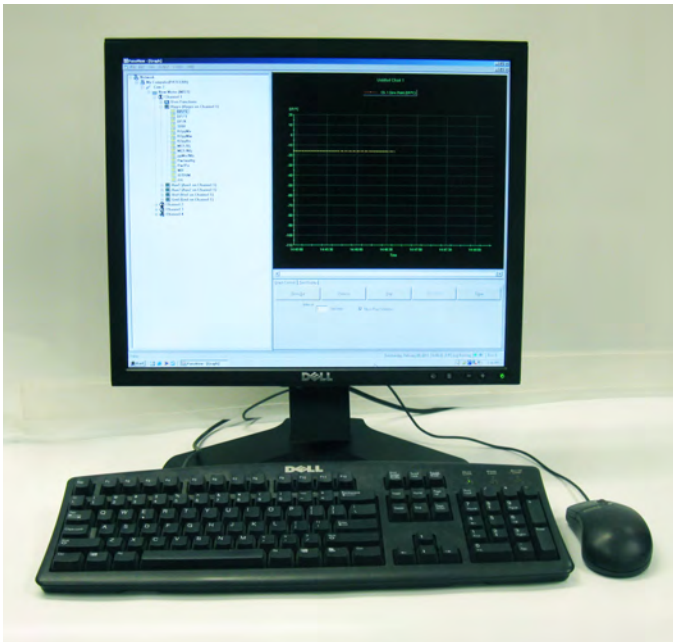
GE
Measurement & Control Solutions

PanaView™

Instrument Interface Software

User's Manual



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910-211 Rev. E
March 2011

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Installation and Operation Manual

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[PANAVIEW SOFTWARE VERSION 1.4.8]

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8. SURVIVAL. All provisions of this Agreement relating to liability, warranties, indemnities or confidentiality, and the provisions of Sections 7, 10 and 11 of this Agreement, shall survive the expiration or termination of this Agreement.

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10. INJUNCTIVE RELIEF. If Licensee breaches, or threatens breach of any part of this Agreement, Licensee acknowledges and agrees that Licensor will be greatly damaged, and such breach(es) will be irreparable and damages associated therewith will be difficult to quantify; therefore, Licensor may apply to any court of competent jurisdiction, who, notwithstanding the Governing Law provisions above, will apply the laws of its own jurisdiction in determining whether relief shall be granted to Licensor, for injunctive or other equitable relief to restrain such breach or threat of breach, without impairing, invalidating, negating or voiding Licensor's other rights to relief either at law or in equity.

11. General

11.1 Assignment. Licensee may assign this entire Agreement with the sale of any of its GE Infrastructure Sensing instruments provided that Licensee and its assignee agrees in writing to comply with all provisions of this Agreement. Otherwise, Licensee may not assign this Agreement without Licensor's prior written consent. Any other attempted assignment shall be null and void and shall automatically terminate this Agreement.

11.2 Compliance with Laws and Export. Each party shall comply in all material respects with all laws, rules, approvals, registrations and regulations of the United States and other countries that may be applicable to the Programs or to each party's activities under this Agreement. In addition, you agree that the Products and Documentation will not directly or indirectly be shipped, transferred or exported or re-exported into any country or used in any manner prohibited by the United States Export Administration Act or any other export laws, restrictions or regulations (collectively "Export Laws"). If the Programs are identified as export-controlled items under the Export Laws., you represent and warrant that you are not a citizen of or otherwise located within a U.S.-embargoed nation and that you are not otherwise prohibited under the Export Laws from receiving the Programs or Documentation. All right to use the Programs and Documentation are granted on condition that such rights are forfeited if you fail to comply with the terms of this Agreement.

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Chapter 1. Features & Capabilities

Chapter 2. Installation

Chapter 3. Initial Setup

Chapter 4. Setting Up a Meter

Chapter 5. Running PanaView

Chapter 6. Data Handling

Appendix A. Menu Map

[no content intended for this page]

Information Paragraphs

- **Note** *paragraphs provide information that provides a deeper understanding of the situation, but is not essential to the proper completion of the instructions.*
- **Important** *paragraphs provide information that emphasizes instructions that are essential to proper setup of the equipment. Failure to follow these instructions carefully may cause unreliable performance.*
- **Caution!** paragraphs provide information that alerts the operator to a hazardous situation that can cause damage to property or equipment.
- **Warning!** paragraphs provide information that alerts the operator to a hazardous situation that can cause injury to personnel. Cautionary information is also included, when applicable.

Safety Issues

WARNING! It is the responsibility of the user to make sure all local, county, state and national codes, regulations, rules and laws related to safety and safe operating conditions are met for each installation.

Auxiliary Equipment

Local Safety Standards

The user must make sure that he operates all auxiliary equipment in accordance with local codes, standards, regulations, or laws applicable to safety.

Working Area

WARNING! Auxiliary equipment may have both manual and automatic modes of operation. As equipment can move suddenly and without warning, do not enter the work cell of this equipment during automatic operation, and do not enter the work envelope of this equipment during manual operation. If you do, serious injury can result.

WARNING! Make sure that power to the auxiliary equipment is turned OFF and locked out before you perform maintenance procedures on the equipment.

Qualification of Personnel

Make sure that all personnel have manufacturer-approved training applicable to the auxiliary equipment.

Personal Safety Equipment

Make sure that operators and maintenance personnel have all safety equipment applicable to the auxiliary equipment. Examples include safety glasses, protective headgear, safety shoes, etc.

Unauthorized Operation

Make sure that unauthorized personnel cannot gain access to the operation of the equipment.

Environmental Compliance

Waste Electrical and Electronic Equipment (WEEE) Directive

GE Measurement & Control Solutions is an active participant in Europe's *Waste Electrical and Electronic Equipment* (WEEE) take-back initiative, directive 2002/96/EC.

The equipment that you bought has required the extraction and use of natural resources for its production. It may contain hazardous substances that could impact health and the environment.

In order to avoid the dissemination of those substances in our environment and to diminish the pressure on the natural resources, we encourage you to use the appropriate take-back systems. Those systems will reuse or recycle most of the materials of your end life equipment in a sound way.

The crossed-out wheeled bin symbol invites you to use those systems.

If you need more information on the collection, reuse and recycling systems, please contact your local or regional waste administration.

Visit http://www.ge-mcs.com/en/about-us/environmental-health-and-safety/1741-weee-req.html for take-back instructions and more information about this initiative.

Chapter 1. Features & Capabilities

1.1 Introduction

PanaView is a graphical user interface (GUI) that permits interactive communication between a GE instrument and a personal computer (PC) that is running under a 32-bit Windows operating system (i.e., Windows 98SE/XP/ME/2000 or Windows NT 4.0 with Service Pack 6 or Windows 7 or higher). The interface has been carefully designed to present the same appearance and functionality as most familiar Windows software applications. As a result, anyone familiar with using common Windows programs should have no difficulty using PanaView.

1.2 Basic Features

The following primary tasks may be performed with PanaView software:

- Save the instrument's programmed site file data to the hard drive on the PC.
- Display text output of the live measurement data on the computer monitor.
- Display the live measurement data on the computer monitor in graphical format.
- Create and save graph and log files to the hard drive on the computer.
- Create custom templates for displaying text, graph, or log data.
- Interface with multiple GE instruments.

1.3 Supported Meters

Version 1.4.8 of PanaView supports the following meters:

- FGA390
- IGM878
- MIS 1
- MIS 2
- MMS3
- OxyTrak™ 390
- PM880
- PT878
- Sentinel
- Sentinel LCT
- Sentinel LNG
- UTX878

The current version also supports all meters that work with the IDM protocol:

- AT868
- DF868
- GC868
- GF868
- GM868
- GN868
- GS868
- PT868
- UPT868-C
- UPT868-P
- XGM868
- XGS868
- XMO2/IDM
- XMT868
- XMTC

1.4 PanaCom ActiveX Software

Although the PanaView GUI is the component of the software package that is visible to the user, it is really just one part of a sophisticated program. Beneath the surface, PanaCom™ is seamlessly enabling the PC to communicate with the GE instrument. Figure 1 illustrates the relationship between the various components of the system.

As indicated, PanaCom not only interfaces with the standard PanaView GUI, but it can be programmed to interact directly with customized versions of PanaView or with OLE compliant Windows applications. In fact, PanaCom is compatible with any process control/automation software that supports ActiveX technology. For more information on PanaCom, contact your GE sales engineer.

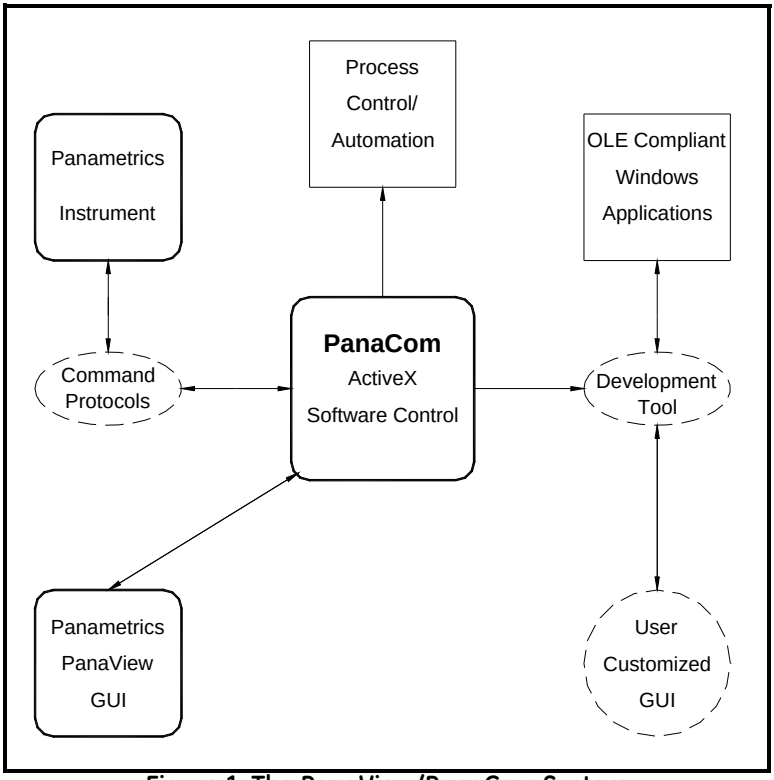

Figure 1: The PanaView/PanaCom System

1.5 Advanced Capabilities

In addition to the basic features described on page 1, PanaView offers some very useful advanced functionality:

- consult the comprehensive online help files to quickly answer questions
- use the supplied sample application (available separately, supplied only with PanaCom software), visual basic code, and interactive demonstrations as a guide for expanding the capabilities of the basic program

Proceed to Chapter 2, *Installation*, to set up the system.

1.6 Windows Shortcuts

The instructions in this manual use the simple, direct approach to accomplishing the desired tasks. That is, the use of the standard menus on the menu bar is emphasized. However, as in any other conventional Windows program, many tasks may be completed by alternate methods. For example, a *right mouse click* or a *keyboard shortcut* may provide a more convenient route to the desired result. Since these are standard Windows procedures, they are covered in detail in the documentation that came with your PC's operating system and specific shortcut instructions are not included in this manual.

1.7 Electronic Documentation

As an added convenience, an electronic version of this complete manual is included on the PanaView installation CD-ROM. A file named *"PanaView.pdf"* is included in the *"Manual"* directory on the CD-ROM. This file is an Adobe *Portable Document Format* file, and it may be opened with Adobe *Acrobat Reader.*

Acrobat Reader is a free application that may be downloaded from many web sites, including the Adobe web site. The PDF file may be opened either directly from the PanaView CD-ROM, or the file may be copied onto your PC's hard drive. Once opened, the electronic manual may be viewed on your computer monitor and it may be printed in whole or in part.

Chapter 2. Installation

2.1 Introduction

PanaView is supplied on a CD-ROM that includes the basic program, along with sample applications and interactive demonstrations. The underlying PanaCom ActiveX software is automatically installed during the PanaView installation.

Before beginning the installation, make sure the personal computer system meets the requirements listed in the next section.

2.2 Personal Computer Requirements

For optimum performance of the PanaView software, the personal computer must meet the following minimum requirements:

- CD-ROM drive
- 300 MHz Pentium processor (CPU)
- 64 MB random access memory (RAM)
- 100 MB available hard drive space
- 32-bit Windows operating system (i.e., Windows NT 4.0 with Service Pack 6 or higher, Windows 98SE/ME/2000/XP, or Windows 7)
- Internet Explorer 5.0 or higher installed
- VGA monitor and graphics card

To begin the installation, proceed to the next section.

2.3 Software Installation

Note: *If you have installed a software version of PanaView prior to version 1.3 on your PC, please go to Control Panel and uninstall the previous version before installing the current version.*

After verifying that the personal computer meets the minimum requirements listed on page 5, proceed as follows:

1. Insert the PanaView CD-ROM into the CD-ROM drive.
2. Figure 2 below shows the first screen that appears, with three buttons available. Click on:
   - the [Install PanaView] button to continue the installation
   - the [Browse the CD] button to examine the files, or
   - the [Exit] button to close the screen.

Figure 2: Welcome Screen

2.3 Software Installation (cont.)

3. The *Install-Shield* wizard, shown in Figure 3, will launch and guide you through the installation process. Click on the [Next] button to continue.

Note: *If the Install-Shield wizard does not launch automatically, select "Run" from the Windows Start menu and run the "Setup.exe" file in the root directory of the CD-ROM.*

Figure 3: *Install-Shield* Wizard

2.3.1 The [Back] and [Cancel] Buttons

If the [Cancel] button is chosen at any of the installation screens, the screen shown in Figure 4 appears.

Figure 4: Cancel Installation Screen

At the screen shown above, the following two options are available:

- click the [No] button to return to the installation process, or
- click the [Yes] button to terminate the installation process and return to Windows

On all but the first installation screen (where the [Back] button is grayed out), you may return to the previous installation screen to make corrections by clicking on the [Back] button.

2.3 Software Installation (cont.)

4. Next, the *End User Licence Agreement* shown in Figure 5 appears. Click the radio button for "*I accept the terms in the licence agreement*," and click on the [Next] button to continue.

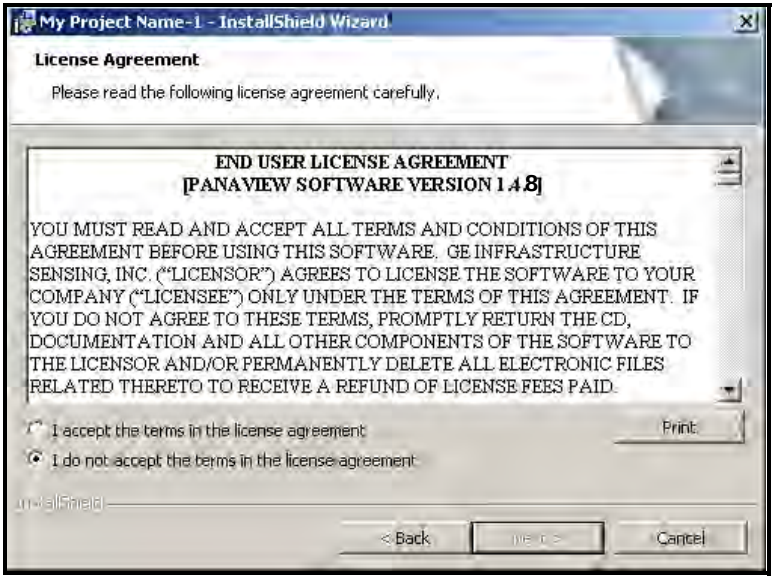

Figure 5: End User Licence Agreement

Note: *A copy of this agreement begins on page iii of this manual.*

2.3 Software Installation (cont.)

5. Enter your name and your company name. Use the radio buttons to select whether the application will be available to anyone using the computer, or to the designated user only. Then, click on the [Next] button to continue.

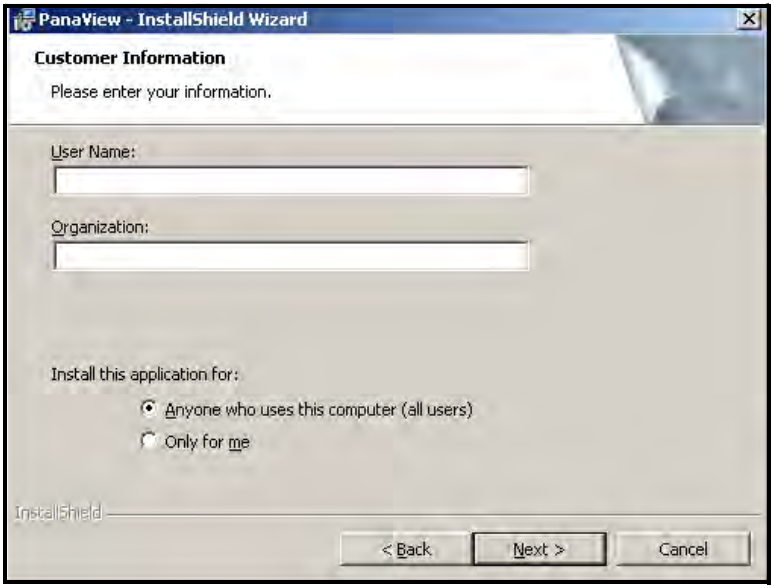

Figure 6: User Information Screen

Proceed to Step 6 on page 11 to continue the installation.

2.3 Software Installation (cont.)

6. Click on the [Next] button at the screen shown in Figure 7 to accept the default directory for the PanaView files (recommended).

Note: *To specify a different directory for the PanaView files, click on the* [Change] *button and select the desired directory on your hard drive.*

Figure 7: Choose Destination Location Screen

Proceed to Step 7 on page 12 to continue the installation.

2.3 Software Installation (cont.)

7. At the screen shown in Figure 8, click the radio button for the type of installation desired. The following three options are available:

Figure 8: Setup Type Screen

- *Typical* - the best choice for most installations (the recommended and default choice)
- *Minimal* - install only the minimum required files (use if hard drive space is a concern)
- *Custom* - allows the user to specify the files to be installed (recommended for experienced users only)

If *"Custom"* was selected, follow the special instructions on page 13. Otherwise, click on the [Next] button and continue with Step 8 of the installation process on page 15.

2.3.1 Custom Setup

If *"Custom"* was selected at the *"Setup Type"* screen, proceed as follows:

a. Highlight either *"Databases"* or *"Fonts"* in the left pane of the *"Select Components"* window in Figure 9.

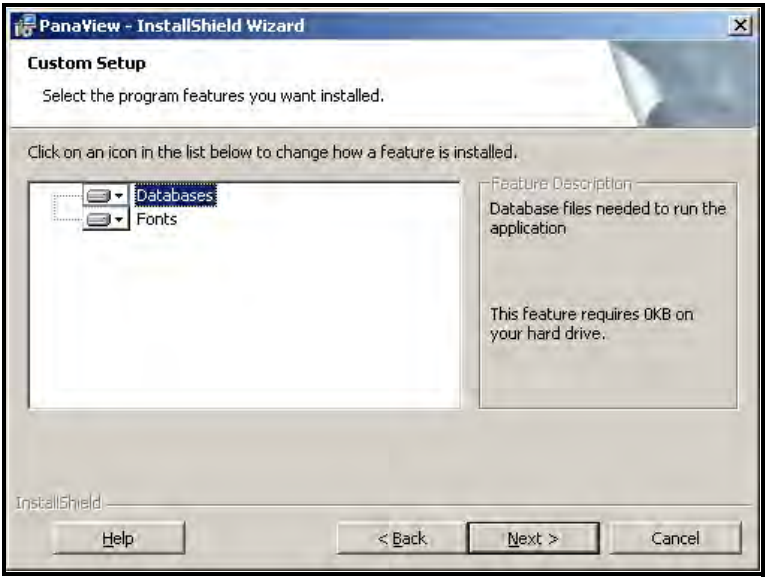

Figure 9: Select Program Components

Continue the custom installation on the next page.

2.3.1 Custom Setup (cont.)

b. Click on the icon to the left of the highlighted feature. A pop-up menu appears, as shown in Figure 10.

