METERVIEW[®] 3 SOFTWARE

Instruction Manual



REMOTE PROGRAMMING

MeterView[®] 3 software allows all setup parameters to be programmed remotely from a PC and saved to a file for reporting or programming other meters.

DATA ACQUISITION

MeterView[®] 3 software provides a convenient way to collect the data generated by the Trident Model PD765 serial output. The user can select the logging time interval. Data can be written to a file, which can then be imported into a spreadsheet or other application.

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SPECIFICATIONS

SYSTEM REQUIREMENTS	Windows [®] 95/98/ME/NT4/2000/XP/Vista
COMMUNICATION	RS-232 adapter or RS-422/485 adapters with an RS-232 to RS-485 converter may be used for communicating with the meter(s)
NUMBER OF METERS	Up to 100 meters simultaneously with addressing capability (up to 60 seconds scanning delay)
BAUD RATE	2400 bps to 19.2 kbps
REPORTS	Data logging: log to HTML file format Configuration: save configuration to PDC file format or export to HTML file for printing, cloning, or restoring meter settings
CONFIGURATION	Configure one meter at a time
LOGGING	Log data to HTML file. All enabled meters are logged to a single file. Logging interval: 2 seconds to 60 hours or manual

ORDERING INFORMATION

Meterview

Free Software Download at www.predig.com/meterview

	Trident Mete	er Models
85-265 VAC* Model	12-36 VDC* Model	Description
PD765-6R0-00	PD765-7R0-00	No options
PD765-6R0-10		24 V transmitter supply
PD765-6R2-00	PD765-7R2-00	2 relays
PD765-6R2-10		2 relays & 24 V transmitter supply
PD765-6R3-00	PD765-7R3-00	4-20 mA output
PD765-6R3-10		4-20 mA output & 24 V supply
PD765-6R3-20		4-20 mA output & dual 24 V supplies
	Trident X2 Me	eter Models
PD765-6X0-00	PD765-7X0-00	No options
PD765-6X0-10		24 V transmitter supply
PD765-6X2-00	PD765-7X2-00	2 relays
PD765-6X2-10		2 relays & 24 V transmitter supply
PD765-6X3-00	PD765-7X3-00	4-20 mA output
PD765-6X3-10		4-20 mA output & 24 V supply
PD765-6X3-20		4-20 mA output & dual 24 V supplies

To request meters with Modbus option enabled, replace the last digit with a "1". Modbus option may be ordered separately by requesting P/N: PDN-MODBUS *All models may be powered from AC or DC, see PD765 Instruction Manual for details.

	Accessories
Model	Description
PDA7420	7' (2.1 m) Standard Modular Cable
PDA7232	RS-232 Serial Adapter (includes PDA7420)
PDA7422	RS-422/485 Serial Adapter (includes PDA7420)
PDA7485-N	RS-232 to RS-485 Non-Isolated Converter
PDA7485-I	RS-232 to RS-485 Isolated Converter
PDA8485-N	USB to RS-422/485 Non-Isolated Converter
PDA8485-I	USB to RS-422/485 Isolated Converter

METERVIEW 3 INSTALLATION

- 1. Go to <u>www.predig.com/meterview</u>
- 2. Quickly register
- 3. Read instructions & copy serial # of desired MeterView version
- 4. Download Installation file to computer
- 5. Double-click installation file to open it
- 6. Double-click Setup.exe to begin installation
- 7. Follow on-screen instructions

Notice!

This software may only be installed on a single computer. It may not be shared over a network or otherwise used on more than one computer at a time, except for the purpose of remote programming of meters. For complete terms refer to the End User License Agreement (EULA) found in the MeterView 3 registration window.

METERVIEW 3 VERSIONS

MeterView 3 comes in three different versions:

• PDA7503-1 — Supports 1 meter



• PDA7503-2 — Supports up to 10 meters



PDA7503-3 — Supports up to 100 meters



af COM 1 / 35 🖗 Update rate: 9 sec 🐘 Logging stopped 🕒 10:13 🔲 3/13/2003

RUNNING METERVIEW 3 THE FIRST TIME

The first time MeterView 3 is run it is necessary to set up the serial communication settings of the program. Select the communication port and the baud rate of the meter(s) connected.

