User Guide

PORTVISION DX®

COMTROL®

Table of Contents

Introduction

PortVision DX automatically detects Comtrol Ethernet attached products physically attached to the local network segment so that you can configure the network address, upload firmware, and manage the following products:

- DeviceMaster family, which includes these models:

    - DeviceMaster DM-2000 Series

    - DeviceMaster PRO

    - DeviceMaster RTS

    - DeviceMaster Serial Hub

- DeviceMaster LT (different pin outs than the DeviceMaster's)

- DeviceMaster Industrial Gateway, which includes these models:

    - DeviceMaster EIP | MOD | PNIO | UP (a subset of DeviceMaster RTS models and the DeviceMaster LT, which provides an industrial protocol platform)

    - EIP-2000 Series (a subset of DeviceMaster RTS models, which provides an EtherNet/IP industrial platform)

    - MOD-2000 Series (a subset of DeviceMaster RTS models and the DeviceMaster LT, which provides a Modbus industrial platform)

    - PNIO-2000 Series (a subset of DeviceMaster RTS models, which provides a PROFINET IO industrial platform)

- IO-Link Master

- RocketLinx

In addition to identifying Comtrol Ethernet attached products; you can use PortVision DX to display any third-party switch and hardware that may be connected directly to those devices. All non-Comtrol products and unmanaged RocketLinx devices are treated as non-intelligent devices and have limited feature support. For example, you cannot configure or update firmware on a third-party switch.

Requirements

PortVision DX may require that you have the latest Microsoft Service pack for your operating system (32/64-bit) for Windows XP through Windows Server 2016.

To utilize all PortVision DX features, make sure that your Comtrol Ethernet attached product has the latest firmware versions installed. If you do not have the appropriate version on your device, you should upload the latest version before performing configuration procedures.

Features

PortVision DX supports these features on Comtrol Ethernet attached products:

- [Network settings configuration](#) tailored for that product. The DeviceMaster can also assign sequential or identical IP addresses to multiple DeviceMasters simultaneously.

- Ability to [upload the latest firmware](#) (default application for the product) or bootloader.

- Ability to save and load [configuration files](#) so that standard configuration settings can be propagated across similar products.

- Access to Comtrol Ethernet attached product configuration web pages.

- Access to [Telnet/SSH sessions](#), which opens a command prompt window and establishes a telnet connection with an IP connected device.

- Remotely [reboot](#) any Comtrol Ethernet attached (managed) product.

- Locate [technical documentation](#) and connector pin-out information for your Comtrol Ethernet attached product in the *Properties* window.

- Provides [event logging](#) at the device-level and application-level.

- Capability to [access your favorite applications](#) with shortcuts from PortVision DX. By default it provides access to the following applications:

    - [Test Terminal](#) (serial port test application)

    - [Port Monitor](#) (serial port monitoring application)

    - [PuTTY](#) (free MIT-licensed Windows 32-bit Telnet, SSH, and Rlogin client)

Locating the Latest Documentation

You can [download](#) the latest document version or [access the documentation](#) (after you have downloaded it) in PortVision DX from the **Help > Documentation** menu option or from the *Properties* page **Documentation...** menu.

To open Comtrol product documentation, you must have a pdf Reader installed on your system. You can download the Acrobat Reader from the [Adobe web site](#).

Downloading the Latest Documentation Catalog File

PortVision DX includes the documentation catalog file that was available at the time PortVision DX was built. The documentation catalog is continually updated and the first time you want to download product documentation, you should first download the latest catalog file. You may want to occasionally update this file so that you can retrieve the latest documents released.

Use this procedure to update your documentation catalog file.

1. Click **Documentation** from the **Help** menu on the *Main* screen or on the **Properties** page.

2. Click the **DOWNLOAD THE CURRENT DOCUMENTATION CATALOG ONLINE** button.
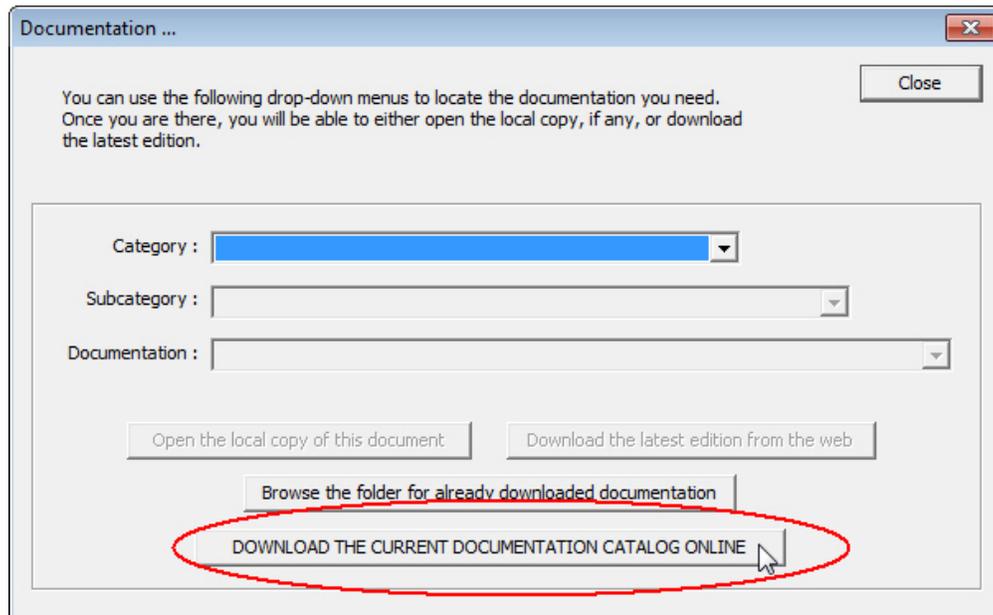
You are now ready to download the latest documentation from Comtrol.

Downloading Documentation from Comtrol

You can use this procedure to download documentation for your Comtrol product or products. You can also use this procedure to check to see a newer edition has been released since you downloaded the document. You must have an internet connection to use this procedure.

1. Click **Documentation** from the **Help** menu on the *Main* screen or on the **Properties** page.

2. Select the appropriate product *Category* from the drop-list.

3. If appropriate, select the appropriate *Subcategory* (model/description) from the drop-list.

4. Select the document that you want to download from the *Documentation* drop-list.

5. Click the **Download the latest edition from the web** button.
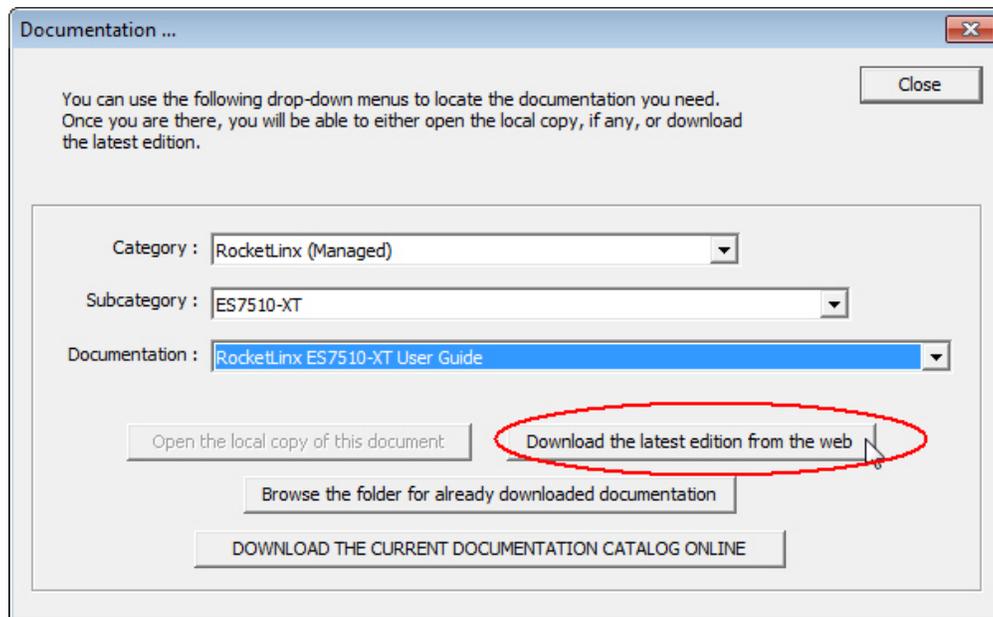
Note:	*Downloading a manual may take a few moments or longer depending on your internet connection.*

The document that you selected is saved into the **PortVision DX/doc** subdirectory and opens on your system. The document can be reopened using the following procedure.

Accessing Previously Downloaded Documentation

After you have downloaded product documentation, you can open the downloaded version from PortVision DX using the following procedure.

If you have an internet connection, you may want to check for the latest version.