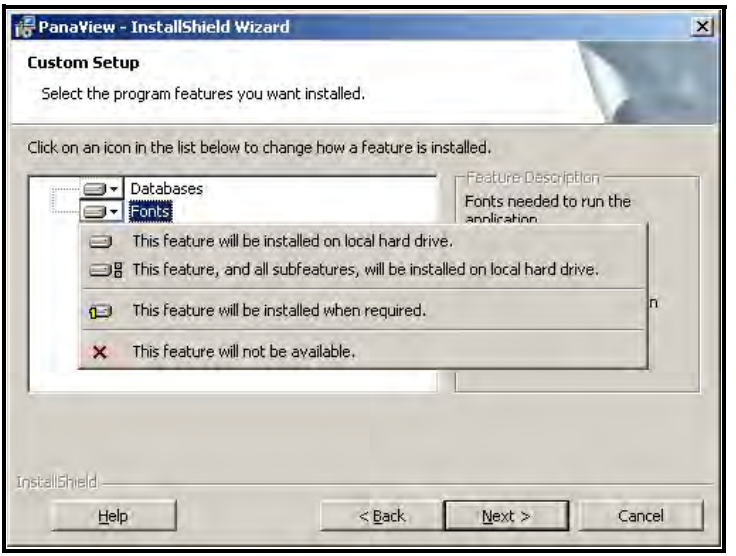

Figure 10: Feature Installation Menu for Custom Setup

c. Click on the icon next to the installation prompt to determine how PanaView will install a given feature. Four choices are available:

- The feature will be installed on the PC hard drive.
- The feature, and all subfeatures, will be installed on the PC hard drive.
- The feature will be installed only when required.
- The feature will not be installed.

Click on the [Next] button and proceed to Step 8 on page 15 to continue the installation.

2.3 Software Installation (cont.)

8. The screen shown in Figure 11 lists the entries made at the previous screens. Press the [Next] button to begin installing the PanaView files.

Note: *Any of the prior entries may be edited by clicking on the* [Back] *buttons until the desired screen reappears. This is the final chance to change the listed settings.*

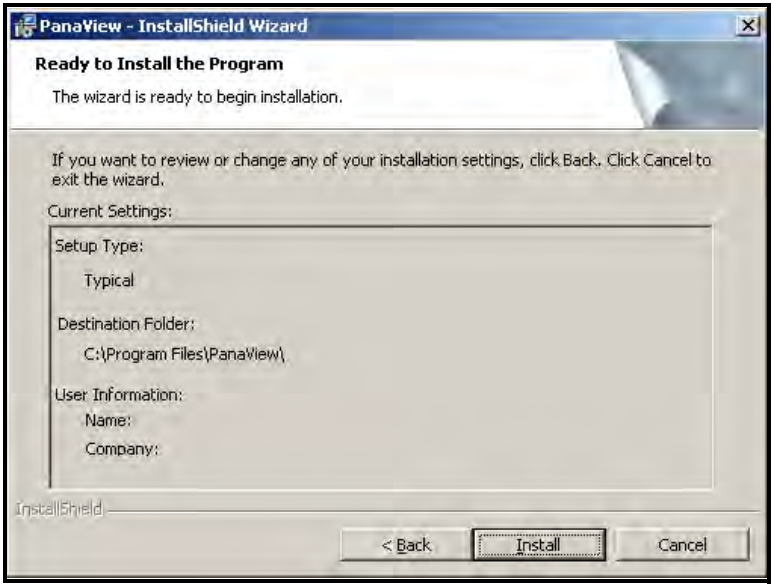

Figure 11: Start Installation Screen

Proceed to Step 9 on page 16 to continue the installation.

2.3 Software Installation (cont.)

9. When all of the PanaView files have been copied to your hard drive, the screen shown in Figure 12 appears. Click on the [Finish] button to close the InstallShield Wizard.

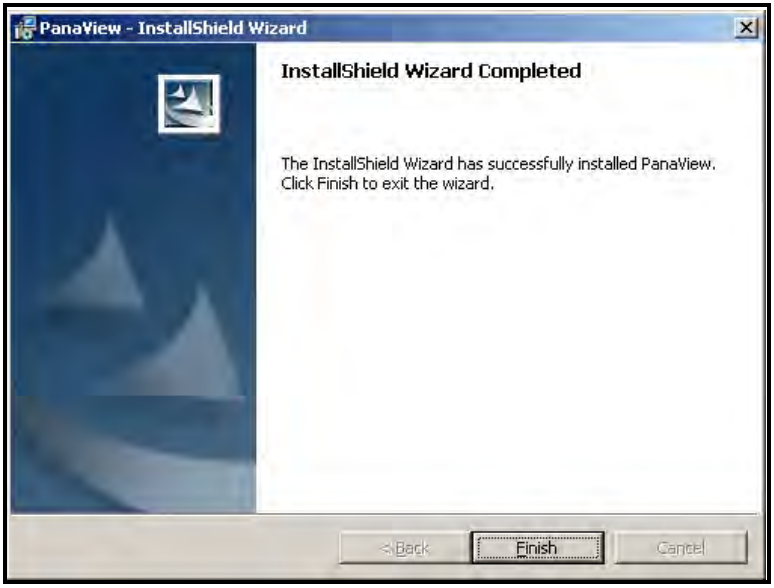

Figure 12: Setup Complete Screen

PanaView may be launched either by selecting PanaView from the Windows Start menu or by double-clicking a PanaView shortcut (created by the user) on the desktop.

Proceed to the next section to set up your hardware.

2.4 Hardware Installation

After the PanaView software has been installed in accordance with the instructions in the previous section, the system hardware must be properly set up. To complete this task, the following items are required:

- a personal computer with PanaView installed and at least one available serial port.
- a GE instrument that has been configured for use with PanaView and which has an available serial port.

Note: *Check with GE to make sure that your instrument is equipped with the necessary hardware and software versions for PanaView compatibility.*

- for RS232 applications, a serial cable with the proper connectors for the available serial ports (typically, this will be a cable with female DB9 connectors at both ends)

Note: *The RS232 standard specifies a maximum cable length of 50 ft. For longer cables, consult the factory for details.*

2.4.1 Installation Procedure

If all of the hardware requirements have been met, proceed as follows for RS232 applications:

1. Set up the GE instrument in accordance with the instructions provided in the *User's Manual* supplied with the instrument.
2. Power down both the personal computer and the GE instrument.

CAUTION! Failure to power down both devices before proceeding to the next step may cause damage to the personal computer and/or the instrument.

3. Using the serial cable, connect the serial port on the personal computer to the serial port on the instrument.
4. Power up the GE instrument and then the personal computer.

Your system is now ready to use the PanaView interface. Proceed to Chapter 3, *Initial Setup,* for instructions on using the software.

Chapter 3. Initial Setup

3.1 Introduction

Before proceeding with this chapter, make sure that the PanaView software has been installed in accordance with the instructions provided in Chapter 2, *Installation*. Also, be certain that the personal computer has been restarted since the completion of the installation procedure. Then, follow the instructions below to perform the initial PanaView configuration.

3.2 Starting PanaView

The PanaView program may be launched from the Windows desktop in any of the following conventional ways:

- use *"My Computer"* to navigate to the PanaView directory and double-click on the PanaView.exe file
- use *"Windows Explorer"* to navigate to the PanaView directory and double-click on the PanaView.exe file
- use the *"Start Menu"* to navigate to the PanaView listing and click on it
- double-click on a PanaView *"Shortcut"* that was created on the desktop for this purpose.

Note: *If necessary, consult your Windows documentation for detailed instructions on any of the above procedures.*

Proceed to the next section for instructions on completing the first-time startup of PanaView.

3.3 First-Time Startup

Launch the PanaView program by one of the methods listed on page 19, and proceed as follows:

1. Notice the screen shown in Figure 13 below. The Version number of your PanaView software, which may not be the same as the example in Figure 3-1, is shown in this screen.

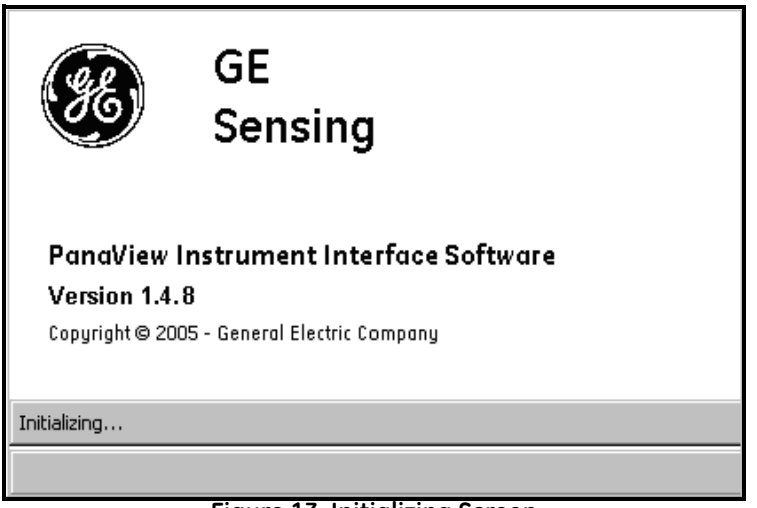

Figure 13: Initializing Screen

Note: *When PanaView is launched for the first time after installation, the following directories are created:*

C:\Program Files\PanaView\Logs

C:\Program Files\PanaView\Chart

These directories are used to store any Log or Chart (Graph) files that are generated during your PanaView sessions.

3.3 First-Time Startup (cont.)

2. As shown in Figure 14, the default PanaView initial startup window contains only the following basic components of the interface (listed from top to bottom):

Note: *To make the image in Figure 14 more readable on this page, the window was compressed both vertically and horizontally from its actual dimensions.*

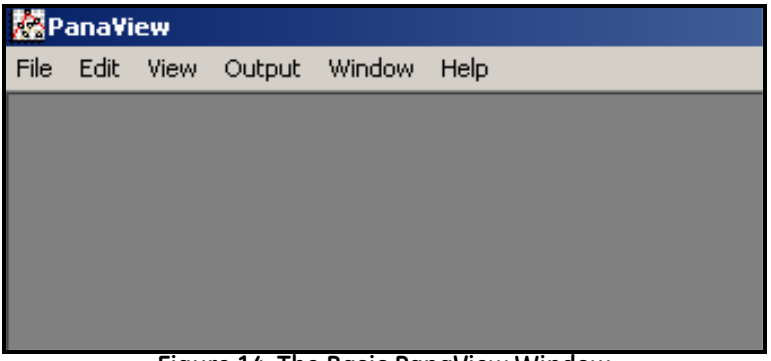

Figure 14: The Basic PanaView Window

- *Title Bar* - shows the PanaView name on the left side, and the standard Windows control boxes on the right side
- *Menu Bar* - contains the File, Edit, View, Output, Window, and Help menus on the left side
- *Display Window* - by default, is blank on initial startup
- *Status Bar* - by default on initial startup, shows status messages, date, time, number of active logs, and number of communication errors (from left to right)

For instructions on customizing the default startup window to make the interface more useful, proceed to the next section.

3.4 The View Menu

Prior to setting up communications with a meter, the *"View"* menu (see Figure 15) provides three options for customizing the PanaView interface:

- Comm Status (Off by default)
- Status Bar (On by default)
- Preferences

Note: *The* Refresh *option in the View menu is not active at this time.*

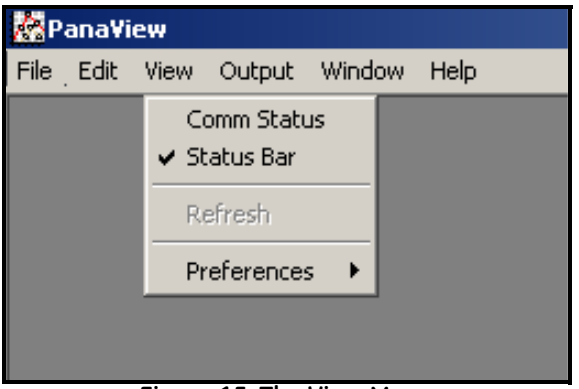

Figure 15: The View Menu

Access the *"View"* menu by clicking on it in the menu bar, and proceed to the appropriate section for a discussion of the options listed above.

3.4.1 Comm Status

This option permits the user to toggle a communications status bar on and off. The default state is *"Off"* as indicated by the absence of a check mark in Figure 15 on page 22. When toggled *"On"*, the Comm Status bar appears just above the main Status bar (see Figure 16) and displays the following serial communications categories, from left to right:

Figure 16: The Comm Status Bar

Note: *To make the image in Figure 16 more readable on this page, the window was compressed horizontally from its actual dimensions.*

- Comm Stats: port number
- Queued
- Sent
- Rcvd
- Errs

Of course, all of the above categories will be empty, unless PanaView has actively engaged in serial communications.

Note: *The Comm Status bar reverts to its default* "Off" *state whenever PanaView is closed.*

3.4.2 Status Bar

The main Status bar shown on page 21 is always visible when PanaView is first started. However, it may be toggled on and off at any time during a PanaView session by selecting or deselecting it in the *"View"* menu. Its current state is indicated by the absence or presence of a check mark to its left.

The decision to turn the Status Bar *"On"* or *"Off"* is based on a balance between information and display area. Turning the Status Bar *"Off"* creates a larger display area, but the information displayed is no longer visible.

3.4.3 Preferences

To access the *"Preferences"* option (see Figure 15 on page 22), click on it in the *"View"* menu. Click on any of the tabs and proceed to the appropriate section for instructions.

Note: *Within any of the tabs, click on the* [Apply] *button and then the* [OK] *button to accept any changes and close the* "Preferences" *box. To abort the process, click the* [Cancel] *button instead.*

3.4.3a Database Tab:

In the *"Preferences"* box, click the *"Database"* tab as shown in Figure 17 to display the currently used database files (*.mdb). If alternative files are available from previous PanaView installations on the same computer or from a PanaView installation on a different computer, the *PanaView* database file or the *Meter Configuration* database file may be changed by clicking on the button to the right of the appropriate text box.

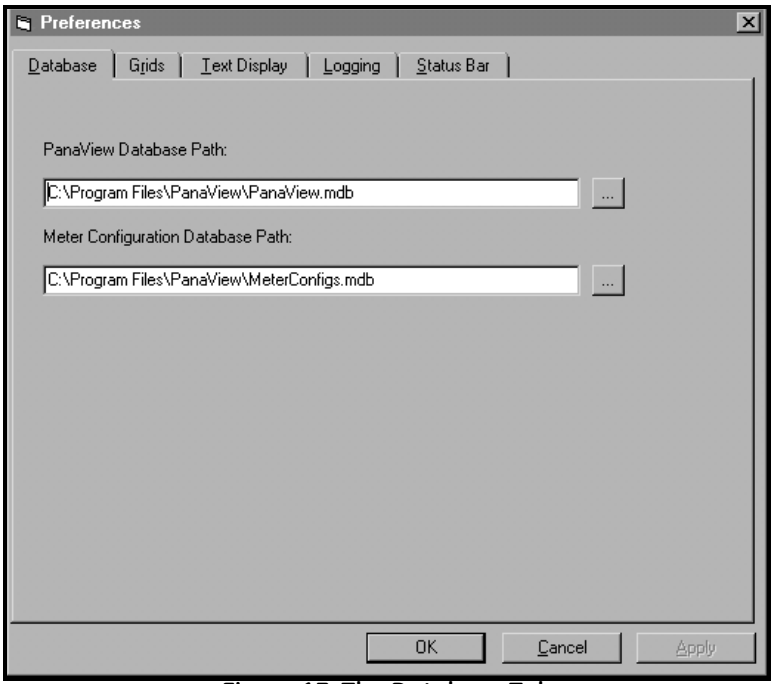

Figure 17: The Database Tab

3.4.3 Preferences (cont.)

3.4.3b Grids Tab:

In the *"Preferences"* box, click the *"Grids"* tab as shown in Figure 18 to display the current grid settings. The settings for either of the following grids may be revised:

- For the *Log Data Grid*, the [Font], [Text Color], and [Background Color] may be changed by clicking on the appropriate button(s). If a *Default Layout File* (*.grx) has been created (as discussed in Chapter 6), it may be loaded by clicking on the button to the right of that text box.
- For the *Meter Browser Grid*, the [Font], [Text Color], and [Background Color] may be changed by clicking on the appropriate button(s).

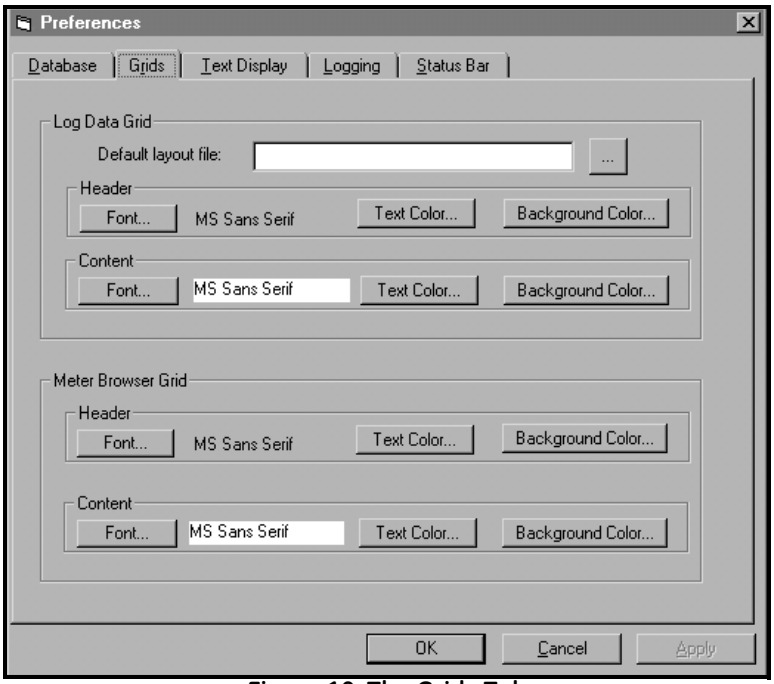

Figure 18: The Grids Tab

3.4.3 Preferences (cont.)

3.4.3c Text Display Tab:

In the *"Preferences"* box, click the *"Text Display"* tab as shown in Figure 19 to display the current settings. The settings for either of the following displays may be revised:

- For *Graphing*, the *Default Configuration File* is initially blank. If a *Default Configuration File* (*.oc2) has been created, it may be loaded by clicking on the button to the right of that text box.
- For *Text*, the [Background Color] and [Text Color] may be changed by clicking on the appropriate option button(s).

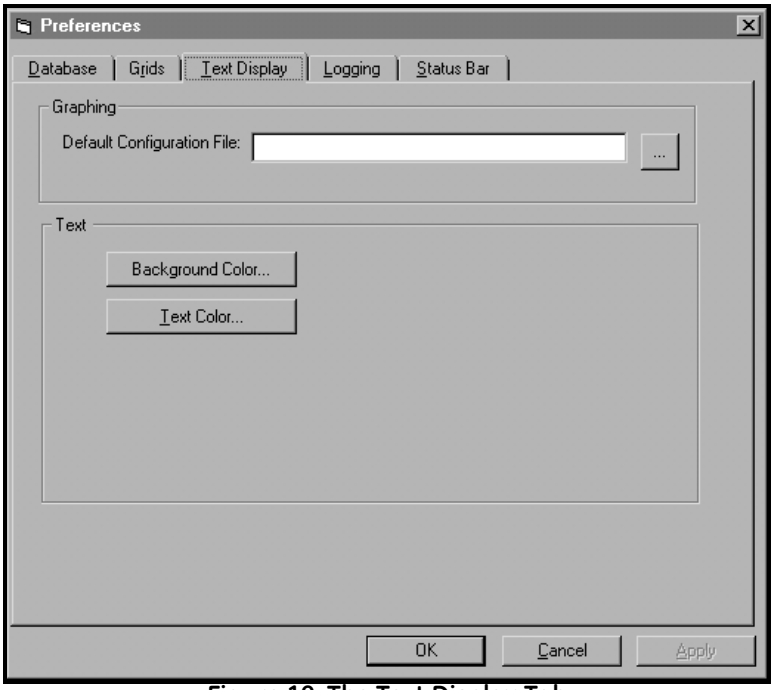

Figure 19: The Text Display Tab

3.4.3 Preferences (cont.)

3.4.3d Logging Tab:

In the *"Preferences"* box, click the *"Logging"* tab as shown in Figure 20 to display the *Log File Directory.* To specify a different directory for storing log files, click on the button to the right of the text box.

