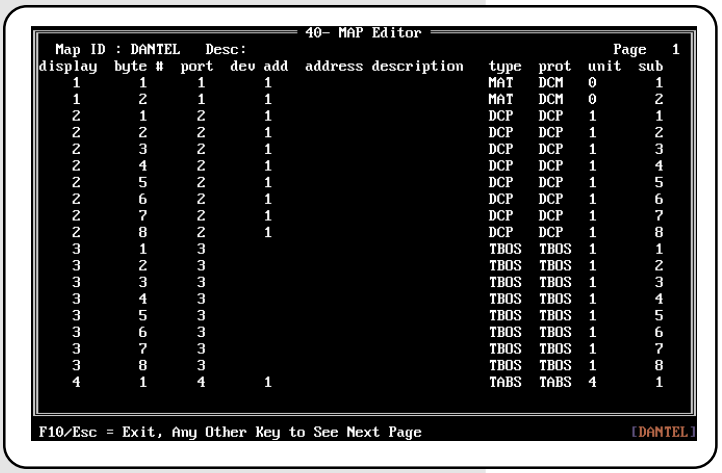
1. In the *Start Display* field, type the number of the first display you want to appear in the report. This field defaults to 1.
2. Press Enter.
3. In the *End Display* field, type the number of the last display you want to appear in the report. This field defaults to 128.
4. Press Enter.
5. In the *Output to* field, type **F** for file, **P** for printer, or **S** for screen.
6. Press Enter.

When a file is selected as the destination of a report, you are prompted for a DOS file name. If no file name extension is entered, the extension .LST is automatically appended. The file will be sent to the destination specified in the *Rpt Path* of the *40 MAP Editor Parameters* option. Refer to the chapter on ***MAP Parameters.***

CAUTION:

When a printer is the destination, an error message will appear if there is no printer connected to your computer or if the printer is not turned on. If the error message appears, you must press any key to continue. The computer exits the program and returns to the Master Menu.

Here is an example of the report on the screen.



40- MAP Editor

Map ID : DANTEL Desc: Page 1

display	byte #	port	dev add	address description	type	prot	unit	sub
1	1	1	1		MAT	DCM	0	1
1	2	1	1		MAT	DCM	0	2
2	1	2	1		DCP	DCP	1	1
2	2	2	1		DCP	DCP	1	2
2	3	2	1		DCP	DCP	1	3
2	4	2	1		DCP	DCP	1	4
2	5	2	1		DCP	DCP	1	5
2	6	2	1		DCP	DCP	1	6
2	7	2	1		DCP	DCP	1	7
2	8	2	1		DCP	DCP	1	8
3	1	3			TBOS	TBOS	1	1
3	2	3			TBOS	TBOS	1	2
3	3	3			TBOS	TBOS	1	3
3	4	3			TBOS	TBOS	1	4
3	5	3			TBOS	TBOS	1	5
3	6	3			TBOS	TBOS	1	6
3	7	3			TBOS	TBOS	1	7
3	8	3			TBOS	TBOS	1	8
4	1	4	1		TABS	TABS	4	1

F10/Esc = Exit, Any Other Key to See Next Page [DANTEL]

Each line in the report describes the definition stored in one-eighth of a display (eight lines per display). Here are descriptions of each column:

Display - This is the physical MAP display number used for storing the alarm or control point.

Byte # - The byte # represents the alarm points within the display. Byte #1 represents alarm points one through eight, byte #2 represents nine through sixteen, etc.

Port - This column shows the MAP data port that is assigned to the device.

Dev add - The address of the device is in this column.

Address description - This column contains the device description. This is the same description that appears in the DSCR field on the Edit Devices screen.

Type - This is the type of device. For example, if the port protocol is DCM, then either MAT or CPM appears here.

Prot - This column shows the communications protocol for the port.

Unit - This is a subdivider. For TBOS protocol, it represents a display number. For DCP or DCPF protocols, it represents a line. For DCM protocol, it has no value.

Sub - The number in this column represents a character within a unit.

At the end of the report is a value for *Total Bytes Used:*. This is the amount of memory that has been used in the display range specified for the report. To obtain the number of displays used, divide this number by eight.

MEMORY USAGE BY DEVICE

To generate a report:

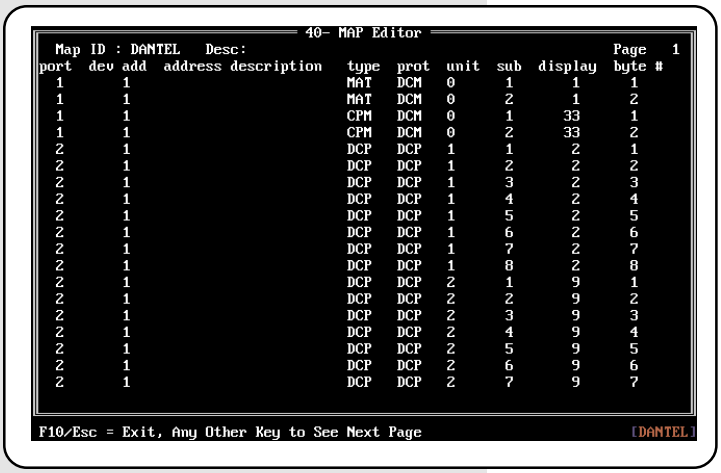
1. In the *Output to* field, type **F** for file, **P** for printer, or **S** for screen.
2. Press Enter.

When a file is selected as the destination of a report, you are prompted for a DOS file name. If no file name extension is entered, the extension .LST is automatically appended. The file will be sent to the destination specified in the *Rpt Path* of the *40 MAP Editor Parameters* option. Refer to the chapter on ***MAP Parameters.***

CAUTION:

When a printer is the destination, an error message will appear if there is no printer connected to your computer or if the printer is not turned on. If the error message appears, you must press any key to continue. The computer exits the program and returns to the Master Menu.

Here is an example of the report on the screen.



Each line in the report describes the definition stored in one-eighth of a display (eight lines per display). Here are descriptions of each column:

Port - This column shows the MAP data port that is assigned to the device.

Dev add - The address of the device is in this column.

Address description - This column contains the device description. This is the same description that appears in the DSCR field on the Edit Devices screen.

Type - This is the type of device. For example, if the port protocol is DCM, then either MAT or CPM appears here.

Prot - This column shows the communications protocol for the port.