1. Click **Documentation** from the **Help** menu on the *Main* screen.

2. Select the appropriate product *Category* from the drop-list.

3. If appropriate, select the appropriate *Subcategory* (model/description) from the drop-list.

4. Select the document that you want to download from the *Documentation* drop-list.

5. Click the **Open the local copy of this document** button.
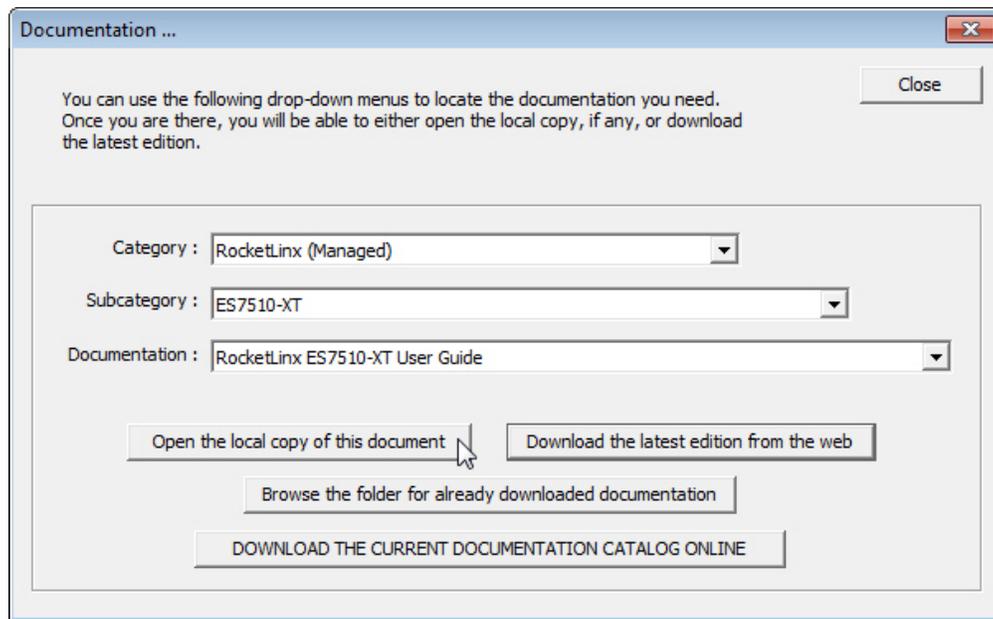
Installing PortVision DX

During initial configuration, PortVision DX automatically detects and identifies Comtrol Ethernet attached products, if they are in the same network segment.

You can use the one of the links below to download the latest version.

- http://downloads.comtrol.com/dev_mstr/portvision_dx

- http://downloads.comtrol.com/io_link_master/portvision_dx

- http://downloads.comtrol.com/rocketlinx/portvision_dx

> **Note:** *Depending on your operating system, you may need to respond to a Security Warning to permit access*.

1. Execute the **PortVision_DX[*version*].msi** file.

2. Click **Next** on the *Welcome* screen.
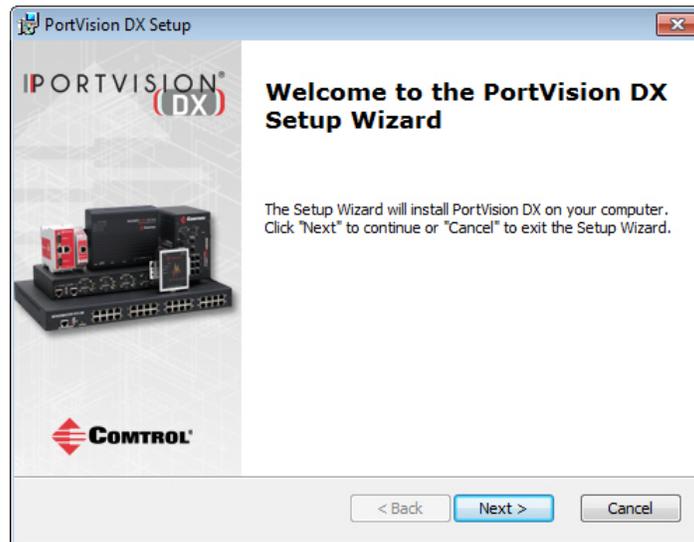
3. Click **I accept the terms in the License Agreement** and **Next**.

4. Click **Next** or optionally, browse to a different location and then click **Next**.
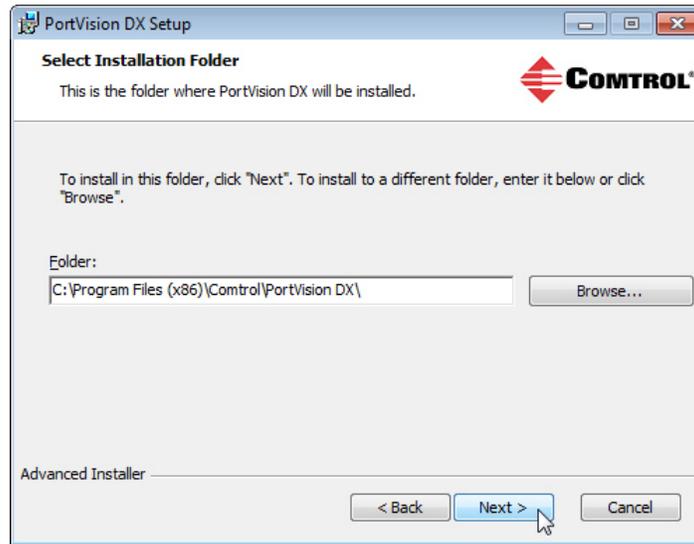
5. Click **Next** to configure the shortcuts.
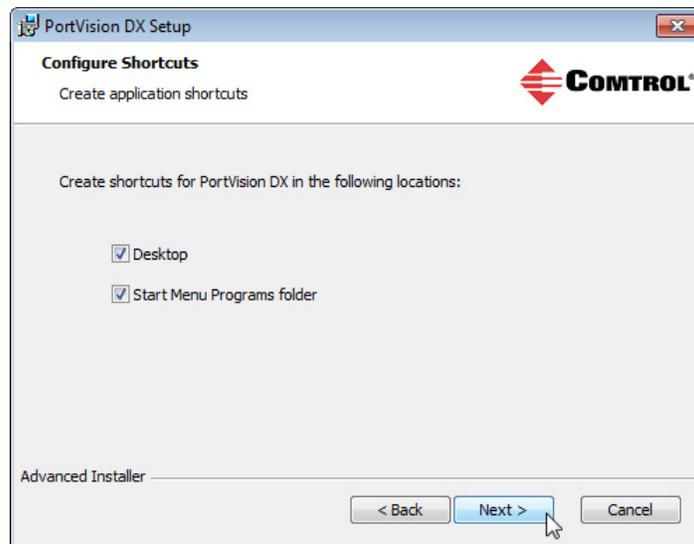
6. Click **Install**.
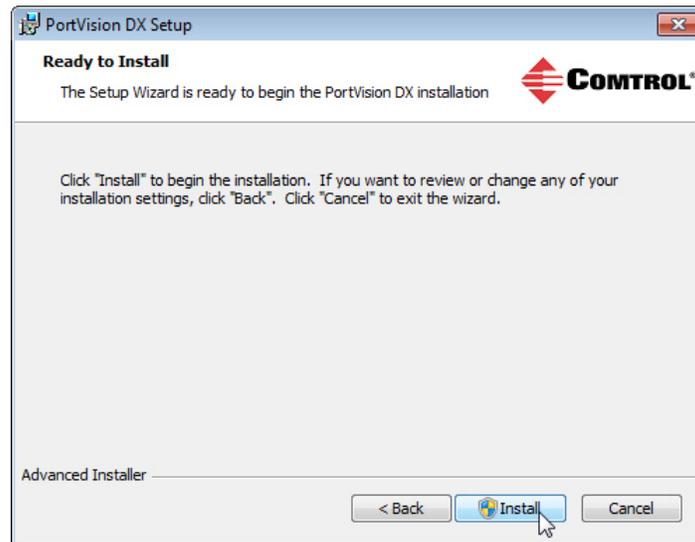
7. Depending on the operating system, you may need to click **Yes** to the *Do you want to allow the following program to install software on this computer?* query.

8. Click **Launch PortVision DX** and **Finish** in the last installation screen.
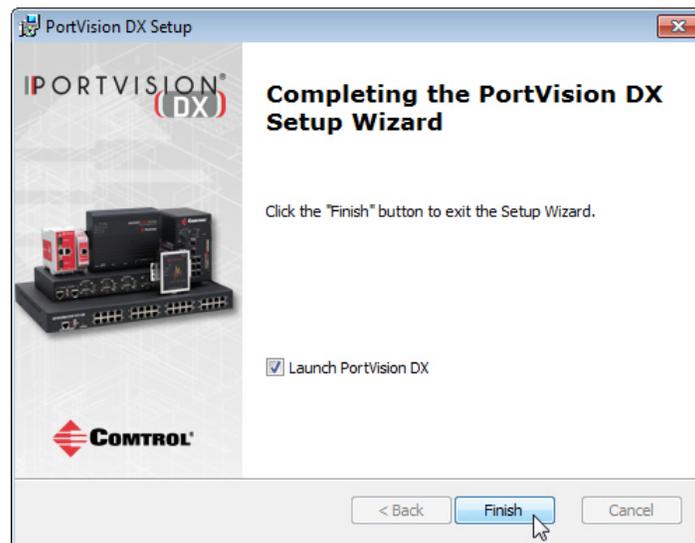
9. Depending on the operating system, you may need to click **Yes** to the *Do you want to allow the following program to make changes to this computer?* query.

