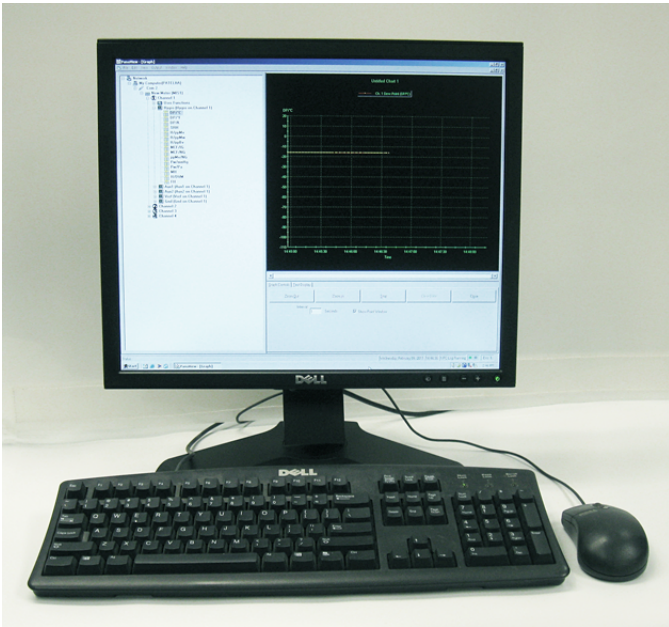


PanaView™

Instrument Interface Software

Installation & Operation Manual



GE

Measurement & Control

PanaView™

Instrument Interface Software

Installation & Operation Manual

Software Version 1.4.8

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Appendix A. Menu Map

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Information Paragraphs

Note: *These paragraphs provide additional information about the topic which is helpful but is not essential to proper completion of the task.*

Important: *These paragraphs provide emphasis to instructions that are essential to proper setup of the equipment. Failure to follow these instructions carefully may cause unreliable performance.*



WARNING! Indicates a potentially hazardous situation which can result in serious personal injury or death, if it is not avoided.



CAUTION! Indicates a potentially hazardous situation which can result in minor or moderate injury to personnel or damage to the equipment, if it is not avoided.

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 2012/19/EU.



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 <https://www.gemeasurement.com/environmental-health-safety-ehs> for take-back instructions and more information about this initiative.

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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 or 64-bit Windows XP, Windows 7, Windows 8 or higher operating system. 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 GE meters:

Table 1: Supported Instruments

• AT868	• MIS 1	• UPT868-C
• DF868	• MIS 2	• UPT868-P
• FGA390	• MMS3	• UTX878
• GC868	• OxyTrak 390	• XGM868i
• GF868	• PM880	• XGS868i
• GM868	• PT868	• XMO2-IDM
• GN868	• PT878	• XMTC
• GS868	• PT878-GC	• XMT868i
• IGM878	• Sentinel	•

Note: *PanaView version 1.4.8047 and higher (not covered in this manual) also supports GE's Safire, Sentinel LCT and Sentinel LNG instruments.*

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* below 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.

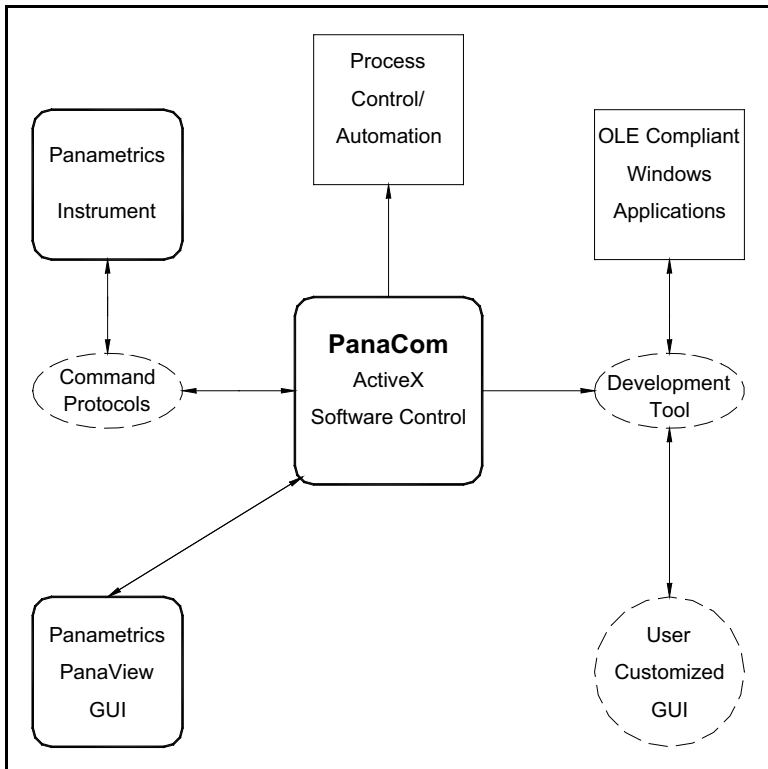


Figure 1: The PanaView/PanaCom System

1.5 Advanced Capabilities

In addition to the features described in “*Basic Features*” on page 1, PanaView offers some very useful advanced functionality. Users can consult the comprehensive online help files to quickly answer questions.

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. A file named “*PanaView.pdf*” is included in the “*Manual*” directory on the CD. 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 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
- 32-bit or 64-bit CPU
- 64 MB random access memory (RAM)
- 100 MB available hard drive space
- 32-bit or 64-bit Windows XP, Windows 7, Windows 8 or higher operating system
- Internet Explorer 7.0 or higher installed
- Display monitor and graphics card
- To begin the installation, proceed to the next section.

2.3 Software Installation

2.3.1 The InstallShield Wizard

After verifying that the personal computer meets the minimum requirements listed in the previous section, proceed as follows:

1. Insert the PanaView CD 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

2.3.1 The InstallShield Wizard (cont.)

3. The *Install-Shield* wizard, shown in *Figure 3* below, 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 manually run the “Setup.exe” file in the root directory of the CD.*

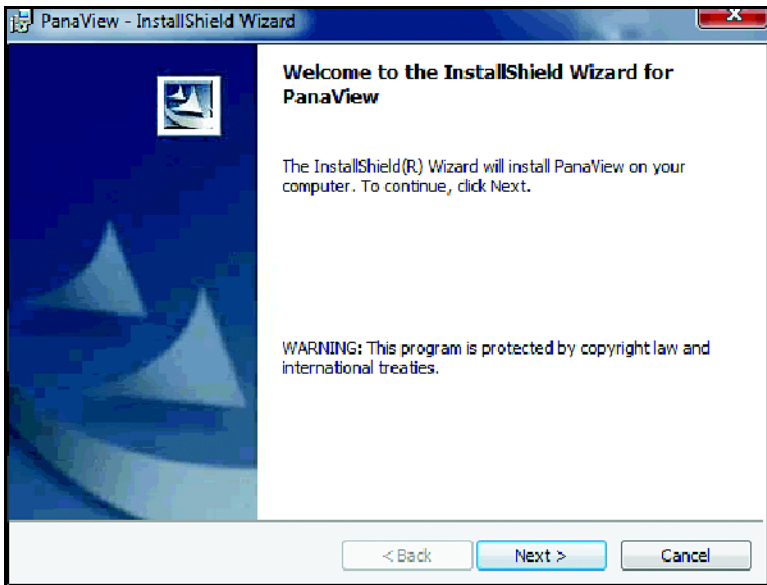


Figure 3: *Install-Shield Wizard Screen*

2.3.2 The [Back] and [Cancel] Buttons

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

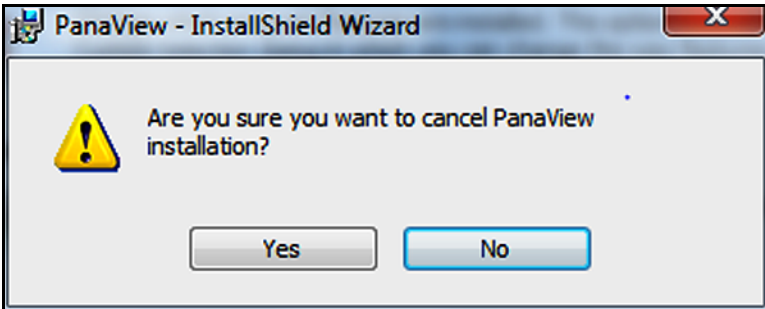


Figure 4: Cancel Installation Screen

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

- Click the [No] button to return to the installation process
- 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.

2.3.3 File Installation

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

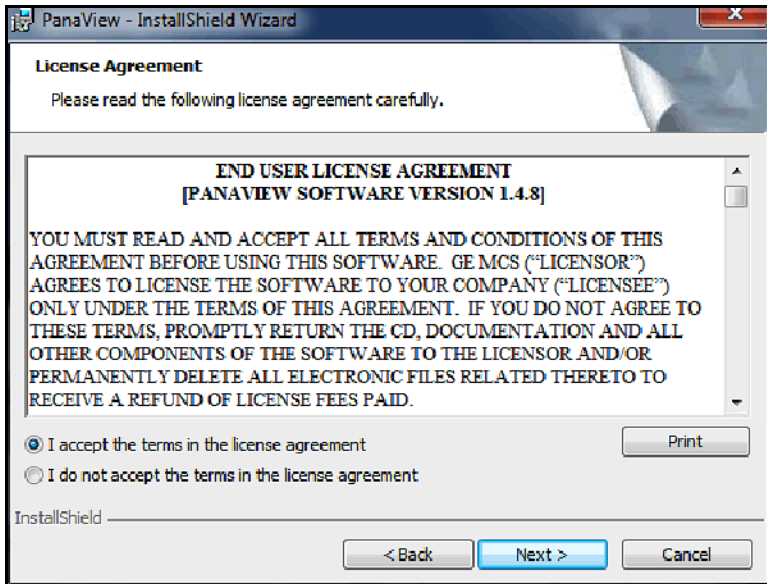


Figure 5: Licence Agreement Screen

Note: *For a complete copy of this agreement, see “END USER LICENSE AGREEMENT [PANAVIEW SOFTWARE]” on page iii of this manual.*

2.3.3 File 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.

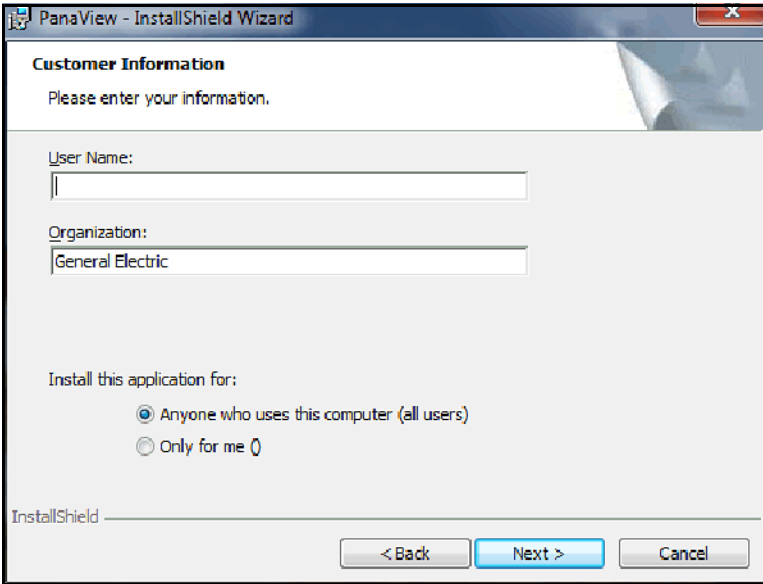


Figure 6: Customer Information Screen

2.3.3 File Installation (cont.)

6. Click on the [Next] button at the screen shown in *Figure 7* below 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.*

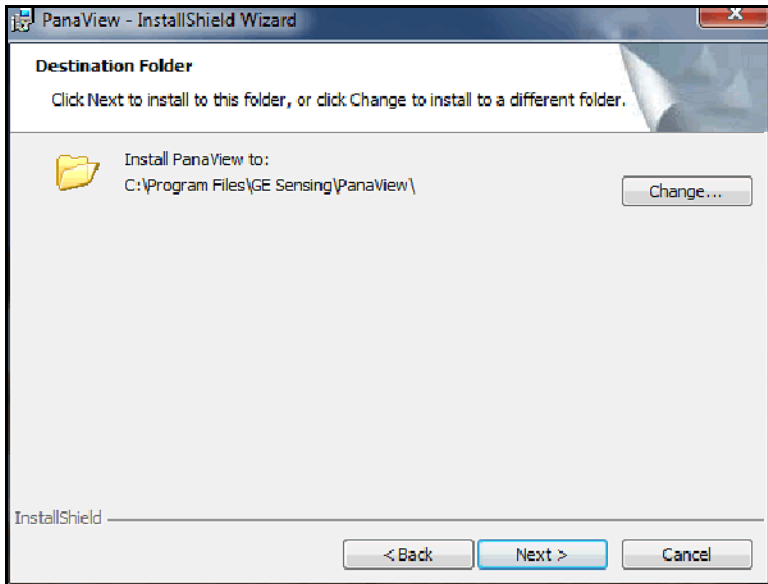


Figure 7: Destination Folder Screen

2.3.3 File Installation (cont.)

7. The screen shown in *Figure 8* below lists the entries made at the previous screens. If this information is correct, 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 you reach the desired screen. This is the final chance to change the listed settings before installation begins.*

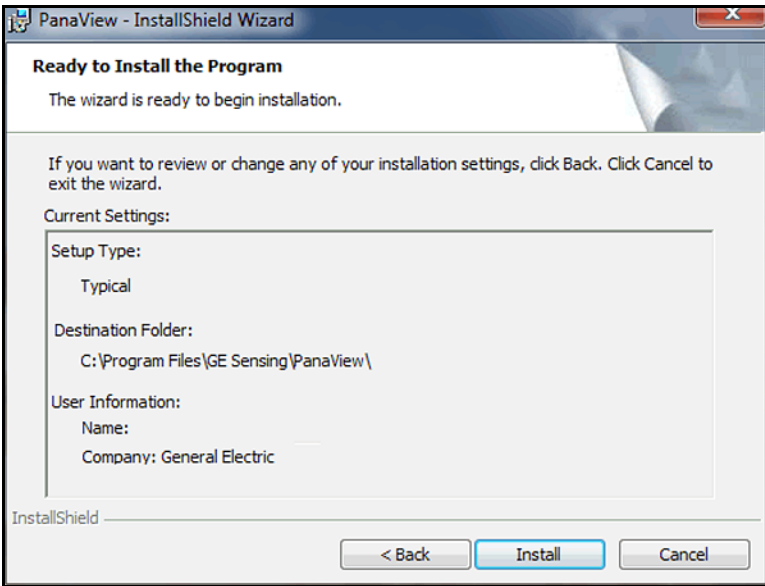


Figure 8: Ready to Install the Program Screen

2.3.3 File Installation (cont.)

8. After all of the PanaView files have been copied to your hard drive, the screen shown in *Figure 9* below opens. Click on the [Finish] button to close the InstallShield Wizard.

