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# PREFACE

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PressureMAP is the foundation of a family of personal computer software programs designed exclusively for the telecommunications industry. Communicating with Cable Pressurization Automatic Monitoring Systems (CPAMS), PressureMAP monitors pressurization-related data and activity continually throughout the day and night to provide a wealth of useful information for managers and maintenance personnel.

Designed for the person with little or no computer experience, PressureMAP is a user-friendly, menu-driven computer program. It can be accessed directly, via modem or over a company Local Area Network (LAN). Program output is presented in a concise, understandable report format. PressureMAP Version 27 users who run the program on either an SCO UNIX 5.0.7 operating system or the Linux operating system can also avail themselves of the powerful web browser-based PressureWEB application. PressureWEB offers hyperlinked access to key PressureMAP system information and reports, plus an online calculator and System Studies' comprehensive *Cable Pressurization Theory & Practice Manual*.

PressureMAP supports a variety of CPAMS equipment, including the System Studies Dial-a-Ducer, 289H Loop Surveillance System, uM260 Micro Monitor and Universal Stand-Alone Module. It also provides monitoring for Chatlos/Hercules, Lancier, Sparton, TELSEC and Nicotra monitoring systems. PressureMAP supplies the following information for each monitored cable pressure system:

- Complete monitoring device data
- A full history of all device readings
- A daily maintenance task dispatching summary which prioritizes the most critical problem conditions
- A System Quality Index, designed to compare the quality of cable routes and offices
- Extensive CPAMS information
- A CPAMS backup/restoration option

In addition to the features outlined above, PressureMAP also provides numerous other capabilities. Included with PressureMAP are four manuals to aid in the setup and use of the program. The MAP System Installation Manual explains how to get PressureMAP up and running on the applicable UNIX or Linux-based MAP Engine computer, as well as offering help in troubleshooting common hardware setup problems. The PressureMAP Operations Manual describes, in detail, the many features and functionality of the computer program. The MAP System Administration Manual assists the system administrator in maintaining system security, controlling login accounts for users, backing up and restoring CPAMS data, and system troubleshooting. Finally, this Data Entry Manual describes how to organize office and device data and perform the data entry process.

The basic PressureMAP configuration accommodates up to 25 cable pressurization systems or "offices" on a single MAP Engine computer. This initial monitoring capability can be increased, through the purchase of individual office licenses, to accommodate up to 250 offices. Each office is defined by a customized database that is constructed from the records kept by the telephone company. Using the PressureMAP Data Entry Editor, office and device information is entered into the PressureMAP database. Once the data entry phase is completed, the PressureMAP database will contain a comprehensive record of all the office and device information for your pressurization system.

### ***Organization of the Data Entry Manual***

The Data Entry Manual is divided into chapters or sections, each addressing a different aspect of the PressureMAP Data Entry process. Sections 3 through 8 are devoted to describing *data preparation* for various CPAMS monitors. Section 9, *Special Data Entry*, describes the 289H LSS data conversion process, including Access Number Maps, the Transfer File Editor, and the Export Device Histories functions of the PressureMAP program.

As part of the data preparation process, it must be determined what, if anything, needs to be added to the pressurization system to meet PressureMAP's requirements. It is possible that additional devices will need to be installed in order to fulfill the minimum system requirements.

The three primary information source records (stickmaps, Master Transducer Logs, and CPAMS printouts) must be obtained and checked to ensure that they are current and accurate. These three records are then cross-checked to confirm that all common data are in agreement. Kilofeet distances and OAUs must be calculated and recorded for the stickmaps that lack this information. Next, Location Codes are assigned to all device locations and recorded on the appropriate stickmaps. Data is then compiled from these source records and placed onto the Office Data Form and Device Data Forms to streamline data entry.

Once all the system data has been compiled and verified for an office, you can input the information into the PressureMAP database. This Data Entry Manual describes the process in detail in Section 10, providing step-by-step instructions for entering both office and device data for the individual office. The manual also provides data entry instructions for creating Report Centers, Alarm Centers and Cable Activity Logs.

Sections 14 through 16 explain the data organization and input requirements for three of System Studies' special application monitors: the uM260 Micro Monitor, Dial-a-Ducer and Universal Stand-Alone Module. These monitor types differ from the CPAMS equipment addressed in Sections 3 through 8 in that they utilize slightly different Office Data Forms and have some unique data entry requirements.