10. Click the **Scan** button.

11. Select the Comtrol Ethernet attached products that you want to locate and then click **Scan**.
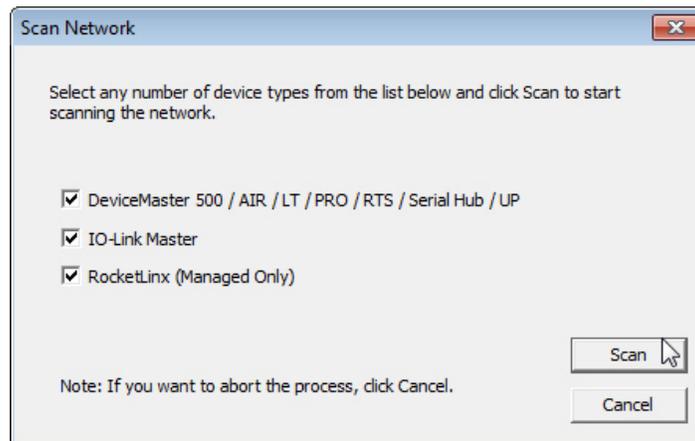
Note: *If the Comtrol Ethernet attached product is not on the local segment and it has been programmed with an IP address, it will be necessary to manually add the Comtrol Ethernet attached product to PortVision DX.*

User Interface Overview

PortVision DX screens are discussed in detail in these pages:

- [Main screen](#)

    - [File menu](#)

    - [Manage menu](#)

    - [View menu](#)

    - [Tools menu](#)

        - [Log File](#)

        - [Applications Shortcuts](#)

        - [Options...](#)

- [Properties screen](#)

- [Add New Device screen](#)

Main Screen

The PortVision DX *Main* screen displays the status of the devices that have been located on the network during the **Scan** process or Comtrol Ethernet attached products that have been added using the *Add New Device* window.

The PortVision DX main screen consists of the following parts.

Menu Bar

File   Manage   View   Tools   Help
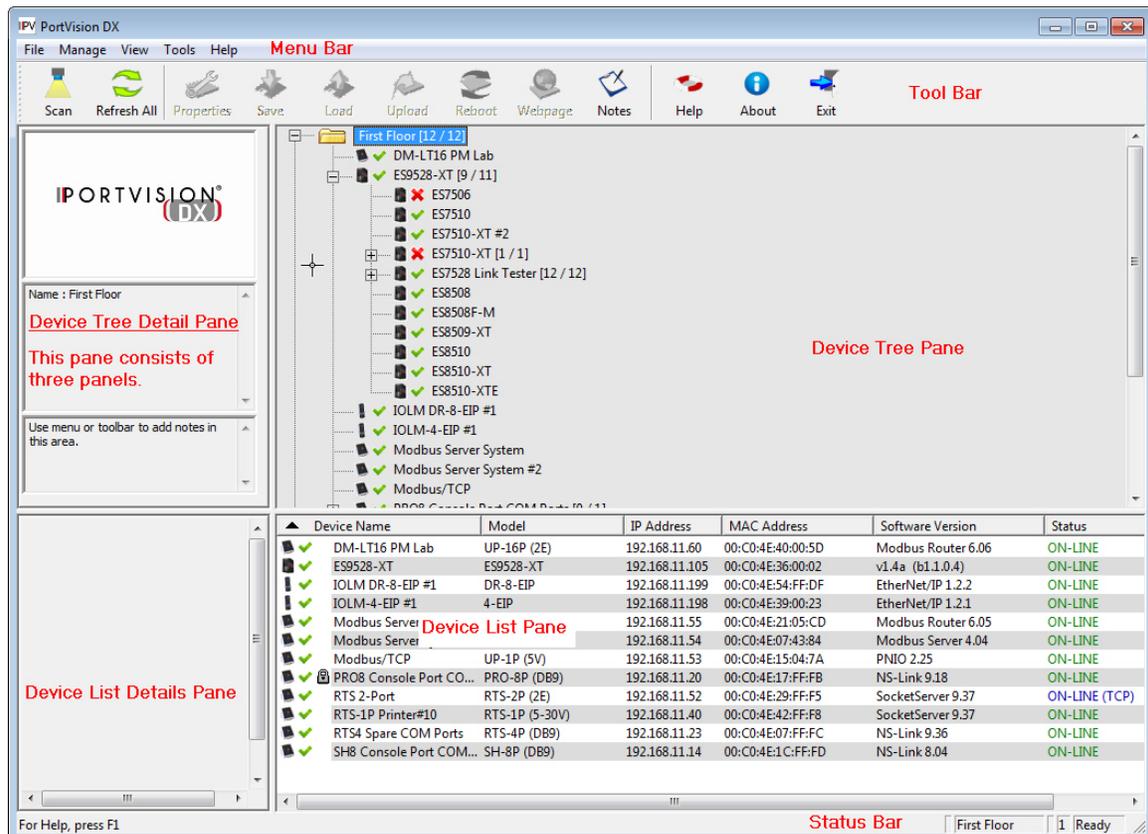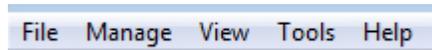
The *Menu* bar provides easy access to the following menus.

- **File** menu

- **Manage** menu

- **View** menu

- **Tools** menu

- **Help** menu

Tool Bar

The *Tool Bar* provides a fast way to access many PortVision DX features without using a menu or the popup menus. You can toggle the button text off or not display under the **View** menu.

Scan   Refresh All   Properties   Save   Load   Upload   Reboot   Webpage   Notes   Help   About   Exit

Device Tree Pane

The *Device Tree* pane (top right) includes a list of all devices that can potentially be added to PortVision DX and preserves their hierarchical relationship. It also shows device status with a green check mark to indicate the device is on-line and a red X to indicate that the device is off-line.

The *Device Tree* pane contains a **Scan Results** folder, which lists the devices located when you scan the network. You can organize devices into folders. as shown in the image.

First Floor [5 / 5]
  ES7528 - 32:00:00 [8 / 9]
    Backbone
    ES7506 - 2D:00:08
    ES7510 - 34:00:08
    ES8105F
    ES8510 - 2C:00:6C [1 / 1]
    ES9528 - 33:00:01
    SH8 - 1C:FF:FD
    TFTP Server
    UP1:5-30VDC - 21:05:CD
  PRO8 - 17:FF:FB
  RTS2E - 29:FF:F5
  RTS4 - 07:FF:FC
  UP1: 5VDC1- 15:04:7A
Scan Results [5 / 6]
Second_Floor [0 / 0]
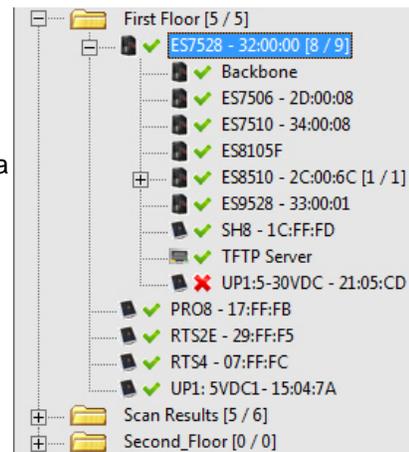
Device Tree Details Pane

The *Device Tree Details* pane is located to the left of the *Device Tree* pane.

There are three panels in the *Device Tree Details* pane, which displays different information depending on whether you highlight a folder or a device.

If there are not any notes associated with a folder or device, the bottom panel displays *Use menu or tool bar to add notes in this area*.

If you highlight a *folder*:

- The top panel displays the PortVision DX logo.

- The middle panel displays the folder name.

- The bottom panel displays any notes that have been associated to that folder using the Edit Notes feature.

If the folder is a managed RocketLinx switch, it displays the panes like a device.

If you highlight a *device*:

- The top panel displays an image of the device if an image is available.

```
Name : ES9528
Device Model : ES9528
MAC Address : 00:C0:4E:33:00:01
IP Address : 192.168.11.105
Software : v1.4_beta4 (b1.1.0.3)
```

```
Master Switch
```

- The middle panel displays the same device status that would display in the Device List pane, if the appropriate folder is highlighted.

- The bottom panel displays notes that have been associated to this device using the Edit Notes feature.

If you double-click a device, the **Properties** page opens for that device.

Device List Pane

The *Device List* pane includes a list of all of the devices that can potentially be added to PortVision DX and technically located under the tree branch selected from the top. For instance, if you select a switch from the *Device Tree*, all of the devices connected to that switch (according to the *Device Tree*) display in the *Device List*.

	Device Name	Model	IP Address	▲ MAC Addr...	Software Version	Status
✔	Device 07:FF:FC	RTS-4P (DB9)	192.168.11.40	00:C0:4E:07:FF:FC	SocketServer 7.11	ON-LINE (TCP)
✔	Device 15:04:7A	UP-1P (5V)	0.0.0.0	00:C0:4E:15:04:7A	Modbus/TCP 5.06	ON-LINE
✖	Test system	PRO-8P (DB9)	192.168.11.20	00:C0:4E:17:FF:FB		OFF-LINE
✔🔒	Device 1C:FF:FD	SH-8P (DB9)	192.168.11.14	00:C0:4E:1C:FF:FD	SocketServer 7.24	ON-LINE
✔	Device 21:05:CD	UP-1P (5-30V)	192.168.11.55	00:C0:4E:21:05:CD	Modbus/TCP 5.01	ON-LINE

The *Device List* pane displays the Device Name, Model, IP Address, MAC Address, Software Version, and Device Status. In addition, it displays:

- A green check mark indicates that the device is on-line.

- An IP address of 0.0.0.0 displays when the IP address is disabled or if there is no DHCP server available.

- A red X indicates that the device is off-line.

- The lock symbol indicates that the device has security enabled (Secure Data or Config mode).

- A dark green check mark indicates that the device is highlighted.

You can customize the view that PortVision DX provides in the *Device Tree* and *Device List* panes.

For example, you can sort any column in the *Device List* pane in ascending or descending order by clicking the Device Name, Model, IP Address, MAC Address, Software Version, or Status in the title bar. Descriptions of the columns and the different device statuses are provided in the Scan discussion.

This table illustrates the different device statuses and what they mean.

Device Status	Description
Firmware uploaded	The device has been uploaded with new firmware and the hardware is in the processes of rebooting. This message is typically updated to ON-LINE after the next polling cycle. You can click **Refresh** to update the display without waiting for the next polling cycle.
Initializing	The device has been rebooted and the default applications are in the processes of loading.
OFF-LINE (displayed in maroon)	The device is not available to PortVision DX. It may not be powered on or is not on the same network segment as PortVision DX.