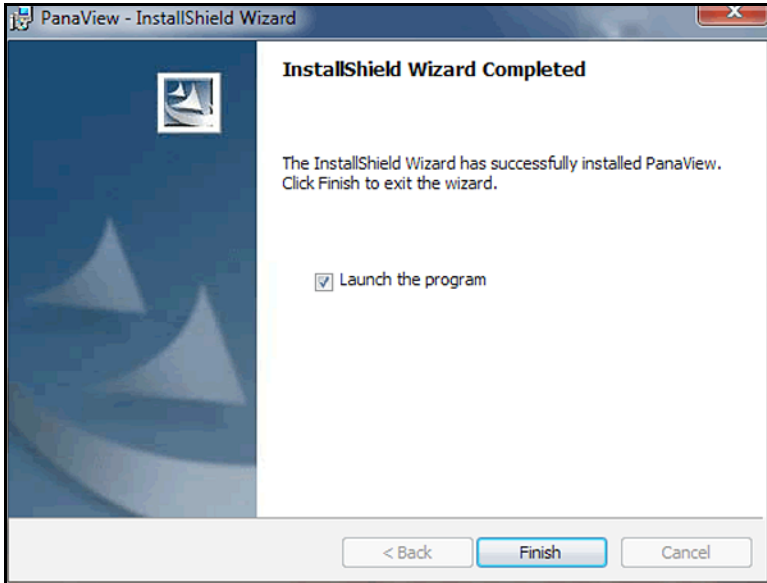


Figure 9: InstallShield Wizard Completed Screen

PanaView may be launched either by selecting PanaView in the *Windows Start Menu* or by double-clicking a *PanaView Shortcut* (created by the user) on the Windows desktop.

Proceed to the next section to set up your hardware.

2.4 Hardware Installation

2.4.1 Installation Requirements

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

- A personal computer or laptop computer with PanaView installed and with either an available Serial Port or an available USB Port equipped with an *RS232-to-USB* converter.
- A GE instrument that has been configured for use with PanaView and which has an available serial port or Ethernet interface.

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 DB-9 connectors at both ends)
- For RS485 applications, communications must be sent through an *RS485-to-RS232* converter.

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

2.4.2 Installation Procedure

If all of the hardware requirements have been met, proceed as follows for RS232/RS485 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 to 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 power up the personal computer.

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

[no content intended for this page]

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 in this chapter 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 in “*Starting PanaView*” on page 17, and proceed as follows:

1. The *Version number* of your PanaView software, which may not be the same as the example in *Figure 10* below, is shown in the initial screen.

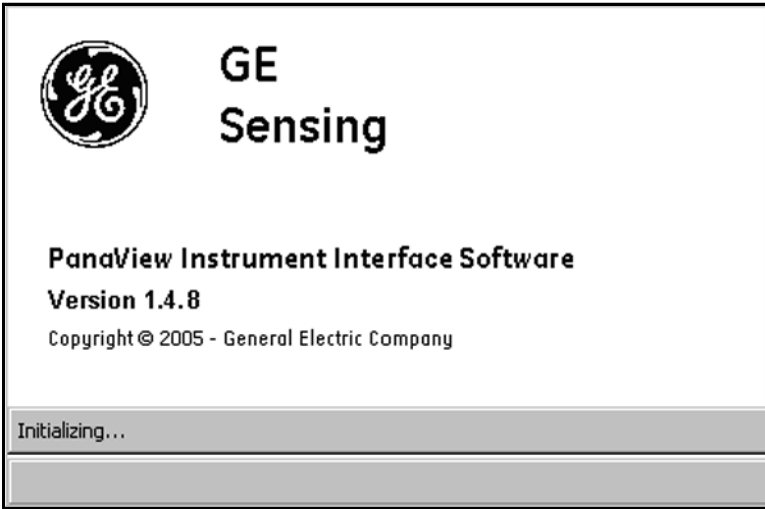


Figure 10: Initializing Screen

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 11* below, the default initial PanaView window contains only the following basic components of the interface (listed from top to bottom):

Note: *To make the image in Figure 11 below more readable on this page, the window was compressed both vertically and horizontally from its actual dimensions.*

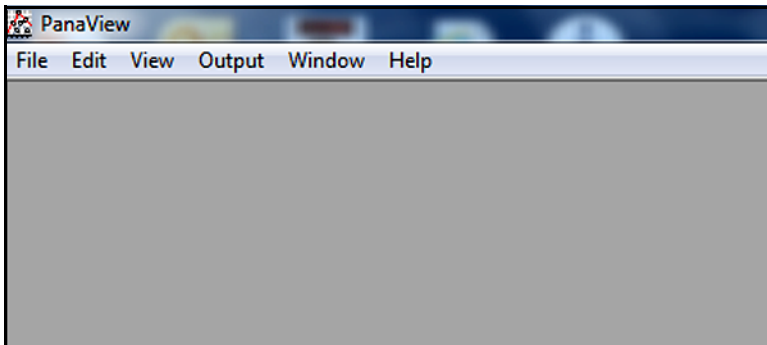


Figure 11: The Basic PanaView Window

- **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, it is blank on initial startup
- **Status Bar** - by default on initial startup, it shows status messages (see *Figure 13 on page 21*) such as: 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 personal, proceed to the next section.

3.4 The View Menu

Prior to setting up communications with a meter, the “*View*” menu (see *Figure 12* below) 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.*

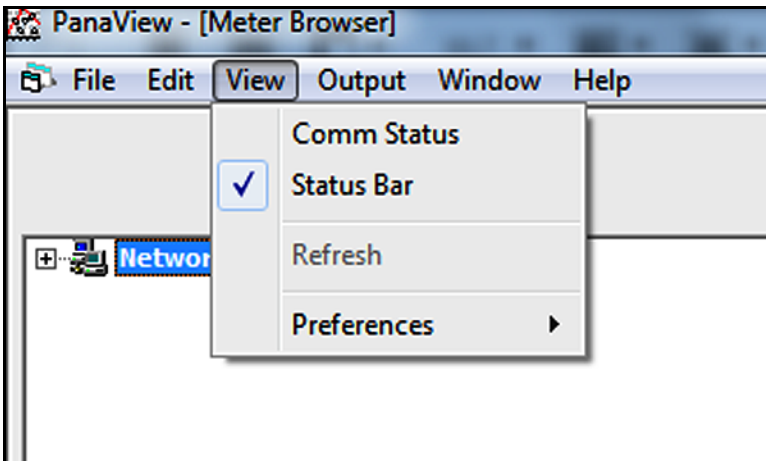


Figure 12: The View Menu

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 12 on page 20*. When toggled “On”, the Comm Status bar appears just above the main Status bar (see *Figure 13* below) and displays the following serial communications categories, from left to right:

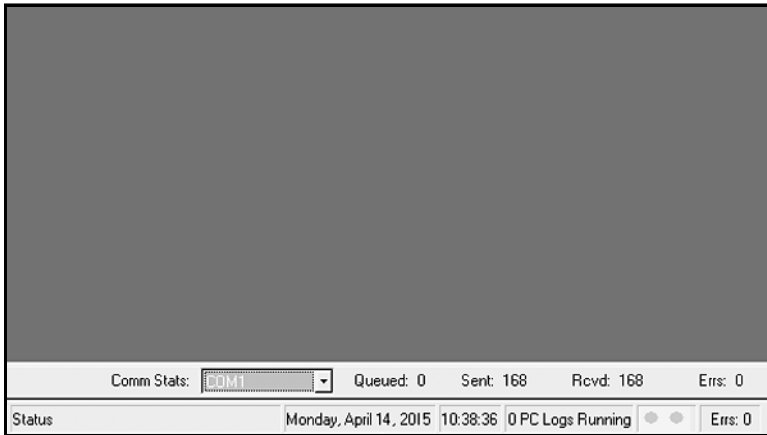


Figure 13: The Comm Status Bar

Note: *To make the image in Figure 13 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 in *Figure 13 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 in the *View* menu.

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 12 on page 20*), click on it in the “*View*” menu. Then, 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 then close the “Preferences” box. To abort the process, click the [Cancel] button instead.*

3.4.3a The Database Tab

In the “*Preferences*” box, click the “*Database*” tab as shown in *Figure 14* below 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.

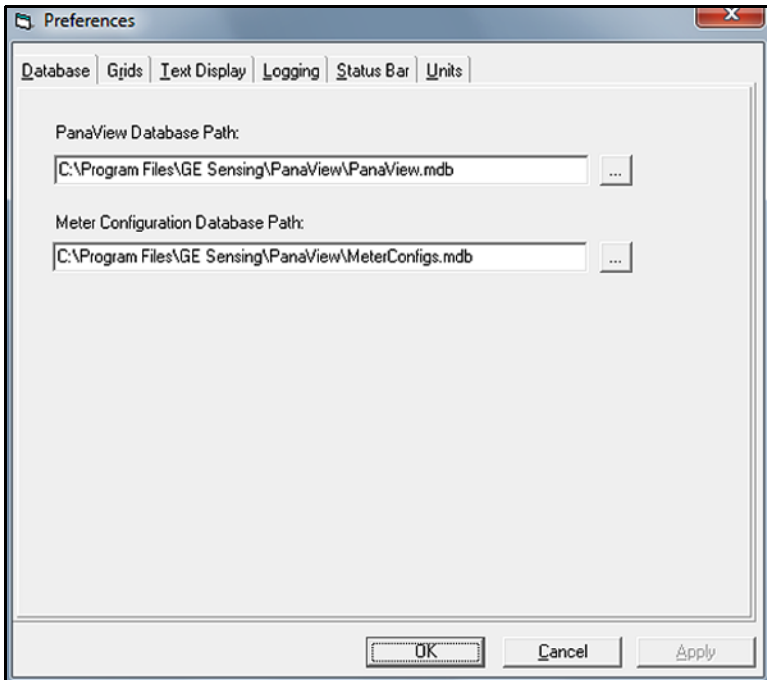


Figure 14: The Database Tab

3.4.3b The Grids Tab

In the “*Preferences*” box, click the “*Grids*” tab as shown in *Figure 15* below 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 (see *Chapter 6. “Data Handling”*), 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).

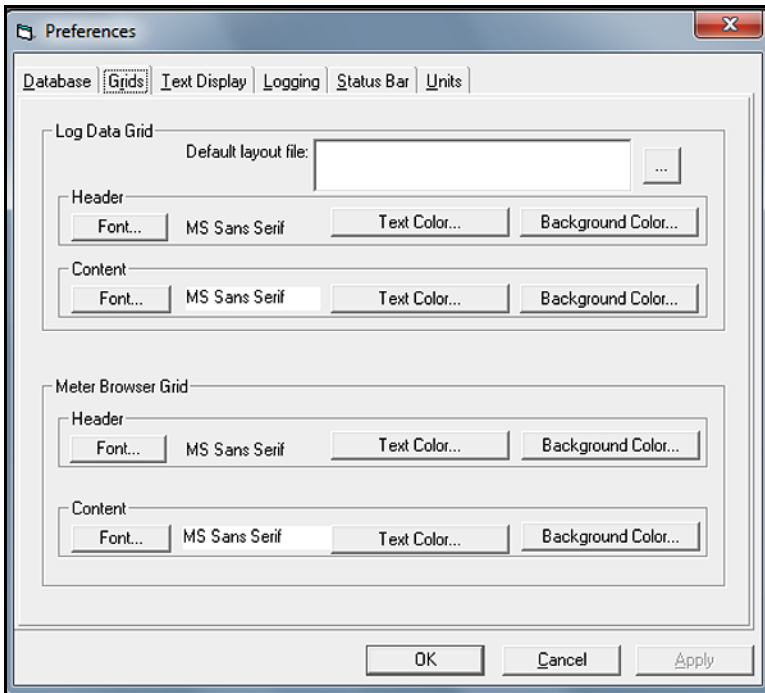


Figure 15: The Grids Tab

3.4.3c The Text Display Tab

In the “*Preferences*” box, click the “*Text Display*” tab (see *Figure 16* below) 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 button(s).

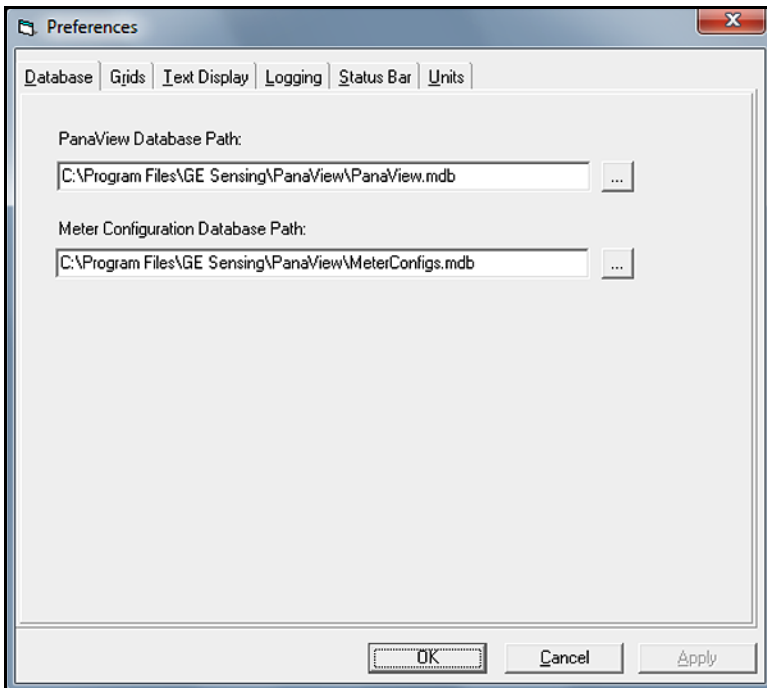


Figure 16: The Text Display Tab

3.4.3d The Logging Tab

In the “*Preferences*” box, click the “*Logging*” tab as shown in *Figure 17* below 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.

