PanelMate®
Transfer Utility
User's Guide

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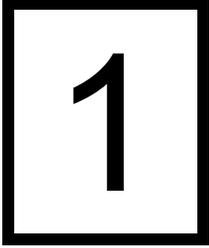Use the Advanced Technology Services website to find product information.
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Table of Contents

Introduction

1

This chapter explains how to install your Transfer Software, how to place the PanelMate Operator Station into Transfer Mode, and how to transfer the application. Specifically, this chapter includes:

- *Transfer Utility Overview*

- *Installing the PanelMate Transfer Software*

- *About PanelMate Transfer*

- *Transfer Mode*

- *PanelMate Transfer Steps*

Transfer Utility Overview

The PanelMate Transfer Utility is used to transfer information into the PanelMate unit. The types of information that can be transferred include:

- Executive Firmware
- Network Drivers
- PLC/Communications Drivers
- User Configurations
- PanelMate Power Series Options (Requires an Options Diskette)
- I/O Points

Installing the PanelMate Transfer Software

The PanelMate Software Kit contains a CD-ROM for fast, easy software installation. Select **Install Software**, then **Install PanelMate**, and then select the software files you wish to install:

- Configuration Software files
- Configuration Database files
- Symbol Factory Clip Art files
- Transfer Utility files (select to install Transfer Utility)
- Executive Firmware files
- PanelMate PC Runtime files

Note: If you are upgrading your configuration software, you do not need to install the Configuration Database files. However, if you do not deselect this box, your existing database will be renamed and a new database will be installed. On-screen prompts detail available options.

About PanelMate Transfer

If you select the **About** button on any of the dialog boxes displayed within the PanelMate Transfer, the **About PanelMate Transfer** dialog box will be displayed. The **About PanelMate Transfer** dialog box will show the PanelMate Transfer version number and list the available memory, math coprocessor, and disk space information.

Transfer Mode

The PanelMate operator station must be in Transfer Mode before you can upload or download into the unit's memory or install options.

To place the PanelMate operator station into the Transfer Mode you can:

- Manually place the PanelMate operator station into the Offline Mode then select the Transfer Mode.

- Remotely place the PanelMate operator station in Transfer Mode if you are using a supported PLC communications network and have the Remote Transfer Option installed in the online unit.

If the PanelMate operator station cannot be placed into the Transfer Mode through the above normal means, it can be forced into the Transfer Mode in one of the following ways:

- To force a Keypad Unit with four control buttons into the Offline Mode, press the first and second control buttons simultaneously immediately on power up. Then select the Enter Serial Transfer Mode template or the Enter Network Transfer Mode template to enter the Transfer Mode.

- To force a Keypad Unit with five control buttons into the Offline Mode, press the second and third control button simultaneously immediately on power up. You can then select the Enter Serial Transfer Mode template or the Enter Network Transfer Mode template to enter the Transfer Mode.

- To force a Touchscreen Unit into Offline Mode, press the lower right corner once the touchscreen controller diagnostics are completed. (If you press the lower right corner on the touchscreen before the touchscreen diagnostics are completed, you will receive an error.) You can then select the Enter Serial Transfer Mode template or the Enter Network Transfer Mode template to enter the Transfer Mode.

- To force a PanelMate Power Series operator station directly into the Transfer Mode, disconnect the Electronics Module from the monitor/keypad section of the unit.

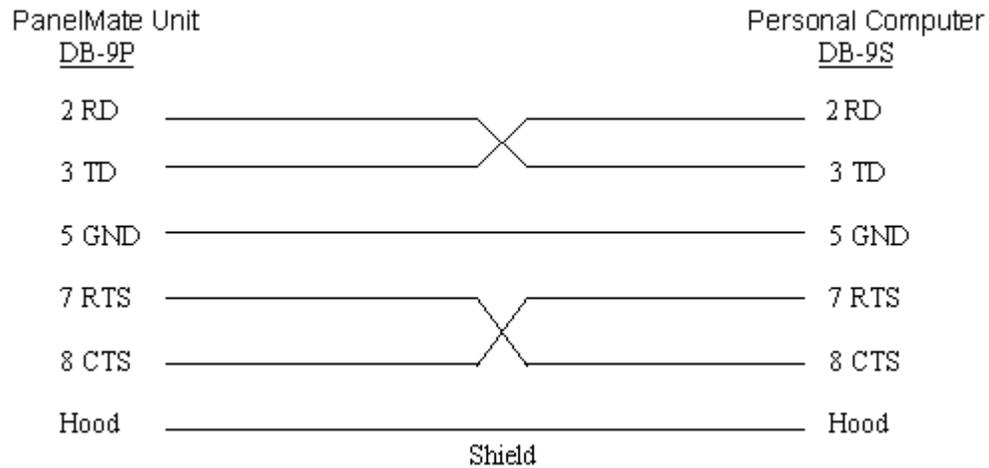- Refer to the cable pinout information on the following page.

Downloading Drivers to a PanelMate Unit

- In the VCP Transfer Utility, choose the "Executive" tab and select the proper Executive Firmware to download to the PanelMate unit.

- Click the button labeled "Add to Operation List."

  Note: In order to download to a PanelMate for the first time or to clear the existence of another driver, the PanelMate must first be loaded with Executive Firmware.

- Choose the "Driver" tab.

- Select the appropriate driver to be downloaded to the PanelMate.

- Click the button labeled "Add to Operation List."

- Place the PanelMate unit in Serial Transfer Mode.

- Connect a serial transfer cable from the correct port on the PC to port 1 on the PanelMate. (See cabling below.)

- Click "Start" at the bottom of the VCP Transfer Utility window.

- **Note:** For a more detailed description of downloading procedures and troubleshooting see *PanelMate Power Series, PowerPro, Pro LT Transfer Utility User's Guide.*

Serial Transfer Cables

Cable P/N 0518

Cable P/N 0818

(PanelMate Power Series 1500 and PanelMate 500 only)

PanelMate Unit RJ-11		Personal Computer DB-9S
3 RD	✕	2 RD
5 TD		3 TD
1 GND		5 GND
4 RTS	✕	7 RTS
2 CTS		8 CTS
Hood	Shield	Hood

RJ-11 pin configuration

RJ-11

Pin 1
Pin 6

From Cable
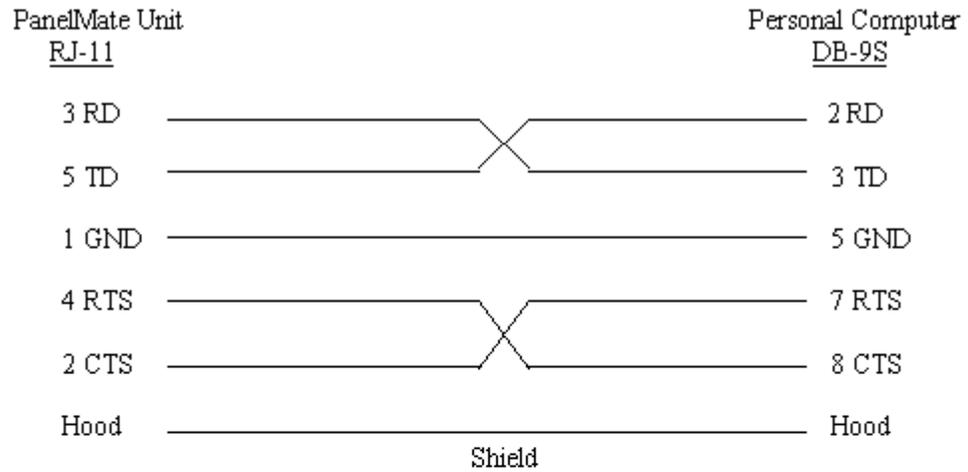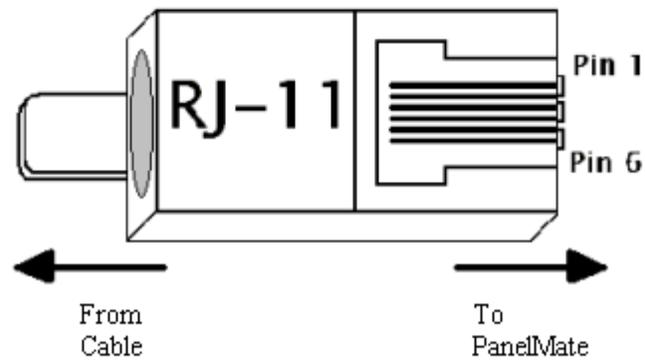
To PanelMate

PanelMate Transfer Steps

The following steps are for new users who are unfamiliar with transfers to a PanelMate operator interface station. If nothing has been downloaded to your new PanelMate operator interface station, all the steps must be completed for your application to run correctly. After completing the sequence of steps once, if you need to change any of the items in the PanelMate operator interface station, you only need to perform the steps necessary to transfer that item (e.g., a different driver).

- Create a configuration. Note that the configuration must be exported before the configuration can be downloaded to a PanelMate operator station.

- Configure the port parameters in the PanelMate Transfer - Port Params. Tab dialog box.

- Select the appropriate Executive Firmware and a network driver (if applicable) and add to the **Operation** list box in the **PanelMate Transfer - Executive Tab dialog box**.

- Select a driver and add the driver to the **Operation** list box in the **PanelMate Transfer - Driver Tab dialog box**.

- If you purchased options, add the options to the **Operation** list box in the **PanelMate Transfer - Options Tab dialog box**.

- Add a configuration file to the Operation list box in the PanelMate Transfer - Configuration Tab dialog box.

- Place the PanelMate operator station in Transfer Mode.

- Connect the transfer cable and press the Start button in the PanelMate Transfer dialog box to begin the transfer.