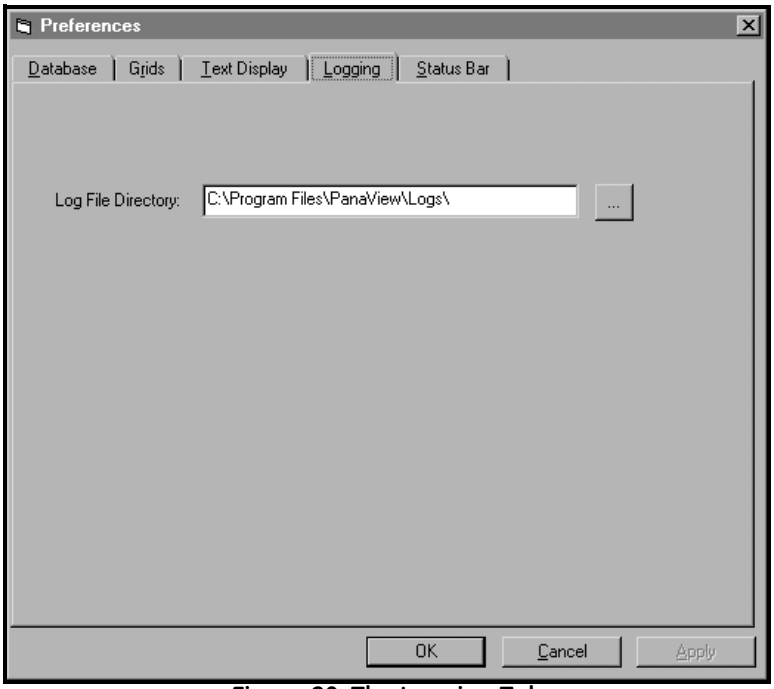

Figure 20: The Logging Tab

3.4.3e Status Bar Tab:

In the *"Preferences"* box, click the *"Status Bar"* tab as shown in Figure 21 below to display the current settings. The settings for any of the following items may be revised:

- The *Font* may be changed by clicking on the [Select Font] button and specifying the new font, style and size.
- Check the selection box to display *Status Messages* or uncheck the selection box to turn off *Status Messages*.
- Check the selection box to display the *Date* or uncheck the selection box to turn off the *Date*. If the date is turned on, select the desired date *format* from the drop down list box.
- Check the selection box to display the *Time* or uncheck the selection box to turn off the *Time*. If the date is turned on, select the desired time *format* from the drop down list box.

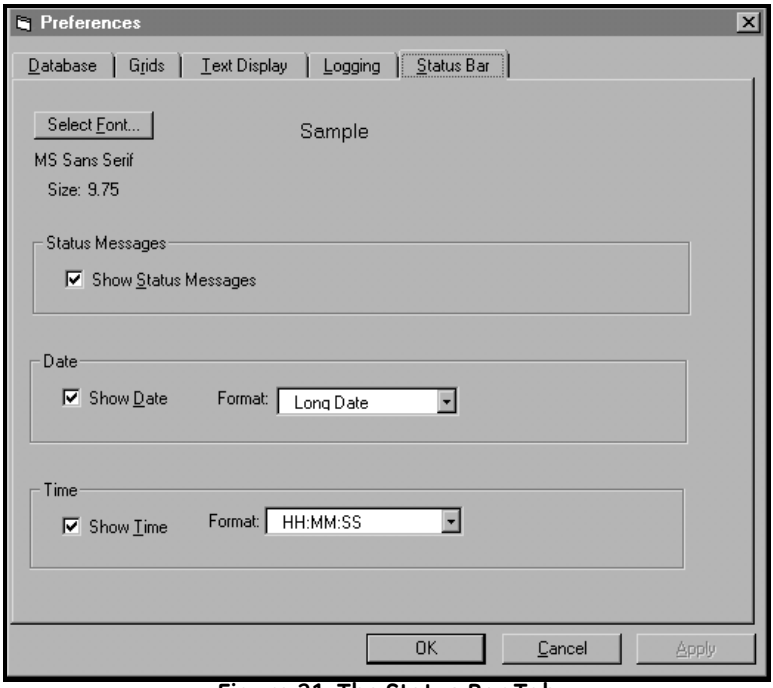

Figure 21: The Status Bar Tab

3.5 The Help Menu

The *"Help"* menu, which is the last item on the right of the menu bar (see Figure 22), is the primary source of information regarding the PanaView software and your PanaView installation. This menu contains the following three options:

- Contents
- Search for Help On...
- About PanaView

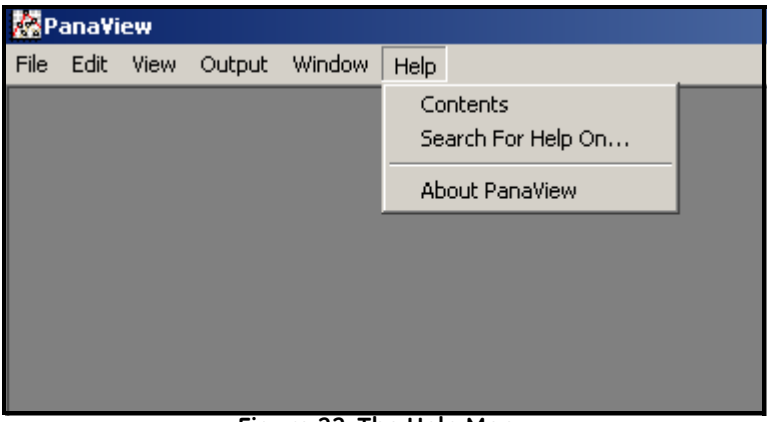

Figure 22: The Help Menu

Access the *"Help"* menu by clicking on it in the menu bar, and proceed to the appropriate section for a discussion of the options listed above.

3.5.1 Contents

The *"Contents"* option lists all of the available PanaView general information categories in the online help file in a format analogous to the table of contents in a book. To access this information, simply click on the *"Contents"* option and then click on the desired topic in the listing that appears.

3.5.2 Search For Help On...

The *"Search For Help On..."* option lists all of the available PanaView general information categories in the online help file in a format analogous to the index in a book. To access this information, simply click on the *"Search For Help On..."* option and then click on the desired topic in the listing that appears.

Note: *In some early versions of the PanaView software, the online help functionality was not yet implemented. In such cases, attempts to access the online help file generate the message shown in Figure 23.*

Figure 23: Online Help Unavailable

If the message shown in Figure 23 appears upon clicking the *"Contents"* or *"Search For Help On..."* option, online help is not available with your version of PanaView. Simply click on the [OK] button to return to the main PanaView window.

3.5.3 About PanaView

The *"About PanaView"* option provides information on your version of the software and about your personal computer system. To access this information, simply click on the *"About PanaView"* option and the screen shown in Figure 24 appears.

Figure 24: The About PanaView Screen

The screen in Figure 24 shows the *version number* of the currently installed copy of PanaView, which may differ from the example shown here. To exit the *"Help"* menu and return to the main PanaView window, simply click on the [OK] button. Otherwise, to examine the information relating to your personal computer system, click on the [System Info...] button.

3.6 Exiting PanaView

PanaView may be closed by any of the methods that are used for any other standard Windows program. The two most common methods are:

- Click on *"File"* to open the file menu and then click on "Exit" to close the program, or
- Click on the [X] control box on the right side of the title bar

Proceed to Chapter 4, *Setting Up a Meter*, to continue the setup of your PanaView software.

[no content intended for this page]

Chapter 4. Setting Up a Meter

4.1 Introduction

After your hardware and software have been installed as described in Chapters 2 (*Installation*) and 3 (*Initial Setup*) of this manual and the instrument's *User's Manual*, the procedure for establishing communications with a meter may be started. To set up a meter in PanaView, the following steps must be completed in the order described in this chapter:

- open the *"New Meter Browser"* window (page 36)
- select the computer in the PanaView network tree (page 37)
- add a new communications port to the network (page 40)
- adding the new meter to the communication port (page 47)

Proceed to the next section to learn how PanaView connects to a GE instrument.

4.2 Opening the New Meter Browser

The first step in setting up a meter is to open the *"New Meter Browser,"* which is located in the *"File"* menu. To accomplish this, click on the *"File"* menu on the menu bar, and then click on the *"New Meter Browser"* option (see Figure 25).

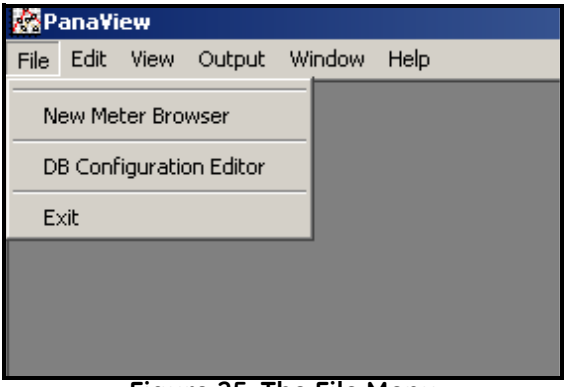

Figure 25: The File Menu

Proceed to the next section to select the computer name in the PanaView network tree.

4.2.1 The PanaView Network Tree

The *"New Meter Browser"* window consists of two panes:

- *PanaView network tree* pane on the left
- the *details* pane on the right

Figure 26 shows the initial appearance of the browser window. With the *network* branch highlighted in the left pane, the *computer name* that was specified during the installation procedure is listed in the right pane. Any other computers that were installed on the network are also listed here.

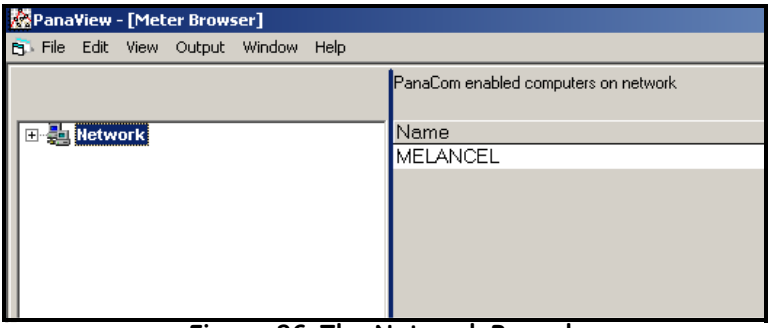

Figure 26: The Network Branch

Note: *The network tree works just like the directory tree that is used in Windows Explorer. That is, if a branch has a "+" sign to its left, that branch contains other branches. Just click on the "+" sign to expand the branch and display those other branches. The "+" sign is then replaced by a "-" sign. To collapse a branch with a "-" sign to its left, just click on the "-" sign.*

4.2.1 The PanaView Network Tree (cont.)

With the *"New Meter Browser"* window open, complete the following steps:

1. Expand the *network* branch by clicking on the "+" sign to its left. Then, highlight the *My Computer(Name)* branch and the *Meter Browser* window will look like Figure 27.

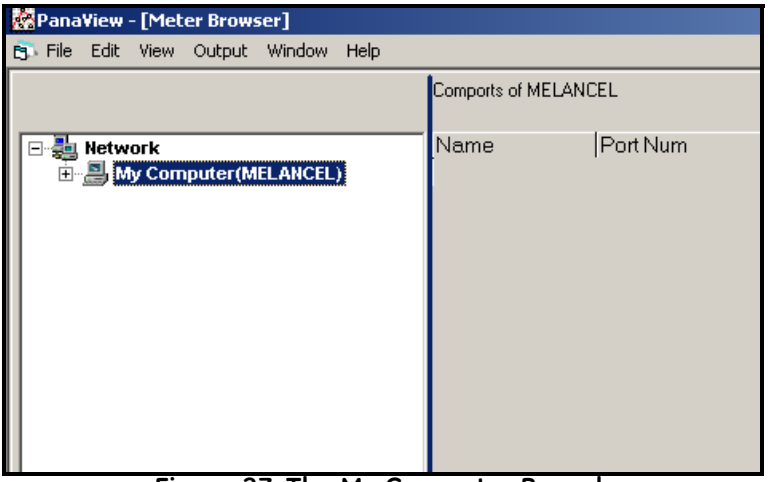

Figure 27: The My Computer Branch

Note: *The right pane in Figure 27 lists all of the communication ports, along with their configuration parameters, that are currently assigned to the named computer. If this is the initial meter setup, the list is empty.*

4.2.1 The PanaView Network Tree (cont.)

2. Fully expand the network tree by clicking on the "+" sign next to the *My Computer(Name)* branch (see Figure 28).

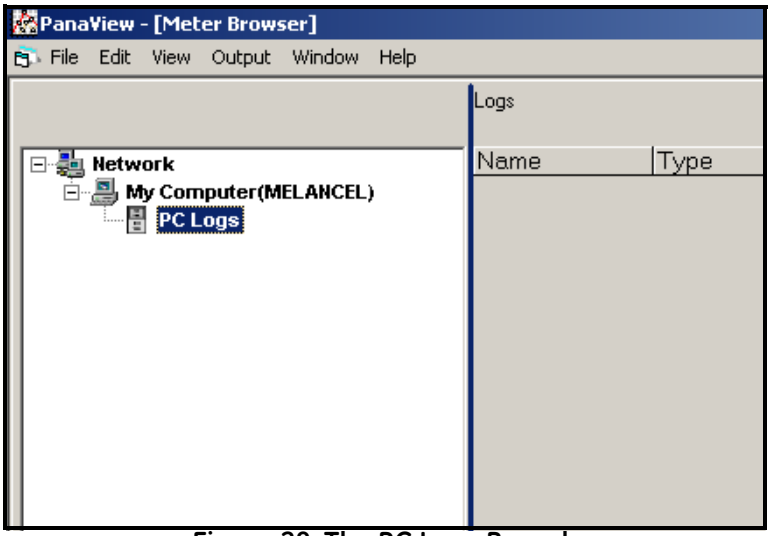

Figure 28: The PC Logs Branch

Note: *Step 3 is just included for reference, as PanaView's logging feature is discussed in Chapter 6,* Data Handling.

3. Click on the *PC Logs* branch and all available PC logs (and their parameters) that have been created on the named computer are listed in the details pane on the right. If no logs have yet been created, the details pane is empty.

IMPORTANT: *During initialization, PanaView creates special subdirectories to store its log and chart (graph) files (see page 20). If these subdirectories are removed, attempts to access the PC logs will generate an error message.*

4. Highlight the *My Computer(Name)* branch by clicking on it.

Proceed to the next section to add a communication port to the selected computer.

4.3 Adding a New Communication Port

Before a meter can be set up on the network, the serial communications port to be used by that meter must be added to the PanaView network and configured. To accomplish this, proceed as follows:

1. Open the *"New Meter Browser"* window and expand the network tree as shown in Figure 28 on page 39. Then, highlight the *My Computer(Name)* branch by clicking on it.
2. Pull down the *"Edit"* menu by clicking on it in the menu bar.
3. Click on the *"New"* menu option to select it, and a submenu opens with two choices on it (see Figure 29).

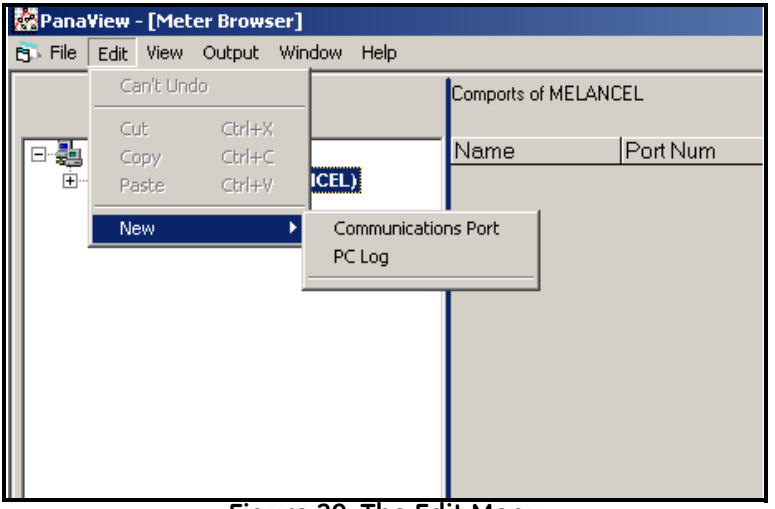

Figure 29: The Edit Menu

Note: *The only currently available option on the* "Edit" *menu is* "New." *The other options become active only during relevant procedures.*

4.3 Adding a New Communication Port (cont.)

4. Click on the *"Communications Port"* option to select it (see Figure 29 on page 40). The dialog box shown in Figure 30 appears, with *"Untitled"* as the default *"Name."*

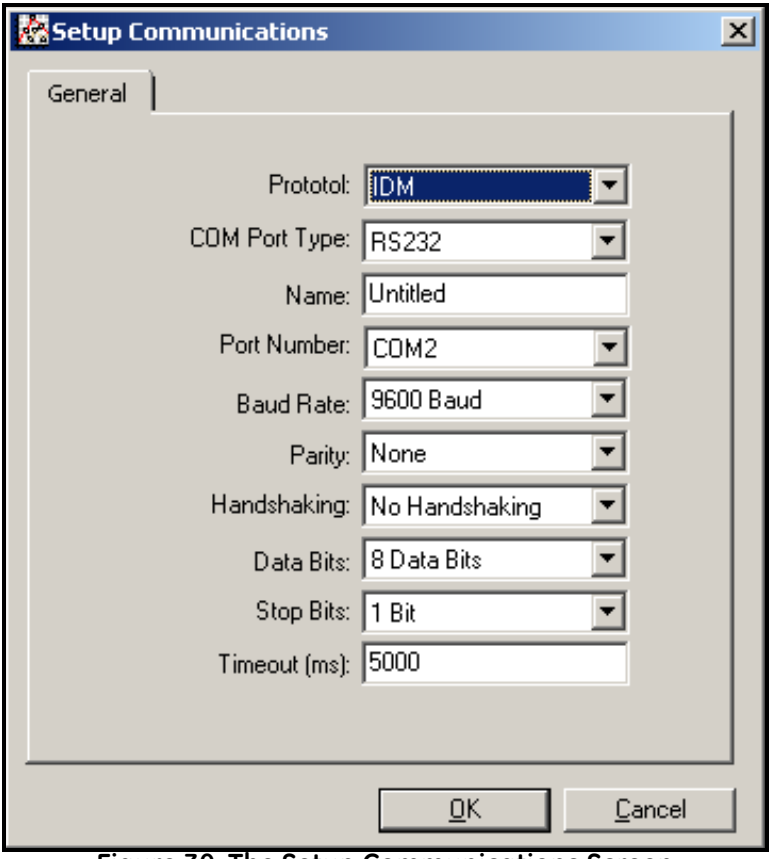

Figure 30: The Setup Communications Screen

The dialog box in Figure 30 permits the user to name the communication port (*"Comport"* is used for this example) and to set up all of its parameters.

IMPORTANT: *During meter initialization, the baud rate specified above must be the same as the baud rate of the meter.*

4.3 Adding a New Communication Port (cont.)

The following serial port parameters are available in the *Setup Communications* dialog box:

CAUTION! Contact your GE representative before entering communication port settings different from those of your meter. Changing these settings may render your meter inoperable and require reloading of the meter software.

Note: *The* "Name" *and* "Timeout (ms)" *parameters must be entered manually. All others are selected by clicking on the down arrow to the right of the list box to drop down a list of available options.*

- **Port Number** - select the number of the serial port on the PC
  Default: depends on the PC's specific hardware configuration
  Options: depends on the PC's specific hardware configuration

- **Name** - enter a name for the port (optional)
  Default: Untitled
  Options: enter any name that fits in the text box

- **COM Port Type** - select the type of serial port available
  Default: RS232
  Options: RS485HD, RS485FD, IrDA®, IR232®, TCP/IP (Ethernet)

IMPORTANT: *If you select TCP/IP, the menu changes. Proceed to page 45.*

4.3 Adding a New Communication Port (cont.)

Note: *For infrared applications, IR232 generally provides better performance than IrDA. If you select IR232, you must disable the drivers in the infrared device connected to your PC for the device to work with PanaView. From the* Control Panel*, click on the* System *icon, and then on the* Hardware *tab. Click on* Device Manager*, and then on the specific infrared device listed under* Infrared Devices*. Finally, click on* Disable *to disable the device drivers.*

- **Baud Rate** - select the data transfer speed to be used
  Default: 19200 Baud
  Options: 300, 600, 1200, 2400, 4800, 9600, 19200, 38400, 57600, 115200, 128000, 230400

Note: *A baud rate of 19,200 is sufficient for almost all applications. If you experience periodic communication reliability problems, you may wish to consider lowering the baud rate on your instrument and in PanaView.*

- **Parity** - select the parity setting to be used
  Default: None
  Options: Even, Mark, None, Odd, Space

- **Handshaking** - select the type of handshaking protocols used
  Default: No Handshaking
  Options: No Handshaking, XON/XOFF, RTS/CTS, RTS and XON/XOFF

- **Data Bits** - select the number of data bits in a word
  Default: 8 Data Bits
  Options: 7 Data Bits, 8 Data Bits

- **Stop Bits** - select the number of stop bits in a word
  Default: 1 Bit
  Options: 1 Bit, 2 Bits

4.3 Adding a New Communication Port (cont.)

- **Timeout (ms)** - enter the time interval that must pass before a communications attempt is aborted
  Default: 3000
  Options: keep the default value unless instructed otherwise

IMPORTANT: *Remember that the choices made above must match those that were made in setting up the meter's serial port.*

5. After all of the communications port parameters have been set, click the [OK] button (see Figure 30 on page 41).

Note: *To abort the addition of the communications port, click on the* [Cancel] *button instead of the* [Apply] *button.*

6. Wait a few seconds for the information to be processed and registered (the option buttons are greyed out during this period). When the [OK] button becomes active again, click on it to complete the process.

