Kepware OPC Server Installation & Activation

All PanelMate ePro units have the Kepware OPC server preloaded. If you are a PanelMate ePro user, you will need to select and install a Kepware driver. If you are not using a PanelMate unit (or you have an ePro manufactured before April, 2003) you will need to install both the Kepware OPC server and driver.

PanelMate ePro OPC Bundled models (designated by "-OPC" in the catalog number) are preconfigured to run any one Kepware driver. No software activation is required. If you have Kepware software that requires activation, you will receive a 21 digit serial number with the Kepware CD that will be used for software licensing. The software license will need to be activated through a software registration process. Once the process is started and the 21 digit serial number is entered, the license will run in a 10-day installation grace period. **Note:** It is required that the user keep a record of the 21 digit serial number in the event of a hardware or system failure that would require re-installation and re-activation of the Kepware OPC server.

**Note:** Prior to installation and activation on the ePro you should verify that the Protect Mode Status of the ePro is set to Normal Mode. If the ePro is in Protect Mode, changes made during installation will be lost at the next ePro boot up. Refer to the PanelMate ePro Users Guide for directions on placing your ePro unit in normal mode.

If you have an ePro unit that is not an OPC Bundled model then the following steps must be taken to install and activate your Kepware OPC server. PanelMate ePro OPC Bundled model users can jump right to the Modifying Kepware Software and Adding a Driver section of this document for instructions on how to select and install Kepware OPC drivers.

**Installing and Activating Kepware Software**

1. Access the Kepware installation software found on the Kepware CD to start the installation process. The installation process will create a Kepware Products entry in the Start>Programs menu. This selection can be used for running the installed software.

   If you are installing a Kepware OPC server on a PanelMate ePro, go to the installation instructions titled **Installing Kepware Software on PanelMate ePro from CD** or **Installing Kepware Software on PanelMate ePro from a Network Download** in this document for more information.

2. After installation you may configure and test the OPC server/driver in demo mode for as long as you desire. Demo mode allows the server to run for a two-hour period before automatically stopping. It can be re-started for another two-hour period indefinitely. Once you decide to permanently activate the license on your system take the next steps to activate the 10-day installation grace period and subsequently license the driver for permanent use.

3. Run the KEPServerEx program (Start>Programs>Kepware Products>KEPServerEx>KEPServerEx) and select Purchase a Driver License from the Help pull-down menu. A dialog box will be displayed which lists all unlicensed drivers as shown below:
4. Select the driver you wish to license and click on the **License...** button. A driver-specific dialog box will open (example shown below) instructing you to enter the serial number of the purchased license. The serial number can be found on the CD envelope.

If you wish to purchase additional serial numbers (licenses) contact your local distributor. Do not contact the Technical Support group to purchase serial numbers.

![Driver List](image1.png)

5. Enter the 21 digit serial number provided on the CD envelope (include the dashes) and click **OK**. (Note: if you do not have a keyboard connected you may click the **Keypad** button and enter the serial number using your mouse or the touchscreen). Once the serial number has been correctly entered, the licensed driver will now be running in the 10-day installation grace period. You will need to perform the **Unlock a Licensed Driver** step within those 10 days or the OPC server will no longer run with that driver. The **Unlock a Licensed Driver** step prepares a driver to be unlocked for full unrestricted use and requires that you contact our Technical Support group to receive an unlock code. If you correctly entered a valid serial number/product registration code the following dialog box will be displayed which takes you directly to the unlock step by clicking on **Yes**.

![Unlock a Licensed Driver](image2.png)

6. If you select **Yes** or subsequently select **Help – Unlock a Licensed Driver** from the Help pull-down menu, the following dialog box will be displayed:
7. To obtain the correct password (i.e. unlock code), record the Driver Serial Number (x-xxxx-xxxx…) and Computer ID (yyyyyyyy-yyy…..) shown in the Unlock dialog box above and send that information along with your Name, Company Name, Zip Code, Phone Number, and E-Mail address to: chatechsupport@eaton.com

You will receive an unlock code via E-mail within one business day of our receiving your information. Once the license activation is complete on the ePro you should place it in Protect Mode. Once the ePro is in Protect Mode and rebooted no changes can be made to the C: partition. This insures reliable performance of the ePro making it secure from sudden power loss (eliminates the need for a UPS system), computer viruses (eliminates the need for Virus Protection software), and unauthorized program installation. Refer to the PanelMate ePro Users Guide for directions on placing your ePro unit in Protect Mode.

Uninstalling Kepware Software

Note: Prior to uninstalling Kepware software you should verify that the Protect Mode Status of the ePro is set to Normal Mode. If the ePro is in Protect Mode, changes made during uninstalling will be lost at the next ePro boot up. Refer to the PanelMate ePro Users Guide for directions on placing your ePro unit in normal mode.