Located at the end of this manual are a Glossary and five Appendix sections. The Glossary defines some of the most commonly used terms that pertain to PressureMAP and cable pressurization in general. Appendix 1 lists and describes the many different PressureMAP device types. In Appendix 2, examples of completed Device Data Forms illustrate how to compose the device data for a route that has affiliated device locations designated as "Office 2" and "Field 2." Step-by-step instructions are provided in Appendix 3 for creating and editing a Positive Air Flow (PAF) office/database. In Appendix 4, the data entry requirements for creating a Mega Office and transferring individuals devices into the office are explained. Finally Appendix 5 lists each text field of the Character Delimited Format (CDF) text file created by the Export Device History option of the PressureMAP Special Data Entry menu.

## ***Getting Started***

This Data Entry Manual provides the essential information needed to get your PressureMAP program on-line and functioning properly. In order to set up PressureMAP, the following basic requirements must be fulfilled:

- The necessary computer hardware must be installed and configured
- The computer's operating system must be installed
- The PressureMAP software must be installed
- The data for each office to be included on the PressureMAP system must be compiled and input into the PressureMAP database

PressureMAP will operate correctly only if the procedures above have been carefully completed. Lack of compliance with any of the PressureMAP setup procedures may result in an inoperative program. Or, what is worse, the output produced by PressureMAP may appear to be correct, but it will be incorrect because the program is working with invalid data. It is important to understand that if the PressureMAP database does not contain accurate office and field monitoring device data as well as correct device relationships, the actual pressurization system may be misrepresented. In this case, it is impossible for PressureMAP to correctly monitor the system.

The setup/data entry procedures described in this manual should be implemented by personnel who are familiar with the operation of the computer system and the CPAMS equipment being monitored. Once the MAP Engine computer has been placed in operation, the database constructed, and the necessary modem/LAN communications established, you can begin to operate PressureMAP. Please refer to the *MAP System Operations Manual* for information on using the program.

## ***PressureMAP Hardware Requirements***

The PressureMAP Version 26 system can be run on a MAP Engine IV or V computer. Due to the complex performance and communications requirements of the multi-user PressureMAP software, only this specified equipment can be used to run the program. The components selected for these computers were assembled and certified based on extensive tests of various computer and hardware combinations. For more information on the MAP Engine computer, refer to the *MAP System Administration Manual*.

## ***General Information***

As explain above, this manual supplies both general information about what is needed to set up PressureMAP and detailed instructions on how to proceed through the data entry process. Before you perform the PressureMAP setup procedures described in the following sections, it may be helpful to take some time to familiarize yourself with the special features of the program and how the documentation is laid out.

## ***Reports and Screens***

In the text of this manual, example reports and screens model the Sparton, Chatlos/Hercules, Lancier, Nicotra, TELSEC, 289H LSS and other System Studies monitoring equipment on a multi-user MAP System. If your system setup differs slightly from what is depicted in the text, don't be alarmed. MAP Systems can be configured to support a variety of functions and capabilities. So if the documentation shows options not in your MAP System, please feel free to contact your System Studies Customer Support Representative for more information.

### *Language Selection*

The specific language for a particular PressureMAP User Account is generally assigned by the System Administrator in the User Management program, but each user may also select Option 4, Language Selection, from the System Options Menu at any time when using the MAP program. The four language selections are English, Spanish, Swedish, and French Canadian, with English being the default selection. While not all of the screens in the MAP program are translated from English to the selected language, the ones that are translated should enable you to quickly find device data and histories.

### *Special Function Keys*

In PressureMAP certain function keys allow for special input and output. The names of these special function keys may vary among keyboard manufacturers, but the operation of the keys will remain the same. For example, the key labeled **<Return>** on one computer system will perform the same function as the key labeled **<Enter>** on another. Below, the keys which have special meanings are described:

#### *<Backspace>*

The **<Backspace>** key may also be identified as **<BS>**, **<Rub>**, **<Rubout>**, or **<Ctrl-H>**, depending on the machine being used. **<Backspace>** is used to correct entry errors on the input line BEFORE **<Return>** has been pressed. To correct an entry, press the **<Backspace>** key and the cursor will move one space to the left, deleting any existing character in that position. Hit **<Backspace>** repeatedly until the incorrect entry has been removed. After backspacing has been completed, you may then retype the correct entry.