PanelMate Transfer Software

2

This chapter overviews your PanelMate units memory areas, and describes each Transfer Software dialog box. Specifically, this chapter includes:

- *PanelMate Network Transfers*

- *PanelMate (V2.11) Transfers*

- *Operation List Box*

- *System/Configuration Information*

- *Operation Status*

- *PanelMate Transfer Tabs*

PanelMate Memory

PanelMate operator interface station memory is segmented into three main areas: Executive Firmware memory, Driver memory, and User Configuration memory.

The PanelMate operator interface station also reserves memory to store options. Options can be downloaded at anytime while in Transfer Mode.

Executive Firmware Memory

The Executive Firmware is the base firmware of the PanelMate operator interface station. A Network Driver lets you download or upload over Allen-Bradley Data Highway, Data Highway Plus, Remote I/O, or Modicon Modbus Plus networks. Without a network driver, you can only download or upload serially with the Executive Firmware.

The Executive Firmware and Network Driver (if desired) must be downloaded before you can download configurations or PLC drivers.

The Executive Firmware contains the operating system and all software which comprise the online functionality. You can upgrade a PanelMate operator interface station by downloading new Executive Firmware without having to ship the unit back to ATS. You can only download Executive Firmware or Network Drivers, you cannot upload them.

Driver Memory

The Driver Memory is where the PLC or Host drivers are stored. Before going online, you must download the PLC or Host Driver to match your User Configuration. PLC drivers must be downloaded after the Executive Firmware and PLC Network Driver, and before configurations. You can only download PLC drivers, you cannot upload them.

User Configuration Memory

User Configuration memory is where you store your configuration. The PanelMate operator interface station may have up to 100 pages of memory (50 pages for PanelMate Series 1500). Configurations must be downloaded after the Executive Firmware, Network Driver, and PLC drivers. You can upload and download User Configurations.

PanelMate Transfer

When Transfer is selected from the File Menu, the PanelMate Transfer dialog box will appear.

Tip: The PanelMate Transfer Editor can also be used to transfer V2.11 configurations. See
PanelMate V2.11 Transfers
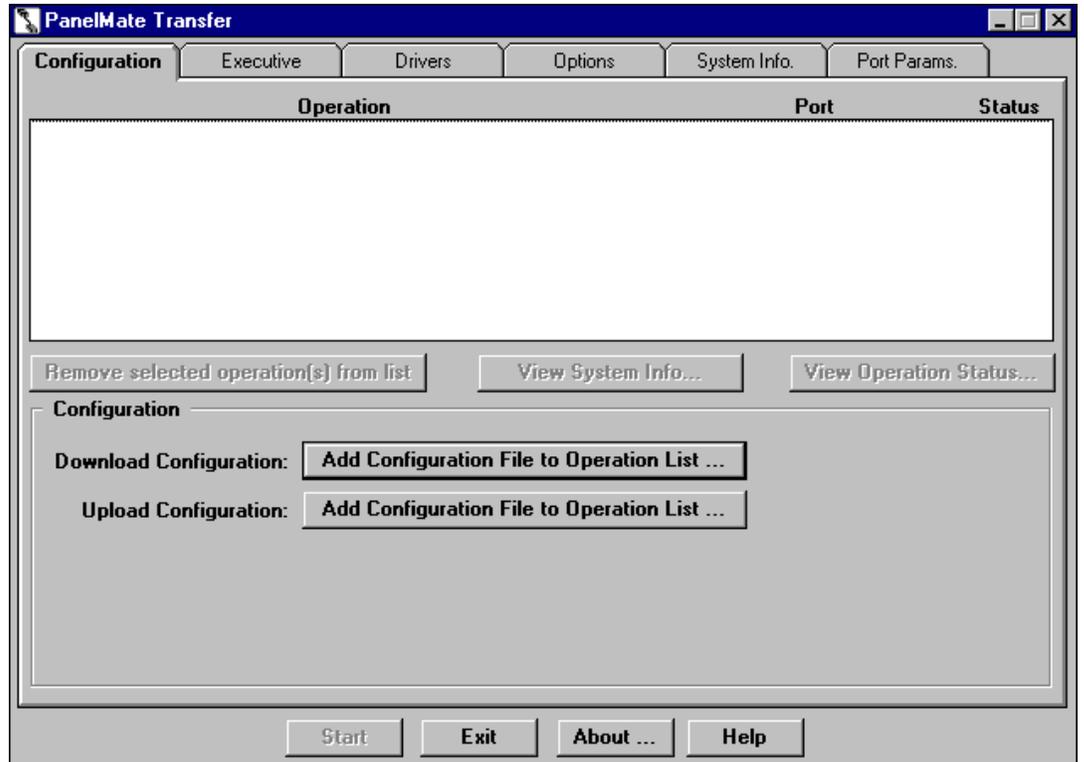
The PanelMate Transfer Editor is a set of six tabbed dialog boxes used to upload and download the memory of the PanelMate operator interface station (via a serial port) and to install options. Transfers can be done via an Allen-Bradley or ModBus Plus network. Refer to the PanelMate Network Transfer topic for more information on network transfers.

Note: The terms upload and download are defined based on the view from your personal computer. Therefore, software is downloaded from the personal computer to the PanelMate operator interface station and uploaded from the PanelMate operator interface station to the personal computer.

Note: Because of the way Microsoft Windows multitasks, ATS recommends that no other applications be started or used during a transfer.

PanelMate Network Transfers

The Transfer Utility supports transfers to an operator interface station via a supported PLC communications network. Supported networks include:

- Allen Bradley Data Highway
- Allen-Bradley Data Highway Plus
- Allen Bradley Remote I/O Link
- Modicon Modbus Plus

To use remote network transfers, you must purchase and install:

- The Remote Transfer Option from Cutler-Hammer
- The appropriate communications card/device for your PC
  - **Allen-Bradley networks**
    - *A-B 1784-KT ISA card*
    - *A-B 1784 PCMK ISA card*
    - *SST (S-S Technologies) 5136-SD ISA card*
    - *A-B KE/KF serial port module*
  - **Modicon Modbus Plus network**
    - *Modicon SA85 card*
- Allen-Bradley Interchange or RSLinx software if you are using Allen-Bradley devices.

Note: RS Linx Lite Software is not sufficient. A full version of RS Linx is required.

PanelMate (V2.11) Transfer

For PanelMate Series (common platform) units: to download PanelMate V2.11 Executive Firmware or communication drivers to a PanelMate Series 2000, PanelMate Series 3000, or PanelMate Series 4000, you must make the following changes to the pmconfig.ini file. [**Note**: The V2.11 Executive Firmware and communication driver files are supplied with the V2.11 software (not with the PanelMate Power Series or PanelMate Power Pro Software).]

Note: <path> is the file's path on the personal computer.

1. In the [Executive Firmware List] section, add the following line:

   seg1 = <path>\V2_110_1.exf

   This line will allow the V2.11Executive Firmware to be selected in the **PanelMate Transfer - Executive Tab** dialog box.

2. In the [Executive Firmware List] section, add a line for each network driver to be downloaded. For example:

   abdh=<path>\abdh.net

   abrem=<path>\abrem.net

   These lines will allow the V2.11 network drivers to be selected in the **PanelMate Transfer - Executive Tab** dialog box. For a complete list of network drivers, refer to the **PanelMate V2.11 drivers** topic.

3. In the [Drivers List] section, add a line for each communication driver to be downloaded. For example:

    abdh=<path>\abdh.drv

    abrem=<path>\abrem.drv

    These lines will allow the V2.11communication drivers to be selected in the **PanelMate Transfer - Driver Tab** dialog box. For a complete list of communication drivers, refer to the **PanelMate V2.11drivers** topic.

    Note: Network transfers to PanelMate Series 2000, PanelMate Series 3000, and PanelMate Series 4000 are supported. The V2.11 Executive Firmware or V2.11 communication drivers cannot be loaded onto PanelMate Power Series or PanelMate Power Pro units.

PanelMate Series V2.11 Drivers List

Network Drivers

ABDH.NET	Allen-Bradley Data Highway/Data Highway Plus
ABREM.NET	Allen-Bradley Remote I/O

Communication Drivers

AB.DRV	Allen-Bradley Serial
ABDH485.DRV	Allen-Bradley Data Highway 485
ABDH.DRV	Allen-Bradley Data Highway
ABDH.DRV	Allen-Bradley Data Highway Plus
ABREM.DRV	Allen-Bradley Remote I/O
CSITOL.DRV	Custom Serial Interface
EATON.DRV	Eaton
GE.DRV	General Electric Peer-to-Peer
GE.DRV	General Electric Master/Slave
GES90P.DRV	General Electric Series 90 Point-to-Point
GES90.DRV	General Electric Series 90 Network
GENERIC.DRV	Generic Protocol
MITS.DRV	Mitsubishi
MITSFX.DRV	Mitsubishi FX Series
MODICON.DRV	Modicon ASCII
MODRTU.DRV	Modicon RTU
MRTUE.DRV	Modicon RTU
MODA.DRV	Modicon A Series

OMRON.DRV	Omron Host Link
RELIANCE.DRV	Reliance
SIEMENS.DRV	Siemens
SQUARED.DRV	Square D
TI.DRV	Texas Instruments
TIHL.DRV	Texas Instruments Hostlink Peer-to-Peer
TIHL.DRV	Texas Instruments Hostlink Master/Slave
TOSHT2.DRV	Toshiba T2
WEST.DRV	Westinghouse

Note: The CSI and Allen-Bradley Data Highway 485 drivers require option diskettes which are purchased separately and must be installed in the PanelMate Series 2000, PanelMate Series 3000 and PanelMate Series 4000 before the driver can be downloaded.

Note: The Modicon RTU Enhanced driver (MRTUE.DRV) used a 750 millisecond timeout versus the Modicon RTU driver (MODRTU.DRV) which uses a 3 second timeout. (Timeout refers to the length of time the PanelMate operator interface station will wait to issue another request when a response was not received form the PLC.)

Operation List Box

The **Operation** list box is shown below.