Device Status	Description
ON-LINE (displayed in green)	The device is powered on, PortVision DX can access and be used to configure a Comtrol Ethernet attached product. If this is an unmanaged RocketLinx or other hardware that you added using the Add New Device feature, you can choose to display the switch to ON-LINE or OFF-LINE. You can change the status using the **General** tab on the *Properties* screen. PortVision DX cannot poll unmanaged switches to determine whether they are on-line or not. If polling has been disabled (set to 0 seconds) in the Options screen, a device can display as ON-LINE in the *Device List* pane but actually be off-line. You can open the General tab on the Properties screen to verify that it displays ON-LINE.
ON-LINE (TCP)	The device is on-line and has a TCP connection with PortVision DX.
Rebooting	The device is rebooting and will be initialized before it goes ON-LINE.
Failed to upload	The device did not load the firmware. Make sure are trying to load the correct firmware. Try uploading the firmware a second time before contacting Technical Support.
192.168.250.250*	If two or more devices share the same network configuration, the IP addresses appear in maroon and an asterisk is displayed after the IP address.

Device List Details Pane

The *Device List Details* pane is empty if you do not have a device highlighted in the *Device List.*

If you highlight a device in *Device List*, the *Device List Details* pane two panels display accordingly:

- The top panel displays an image of the selected device (if available).

- The lower panel displays the notes associated to the device using the Edit Notes feature.

If there are not any notes associated with the device, the bottom panel displays *Use menu or toolbar to add notes in this area.*

The text window allows you to save information about a device. You can store up to 2048 characters (2K) of information about this device.

Status Bar

At the bottom of the *Main* screen, PortVision DX provides status information in a *Status* bar.

| First Floor | 5 | 0 | Polling ... | |

Status Bar	Description
First block	Shows the status of an operation when needed. It opens enough space to display the message.
Second block	Displays the folder name.
Third block	Displays the number of devices in the folder.
Fourth block	Displays the number of selected devices in the *Device List* pane.
Fifth block	Displays the general status of PortVision DX. For example, it may display a message such as, *Polling*, during the polling cycle or *Ready*.

Buttons

Click the appropriate link to locate information about the *Tool Bar* buttons:

- [Scan](#)
- [Refresh All](#)
- [Properties](#)
- [Save](#)
- [Load](#)
- [Upload](#)
- [Reboot](#)
- [Webpage](#)
- [Help](#)
- [About](#)
- [Exit](#)

Scan
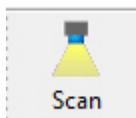
If you click the **Scan** button, PortVision DX scans the network for new devices and updates the device status of existing units. PortVision DX polls the network every two minutes to refresh status, but you may need to scan the network if you have added a new device using the Add New Device screen.

The polling interval for scanning the network can be adjusted in the **Options** screen.

Optionally, you can select **Scan Network** from the Tools menu to scan the network for new devices.

PortVision DX does not scan the network for new devices unless you click **Scan** or enable the **Always scan network** feature under the **Tools** menu in the *Options* screen.

Refresh All
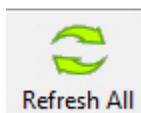
If you click the **Refresh All** button, PortVision DX refreshes the view of all of devices and folders on the *Main* screen.

Optionally, you can click the **Tools** menu and then **Refresh All** to refresh the *Main* screen.

Click the **Scan** button or the **Scan Network** option, if you want to locate any new devices added to the network.

Optionally, you can refresh a single or selected devices if you do not want to refresh all devices.

Properties
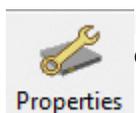
If you click the **Properties** button, PortVision DX opens the *Properties* screen for the device or devices selected in the *Device List* (lower) pane on the *Main* screen.

Use the *Properties* screen to configure the device, which also displays a picture of your Comtrol Ethernet attached product with **What's This Help** and access to the user documentation.

Optionally, you can right-click on a device and then click **Properties** from the popup menu or highlight a device and click the **Manage** menu and then **Properties**.

Save

If you click the **Save** button, PortVision DX saves the current configuration settings of the Comtrol Ethernet attached product in a file. You can select one or multiple items from a list of properties available in the configuration file.

If you are deploying multiple Comtrol Ethernet attached products that share settings, you can save a configuration file after configuring the first Comtrol Ethernet attached product and load the configuration information into the remaining Comtrol Ethernet attached products at one time. Configuration files are saved as **.dc** files.

> **Note**: *The Comtrol Ethernet attached product must be similar. For example, you cannot use a configuration file for a DeviceMaster on a RocketLinx.*

Optionally, you can click the **Manage** menu and then **Save Configuration File** or right-click on a device and click **Save Configuration File** from the popup menu.

Load

If you click the **Load** button and you have previously saved a device configuration file, you can load portions of the configuration that you select in the *Field Selection* pop up and apply it to a selected device or devices.

Comtrol Ethernet attached product specific information such as Device ID (DeviceMaster name, MAC address, model, and software version) are not loaded into the selected Comtrol Ethernet attached product or Comtrol Ethernet attached products.

If you are using a static IP address, you will need to configure the IP address for each Comtrol Ethernet attached product.

Optionally, you can click the **Device** menu and then **Load Configuration File** or right-click on a Comtrol Ethernet attached product or Comtrol Ethernet attached products and click **Load Configuration File** from the popup menu.

Upload

If you click the **Upload** button, PortVision DX uploads firmware into the selected Comtrol Ethernet attached product or Comtrol Ethernet attached products. If you have not done so, download the latest firmware. Make sure that you select firmware appropriate for your model and requirements.

It is recommended that you copy the firmware to your hard drive before uploading the firmware to the Comtrol Ethernet attached product.

Do not attempt to upload firmware across a wifi connection.

If you are uploading protocol firmware for the DeviceMaster EIP | MOD | PNIO | UP, you must first run the **.msi** file and use the **.cmtl** file that is extracted and placed on your system..

Reboot
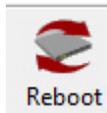
If you click the **Reboot** button, PortVision DX reboots or resets the selected device or devices. The network LEDs on the Comtrol Ethernet attached product flash during the boot cycle.

Optionally, you can highlight a device or devices and click the **Manage** menu and **Advanced** and then **Reboot** or right-click and click **Advanced** and then **Reboot** from the popup menu.

If a DeviceMaster DM-Series | LT | PRO | RTS | Serial Hub model is configured with **Secure Config Mode** in SocketServer, it can only be rebooted from the web page unless **Secure Config Mode** is disabled.

Webpage

If you click the **Webpage** button, PortVision DX opens your default browser, connects to the Comtrol Ethernet attached product through the IP address, and opens the default web page for your Comtrol Ethernet attached product default application.

You can locate web page information for your product from the following places:

- DeviceMaster users can use the SocketServer help system for information about the fields and configuration methods. The SocketServer help system is also available separately as a chm or zip file (html version).

- DeviceMaster EIP | MOD | PNIO | UP users should use the appropriate DeviceMaster EIP | MOD | PNIO | UP document for their protocol for information about configuring the default application for your DeviceMaster model.

- IO-Link Master users can use the web interface help system or the IO-Link Master User Guide.

- RocketLinx users can use the online help system in the web configuration pages or the appropriate RocketLinx User Guide. Java is required to open the RocketLinx web pages.
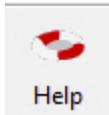
Help

The **Help** button opens the PortVision DX help system.

Optionally, you can right-click on a device and click **Help** from the popup menu or click the **Help** menu and then **Help Contents F1**.

About
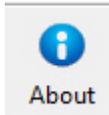
The **About** button displays the PortVision DX version.

Optionally, you can click the **Help** menu and then **About PortVision DX**.

Exit

The **Exit** button closes PortVision DX.

Optionally, you can click the **File** menu and then **Exit**.

File Menu

The **File** menu is located on the *Main* menu and provides you with a way to manage different sessions. A session is simply a view of the devices on the network.

The default session is the last view that displayed before exiting PortVision DX and is saved in the **PVdxDefSes.pvs** file in the **\Program Files\Comtrol\PortVision DX** directory.

New Session
Import Session ...
Save Session As ...

Export Device List to Notepad
Convert DeviceMaster Configuration Files

Exit   Alt+X
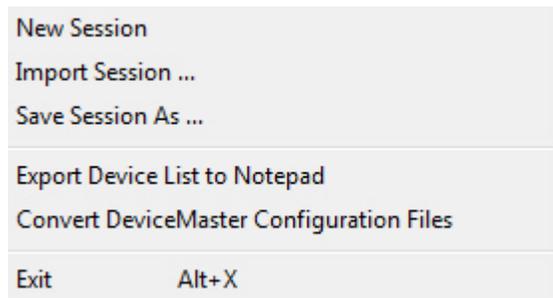
You may want to save unique sessions to customize views of your devices.

File Menu	Description
New Session	Clears the existing session and brings up an empty session to start the process from the beginning.
Import Session ...	Opens a previously saved session from your system. This also allows you to import existing PortVision Plus sessions so that they can be saved as PortVision DX sessions.
Save Session As …	Allows you to save the current network setup (session) as it appears on the *Main* window into a disk file for later reference.
Export Device List to Notepad	Allows you to export a text file that is delimited with commas so that you can import the information into a spreadsheet.
Convert DeviceMaster Configuration Files	Allows you to convert a configuration file that was created on a DeviceMaster DM-Series | LT | PRO | RTS | Serial Hub running SocketServer v8.04 (or previous) and load it onto a DeviceMaster running SocketServer v9.00 (or higher). This means that you can upgrade SocketServer to the latest version and recover your previous DeviceMaster settings using this option.
Exit	This closes PortVision DX. Optionally, you can click the **Exit** button.