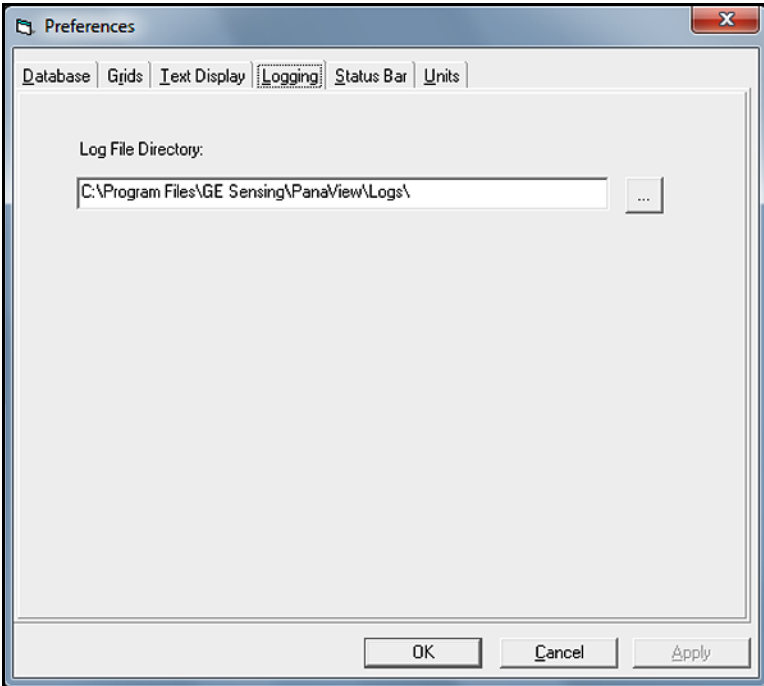


Figure 17: The Logging Tab

3.4.3e The Status Bar Tab

In the “*Preferences*” box, click the “*Status Bar*” tab as shown in *Figure 18* 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.

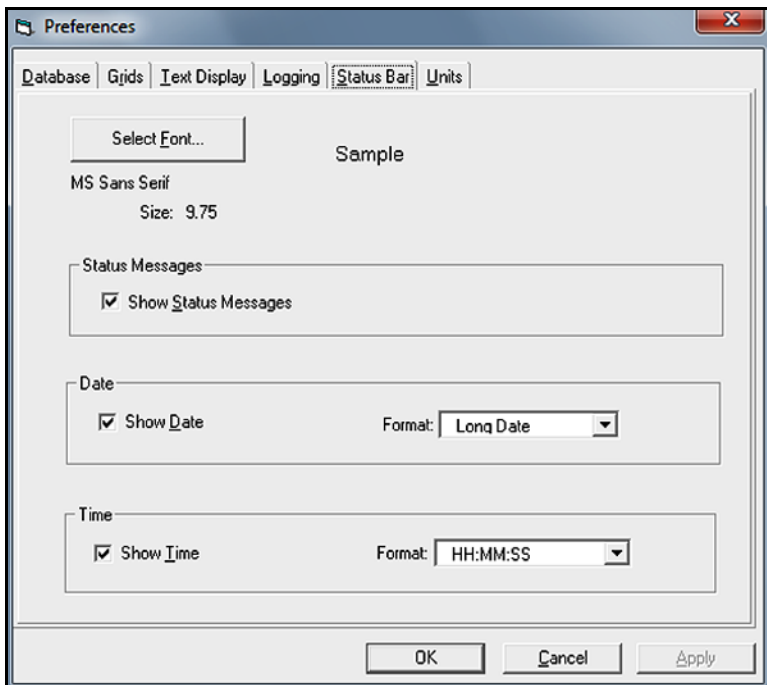


Figure 18: The Status Bar Tab

3.4.3f The Units Tab

Note: *This tab applies to PT878, PM880 and PT878GC meters only.*

- In the “*Preferences*” box, click the “*Units*” tab (see *Figure 19* below) to display or edit the available units.
- Click the radio button to select either *metric* or *English* units.
- For the PT878GC, you can also select from four pressure units: kPa, bar, psia and MMHG. Click on the desired units from the drop-down list.

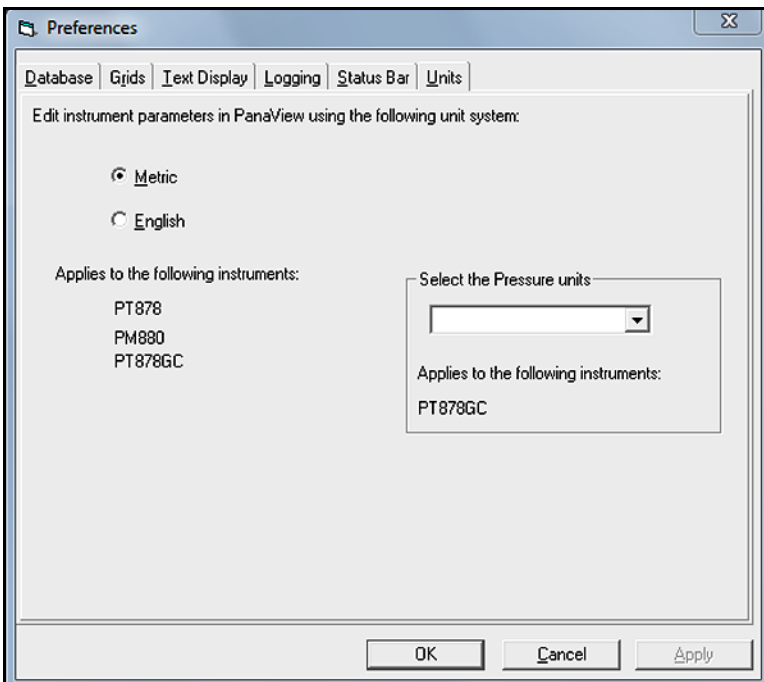


Figure 19: The Units Tab

3.5 The Help Menu

The “*Help*” menu, as shown in *Figure 20* below, is the primary source of information regarding the PanaView software and your PanaView installation. This menu includes the following three options:

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

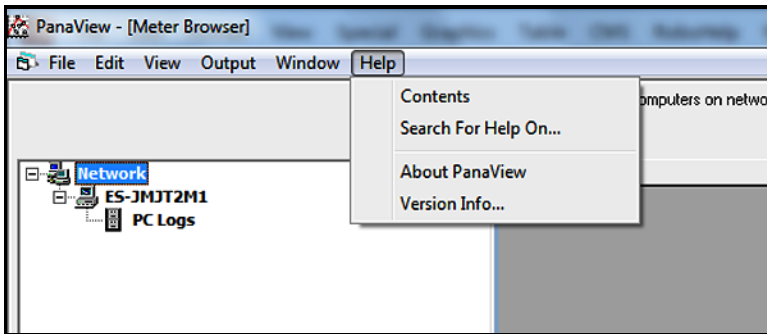


Figure 20: The Help Menu

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 the available PanaView general information categories in the online help file in a *table of contents* format. 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 the available PanaView general information categories in the online help file in an *index* format. 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.

3.5.3 About PanaView and Version Information

The “*About PanaView*” option provides information on your version of the software and about your computer system. To access this information, simply click on the “*About PanaView*” option and a screen similar to the one on the left in *Figure 21* below opens. To access data on the PanaView components for this version, click on “*Version Info*” and a screen similar to the one on the right in *Figure 21* below opens.

- The screen shown on the left in *Figure 21* below shows the *version number* of the currently installed copy of PanaView, which may differ from the example shown here.
- The screen on the right in *Figure 21* below, which includes the version information, lists data on the various components of the PanaView software.
- 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.

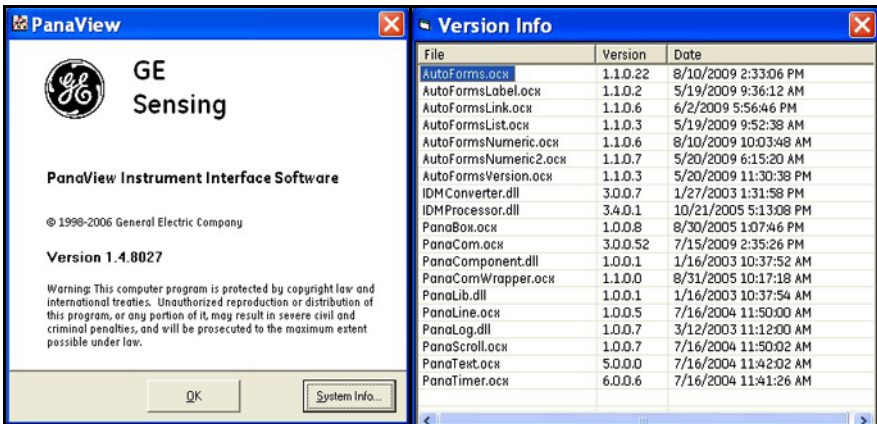


Figure 21: The About PanaView and Version Information Screens

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
- 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 *Chapter 2. “Installation”* and *Chapter 3. “Initial Setup”* of this manual and in 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:

- “Opening the New Meter Browser” on page 34
- “The PanaView Network Tree” on page 35
- “Adding a New Communication Port” on page 38
- “Setting up Ethernet Communications” on page 43
- “Adding the First New Meter” on page 44
- “Adding an Additional Meter” on page 52

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 22* below).

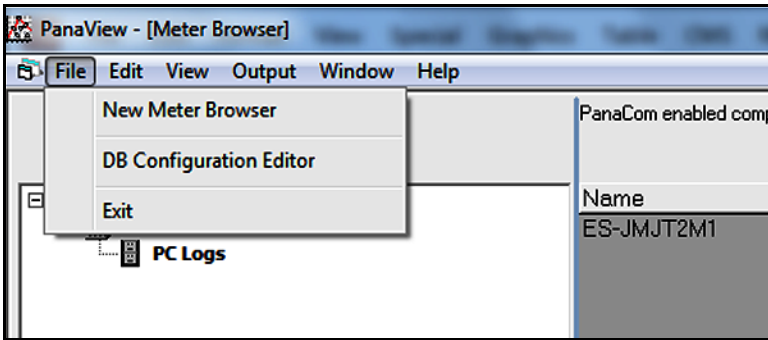


Figure 22: The File Menu

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

4.3 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 23 below 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.

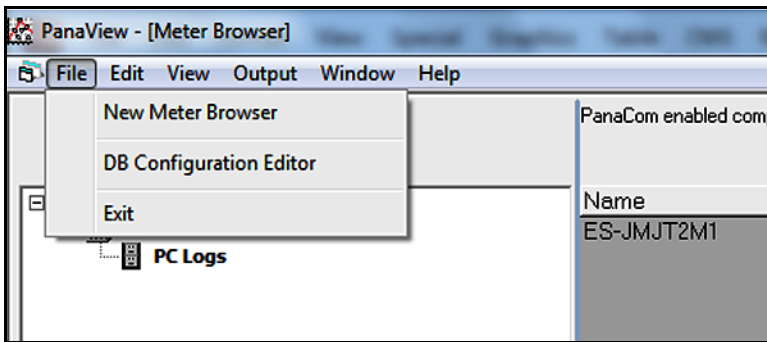


Figure 23: The Network Branch

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.*

4.3 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 24* below.

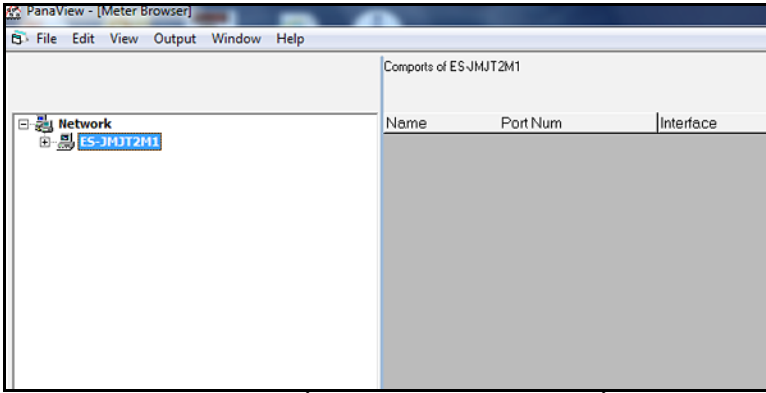


Figure 24: The My Computer Branch

Note: *The right pane in Figure 24 above 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.*

4.3 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 25* below).

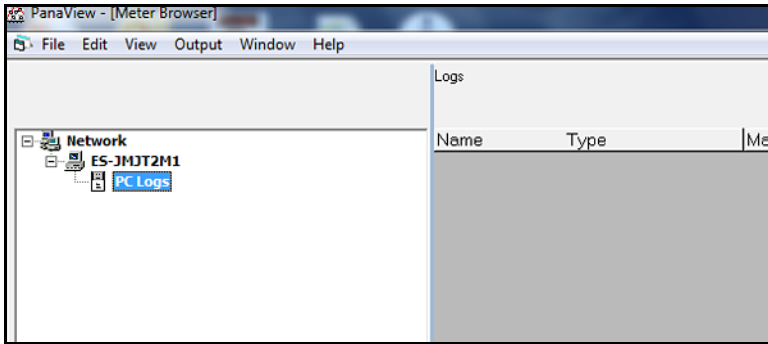


Figure 25: The PC Logs Branch

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 “First-Time Startup” on page 18). 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.

4.4 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 25 on page 37*. 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 26* below).

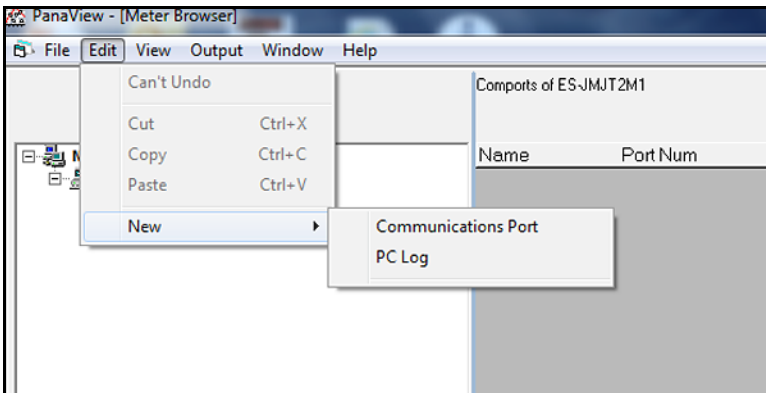


Figure 26: The Edit Menu

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

4.4 Adding a New Communication Port (cont.)

4. Click on the “*Communications Port*” option to select it (see *Figure 26* on page 38). The dialog box shown in *Figure 27* below opens, with “*Untitled*” as the default “*Name*.”