Tip: Once communications have been established with the PanelMate, double clicking on an operation in the Operation list box will activate the **System/Configuration Information dialog box**.

Operation	Port	Status
Cutler-Hammer D50/D300 V1.00	COM1 at 19200	Pend
Download Option DH-485	COM1 at 19200	Pend
Read System/Configuration Information	COM1 at 19200	Pend

| Remove selected operation[s] from list | View System Info... | View Operation Status... |

This list box contains the operations that are scheduled for execution. When an operation is added, it is added to the end of the list if no operations are selected. If one or more operations are selected, the new operations are added after the last selected operation.

For each operation in the list, the operation name, the communication port, and the operation status is displayed. Before the operation is started, the status message that will be displayed is PEND (pending). When you press the Start button, the first operation will be executed. When the operation is in progress, the status message that will be displayed is WORK. When the operation is completed, you will get a status message of FAIL or PASS and the next operation in the list is selected and executed. The next operation is always executed, regardless of the success or failure of the previous operation. This process will continue until all of the operations in the list have been executed.

If an operation fails, check on that operation and then click on the button labeled "View Operations Status…" See the **Operation Status** topic for more information.

There are three buttons associated with the Operation list box. The buttons are described below.
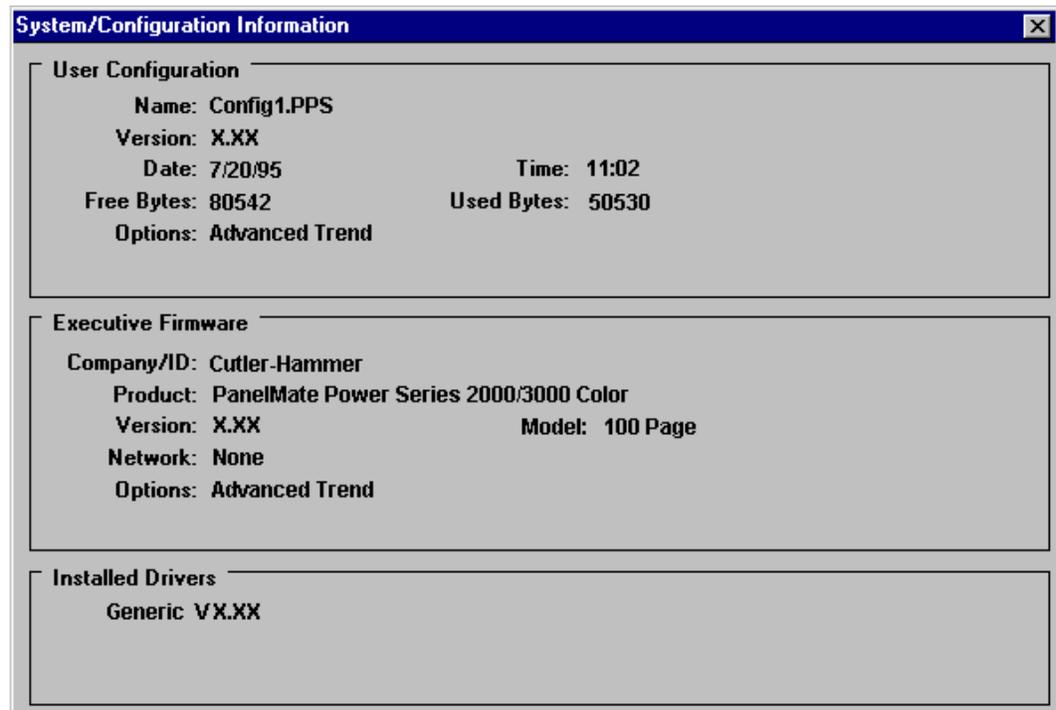
<Remove selected operation(s) from list>: Removes the selected operation from the **Operation** list box.

<View System Info>: Displays the **System/Configuration Information dialog box** with data from the currently selected operation.

<View Operation Status>: Displays the **Operation Status dialog box** with data from the currently selected operation.

System/Configuration Information

When the View System Info button is pressed, the System/Configuration Information dialog box will appear.

The System/Configuration Information dialog box displays the configuration information from the PanelMate operator interface station following the last operation and displays the version of the Executive Firmware, options, and drivers loaded in the PanelMate operator interface station

The Save button allows you to save the System/Configuration Information to an ASCII text file.

Operation Status

When the View Operation Status button is pressed, the Operation Status dialog box will appear.


The Operation Status dialog box contains a list box of errors and/or status messages associated with a particular operation. Some of the errors or messages are about failed operations, while other errors or messages contain helpful information about successful operations. A status (Fail, Pend, or Pass) of the operation is also displayed.

The Save button allows you to save the errors or messages to an ASCII file.

PanelMate Transfer - Configuration Tab

The PanelMate Transfer - Configuration Tab dialog box is shown below.
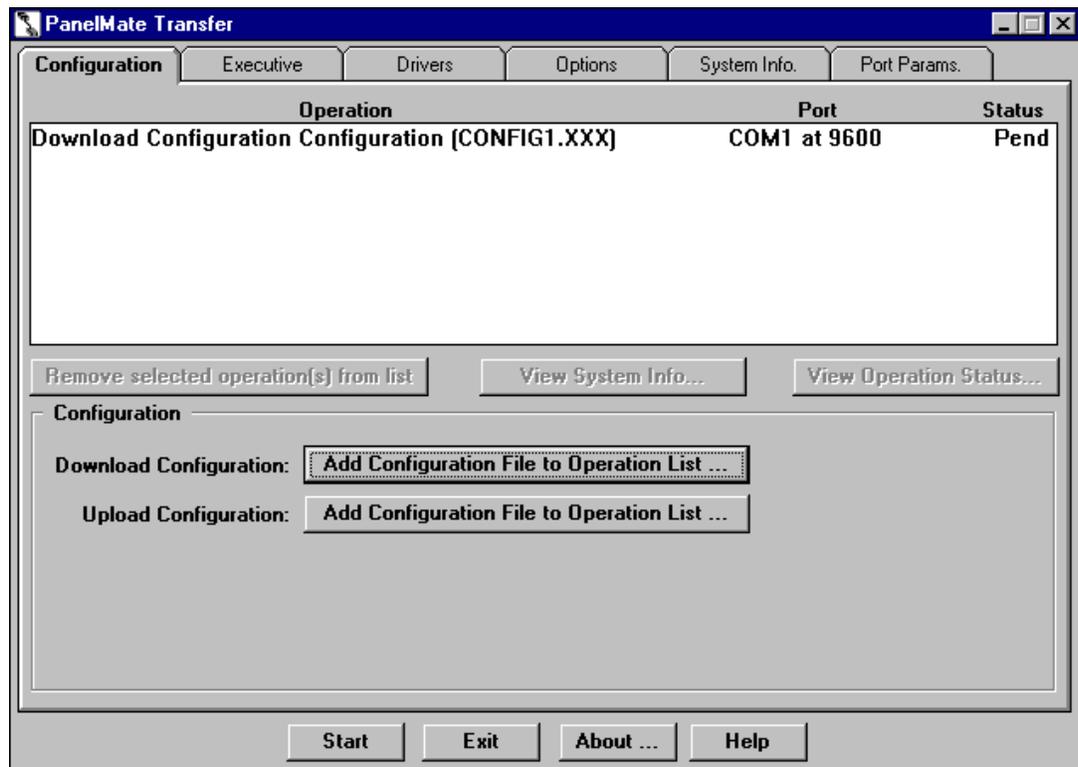
Note: The above figure shows a PanelMate configuration in the Operation list box.

The PanelMate Transfer - Configuration Tab dialog box allows you to upload and download configurations. The configurations to be transferred will be displayed in the Operation list box. (The filename extension will vary depending on the PanelMate operator interface station.) The configuration name and the filename used to export the configuration will be displayed in the Operation list box.

The fields in the PanelMate Transfer - Configuration Tab dialog box are described below:

<**Remove selected operation(s) from list**>: Removes the selected operation from the Operation list box.

<View System Info>: Displays the **System/Configuration Information dialog box** with data from the currently selected operation.

<View Operation Status>: Displays the **Operation Status dialog box** with data from the currently selected operation.

Download Configuration: Allows you to download a configuration from the development computer to the PanelMate operator interface station The configuration will include system parameters, PLC connection information and display pages containing templates, elements, and static text. When you press the **Add Configuration File to Operation List** button, the **Download Configuration dialog box** will appear.

Note: Before downloading a configuration, you must export the configuration. For additional information on exporting configurations, refer to the **Export** topic in the PanelMate online help.

Upload Configuration: Allows you to upload a configuration from the PanelMate operator interface station to the development computer and store it. When you press the **Add Configuration File to Operation List** button, the **Upload Configuration dialog box** will appear.

<Start>: Allows you to begin executing the first operation in the **Operation list box**.

<Exit>: Allows you to exit the **PanelMate Transfer** dialog box.

<About>: Displays the About PanelMate Transfer dialog box.

Download Configuration

Note: When downloading a configuration to a different model of PanelMate, you must first convert the configuration to the appropriate PanelMate model using the configuration software.