To uninstall the Kepware server software you will need to access the Kepware installation software. On the ePro, select Start>Explorer, and browse to the local USB drive or network shared drive where the Kepware installation software is located. Open the directory named KEPServerEX_Install, then the Disk1 directory and select the Setup.exe application file. The Kepware Setup Utility Welcome dialog box will appear as shown below. Select Remove to completely remove all installed components. If you have activated any Kepware licenses they will not be removed by this step. Licenses can be recovered by running Setup.exe again and re-installing the OPC server.

Note: If you have a PanelMate ePro OPC Bundled model (designated by "-OPC" in the catalog number) then the Kepware software license remains with the ePro unit and cannot be removed or transferred.
Transferring or Re-activating a Kepware OPC Server License

Note: If you have a PanelMate ePro OPC Bundled model (designated by "-OPC" in the catalog number) then the Kepware software license is always active and remains with the ePro unit. The license cannot be transferred. All other PanelMate ePro models do not support a floppy drive so it is not possible to transfer a Kepware license from an ePro. Therefore, the license transfer process cannot be used. License re-activation is required both for moving a license to another ePro and for re-licensing a replacement ePro following a hardware failure.

A Kepware OPC server license can be transferred from one PC to another using the Help>Transfer a Driver License... menu selection as long as both PCs have functional floppy drives and as long as the hard drive and operating system of the PC containing the license is functioning properly. If one of the PCs does not have a floppy drive or has suffered a drive or operating system failure that prevents running of the license transfer, then the license activation procedure must be repeated on the new PC. Note that the same serial number used for the initial license activation can be re-used to license the same server on the new or replacement PC. When you e-mail your activation information to chatechsupport@eaton.com make a note indicating that this is a re-activation of a previously used serial number and describe the circumstances that required the re-activation.

Installing Kepware Software on PanelMate ePro From CD

When installing Kepware OPC servers on a PanelMate ePro care should be taken to install only those components of the server required by the application. Since the ePro has limited flash memory resources you should make sure that extraneous installation components or unneeded drivers don’t take up space on the drive that could be used by other applications. You will also need to disable writing of the log file to disk once the server has been installed. Prior to installing on the ePro you should verify that the Protect Mode Status of the ePro is set to Normal Mode. If the ePro is in Protect Mode, changes made during installation will be lost at the next ePro boot up. Refer to the PanelMate ePro Users Guide for directions on placing your ePro unit in normal mode.
The following steps show the correct way to load a Kepware OPC server on the ePro. This example will install the ControlLogix Ethernet driver from the Allen Bradley Suite.

1. On the ePro, select **Start>Explorer**, and browse to the local USB drive or network shared drive where the Kepware installation CD is located. Open the directory named **KEPServerEX_Install**, then the Disk1 directory and select the Setup.exe application file. The Install shield wizard will begin the installation process, a splash screen will be drawn then the following dialog box will appear:

   ![](image)

   2. Click on the **Next >** button and the license agreement dialog box will appear:

   ![](image)

   To accept the terms of the license agreement, click on the **Yes** button.

   The Choose Destination Location dialog box will appear as shown below. Accept the default destination of **C:\Program Files\KEPServerEx** by clicking on the **Next >** button.
3. The Select Components dialog box will appear as shown below:

Uncheck the selected boxes for Example Source Code and Specifications. After the changes the dialog box should appear as shown below:
Select the + sign next to Drivers to see the complete list of drivers. Select the driver or drivers that you want to install.

This example will select the ControlLogix Ethernet driver from within the AB Suite of drivers. The dialog box will appear as shown below:

Click on the **Next >** button once the drivers have been selected.

4. The Select Program Folder dialog box will appear. Accept the default selection of Kepware Products\KEPServerEx by once again clicking on the **Next >** button. The Start Copying Files dialog box will then appear as shown below. Begin the installation of the server and selected drivers by clicking on the **Next >** button.

5. The Setup Status dialog box will show a progress bar as files are copied. When copying is complete the Installation Wizard Complete dialog box will appear as shown below. You can choose whether or not you wish to view the readme file but leave the checkbox checked to automatically launch the server following the installation and then click the **Finish** button.
6. Once the Kepserver is opened click on the **Tools > Options...** menu selection as shown below:

![Options dialog box](image)

This will open the Options dialog box. Click on the Event Log tab and uncheck the Preserve Log on Disk checkbox as shown below and click on **Apply** or **OK** to save the change.

![Options dialog box](image)

Installation and setup of the Kepware OPC server on PanelMate ePro is now complete. You can proceed to install and activate your Kepware license and configure your OPC server project.
Installing Kepware Software on PanelMate ePro From a Network Download

Frequently you may find that a new feature, driver, or bug fix is not included on the original Kepware CD that you received from Cutler-Hammer or you need to do a first time install of the server from an OPC server installation image that was downloaded from either the Kepware or Cutler-Hammer download website. Kepware’s downloaded installation image is a single compressed executable file that is designed to self extract an install image directory structure to a temporary location on the hard drive, essentially creating the CD image on your hard drive.