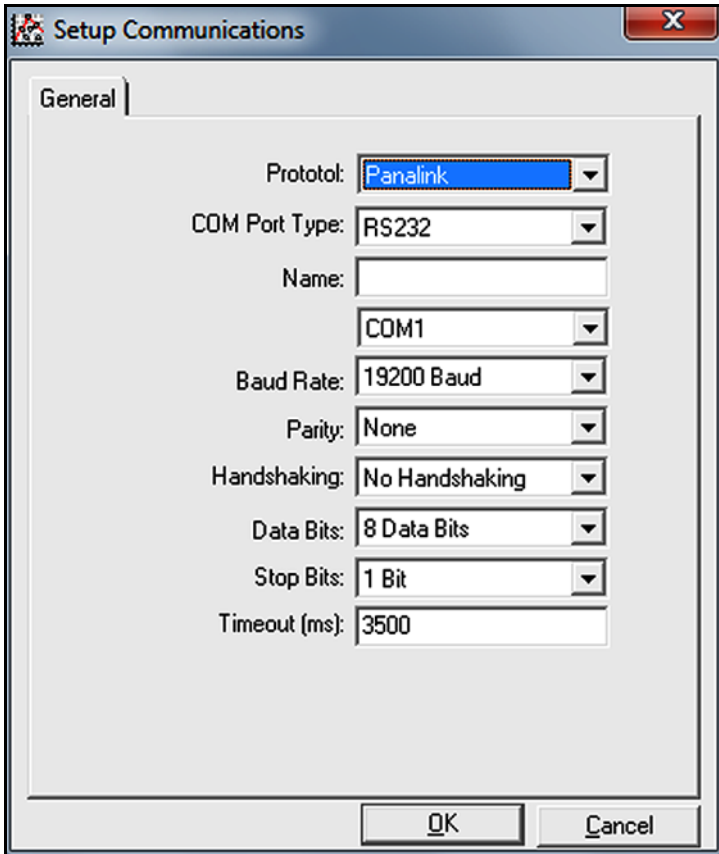


Figure 27: The Setup Communications Screen

The dialog box in *Figure 27* above permits the user to name the communication port (the name “*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 meter’s baud rate setting.*

4.4 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, IR232[®], TCP/IP (Ethernet)

IMPORTANT: *If you select TCP/IP, the menu changes. Proceed to “Setting up Ethernet Communications” on page 43.*

Note: *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.*

4.4 Adding a New Communication Port (cont.)

- **Baud Rate** - select the data transfer speed to be used
Default: 115,200 Baud
Options: 300, 600, 1200, 2400, 4800, 9600, 19200, 38400, 57600, 115200

Note: *A baud rate of 115,200 is suitable 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
- **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.*

4.4 Adding a New Communication Port (cont.)

5. After all of the communications port parameters have been set, click the [OK] button (see *Figure 27 on page 39*).

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 buttons are greyed out during this period). When the [OK] button becomes active again, click on it to complete the process.

Proceed to “*Adding the First New Meter*” on page 44 to set up a new meter on the newly installed communication port.

4.5 Setting up Ethernet Communications

If you selected TCP/IP in *Step 4 on page 39*, a *Setup Communications* window similar to *Figure 28* below opens.

1. Type in the desired *Name* and *Timeout* (in milliseconds).
2. In the *IP Address* text box, enter the IP address supplied with your documentation. In the *Port Number* box, enter the port number supplied with your documentation. (The default number is **2101**.)
3. Click [OK] to complete data entry. If the connection is successful, a “*TCPIP socket connected*” screen will open.

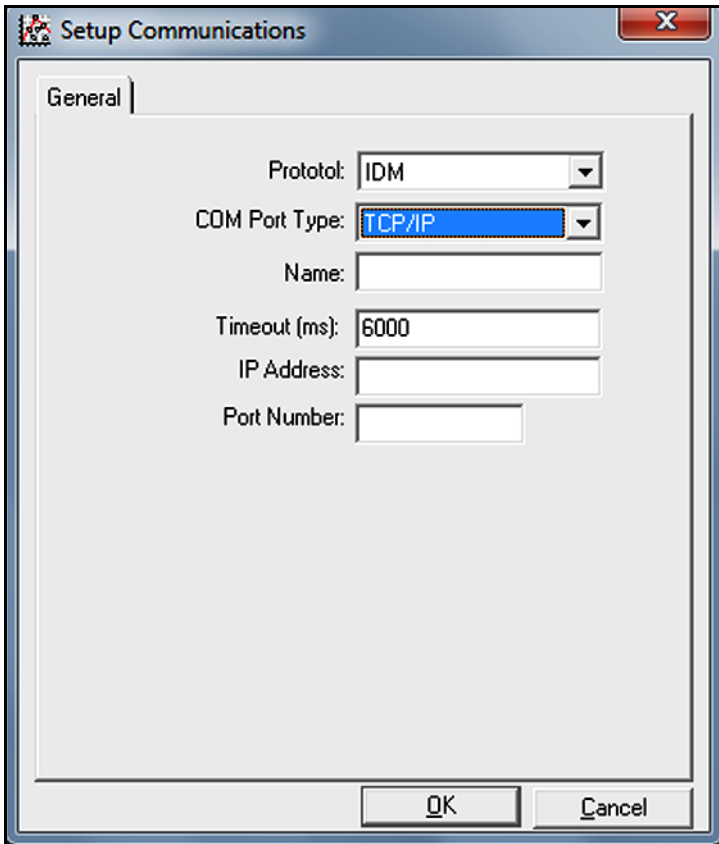


Figure 28: Setup Communications for TCP/IP

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

1. Notice in *Figure 29* below that the network tree now has the newly configured communication port listed.

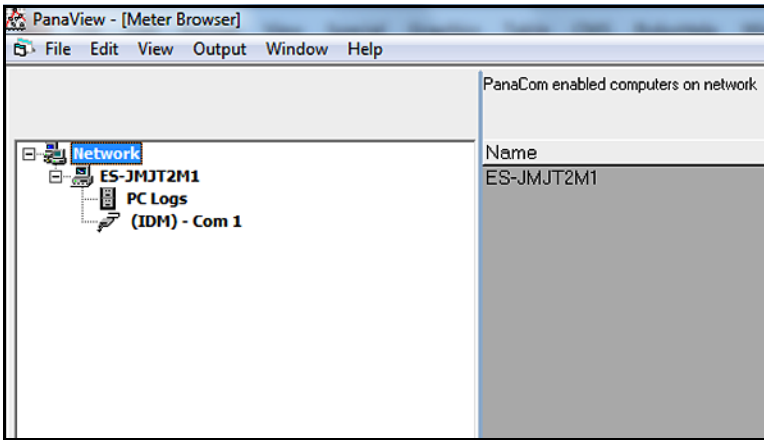


Figure 29: The New Serial Port Branch

Note: *In this example, the communication port has been named “Untitled” and is located on COM1. Whatever name was entered in the setup process appears in the details pane if the communications port is highlighted.*

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

Note: *If the communication port is not highlighted first, the “New Meter” option is not active in the “Edit” menu.*

4.6 Adding the First New Meter (cont.)

3. Click on the “New” option in the “Edit” menu (see *Figure 30* below).
4. Click on the “Meter” menu option.

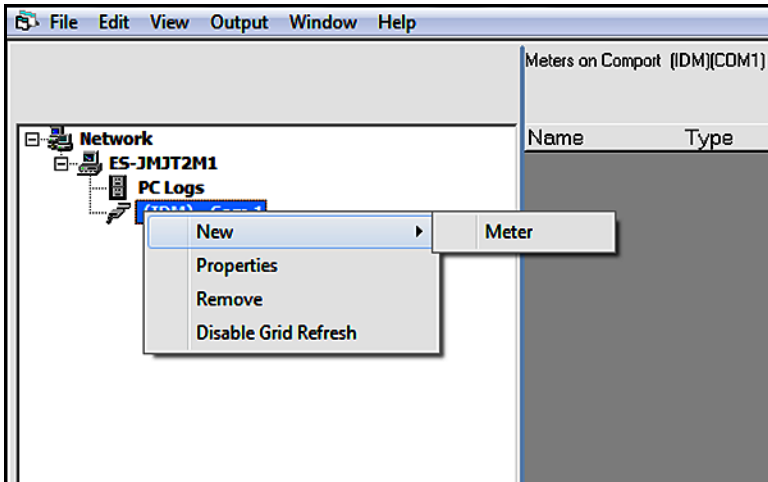


Figure 30: The Edit Menu

4.6 Adding the First New Meter (cont.)

5. After selecting the “New” and “Meter” options, the dialog box shown in Figure 31 below opens. 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] 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 53.*

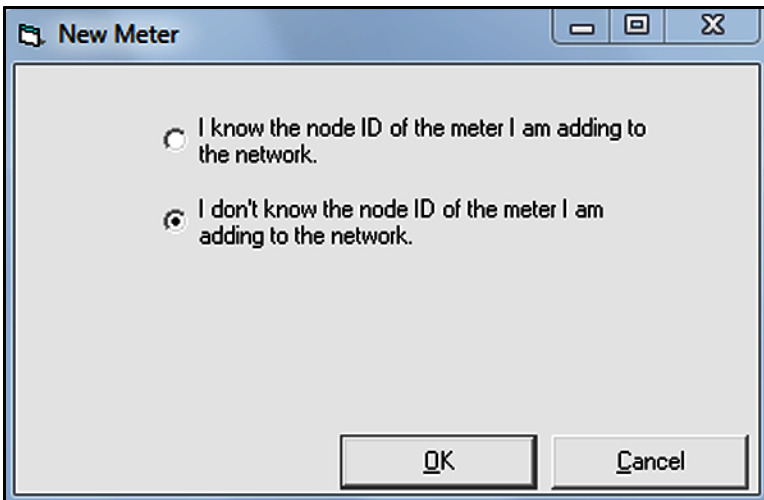


Figure 31: The Node ID Dialog Box

4.6 Adding the First New Meter (cont.)

- After responding to the previous dialog box, the dialog box shown in *Figure 32* below opens. 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] button.

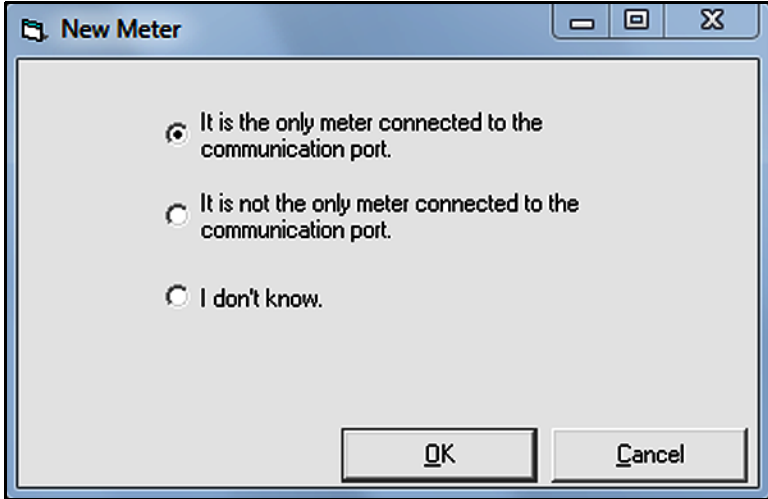


Figure 32: The Only Meter Dialog Box

4.6 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 33* below). Select the “*I wish to use this Node ID*” radio button and then click on the [OK] button.

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

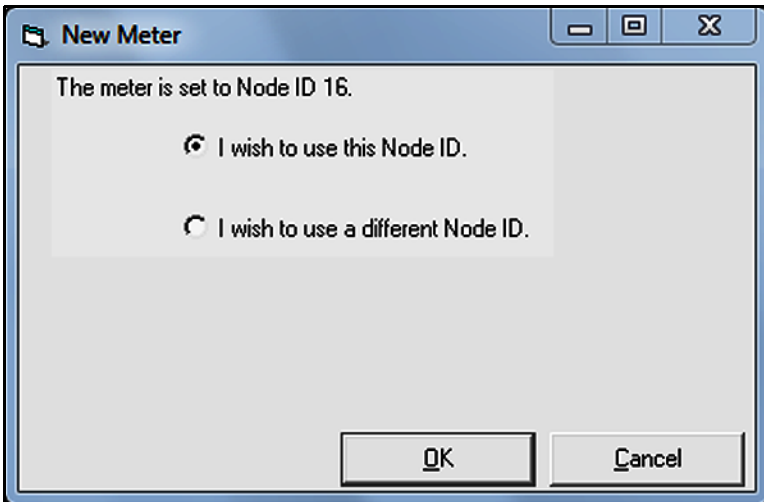


Figure 33: Node ID Confirmation

8. At the dialog box shown in *Figure 34* below, click on the [OK] button to add the meter and configure it.

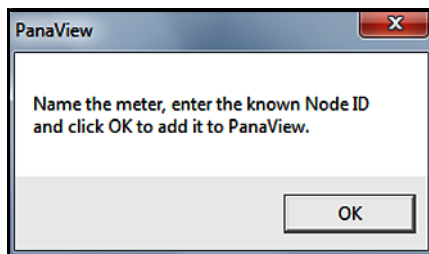


Figure 34: Confirmation Dialog Box

4.6 Adding the First New Meter (cont.)

- When the dialog box shown in *Figure 35* below opens, 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] button to initialize the new meter.

Add Meter - COM4

Name: Model Name:

Serial #: Firmware Version:

Up Time: PCI Order Number:

Clock:

Node ID

ID:

Meter Communication Parameters

Com Port: Port Type:

Baud Rate: Data Bits:

Parity: Stop Bits:

Error 29 - Timeout. Errors 1

Figure 35: The Add Meter Dialog Box

4.6 Adding the First New Meter (cont.)

After completing *Step 9 on page 49*, **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 36* below is added to the new meter dialog box.

The screenshot shows a dialog box titled "Add Meter - COM4". It contains several input fields and buttons. The "Name" field is filled with "New Meter". The "Model Name" field is filled with "IGM". The "Serial #" field is empty. The "Firmware Version" field is filled with "0.E". The "Up Time" field is empty. The "PCI Order Number" field is filled with "P000000". The "Clock" field is filled with "4/9/2015 1:06:30 PM". Below the "Clock" field are two buttons: "Set" and "Sync to PC". Below these fields is a section for "Node ID" with an "ID" field filled with "16" and two buttons: "Set Node ID" and "Get Node ID". Below that is a section for "Meter Communication Parameters" with fields for "Com Port" (COM 4), "Port Type" (RS232), "Baud Rate" (115200), "Data Bits" (8), "Parity" (None), and "Stop Bits" (1). At the bottom of the dialog box, there is a status bar that says "Error 29 - Timeout. Errors 1" and two buttons: "OK" and "Cancel".

Figure 36: 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 displayed along the bottom of the dialog box.

4.6 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 37* below).

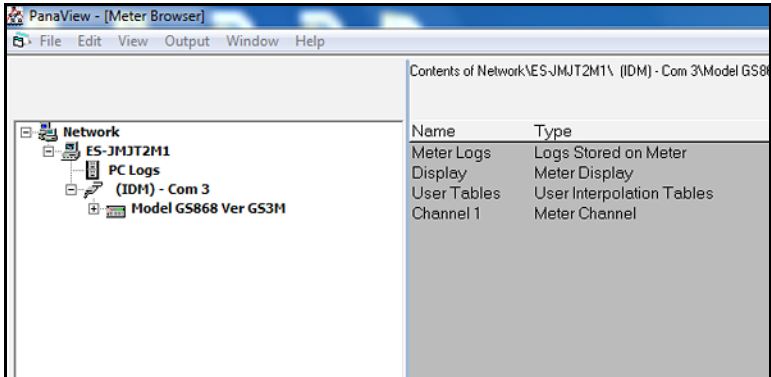


Figure 37: The Updated Network Tree

Note: A GE GS868 flowmeter was used for this example, as is indicated in *Figure 37* above. The information shown in the right pane and in the branches available under the “New Meter” branch in the left pane of the window 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.