Unit - This is a subdivider. For TBOS protocol, it represents a display number. For DCP or DCPF protocols, it represents a line. For DCM protocol, it has no value.

Sub - The number in this column represents a character within a unit.

Display - This is the physical MAP display number used for storing the alarm or control point.

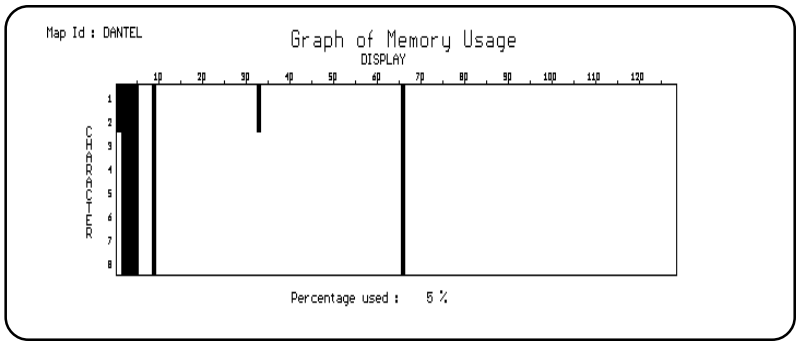
Byte # - The byte # represents the alarm points within the display. Byte #1 represents alarm points one through eight, byte #2 represents nine through sixteen, etc.

GRAPH OF MEMORY USAGE

NOTE:

If you are using a computer with a monochrome monitor, you may not be able to view the Graph of Memory Usage because some monochrome monitors do not have graphics capabilities.

Here is an example of a graph of MAP memory usage that appears on the screen.



Vertical bars in this graph represent displays that have been assigned. You can not print this report or capture it in a file.

CAUTION:

When a printer is the destination, an error message will appear if there is no printer connected to your computer or if the printer is not turned on. If the error message appears, you must press any key to continue. The computer exits the program and returns to the Master Menu.

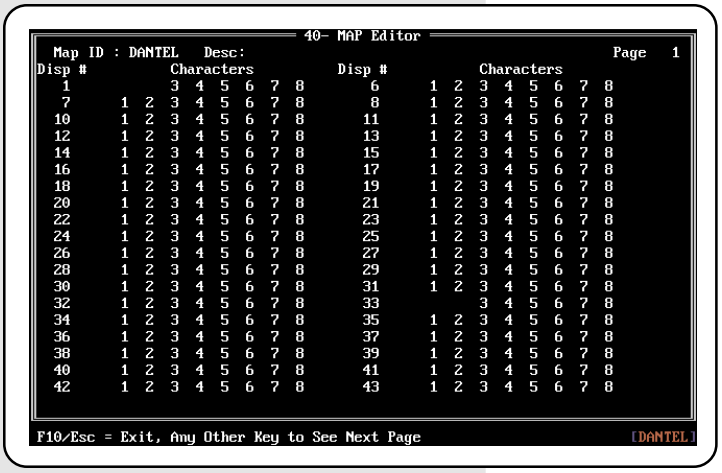
MEMORY AVAILABLE

To generate a report:

1. In the Output to field, type **F** for file, **P** for printer, or **S** for screen.
2. Press Enter.

When a file is selected as the destination of a report, you are prompted for a DOS file name. If no file name extension is entered, the extension .LST is automatically appended. The file will be sent to the destination specified in the *Rpt Path* of the *40 MAP Editor Parameters* option. Refer to the chapter on ***MAP Parameters.***

Here is an example of the report on the screen:



The data in the report is arranged with a column of display numbers followed by the digits one through eight. Each digit represents a block of eight memory locations. Missing digits indicate that those positions have been previously assigned. If a display number does not appear in the report, then that display has no remaining unassigned space.

At the end of the report, there are fields showing the *Total Number of Displays with Free Bytes* and the *Total Number of Free Bytes.*

CAUTION:

When a printer is the destination, an error message will appear if there is no printer connected to your computer or if the printer is not turned on. If the error message appears, you must press any key to continue. The computer exits the program and returns to the Master Menu.

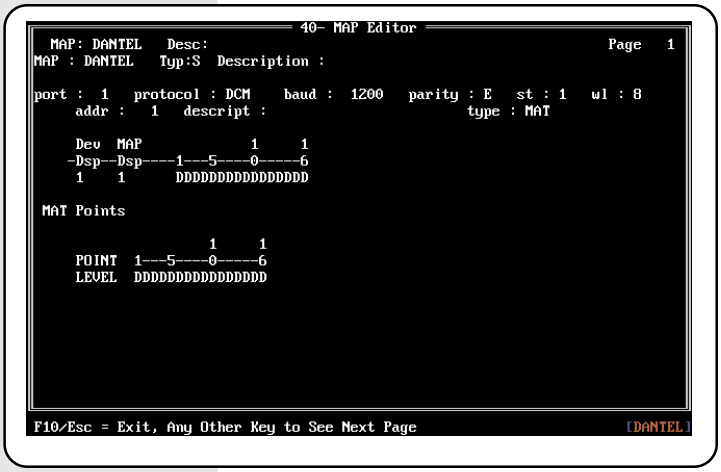
SYSTEM REPORT

To generate a report:

1. In the *Report All?* field, type **Y** for a report of all configured ports (master, printer, data, and MAP port), all configured devices, the derived display, and the control forward table. Type **N** for a report only on all configured ports.
2. Press Enter.
3. In the *Output to* field, type **F** for file, **P** for printer, or **S** for screen.
4. Press Enter.

When a file is selected as the destination of a report, you are prompted for a DOS file name. If no file name extension is entered, the extension .LST is automatically appended. The file will be sent to the destination specified in the *Rpt Path* of the *40 MAP Editor Parameters* option. Refer to the chapter on ***MAP Parameters.***

Here is an example of the report on the screen.