Manage Menu

You can use the **Manage** menu to perform most PortVision DX tasks. The **Manage** menu is available at the top of the *Main* screen or can be accessed by right-clicking in the *Device Tree* or *Device List*.

- If you click a folder or device in the **Device Tree** and right-click a **Manage** submenu pops up. Only options applicable to the *Device Tree* appear when you select the **Manage** menu from the *Menu* bar. Refer to the Manage Menu Options table for descriptions of how to use the options.

- If you click the *Device List* pane and click the **Manage** menu the following menu pops up. Only options applicable to the *Device List* appear when you select the **Manage** menu. If a Comtrol Ethernet attached product is not highlighted and you right-click in the *Device List* pane, only the **Help** item appears in the menu.

Refresh Device
Properties
Edit Notes

Webpage
Telnet / SSH Session

Advanced ▶
Configuration ▶
Tracker ▶

Rename
Move
Delete

Help ...

Manage Menu	Description
Refresh Device	Allows you to refresh the view for a specific device immediately, instead of waiting for PortVision DX to refresh during it's normal polling cycle.
Properties (*Device List* Pane Active)	Opens the **Properties** screen for the highlighted *Device Name* in the *Device List* pane on the *Main* screen. Optionally, double-click the Comtrol Ethernet attached product or right-click and then click **Properties** from the popup menu. You can use the **Properties** screen to configure the Comtrol Ethernet attached product and it also displays a picture of your Comtrol Ethernet attached product with What's This Help. You can use the **Properties** screen to review device information if it is an unmanaged switch or third-party device. If the unmanaged switch is a Comtrol switch, it displays a picture of your Comtrol switch with What's This Help.
Edit Notes	Opens a text window for the selected device that allows you to save information about the device. You can store up to 2048 characters (2K) of information about this device. Optionally, you can click the **Notes** button or right-click on a device and click **Edit Notes** from the popup menu.
Add New ... Device Folder	You can add a new **Device** or **Folder** when the *Device Tree* pane is active. - If you click **Device**, the **Add New Device** screen opens.

Manage Menu	Description
	• If you click **Folder**, the **Add New Folder** pop up opens. You can **Rename**, **Move**, or **Delete** a *Device* or *Folder* using the **Manage** menu or **Manage** popup menu.
Webpage (*Device List* Pane Active)	Opens the default browser and connects to the Comtrol Ethernet attached product through the IP address to open the default application, which is the same as clicking the **Webpage** button on the *Main* screen. Optionally, right-click on a Comtrol Ethernet attached product and click **Webpage** from the popup menu.
Telnet/SSH Session (*Device List* Pane Active)	Opens a Telnet/SSH session for the selected Comtrol Ethernet attached product.
Advanced (Submenu) Reboot Upload Firmware Change Detection Type Assign IP to Multiple Devices Save Device Diagnostics Data	**Advanced** provides access to these options when the *Device List* pane is active. • Reboot or resets the selected Comtrol Ethernet attached product or Comtrol Ethernet attached products. The network LEDs on the Comtrol Ethernet attached product flash during the boot cycle. This option is disabled if **Secure Config Mode** is enabled on a DeviceMaster in SocketServer. • Upload Firmware uploads firmware into the selected Comtrol Ethernet attached product or Comtrol Ethernet attached products unless **Secure Config Mode** is enabled on a DeviceMaster. If you have not done so, download the latest firmware. It is recommended that you copy or if necessary, unpackage the firmware to your hard drive before uploading the firmware to the Comtrol Ethernet attached product. • Change Detection Type defines the way that PortVision DX should communicate with the DeviceMaster. • **LOCAL** means that the DeviceMaster is on this local network segment. • **REMOTE** means that the DeviceMaster is not connected to this segment of the network. • Assign IP to Multiple Devices you can use this feature to assign an IP address or a range of IP addresses to the selected Comtrol Ethernet attached products. You must shift-click multiple Comtrol Ethernet attached product of the same family for this option to be available. • Save Device Diagnostics Data is an IO-Link Master option that saves the diagnostic data collected on the IO-Link Master. This file is intended for Comtrol Technical Support to diagnose IO-Link Master problems.
Configuration	The **Configuration** menu provides access to these options when the

Manage Menu	Description
(Submenu) Load Save Reset to Factory Default	*Device List* pane is active. • If you click the **Load** submenu item and you have previously saved a Comtrol Ethernet attached product configuration file (from the same family), you can load portions of the configuration that you select in the *Field Selection* pop up and apply it to a selected Comtrol Ethernet attached product or Comtrol Ethernet attached products. Device specific information such as Device ID (device name, MAC address, model, and software version) are not loaded into the selected Comtrol Ethernet attached products. • If you click the **Save** submenu item, PortVision DX saves the current configuration of a Comtrol Ethernet attached product in a file, which must be from the same family. For example, you cannot load a configuration file for a DeviceMaster on a RocketLinx. You can click one or multiple items from a list of properties available in the configuration file. If you are deploying multiple Comtrol Ethernet attached products that share settings, you can save a configuration file after configuring the first Comtrol Ethernet attached product and load the configuration information into the remaining Comtrol Ethernet attached products at one time. Configuration files are saved as **.dc** files. • If you click **Reset to Factory Default** values for your product except for the default IP address, NetMask, and IP gateway. You can refer to the User Guide for your product for information about the default values.
Tracker (Submenu) ON OFF	The **Tracker** feature allows you to send a signal to an IO-Link Master or RocketLinx managed switch to toggle an LED so that you can identify a particular unit in a cabinet or installation. Refer to the **Properties** page in PortVision DX for your IO-Link Master or RocketLinx to identify which LED will flash. > **Note:** *Only the RocketLinx family of managed switches and IO-Link Master supports this feature.*
Rename	Allows you to rename the highlighted **Device** or **Folder**. Optionally, you can right-click on the Comtrol Ethernet attached product and click **Rename** from the popup menu or double-click on the *Device* or *Folder* name and type a new name.
Move	You can click a device (or devices) or folder (folders), click the Manage menu and move it into a folder. You can move devices into folders and you can also layer folders within a folder. Optionally, you can also do the same thing by dragging or by right-clicking a device (or devices) or folder (or folders) and the clicking **Move** from the popup menu.
Delete	Allows you to delete a device or folder from the PortVision DX display. This action does not affect the functionality of the device , it merely removes a

Manage Menu	Description
	device from the view. Optionally, you can right-click on the device (or devices) or folder (or folders) and click **Delete** from the popup menu.
Select All (*Device List* Pane Active)	This **Manage** menu option selects all Comtrol Ethernet attached products in the *Main* screen. **Note:** *This option is not included on the popup menu when you right-click within the Device List or Device Tree. It is only available through the Manage menu.*

View Menu

You can use the **View** menu at the top of the *Main* screen to toggle the PortVision DX view.

View Menu	Description
Toolbar	This option is enabled by default. You can disable this option if you do not want the *Tool Bar* displayed on the *Main* screen.
Label Toolbar Buttons	This option is enabled by default. You can disable this option if you do not want the *Tool Bar* text displayed.
Status Bar	This option is enabled by default. You can disable the *Status Bar* at the bottom of the *Main* screen.

Tools Menu

The **Tools** menu is on the *Main* screen and contains the following items.

Tools Menu	Description
Refresh All	If you click the **Refresh All** menu item, PortVision DX refreshes the view of all devices on the *Main* screen. Optionally, use the **Refresh** button. Click the **Scan Network** option in the **Tools** menu or the **Scan** button, if you want to locate any new devices added to the network. Optionally, you can refresh one or multiple Comtrol Ethernet attached products.
Scan Network	If you click the **Scan Network** menu item or the **Scan** button, PortVision DX scans the network for new devices and updates the device status of existing units. PortVision DX polls the network every two minutes to refresh Comtrol Ethernet attached product status, but you will need to scan the network if you have added a Comtrol Ethernet attached product using the *Add New Device* screen. The polling interval can be adjusted in the *Options* screen. PortVision DX does not scan the network for new Comtrol Ethernet attached products unless you click **Scan Network** or enable the **Always scan network** feature under the **Tools** menu in the *Options* screen.
Check for Updates	This option opens the Technical Support web page, which requires an active connection to the internet.
Log File	The **Log File** item contains two submenus, **View** and **Settings**.
Applications	The **Applications Customize** selection allows you to create shortcuts for up to twenty existing programs or utilities that you may want to access from PortVision DX. After defining a shortcut name and providing a path to the executable, it appears as a submenu selection under **Applications**. By default these Comtrol serial port applications are available: • **Test Terminal (WCom2)** is a terminal program that enables you to open a port, send characters and commands to the port, and toggle

Tools Menu	Description
	the output control signals. If you have a peripheral device connected to the port and know the device's command set, you can also send commands to the device. For example, if you have a modem connected to the port, you can use AT commands to query the modem and dial out to host systems. • **Port Monitor (PMon2)** offers a summary of all port statistics in one easy-to-read spreadsheet view. This enables you to verify operation of all Comtrol serial ports from a single window. Reports can be automatically generated on an hourly and/or daily basis. A report covers all ports collectively. You can also set how often the values are recalculated, fine-tuning thoroughness against system efficiency, and automatically run external batch files to perform additional processing and analysis after the reports are generated. To use Port Monitor or Test Terminal, you will need to know the COM port number or numbers that you want test. If necessary, use the help system in Test Terminal or Port Monitor. Testing procedures are available in the <u>Port Monitor and Test Terminal User Guide</u>.
<u>Options...</u>	Opens the **Options...** screen, which allows you to customize the following default settings for PortVision DX.