4.7 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 *“Replace the Existing Meter”* on page 52)
- Keep the existing meter and add an additional meter (see *“Keep the Existing Meter”* on page 53)

Proceed to the appropriate section for specific instructions.

4.7.1 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 *“Removing the Meter”* on page 66.
2. Remove the existing communication port from the network, as described in the in *“Removing the Communication Port”* on page 60.
3. Add the communication port back onto the network by following the instructions in *“Adding a New Communication Port”* on page 38.
4. Add the replacement meter by following the instructions in *“Adding the First New Meter”* on page 44.

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.*

4.7.2 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 in *“Adding a New Communication Port” on page 38*.
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 63* 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 in *“Adding the First New Meter” on page 44*, with one exception:
 - a. At the Node ID dialog box (see *Figure 31 on page 46*), select the *“I know the node ID of the meter I am adding to the network”* option and click on the [OK] button.
 - b. When you reach the dialog box shown in *Figure 35 on page 49*, enter the known Node ID for the second meter.
 - c. Click on the [Set Node ID] button to register the entered value, and then click on the [OK] button to complete the process.

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

[no content intended for this page]

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 in *Figure 76 on page 100*. If it is not already running, launch PanaView. A screen like the one shown in *Figure 38* below opens (the exact PanaView version number and meter details will reflect your specific installation):

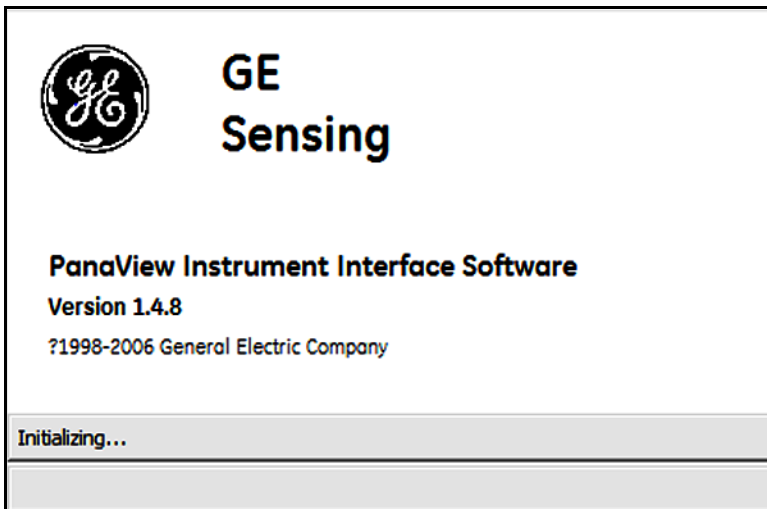


Figure 38: The Bootup Screen

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 39* below opens. To recover from the failed initialization attempt, complete the procedure below.

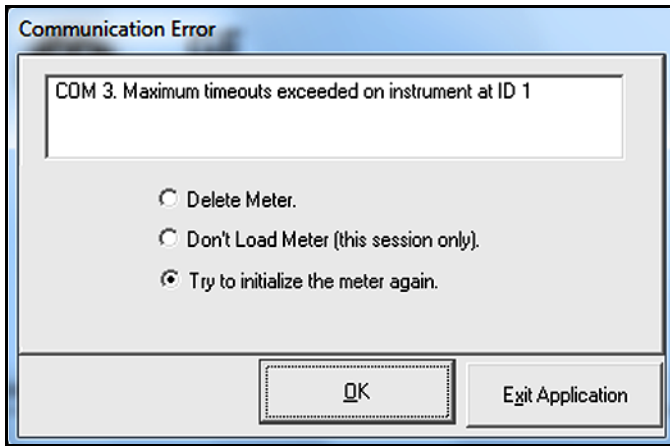


Figure 39: Communication Error Dialog Box

At the screen shown in *Figure 39* above, choose one of the following four options:

- Click on the [Exit Application] button to close PanaView
- Select the “*Delete Meter*” radio button and click on the [OK] button to permanently remove the meter from the PanaView network
- Select the “*Don't Load Meter (this session only)*” radio button and click on the [OK] button to remove the meter from the PanaView network for this session only
- Select the “*Try to initialize the meter again*” radio button and click on the [OK] 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 40* below).

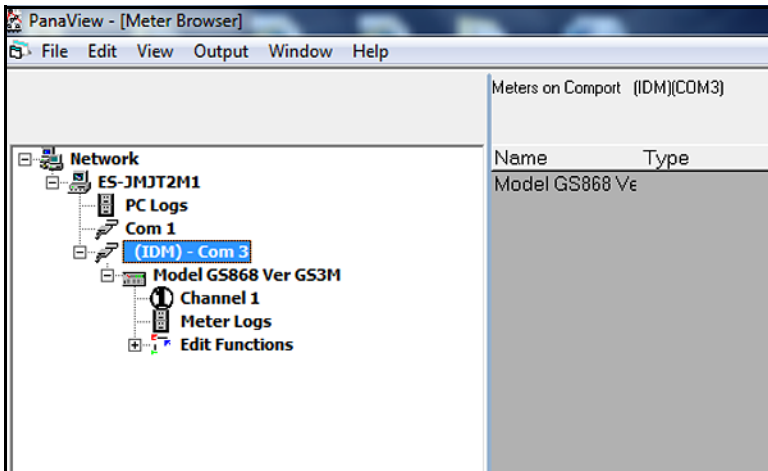


Figure 40: The Serial Port Branch

5.3 Communication Port Settings (cont.)

3. With the desired communication port highlighted, open the edit menu as shown in *Figure 41* below.

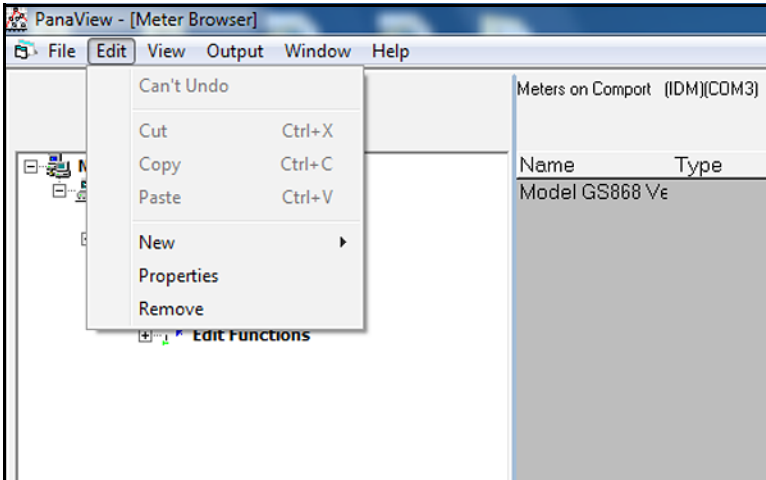


Figure 41: The Edit Menu

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 existing 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 “*Editing the Communication Port Settings*” on page 59) and **Remove** (see “*Removing the Communication Port*” on page 60) options.

5.3.1 Editing the Communication Port Settings

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

1. From the “Edit” menu shown in *Figure 41 on page 58*, click on the “Properties” option to open the dialog box shown in *Figure 42* below.
2. See “Adding a New Communication Port” on page 38, 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] button.

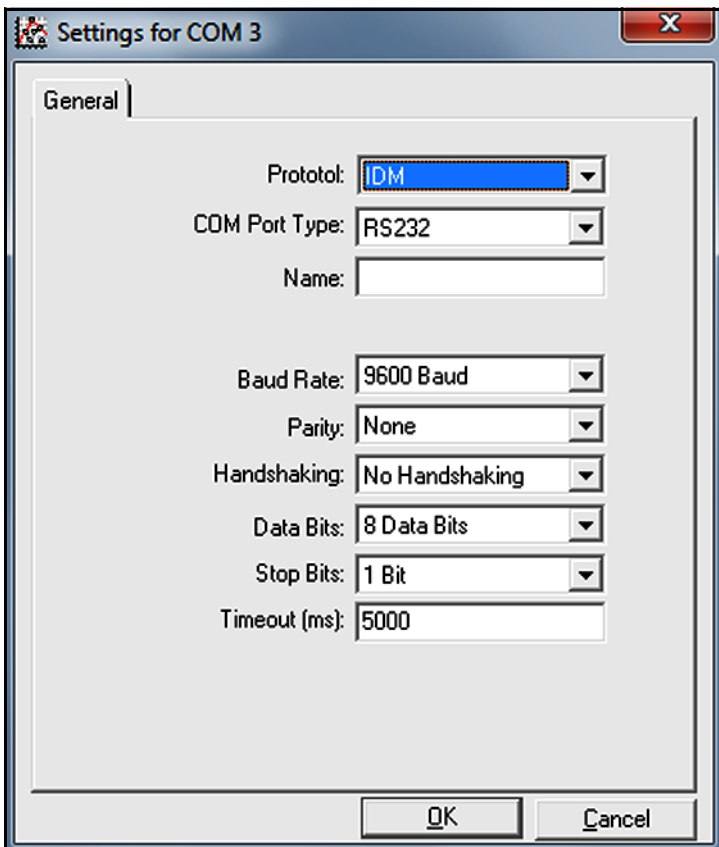


Figure 42: Communication Port Settings

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 41* on page 58, click on the “*Remove*” option to open the dialog box shown in *Figure 43* below.

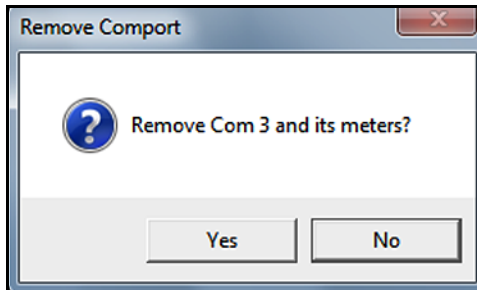


Figure 43: Port Removal Confirmation

2. Click on the [Yes] button to remove the selected port (and all of its attached meters) from the PanaView network, or click on the [No] 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 44* below).

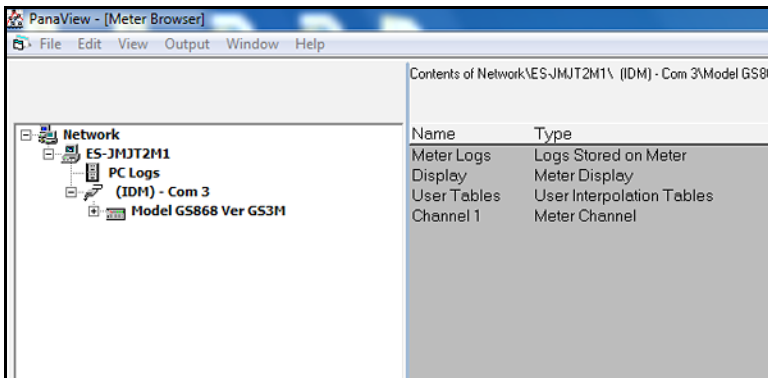


Figure 44: The Meter Branch

5.4 Meter Configuration Settings (cont.)

3. With the desired meter highlighted, open the “*Edit*” menu as shown in *Figure 45* below.

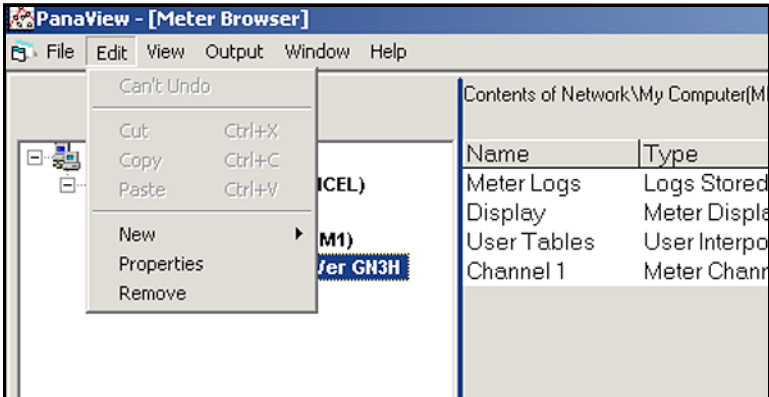


Figure 45: The Edit Menu

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 “*Editing the Meter Settings*” on page 63) and **Remove** (see “*Removing the Meter*” on page 66) options.

5.4.1 Editing the Meter Settings

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

1. From the “Edit” menu shown in *Figure 45 on page 62*, click on the “Properties” option to open the dialog box shown in *Figure 46* below.
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.

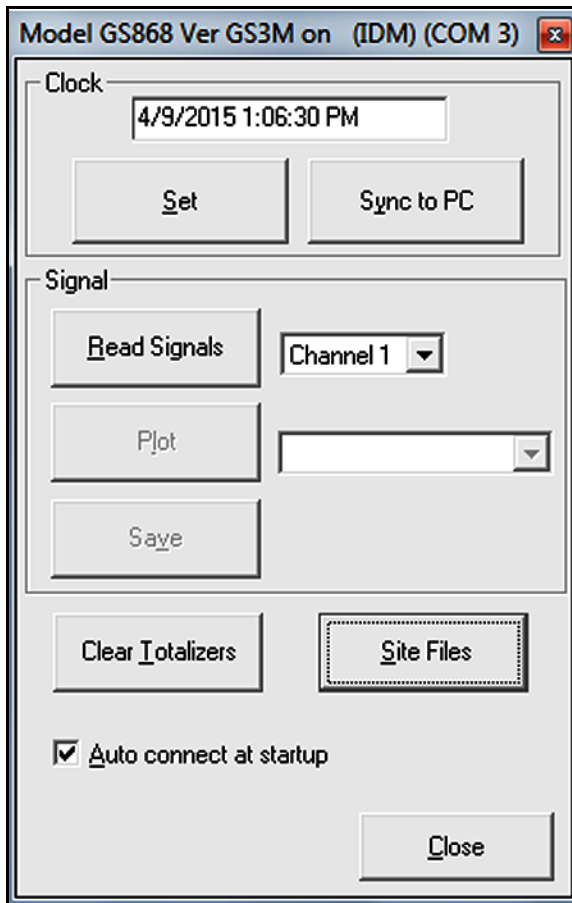


Figure 46: Meter Settings

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
 - Click on the [Sync to PC] button to have PanaView set the time and date to the current PC setting
 - Click on the [Set] button to open the dialog box shown in *Figure 47* below. Set the desired date and time as indicated, and click on the [OK] button.