#### *<Esc>*

If you wish to cancel one of PressureMAP's long listings, you may do so by hitting the **<Esc>** key. Used as a data interrupt key, **<Esc>** halts the listing of information and returns you to the last menu displayed.

#### *<Return>*

The **<Return>** key (also identified as **<Enter>**, **<CR>**, or **<Send>**) is the entry key. **<Return>** completes an entry made by the user and initiates the program response. Depending on your keyboard setup, **<Enter>** on the keypad may not work the same as **<Return>** on the main keyboard.

Make a special note that pressing **<Return>** after typing an entry not recognized by the program will cause the program to re-display the last prompt. At this point, you should try to enter a valid response to the prompt issued by the program. Also, once a MAP program menu selection has been made, **<Return>** itself is always a valid response. Pressing **<Return>** will finish the current function and move the cursor back to the previous menu.

#### *The < and > Keys*

Pressing the **>** or **<** keys will move you through a list of possible data entry choices for many of the Office Information fields, as well as selected device information fields. The Office Information fields that utilize this key function are: Monitor Type, Baudrate, User Defined Devices, Office Mode, and Modem Site. The TD Type field in 289H device data entry also uses this special key function.

#### *Data Interrupt Keys*

There is one key sequence that will interrupt a data listing which is scrolling across the screen. Pressing **<Ctrl S>** will allow the listing of information to be paused, or continued, on a toggled basis. By pressing these two keys simultaneously (much like creating an uppercase S, except that you use the **<Ctrl>** key instead of the **<Shift>** key) you are instructing PressureMAP to either pause

the information being scrolled or continue the listing of data. Although <Ctrl S> works as a toggle on most computers, you may need to use <Ctrl Q> to resume scrolling.

**Edit Mode Key**

When entering information into data fields such as the **Address** or **Remarks** fields, it is now possible to invoke a field editor function. This special function enables you to overwrite or insert words or characters into a field, as well as replace all of the information currently in the data field. Pressing the <Ctrl N> key allows you to switch from the default replace mode to the overwrite mode. Once you are in this mode, you can toggle between the overwrite or insert modes by using the edit mode key (<Ctrl N>). To confirm which editing mode you have selected, a mode indicator message is displayed on the top dashed line of the edit window, near the right margin. A sample data entry screen with the field editor in the overwrite mode is shown in SCREEN 1-1.

```

Device info for EXAMPLE: <PgUp>, <PgDn> more, <Esc> finish screen
                        <Return> next field, <Backsp> delete char, <Ctrl B> previous field

----- OVERWRITE -----
Device #: 011-A2-021A          Type: MF Range: 19.0 S-M: 6.8
Address: MH102-NORTHWEST AND SOUTH STS   Loc: 20 Pipe: A   OAU: 8.5
TD Type: AF/19.0
Sheath(s): 01      03      748

Cable:          32   Prim Pair: 1681   Sec Pair: TD13   Sort Key: RASE
Plat #: RT UG 73   Stickmap: 3

Remarks:*MF ON ROUTE A IS ALSO USED IN NORTHWEST OFFICE
          IT IS DEVICE 025-15 IN THAT OFFICE

Readings      Curr Last Tdy  -1  -2  -3  -4  -5  -6  Wk-1 Wk-2 Wk-3 Wk-4
-----
              7.5  7.5  7.5  8.0  8.0  7.5  7.5  7.5  8.0  8.0 15.5  7.5  7.5
-----
                                           PressureMAP XX.XX.XX
    
```

SCREEN 1-1: DATA ENTRY SCREEN

The **Replace Mode** is the default; it's the mode that the editor is in when moving to a data entry field. If you enter any character (other than a carriage return) into a field when in the replace mode, that character will replace all of the previous information in the field.

The **Overwrite Mode** allows you to overwrite and replace individual characters in the field. Any character entered when you are in overwrite mode will replace the character at the current cursor position, and the cursor will advance to the next position in the field. Any characters entered at the end of the current text will be added to the data field.

The **Insert Mode** enables you to insert characters into an existing data field. The characters are inserted into the data field before the cursor position, and the cursor moves to the next position in the field. Any characters entered at the end of the current text will be added to the data field.