DEVICE FAIL ASSIGNMENTS

CAUTION:

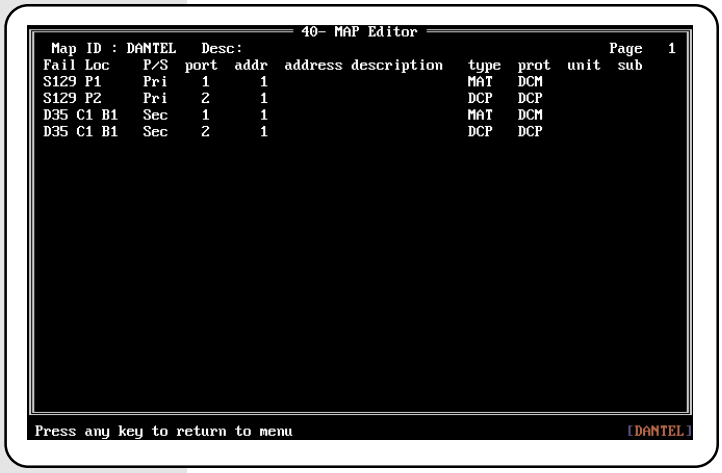
When a printer is the destination, an error message will appear if there is no printer connected to your computer or if the printer is not turned on. If the error message appears, you must press any key to continue. The computer exits the program and returns to the Master Menu.

To generate a report:

1. In the *Output to* field, type **F** for file, **P** for printer, or **S** for screen.
2. Press Enter.

When a file is selected as the destination of a report, you are prompted for a DOS file name. If no file name extension is entered, the extension .LST is automatically appended. The file will be sent to the destination specified in the *Rpt Path* of the *40 MAP Editor Parameters* option. Refer to the chapter on ***MAP Parameters.***

Here is an example of the report on the screen.



This report contains a complete list of all configured ports and devices that have device failure locations assigned to them.

CONTROL FORWARD TABLE

CAUTION:

When a printer is the destination, an error message will appear if there is no printer connected to your computer or if the printer is not turned on. If the error message appears, you must press any key to continue. The computer exits the program and returns to the Master Menu.

To generate a report:

1. In the *Output to* field, type **F** for file, **P** for printer, or **S** for screen.
2. Press Enter.

When a file is selected as the destination of a report, you are prompted for a DOS file name. If no file name extension is entered, the extension .LST is automatically appended. The file will be sent to the destination specified in the *Rpt Path* of the *40 MAP Editor Parameters* option. Refer to the chapter on ***MAP Parameters.***

Here is an example of the report on the screen.

```
                              40- MAP Editor
  MAP: DANTEL   Desc:                                                  Page   1
Map Id : DANTEL   Typ:S  Description :

            SOURCE                                    DESTINATION
     responder                        port          device
     M   Disp  :   1   Quad  : 1    1   DCM    CPM Addr :   1
     M   Disp  :   2   Quad  : 1    2   DCP    DCP Addr :   1   Group :   1
     M   Disp  :   2   Quad  : 2    2   DCP    DCP Addr :   1   Group :   2
     M   Disp  :   2   Quad  : 3    2   DCP    DCP Addr :   1   Group :   3
     M   Disp  :   2   Quad  : 4    2   DCP    DCP Addr :   1   Group :   4
     M   Disp  :   3   Quad  : 1    3   TBOS   Display  :   1   Quad  :   1
     M   Disp  :   3   Quad  : 2    3   TBOS   Display  :   1   Quad  :   2
     M   Disp  :   3   Quad  : 3    3   TBOS   Display  :   1   Quad  :   3
     M   Disp  :   3   Quad  : 4    3   TBOS   Display  :   1   Quad  :   4
     M   Disp  :   4   Quad  : 1    4   TABS   TABS Id:   1 D:    4 Quad:1
     M   Disp  :   4   Quad  : 2    4   TABS   TABS Id:   1 D:    4 Quad:2
     M   Disp  :   4   Quad  : 3    4   TABS   TABS Id:   1 D:    4 Quad:3
     M   Disp  :   4   Quad  : 4    4   TABS   TABS Id:   1 D:    4 Quad:4
     P   Disp  :   1   Quad  : 1    2   DCP    DCP Addr :   1   Group :   5
     P   Disp  :   1   Quad  : 2    2   DCP    DCP Addr :   1   Group :   6
     P   Disp  :   1   Quad  : 3    2   DCP    DCP Addr :   1   Group :   7

F10/Esc = Exit, Any Other Key to See Next Page                    [DANTEL]
```

A complete list of all control forwarding assignments is contained in this report.

The left side of this report (everything to the left of the *port* column) lists the source of the control commands, including whether the command will be received on the MAP's master (M) and/or printer (P) port. The format of the source information will vary depending on the definition of the responder ports.

The right side of the report (everything to the right of and including the *port* column) lists the destination of these commands. This is the data port and device address where the MAP will be sending commands. The format of the destination information will vary depending on the protocol used on the data port.

UTILITIES

The Utilities option lets you copy the files associated with the configuraton for the following purposes:

- To backup the files.
- To transfer the files to another computer.
- To use the files as the basis for creating a new configuration.
- To erase the configuration from the computer.

COPY MAP FILES

NOTE:
When copying a configuration from one location to another, you do not have to rename the configuration. But if you copy a configuration from one location to the *same* location (such as to use a configuration as the basis for creating a new one), you must rename the configuration.

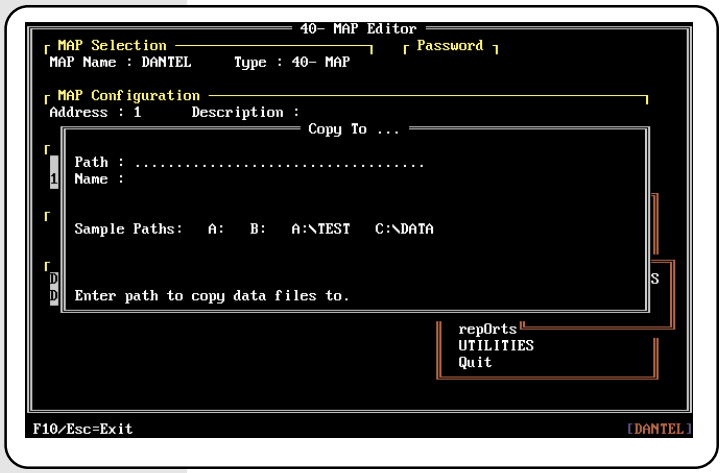
1. In the Utilities menu, highlight *Copy MAP Files*.
2. Press Enter.

COPY TO

To copy a file to another location:

1. Highlight *Copy From Data Path To . . .*
2. Press Enter.

Here is the Copy To ... window:



1. In the *Path* field, enter the destination drive and path where the configuration is to be copied.
2. Press Enter.
3. The *Name* field defaults to the current name. To change the name, type a new one.
4. Press Enter.
5. To start the copying process, press Enter.