When the Add Configuration File to Operation List button (next to the Download Configuration field) is pressed on the PanelMate Transfer - Configuration Tab dialog box, the Download Configuration dialog box will appear.
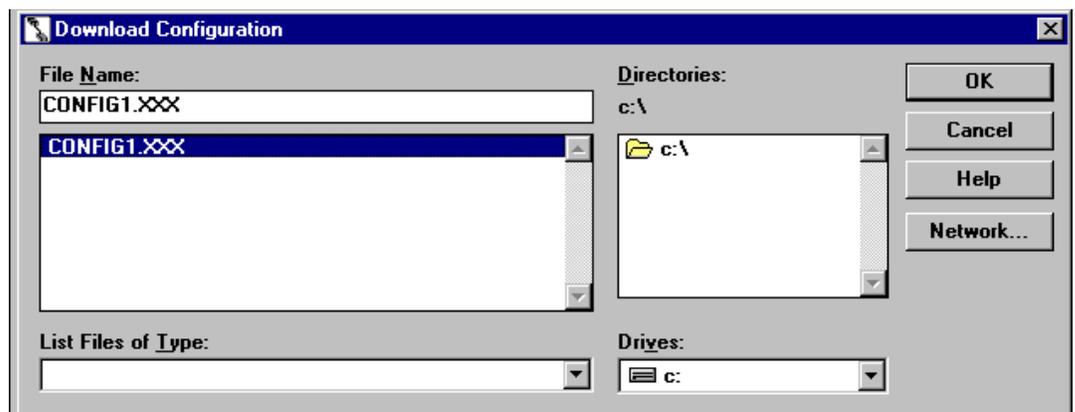
Note: In the above figure, the .XXX designates the filename extension. The filename extension will vary depending on the PanelMate operator interface station (.pps for PanelMate Power Series and PanelMate Power Pro).
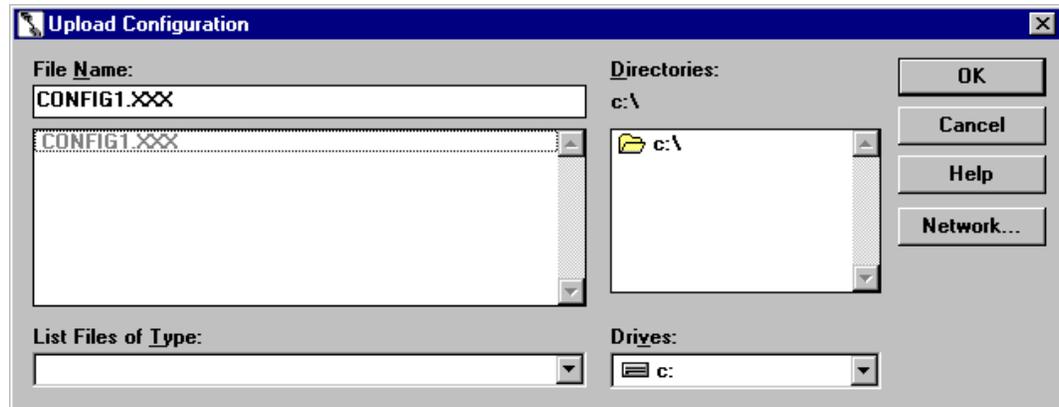
The PanelMate operator interface station must be loaded with Executive Firmware and necessary drivers and options before it can receive a configuration.

In the **Download Configuration** dialog box, select the type of file you want to download, the name of the file to download, and the directory for your file.

When downloading a configuration containing an option, the transfer software will check to ensure that the option is installed. If the option is not installed, an error will be generated.

Upload Configuration

When the **Add Configuration File to Operation List** button (next to the Upload Configuration field) is pressed on the **PanelMate Transfer - Configuration Tab** dialog box, the **Upload Configuration** dialog box will appear.

Note: In the above figure, the .XXX designates the filename extension. The filename extension will vary depending on the PanelMate operator interface station.

In the **Upload Configuration** dialog box, select the type of file you want to upload, the name of the file to upload, and the directory for your file.

<u>**CAUTION:**</u>   If an existing file is selected in the Operation list box, its contents will be overwritten with the configuration file being uploaded.

PanelMate Transfer - Executive Tab

Note: ***Once version 3.01 or higher Executive Firmware has been loaded onto your PanelMate operator interface station, you will be unable to overwrite it with an older (version 3.0 or earlier) load of Executive Firmware.***

The PanelMate Transfer - Executive Tab dialog box is shown below.
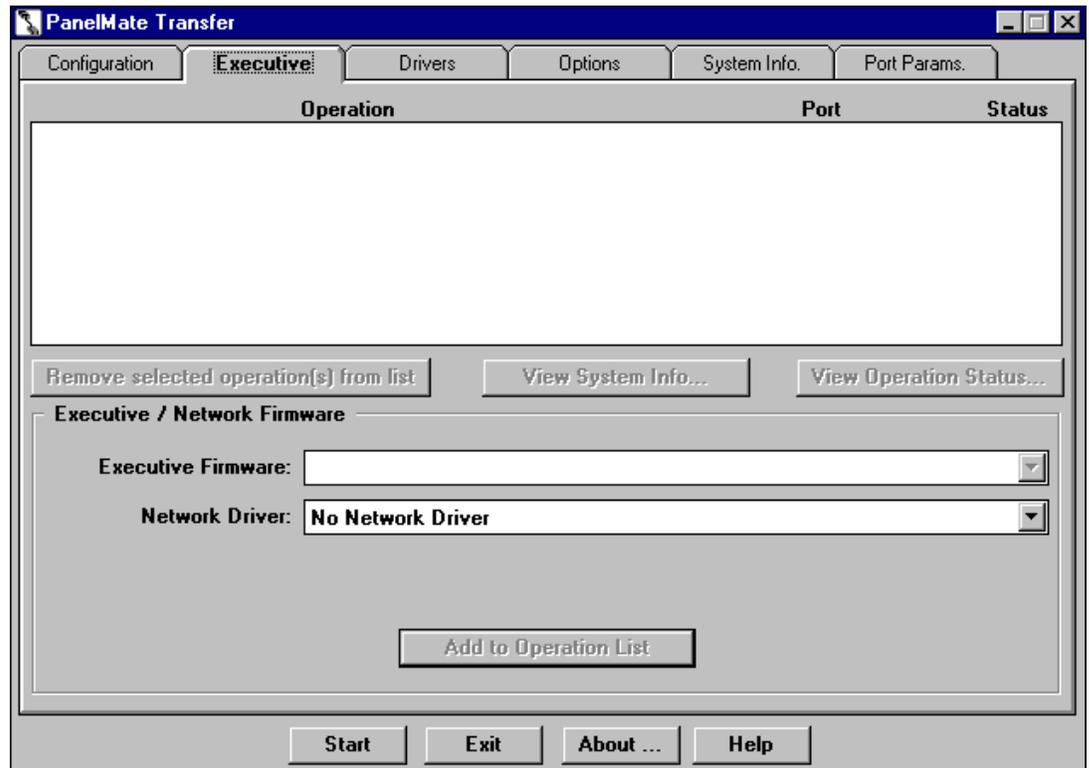
The Executive tab allows you to download Executive Firmware and network drivers. An online system must contain Executive Firmware before it can execute a configuration.

Note: Make sure that the Executive Firmware matches the target PanelMate model. If you wish to download PanelMate Series V2.11 Executive Firmware, refer to the **PanelMate Series (V2.11) Transfer** topic.

The fields in the PanelMate Transfer - Executive Tab dialog box are described below:

<Remove selected operation(s) from list>: Removes the selected operation from the Operation list box.

<View System Info>: Displays the System/Configuration Information dialog box with data from the currently selected operation.

<View Operation Status>: Displays the Operation Status dialog box with data from the currently selected operation.

Executive Firmware: Allows you to select and display the Executive Firmware to be downloaded.

Note: All drivers previously loaded on the PanelMate operator interface station will be removed. You must re-download the appropriate drivers after the Executive Firmware has been downloaded.

Network Driver: Allows you to select and display the network driver to be downloaded with the Executive Firmware.

<Add to Operation List>: Adds the selected Executive Firmware and/or network driver to the **Operation list box** to be downloaded.

<Start>: Allows you to begin executing the first operation in the **Operation list box**.

<Exit>: Allows you to exit the **PanelMate Transfer** dialog box.

<About>: Displays the About PanelMate Transfer dialog box.

PanelMate Transfer - Driver Tab

The **PanelMate Transfer - Driver Tab** dialog box is shown below.
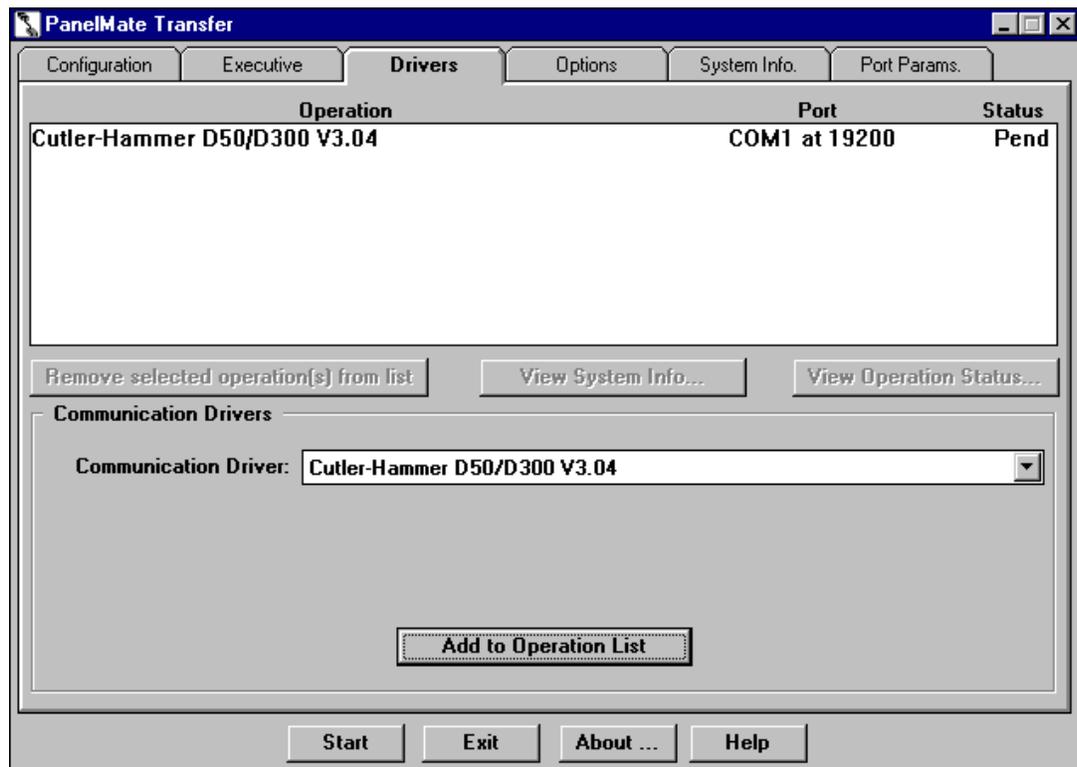
The Driver tab allows you to transfer a communication driver from the development computer to the PanelMate operator interface station. An online system must contain this driver to communicate to an outside device, such as a PLC. The driver to be downloaded will be displayed in the **Operation list box.**

The fields in the **PanelMate Transfer - Driver Tab** dialog box are described below:

>**<Remove selected operation(s) from list>:** Removes the selected operation from the Operation list box.