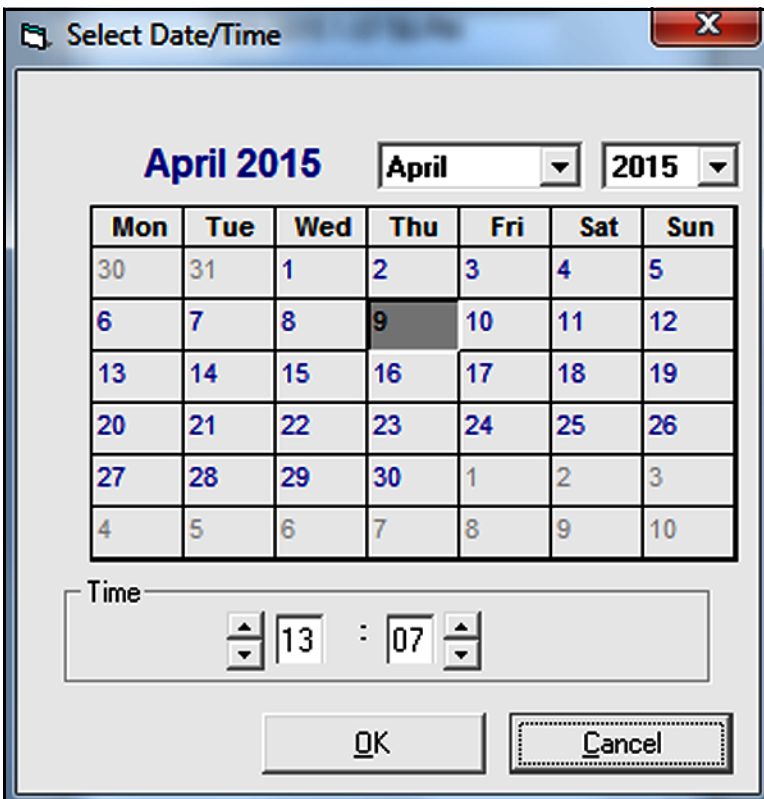


Figure 47: The Date/Time Dialog Box

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
 - Click on the [Set Node ID] button to have PanaView re-initialize the meter
 - Click on the [Get Node ID] button to begin the node ID setup sequence described in “*Adding the First New Meter*” on page 44.
6. Four of the *Meter Communication Parameters* may be edited by selecting one of the alternate choices in the list boxes shown in *Figure 46* on page 63. See “*Adding the First New Meter*” on page 44, 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 46 on page 63*, click on the “*Remove*” option to open the dialog box shown in *Figure 48* below.

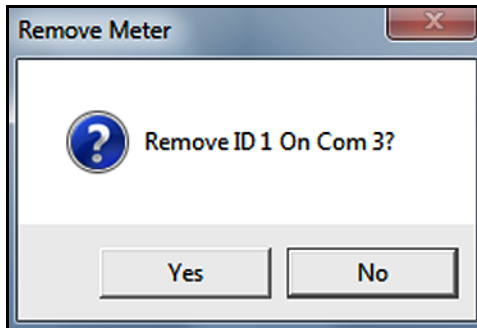


Figure 48: Meter Removal Confirmation

2. Click the [Yes] button to remove the selected meter from the PanaView network, or click on the [No] 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 open the “File” menu.
2. Click on the “New Meter Browser” option (see *Figure 22 on page 34*) to open a screen similar to *Figure 34 on page 48*.
3. Open the “Output” menu and click on the “Text Display” option (this menu is discussed in detail in *Chapter 6. “Data Handling”*) to open a window similar to *Figure 52 on page 73*. By default, this window is stacked on top of the previously visible “Meter Browser” window.
4. To rearrange the two open windows, open the “Window” menu (see *Figure 49* below).

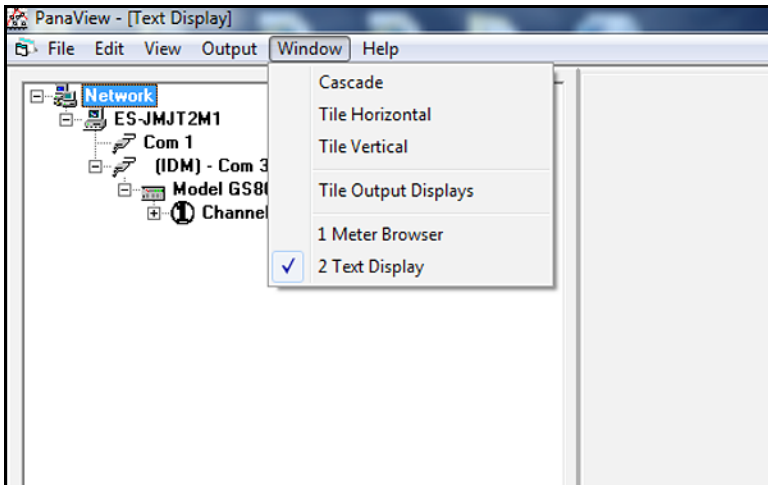


Figure 49: The Window Menu

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 50 on page 69*, 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*
- Show both windows in an overlay format by clicking on *Cascade*
- Show both windows, with each taking up one half of the screen height, by clicking on *Tile Horizontal*
- 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 50 on page 69*, 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.*

5.5 Multiple PanaView Windows (cont.)

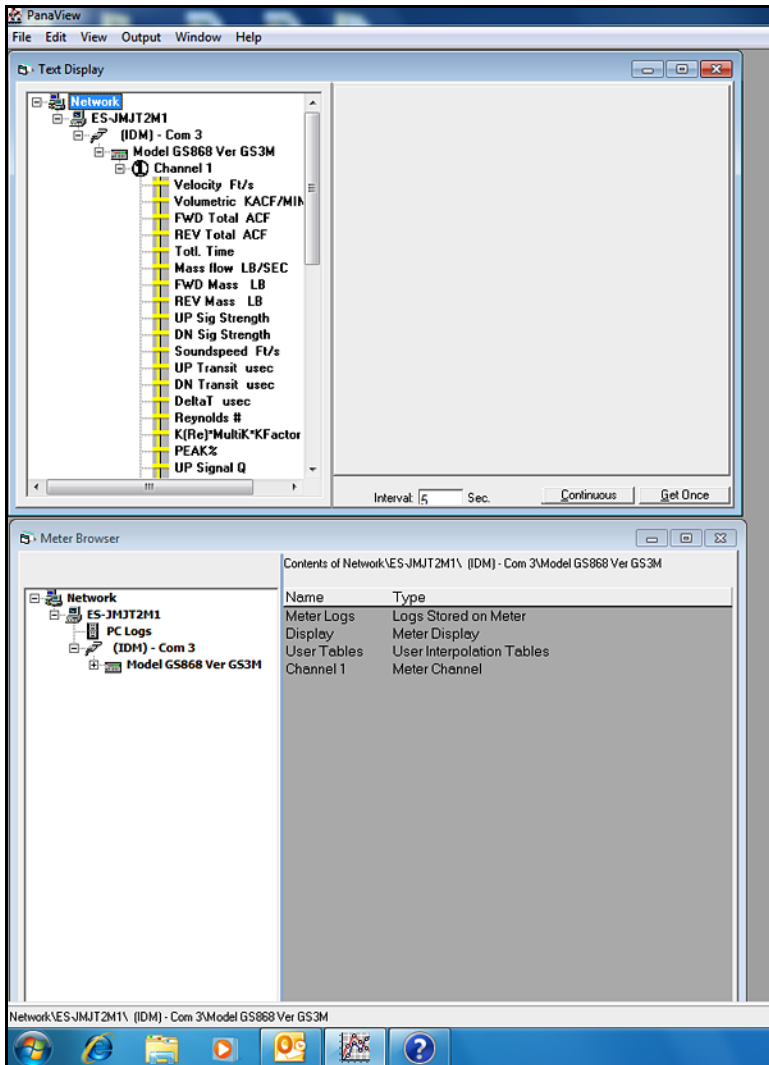


Figure 50: Horizontally Tiled Windows

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Chapter 6. Data Handling

6.1 Introduction

After PanaView has been installed and configured in accordance with the instructions provided in the previous chapters of this manual, you are ready to begin using PanaView to view, manipulate and save data. To illustrate the complete 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 38 on page 55*) and displays the basic PanaView window (see *Figure 11 on page 19*).
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 51* below.

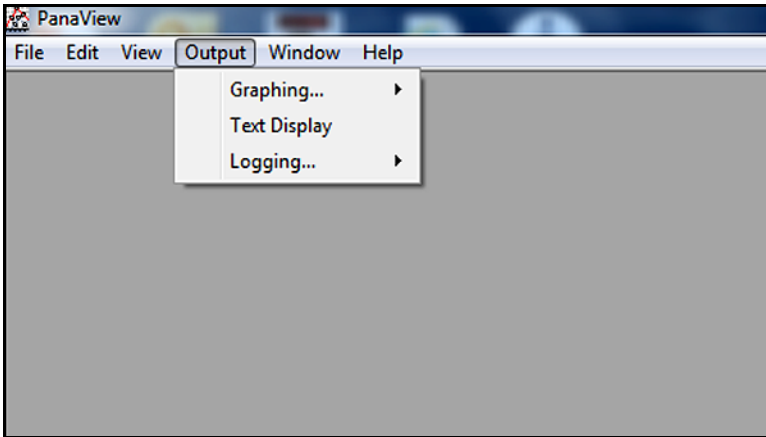


Figure 51: The Output Menu

IMPORTANT: *This manual provides only 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:

- “The Text Display Output” on page 73
- “The Graphical Display Output” on page 76
- “The Logging Output” on page 85

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 in *“Preparing to Work with Data”* on page 71.
2. Pull down the *“Output”* menu and click on the *“Text Display”* option (see *Figure 51* on page 72).

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 in *“Multiple PanaView Windows”* on page 67, arrange the open windows in the desired format. For this discussion, *Figure 52* below shows the *“Text Display”* window in its maximized (full-screen) size.

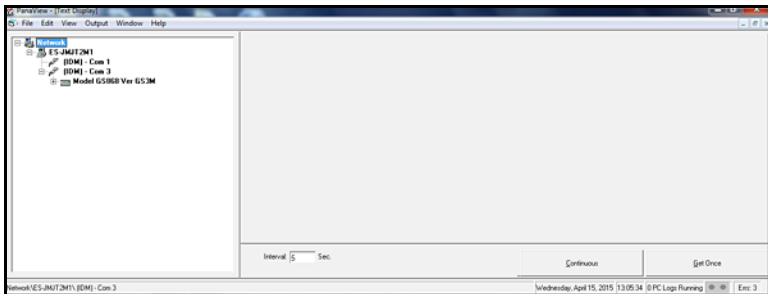


Figure 52: The Text Display Window

Note: Figure 52 above 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 52 on page 73*):
 - Click on the [Get Once] 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.
 - Enter an "interval" in the text box at the bottom of the right pane in the "Text Display" window. Then, click on the [Continuous] 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] button, which has replaced the original [Continuous] button, when you wish 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.*

6.3.1 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 49 on page 67) and clicking on the “Tile Output Displays” option.*

6.3.2 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 in “The Text Display Output” on page 73 and “The Text Display Output (cont.)” on page 74.
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 49 on page 67).

6.4 The Graphical Display Output

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

6.4.1 Setting Up a Graph

1. Perform Steps 1-3 in “*Preparing to Work with Data*” on page 71.
2. Pull down the “*Output*” menu and click on the “*Graphing - New*” option (see *Figure 51* on page 72).

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 shown in *Figure 49* on page 67, arrange the open windows in the desired format. *Figure 53* below shows the “*Graph*” window in its maximized (full-screen) size.

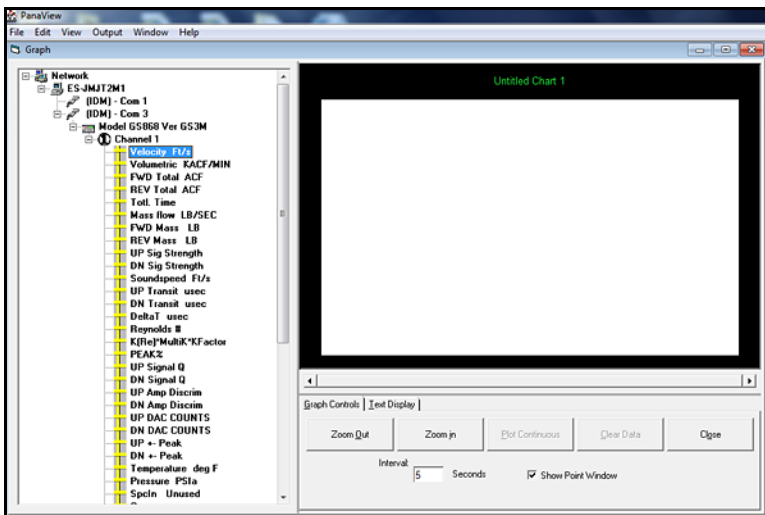


Figure 53: The Graph Window

6.4.1 Setting Up a Graph (cont.)

The “*Graph*” window shown in *Figure 53 on page 76* has 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: *Only two parameters may be graphed for a meter channel. However, you can open another window and graph two parameters 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 are available for 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. After 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 customize a graph display, 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 54* below. The chart (graph) properties available using this dialog box are listed in *Table 2 on page 79*.

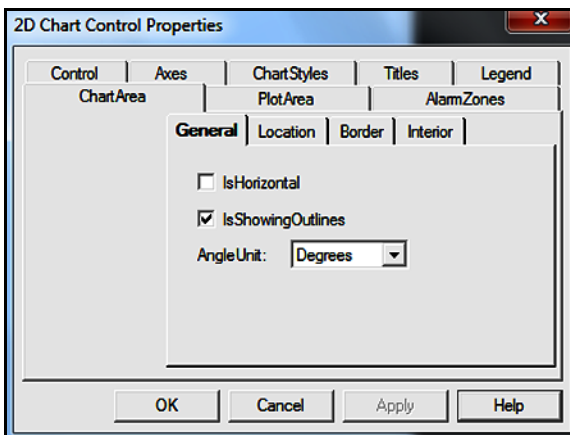


Figure 54: Chart Properties Dialog Box

6.4.3 Setting the Graph Properties (cont.)

Table 2: 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 the 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	

6.4.3 Setting the Graph Properties (cont.)

Any property change made by selecting an item from a drop-down list 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] button. To close the “*Chart Properties*” dialog box and return to the “*Graph*” window, click on the [OK] button.

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

The options available on the eight tabs in the “*Chart Properties*” dialog box are easy to use. They are described in *Table 2 on page 79*.

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 55* below).