Once that temporary image is created the setup utility is automatically launched and the install proceeds identically to the CD install. Once the installation is completed the install image is automatically removed/deleted from the hard drive. Because this image is created in a temporary directory on the computer that runs the downloaded executable and because a standard ePro doesn’t have enough free disk (flash) space to extract the CD image, you cannot launch the file from the ePro without potentially filling up the flash drive and crashing the install program. To install the downloaded OPC server on the ePro you first need to extract the CD image on your PC and then browse to that temporary directory from the ePro (or copy the image to a USB drive for subsequent installation).

If you have WinZip installed on your PC you can extract the downloaded file to a CD image in a temporary directory by right clicking on the file and choosing Extract To .... If you don’t have WinZip installed on your PC you can still extract the CD image to a temporary directory from the website download. First open Windows Explorer or My Computer on your PC and browse to the directory to which the file was downloaded. Next, double-click on the file kepsspex.exe to start the extraction process. The Extracting Files dialog box will display a progress bar as the CD image is created on your hard drive’s temporary directory. Next the Kepware Setup Utility Welcome dialog box will appear. Leave the dialog box open and switch back to Windows Explorer or My Computer (<ALT> <TAB>) so that you can copy the CD image from the temporary directory to another directory on your computer.

Depending on the operating system of your PC the temporary image will be found in different directories. On Windows NT PCs the image will be located under C:\Temp\pftxxx.tmp\Disk1 (where xxx is a 1, 2, or 3 digit number or letter that varies from installation to installation). On Windows 2000 and Windows XP PCs the image will be located under C:\Documents and Settings\Username\Local Settings\Temp\pftxxx.tmp\Disk1 (where Username is the name of the user who is currently logged on). Note also that your View tab under Windows Explorer Folder Options (Tools>Folder Options menu selection) must be set to show both hidden and system files in order to browse to this directory under Windows 2000 or XP. On Windows 98 machines the image will be located under C:\Windows\Temp\pftxxx.tmp\Disk1. Copy the entire Disk1 directory contents to a shared folder on your PC that the ePro is capable of “seeing” on the network. Alternatively you may copy the contents to an Iomega Zip or PocketZip USB drive that can be plugged into the ePro as a removable drive. Once you have completed the copy you can return to the Kepware Setup Utility and click on the Cancel button to cancel out of the server installation on your PC.
Prior to installing on the ePro you should verify that the Protect Mode Status is Normal Mode. If the ePro is in Protect Mode, changes made during installation will be lost at the next ePro boot up. Refer to the PanelMate ePro Users Guide for directions on placing your ePro unit in Normal Mode. You may then go to the ePro, open Explorer, and browse to the CD install image and run Setup.exe and install the Kepware OPC server in the same manner as from an original Kepware CD which is detailed previously in this document.

Modifying Kepware Software and Adding a Driver

Note: Prior to modifying the Kepware OPC server to add a feature or a new driver on the ePro you should verify that the Protect Mode Status of the ePro is set to Normal Mode. If the ePro is in Protect Mode, changes made during installation will be lost at the next ePro boot up. Refer to the PanelMate ePro Users Guide for directions on placing your ePro unit in normal mode.

To modify the Kepware server software you will need access to the Kepware installation software. On the ePro, select Start>Explorer, and browse to the local USB drive or network shared drive where the Kepware installation software is located. Open the directory named KEPServerEX_Install, then the Disk1 directory and select the Setup.exe application file. The Kepware Setup Utility Welcome dialog box will appear as shown below.

Select the Modify radio button then click on the Next > button. The Select Components dialog box will be displayed as shown below.
Select the + sign next to Drivers to see the complete list of drivers. Select the driver or drivers that you want to install. This example will select the ControlLogix Ethernet driver from within the AB Suite of drivers. The dialog box will appear as shown below:

Click on the Next > button once the drivers have been selected. Once the Modifications Complete dialog box is closed, the OPC server has been modified.

Place the ePro unit back into Protect Mode once the modification process is completed. Refer to the PanelMate ePro Users Guide, for directions on placing your ePro unit in Protect Mode.

**Updating Kepware Software**

From time to time you may wish to update the Kepware OPC server to add a feature, fix a bug or update a driver. Prior to updating the Kepware OPC server on the ePro you should verify that the Protect Mode Status is Normal Mode. If the ePro is in Protect Mode, changes made during installation will be lost at the next ePro boot up. Refer to the PanelMate ePro Users Guide, for directions on placing your ePro unit in Normal Mode.

To update the Kepware server software you will need access to Kepware installation software. On the ePro, select **Start>Explorer**, and browse to the local USB drive or
network shared drive where the Kepware installation software is located. Open the
directory named KEPServerEX_Install, then the Disk1 directory and select the Setup.exe application file. The Kepware Setup Utility Welcome dialog box will appear as shown in
the previous section. Select the **Update** radio button then click on the **Next >** button.
After the Updates Complete dialog box is closed you have completely updated the current server and installed drivers.

Place the ePro unit back into Protect Mode once the update process is completed. Refer to the PanelMate ePro Users Guide for directions on placing the ePro unit in Protect Mode.