>**<View System Info>:** Displays the System/Configuration Information dialog box with data from the currently selected operation.

>**<View Operation Status>:** Displays the **Operation Status dialog box** with data from the currently selected operation.

>**Communication Driver:** Allows you to select and display the communication driver to be downloaded.

>**<Add to Operation List>:** Adds the selected driver to the **Operation list box** to be downloaded.

>**<Start>:** Allows you to begin executing the first operation in the **Operation list box**.

>**<Exit>:** Allows you to exit the **PanelMate Transfer** dialog box.

>**<About>:** Displays the About PanelMate Transfer dialog box.

PanelMate Transfer - Options Tab

The **PanelMate Transfer - Options Tab** dialog box is shown below.
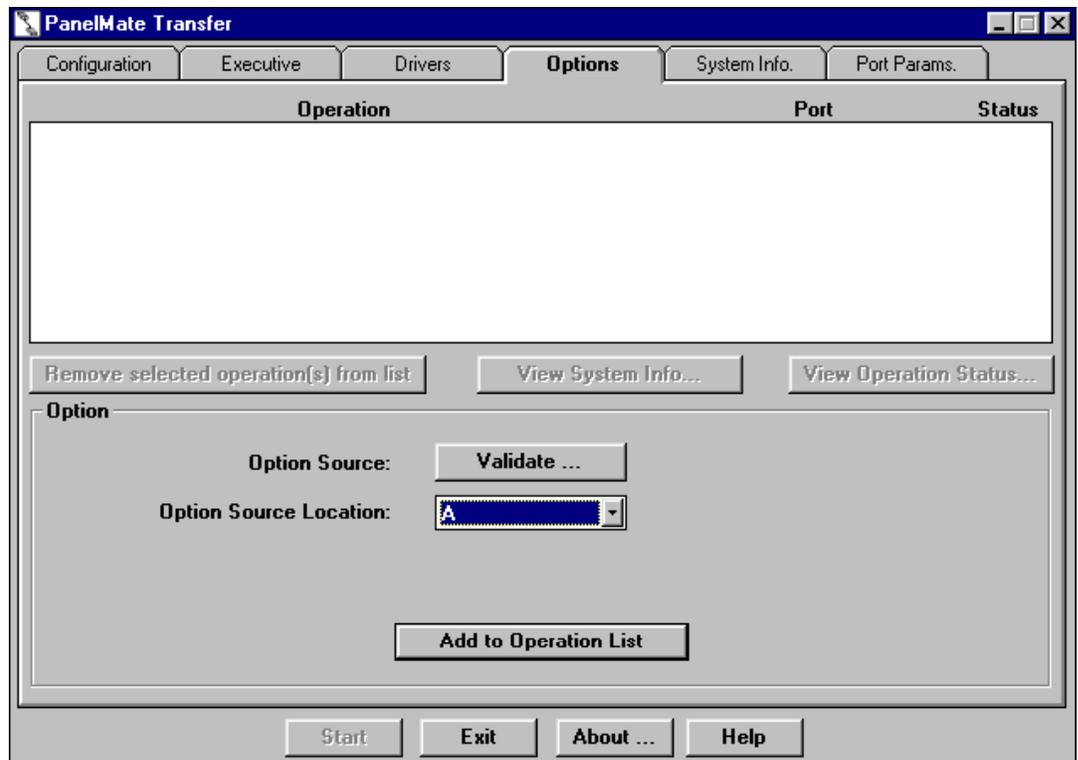
The Options tab allows you to transfer an option from your development computer's floppy disk or hardware key to the PanelMate operator interface station. The option to be downloaded will be displayed in the **Operation list box.**

Note: When downloading a configuration containing an option, the transfer software will check to ensure that the option is installed. If the option is not installed, an error will be generated.

The fields in the **PanelMate Transfer - Options Tab** dialog box are described below:

> **<Remove selected operation(s) from list>:** Removes the selected operation from the Operation list box.
>
> **<View System Info>:** Displays the System/Configuration Information dialog box with data from the currently selected operation.
>
> **<View Operation Status>:** Displays the Operation Status dialog box with data from the currently selected operation.
>
> **<Option Source>:** If "A" is selected on **Option Source Location**, displays the Option Diskette Verification dialog box when the Validate button is pressed. If "Hardware Key" is selected, displays the Hardware Key Validation dialog box when the Validate button is pressed.
>
> **<Option Source Location>:** Allows you to select either drive letter **A** to locate your option diskette, or, **Hardware Key** to locate your hardware key. **Note**: You should always press the **Validate** button before installing an option to check the remaining number of installations.
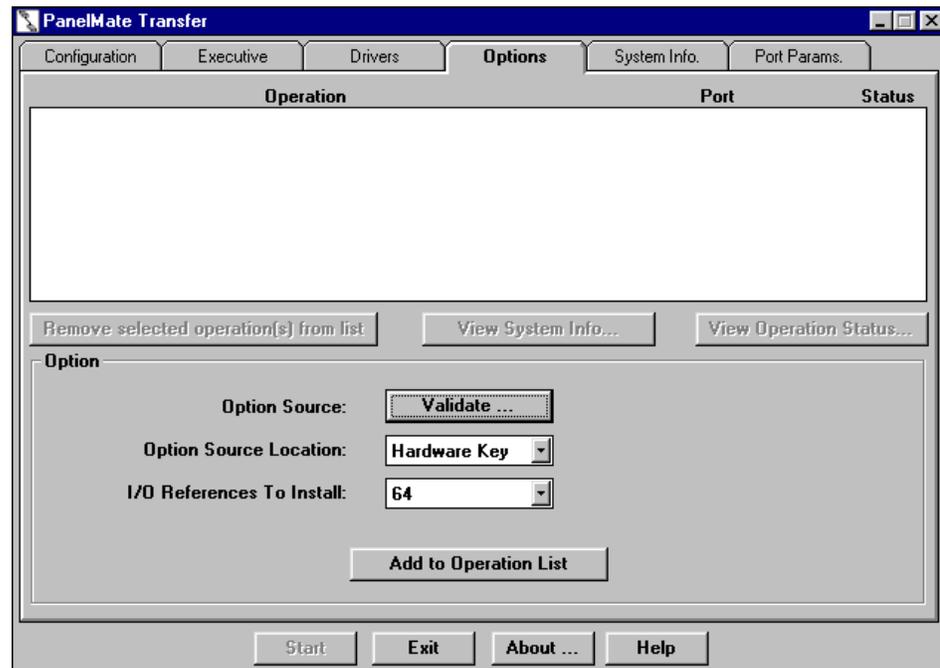>
> **<Add to Operation List>:** Adds the option to the Operation list box to be downloaded.
>
> **<Start>:** Allows you to begin executing the first operation in the Operation list box.
>
> **<Exit>:** Allows you to exit the PanelMate Transfer dialog box.
>
> **<About>:** Displays the About PanelMate Transfer dialog box.

An additional **PanelMate Transfer – Options Tab** dialog box is shown below.

When **Option Source Location** "Hardware Key" is selected, an additional field appears, **I/O References to Install**. **Note: This feature is applicable only for use with PanelMate Pro LT 1100 units.** The following section describes how to download additional I/O References to the PanelMate Pro LT 1100.

Download Additional I/O References to the PanelMate Pro LT 1100

First, install the hardware key, which is included in the I/O Reference Point Expansion Option Kit, into the parallel port of the PC. Then, determine the current number of installed references on the PanelMate Pro LT 1100 by using either of the following two methods:

(1) PanelMate Power Pro LT 1100 should be in **Transfer Mode**. On the PC, using the Transfer Utility, Select the **System Info.** tab. Select the **System/Configuration Info.** button. Select **Start** (status should change to **Pass**). Double-click on **Read System/Configuration Information** line. Displayed under **Executive Firmware, Model** are the number of pages, and number of I/O references contained on the unit. The maximum number of references allowed per unit is 512; i.e., if the unit is at 64, as many as 448 additional references (7 upgrades) may be added to get to the maximum 512.
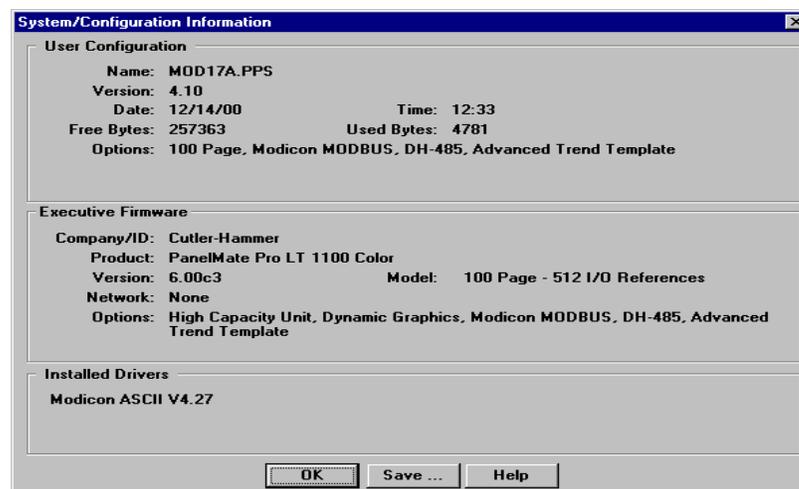
(2) On the PanelMate Pro LT 1100, from Offline Mode, select **Display System/Config. Information**, select **Execute**. The current number of installed I/O references appears next to Model. Or, in Run Mode, from any page, select **Get Page**, select **More**, select **Set up Page**, select **Display System/Config. Information**, select **Execute**.