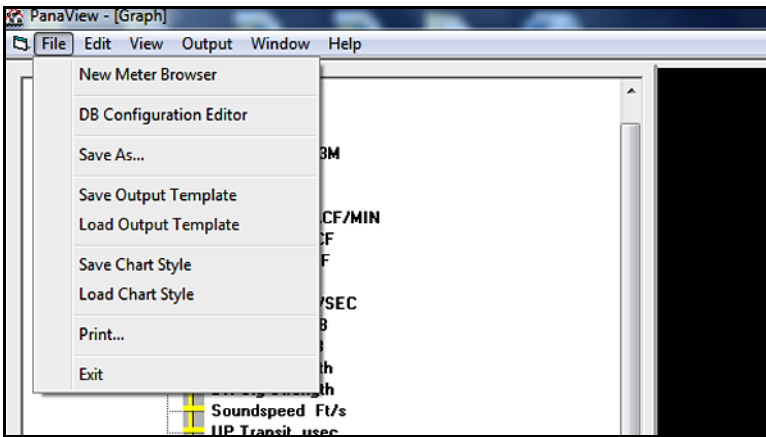


Figure 55: The File Menu for Graphs

Use the new “*File*” menu options as follows:

- Click on the “*Print*” menu option to open the standard Windows print dialog box 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 “Setting the Graph Properties” on page 78).*

6.4.4 Creating Chart Templates (cont.)

- Click the “*Save As*” option to save the graphed data as a log file. When the dialog box in *Figure 56* below opens, enter a name for the log file and click the [OK] button to save the file as:

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

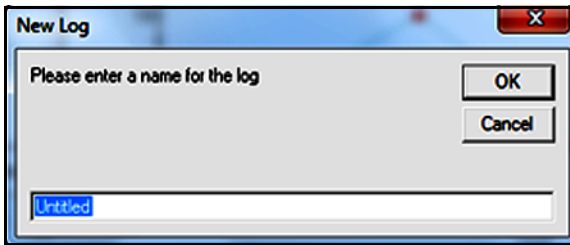


Figure 56: The Save As Dialog Box

- Click the “*Save Output Template*” option to save the current graph properties and parameters as a template for future graphs. When the dialog box in *Figure 57* below opens, enter a name for the chart (graph) template file and click the [Save] button to save the file as:

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

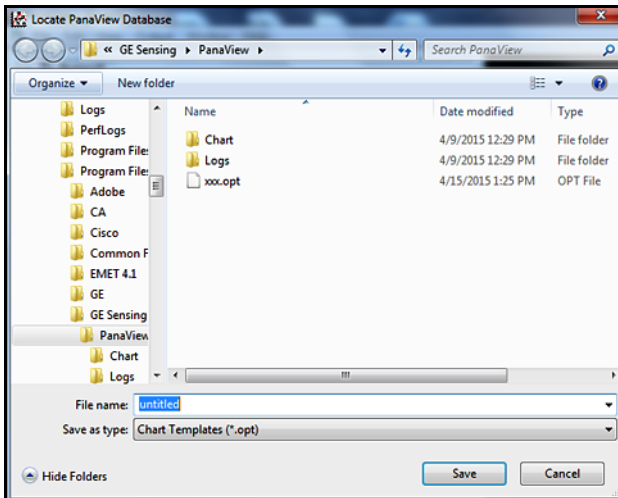


Figure 57: The Save Output Template Dialog Box

6.4.4 Creating Chart Templates (cont.)

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

- Click on the “Save Chart Style” option to save only the current graph properties (and not the parameters to be graphed) as a template for future graphs. When the dialog box in *Figure 58* below opens, enter a name for the chart (graph) template file and click the [Save] button to save the file as:

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

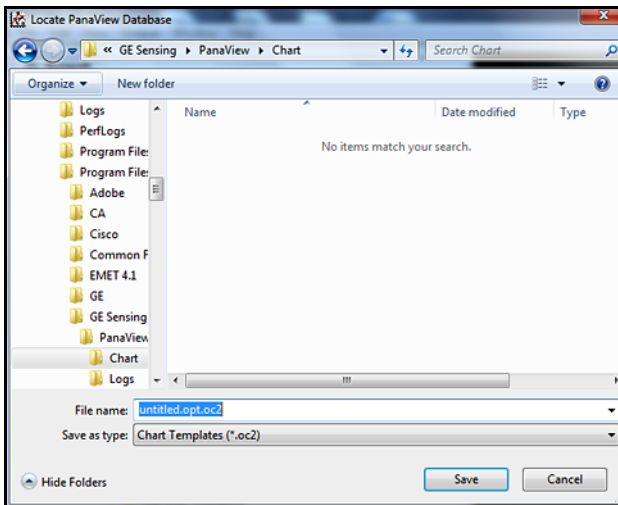


Figure 58: The Save Chart Style Dialog Box

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, as 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 51 on page 72*) or open the “File” menu and click on the “Load Output Template” option (see *Figure 55 on page 80*). If any output templates (*.opt) have been saved, select the desired file in the dialog box shown in *Figure 59* below. Then, click on the [Open] button to load the properties and parameters to be graphed from the output template selected.

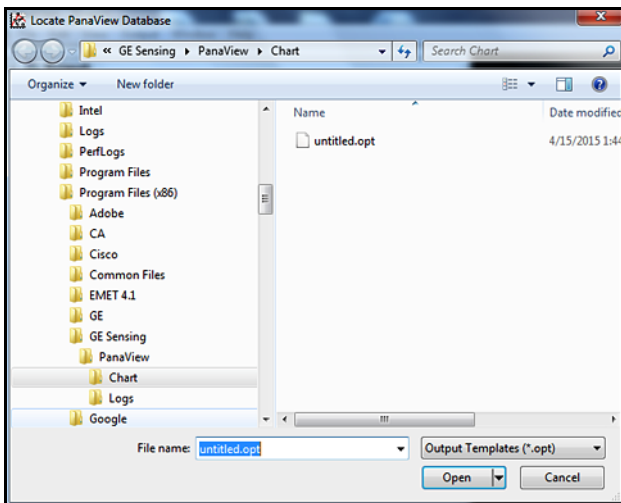


Figure 59: Opening an Output Template

6.4.5 Using Chart Templates (cont.)

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

- Open the “File” menu and click on the “Load Chart Style” option (see *Figure 55 on page 80*). If any chart templates (*.oc2) have been saved, select the desired file at the dialog box shown in *Figure 60* below. Then, click the [Open] button to load the graph properties from the output template selected.

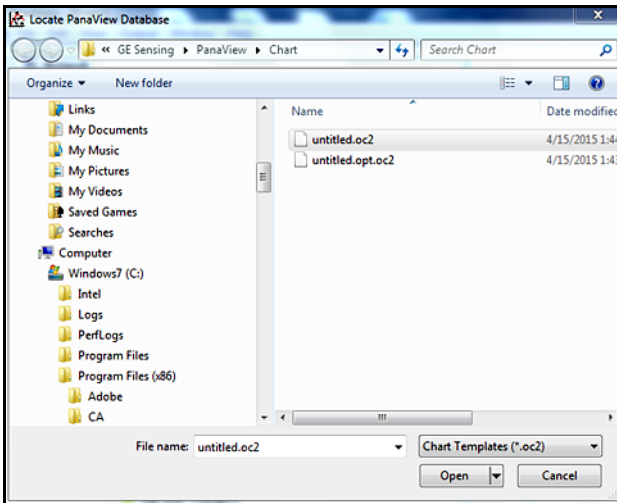


Figure 60: Opening a Chart Style Template

2. After you have finished creating the desired graphs, click the [Close] button in the lower right pane of the “Graph” window (see *Figure 53 on page 76*).

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 can create and view log files of the following types:

- **Meter Logs** - log files stored in your meter's memory (see “*Creating Meter Logs*” on page 86)

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 (see “*Creating PC Logs*” on page 91)

To create or view logs of the above types, proceed to the appropriate section of this chapter. *Figure 61* below illustrates the options available in the *Logging* output.

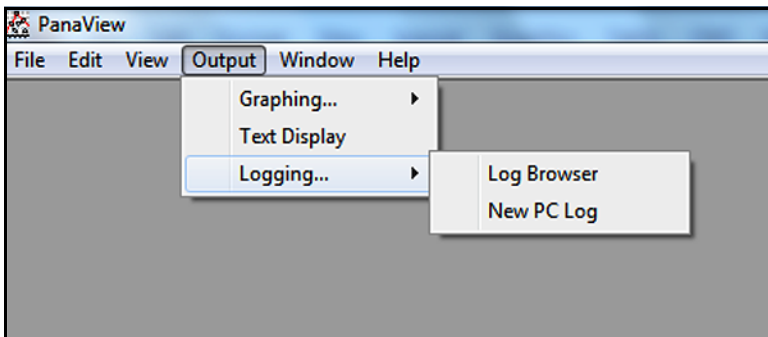


Figure 61: The Logging Output

6.5.1 Creating Meter Logs

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

1. Open the “*Output*” menu (see *Figure 51 on page 72*), and click on “*Logging*” and then on the “*Log Browser*” option to open the dialog box shown in *Figure 62* below.

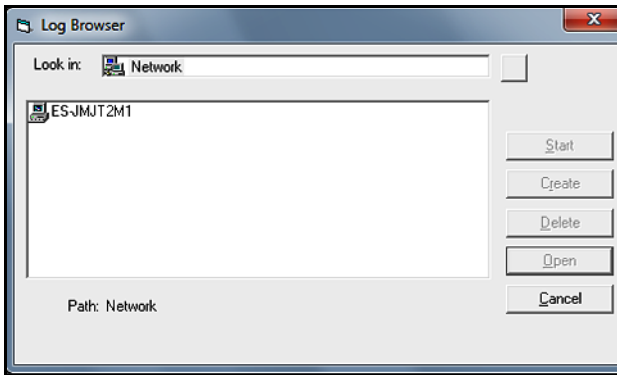


Figure 62: Computer Selection

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 buttons (except for [Cancel]) in the “Log Browser” dialog box are unavailable.*

2. Navigate through the PanaView network tree as follows:
 - a. Double click on the *computer name* to move to the network level shown in *Figure 63* below.

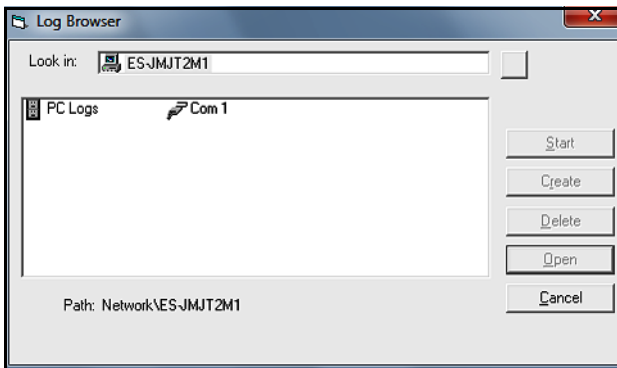


Figure 63: Communication Port Selection

6.5.1 Creating Meter Logs (cont.)

- b. Double click on the *communication port name* to move to the network level shown in *Figure 64* below.

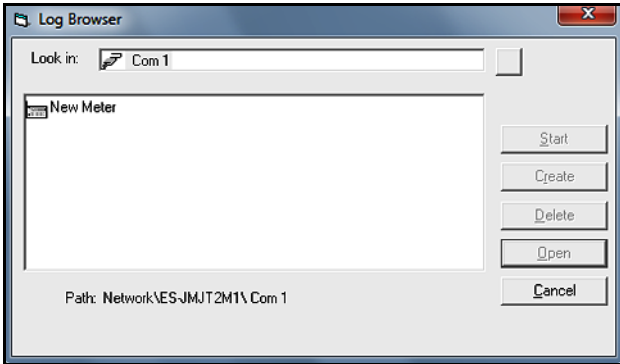


Figure 64: Meter Selection

- c. Double click on the *meter name* to move to the network level shown in *Figure 65* below

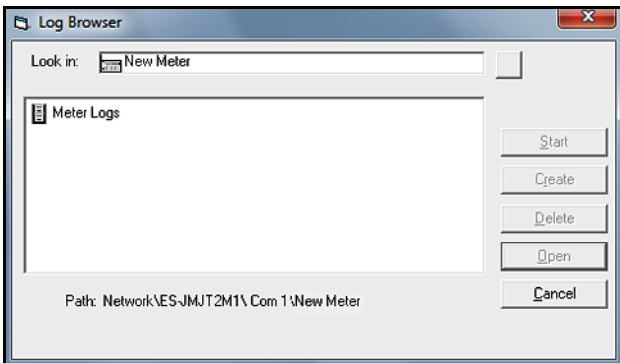


Figure 65: Log Type Selection

6.5.1 Creating Meter Logs (cont.)

- d. Double click on *meter logs* to move to the network level shown in *Figure 66* below.

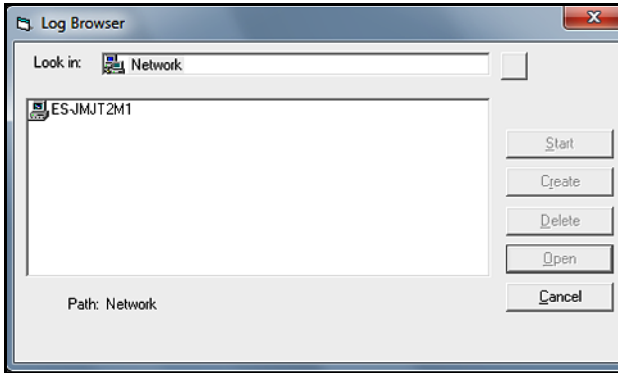


Figure 66: Create a Meter Log

- e. At the dialog box shown in *Figure 66* above, click on the [Create] button to create a new meter log.
- f. Enter a name for the log file in the dialog box shown in *Figure 67* below ("Untitled" is used here). Click on the [OK] button.

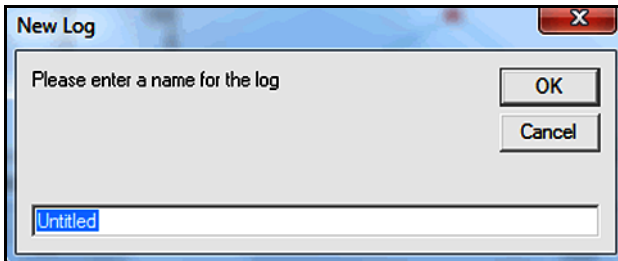


Figure 67: Log Name Dialog Box

6.5.1 Creating Meter Logs (cont.)

3. At the “*Meter Log*” window shown in *Figure 68* below, the following log specifications may be entered:
 - Select either “*Internal (A:)*” or “*External (B:)*” (if available) in the *storage location* list box.
 - Click on the [Sync to PC] 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.