Proceed to page 47 to set up a new meter on the newly installed communication port.

4.3.1 Setting up Ethernet Communications

If you have selected TCP/IP in step 4 on page 42, the Setup Communications window appears similar to Figure 31.

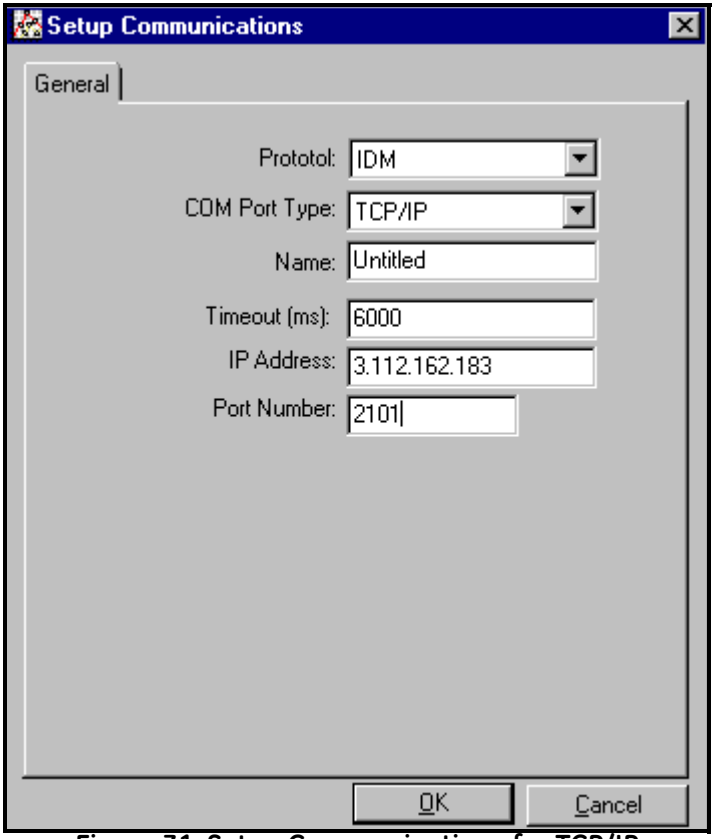

Figure 31: Setup Communications for TCP/IP

1. Type in the desired *Name* and *Timeout* (in milliseconds).
2. In the *IP Address* text box, enter the IP (MAC) address supplied with customer documentation. In the *Port Number* box, enter the port number supplied with customer documentation. (The default number is 2101.)
3. Click [OK] to complete data entry. If the connection is successful, a screen appears similar to Figure 32 on page 46.

4.3.1 Setting up Ethernet Communications (cont.)

Figure 32: Successful TCP/IP Connection Screen

If the connection is unsuccessful, a screen similar to Figure 33 appears.

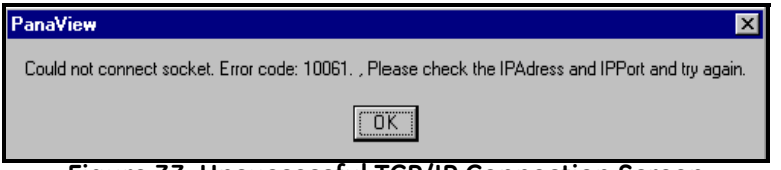

Figure 33: Unsuccessful TCP/IP Connection Screen

4.4 Adding the First New Meter

A meter may be set up on any communications port that has been added to the network in accordance with the procedures in the previous section.

Note: *If you are using PanaView software version 1.4.6 or greater, the communication connection is made automatically using IrOBEX (IR Object Exchange).*

For earlier software versions, to manually add the first new meter to the PanaView network, proceed as follows:

1. Notice in Figure 34 that the network tree now has the newly configured communication port listed.

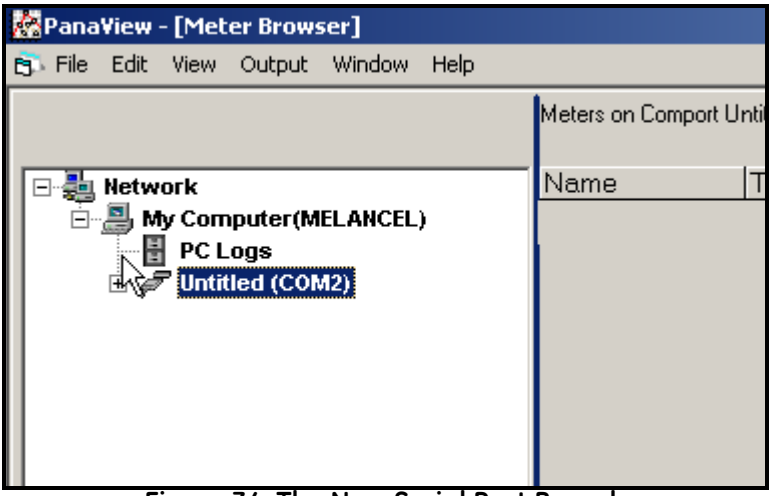

Figure 34: The New Serial Port Branch

Note: *In this example, the communication port has been named* "Untitled" and is located on COM2. *Whatever name was entered in the setup process appears.*

2. Highlight the communication port to which the meter will be added by clicking on it, and then open the *"Edit"* menu on the menu bar (if the communication port is not highlighted first, the *"New Meter"* option is not active in the *"Edit"* menu).

4.4 Adding the First New Meter (cont.)

3. Click on the *"New"* option in the *"Edit"* menu (refer to Figure 35).
4. Click on the *"Meter"* menu option.

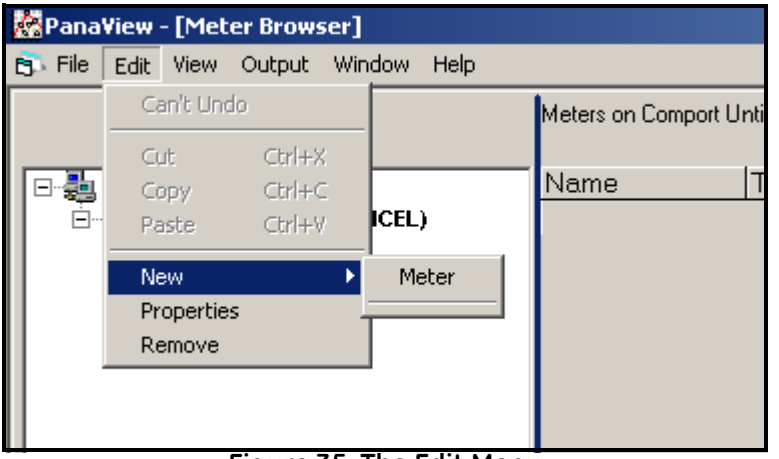

Figure 35: The Edit Menu

Continue with Step 5 on the next page.

4.4 Adding the First New Meter (cont.)

5. After selecting the *"New"* and *"Meter"* options, the dialog box shown in Figure 36 appears. Select the *"I don't know the node ID of the meter I am adding to the network"* radio button and then click on the [OK] option button.

Note: *When installing the first meter on the network, even if you know the node ID assigned to the meter, it is more foolproof to allow PanaView to retrieve the information directly from the meter. If the* "I know the node ID of the meter I am adding to the network." *option is selected instead, the process skips directly to Step 8 on page 52.*

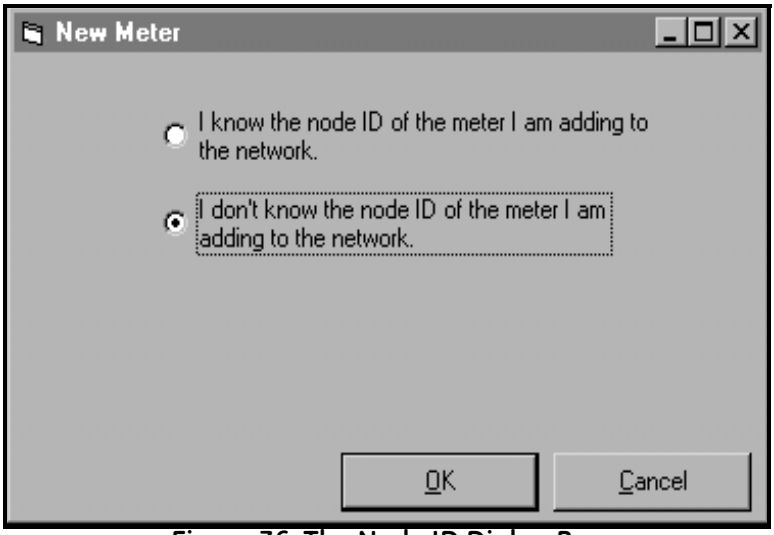

Figure 36: The Node ID Dialog Box

Continue with Step 6 on the next page.

4.4 Adding the First New Meter (cont.)

6. After responding to the previous dialog box, the dialog box shown in Figure 37 appears. In most instances, users connect their PC to one instrument only via a direct serial cable. Therefore, select the *"It is the only meter connected to the communication port"* radio button and then click on the [OK] option button.

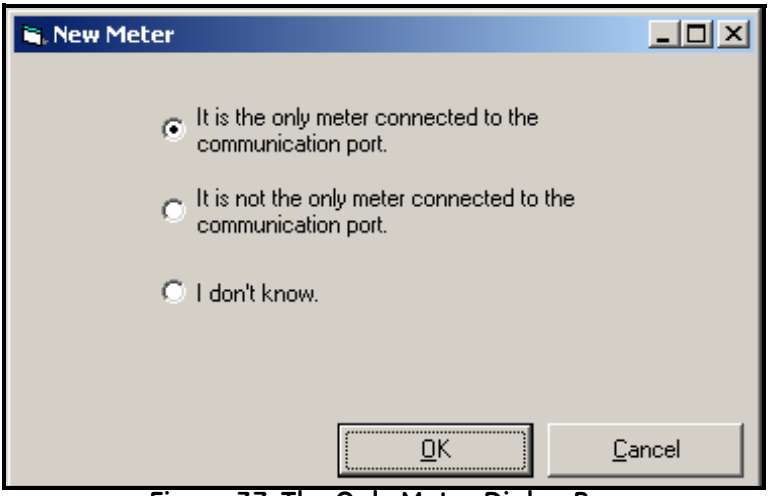

Figure 37: The Only Meter Dialog Box

Continue with Step 7 on the next page.

4.4 Adding the First New Meter (cont.)

7. After responding to the previous dialog box, a dialog box showing the Node ID (16 in this example) of the meter appears (see Figure 38). Select the *"I wish to use this Node ID"* radio button and then click on the [OK] option button.

Note: *PanaView gets this Node ID directly from the meter; do not use a different Node ID for a single-meter setup.*

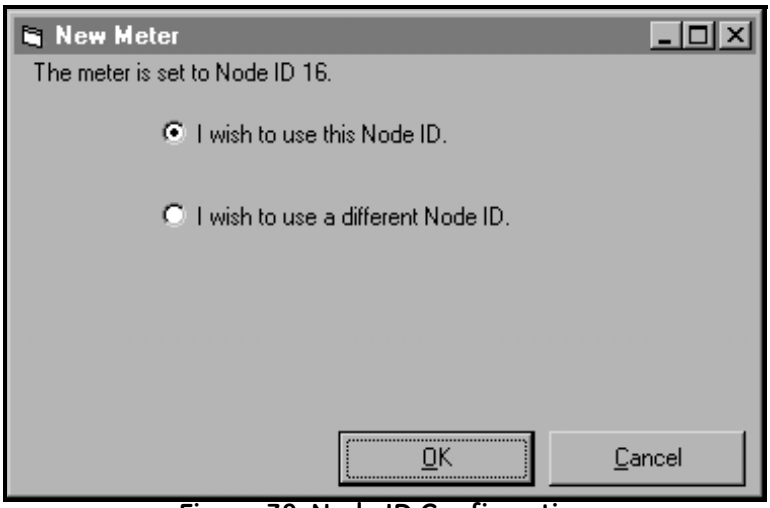

Figure 38: Node ID Confirmation

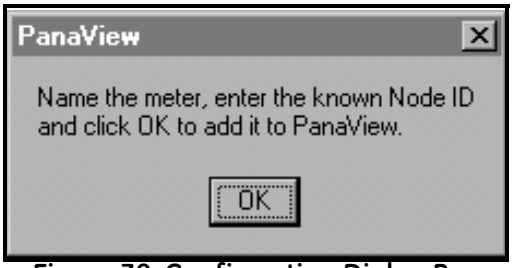

Figure 39: Confirmation Dialog Box

4.4 Adding the First New Meter (cont.)

8. At the dialog box shown in Figure 39 on page 51, click on the [OK] option button to add the meter and configure it. The dialog box shown in Figure 40 appears.

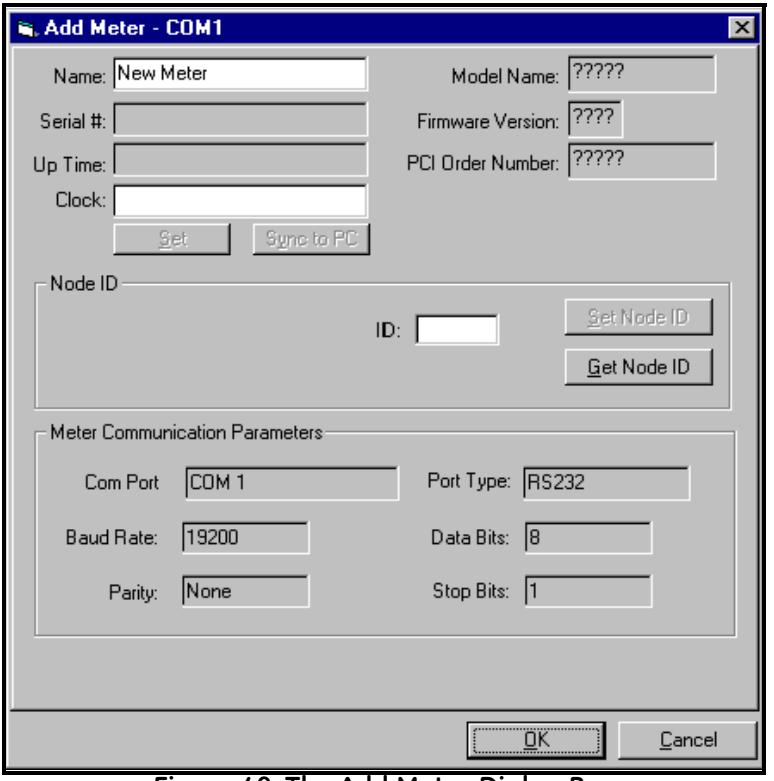

Figure 40: The Add Meter Dialog Box

9. In the dialog box above, enter a *name* for the new meter. The *Node ID* and *Meter Communication Parameters* have been entered automatically by PanaView. In addition, PanaView populates certain other fields, such as “Model Name,” “Firmware Version,” and “PCI Order Number” with data retrieved from the GE instrument. Click on the [OK] option button to initialize the new meter.

4.4 Adding the First New Meter (cont.)

After completing Step 9 on page 52, do not make any inputs with either the mouse or the keyboard until the new meter initialization process is completed. While the meter is initializing, the information shown in Figure 41 is added to the new meter dialog box.

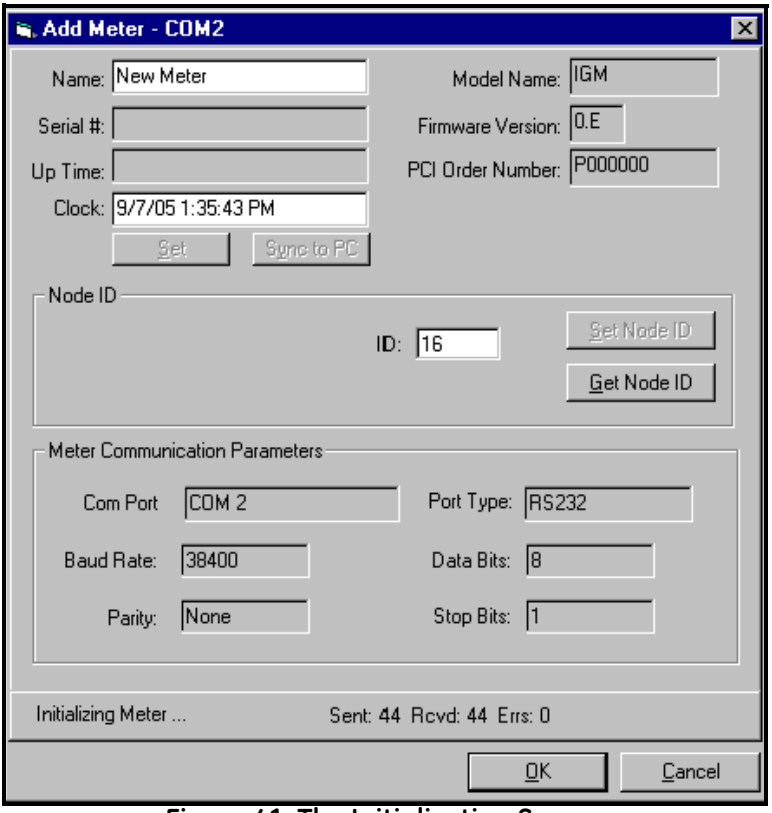

Figure 41: The Initialization Screen

Note: *The "Clock" text box has been filled in with the current date and time, the meter data (an IGM in this example) has been added, and the active communications status is being displayed along the bottom of the dialog box.*

4.4 Adding the First New Meter (cont.)

After the initialization has been completed, PanaView adds the new meter to the PanaView network tree and automatically closes the *"Add New Meter"* dialog box (see Figure 42).

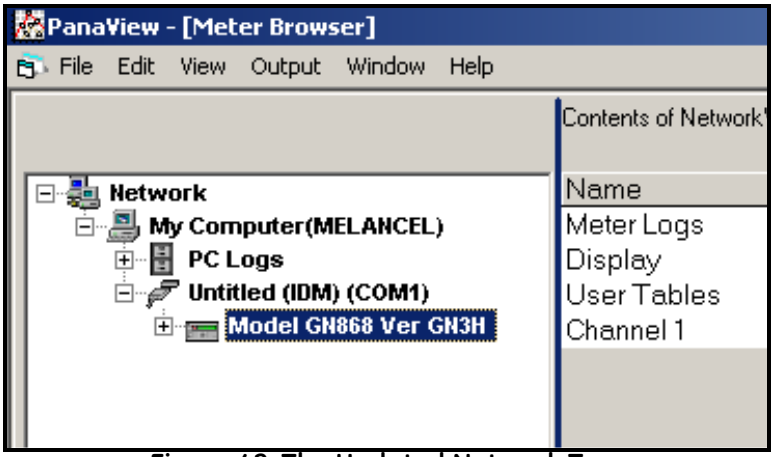

Figure 42: The Updated Network Tree

Note: *A GE GN868 flowmeter was used for this example, as is indicated in Figure 42. The information shown in the right pane in Figure 42 and the branches available under the "New Meter" branch in the left pane of the window will reflect the specific meter that was actually installed.*

This completes the set up of the first new meter in PanaView. Proceed to Chapter 5, *Running PanaView*, for information on using the PanaView interface to communicate with the attached meter. Otherwise, continue with the next section to install an additional meter.

4.5 Adding an Additional Meter

An additional meter may be added to the PanaView network at any time in either of the following situations:

- replace the existing meter with a different one (see below)
- keep the existing meter and add an additional meter (see the next page)

If more than one IrDA meter will be used with one instance of PanaView, be sure to manually disconnect a meter and remove it from the startup connection list before breaking the connection and connecting another meter.

Note: *If an IrDA meter is not disconnected and removed from the "startup connection list," a meter of a different serial number will display with the ID of the first meter.*

Proceed to the appropriate section for specific instructions.

4.5.1 Replace the Existing Meter

To replace a meter that is already installed on the PanaView network with a different meter on the same communication port, complete the following steps:

1. Remove the existing meter from the network, as described in the *"Removing the Meter"* section on page 68.
2. Remove the existing communication port from the network, as described in the *"Removing the Communication Port"* section on page 62.
3. Add the communication port back onto the network by following the instructions in the *"Adding a New Communication Port"* section on page 40.
4. Add the replacement meter by following the instructions in the *"Adding the First New Meter"* section on page 47.

Note: *Failure to remove the old meter and/or communication port first may result in some of the old meter's properties (such as the name) being assigned to the new meter.*

4.5.2 Keep the Existing Meter

To keep the existing meter and add an additional meter to a different communication port, complete the following steps:

1. Add the new communications port to the PanaView network by following the instructions that begin on page 40.
2. Determine the *Node ID* of the second meter. Consult the *User's Manual* for the meter for instructions on finding the assigned Node ID in the meter's menu system.
3. Change the Node ID of the existing meter to any value between 16 and 99 that is different from that of the new meter. Refer to *"Editing the Meter Settings"* on page 65 for specific instructions.