NOTE:
The configuration files are being copied, not moved; therefore, the files being copied are not being erased from their original location.

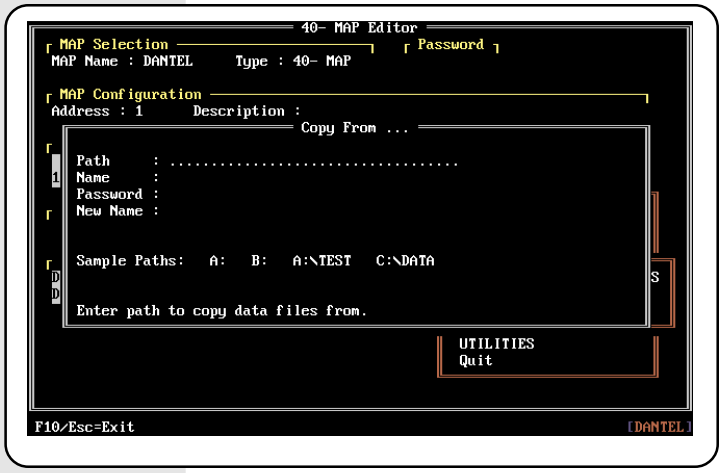
COPY FROM

To copy a file from another location:

1. Highlight Copy From ... To Data Path.
2. Press Enter.

CONTINUED . . .

Here is the Copy From ... window:



NOTE:

When copying a configuration from one location to another, you do not have to rename the configuration. But if you copy a configuration from one location to the *same* location (such as to use a configuration as the basis for creating a new one), you must rename the configuration.

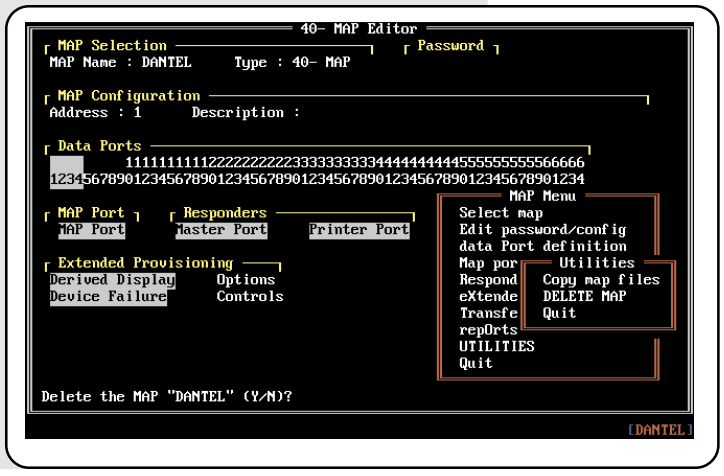
NOTE:

The configuration files are being copied, not moved; therefore, the files being copied are not being erased from their original location.

3. In the *Path* field, enter the drive and path from which you want to copy a configuration.
4. Press Enter.
5. In the *Name* field, enter the system name of the configuration to be copied.
6. Press Enter.
7. In the *Password* field, enter the system name's password if there is one.
8. Press Enter.
9. The *New Name* field defaults to the same name as shown in the Name field. To change the name, type a new one.
10. Press Enter.
11. To start the copying process, press Enter.

DELETE MAP

Here is the screen:



When initiating this command, a warning message appears at the bottom left corner of the screen. An example of the warning message is shown below.

Delete the System "DANTEL" (Y/N)?

Type **Y** (Yes) to delete the configuration. Type **N** (No) if you do not want to delete the configuration.

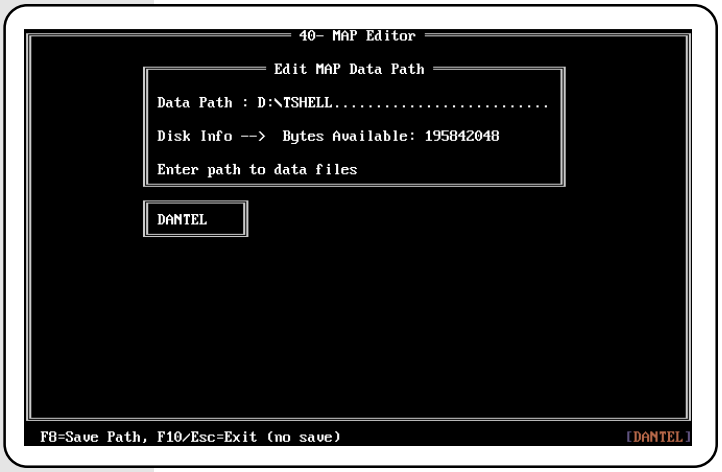
WARNING:

Do not use this command unless you are positive that you will never need the configuration again. This command erases all references to the configuration.

MAP DATA PATH

The MAP Data Path option of the 40 MAP Editor Module menu permits you to specify the drive and directory path where the T/Shell database configuration files will be stored. This is particularly useful for running the program on a dual diskette system such as a laptop computer. Such a setup might use Drive A for the program disk and Drive B for the disk that holds the configuration files. This type of setup allows you to access different configurations easily by simply swapping disks.

Here is the 40 MAP Editor screen with the Edit MAP Data Path windows:



The current data path is shown in the upper window. The lower window displays any database configurations that are stored at the current path.

To change the data path:

1. Type the new path.

   Sample path specifications are shown below:

   - B:\
   - C:\TSHELL\MAP\DATA
   - C:\TSHELL\MAP\TEST

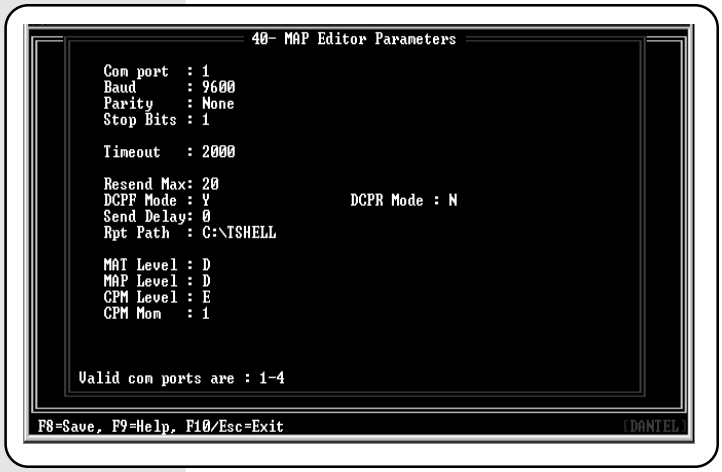
NOTE: *If you specify a drive without a path (for example A:, C:), the current path of that drive is loaded into the Data Path parameter.*

2. Press Enter.
3. Press F8 to save the new path.

MAP PARAMETERS

The MAP Parameters option of the 40 MAP Editor Module menu allows you to select the communications parameters for uploading and downloading T/Shell database configurations to 46020 modules. You also can specify where to store reports on database configurations on your computer.