COM1 -	COM Port	<u>0</u> K
2400	Baud	Cancel

Note: The selected baud rate in MeterView and the meter(s) baud rate must be the same. Otherwise a communication error will occur.

Enable Meter and Select Meter Address

The actual meter address is set up at the meter using the front panel buttons. The location where a meter is displayed is selected on MeterView Main window.

To enable or select a meter with a different serial address:

1. Right-click on the screen location of meter.

- 2. Click on Enabled, if meter is not yet enabled.
- 3. Click on Change Address.
- 4. Select meter address to display in this location.



METERVIEW 3 MAIN WINDOW

The main MeterView 3 window shows the present reading(s), relays/alarm status, tag number(s) and selected engineering units, along with other information for each meter. The graphic below indicates the different parts of the main MeterView 3 window.



Main Window Menus

The MeterView 3 main window contains the following menus:

- File menu
- Edit menu
- View menu
- Comm Menu
- Help Menu

File Menu

The following options are available from this menu:

- 1. Save Settings to save the present window settings.
- 2. Exit to close the MeterView 3 program.

Edit Menu

The following options are available from this menu:

1. **Serial Settings** to edit the serial communication settings.

View Menu

The following options are available from this menu:

- 1. Event Log to view the MeterView 3 event log window where all internal program events and errors are logged.
- 2. Show Relay Alerts select whether or not MeterView should alert the user of a change in the relay status (ON → OFF or vice versa) with a pop-up message.

Comm Menu

The following options are available from this menu:

- 1. **Stop** to halt the automatic meter scanning. This allows guicker access to menu items, functions, and windows.
- 2. Start to resume the automatic meter scanning.

Help Menu

The following options are available from this menu:

- 1. **Register MeterView 3** to launch the registration program to register your copy of MeterView 3.
- 2. **About** opens a window that provides the product number and version information. You should have this information available in the event you must contact Precision Digital Technical Support.



Right Click Menu

By right clicking on a meter on the screen a menu will appear with the following options:

Menu Item	Function/Submenus
Enabled	Enable or disable a meter on the screen
Change Address	Change a meter's serial address in MeterView
Mode	Select whether relays/alarms are shown or not
Configure	Access the configuration window for a meter
Customize	Customize how a meter looks on the screen



Notes:

- Due to the intensive processor usage, it may be necessary to click more than once before a submenu or function is launched.
- Accessing menus or other windows could disrupt communication with the meter(s).
- Use left mouse button or tab key on the keyboard to navigate within a window.
- Parameters not available within a window appear grayedout.
- An arrow next to a box indicates a drop-down menu. Click on arrow to display the drop-down menu.

CONFIGURATION WINDOW

Click on **Configure** in the right click menu to open a meter's configuration window. The following settings can be programmed from this window:

- 1. Input type (4-20 mA, 0-10 V, RTD, or TC).
- 2. Decimal point for process inputs (dd.dd).
- 3. Units (F or C) and sensor type for temperature inputs.
- Values for scaling process inputs, values for scaling analog output, Password, Adjust (temperature only), Filter, Bypass, Cutoff (process inputs only), Transmit Delay, Function type, and Cut-off.
- 5. Relay settings.
- 6. After the last change has been made, click the Write to Meter button or press Enter on the keyboard to send the new settings to the meter, or click on Exit to abandon changes. Before sending the new settings, MeterView 3 will ask to confirm that the meter's current settings should be overwritten. Click Yes to overwrite the settings, or No to abort the operation and return to the configuration window.

The configuration window contains the following menus:

- File menu
- Tools menu
- Password menu

Note:

• Accessing menus or other windows could disrupt communication with the other meter(s).

File Menu

The following options are available from the File menu:

- 1. Save Configuration to save the present settings to a file.
- 2. Load Configuration to load settings from a file.
- 3. **Export to HTML** to save the present settings to a HTML file.
- 4. Import from HTML to load settings from a HTML file.