**Invoking the Field Editor**

As stated above, the field editor feature is invoked by pressing the edit mode key (<Ctrl N>). Once you are in this editing mode, the special edit key functions (shown in TABLE 1-1) can be used to advance through the data fields.

| <u>Key Name</u> | <u>Key Used</u>           | <u>Action</u>     |
|-----------------|---------------------------|-------------------|
| Edit Mode key   | <Ctrl N>                  | Enter Edit Mode   |
| Left key        | <Left Arrow> or <Ctrl G>  | Left, Back        |
| Right key       | <Right Arrow> or <Ctrl V> | Right, Forward    |
| Home key        | <Home> or <Ctrl W>        | Start of Field    |
| End key         | <End> or <Ctrl E>         | End of Field      |
| Backspace key   | <Backspace/Ctrl H>        | Delete, then Back |
| Delete key      | <Del> or <Ctrl O>         | Delete            |
| Enter key       | <Return> or <Ctrl J>      | Complete Field    |
| Terminate key   | <Esc>                     | Complete Screen   |

TABLE 1-1: EDIT MODE KEY DEFINITIONS

The overwrite and insert edit modes share the following cursor movement and deletion keys. In either edit mode, you can move the cursor backward and forward in the text using the left and right keys. The cursor can be positioned anywhere from the first character in the data field to the position just beyond the last character of the data field. The home key moves the cursor to the first character in the field, and the end key to just beyond the last character of field, including any "hard" spaces in the text. The backspace key deletes the character in front of the cursor, and moves the cursor back one position. The delete key removes the character at the current cursor position and leaves the cursor at the same position in the text.

**Note:** In Replace Mode the left and right keys move back a field or advance a field. Only in Overwrite and Insert modes do they operate on the position within the field.

You can hit the edit mode key at any time while in Replace Mode to change to the Overwrite or Insert Modes. If you select the Overwrite Mode after entering one or more characters in the Replace Mode, all text entered so far **overwrites** text in the field from the beginning, and the cursor is positioned after the new text. The net effect is as if you had selected Overwrite Mode before any text was entered.

When you have finished entering or modifying the data, you can switch back to the Replace Mode by exiting the editor screen using the <Esc> key.

### ***Screen Browser Function Keys***

When using an editor login such as CPAMS, PDATA, CDATA or ADATA, a feature called Screen Browser enables you to use the special Browser Keys. The screen and input key format allows you to browse through the data presented on the screen. You can scroll up or down a single line or a page at a time, or to the top or bottom of the report. If you have selected a list or range of task numbers, a specific task or device may be found by using the **F**, **N**, or **B** keys. The Browser Key format also allows you to group lines within the report, allowing you to customize each report's output. Knowing how to properly use the Screen Browser Function Keys will save time when you would like to quickly view or print a report. This section offers a detailed definition for each of these keys.

**Note:** Not all keyboards or remote access programs will support the special function keys such as <PgDn> or <PgUp>. If this proves to be the case, only the single character keys such as **J** or **K** can be used.

**<Esc>**

Entering the **<Esc>** key will exit the current screen, returning you to the previous menu, regardless of where you are in the report at the time.

**J**

The **J** key will move the cursor one line down in the spreadsheet. The **<Tab>**, **<Ctrl J>** and **<Down Arrow>** keys will also move the cursor down one line.

**K**

The **K** key will move the cursor one line up in the spreadsheet. The **<Up Arrow>** key will also move the cursor up one line.

**H**

A special editor key help screen will be displayed by entering either the **H** key, a question mark **?**, or the **<Ctrl Z>** keystroke. The following special keys and their functions are displayed and can be used when moving through the spreadsheet. To exit the help screen, enter **<Return>**.

Type **U** or **<Page Up>** to scroll up one screen.

The **U** and **<Page Up>** keys will scroll up one screen of data.

Type **,** (comma), **<** (less than) or **<Home>** to scroll to the top.

The **,** (comma), **<** (less than), and **<Home>** keys will move the cursor to the first task field on the screen.

Type **D** or **<Page Down>** to scroll down one screen.

The **D** and **<Page Down>** keys will scroll down one screen of data.

Type **.** (period), **>** (greater than) or **<End>** to scroll to the bottom.