Log File

The **Log File** menu item under the **Tools** menu has two screens associated with it:

- **<u>Settings</u>**

- **<u>View</u>**

Log File - Settings Menu	Description
Enable Logging	You can use this option to enable or disable logging. The default is disabled, but if you enable logging, PortVision DX immediately begins gathering data and stores it in the selected log file. The default file is **PVPLog.pvl**. Access the **View Log** button on the *View* menu. All other options do not take effect unless you enable logging.
Clear the existing contents of the log file	Every time you click this option (if the logging is enabled and as soon as you click **OK** in the dialog), it will empty the log file before logging any more events.
<u>Log device-level events</u>	If enabled, PortVision DX logs all of the events that are happening at the device level, such as: changing IP information, status change, and so forth

Log File - Settings Menu	Description
	for all or specified Comtrol Ethernet attached product units.
Log application-level events	If enabled, PortVision DX logs all of the events that are happening at the application level, such as: clicking a button, changing the settings, and so forth.
Do not log "Polling…" messages	If you enable **Log application-level events**, then you can select whether you want to see the *Polling…* message recorded each time PortVision DX polls or not.
Limit the size of the log file to # megabytes	If you enable **Limit** the size of the log file to # megabytes, the log file is limited to the specified size.
When size limit is reached, overwrite the earliest entries (keep it current)	Optionally enable this option, if you want to overwrite the earliest entries in the log file. If you do not enable this option, the application stops logging when it reaches the specified size limit
Log Filename/Save Log as	PortVision DX provides a default path based on the PortVision DX installation path and file name (**PVPLog.pvl**) in this box. You can change the default path and log file name by clicking the **Save Log as** button. If the path is invalid or there is a file error involved, you will see an error message on the screen and you have to change the name.
NOTE Log events for ALL devices	If **Log device-level events** is enabled, PortVision DX logs all device-level events. **Log events for ALL devices** logs events on all Comtrol Ethernet attached products. Optionally, check individual Comtrol Ethernet attached products in the pane at the right.
Ok	Closes the window. If you enabled logging, PortVision DX also starts logging data in the log file specified in the **Log Filename** box.

After enabling the log file, you can view the results using the **View** screen.

Log File - View Menu	Description
Browse	If you wish to open a log file other than what is specified in the **Log File Settings** menu, use the **Browse** button to locate the log file. Optionally, you can enter a path and file name manually.
Device-Level Events	Click this option to view data gathered by the Log device-level

Log File - View Menu	Description
	events option in the **Settings** menu.
Application-Level Events	Click this option to view data gathered by the Log application-level events option in the **Settings** menu.
Skip "Polling... Messages"	When you click this option, PortVision DX turns on a filter so that it ignores polling messages while viewing the log file.
View Log/Refresh View	Click this button to view or refresh the log file.
Export to Notepad	Opens a *Notepad* file that contains the current view of the log file. You can save or print the file.
Erase Log File Contents	This eases all stored data in the log file.
Done	Closes the window but does not disable logging. If you want to disable logging, you must uncheck the Enable logging option using the **Settings** menu.

Applications Shortcuts

The **Customize** option under the **Tools > Applications** menu allows you to create up to twenty shortcuts in the *Applications Shortcut* screen to applications that you may want to call from PortVision DX.

Shortcuts for Test Terminal and Port Monitor were set up during PortVision DX installation.
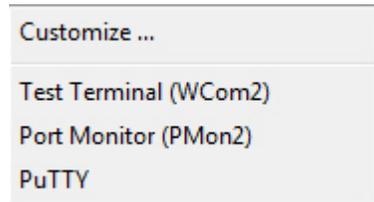
The following table provides information about the *Applications Shortcuts* screen.

Application Shortcuts	Description
Available Shortcuts	This drop-down list contains the applications that have been set-up in PortVision DX.
New	Click the **New** button so that you can create a new entry. After you click **New**, you must complete the **Shortcut Name**, **Description**, **Command/Path**, and **Working Directory** text boxes.
Add	Click the **Add** button after you have completed the **Shortcut Name**, **Description**, **Command/Path**, and **Working Directory** text boxes.
Update	Click the **Update** button after you have changed an entry or entries in the **Shortcut Name**, **Description**, **Command/Path**, and **Working Directory** text boxes for a selected **Available Shortcut**.
Remove	Select an **Available Shortcut** and click the **Remove** button if you want to remove the shortcut from PortVision DX.
Shortcut Name	This is the name that displays under the **Tools > Applications** menu.

Application Shortcuts	Description
Description	This is a description that displays for the application selected in the **Available Shortcuts** drop-down list. This description can provide you with additional information other than the shortcut name.
Command/Path	Browse to the location of the application that you want to execute.
Working Directory	Browse to the working directory related to the application.

Options...Screen

The *Options...* screen allows you to customize how PortVision DX default settings run in your environment. Access the *Options...* screen by clicking the **Tools** menu and then click the **Options...** menu option.

Options... Menu	Description
Save settings on exit	If checked (default), PortVision DX saves all the existing options into registry when closing PortVision DX.
Always scan network	If checked, PortVision DX scans the network every time that you run the application. The default for **Always scan network** is disabled. You can enable this option so that every time PortVision DX is started, it scans the network and updates the view.
Timestamp Device Notes automatically	If checked, PortVision DX automatically timestamps any entries made in the **Device Notes** for all Comtrol Ethernet attached products.
Save the current session before each polling cycle	If checked, PortVision DX will save the current session every time PortVision DX is scheduled to poll. This option is unchecked by default. Unless you click this option, PortVision DX only saves the current information when you close the application or when you click **Save Session As...**
Always save a backup copy of the current session	If checked (default), PortVision DX always gets a backup before creating a new **PVPDefSes.pvs** on the disk, which avoids any data loss.
Ask for confirmation on exit (*Main* window)	If checked (default), PortVision DX queries you as to whether you want to exit all PortVision DX windows.
Ask for confirmation closing the *Device Configuration* window	If checked (default), PortVision DX always asks if you want to save the current configuration before closing the *Properties* window. It does not matter if something has been changed or not, PortVision DX will always ask if you want to save the current settings to a file.
Polling Interval	Use this option to change the **Polling Interval** (default is 120 seconds). Acceptable polling intervals range from any value from 0 through 43200 seconds (0 –12 hours).

Options... Menu	Description
	If you set the polling interval to 0 (zero), polling is disabled completely. If you select any value that causes an overlap in polling cycles, PortVision DX optimizes that value to avoid any system resource problem or system crash. This optimization happens during the process and will not affect your selected value.
Default Settings	Click this button to return the **Options...** screen to the default values.

Help Menu

You can use the **Help** menu to open the help system in of these modes:

- Help Contents

- Search (Advanced)
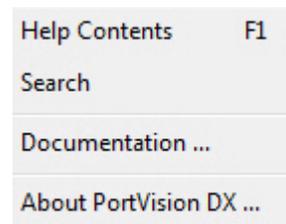
In addition, you can use the **Documentation** option to download the latest documentation for your Comtrol products.

If you used the default installation path, the documents that you download are stored in the **Program Files\Comtrol\PortVision DX\Docs** subdirectory.

Properties Screen

The *Properties* screen may contain up to three tabs depending on the product:

- **General** tab is typically used to configure the IP network information and other device-specific device settings for a specific Comtrol Ethernet attached product. The **General** tab also contains unmanaged RocketLinx switches and third-party device information that you enter using the Add New Device screen.

- **Software Settings** tab provides an easy way to review software settings for DeviceMasters and IO-Link Masters. To review managed RocketLinx software settings, click the **Web Interface** tab.

- **Web Interface** tab is available for products with a valid IP address, which have a web page and allows you to access configuration settings for the device.

The *Properties* screen also provides:

- **Tools** menu provides an alternate method to apply or undo changes, save settings to or load configuration settings from a file (if applicable), and reboot the Comtrol Ethernet attached product.

- **Documentation** menu links you to the latest documentation for your product.

- **What's This** help for the connectors in the graphic of the hardware, which can be used when you connect cables or to determine the meaning of the LEDs for all Comtrol products.

Refer to the appropriate Comtrol Ethernet attached product *Properties* screen for detailed information.

- DeviceMaster (DM Series | LT | PRO | RTS | Serial Hub)

- DeviceMaster EIP | MOD | PNIO | UP

- IO-Link Master

- RocketLinx

- Other hardware

What's This Help Feature

The product pictures in the *Properties* screen provide hardware information about:

- LEDs

- Port connectors

- Cabling and signal information

- Power requirements

- If applicable to the product, DI/DO, alarms and DIP switches

To use the **What's This help** feature in the *Properties* screen, use this procedure.

1. Double-click the Comtrol Ethernet attached product in the *Device List* pane or right-click the device and select **Properties**.

2. Right-click the connector in the graphic for which you want information, highlight the *What's This* popup, and then click the link.

The image above may not reflect your actual product.

DeviceMaster DM-Series | LT | PRO | RTS | Serial Hub Properties

The *Properties* screen consists of the following tabs:

- General

- Software Settings

- Web Interface

General Tab (DeviceMaster DM Series | LT | PRO | RTS | Serial Hub)

Use the **General** tab of the *Properties* screen to configure or change the network and device settings for the DeviceMaster. You can also access hardware information about your DeviceMaster using the What's This help feature.