Tools Menu

The following options are available from the Tools menu:

- 1. **Restore Meter** to restore a meter to settings previously saved in a configuration file. The restore operation will only work with the meter whose settings were originally saved to the file.
- 2. Load Defaults to load the factory default settings.

It is recommended to create a configuration file before changing any setting and before any calibration operation.

Password Menu

The following options are available from the Password menu:

- 1. Lock Meter to lock the meter and prevent unauthorized changes.
- 2. Change Password to change the unlock password of the meter.
- 3. **Unlock Meter** to unlock the meter and allow changes to be made.

The password must be a four-digit number; "0000" is the unlocked password setting.

Input Tab

In the configuration window, click on the **Input** tab to view the input options.

nput Scaling Helays/Alarms Advanced Factory Values	
Input Type Temperature Unit	
4 to 20 mA 💌 Degrees F 💌	
Decimal Point Temperature Sensor	
dd.dd Type J	Ψ.

Set Up Input Type

Click on the arrow next to the 4 to 20 mA box and then click on the desired input type.

Ir	nput Type	
	4 to 20 mA	•
and a street	4 to 20 mA 0 to 10 V Thermoscurele	
D	RTD	100

Set Up Decimal Point

Click on the arrow next to the *dd.dd* box and then click on the desired decimal point position. Decimal point selection is available for 4-20 mA and 0-10 V inputs only. The display scale and relay set/reset points are adjusted according to the decimal point selection.

ecimal Poi	nt
dd.dd	-
ddd.d	
da.dd d.ddd	
dddd	

Set Up Temperature Unit

Click on the arrow next to the *Degrees F* box and then click on the desired temperature unit. Temperature unit selection is available for Thermocouple and RTD inputs only.

-

Set Up Temperature Sensor

Click on the arrow next to the *Type J* box and then click on the desired temperature sensor. Temperature sensor selection is available for Thermocouple and RTD inputs only.

Thermocouple Sensors

RTD Sensors



Scaling Tab

In the configuration window, click on the **Scaling** tab to view the scaling settings for process inputs (current and voltage).

It is coming in rielays/Alarms	Advanced Factory	¥alues
urrent (mA)	Voltage (V)	
Input 1 Display 1 4.00 4.00	Input 1	Display 1
Input 2 Display 2 20.00 20.00	Input 2	Display 2

Relays/Alarms Tab

In the configuration window, click on the **Relays/Alarms** tab to view the settings for the relays/alarms.

Fail-Safe Mode Automatic Reset	Mode	yrmailli Z	Fail-Safe 🥅
Automatic Reset			
	 Aul 	tomatic Reset	•
Set Point On Delay (7.00	ms) Set	Point 10.00	On Delay (ms)
Reset Point Off Delay	(ms) Re:	set Point 9.00	Off Delay (ms

Advanced Tab

In the configuration window, click on the **Advanced** tab to view the advanced settings. Consult the meter manual for further details.

ut Scaling Relays/Alarm	Advanced Factory Values
ljust Value Lockout	Option Relays
	Analog Output (mA)
10 Intensity	Display 1 Output 1
pass Value Function T	ype Display 2 Output 2
0.2 % Linear	20.00 20.00
ansmit Delay Cuto	ff Value
10 ms 🔽 RS422	0.00 Sensor Break 3.00

Factory Values Tab

In the configuration window, click on the **Factory Values** tab to view the meter serial number, version, and calibration constants.

100	.5 . 335770						
out	Scaling	Relays	/Alarms	Adv	anced F	actory Value	s
			Interna	I Cal	ibration Va	lues	
irmı	vare Numl	ber			Gain	Offset	CJr
	SET012	1	Cur	rent	0.0340445	0.2010498	
1			Volt	age	0.0171819	-0.4467163	
-			1	est	0.0169000	-0.0507000	
ILLUN	vare Revi	sion	TC Typ	be J	1.0413320	7904.660	33890.06
	02.510)	TC Typ	еK	1.0414040	7699.106	33905.75
			TC Typ	еT	1.0402630	7700.749	33920.38
lete	r Serial N	umber	TC Typ	еE	1.0416390	8101.336	33926.75
—	0301211	14927	RTD A	385	1.0318320	6425.099	
1	0001211	- IOLI	RTD A	392	1.0318320	6425.099	
			Analog	Out	28.0000000	-10.0000000	
					1	1.1	