The cursor will move to the last task field on the screen by pressing either the **.** (period), **>** (greater than), or **<End>** keys.

Type **<Ctrl L>** to clear and redraw the screen.

The **<Ctrl L>** keystroke will redraw the screen. This keystroke is useful when viewing remotely since it clears any characters created by line noise.

Type **P** to print the report.

Selecting **P** allows the user to print to a system printer or the screen. Printing to the screen is useful when logged in remotely because it allows the user to capture the report and print to a printer attached to a Windows computer.

After entering **<P>** you will be prompted to select a printing option: use the default printer, select a system printer for the current print job, or print to screen. If more than one printer is configured for the MAP system, the default printer is the one selected at login, and the option to select a printer displays the available printers in spreadsheet selection mode (described later in this section). Entering **<Esc>** from the spreadsheet takes you out of the selection process and gives you the default printer.

When you select the Print to Screen option, the screen will prompt you to turn on the printer before the process begins, and to turn the printer off when the report is done.

## DATA ENTRY

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Type **X** to export the report to a DOS floppy disk.

This option allows a user at the MAP computer to export the selected information to a DOS formatted floppy disk in either drive A or B of the MAP System. When **X** is selected, you will be asked to identify the drive the floppy is in and the name of the file you wish to create.

### *Pattern Search Keys*

The next four keys all search for a pattern of characters that the user types in. Because the report you have selected may contain information for many devices, searching for a character pattern can greatly aid in finding the information you need. A pattern can be as simple as a single number or letter, or as complex as a utility hole number or pipe name. For example, if you want to view device information for a device that you know is located in MH 592, then the following pattern entry will display all devices in that utility hole:

```
{MAP Prompt}: MH592
```

Type **G** to group lines.

The Group Option will modify the screen display to show only the lines that include the user specified pattern. You enter a pattern when the following prompt is displayed:

```
Group Which Lines?
```

If you wish to redisplay the entire spreadsheet after viewing the grouped lines, simply select **G**, (for group) again and press the **<Return>** key when the prompt is displayed.

Type **B** to search back.

This pattern search function will scroll back through the spreadsheet, stopping each time the user supplied pattern is found. This pattern is entered when the following prompt is displayed:

```
Search Back For?
```

Type **F** to search ahead.

This pattern search function will scroll forward through the spreadsheet, stopping each time the user supplied pattern is found. This pattern is entered when the following prompt is displayed:

```
Search Forward For?
```

Type **N** to search again.

The **N** key will search for the next occurrence of a previously entered pattern. It will move the cursor either forward or backward through the spreadsheet, depending on which search function has been selected.

### *Program Criteria*

The following information is listed to help clarify special features found in the PressureMAP program. Understanding the use of these features will help to minimize the time you spend inside the PressureMAP environment by maximizing your productivity.

### *Alternate Consoles*

The multi-user operating system provides the capability of switching consoles at the computer during normal user operation. A user session begins on one of the eight user designated consoles. If

a user is logged into the program at the MAP Computer, the MAP Program's Status Report is available by pressing the <Alt> and <F12> keys. A list of incoming alarm activity can be viewed using <Alt><F10>. Consoles may be switched back and forth without disrupting normal user or program operations. For more information on the MAP Program's Status Display, please refer to the Appendix 2 of the System Administration Manual.

Beginning with PressureMAP Version 25, it is also possible with a special login and password to log onto a PressureMAP system remotely and view alternate console output. For more information on this capability, please reference the end of Section 4 of the System Administration Manual.

### *Multiple Printers*

The MAP software allows multiple printers, local and remote, to be set up to receive printed reports from the system. A system default printer is designated through System Administration. However, when logging in, a user may designate a printer for screen capture or Browser printing during that login session, while having the ability to direct individual print jobs to any specified printer. In addition, printers may be configured to receive reports from other MAP systems. Please note that the user can print to one printer at a time.

### *Capitalization*

You may enter either uppercase and/or lowercase letters for input at any MAP System prompt. The program will automatically capitalize all alphabetic characters before it uses them.