> **Note:** *If you have secured the DeviceMaster with a password, you must enter the user name and password to access the **General** tab.*
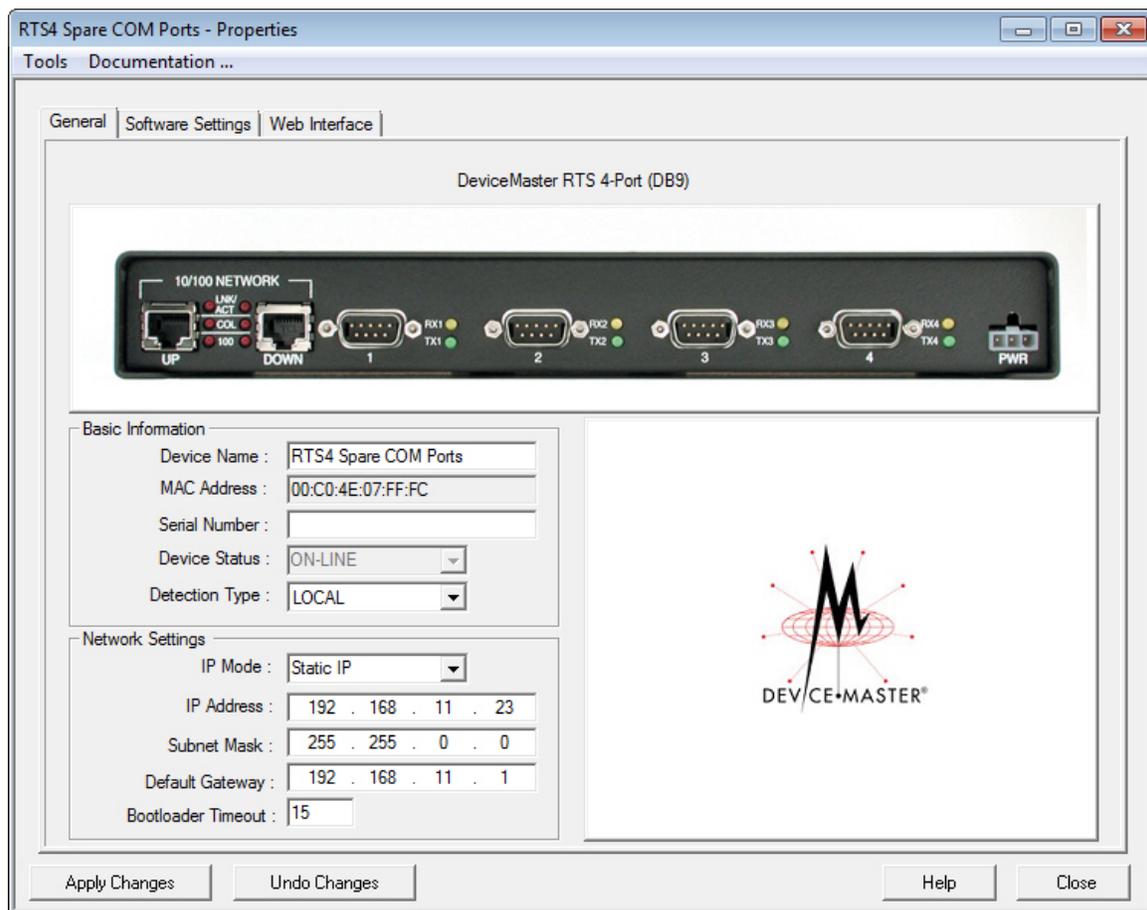
The **General** tab contains this information:

- Basic Information pane

- Network Settings pane

- Action buttons

Refer to Programming Network Information for procedures for using this screen.

Basic Information	Description
Device Name	The field default value is **Device** and the last three pairs of digits from the MAC address. You can change the name by entering a new name in this field. The name change displays on the *Main* screen after clicking **Apply Changes**. Optionally, you can use the Rename option on the *Main* screen.
MAC Address	This field contains the MAC address of the DeviceMaster that you are configuring. You cannot change the MAC address of a DeviceMaster. A MAC Address label is located on every DeviceMaster. The first three pairs of digits start with 00 C0 4E.
Serial Number	You can enter the serial number of the DeviceMaster in the event you require the serial number. There is a serial number label on the DeviceMaster.
Device Status	This is the Status that displays on the *Main* screen in the *Device List* pane.
Detection Type	**REMOTE** means that the DeviceMaster is not connected to this segment of the network and IP communications are used. **LOCAL** means that the DeviceMaster is on this local network segment and MAC communications are used, which does not require an IP address but is still highly recommended to assign an IP address.

Network Settings	Description
IP Mode	• **Disable IP** Disables IP communications in the DeviceMaster, which means that it runs in MAC mode. The MAC addressing simplifies implementation and ongoing support by eliminating the address administration issues inherent in network protocols. MAC addresses are predefined by Comtrol and there is no potential for an *address conflict* at setup. Isolated from foreign LAN segments minimizing potential security issues. This means that the DeviceMaster will no longer be able to access telnet or the web page. If you click **Disable IP**, the **IP Address** text box is disabled and set to 255.255.255.255. The subnet mask and default gateway are also disabled with their existing values. • **DHCP IP** Configures the DeviceMaster to use DHCP. Make sure that the network administrator is provided with the MAC address of the DeviceMaster so that it can be configured with the network. See your System Administrator to acquire a unique reserved IP address if you are using DHCP. If you click **DHCP IP**, the **IP Address** text box is disabled and set to 0.0.0.0 until the DHCP server assigns an address. After the next refresh

Network Settings	Description
	cycle, the DHCP address should display. • **Static IP** Configures the DeviceMaster with the static IP address information that you provide in the IP Address, Subnet Mask, and Default Gateway fields.
IP Address	The **IP address** programmed into the DeviceMaster after applying the changes and rebooting the DeviceMaster. See your network administrator for a valid IP address. The default IP address programmed from the factory is 192.168.250.250.
Subnet Mask	The **Subnet Mask** is a 32-bit value (255.x.x.x) that enables IP packets to distinguish the network ID and host ID portions of the IP address. The default Subnet Mask programmed from the factory is 255.255.0.0.
Default Gateway	The **Default Gateway** is a TCP/IP configuration item that is the IP address of a directly reachable IP router. The **Default Gateway** programmed from the factory is 192.168.250.1.
Bootloader Timeout	*This option is available if you have installed SocketServer version 9.06 or higher.* Allows you to change the Bootloader time-out value before the default application, typically, SocketServer. You may need to increase this time-out value to 45 for compatibility with spanning tree devices (normally switches. If you change the time-out value to 0, this prevents SocketServer web page from loading.

Buttons (Tools Menu)	Descriptions
Apply Changes	Applies the current changes to the DeviceMaster.
Undo Changes	Undoes all the changes only, if you have not applied it to the DeviceMaster.
Help	Opens page-level help for this screen.
Close	Closes the window and queries you as to whether you want to save the settings to a file or not if you made changes and did not click **Apply Changes**. You can disable this query using the *Options...* screen in the **Tools** menu (**Ask for confirmation on closing Properties screen item**).

Software Settings Tab (DeviceMaster DM Series | LT | PRO | RTS | Serial Hub)

The **Software Settings** tab provides a way to review, edit software settings, save, and load SocketServer configuration files on a DeviceMaster. The **Software Settings** tab settings displays SocketServer, which is independent of the NS-Link device driver.

You may want to use the **Web Interface** tab:

- If you are not familiar with the configuration parameters you should use the web interface because the web interface provides user-friendly configuration parameters and help
- If you need to clone port properties

Make sure that you review the changes that you make before saving and uploading a file. For example, if you accidently enter RS-421 for the *Serial Mode*, a **<null>** is loaded into that field, which displays when you return to the **Software Settings** tab.

> **Note:** *If the **Software Settings** tab does not appear, that means that the DeviceMaster is not available for IP connection. This could mean that an incorrect user name or password was entered or that there is no IP communications. This could be a wrong IP address, no IP address assigned to the DeviceMaster, or the DeviceMaster is configured for DHCP and connected directly to the PC, and it is unable to get an IP address from the DHCP server.*
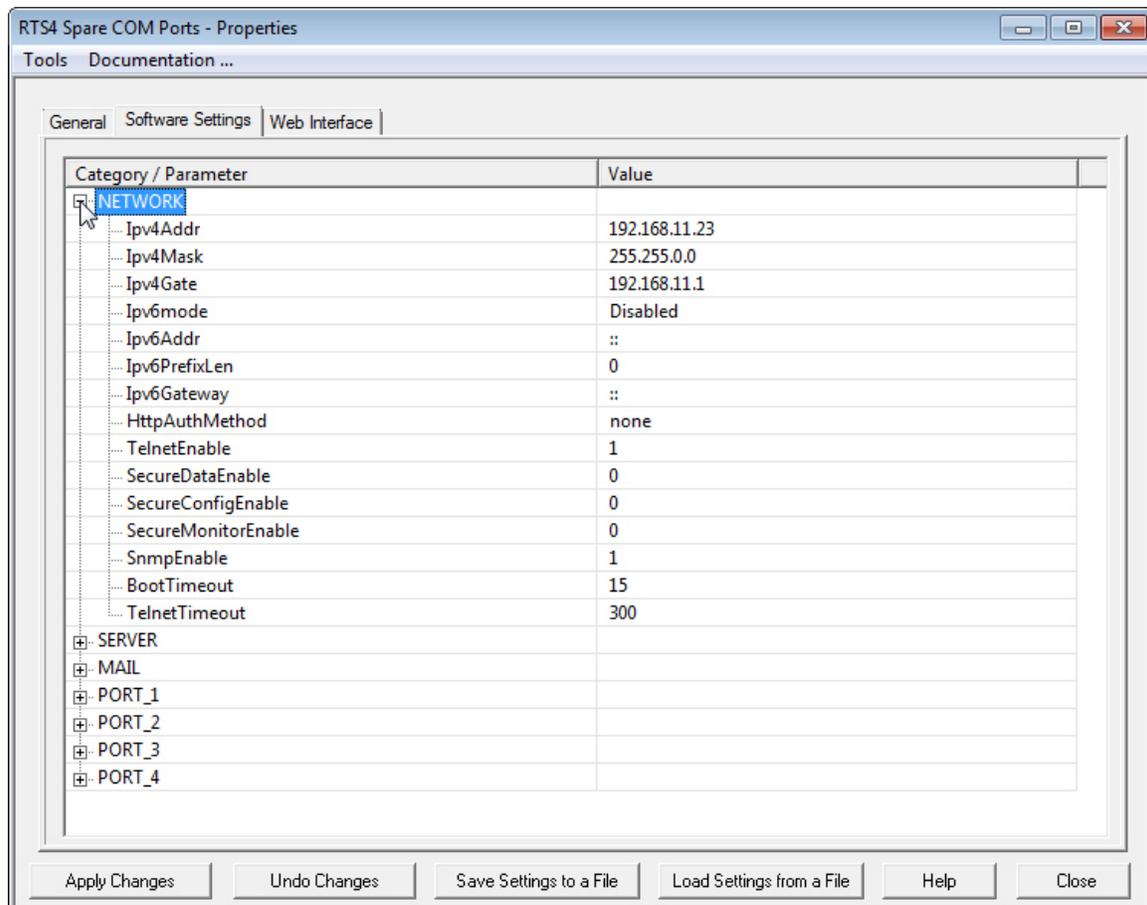
Changes are displayed in green with an asterisk.