Here is the 40 MAP Editor Parameters window:



To change the parameters:

1. Enter the desired value.
2. Press Enter.

If you do not want to change a value at a particular field, press Enter to advance to the next field.

If you have changed some fields and all the remaining fields are acceptable, press F8 to save the changes and return to the 40 MAP Editor Module menu.

At the last field (Rpt Path), if you change the value, press Enter to save all changes to the system parameters. If you do not change the value of the report path, press Enter or F8 to save any other changes to the system parameters. The 40 MAP Editor Module menu appears.

WARNING:

If you specify a communications port that your computer does not have, the T/Shell program may locks up when the computer tries to use that port and you must reboot your computer.

Here are descriptions of each parameter:

Com Port - Specifies which communications port to use when uploading or downloading database configurations to 46020 modules. Acceptable entries are 1 - 4. This field defaults to 1.

Baud - Sets the baud rate for the communications port. Acceptable baud rates are 110, 150, 300, 600, 1200, 2400, 4800, 9600, 19 (19,200) and 38 (38,400). This field defaults to 9600.

Parity - Sets the parity for the communications port. Acceptable values are E)ven, O)dd, N)one. This field defaults to N)one.

Stop Bits - Sets the number of stop bits for the communications port. Acceptable values are 1 or 2. This field defaults to 1.

Timeout - Sets the amount of time in milliseconds that the computer waits for the device at the other end of the communications line to acknowledge that it is ready to receive data. Acceptable values are 50 - 9999 milliseconds. This field defaults to 2000 milliseconds (2 seconds).

Resend Max - Specifies the number of resends that the computer attempts before declaring a "Com Port Error" when trying to upload or download data. Acceptable values are 1 - 100. This field defaults to 20.

DCPF Mode - Specifices the type of communications protocol for uploading and downloading files. Acceptable values are Y (to use DCPF protocol) and N (to use DCP protocol). This field defaults to Y.

DCPR Mode - Setting this parameter to Y will activate. Setting to N will deactivate. Default setting is N.

NOTE: *DCPR Mode should be activated when configuring over a packet network. The receiving GPP must have TGOS version 5.00 or greater.*

The MAP responder port does not have to be configured for DCP or DCPF protoccol. This is done automatically by the MAP and the T/Shell software.

Rpt Path - Specifies the drive and directory that the computer is to use to store any reports that are sent to a file. For more information, see the ***Reports*** section of the ***MAP System Definition*** chapter. This field defaults to the current directory.

MAT Level - Sets the default value for the *MAT Points* field that is used to configure MATs. Acceptable values are A, B, C, and D. This field defaults to D.

MAP Level - Sets the default value for the *MAP Alarm Levels* field that is used to configure data ports. Acceptable values are A, B, C, and D. This field defaults to D.

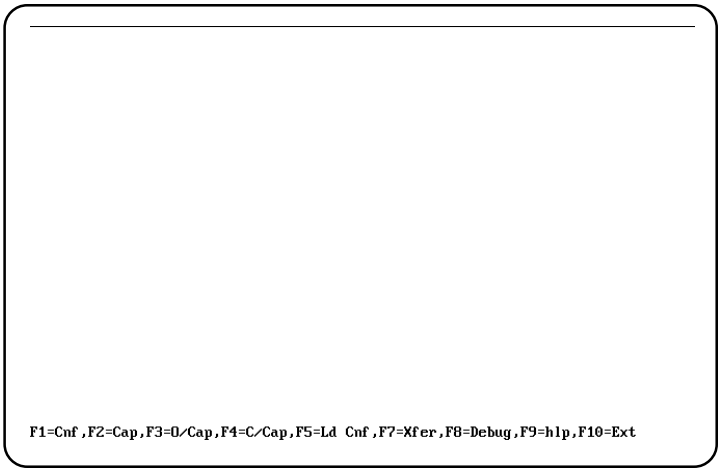
CPM Level - This option is not used.

CPM Mom - This option is not used.

TERMINAL EMULATION

The Terminal option of the 40 MAP Editor Module menu activates the terminal emulator that imitates a dumb terminal's monitor. The purpose of this mode is to allow direct communications with another device.

The terminal emulator screen is blank except for the bottom line, which displays the available command keys. Here is the screen:



Below is a brief description of the function of each command key. More detailed information is provided in other sections of this chapter.

F1 - Edit Terminal Configuration (Cnf) - Configures how the terminal emulator communicates with another device. Also programs function keys to playback a lengthy string of characters that may constitute a command, an often used phrase, etc.

F2 - Toggle Capture File (Cap) - Starts and stops the capturing of data received by the terminal. The data then can be reviewed at a later time.

F3 - Open Capture File (O/Cap) - Opens a capture file.

F4 - Close Capture File (C/Cap) - Closes a capture file.

F5 - Load Configuration File (Ld Cnf) - Changes the current terminal configuration to a new configuration.

F7 - Download File Transmission (Xfer) - Transfers (downloads) a DOS file from your computer to another device.

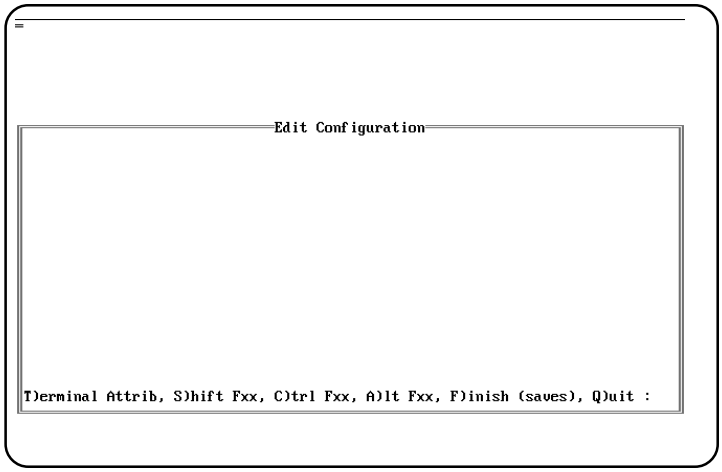
F8 - Toggle Protocol Analyzer/Debug (Debug) - Activates and deactivates a protocol analyzer for troubleshooting problems of the device connected to the terminal emulator.