### *Office Name Abbreviations*

Within the MAP System, you may enter an office name abbreviation (instead of a full office name) any place that an office name is expected. In addition to monitor office names, the MAP System will also accept an abbreviation of the two keywords SYSTEM and OTHER. Office name abbreviations have a minimum length of two characters. For example, if a system has an office: "1. WARSAW," legitimate office name abbreviations would be WA, WAR, WARS, and WARSA. Also, if the system has the additional two offices: "2. WALLINGFORD" and "3. WASHINGTON," then the abbreviation WAR would uniquely specify office 1, WAL would specify office 2, and WAS would specify office 3. Although the abbreviation WA is ambiguous, the MAP software will accept such an office name by choosing the first office that matches the abbreviation; in this case, it would be office "1. WARSAW."

### *Dash Placement*

Monitoring device identifiers, such as P-023, AF-011 and T-004, do not require that the dash (-) or the zeros be entered when requesting information. PressureMAP will recognize a Device Number such as P23. Note that this is in effect only if you are not using user-defined device numbers. For additional information refer to "Selecting Devices by Access Number" in this section.

### *Non-Essential Alphabetical Characters*

When requesting information on pressure and flow transducers, you are not required to enter identifying letters to receive valid output. This is because PressureMAP will use pressure and flow transducers (not contactors, volume counters, etc.) as the default device types whenever a device number is entered. For example, P-007 (Chatlos) and T-007 (Sparton) may be input into each respective system by typing only the number 7. (Note that this feature is in effect only when user-defined device numbers is not turned on.) Also, notice that if you are requesting information concerning a device other than a pressure or flow transducer, you WILL need to enter the CPAMS device code to fully reference the device desired. (Refer to Appendix 1 for a complete list of the valid CPAMS device codes.)

### *Accessing Devices*

Often, when a MAP program requests an office name, task number or device number, it is possible to make a multiple selection. Using the List/Range entry method, you can specify just about any combination of offices, tasks or devices that you may want to inspect.

#### **Office Name Syntax**

In order to specify a list of offices at a program prompt, enter all the desired offices and separate each one with a comma. For example, the following prompt indicates that you want to include office 1, 5, and 7 in the program function:

```
{MAP Prompt}: 1,5,7
```

Furthermore, a range of offices may be specified at a PressureMAP prompt by entering the lowest and highest office numbers in the range, separated by a slash (/). For example, if you want to specify that offices 5, 6, 7, and 8 be included in a PressureMAP function, then the following entry will carry out this command:

```
{MAP Prompt}: 5/8
```

To provide even more user control, both the list and the range method of requesting offices may be used in conjunction. To make use of both the list and the range methods of specifying offices, simply place the range of offices within the list being specified. The following example should help to clarify this point:

```
{MAP Prompt}: 6,8,13/15
```

This entry will successfully indicate offices 6, 8, 13, 14, and 15 for the function being carried out. (This is assuming, again, that there are at least 15 offices in your system.) If you are unsure of the available office names, type a question mark (?), followed by <Return>, for a complete list of the offices supported by your PressureMAP system.

#### **Selecting Devices by Device Number**

To generate a Specific Device Report for a single device, enter the device number, followed by <Return>. If you wish to generate a report for more than one device, enter multiple device numbers separated by commas. Hit <Return> after the last device number entered. Enter a range of devices by typing the lowest device number, a forward slash (/) and the highest number. Ranges for device numbers that begin with a letter must be entered in alphabetical order—for example, DRYER/K001. Complete the entry by pressing <Return>.

In addition to the methods outlined above, you may combine multiple selections with range selections. This feature allows you to easily create a Specific Device Report for as many devices as you wish. For example, entering 001-01, 001-03, 001-04/001-15 will give you a report for devices 1, 3 and 4 through 15 on the first relay card in an office monitored by a 289 LSS. *All* is also a valid selection, and will list all devices in the office.

**Note:** For both **Sparton** and **Chatlos** monitoring systems, it is not necessary to enter the letter *T* or *P* when accessing information on pressure or flow transducers (unless you are using user-defined device types). However, CPAMS letter coding is required when

requesting information on contact alarms or contactors. (More information on CPAMS letter coding can be found in Appendix 1 in this manual.)