CUSTOMIZE WINDOW

Click on **Customize** in the right click menu to open a meter's customize window. The following settings can be programmed from this window:

- 1. **Tag Number** to identify a meter and optionally display it on the meter. Pre-selected special characters may be used in this field by simply dragging the desired symbol into it.
- Display Units to identify the engineering units of the value being read and optionally display it on the meter. Pre-selected special characters may be used in this field by simply dragging the desired symbol into it.
- 3. **Display Color** to change the color of the meter display on the screen.
- Relay Tag to change the text label of the Relay Status indicator(s).
- 5. Relay Color to change the color of the Relay Status indicator(s).



Note:

• These settings are **NOT** saved to the meter.

SERIAL COMMUNICATION SETUP

Addresses for Trident Meter and MeterView 3 are set to 00 at the factory.

- 1. From the main window, click on **Edit** → **Serial Settings** menu to access the Serial Communication Setup.
- 2. Select correct communication port used for Serial Adapter.
- 3. If timeout error is received, try another serial port selection or check meter's address.

To change the serial address of a meter, simply click on **Change Address** in the right-click menu. This setting is on a per-meter basis.

e	
Current Address:	OK
00	
New Address:	Canaal

Note:

· Baud rate is set up for 2400 bps at the factory.

RELAYS/ALARMS STATUS

Each meter enabled in the main MeterView 3 window can display the current status of its relays/alarms (if the meter **Mode** in the right-click menu is set to **Relays**) and can allow the user to remotely acknowledge the relays/alarms (if applicable). The text labels and colors for the status indicators may be customized through the **Customize** window.



Note:

• See the PD765 Instruction Manual for more information about relay operation and acknowledgement.

LOGGING METER DATA TO FILE

- 1. Click on the arrow next to the Interval box to select an interval from 2 to 60 or select manual to log the data only when the **Log** button is clicked (**Log** button is only visible when manual is selected).
- 2. Select seconds, minutes, or hours.
- 3. Click the Start button.
- 4. Select file location and enter a file name. Click **OK**. MeterView 3 will begin logging data to the file.



Logging may be paused or stopped at any time. MeterView 3 will indicate logging and paused status with corresponding message flashing in the main window status bar. When logging, all other MeterView functions and windows are not accessible.

Log File Sample

The HTML log file format contains pertinent information related to the meter and logging selections. Each log entry includes date and time, tag number, serial address, display value, units and relays/alarms status.

ile Edit View	Favorites Tools Help								R
3 ma + 6) · 🖹 🗟 🏠 🔎	Search 🤺 Fai	artes 🛃	Media (36	3.3	w •		
dress 🕘 Criboo	ments and Settings(Jucal/Deska	opijog (n - 2s.htm							M 🔁 60
		PD7	65 Lo	g Fil	e				
Name: C'6ogfi Serial Part: C	le (1 min every 2 sec).hts OM 1 Commertion s	n need: 2400 B:	vid		Crea Loggi	ited: 3/7/ ing rate: 1	2003 15:30 undate es	6.32 mry 2 second	
	Date & Time	Tag Number	Address	Display	Units	Relay 1	Relay 2		
	3/7/2003 15:36:32	Meter #00	00	69		On	Off		
	3/7/2003 15:36:32		01	70.9		Off	Off		
	3/7/2003 15:36:32	Meter #02	02	72.7		On	Off		
	3/7/2003 15:36:32		03	72.5	٩F	On	Off		
	3/7/2003 15:36:32	Meter #84	04	72.0	٩F	Ōn	Off		
	3/7/2003 15:36:32		05	71.7		On	Off		
	3/7/2003 15:36:34	Meter #00	00	69		Ôs	Off		
	3/7/2003 15:36:34		01	70.9		Off	Off		
	3/7/2003 15:36:34	Meter #02	02	72.7		On	Off		
	3/7/2003 15:36:34		03	72.5	٩F	On	Off		
	3/7/2003 15:36:34	Meter #04	04	72.0	٩F	On	Off		

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