F9 - Help Message (hlp) - Displays on-line help.

F10 - Exit Terminal Emulator (Ext) - Exits the terminal mode and returns to the 40 MAP Editor Module menu.

EDIT TERMINAL CONFIGURATION

Press F1 from the main terminal emulator screen to select the terminal configuration option. The Edit Configuration window appears:



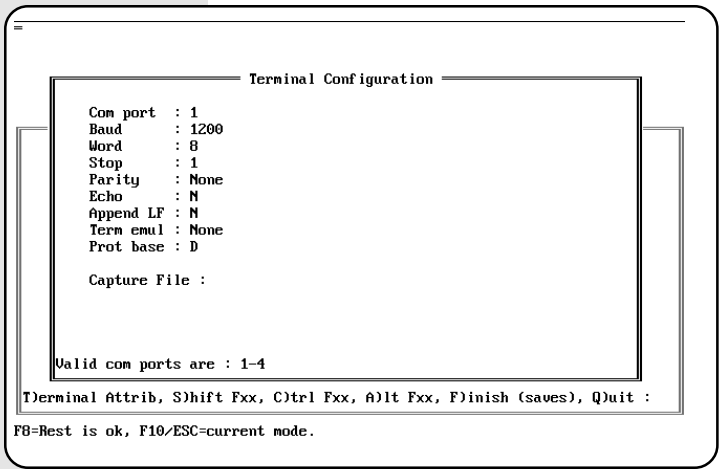
Options include:

- Change the terminal's configuration for communicating with another device. See ***Terminal Attributes*** in this section.
- Program the function keys. See ***Shift Fxx, Ctrl Fxx,*** and ***Alt Fxx*** in this section.
- Create a file to save the changes made in the two items above. See ***Finish*** in this section.

TERMINAL ATTRIBUTES

To change the terminal configuration:

1. Type **T.** The terminal configuration window appears:



CONTINUED . . .

2. Enter the desired value.
3. Press Enter.

If no change is required to a value at a particular field, press Enter to advance to the next field.

If some fields have been changed and all the remaining fields are acceptable, press F8 to return to the Edit Configuration window.

At the last field (Prot base), press Enter after making a change to the terminal attributes. If you do not change the value of the protocol base, press Enter or F8 to make any other changes to the system parameters.

If you change the default settings, the changes remain in effect until you change them again or you exit the program to the Master Menu. When you return to the Master Menu, the computer automatically restores the default settings.

NOTE:
The terminal emulator can use the same communications port that the T/Shell software uses for its external communications.

To save these changes, refer to section ***Finish,*** later in this chapter.

Here is a description of each parameter:

Com Port - Specifies which communications port to use. Acceptable entries are 1 - 4. This field defaults to 1.

Baud - Specifies the baud rate for the communications port. Acceptable baud rates are 110, 150, 300, 600, 1200, 2400, 4800, 9600, 19 (19,200), 38 (38,400), and 115 (115,200). This field defaults to 1200.

Word - Specifies the number of word bits for the communications port. Acceptable values are 7 and 8. This field defaults to 8.

Stop - Specifies the number of stop bits for the communications port. Acceptable values are 1 and 2. This field defaults to 1.

Parity - Specifies the parity for the communications port. Acceptable values are E)ven, O)dd, N)one. This field defaults to None.

Echo - Specifies how the terminal emulator communicates. Acceptable values are Y)es, echo (results in half duplex operation) and N)o, don't echo (results in full duplex operation). This field defaults to N.

Append LF - Tells the computer whether to add a linefeed when it receives an Enter (CR or carriage return) command. Acceptable values are Y)es, append a linefeed character after Enter and N)o, don't append a linefeed after Enter. This field defaults to N.

Term Emul - Selects the specific type of terminal the computer emulates. Partial emulation of ADDS Viewpoint functions is available by selecting A. The available ADDS Viewpoint functions are clear screen, clear to the end of line, and cursor positioning. Select N (none) for no terminal emulation. This field defaults to None.

CONTINUED . . .

NOTE:
Capture File parameters cannot be changed while editing the terminal configuration.

Prot Base - Specifies the number base that the Debug Mode uses to display data. Acceptable values are D (decimal) and H (hexadecimal). This field defaults to D.

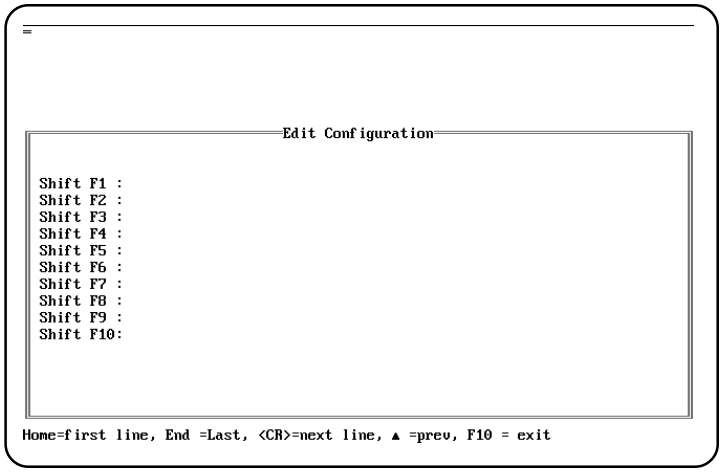
Capture File - Displays the name and status of a capture file if one is open.

SHIFT FXX

Use the S)hift Fxx option to define text strings that can be played back when you press the Shift key and one of the function keys simultaneously.

To program the Shift and function keys:

1. Type **S.** This screen appears:



2. Enter a string of characters, up to a maximum of 56 characters. An Enter can be included as part of the string by entering Ctrl-M.
3. Press Enter.

   Press Enter to skip one function key and move to the next field.

   Press F10 to skip all function keys and return to the Edit Configuration window.