IMPORTANT: *The new communication port must be different from the one to which the existing meter is already attached.*

4. Add the new meter to the new communication port by following the instructions that begin on page 47, with one exception:
   a. At the Node ID dialog box (see Figure 36 on page 49), select the *"I know the node ID of the meter I am adding to the network"* option and click on the [OK] option button.

   b. When you reach the dialog box shown in Figure 40 on page 52, enter the known Node ID for the second meter.

   c. Click on the [Set Node ID] option button to register the entered value, and then click on the [OK] option button to complete the process.

The PanaView network tree will now show two attached communication ports with one meter attached to each port.

Chapter 5. Running PanaView

5.1 Introduction

After at least one meter has been added to the PanaView network in accordance with the instructions in Chapter 4, *Setting Up a Meter*, the many interactive features in the PanaView interface may be accessed. To navigate through the PanaView program, refer to the menu map on page 104. If it is not already running, launch PanaView. A screen like the one shown in Figure 43 below appears (the exact PanaView version number and meter details will reflect your specific installation):

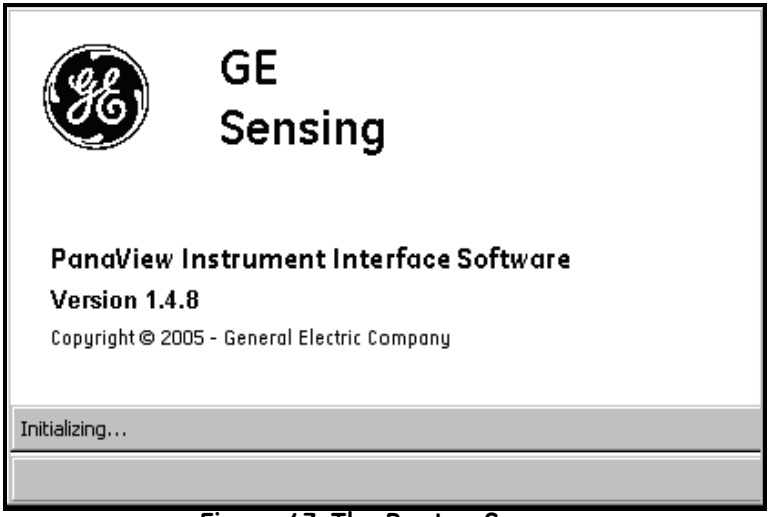

Figure 43: The Bootup Screen

With some meters, the bootup screen displays the meter model, serial port, and node ID during the initialization process. In these cases, a progress bar across the bottom of the screen indicates the percentage of the initialization that has been completed.

5.2 Initialization Error

If the meter is not turned on before launching PanaView, the attempt to initialize the meter will fail, and the dialog box shown in Figure 44 appears. To recover from the failed initialization attempt, complete the procedure below.

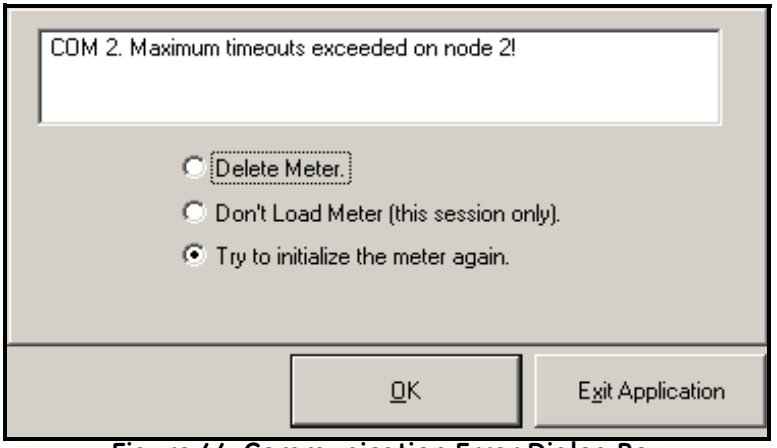

Figure 44: Communication Error Dialog Box

At the screen shown in Figure 44, choose one of the following four options:

- click on the [Exit Application] option button to close PanaView, or
- select the *"Delete Meter"* radio button and click on the [OK] option button to permanently remove the meter from the PanaView network, or
- select the *"Don't Load Meter (this session only)"* radio button and click on the [OK] option button to remove the meter from the PanaView network for this session only, or
- select the *"Try to initialize the meter again"* radio button and click on the [OK] option button to try again to communicate with the meter.

Determine the cause of the failed communication attempt (often a loose serial cable), correct the problem, and try again.

5.3 Communication Port Settings

During the initial addition of a communication port to the PanaView network, various port parameters were specified. If it ever becomes necessary or desirable to change any of these settings, this is easily accomplished as follows:

Note: *Tasks that were described in detail in previous chapters, such as how to open a particular menu, are simply stated without details in this chapter.*

1. Open the *"New Meter Browser"* from the *"File"* menu.
2. Fully expand the *network tree* and highlight the chosen communication port (see Figure 45).

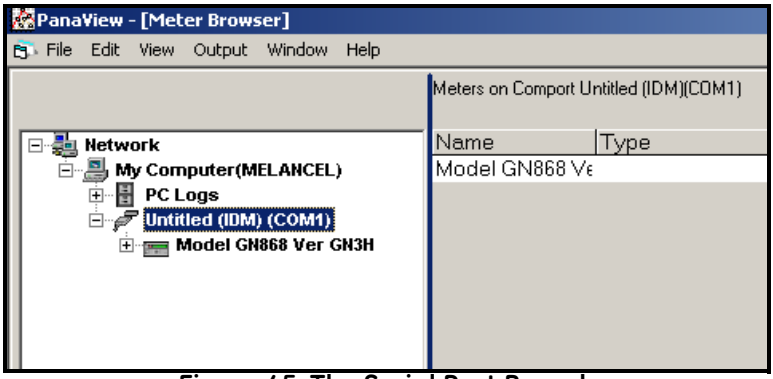

Figure 45: The Serial Port Branch

5.3 Communication Port Settings (cont.)

3. With the desired communication port highlighted, open the edit menu as shown in Figure 46.

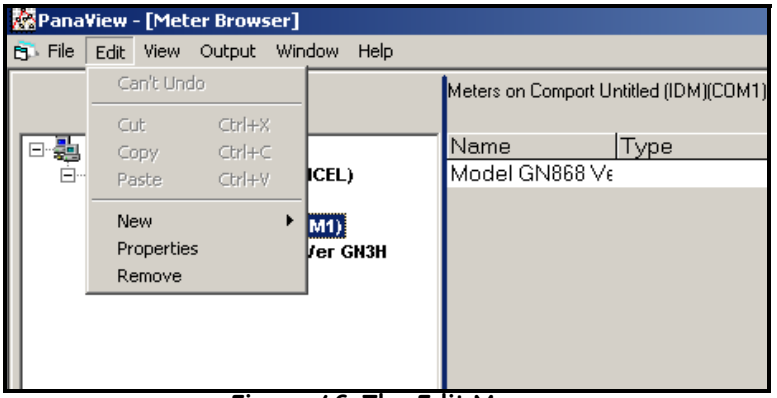

Figure 46: The Edit Menu

There are now three available options on the *"Edit"* menu:

- **New** - this was discussed in Chapter 4, *Setting Up a Meter*
- **Properties** - use to edit the current port settings
- **Remove** - use to delete the port from the PanaView network

IMPORTANT: *The PC's port parameters must be identical to those programmed into the meter's serial port, as described in the meter's* User's Manual.

Proceed to the appropriate section for a discussion of the *"Properties"* (see page 61) and *"Remove"* (see page 62) options.

5.3.1 Editing the Communication Port Settings

To edit the current settings for a communication port, complete the following steps:

1. From the *"Edit"* menu shown in Figure 46 on page 60, click on the *"Properties"* option. The dialog box shown in Figure 47 appears.

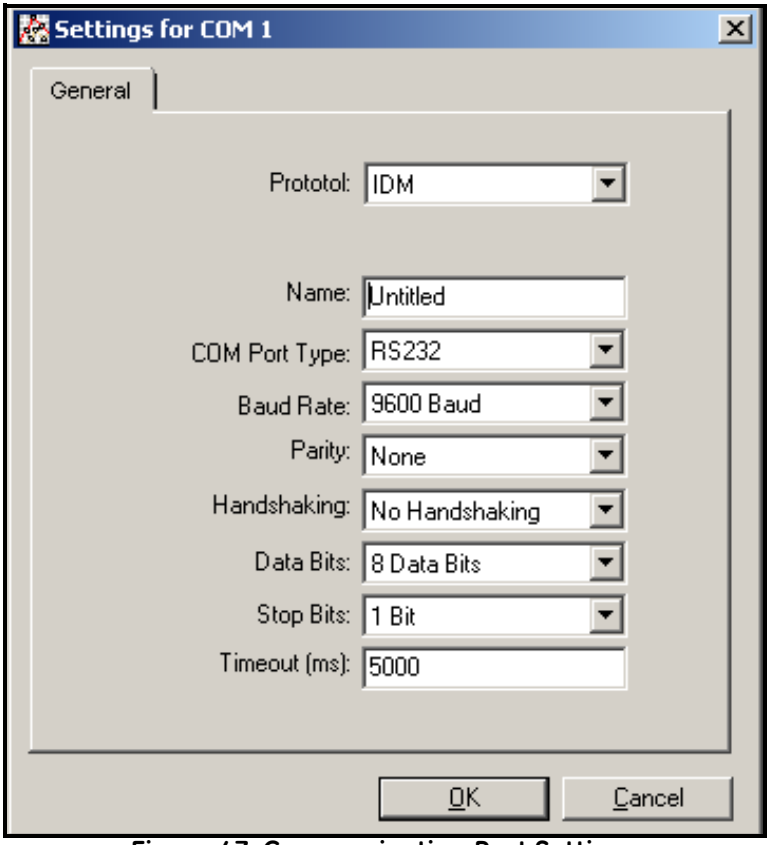

Figure 47: Communication Port Settings

2. See page 45 in Chapter 4, *Setting Up a Meter*, for instructions on choosing the communication port parameters.
3. When all of the desired changes have been made to the parameter settings, click on the [OK] option button.

5.3.2 Removing the Communication Port

To remove a communication port from the PanaView network, complete the following steps:

1. From the *"Edit"* menu shown in Figure 46 on page 60, click on the *"Remove"* option. The dialog box shown in Figure 48 appears.

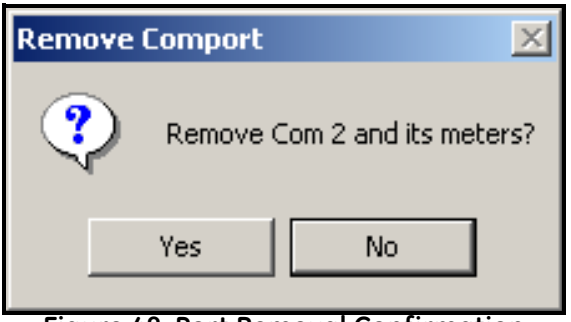

Figure 48: Port Removal Confirmation

2. Click on the [Yes] option button to remove the selected port (and all of its attached meters) from the PanaView network, or click on the [No] option button to abort the operation.

After responding to the above prompt, you are returned to the *"New Meter Browser"* window.

5.4 Meter Configuration Settings

During the initial addition of a meter to the PanaView network, various settings were specified. If it ever becomes necessary or desirable to change any of these settings, this is easily accomplished as follows:

Note: *Tasks that were described in detail in previous chapters, such as how to open a particular menu, are simply stated without details in this chapter.*

1. Open the *"New Meter Browser"* from the *"File"* menu.
2. Fully expand the *network tree* and highlight the chosen meter (see Figure 49).

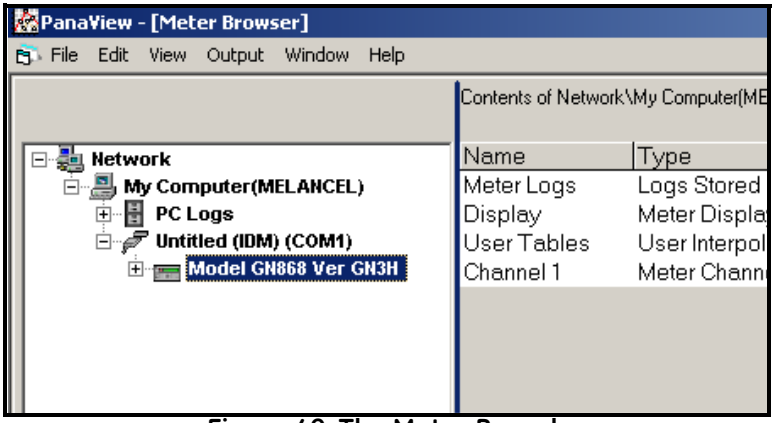

Figure 49: The Meter Branch

5.4 Meter Configuration Settings (cont.)

3. With the desired meter highlighted, open the *"Edit"* menu as shown in Figure 50.

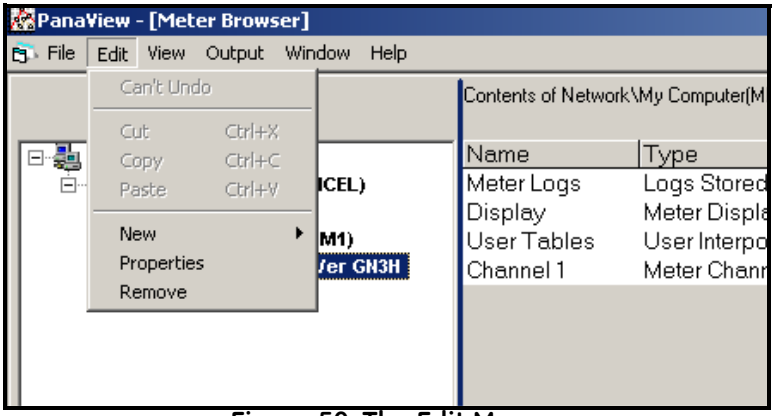

Figure 50: The Edit Menu

There are three available options on the *"Edit"* menu:

- **New** - this was discussed in Chapter 4, *Setting Up a Meter*
- **Properties** - use to edit the current settings
- **Remove** - use to delete the meter from the PanaView network

Proceed to the appropriate section for a discussion of the *"Properties"* (see the next page) and *"Remove"* (page 68) options.

5.4.1 Editing the Meter Settings

To edit the current settings for a meter, complete the following steps:

1. From the *"Edit"* menu shown in Figure 50 on page 64, click on the *"Properties"* option. The dialog box shown in Figure 51 appears.

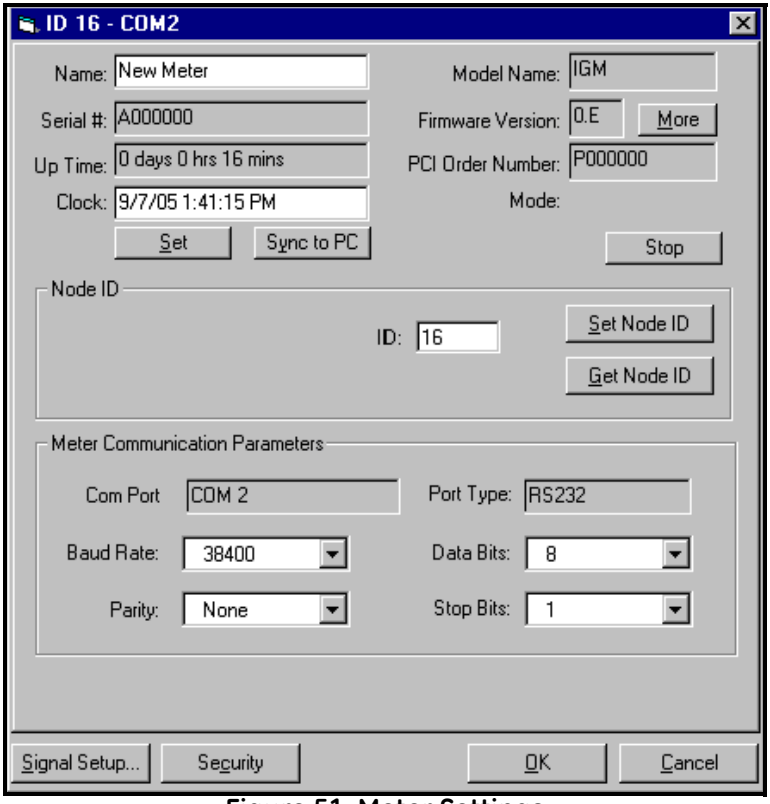

Figure 51: Meter Settings

2. The *meter name* may be edited directly in the text box shown.
3. Some meters have an *Auto Cal Interval* (the time between automatic calibration sequences), which may be edited directly in the text box.

5.4.1 Editing the Meter Settings (cont.)

4. The meter's *Time* may be reset in three different ways:

- manually enter the time and date in the text box, or
- click on the [Sync to PC] option button to have PanaView set the time and date to the current PC setting, or
- click on the [Set] option button to open the dialog box shown in Figure 52. Set the desired date and time as indicated, and click on the [OK] option button.

Figure 52: The Date/Time Dialog Box

5.4.1 Editing the Meter Settings (cont.)

IMPORTANT: *Never change a meter's Node ID to the same value as another meter on the same PanaView network. Also, Node ID values below 16 are not accepted by PanaView.*

5. The *Node ID* may be reset in three different ways:

- manually edit the *Master ID*, *Node ID* and *(Meter) ID* values in the text boxes, or
- click on the [Set Node ID] option button to have PanaView reinitialize the meter, or
- click on the [Get Node ID] option button to begin the node ID setup sequence described on page 47 of Chapter 4, *Setting Up a Meter.*

6. Four of the *Meter Communication Parameters* may be edited by selecting one of the alternate choices in the list boxes shown in Figure 51 on page 65. See page 47 in Chapter 4, *Setting Up a Meter*, for a discussion of these parameters and the available options.

IMPORTANT: *The PC's port parameters must be identical to those programmed into the meter's serial port.*

5.4.2 Removing the Meter

To remove a meter from the PanaView network, complete the following steps:

1. From the *"Edit"* menu shown in Figure 51 on page 65, click on the *"Remove"* option. The dialog box in Figure 53 below appears.

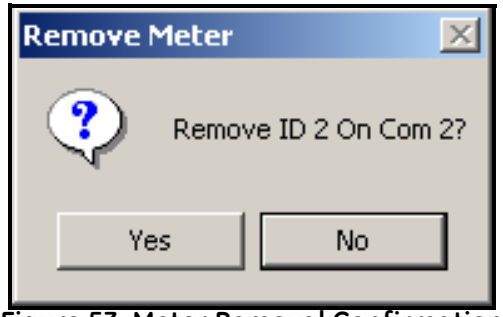

Figure 53: Meter Removal Confirmation

2. Click the [Yes] option button to remove the selected meter from the PanaView network, or click on the [No] option button to abort the operation.

After responding to the above prompt, you are returned to the *"New Meter Browser"* window.

5.5 Multiple PanaView Windows

For convenience in monitoring outputs from multiple meters or multiple outputs from a single meter, PanaView has been designed to permit the simultaneous display of more than one output window. To accomplish this, proceed as follows:

Note: *As an example we will open and arrange both a* "Meter Browser" *window and a* "Text Display" *window.*

1. Launch PanaView and pull down the *"File"* menu.
2. Click on the *"New Meter Browser"* option (see Figure 25 on page 36) to configure a screen like that shown in Figure 39 on page 51.
3. Pull down the *"Output"* menu and click on the *"Text Display"* option (this menu is discussed in detail in Chapter 6, *Data Handling*). A window similar to Figure 57 on page 75 is opened and stacked on top of the previously visible *"Meter Browser"* window.
4. To rearrange the two open windows, pull down the *"Window"* menu (see Figure 54).

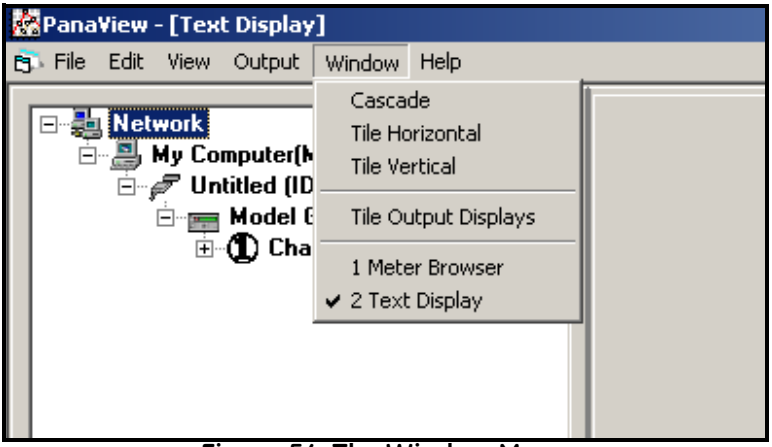

Figure 54: The Window Menu

5.5 Multiple PanaView Windows (cont.)

The PanaView *"Window"* menu is identical to that in any other Windows application. That is, the entries below the divider line represent all of the currently open windows, with the active window having a check mark next to its name. In the example shown in Figure 55 on page 71, notice that the *"Meter Browser"* and *"Text Display"* windows are open, with the *"Text Display"* window marked as the active window.