### **Selecting Devices by Access Number**

If you are viewing an office that has User Defined Devices turned on, you may also select a monitoring device by entering the corresponding access number. Access numbers are entered with a leading sharp character (e.g. #001A) to distinguish them from device numbers and may be abbreviated (except for addressable transducers). For example, #1 is interpreted as #P -001 for a Chatlos L2, #T-001 for Sparton, and #001A for E2A. For 289H LSS devices, the device/access number is a card/pair combination. For example, "#2-1" is interpreted as "002-01". However, to look at a device with access number 001-02, you could enter either "#1-2" or "#2" since if you only specify the pair, the program assumes card 1.

**Note:** Unlike device numbers, you cannot separate access number with a forward slash (/).

It is important to note that the sharp (#) is already allowed as a valid character in user defined device numbers and continues to be allowed in these numbers. All user input entered with a leading sharp that **exactly** matches an existing device number (leading sharp included) are NOT treated as access numbers, but reference the matching device number. For example, if an E2A office has a user defined device number #11, then entering #11 selects the device, NOT access number 011A.

### **Finding Specific Device Information in the PressureMAP Editor via Access Number**

In offices where you have set User Defined Devices to "ON" in the Office Information Editor, it is possible to View, Change, Remove and Disable devices by entering the Access Number preceded by a sharp (#) character instead of the Device Number at the **Enter device number or <Return> to quit** prompt.

This capability is particularly useful in 289H LSS offices when it is often easier to remember a device's Access Number rather than its Device Number. A 289H LSS Access Number identifies the specific relay card and relay used to generate readings for the device. For example, Access Number 004-17 would identify the device associated with relay number 17 on the dedicated, subscriber or addressable relay card that occupies the fourth relay card position in the chassis. To view or modify Specific Device Information for this device in the data entry editor, type **#4-17** in the **Device #:** data field.

### **Selecting Devices When Access Number Translation Is Enabled**

In addition to the method outlined above, when viewing an office that has the Access Number Translation feature enabled, you may also select a monitoring device by entering the translated access number with two leading sharp characters (e.g., ##001-03).

### *Spreadsheet Selection*

When PressureMAP displays a prompt for an office name (e.g., **Which office?**), the user can enter a question mark (?) to call up a listing of all offices in spreadsheet format. The selection line for each office contains the office number, the office name, the monitor type, the phone number (or IP address), and the modem site name (if applicable). If the office is disabled, the last field will be "DISABLED". Use the up and down keys to move to the desired office, and press **<Return>** to select it. Please note that you can only select one office at a time by this method.

## DATA ENTRY

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The spreadsheet may be searched or sorted for viewing using the commands described previously in "Pattern Search Keys." For example, enter **G** at the **Select Office** prompt, then enter **289H LSS** for all offices of monitor type 289H LSS.

If a system has more than one printer configured, the user may select a printer for screen capture or Browser printing during the current session at login, via spreadsheet selection mode. The selection line for each printer contains the printer name, type (local or remote), and comment. Thereafter, whenever the user elects screen capture printing (<Ctrl P>) or Browser printing (<P>), a prompt will offer the option of selecting a printer. Please note that you can only select one printer at a time from the spreadsheet listing.

### *Kilo and Mega Data Values*

PressureMAP's data fields for information such as **Range**, **S-M/K**, **OAU**, and readings can take entries up to four characters. Because the decimal point is automatically added by the PressureMAP editor, the final digit of each entry will represent the number one place to the right of the decimal point. For data values that are in the hundreds, thousands or millions, you need to enter the numbers using a K (kilo) or M (mega) format, as shown in Table 1-2. If the value can be displayed in four digits, it will be, as shown in the first two examples in the table. If the value is too large to be displayed in four digits, the fractional portion of the value is rounded or truncated, as shown in the last two examples.

| Value      | Input       | Display |
|------------|-------------|---------|
| 500        | 5K or .5K   | 500.    |
| 1,000      | 10K or 1.0K | 1000    |
| 10,000     | 100K        | 10K     |
| 100,000    | 1M or .1M   | 100K    |
| 1,000,000  | 10M or 1.0M | 1M      |
| 2,700,000  | 27M or 2.7M | 3M      |
| 99,900,000 | 999M        | 100M    |

TABLE 1-2: KILO/MEGA DATA VALUE ENTRY

### *Quit/Logoff*

The Quit/Logoff option is mentioned here to emphasize its importance. Always use the Quit/Logoff option to exit PressureMAP. Alternate exit routes (such as hanging up your modem connection) may temporarily retard system response to the next caller.