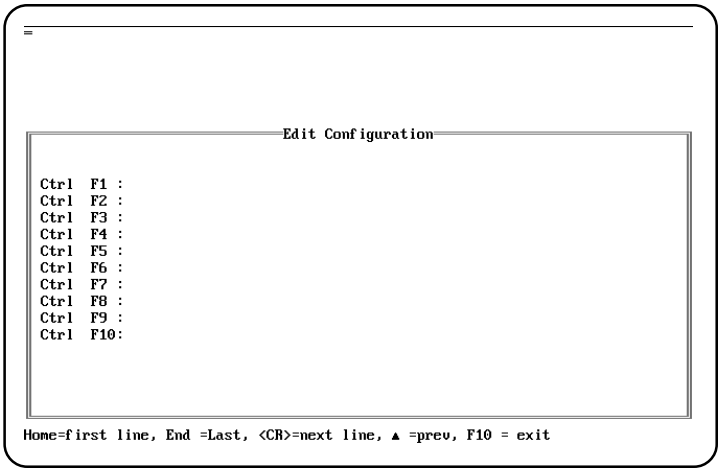
   At the last field (Shift F10), the Edit Configuration window appears when you press Enter.
4. To save these changes, refer to section ***Finish***.

CTRL FXX

Use the C)trl Fxx option to define text strings that can play back when the Ctrl key and one of the function keys are pressed simultaneously.

To program the Ctrl and function keys:

1. Type **C.** This screen appears:



2. Enter a string of characters, up to a maximum of 56 characters. An Enter can be included as part of the string by entering Ctrl-M.
3. Press Enter.

   Press Enter to skip one function key and move to the next field.

   Press F10 to skip all function keys and return to the Edit Configuration window.

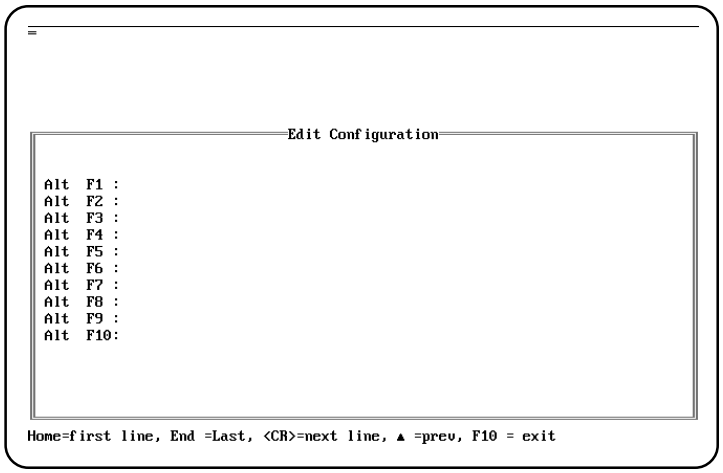
   At the last field (Shift F10), the Edit Configuration window appears when you press Enter.
4. To save these changes, refer to section ***Finish***.

ALT FXX

Use the A)lt Fxx option to define text strings that can play back when the Alt key and one of the function keys are pressed simultaneously.

To program the Alt and function keys:

1. Type **A.** This screen appears:



2. Enter a string of characters, up to a maximum of 56 characters. An Enter can be included as part of the string by entering Ctrl-M.
3. Press Enter.

   Press Enter to skip one function key and move to the next field.

   Press F10 to skip all function keys and return to the Edit Configuration window.

   At the last field (Shift F10), the Edit Configuration window appears when you press Enter.
4. To save these changes, refer to section ***Finish***.

FINISH

Use the Finish options to save changes to the terminal configuration. There are two options:

- A file can be created that replaces the default settings with new default settings. The default settings are those the computer uses for the terminal configuration whenever the Terminal Emulator is entered from the Master Menu. The initial default settings are listed under ***Terminal Attributes*** in this section.
- A file can be created that can be used later but does not change the default settings.

To create a file that *does* change the default settings:

1. Make the changes as described under ***Terminal Attributes*** in this section.
2. Make the changes as described under ***Shift Fxx, Ctrl Fxx,*** and ***Alt Fxx*** in this section.
3. Type **F** when you are in the Edit Configuration window.
4. Type the file name **TERM**.
5. Press Enter. The new settings are now the defaults for the terminal configuration whenever the Terminal Emulator is entered from the Master Menu.

To create a file that *does not* change the default settings:

1. Make the changes as described under ***Terminal Attributes*** in this section.
2. Make the changes as described under ***Shift Fxx, Ctrl Fxx,*** and ***Alt Fxx*** in this section.
3. Type **F** when you are in the Edit Configuration window.
4. Type a valid DOS file name without an extension. The extension .CNF is automatically appended to the name.
5. Press Enter.

Whenever the Terminal Emulator is entered from the Master Menu, the initial default settings are still used for the terminal configuration. To change the default settings using the file that you just created:

1. Press F5 (Ld Cnf) from the main terminal emulator screen.
2. Enter the name of the file.
3. Press Enter. The settings in the file are now the defaults. They remain active until you change the settings, load a different terminal configuration file, or exit the program to the Master Menu.

CAPTURE FILE

The capture file stores data that is displayed on the computer screen. The F2 (Cap), F3 (O/Cap) and F4 (C/Cap) keys control the capture of displayed data into a capture file.

CAPTURING DATA

To capture data:

1. Press F3 (O/Cap) to open a file for storing captured data.
2. Enter a file name. This can be any valid DOS file name and can include the optional three character file extension. If no file extension is specified, the terminal emulator will append the .CAP extension automatically.
3. Press Enter.
4. The word "off" appears in the lower right corner of the screen. This indicates that a capture file is open but is not capturing data. To activate the capture file, press F2 (Cap). The capture status of the word "on" indicates that data is being captured.
5. To end the screen capture, save the data, and close the file press F4.

The maximum amount of data that can be stored in one capture file is 16 kilobytes. This is the contents of approximately eight screens. When the file is full, new data will overwrite old data. To capture more than 16 kilobytes of data, close the file after about eight screens of data have been captured and open another file.

If you want to temporarily suspend the capture operation, press F2 (Cap). The capture status in the lower right corner changes to "off." At this point, the capture file is still open but is inactive. Incoming data is still received, but it is not recorded. To reactivate the capture, press the F2 key again. The capture status changes to "on."