There are four methods, which are consistent with standard Windows conventions, available for manipulating the two open windows (the *Tile Output Displays* option is discussed in Chapter 6, *Data Handling*):

Note: *For a detailed discussion on using the* "Window" *menu, refer to any Microsoft Windows manual.*

- make a window active and maximized in size by clicking on its *Name*, or
- show both windows in an overlay format by clicking on *Cascade*, or
- show both windows, with each taking up one half of the screen height, by clicking on *Tile Horizontal*, or
- show both windows, with each taking up one half of the screen width, by clicking on *Tile Vertical.*

As an example, the currently open *"Meter Browser"* and *"Text Display"* windows used for this discussion are shown in the *"Tile Horizontal"* format in Figure 55 on page 71, with the *"Text Display"* window as the active window.

Note: *In any of the display modes, only one window can be active at any given time. To make another window active, simply click anywhere in its title bar.*

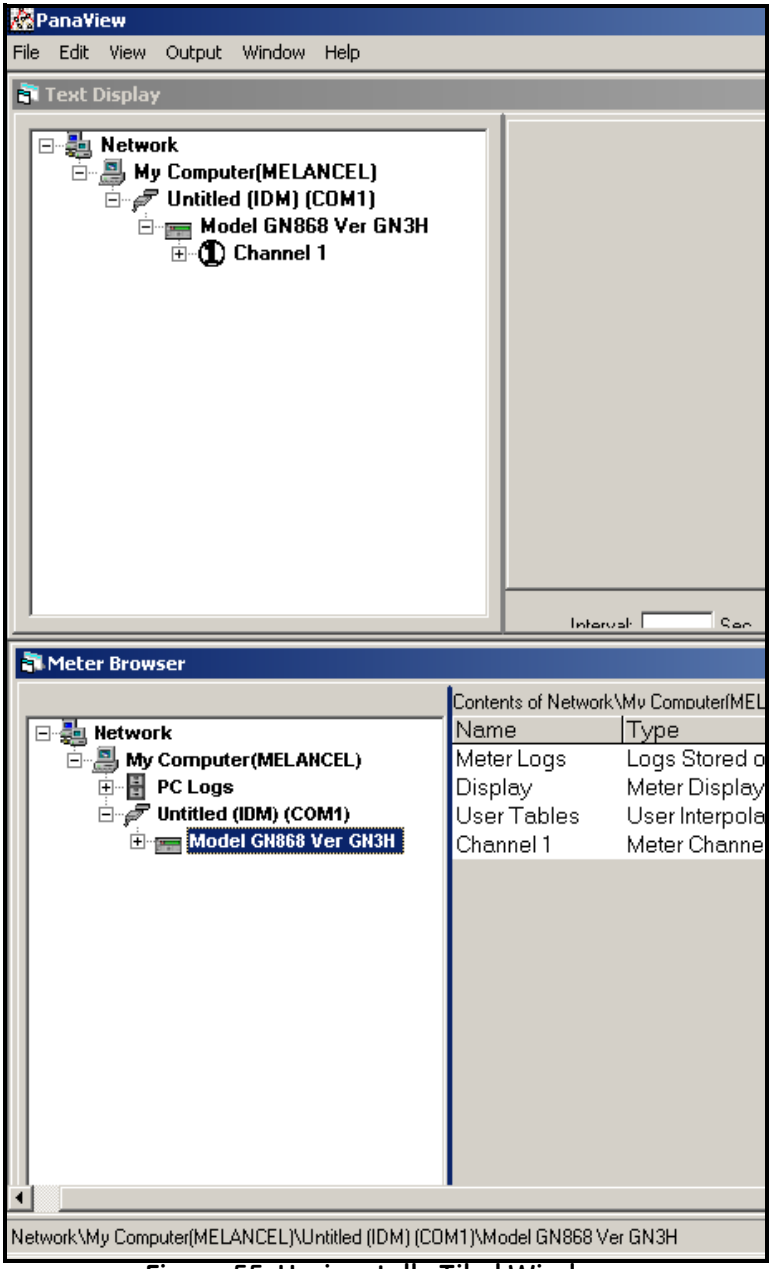

Figure 55: Horizontally Tiled Windows

[no content intended for this page]

Chapter 6. Data Handling

6.1 Introduction

After PanaView has been installed and configured in accordance with the instructions given in the first five chapters of this manual, you are ready to begin using PanaView to view, manipulate and save data information. To illustrate the process, we will assume that neither the GE instrument nor the PanaView software is currently running.

6.2 Preparing to Work with Data

To begin working with data, complete the following steps:

1. Power up the meter and wait until it has initialized and is displaying its normal default screen.
2. Launch PanaView and wait until it initializes the meter (see Figure 43 on page 57) and displays the basic PanaView window (see Figure 14 on page 21).
3. As described in Chapter 5, *Running PanaView*, open the *"Meter Browser"* window and highlight the meter to be used.

At this time, any of PanaView's comprehensive data handling capabilities may be used. These include:

- collecting and displaying live data in text format
- collecting and displaying live data in graphical format
- collecting and logging live data
- displaying a log file in text format
- displaying a log file in graphical format

6.2 Preparing to Work with Data (cont.)

To access PanaView's data handling options, pull down the *"Output"* menu, as shown in Figure 56 below.

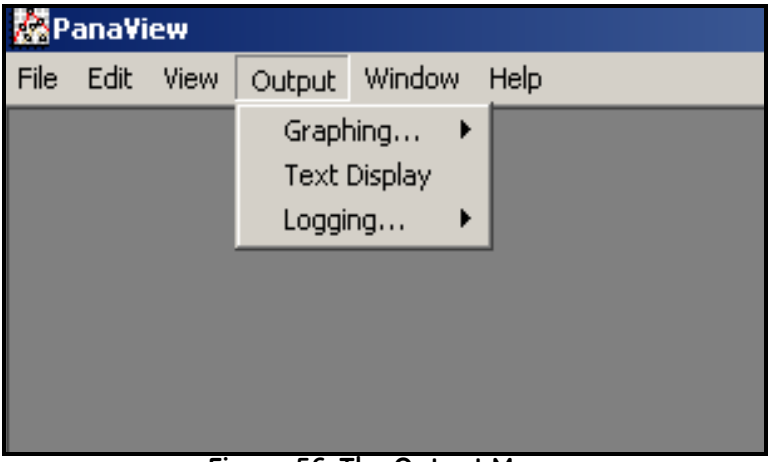

Figure 56: The Output Menu

IMPORTANT: *This manual only provides an overview of the general data handling procedures. Since each instrument has its own unique user interface, see the instrument's* User's Manual *for information specific to your particular instrument.*

Proceed directly to the appropriate section for instructions on each of the following output options:

- *Text Display* output on page 75
- *Graphing* output on page 78
- *Logging* output on page 88

6.3 The Text Display Output

To collect data from the instrument and display it on a text screen, complete the following steps:

1. Complete Steps 1-3 on page 73.
2. Pull down the *"Output"* menu and click on the *"Text Display"* option (see Figure 56 on page 74).

Note: *The* "Text Display" *window that appears after Step 2 is actually stacked on top of any previously opened windows (such as the* "Meter Browser" *window).*

3. Using the *"Window"* menu, as described on page 69, arrange the open windows in the desired format. For this discussion, Figure 57 shows the *"Text Display"* window in its maximized (full-screen) size.

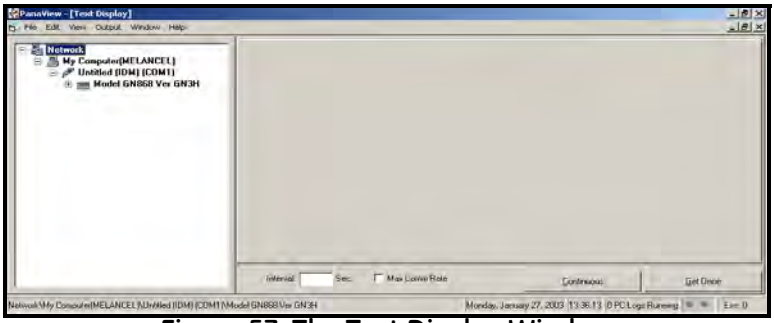

Figure 57: The Text Display Window

Note: *Figure 57 has been compressed both vertically and horizontally for improved clarity.*

4. The left pane of the *"Text Display"* window contains the standard PanaView network tree. Expand this tree as far as necessary, and double click on the desired process parameter to display it in the right pane of the window.

6.3 The Text Display Output (cont.)

Note: *Refer to your instrument's* User's Manual *for details on selecting a display parameter and the appearance of the* "Text Display" *window for your specific meter.*

5. Before actual data values can be displayed in the text pane, activate one of the following data collection modes (see Figure 57 on page 75):

- Click on the [Get Once] option button at the bottom of the right pane in the *"Text Display"* window. The current value of the selected process parameter, as specified in the PanaView network tree, is displayed in the right pane of the *"Text Display"* window.

or

- Enter an *"interval"* in the text box at the bottom of the right pane in the *"Text Display"* window, or check the *"Max. Comm Rate"* box to collect readings as fast as the system allows (1 sec). Then, click on the [Continuous] option button to begin collecting data for display in the right pane of the *"Text Display"* window.

Note: *Any value entered in the* "Interval" *text box is overridden if the* "Max. Comm Rate" *box is checked.*

6. If the [Continuous] option was selected in Step 5 above, click on the [Stop] option button, which has replaced the original [Continuous] option button, to terminate data collection.

The *"Text Display"* window may be left open while other tasks are performed, or it may be closed by clicking on the lower [X] control button at the far right of the menu bar.

IMPORTANT: *If you click on the upper* [X] *control button at the far right of the PanaView title bar, you will exit PanaView completely.*

Displaying Multiple Process Parameters

The procedure for displaying a single process parameter in a text screen may be repeated to simultaneously display multiple process parameters. To do so, proceed as follows:

1. Display the first process parameter in a text screen, as described in the previous section.
2. Repeat Step 1 for any desired additional process parameters, by double clicking on them in the PanaView network tree. PanaView automatically tiles the multiple text screens in the right pane of the *"Text Display"* window.
3. As in any standard Windows application, the multiple text screens may be resized by dragging their borders. Also, the individual panes within a parameter's text screen may be resized by dragging the borders within that text screen.
4. To close an open text screen, right click anywhere within that screen (except in the title bar or the error section) and click on the [Remove] option that pops up in the context menu.

Note: *After resizing or removing any of the multiple text screens, the default tiled layout may be restored by opening the* "Window" *menu (see Figure 54 on page 69) and clicking on the* "Tile Output Displays" *option.*

6.3.1 Displaying Multiple Text Windows

The procedures for displaying one or more process parameters in a single *"Text Display"* window may be repeated to open multiple *"Text Display"* windows. To do so, proceed as follows:

1. To open another *"Text Display"* window, repeat the steps on page 75 and page 76.
2. To display the desired process parameter(s) in the new window, repeat Steps 1-4 above.
3. Arrange the multiple *"Text Display"* windows as desired via the *"Window"* menu (see Figure 54 on page 69).

6.4 The Graphing Output

To collect data from the instrument and display it graphically in a new format, complete the following steps:

6.4.1 Setting Up a Graph

1. Perform Steps 1-3 on page 73.
2. Pull down the *"Output"* menu and click on the *"Graphing - New"* option (see Figure 56 on page 74).

Note: *The* "Graph" *window is stacked on top of any previously opened windows (such as the* "Meter Browser" *window).*

3. Using the *"Window"* menu, as described on page 69, arrange the open windows in the desired format. For this discussion, Figure 58 shows the *"Graph"* window in its maximized (full-screen) size.

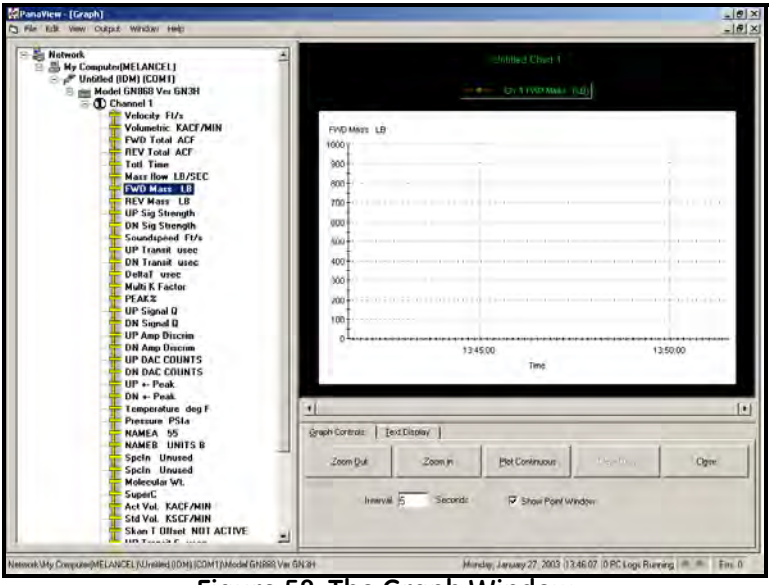

Figure 58: The Graph Window

6.4.1 Setting Up a Graph (cont.)

The *"Graph"* window shown on the previous page consists of three panes:

- *left pane* - PanaView network tree
- *top right pane* - graph with default chart style
- *bottom right pane* - graph controls or text display

Note: *The three panes of the "Graph" window may be resized by simply dragging their borders.*

6.4.2 Graphing Data

The PanaView network tree has already been described, and the display pane shows only a graph in the default style with no data points. Thus, we need only discuss the use of the bottom right pane. To begin graphing your data, proceed as follows:

1. Expand the network tree as far as necessary and double click on the process parameter to be graphed. The grid for the selected graph appears in the display pane, with *"Time"* as the x-axis and the parameter *"Value"* as the y-axis. In addition, a *legend* appears above the graph, which indicates the name, data point shape and line color for that parameter.

2. If desired, a second parameter may be added to the graph by repeating Step 1. In this case, the parameter *"Value"* is shown as a *right* y-axis (Y2).

Note: *Although only two parameters may be graphed for any one meter channel, the same two parameters may also be graphed for any other active meter channels.*

3. To begin plotting data for the selected parameter(s), enter a time *"Interval"* for data sampling in the text box provided (the default value is 5 seconds).

4. Click on the [Plot Continuous] control button to begin graphing the selected process parameter(s) as a function of time, at the interval specified in Step 3.

6.4.2 Graphing Data (cont.)

5. While PanaView is graphing the data, the following actions may be taken from the control pane:
   - change the sampling interval by entering a new value
   - click on the [Zoom Out] control button to increase the size of the intervals shown on the x-axis
   - click on the [Zoom In] control button to decrease the size of the intervals shown on the x-axis

Note: *The zoom buttons may be clicked multiple times to enhance the effect.*

   - click on the *"Text Display"* tab to view the data being graphed in the text format described in the previous section

6. When you have finished graphing your data, click on the [Stop] control button, which has replaced the original [Plot Continuous] control button.

6.4.3 Setting the Graph Properties

To permit customization of a graph's appearance, PanaView has a comprehensive *"2D Chart Control Properties"* feature. To access this feature, right click on the graph to open the dialog box shown in Figure 59. The chart (graph) properties available using this dialog box are listed in Table 1 on page 82.

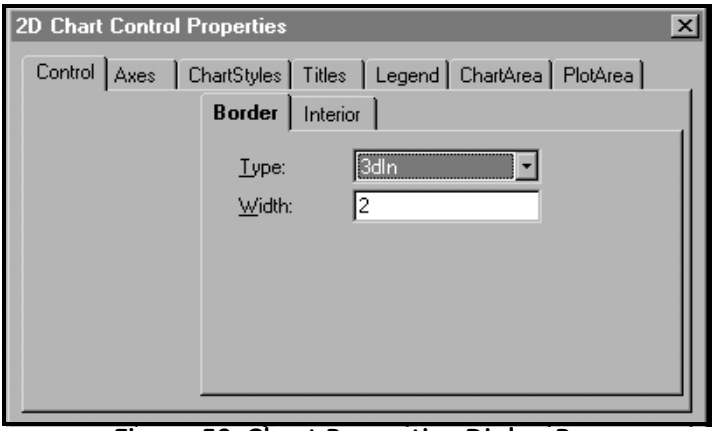

Figure 59: Chart Properties Dialog Box

6.4.3 Setting the Graph Properties (cont.)

Any property change made by selecting an item from a list box automatically appears on the graph. However, changes made to a value in a text box do not take effect until you click on the [Apply] option button. To close the *"Chart Properties"* dialog box and return to the *"Graph"* window, click on the [OK] option button.

Note: *You may click on the* [Cancel] *option button at any time to keep all of the original graph properties.*

The options available on the seven tabs in the *"Chart Properties"* dialog box are easy to use. However, a detailed description of each property may be accessed by clicking on the [Help] option button to activate the *"2D Chart OCX User's Help -- v5.0"* shown in Figure 60. Refer to any standard Windows manual for instructions on using this online help feature. To close the online help window, click on the [X] control bottom at the upper right corner.

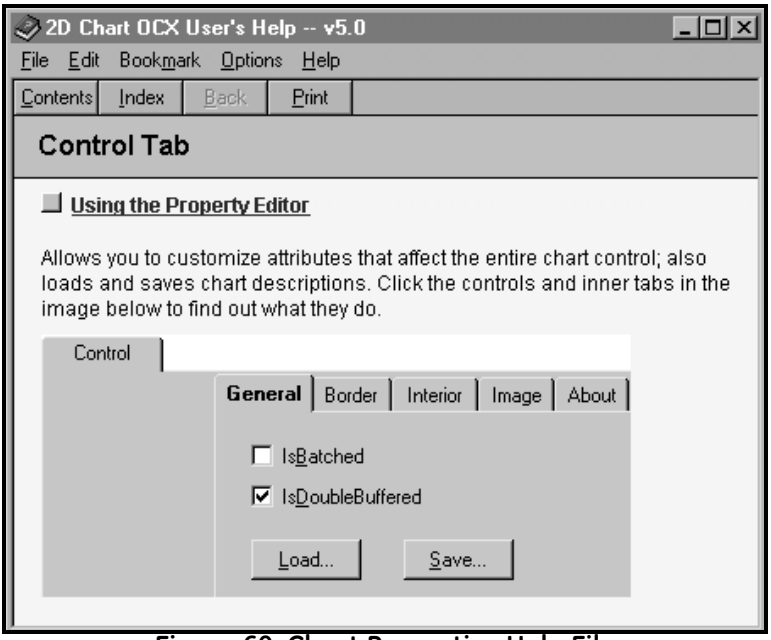

Figure 60: Chart Properties Help File

6.4.3 Setting the Graph Properties (cont.)

Table 1: Chart (Graph) Properties

Main Tab	Sub-Tab	Comments
Control	Border	
	Interior	
Axes	General	X, Y, and Y2 axes may be independently configured.
	Annotation	
	Scale	
	Title	
	Grid	
	Grid Style	
	Font	
Chart Styles	Line Style	Style names may be added to or removed from list.
	Symbol Style	
Titles	General	Header and Footer may be independently configured.
	Label	
	Location	
	Border	
	Interior	
	Font	
Legend	General	
	Location	
	Border	
	Interior	
	Font	
Chart Area	General	Set interior background color to white before printing graph.
	Location	
	Border	
	Interior	
Plot Area	General	

6.4.4 Creating Chart Templates

After setting up a chart (graph) as described in the previous section, you will find that several new menu options are now available in the *"File"* menu (see Figure 61).