To Download Additional I/O References
<u>CAUTION</u>: I/O Reference upgrades are **permanent**. Once an upgrade is installed (downloaded) on a PanelMate Pro LT 1100, it cannot be uploaded back to the hardware key. Make sure the I/O references to install are set correctly **before** starting the installation. **Note:** Be sure to select the number of **additional** reference points you wish to install. Example: If your unit currently has 64 references installed, and you wish the new total of reference points to be 192, you will select 128 additional references to install.

The target PanelMate Pro LT 1100 needs to be set to either **Serial Transfer Mode** or **Network Transfer Mode**. To download additional I/O references, click on the arrow next to **I/O References to Install**, and select the desired number. Click on **Add to Operation List**, then click on **Start**. Status should change from **Pend** to **Pass**. Double click on the status line to view the number of references installed on the unit.

If the operation fails, highlight the operation line, select **View Operation Status**, and a message will appear stating the reason for the failed operation. Common reasons for failure include selecting more

than the maximum number of I/O References permitted to be installed on the unit, or selecting more references than the hardware key has available.
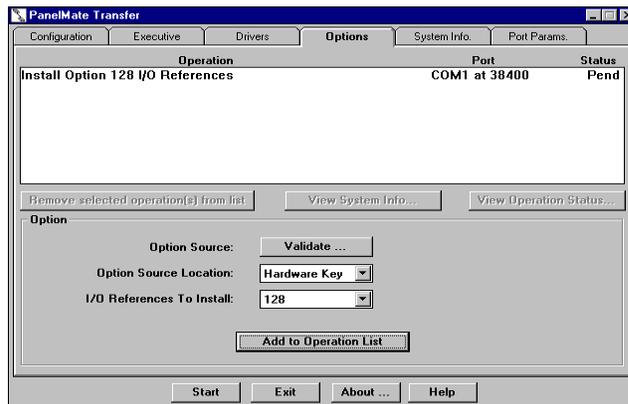
PanelMate Transfer - System Info. Tab

The **PanelMate Transfer - System Info. Tab** dialog box is shown below.
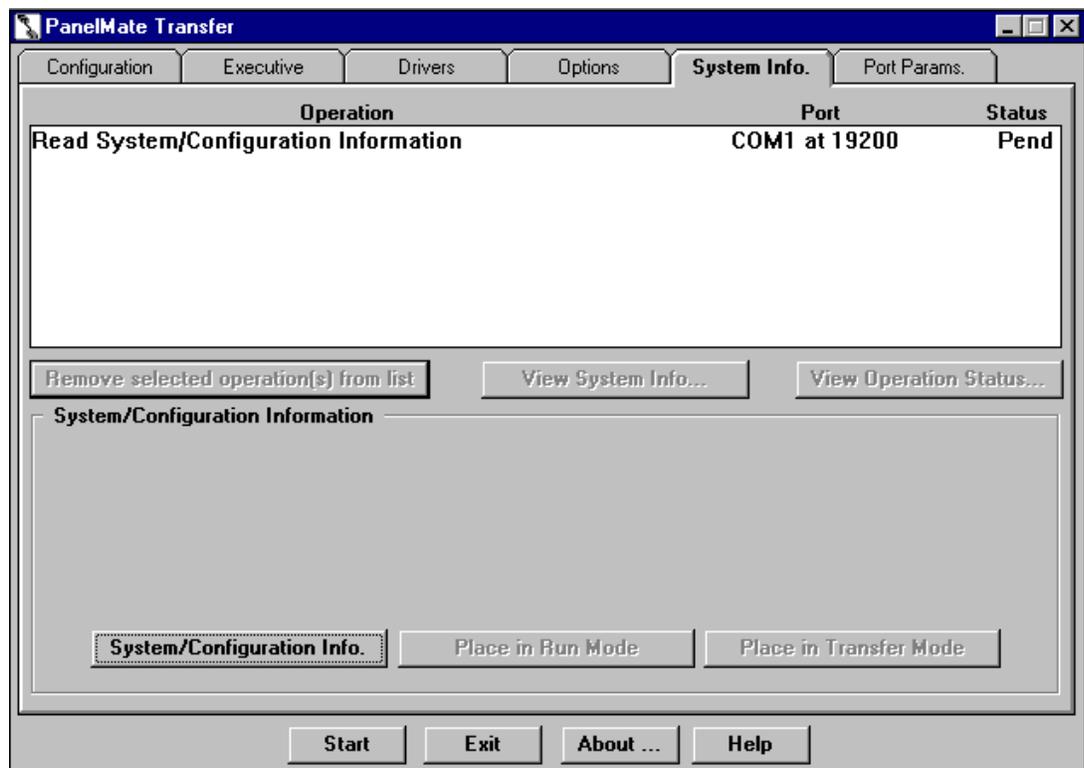
The System Info. tab allows you to read the current configuration information from the PanelMate operator interface station and display the current version of the Executive Firmware, options, and drivers currently loaded in the system. The Read System/Configuration Information operation will be displayed in the **Operation list box.**

If you have a PanelMate unit and you are transferring via a network, the System Info. tab will also allow you to remotely place the PanelMate operator interface station in Run Mode or Transfer Mode.

The fields in the **PanelMate Transfer - System Info. Tab** dialog box are described below:

> **<Remove selected operation(s) from list>:** Removes the selected operation from the Operation list box.
>
> **<View System Info>:** Displays the System/Configuration Information dialog box with data from the currently selected operation.
>
> **<View Operation Status>:** Displays the **Operation Status dialog box** with data from the currently selected operation.
>
> **<System/Configuration Info.>:** Adds the Read System/Configuration Information operation to the **Operation list box**.

<Place in Run Mode>: Allows you to remotely place the PanelMate operator interface station in Run Mode if a network device is selected in the Port Device field in the **PanelMate Transfer - Port Params. Tab dialog box**. Note that the Remote Transfer option **MUST** be installed and the Remote Mode Change field must be configured as IMMEDIATE, DEFAULT, or ACCEPT in the **System Parameters - Remote Tab** dialog box before you attempt to remotely place the PanelMate operator interface station in Run Mode.

If a serial communication port (i.e., COM1 or COM2) is selected in the Port Device field in the **PanelMate Transfer - Port Params. Tab dialog box**, the button will not be selectable.

For more information about the Place in Run Mode selection, refer to the Remote Mode Change section in the **System Parameters** topic in the PanelMate online help.

**<Place in Transfer Mode>:** Allows you to remotely place the PanelMate operator interface station in Transfer Mode if a network device is selected in the Port Device field in the **PanelMate Transfer - Port Params. Tab dialog box**. Note that the Remote Transfer option **MUST** be installed and the Remote Mode Change field must be configured as IMMEDIATE, DEFAULT, or ACCEPT in the **System Parameters - Remote Tab** dialog box before you attempt to remotely place the PanelMate operator interface station in Transfer Mode.

If a serial communication port (i.e., COM1 or COM2) is selected in the Port Device field in the **PanelMate Transfer - Port Params. Tab dialog box**, the button will not be selectable.

For more information about the Place in Transfer Mode selection, refer to the Remote Mode Change section in the **System Parameters** topic in the PanelMate online help.

<Start>: Allows you to begin executing the first operation in the **Operation list box**.

<Exit>: Allows you to exit the **PanelMate Transfer** dialog box.

<**About**>: Displays the About PanelMate Transfer dialog box.

PanelMate Transfer - Port Params. Tab

The **PanelMate Transfer - Port Params. Tab** dialog box is shown below.
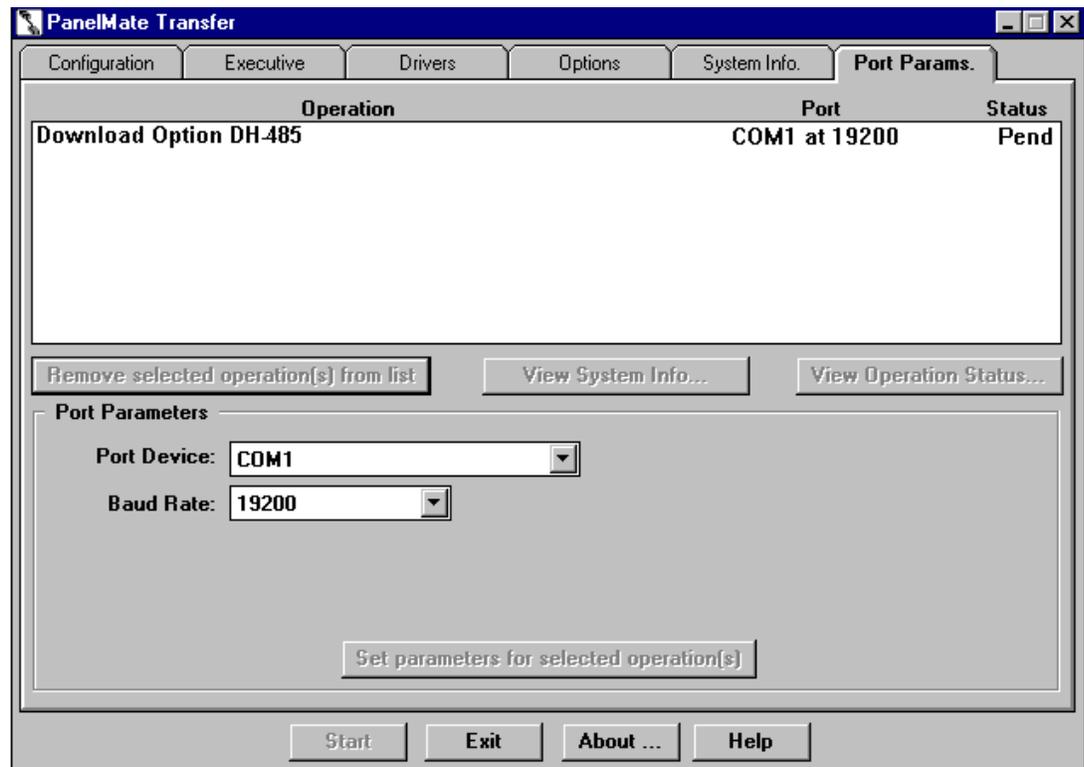
The **PanelMate Transfer - Port Params. Tab** dialog box allows you to define the communication parameters for operations added to the **Operation list box**.