VIEWING A CAPTURE FILE

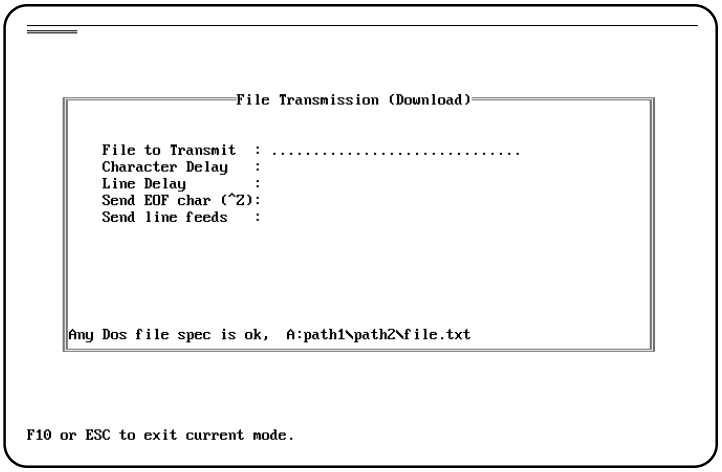
To review a captured file, the computer must be in DOS. The file may be reviewed by using any text editor that accepts files in standard ASCII format.

LOAD CONFIGURATION

For information about this option, see ***Finish*** in the ***Edit Terminal Configuration*** section.

FILE DOWNLOAD

Press F7 from the main terminal emulator screen to select the file download option. Here is the File Transmission (Download) window:



To download a file:

1. Enter the values for each field.
2. Press Enter. File transmission will begin after pressing Enter at the *Send Line Feeds* prompt.

During transmission, the screen is blank except for a status line at the bottom of the screen. The message in the status line indicates the name of file being transferred and the number of bytes transferred so far.

To terminate the file transmission, press either Esc or F10. Control returns to the terminal emulator upon completion of the file transmission.

Here are descriptions of the File Transmission fields:

File to Transmit - This is the disk drive, path, and filename designation of the DOS file that is to be transfered. For example, to transfer a file named MYFILE.DAT, stored on disk drive A: in directory NEWDIR, enter the following command: A:\NEWDIR\MYFILE.DAT and press Enter (See your DOS manual for more information on directories and file names.)

Character Delay - This parameter is the amount of time, in milliseconds, that the computer waits between the characters it transmits. The acceptable range is 0-500 milliseconds (one-half second). This field defaults to 0 (zero).

Line Delay - This is the amount of time, in milliseconds, that the computer waits between the lines it transmits. The acceptable range is 0 (zero) to 999 milliseconds. This field defaults to 0 (zero).

NOTE:

Use the Edit Configuration screen to set the data transmission parameters. To access this screen, press the F1 key. Before you attempt a file download, verify that the terminal configuration parameters are compatible with those of device that will be receiving the data.

Send EOF Char (^Z) - This parameter controls whether the computer transmits an end-of-file (Ctrl Z) character at the end of a DOS file. Acceptable responses are Y (yes) or N (no). The Send EOF Char defaults to N.

Send Line Feeds - This is the parameter that controls whether the computer transmits line feeds at the ends of lines. Acceptable responses are Y (yes) or N (no). The Send Line Feeds defaults to N.

DEBUG MODE (PROTOCOL ANALYZER)

To toggle the debug mode on and off, press F8 from the main terminal emulator screen. It is used for troubleshooting equipment connected to the terminal emulator. When the debug mode is on, data displays beginning at the current cursor position. The ASCII values of any bytes received display rather than the characters themselves. Data can be displayed in either decimal or hexadecimal format. The default display mode is decimal.

To change the display mode setting:

1. Press F1 (Cnf) from the main terminal emulator screen.
2. Type **T.**
3. Change the *Prot Base* parameter in the Terminal Configuration window.

NOTES

WARRANTY

LIMITED WARRANTY

The Seller warrants that the standard hardware products sold will be free from defects in material and workmanship and perform to the Seller's applicable published specifications for a period of 18 months for hardware, and 3 months for software, from the date of the original invoice. The liability of the Seller hereunder shall be limited to replacing or repairing, at its option, any defective products which are returned F.O.B. to the Seller's plant, (or, at the Seller's option, refunding the purchase price of such products). In no case are products to be returned without first obtaining permission and a customer return authorization number from the Seller. In no event shall the Seller be liable for any consequential or incidental damages.

Equipment or parts which have been subject to abuse, misuse, accident, alteration, neglect, unauthorized repair or installation are not covered by warranty. The Seller shall make the final determination as to the existence and cause of any alleged defect. No warranty is made with respect to custom equipment or products produced to the Buyer's specifications except as specifically stated in writing by the Seller in the contract for such custom equipment.

This warranty is the only warranty made by the Seller with respect to the goods delivered hereunder, and may be modified or amended only by a written instrument signed by a duly authorized officer of the Seller and accepted by the Buyer.

Warranty and remedies on products not manufactured by the Seller are in accordance with warranty of the respective manufacturer. THE SELLER MAKES NO OTHER WARRANTY OF ANY KIND WHATSOEVER, EXPRESSED OR IMPLIED; AND ALL IMPLIED WARRANTY OF FITNESS FOR A PARTICULAR PURPOSE WHICH EXCEEDS THE AFORESAID OBLIGATIONS IS HEREBY DISCLAIMED BY THE SELLER.

IN CASE OF DIFFICULTY

If you experience difficulty with this equipment, check the following, as appropriate:

1. **Switch settings**
2. **Signal levels**
3. **Software configuration**
4. **Connections between Dantel's equipment and your equipment.**

If there is still a problem, substitute equipment that is known to be good. For additional assistance, call Dantel's Technical Field Service Department weekdays, 6 A.M. to 5 P.M. pacific time:

1-800-4DANTEL (1-800-432-6835).

If a thorough checkout shows a piece of equipment has malfunctioned, you may return it to the factory. For repairs and emergency replacements, obtain a Return Material Authorization (RMA) number from the Customer Service Representative at **1-800-4DANTEL** (1-800-432-6835).

To ensure expedient processing of your order, provide a purchase order number and shipping and billing information when requesting an RMA number. Also, when the units are returned to Dantel, include a description of the failure symptoms for each unit returned. Send defective equipment to:

Dantel, Inc. • 2991 North Argyle Avenue • Fresno, California 93727-1388

Dantel

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