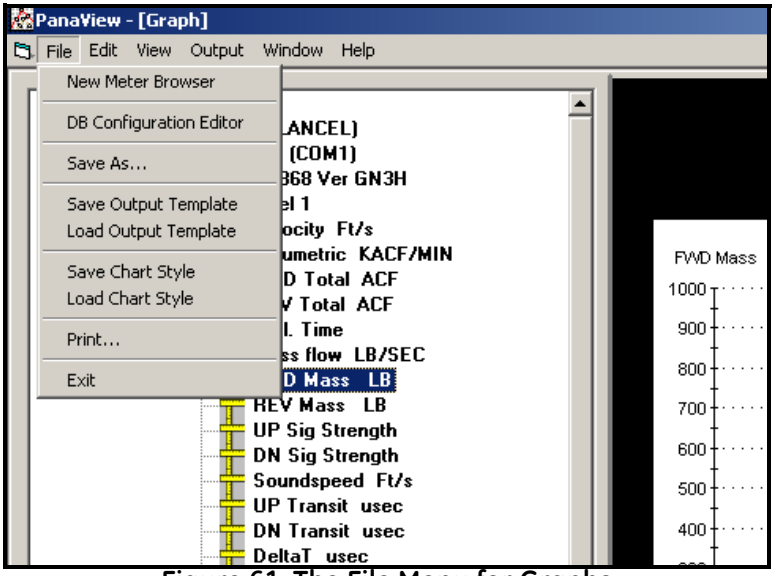

Figure 61: The File Menu for Graphs

Use the new *"File"* menu options as follows:

- Click on the *"Print"* menu option to open the standard Windows print dialog box. This allows you to print out a copy of the current graph.

Note: *For a more legible printout, make sure the graph has black text on a white background (see page 80).*

- Click on the *"Save As"* menu option to save the data collected during the graphing process as a log file. The dialog box shown in Figure 62 on page 84 appears. Enter a name for the log file and click on the [OK] option button to save the file as

  C:\Program Files\PanaView\Logs\Untitled.LOG.

6.4.4 Creating Chart Templates (cont.)

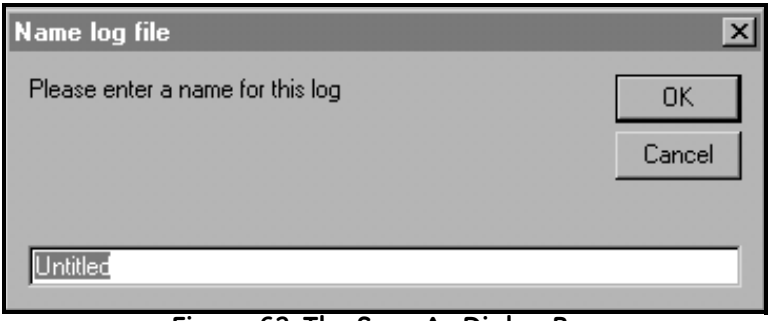

Figure 62: The Save As Dialog Box

- Click on the *"Save Output Template"* menu option to save the current graph properties and the parameters to be graphed as a template to be used for future graphs. The dialog box shown in Figure 63 appears. Enter a name for the chart (graph) template file and click on the [Save] option button to save the file as

  C:\Program Files\PanaView\Charts\Untitled.opt.

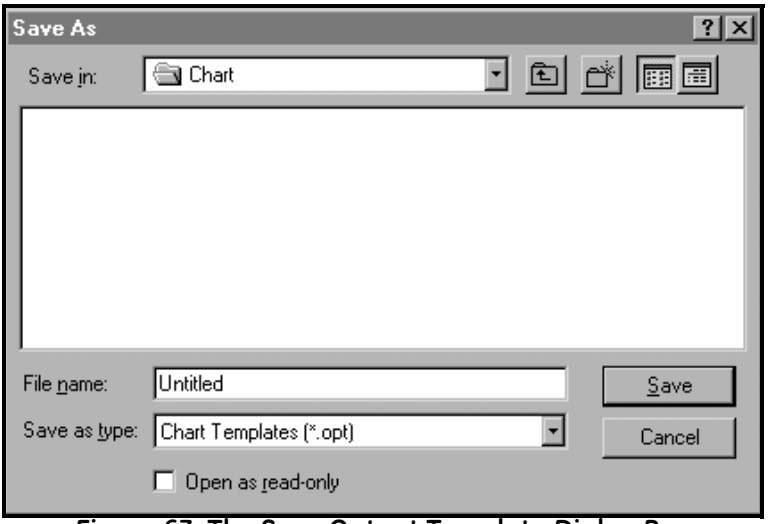

Figure 63: The Save Output Template Dialog Box

6.4.4 Creating Chart Templates (cont.)

Note: *The following menu option only becomes active after clicking on the* [Clear Data] *option button to delete the data points from the current graph.*

- Click on the *"Save Chart Style"* menu option to save only the current graph properties (and not the parameters to be graphed) as a template to be used for future graphs. The dialog box shown in Figure 64 appears. Enter a name for the chart (graph) template file and click on the [Save] option button to save the file as

  C:\Program Files\PanaView\Charts\Untitled.opt.oc2.

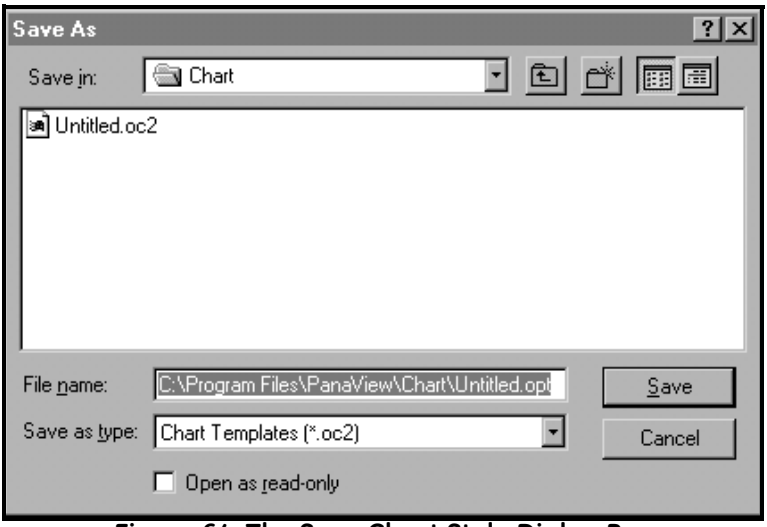

Figure 64: The Save Chart Style Dialog Box

IMPORTANT: *Remember that the* "Save Chart Style" *option saves only the graph properties, while the* "Save Output Template" *option saves both the graph properties and the parameters to be graphed.*

6.4.5 Using Chart Templates

After one or more chart templates has been created using the methods described in the previous section, these templates may be used to generate additional graphs in the same format. To do so, complete the following steps:

1. Select a chart template using one of the following methods:

- Open the *"Output"* menu and click on the *"Graphing - From Template"* option (see Figure 56 on page 74) or open the *"File"* menu and click on the *"Load Output Template"* option (see Figure 61 on page 83). If any output templates (*.opt) have been saved, select the desired file at the dialog box shown in Figure 65. Then, click on the [Open] option button to load the properties and parameters to be graphed from the output template selected.

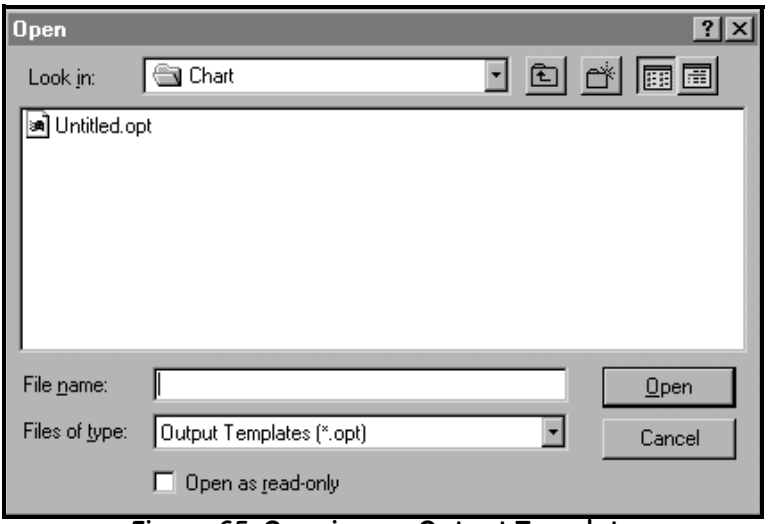

Figure 65: Opening an Output Template

or

6.4.5 Using Chart Templates (cont.)

Note: *The following menu option becomes active only after clicking on the* [Clear Data] *option button to delete the data points from the current graph.*

- Open the *"File"* menu and click on the *"Load Chart Style"* option (see Figure 61 on page 83). If any chart templates (*.oc2) have been saved, select the desired file at the dialog box shown in Figure 66. Then, click on the [Open] option button to load the graph properties from the output template selected.

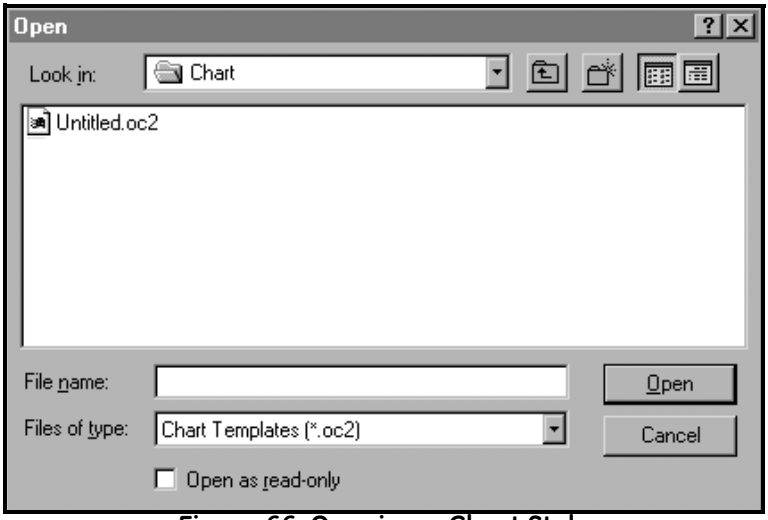

Figure 66: Opening a Chart Style

2. When you have finished creating the desired graphs, click on the [Close] option button in the lower right pane of the *"Graph"* window (see Figure 58 on page 78).

Note: *If you have not already saved the current graph as a chart template, you will be given an opportunity to do so when you close the* "Graph" *window.*

After the *"Graph"* window has been closed, continue with any of the other PanaView procedures described in this manual.

6.5 The Logging Output

PanaView is capable of creating and viewing log files of the following types:

- **meter logs** - log files stored in your meter's memory (see below)

Note: Meter logs are further subdivided into "Internal (A:)" *logs, which are stored in the meter's RAM, and* "External (B:)" *logs, which are stored on the meter's PCMCIA card.*

- **PC logs** - log files stored on your PC's hard drive (page 94)

To create or view logs of the above types, proceed to the appropriate section of this chapter. Figure 67 illustrates the options available in the Logging output.

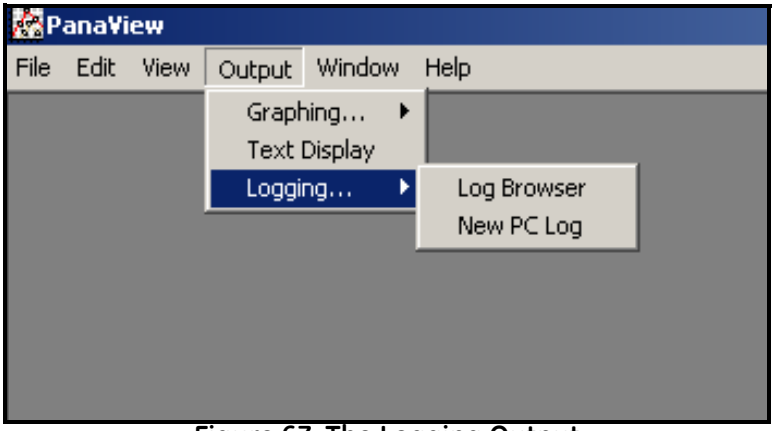

Figure 67: The Logging Output

6.5.1 Creating Meter Logs

To create a new meter log, complete the following steps:

1. Open the *"Output"* menu (see Figure 56 on page 74), and click on *"Logging"* and then on the *"Log Browser"* option. The dialog box shown in Figure 68 appears.

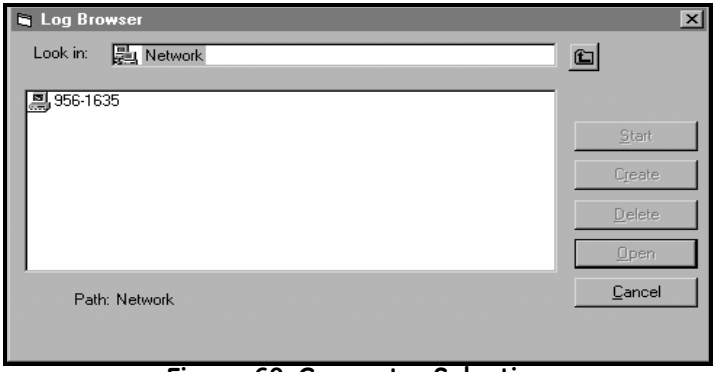

Figure 68: Computer Selection

Note: *If no log files have yet been created or if a log file has not yet been selected from the list, all of the option buttons (except for* [Cancel]*) in the* "Log Browser" *dialog box are unavailable.*

2. Move through the PanaView network tree as follows:

   a. Double click on the *computer name* to move to the network level shown in Figure 69.

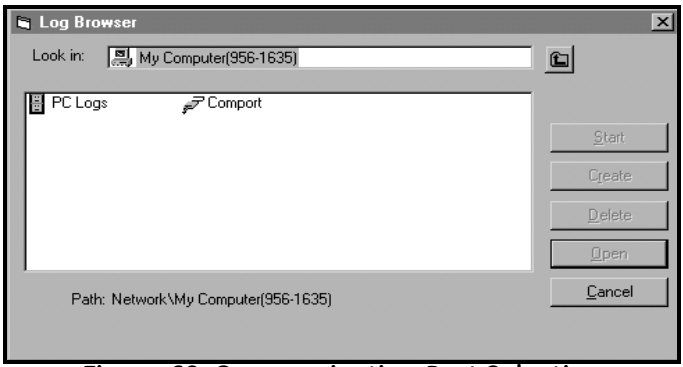

Figure 69: Communication Port Selection

6.5.1 Creating Meter Logs (cont.)

b. Double click on the *communication port name* to move to the network level shown in Figure 70.

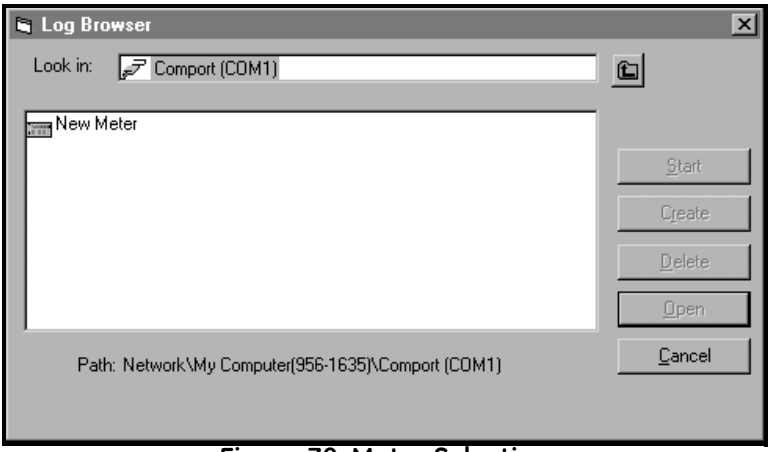

Figure 70: Meter Selection

c. Double click on the *meter name* to move to the network level shown in Figure 71.

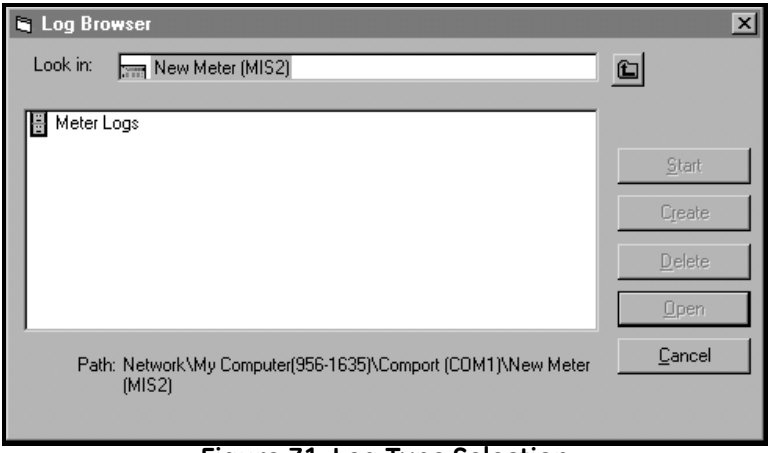

Figure 71: Log Type Selection

6.5.1 Creating Meter Logs (cont.)

d. Double click on *meter logs* to move to the network level shown in Figure 72.

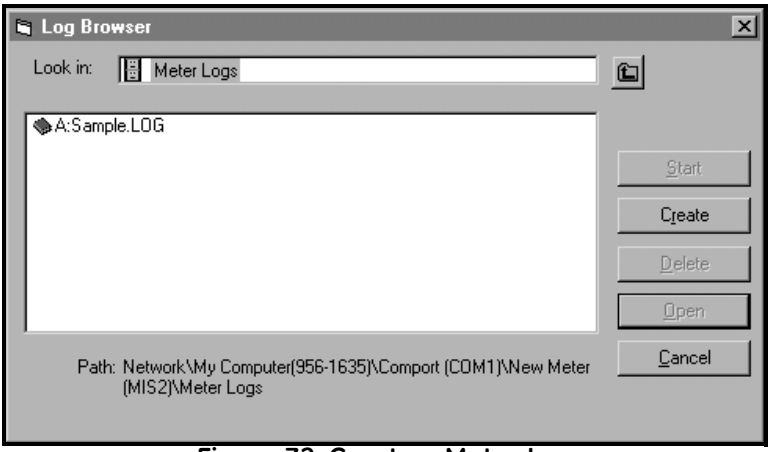

Figure 72: Create a Meter Log

e. At the dialog box shown in Figure 72, click on the [Create] option button to create a new meter log.

f. Enter a name for the log file in the dialog box shown in Figure 73 below (*"Sample"* was entered for this discussion). Click on the [OK] option button.

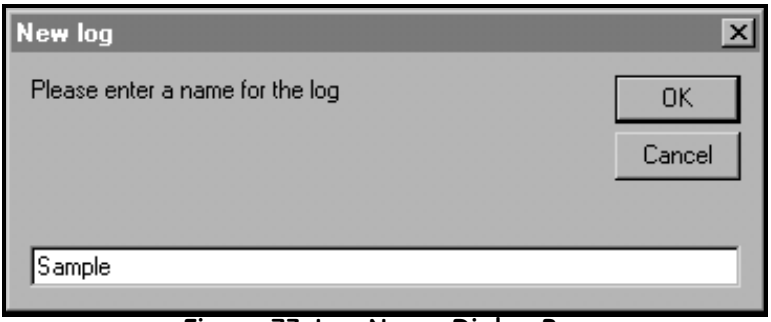

Figure 73: Log Name Dialog Box

6.5.1 Creating Meter Logs (cont.)

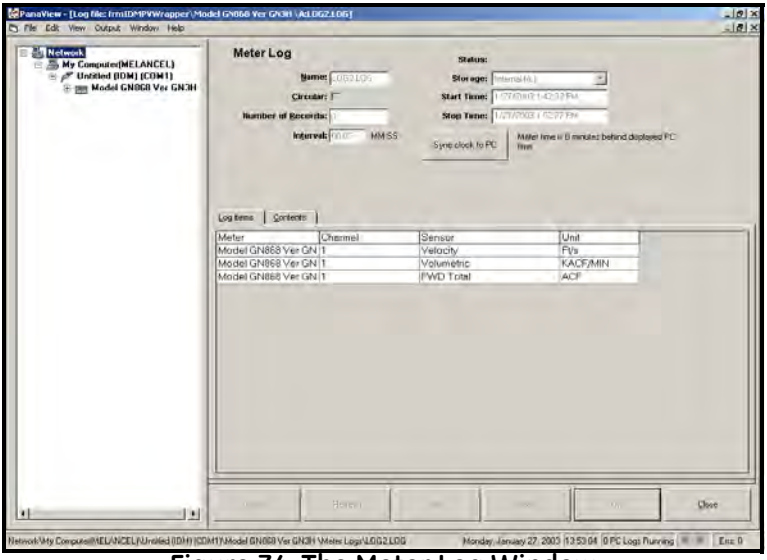

Figure 74: The Meter Log Window

3. At the *"Meter Log"* window shown in Figure 74, the following log specifications may be entered:

- Select either *"Internal (A:)"* or *"External (B:)"* in the s*torage location* list box.
- Click on the [Sync to PC] option button to synchronize the clocks on the meter and the PC.
- Enter the *Start Time* and *Stop Time* for the log.
- For a *circular log*, place a check mark in the text box. For a *standard log*, leave this box empty.
- Specify a sampling *interval* for the log in the text box.