The fields in the **PanelMate Transfer - Port Params. Tab** dialog box are described below:

>**<Remove selected operation(s) from list>:** Removes the selected operation from the Operation list box.

>**<View System Info>:** Displays the System/Configuration Information dialog box with data from the currently selected operation.

>**<View Operation Status>:** Displays the **Operation Status dialog box** with data from the currently selected operation.**.**

>**Port Device:** Allows you to select the communication port or a device for one or all transfers to be performed. If you select the COM1 or COM2 communication port, the Baud Rate field will appear. If you select a network device, new fields will appear. See the device topics below for more information on configuring the network device fields.

>- 5136-SD/DH

>- 5136-SD/DH+

>- 5136-SD/Rem I/O

>- AB Interchange

>- AB Interchange Rem I/O

>- AB RSLinx

- AB RSLinx Rem I/O

- MB Plus

Baud Rate: Allows you to select the baud rate for one or all transfers to be performed. Note that the Baud Rate field will only appear if you configured the Port Device field as COM1 or COM2.

<Set parameters for selected operation(s)>: Allows you to define different communication parameters for each selected operation.

Note: You **cannot** change network communication parameters to serial (COM1 or COM2) communication parameters for the Place in Run Mode and Place in Transfer Mode operations.

<Start>: Allows you to begin executing the first operation in the **Operation list box**.

<Exit>: Allows you to exit the **PanelMate Transfer** dialog box.

<About>: Displays the About PanelMate Transfer dialog box.

5136-SD/DH

If you select 5136-SD/DH in the Port Device field, the following Port Parameters screen will appear.

The fields in the **Port Parameters** screen are described below.

Local Address: Sets the PC address on the chosen network.

Remote Address: Sets the remote address of the PanelMate operator interface station to transfer to.

Terminal Name: Defines a "Who Active" name for the PC on the network.

Card: Defines the port address, interrupt number, memory address, and memory size for the 5136-SD2 card.

Port: Sets the card**'**s PC port address.

IRQ: Sets the card's PC Interrupt.

Base Address: Sets the card's PC memory address.

Memory Size: Indicates the amount of PC memory the card will use.

5136-SD/DH+

If you select 5136-SD/DH+ in the **Port Device** field, the following **Port Parameters** screen will appear.

The fields in the **Port Parameters** screen are described below.

> **Local Address:** Sets the PC address on the chosen network.
>
> **Remote Address:** Sets the remote address of the PanelMate operator interface station to transfer to.
>
> **Terminal Name:** Defines a "Who Active" name for the PC on the network.
>
> **Card:** Defines the port address, interrupt number, memory address, and memory size for the 5136-SD2 card.
>
> **Port:** Sets the card's PC port address.
>
> **IRQ:** Sets the card's PC Interrupt.
>
> **Base Address:** Sets the card's PC memory address.
>
> **Memory Size:** Indicates the amount of PC memory the card will use.

5136-SD/REM I/O

If you select **5136-SD/Rem I/O** in the **Port Device** field, the following **Port Parameters** screen will appear.

The fields in the Port Parameters screen are described below.

> **Local Address:** Sets the PC address on the chosen network.
>
> **Remote Address:** Sets the remote address of the PLC that will execute the Pass-Through to the PanelMate operator interface station
>
> **Terminal Name:** Defines a "Who Active" name for the PC on the network.
>
> **Rack:** Defines the PanelMate operator interface station Pass-Through rack number.

Group: Defines the PanelMate operator interface station Pass-Through group number within the rack.

Slot: Defines the PanelMate operator interface station Pass-Through slot number within the group.

Card: Defines the port address, interrupt number, memory address, and memory size for the 5136-SD2 card.

Port: Sets the card's PC port address.

IRQ: Sets the card's Interrupt.

Base Address: Sets the card's PC memory address.

Memory Size: Indicates the amount of PC memory the card will use.

AB Interchange

If you select **AB Interchange** in the **Port Device** field, the following **Port Parameters** screen will appear.

The fields in the **Port Parameters** screen are described below.

Remote Address: Sets the remote address of the PanelMate operator interface station to transfer to.

Push Wheel: Selects a Push Wheel Value from the AB Interchange CFG_KT.INI file. This value must range from 1 to 8 and equal an active device started by the Interchange software.

AB Interchange Rem I/O

If you select **AB Interchange Rem I/O** in the **Port De**vice field, the **following Port Parameters** screen will appear.

The fields in the Port Parameters screen are described below.

Remote Address: Sets the remote address of the PLC that will execute the Pass-Through to the PanelMate operator interface station

Push Wheel: Selects a Push Wheel Value from the AB Interchange CFG_KT.INI file. This value must range from 1 to 8 and equal an active device started by the Interchange software.

Rack: Defines the PanelMate operator interface station Pass-Through rack number.

Group: Defines the PanelMate operator interface station Pass-Through group number within the rack.

Slot: Defines the PanelMate operator interface station Pass-Through slot number within the group.

AB RSLinx

If you select **AB RSLinx** in the **Port Device** field, the following **Port Parameters** screen will appear.

The fields in the **Port Parameters** screen are described below.

Remote Address: Sets the remote address of the PanelMate operator interface station to transfer to.

Driver Name: Identifies the network card recognized by the AB RSLinx software.

AB RSLinx Rem I/O

If you select **AB RSLinx Rem I/O** in the **Port De**vice field, the **following Port Parameters** screen will appear.

The fields in the Port Parameters screen are described below.

Remote Address: Sets the remote address of the PLC that will execute the Pass-Through to the PanelMate operator interface station

Driver Name: Identifies the network card recognized by the AB RSLinx software

Rack: Defines the PanelMate operator interface station Pass-Through rack number.

Group: Defines the PanelMate operator interface station Pass-Through group number within the rack.

Slot: Defines the PanelMate operator interface station Pass-Through slot number within the group.

Modicon Modbus Plus

If you select **MB Plus** in the **Port Device** field, the following **Port Parameters** screen will appear.

The fields in the **Port Parameters** screen are described below.

Remote Address: Sets the remote address of the PanelMate operator interface station to transfer to.

Adapter Number: Sets the network adapter number (0 or 1).

Software Interrupt: Sets the software interrupt (in hex). Under windows 95 or Windows for Workgroups, do not use software interrupt 5C. The recommended interrupt is 5D.

Network Transfer Troubleshooting

3

This chapter provides guidance on common problems associated with network transfers. Specifically, this chapter covers.

- *Troubleshooting tips*
- *Network transfer errors*

Network Transfer Troubleshooting Tips

In the [386Enh] section of your Windows SYSTEM.INI file you may need to add a EMMExclude statement to prevent Windows from using the memory area being used by 5136-SD, or 1784-KT, or 1784-PCMK cards.

   For example: EMMExclude=CC00-CCFF

Under Windows Control Panel, 386 Enhanced, the Exclusive in Foreground checkbox must not be checked. This will cause the transfers to not work.

If the standard Windows serial transfers are not working and you are receiving a "No 8250 present" error after you have installed the A-B Interchange DF1 software, you will need to re-mark out the DEVICE=VDF1.386, COMxIRQy, and COMxVDFx lines that you set up for the Interchange DF1 software in the [386Enh] section of the SYSTEM.INI

Network Transfer Errors

The following tables list the possible errors that you can receive when attempting to perform a network transfer to a PanelMate operator station. The possible causes and solutions are also listed.

1784-KT or 1784-PCMK Data Highway Plus Errors

Error	Possible Cause	Possible Solution
PCCCST04, Channel is disconnected from link.	**1.** KT or PCMK card not installed.	**1.** Check card installation.
	2. Configured at different address in CFG_KT.INI from what card is configured for.	**2.** Make sure address in CFG_KT.INI matches what card is configured for.
Transfer terminated due to PanelMate operator station failure to respond.	**1.** Remote Transfer Option not installed in PanelMate operator station.	**1.** Use Remote Transfer Option Diskette and Transfer Editor serial mode to transfer option to PanelMate operator station.
	2. KT or PCMK card disconnected from network.	**2.** Check network cable connection at KT or PCMK card.
	3. Incorrect remote address for PanelMate operator station or PanelMate operator station not on network.	**3.** In the Port Params. Tab, make sure remote address is correct for PanelMate operator station.
	4. Duplicate Node.	**4.** Make sure all network addresses are unique.
PCCCSTS60, Function disallowed due to command protection selection.	Attempting to remote transfer to a DH+ node that is not a PanelMate operator station.	In the Port Params. Tab, make sure remote address is correct for PanelMate operator station.