### *Help Screens*

Entering a ? <Return> at most of the prompts will bring up a help screen which will explain the current procedure. Note that not all menus have help screens. However, at prompts where a question mark is entered to retrieve a list of available offices, type **HELP** to request the help screen.

### *Choosing an Option That Is Not Displayed*

Choosing an option that is not displayed will have one of two results. It will either cause the prompt to be repeated on the screen, or the entire menu will disappear and be re-displayed.

### *Question Mark*

At many of the system prompts, you may enter a ? followed by <**Return**> to call up a help screen. If no help screen is available, the prompt will be re-displayed. However, at a prompt for an office name (e.g., **Which office?**), the user can enter? to call up a listing of all offices in spreadsheet format.

### *Arrow Keys*

On some terminals, pressing an arrow key will end the current procedure, regardless of which data field you are working on at the time. This happens because the terminal is slower sending characters than PressureMAP expects. While pressing most keys sends a single character to the computer, the arrow key (and some others) sends a series of characters. If the terminal takes too much time between one character and the next, PressureMAP will read the first character of the series as if it were a single character. The first character in the arrow key series happens to be a break character. We recommend that you avoid using the arrow keys. Other possible problem keys are: <**Home**>, <**Page Up**>, <**Page Down**>, <**End**>, <**Insert**>, <**Delete**>, <**Num Lock**>, <**Scroll Lock**>, and <**Print Screen**>.

### *Number Keys*

Most keyboards have a <**Num Lock**> key which acts as a toggle switch for the numeric keyboard. Within the MAP System, the number keys will work only if the <**Num Lock**> key is toggled for numbers. If the <**Num Lock**> key is toggled against numbers, the keys of the numeric keyboard may send erratic messages that interfere with either the MAP software or the communications software.

### *Default Option*

At many of the prompts, a default option will appear in parentheses. A default option is a value or entry that is preprogrammed into the system. The default option may be selected by pressing <**Return**>.

### *Time Default*

After five minutes of inactivity, the program will back out of some menus and display the previous screen. This process will continue until the program backs up to the MAP Programs Menu. The 5-minute timeout prevents users from inadvertently tying up the program. This default cannot be changed by a system administrator.

## ***Documentation Conventions***

The following standards are used throughout the MAP System manuals. Please make sure you understand the following conventions so that you can benefit fully from the reference materials.

### ***Case Sensitivity***

MAP Programs are not sensitive to the case that is used for input; you may enter information in either uppercase or lowercase letters. However, in the documentation all user input is displayed in uppercase (CAPITAL) letters.

## DATA ENTRY

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The use of uppercase letters in the documentation should clarify what is actually input by you, the user. Remember that when you need to enter something into the program (such as an office name), you may choose either uppercase or lowercase letters for your entry.

If an exception to this rule exists, the documentation will clearly state when you will need to use uppercase or lowercase letters specifically.

### *Typographic Conventions*

The following typefaces have special meanings as they appear in the text of the documentation. Their uses are as follows:

#### **Monospace**

This typeface represents text as it will appear onscreen or in a PressureMAP report. Monospace is used to display what is actually output by the program.



Angle brackets in the text indicate a key on your computer keyboard. For example, the following represents the Return Key: *<Return>*

#### **Bold**

Within the MAP Manuals, **Procedures** are used to outline the steps that you need to follow in order to accomplish different tasks. The actual keystrokes used in the procedures are printed in bold italics and simply show the most basic steps that are required to operate the program.

In addition to the Procedures, other important items may appear in bold characters.

### *PressureMAP Tables*

A key requirement of the PressureMAP data entry process is the entry of specific Device Types and their associated Transducer Types (TD Types). Device Types are two-letter designations that typically represent a device's position or function in the cable pressurization system as well as the actual type of device (pressure transducer, contact alarm, etc.).

Transducer Types pertain specifically to 289H LSS or Dial-a-Ducer offices. They provide PressureMAP with additional information regarding the function and output of the device. For example, the TD Type designation for an addressable flow device would not only indicate that it is an addressable flow transducer, it would also identify the manufacturer and flow range of the device and specify how the flow value will be displayed.

There are several TD Type tables and one Device Type table that need to be referenced during the PressureMAP data entry process. These tables, including explanations of the various designations, are located in Appendix 1 of this manual.