4. Expand the network tree as far as necessary and double click on the process parameter(s) to be logged. As they are selected, the parameters are listed in the lower right pane of the *"Meter Log"* window (make sure that the *"Log Items"* tab in this pane is selected).

6.5.1 Creating Meter Logs (cont.)

Note: *Refer to the meter's* User's Manual *for detailed information applicable to your specific meter.*

5. Click on the [Apply] option button to record the log setup information, and then click on the [Start] option button. Data logging begins when the preset *"Start Time"* is reached.

After the log has been started, there are several ways to monitor its progress:

- Click on the *"Log Items"* tab (see Figure 74 on page 92) for a list of the parameters specified for logging.
- Click on the *"Contents"* tab (see Figure 74 on page 92) for a list of all the data points logged to date for the parameter currently highlighted on the *"Log Items"* tab.
- Click on the [Graph] option button to display a graphical representation of the data logged to date.

Note: *The graph is displayed in its own window, which is opened on top of the* "Meter Log" *window. For instructions on using the* "Graph Log" *window, refer to the* "Graphing Output" *section on page 78.*

- Click on the [Refresh] option button to update the information shown on the *"Contents"* tab and in the *"Graph Log"* window. Any data logged since the last use of the [Refresh] option button is added to the list and to the graph.

Remember that only two parameters per channel may be graphed, and that the same two parameters must be graphed for each channel (see page 79) of a multi-channel graph display. When you have finished viewing the graph, click on the [Close] option button to close the *"Graph"* window and leave the log running.

6. To manually terminate the logging process, simply click on the [Stop] option button, which has replaced the original [Start] option button. Otherwise, the log stops automatically when the preset *"Stop Time"* is reached.

6.5.2 Creating PC Logs

PC logs are created in much the same way as the meter logs described in the last section. To create a new PC log:

1. Open the *"Output"* menu (see Figure 56 on page 74), and click on the *"Logging"* option. The window shown in Figure 75 opens.

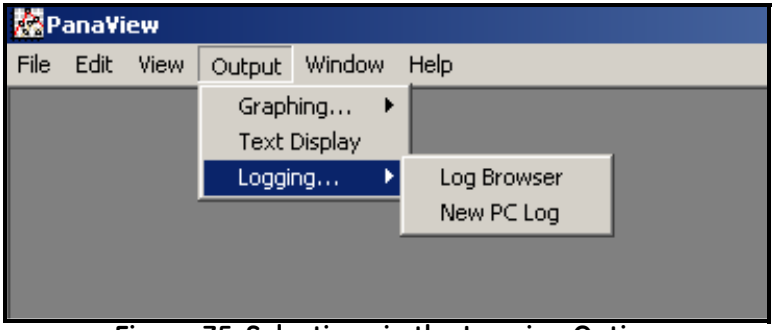

Figure 75: Selections in the Logging Option

You have two choices:

- Click on the *"New PC Log"* option and proceed to step 5, or
- Click on the *"Log Browser"* option. The dialog box shown in Figure 76 appears.

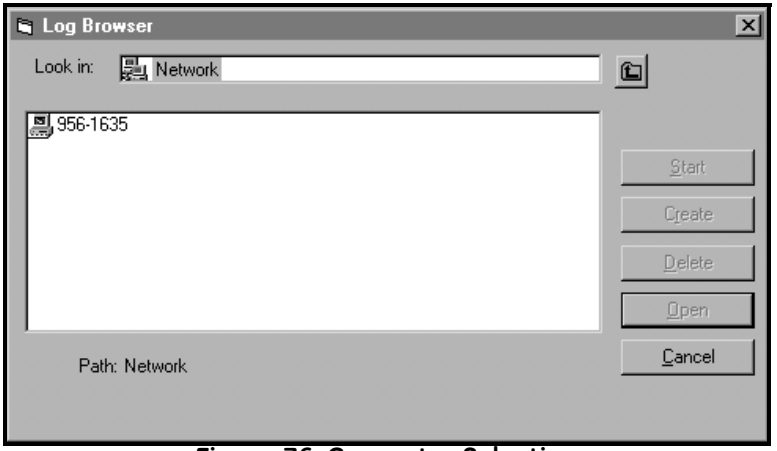

Figure 76: Computer Selection

6.5.2 Creating PC Logs (cont.)

Note: *If no log files have yet been created or if a log file has not yet been selected from the list, all of the option buttons (except for* [Cancel]*) in the* "Log Browser" *dialog box are unavailable.*

2. Double click on the *computer name* to advance to the dialog box shown in Figure 77.

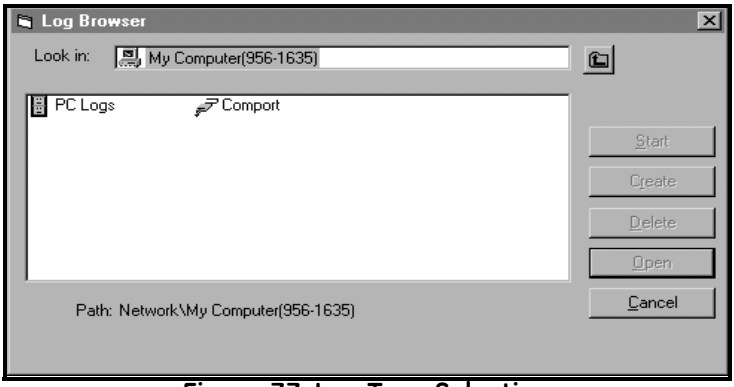

Figure 77: Log Type Selection

3. Double click on *PC logs* to advance to the dialog box shown in Figure 78.

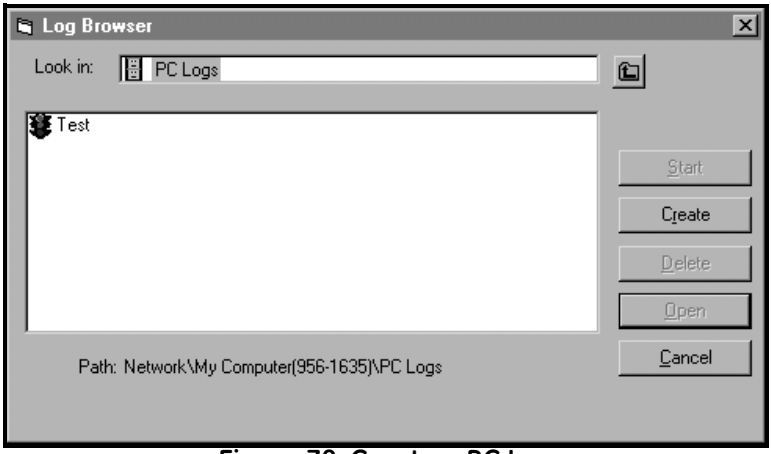

Figure 78: Create a PC Log

6.5.2 Creating PC Logs (cont.)

4. At the dialog box shown in Figure 78 on page 95, click on the [Create] option button to create a new meter log.
5. Enter a log *file name* (*"Sample"* in this case) in the dialog box shown in Figure 79. Click on the [OK] option button.

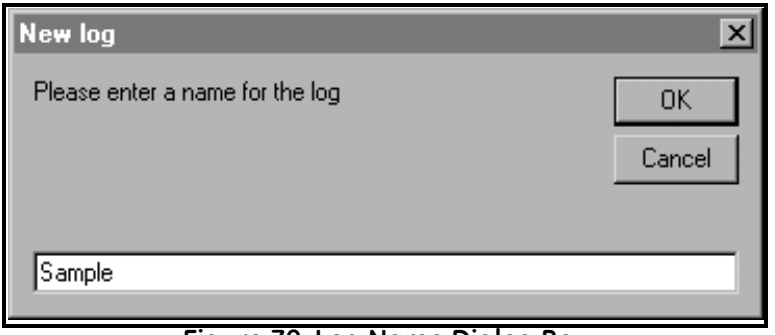

Figure 79: Log Name Dialog Box

6.5.2 Creating PC Logs (cont.)

6. At the resulting *"PC Log"* window shown in Figure 80, place a check mark in the text box to create a *circular log*, or leave this box empty to create a linear log.

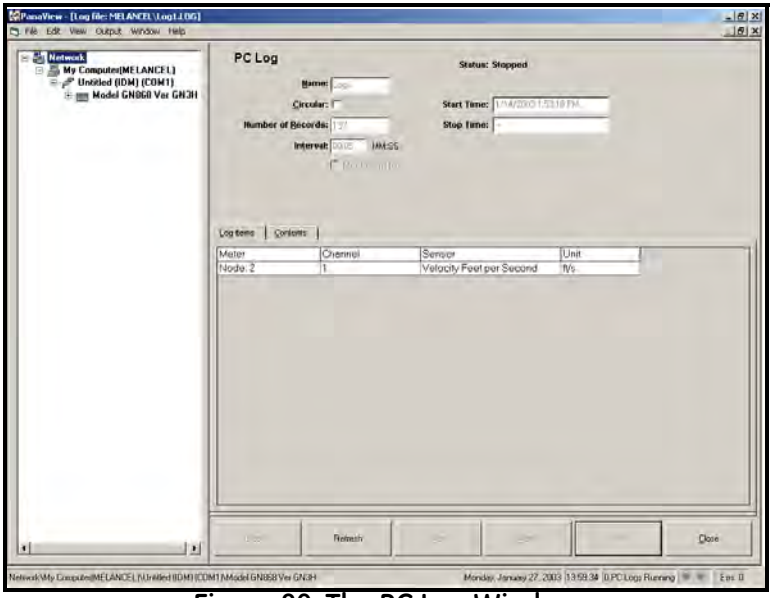

Figure 80: The PC Log Window

6.5.2 Creating PC Logs (cont.)

7. Enter a sampling *interval* in the text box shown in Figure 80 on page 97, or check *"Max Comm Rate"* to sample data at the fastest speed allowable by the system (1 sec).

Note: "Start Time" *and* "Stop Time" *cannot be specified for PC logs. These options are inactive in the* "PC Log" *window.*

8. Expand the network tree as far as necessary and double click on the process parameter(s) to be logged. As they are selected, the parameters are listed in the lower right pane of the *"PC Log"* window (make sure that the *"Log Items"* tab in this pane is selected).

Note: *Refer to the meter's* User's Manual *for detailed information applicable to your specific meter.*

9. Click on the [Apply] option button to record the log setup information, and then click on the [Start] option button to begin logging data immediately. (The *"Start Time"* automatically appears in the *"PC Log"* window.)

After the log has been started, there are several ways to monitor its progress:

- Click on the *"Log Items"* tab (see Figure 80 on page 97) for a list of the parameters specified for logging.
- Click on the *"Contents"* tab (see Figure 80 on page 97) for a list of all the data points logged to date for the parameter currently highlighted on the *"Log Items"* tab.
- Click on the [Graph] option button to display a graphical representation of the data logged to date.

Note: *The graph is displayed in its own window, which is opened on top of the* "Meter Log" *window. For instructions on using the* "Graph Log" *window, refer to the* "Graphing Output" *section on page 78.*

6.5.2 Creating PC Logs (cont.)

- Click on the [Refresh] option button to update the information shown on the *"Contents"* tab and in the *"Graph Log"* window. Any data logged since the last use of the [Refresh] option button is added to the list and to the graph.

Remember that only two parameters per channel may be graphed, and that the same two parameters must be graphed for each channel (see page 79) of a multi-channel graph display. When you have finished viewing the graph, click on the [Close] option button to close the *"Graph"* window and leave the log running.

10. To terminate the logging process, simply click on the [Stop] option button, which has replaced the original [Start] option button. (The *"Stop Time"* automatically appears in the *"PC Log"* window.)

Because a PC log has no specific *"Stop Time,"* the log will continue to run until it is manually stopped (unless the PC is turned off or you run out of hard drive space).

6.5.3 Viewing Log Files

After one or more log files has been created, the logs may be viewed by using the *"Log Browser"* as follows:

1. Pull down the *"Output"* menu (see Figure 56 on page 74), and click on the *"Log Browser"* option.
2. Advance to either the *"PC Logs"* or *"Meter Logs"* dialog box as described in previous sections. Using a meter log as an example, a screen similar to that shown in Figure 81 appears.

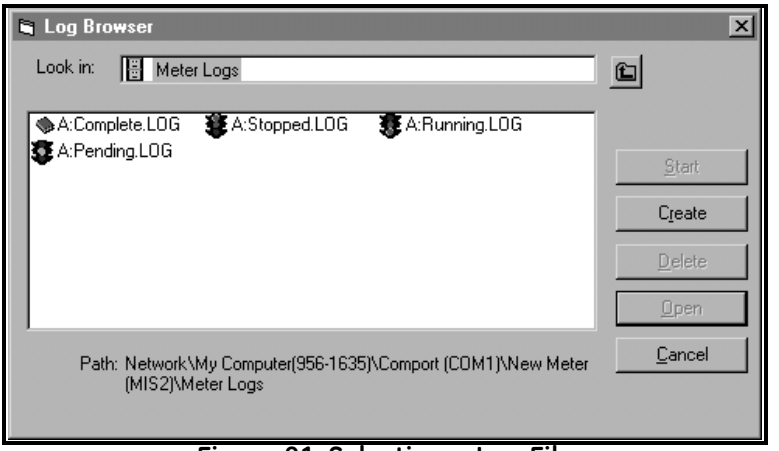

Figure 81: Selecting a Log File

Notice that each of the log files in Figure 81 has a traffic light icon or a book icon next to its name. These icons indicate the current status of the log as follows:

- *book* - the log has run to its specified stop time and is complete (A:Complete.LOG in Figure 81)
- *red light* - log has not run to its specified stop time but has been manually stopped (A:Stopped.LOG in Figure 81)
- *yellow light* - log has been set up but the specified start time has not yet been reached (A:Pending.LOG in Figure 81)
- *green light* - log is currently running but is not yet complete (A:Running.LOG in Figure 81)

6.5.3 Viewing Log Files (cont.)

Note: *The* yellow light *icon and the* book *icon are only possible for meter logs, because PC logs have no specific* "Start Time" *or* "Stop Time."

3. After you highlight the name of the desired log file, the following option buttons become available:

- [Start] - resumes logging if the log is currently stopped

  or

  [Stop] - stops logging, if the log is currently running

- [Delete] - permanently deletes the log file
- [Open] - opens the log in the *"PC Log"* or *"Meter Log"* window

4. Click on one of the option buttons listed in Step 3 above.

For instructions on manipulating the information displayed in the log window, refer to one of the previous sections on creating a new PC log (page 94) or meter log (page 89).

[no content intended for this page]

Appendix A. Menu Map

For convenient reference, a complete map of the PanaView menu system is shown in Figure 82 on page 104. The menu map consists of the PanaView *menu bar*, with all of the individual menus fully expanded.

When using the menu map in Figure 82, keep the following points in mind:

- all of the menu items shown are not available at all times - some items are grayed out or absent in certain situations
- see the appropriate section of this manual for detailed information regarding each menu and submenu

The menu map should be used in conjunction with the specific information presented in the main body of this manual.

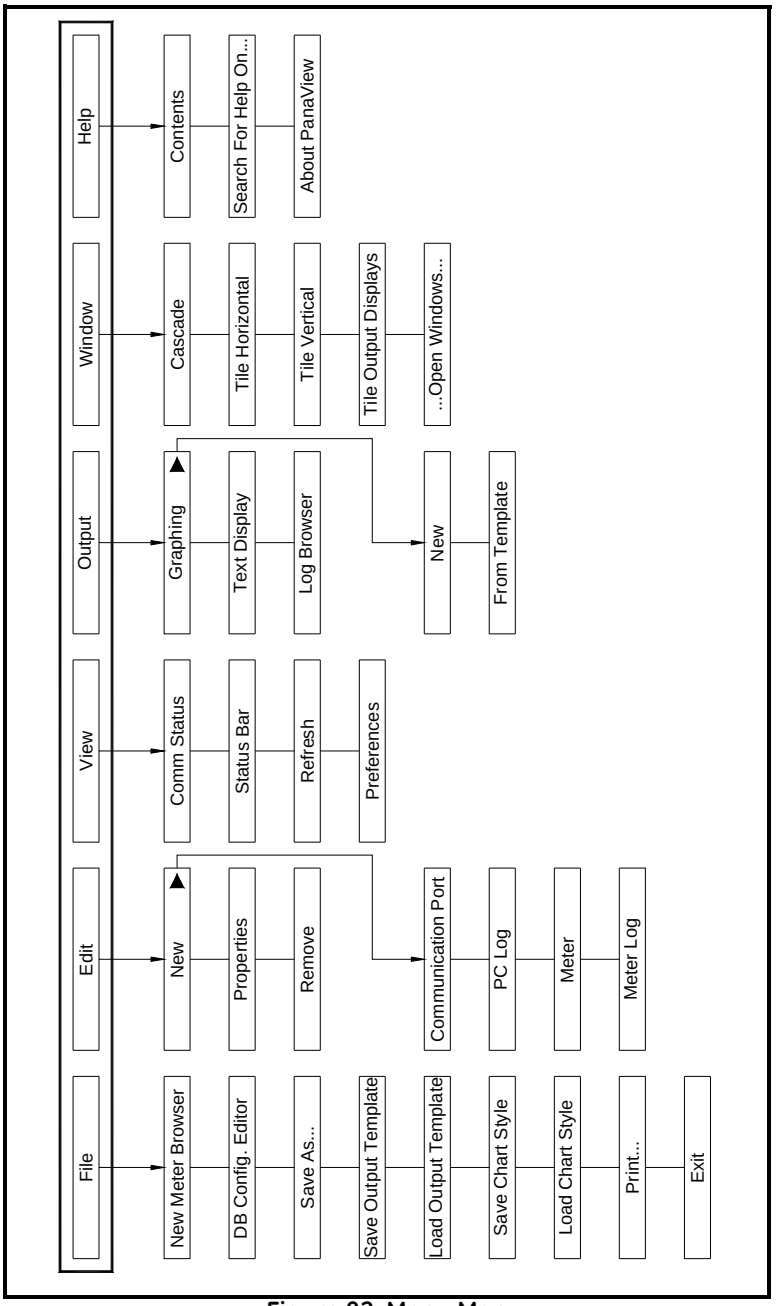

Figure 82: Menu Map

F

G

H

I

L

L (cont.)

M

N

O

P

R

S

T

V

W

[no content intended for this page]

Warranty

Each instrument manufactured by GE Sensing is warranted to be free from defects in material and workmanship. Liability under this warranty is limited to restoring the instrument to normal operation or replacing the instrument, at the sole discretion of GE Sensing. Fuses and batteries are specifically excluded from any liability. This warranty is effective from the date of delivery to the original purchaser. If GE Sensing determines that the equipment was defective, the warranty period is:

- one year from delivery for electronic or mechanical failures
- one year from delivery for sensor shelf life

If GE Sensing determines that the equipment was damaged by misuse, improper installation, the use of unauthorized replacement parts, or operating conditions outside the guidelines specified by GE Sensing, the repairs are not covered under this warranty.

The warranties set forth herein are exclusive and are in lieu of all other warranties whether statutory, express or implied (including warranties or merchantability and fitness for a particular purpose, and warranties arising from course of dealing or usage or trade).

Return Policy

If a GE Sensing instrument malfunctions within the warranty period, the following procedure must be completed:

1. Notify GE Sensing, giving full details of the problem, and provide the model number and serial number of the instrument. If the nature of the problem indicates the need for factory service, GE Sensing will issue a RETURN AUTHORIZATION NUMBER (RAN), and shipping instructions for the return of the instrument to a service center will be provided.
2. If GE Sensing instructs you to send your instrument to a service center, it must be shipped prepaid to the authorized repair station indicated in the shipping instructions.
3. Upon receipt, GE Sensing will evaluate the instrument to determine the cause of the malfunction.

Then, one of the following courses of action will then be taken:

- If the damage is covered under the terms of the warranty, the instrument will be repaired at no cost to the owner and returned.
- If GE Sensing determines that the damage is not covered under the terms of the warranty, or if the warranty has expired, an estimate for the cost of the repairs at standard rates will be provided. Upon receipt of the owner's approval to proceed, the instrument will be repaired and returned.

Customer Support Centers

U.S.A.

The Boston Center
1100 Technology Park Drive
Billerica, MA 01821
U.S.A.
Tel: 800 833 9438 (toll-free)
978 437 1000
E-mail: sensing@ge.com

Ireland

Sensing House
Shannon Free Zone East
Shannon, County Clare
Ireland
Tel: +35 361 470291
E-mail: gesensingsnnservices@ge.com

An ISO 9001:2000 Certified Company

www.ge-mcs.com/en/about_us/quality.html

www.ge-mcs.com

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