Table of Contents

1. Overview..................................................................................................................1
2. Using PanelMate PC Pro as an OPC Client ..........................................................1
   2.1 Creating a PanelMate PC Pro Project ...............................................................1
   2.2 Creating a Connection to the Server ...............................................................2
   2.3 Configuring a Display Page ..............................................................................4
   2.4 Running the PanelMate PC Pro Project .........................................................6
3. Using Kepware’s OPC Client ..................................................................................6
1. Overview

This document intends to discuss how to use Cutler-Hammer's PanelMate PC Pro to create an OPC connection to the server.

Note: KEPServerEX can also be a DDE server to PanelMate. If the node is defined as a DDE node in PanelMate, KEPServerEX will be an Advanced DDE server.

2. Using PanelMate PC Pro as an OPC Client

All Cutler-Hammer PanelMate PC Pro versions 1.10 and greater support OPC client connectivity. The following examples use version 1.10.

2.1 Creating a PanelMate PC Pro Project

1. From the Start menu, select the PanelMate folder and then click on PanelMate Power Pro Software. This will invoke the PanelMate PC Configuration Editor, which will open to a default database model window.

2. Expand Configurations and then select PanelMate PC. Then, click New.

3. Next, specify a name for the new configuration in Name. In this example, "OPC_Example" is used.
4. Once finished, click **OK**.

2.2 Creating a Connection to the Server

1. In the PanelMate PC tree list, locate and expand the name of the newly created configuration. Then, double-click **PLC Name and Port Table**.

2. In the **Device Use** drop-down menu, select **OPC Server**.

![PanelMate PC tree list](image1)

**Note:** In the **Port Parameters** window, Port 1 will be displayed as OPC Server.
3. Next, click **Add**.

![PLC Name and Port Table](image1)

4. In **PLC Name Parameters**, select item 1. This is PLC1 on port 1.

![PLC Name and Port Table](image2)

5. Next, click **OPC Setup**.

![OPC Server Setup For Device: plc1](image3)
6. In **Server Name**, enter "KEPware.KEPServerEX.V4".
7. In **Access Path Name**, enter an access path for the device. This example points to Device 1 on Channel 1.
   
   **Note:** An Access Path Name should only be entered if only one device is being connected to from PanelMate. Otherwise, users can leave this path blank and assign the Access Path Name in the item references.
8. Once finished, click **OK**. Then, click **OK** again.

### 2.3 Configuring a Display Page

1. In the PanelMate PC tree list, locate and select **Configuration Pages**. Then, click **New**.
2. In **Title**, specify a name for the configuration page. In this example, "OPC Example" is used.
3. Keep the rest of the parameters at their default settings, and then click **OK**.
4. In the PanelMate PC tree list, double-click on the new page. Then, click to select the **VS Readout Template** icon in the toolbox.

5. Next, place a template on the page.
6. Then, double-click on the template.

7. Next, open the **Expressions** tab. In **Value**, enter a valid Simulator Tag.

   **Note**: The item reference must be encapsulated in square brackets. For example, users who entered an access path when setting up the server connection would enter "[R0]" as the item. Users who left the access path field blank would enter "[Channel_1.Device_1.R0]" as the item.

   Both examples add the tags dynamically by asking for data addresses that exist without being defined in the device. This works fine when using the default data type for that address. In this example, the tag would be created as a Word (also known as a 16 bit unsigned integer). Tags that do not use the default data type must be defined in the server first in order to specify the appropriate data type. For example, to make the Simulator's R8 register a Float, users must first define a tag in KEPServerEX. It must be assigned an address of R8 and a data type of Float. If this user-defined tag was assigned the name "Float8," then that is what would be used for the tag reference in PanelMate PC Pro. To reference user-defined tags, enter "[Tag_1]" or "[Channel_1.Device_1.Tag_1]." "Tag_1" was already created in the server's "simdemo.opf" project.

8. Once finished, click **OK**.
9. In the PanelMate PC tree list, double-click on **System Parameters**.

10. Check **Direct Select (Touchscreen Only)** and **Flexible Page Layout**. Then, click **OK**.

11. Next, select **Configuration Pages** in the PanelMate PC tree list. Then, click **File | Save**. This will save the configuration with the name that was entered during project setup.

### 2.4 Running the PanelMate PC Pro Project

1. To start, export the configuration as a .PPS file. To do so, click **File | Export**. Then, specify the same name that was used as the configuration file.

   **Note**: Although the PanelMate Configuration Editor runs under all Windows operating systems, PanelMate PC Pro requires either a Windows NT 4.0 or Windows 2000 Runtime environment.

2. Save the .PPS file in the default directory `Pmconfig\Online\Cfg`.

3. Next, ensure that the KEPServerEX "simdemo.opf" project is running. Then, open Windows Explorer and double-click on the PPS file to start.

### 3. Using Kepware's OPC Client

Kepware provides an OPC client application with each installation of KEPServerEX for testing purposes. For more information, refer to the OPC Quick Client help file.