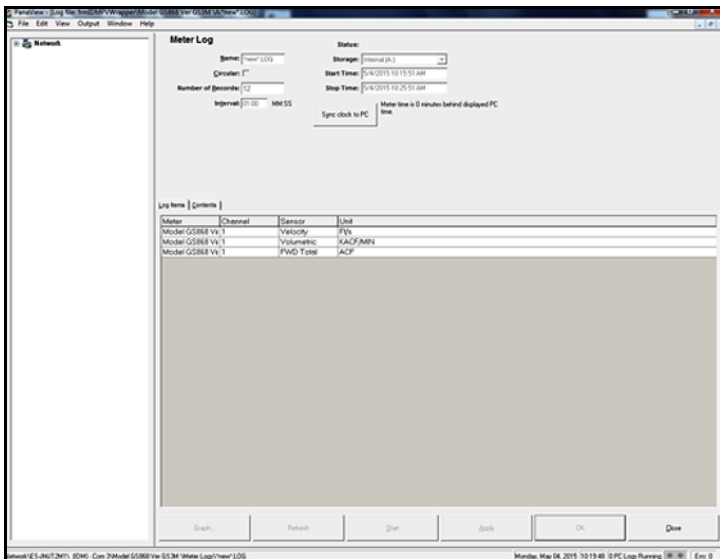


Figure 68: The Meter Log Window

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] button to record the log setup information, and then click on the [Start] button. Data logging begins when the preset “*Start Time*” is reached.

You may monitor the logging progress using one of these methods:

- Click on the “*Log Items*” tab (see *Figure 68 on page 89*) for a list of the parameters specified for logging.
- Click on the “*Contents*” tab (see *Figure 68 on page 89*) 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] 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 Graphical Display Output” on page 76.*

- Click the [Refresh] button to update the information shown on the “*Contents*” tab and in the “*Graph Log*” window. Data logged since the last use of the [Refresh] 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 “*Graphing Data*” on page 77) of a multi-channel graph display. After you have finished viewing the graph, click on the [Close] button to close the “*Graph*” window and leave the log running.

6. To manually terminate the logging process, click the [Stop] button, which has replaced the original [Start] button. Otherwise, the log stops automatically when the programmed “*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 previous section. To create a new PC log:

1. Open the “*Output*” menu (see *Figure 51 on page 72*), and click on the “*Logging*” option to open the window shown in *Figure 69* below.

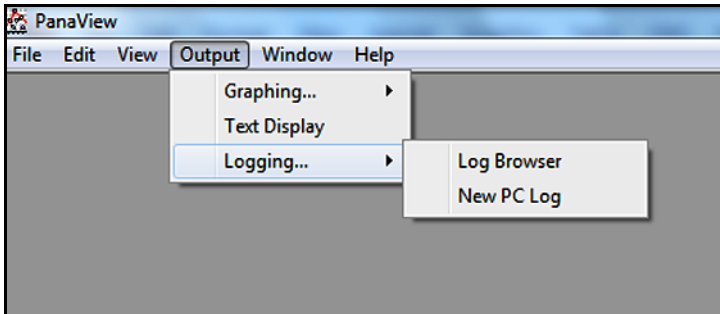


Figure 69: Selections in the Logging Option

2. Select one of the following two choices:
 - Click on the “*New PC Log*” option and proceed to step 5.
 - Click on the “*Log Browser*” option to open the dialog box shown in *Figure 70* below.

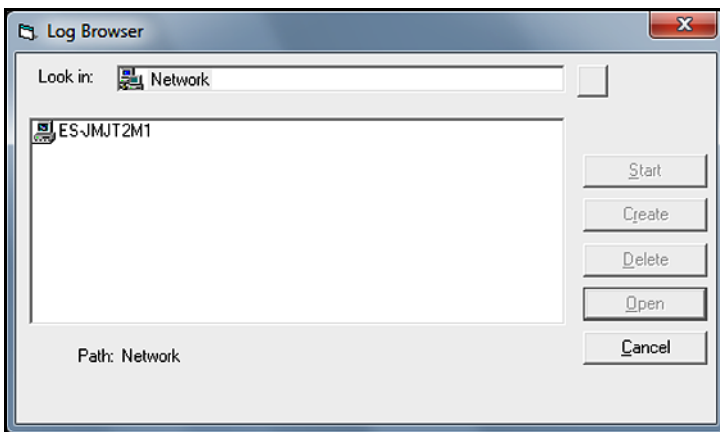


Figure 70: Computer Selection

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 buttons (except for [Cancel]) in the “Log Browser” dialog box are unavailable.*

3. Double click on the *computer name* to advance to the dialog box shown in *Figure 71* below.

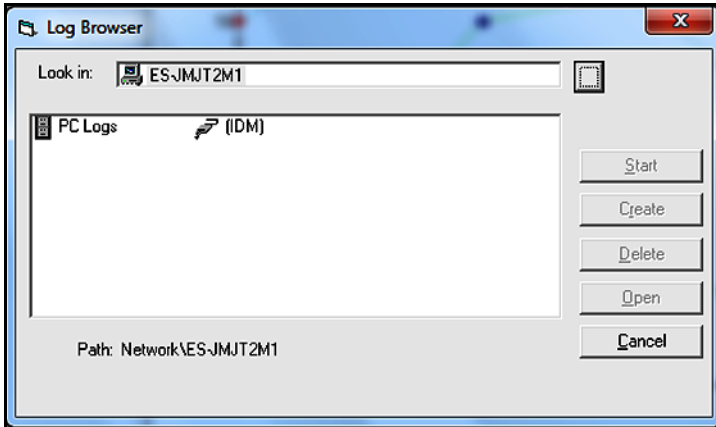


Figure 71: Log Type Selection

4. Double click on *PC logs* to advance to the dialog box shown in *Figure 72* below.

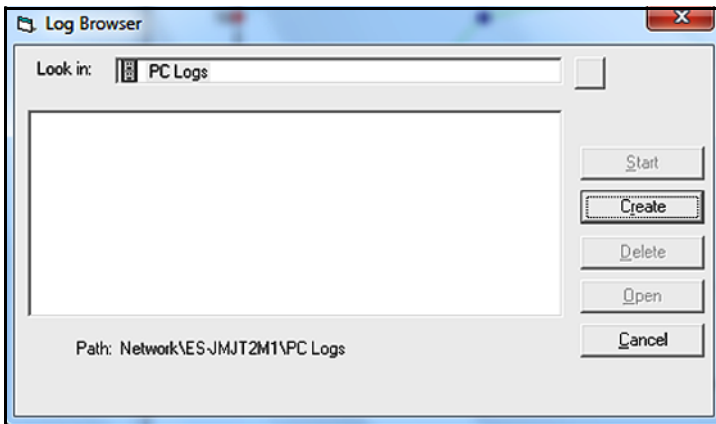


Figure 72: Create a PC Log

6.5.2 Creating PC Logs (cont.)

5. At the dialog box shown in *Figure 72 on page 92*, click on the [Create] button to create a new meter log.
6. Enter a log file name (“Untitled” is used here) in the dialog box shown in *Figure 73* below. Click on the [OK] button.



Figure 73: Log Name Dialog Box

7. At the resulting “PC Log” window shown in *Figure 74* below, place a check mark in the text box to create a *circular log*, or leave this box empty to create a linear log.

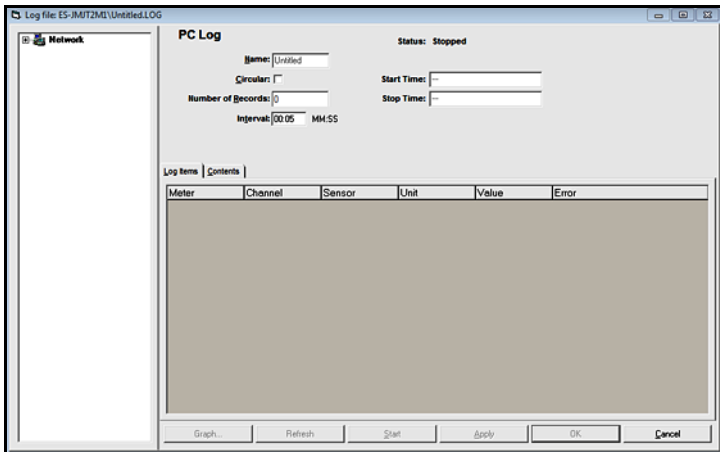


Figure 74: The PC Log Window

6.5.2 Creating PC Logs (cont.)

8. Enter a sampling *interval* in the text box shown in *Figure 74 on page 93*, 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.*

9. 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.*

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

You may monitor the logging progress using one of these methods:

- Click on the “*Log Items*” tab (see *Figure 74 on page 93*) for a list of the parameters specified for logging).
- Click on the “*Contents*” tab (see *Figure 74 on page 93*) 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] 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 Graphical Display Output” on page 76.*

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

6.5.2 Creating PC Logs (cont.)

Remember that only two parameters per channel may be graphed, and that the same two parameters must be graphed for each channel (see “*Graphing Data*” on page 77) of a multi-channel graph display. After you have finished viewing the graph, click on the [Close] button to close the “*Graph*” window and leave the log running.

11. To terminate the logging process, click the [Stop] button, which has replaced the original [Start] button, and 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 storage 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. Open the “*Output*” menu (see *Figure 51 on page 72*), 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 75* below opens.

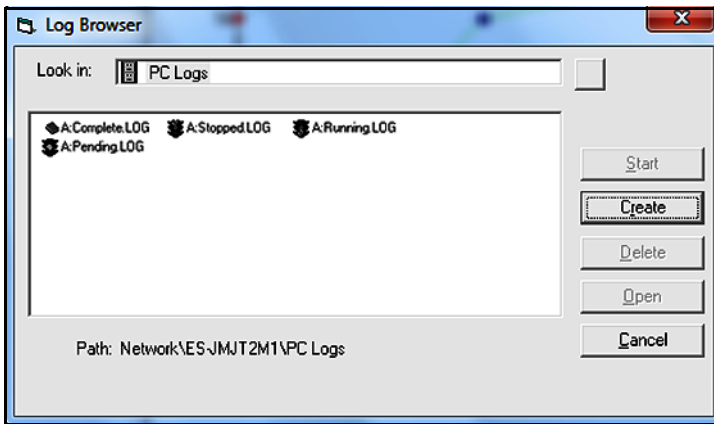


Figure 75: Selecting a Log File

Note that each of the log files in *Figure 75* above 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 (see **A:Complete.LOG** in *Figure 75* above).
- **Red Light** - The log has not run to its specified stop time but has been manually stopped (see **A:Stopped.LOG** in *Figure 75* above).
- **Yellow Light** - The log has been set up but the specified start time has not yet been reached (see **A:Pending.LOG** in *Figure 75* above).
- **Green Light** - The log is currently running but is not yet complete (see **A:Running.LOG** in *Figure 75* above).

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 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 one of the buttons listed in Step 3 above.

For instructions on manipulating the information displayed in the log window, refer to “*Creating PC Logs*” on page 91 or to “*Creating Meter Logs*” on page 86.

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Appendix A. Menu Map

For convenient reference, a complete map of the PanaView menu system is shown in *Figure 76 on page 100*. The menu map consists of the PanaView *menu bar*, with all of the individual menus fully expanded.

When using the menu map, 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 sections of this manual and the programming sections of the *User's Manual* for your specific instrument for detailed information regarding each menu and submenu

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

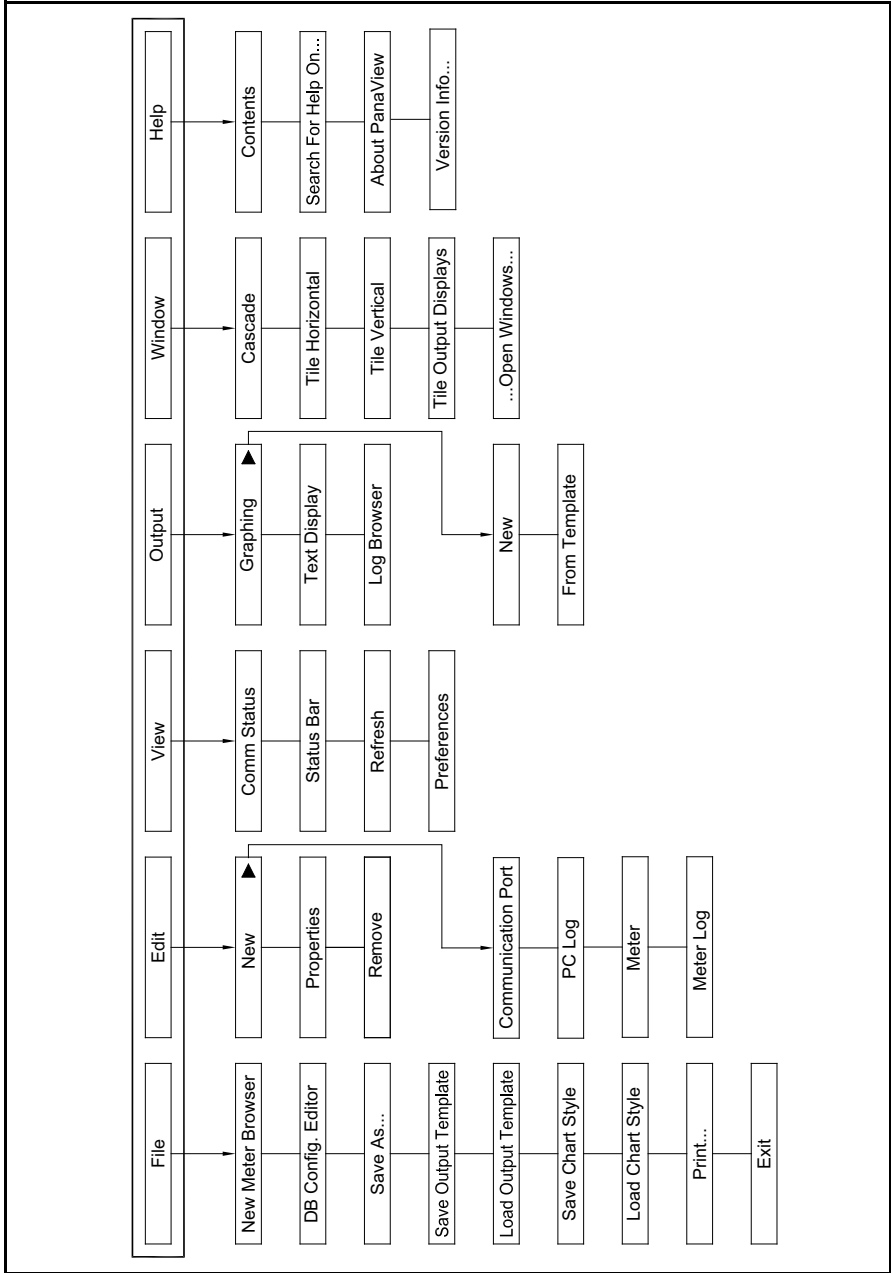


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