5136-SD Data Highway Plus Errors

Error	Possible Cause	Possible Solution
Transfer terminated due to PanelMate operator station failure to respond.	**1.** Remote Transfer Option not installed in PanelMate operator station.	**1.** Use Remote Transfer Option Diskette and Transfer Editor serial mode to transfer option to PanelMate operator station.
	2. 5136-SD card disconnected from network.	**2.** Check network cable connection at 5136-SD card.
	3. Incorrect remote address for PanelMate operator station or PanelMate operator station not on network.	**3.** In the Port Params. Tab, make sure remote address is correct for PanelMate operator station.
	4. Duplicate Node.	**4.** Make sure all network addresses are unique.
PCCCSTS60, Function disallowed due to command protection selection.	Attempting to remote transfer to a DH+ node that is not a PanelMate operator station.	In the Port Params. Tab, make sure remote address is correct for PanelMate operator station.
PCCCSTS10, Illegal command or format, including odd address.	Attempting to remote transfer to a DH+ node that is not a PanelMate operator station.	In the Port Params. tab, make sure remote address is correct for PanelMate operator station.

KF2 Module Data Highway Plus Errors

Error	Possible Cause	Possible Solution
Transfer terminated due to PanelMate operator station failure to respond.	**1.** Remote Transfer Option not installed in PanelMate operator station.	**1.** Use Remote Transfer Option Diskette and Transfer Editor serial mode to transfer option to PanelMate operator station.
	2. Baud rate in CFG_KT.INI for KF2 is incorrect.	**2.** Correct to match baud rate used on KF2.
	3. KF2 disconnected from network.	**3.** Check network cable connection at KF2.
	4. Incorrect remote address for PanelMate operator station.	**4.** In the Port Params. Tab, make sure remote address is correct for PanelMate operator station.
	5. Duplicate Node.	**5.** Make sure all network addresses are unique.
PCCCSTS60, Function disallowed due to command protection selection.	Attempting to remote transfer to a DH+ node that is not a PanelMate operator station.	In the Port Params. Tab, make sure remote address is correct for PanelMate operator station.
PCCCSTS10, Illegal command or format, including odd address.	Attempting to remote transfer to a DH+ node that is not a PanelMate operator station.	In the Port Params. Tab, make sure remote address is correct for PanelMate operator station.

1784-KT, 1784-PCMK, or 5136-SD Remote I/O Errors

Error	Possible Cause	Possible Solution
AB PLC remote Error Code 17 for Command F. Adapter cannot communicate with module.	**1.** Remote Transfer Option not installed in PanelMate operator station.	**1.** Use Remote Transfer Option Diskette and Transfer Editor serial mode to transfer option to PanelMate operator station.
	2. Configuration does not have a Pass-Through Block Transfer configured	**2.** Configure a Pass-Through Block Transfer using the PLC Name and Port Table editor.
	3. PanelMate operator station disconnected from network.	**3.** Check network cable connection at PanelMate operator station.
	4. PanelMate operator station is powered down.	**4.** Make sure PanelMate operator station is powered up and in network transfer mode.
	5. Incorrect settings for rack, group, slot address of PanelMate operator station, or PanelMate operator station not on network.	**5.** In the Port Params. Tab, set correct rack, group, and slot address for PanelMate operator station.
	6. PLC is in program mode.	**6.** Make sure PLC is in Run mode before starting transfer.
Transfer terminated due to PanelMate operator station failure to respond.	**1.** 5136-SD, KT, or PCMK card not on the network.	**1.** Make sure these cards are installed and connected to network.
	2. Pass-through PLC not on network.	**2.** Make sure PLC is connected to network.
	3. Wrong PLC node number.	**3.** Make sure PLC address is correct.

Modbus Plus Errors

When there are problems transferring information via a Modicon Modbus Plus network, two types of errors may occur.

- Port Parameters Errors are caused by an incorrectly formatted Remote Address.

- NetBIOS Errors are returned by the NetBIOS.

Port Parameter Errors

These error messages are caused by an incorrectly formated Remote Address. To eliminate these errors, correctly re-format the Remote Address.

Error
MODBUS Plus device error. This interrupt must be in the range 0x0 to 0xFF.
MODBUS Plus device error. The remote address is blank.
MODBUS Plus device error. The remote address has missing node.
MODBUS Plus device error. The remote address has slave path out of position.
MODBUS Plus device error. The remote address has a bad character.
MODBUS Plus device error. The remote address has too many nodes.
MODBUS Plus device error. The remote address has a node out of range.
MODBUS Plus device error. The remote address has slave path out of range.

NetBIOS Errors

These error messages are returned by the NetBIOS. Consult a network specialist or a textbook on NetBIOS programming.

Error
MODBUS Plus NetBIOS driver is not loaded at software interrupt %1.
MODBUS Plus NetBIOS error. No Network Control Blocks available.
MODBUS Plus NetBIOS error. Bad send or status buffer size.
MODBUS Plus NetBIOS error. Invalid NetBIOS command.
MODBUS Plus NetBIOS error. Command time-out had expired.
MODBUS Plus NetBIOS error. Receive buffer not large enough.
MODBUS Plus NetBIOS error. Local session number is bad.
MODBUS Plus NetBIOS error. Not enough memory for LAN card.
MODBUS Plus NetBIOS error. The session has been closed.
MODBUS Plus NetBIOS error. The command has been closed.
MODBUS Plus NetBIOS error. Local name already exists.
MODBUS Plus NetBIOS error. Local name table is full.
MODBUS Plus NetBIOS error. Cannot delete name used in a session.
MODBUS Plus NetBIOS error. Local session table is full.
MODBUS Plus NetBIOS error. Remote station is not listening for call.
MODBUS Plus NetBIOS error. Bad value in number field.
MODBUS Plus NetBIOS error. No answer to CALL or no such remote.
MODBUS Plus NetBIOS error. Name not in local name table.
MODBUS Plus NetBIOS error. Name is used elsewhere on network.
MODBUS Plus NetBIOS error. Name incorrectly deleted.
MODBUS Plus NetBIOS error. Session aborted abnormally.
MODBUS Plus NetBIOS error. Two or more identical names in use.
MODBUS Plus NetBIOS error. Bad NetBIOS packet on network.
MODBUS Plus NetBIOS error. Network card is busy.
MODBUS Plus NetBIOS error. Too many NetBIOS commands queued.
MODBUS Plus NetBIOS error. Bad adapter number.
MODBUS Plus NetBIOS error. Command finished while canceling.
MODBUS Plus NetBIOS error. Command cannot be cancelled.
MODBUS Plus NetBIOS error. Unknown error code.
MODBUS Plus NetBIOS did not respond to open command within allotted time.

Transfer Problems

Some common transfer utility problems and solutions are listed below.

Note: For information on configuration editor or online problems, refer to the PanelMate Configuration Editor User's Guide or the PanelMate Online Operation User's Guide.

Problem: Failure transferring at 38400 baud rate

Possible Cause: 1) Baud rate is too high for the hardware

Corrective Action: Lower the baud rate (19200 or 9600) and transfer again

Possible Cause: 2) COM port is defective or needs updated

Corrective Action: Try a different COM port

Problem: Using the PanelMate Transfer Editor to download driver versions prior to V211; the driver was successfully downloaded but a FAILED status was reported.

Corrective Action: Check the PanelMate operator station to see if the driver was loaded. Display System Configuration Information from the Setup Page or Offline Mode.

Problem: The Transfer Editor does not transfer PanelMate Compact software (version 1.14) to a PanelMate Compact unit.

Corrective Action: The Transfer Editor does not support this type of transfer.

Problem: Online Communications fail if the transfer cable is connected to the RS232 port of the PanelMate Series 1500 and RS422 communications are attempted in Run Mode.

Possible Cause: <u>WARNING</u> - only one connection may be used at a time. If both connections are used simultaneously, communication errors will result which may cause hazardous conditions when communicating with a PLC.

Problem: Using Windows 3.1X, problems encountered with serial transfers at high baud rates using existing drivers.

Possible Cause: 1)Baud rate too high for the hardware.

Corrective Action: Lower the baud rate.

Possible Cause: 2) Updated serial drivers needed.

Corrective Action: Install the **serial drivers** in the system.ini file

Problem: The transfer terminated due to an "operator station failure to respond" to a "general error."

Possible Cause: Another software program may be using the same serial port that the transfer utility is trying to use.

Corrective Action: Check to be sure that this is not the case. If it is happening, shut down that program and restart the transfer utility software.

Problem: COM1 and COM2 do not appear as selections in the Port Device list of the **PanelMate Transfer - Port Parameters Tab** dialog box.

Possible Cause: No Windows serial device drivers are running.

Corrective Action: Enable a Windows serial virtual device driver by editing the 386 Enhanced section of the system.ini file. If the following line exists in this section:

;device=*vcd

then remove the semicolon from the line. If the line is not found, either add the line to this section (without the semicolon) or consult your personal computer manufacturer for the name of their standard serial virtual device driver and add it to the 386 Enhanced section. Save the file and restart Windows.

Problem: Transfers fail when the Transfer Editor window is minimized.

Possible Cause: A new Windows application does not give control to the Transfer Editor resulting in a timeout error.

Corrective Action: Start the transfer again after expanding the Transfer Editor window and do not minimize the Transfer Editor window until the transfer is completed successfully.

Problem: File Does Not Exist errors are reported when starting the Transfer Editor.

Possible Cause: Older versions of: PanelMate software, Executive Firmware, or PLC drivers have been deleted from this system.

Corrective Action: Remove the deleted Executive Firmware and drivers from the file pmconfig.ini in the Windows directory.

Installing Serial Drivers

Note.   **The following instructions are for Windows 3.x or Windows for Workgroups 3.71 operating systems only:**

1. In the [386 Enh] section of the system.ini file, disable the current default serial device-driver entry

    "device = *vcd" by placing a semicolon in front of this line.

2. Add two lines at the start of the [386 Enh] section:
    device=C:\WINDOWS\PMAPPS\gcl520\vxd\vgfcd.386
    device=C:\WINDOWS\PMAPPS\gcl520\vxd\vgfd.386

3. Add two lines to the bottom of the [386 Enh] section:
    GFMaxDosComPorts=4
    GFMaxDosBuffPages=1

Index