For example: Serial Printer 9 *

Buttons (Tools Menu)	Descriptions
Apply Changes	Applies the current changes to the DeviceMaster.
Undo Changes	Undoes all the changes only, if you have not applied it to the DeviceMaster
Save Settings to a File	Allows you to save the current configuration of this DeviceMaster in a file. All network and SocketServer (if applicable) settings are saved. A *Field Selection* pop up appears so that you can select appropriate configuration values. Optionally, you can use the **Save** button or the **Save Configuration** option in the **Device** menu on the *Main* screen, if you want to save specific portions of the configuration.
Load Settings from a File	Loads a previously saved DeviceMaster configuration file. A *Field Selection* pop up appears so that you can select appropriate configuration values. You must click **Apply Changes** before the changes are saved to the DeviceMaster.
Help	Opens page-level help for this screen.
Close	Closes the window and queries you as to whether you want to save the settings to a file or not if you made changes and did not click **Apply Changes**. You can disable this query using the *Options...* screen in the **Tools** menu (**Ask for confirmation on closing Properties screen item**).

## Web Interface Tab (DeviceMaster DM Series | LT | PRO | RTS | Serial Hub)

This allows you to access SocketServer (or the NS-Link web page, if you installed the DeviceMaster device driver) from PortVision DX.

You can maximize the *Web Interface* page for a better view.

When the screen is maximized, the **Forward** and **Backward** buttons work the same as your browser navigation.
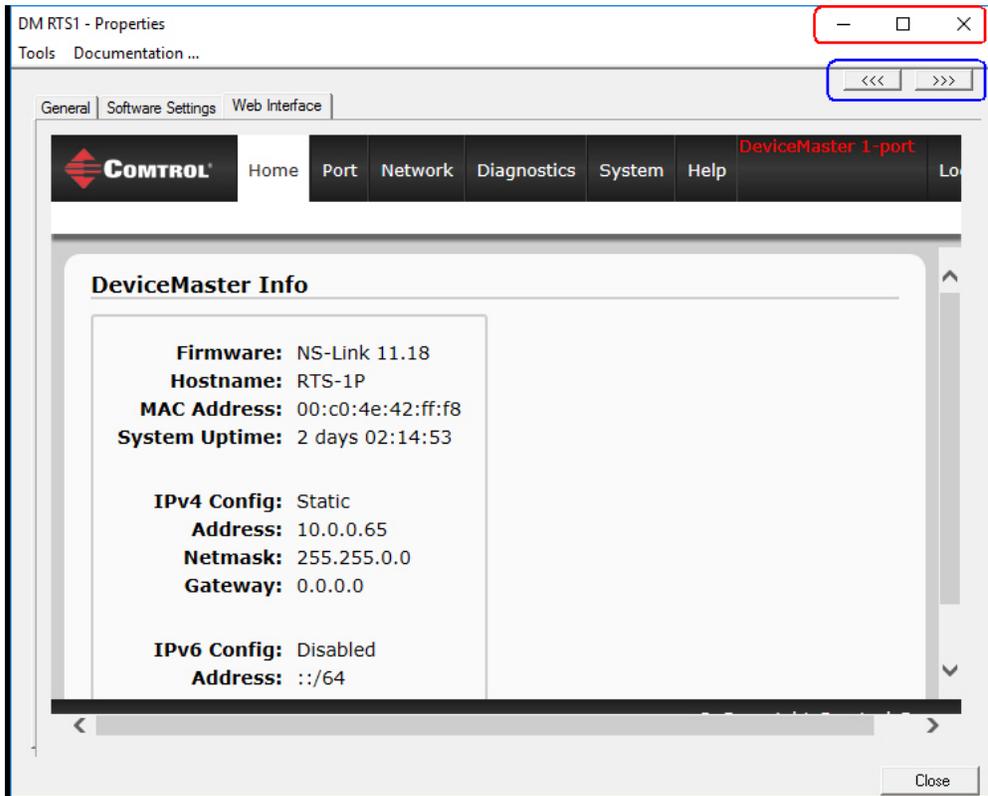
DeviceMaster EIP | MOD | PNIO | UP Properties

The *Properties* screen consists of the following tabs:

- General

- Software Settings

- Web Interface

General Tab (DeviceMaster EIP | MOD | PNIO | UP)

Use the **General** tab of the *Properties* screen to configure the network and device settings for the DeviceMaster EIP | MOD | PNIO | UP. You can also access hardware information about your DeviceMaster EIP | MOD | PNIO | UP using the What's This help feature.

> **Note:** *If you have secured the DeviceMaster EIP | MOD | PNIO | UP with a password, you must enter the user name and password to access the **General** tab.*

The **General** tab contains this information:

- Identification

- Network Settings

- Action buttons

Refer to Programming Network Information for procedures for using this screen.

Identification	Description
Device Name	The field default value is **Device** and the last three pairs of digits from the MAC address. You can change the name by entering a new name in this field. The name change displays on the *Main* screen after clicking **Apply Changes**. Optionally, you can use the Rename option on the *Main* screen.
MAC Address	This field contains the MAC address of the DeviceMaster EIP | MOD | PNIO | UP that you are configuring. You cannot change the MAC address of a DeviceMaster EIP | MOD | PNIO | UP. A MAC Address label is located on every DeviceMaster EIP | MOD | PNIO | UP. The first three pairs of digits start with 00 C0 4E.
Serial Number	You can enter the serial number of the DeviceMaster EIP | MOD | PNIO | UP in the event you require the serial number. There is a serial number label on the DeviceMaster EIP | MOD | PNIO | UP.
Device Status	This is the Status that displays on the *Main* screen in the *Device List* pane.
Detection Type	**REMOTE** means that the DeviceMaster EIP | MOD | PNIO | UP is not connected to this segment of the network. **LOCAL** means that the DeviceMaster EIP | MOD | PNIO | UP is on this local network segment.

Network Settings	Description
IP Mode	• **Disable IP** Disables IP communications in the DeviceMaster EIP | MOD | PNIO | UP.. • **DHCP IP** Configures the DeviceMaster EIP | MOD | PNIO | UP to use DHCP. Make sure that the network administrator is provided with the MAC address of the DeviceMaster EIP | MOD | PNIO | UP so that it can be configured with the network. See your System Administrator to acquire a unique reserved IP address if you are using DHCP. If you click **DHCP IP**, the **IP Address** text box is disabled and set to 0.0.0.0. • **Static IP** Configures the DeviceMaster EIP | MOD | PNIO | UP with the static IP address information that you provide in the IP Address, Subnet Mask, and Default Gateway fields.
IP Address	The **IP address** programmed into the DeviceMaster EIP | MOD | PNIO | UP after applying the changes and rebooting the DeviceMaster EIP | MOD | PNIO | UP. See your network administrator for a valid IP address. The default IP address programmed from the factory is 192.168.250.250.

Network Settings	Description
Subnet Mask	The **Subnet Mask** is a 32-bit value (255.x.x.x) that enables IP packets to distinguish the network ID and host ID portions of the IP address. The default Subnet Mask programmed from the factory is 255.255.0.0.
Default Gateway	The **Default Gateway** is a TCP/IP configuration item that is the IP address of a directly reachable IP router. The **Default Gateway** programmed from the factory is 192.168.250.1.

Buttons (Tools Menu)	Descriptions
Apply Changes	Applies the current changes to the DeviceMaster EIP | MOD | PNIO | UP.
Undo Changes	Undoes all the changes only, if you have not applied it to the DeviceMaster EIP | MOD | PNIO | UP.
Help	Opens page-level help for this screen.
Close	Closes the window and queries you as to whether you want to save the settings to a file or not if you made changes and did not click **Apply Changes**. You can disable this query using the *Options...* screen in the **Tools** menu (**Ask for confirmation on closing Properties screen item**).

Software Settings Tab (DeviceMaster EIP | MOD | PNIO | UP)

The **Software Settings** tab provides a way to review, save, and load protocol settings (configuration file) on a DeviceMaster EIP | MOD | PNIO | UP.

You may want to use the **Web Interface** tab, if you are not familiar with the protocol settings. If you need information about the protocol settings, you can open the User Guide for your protocol.

> **Note:** *If the **Software Settings** tab does not appear, that means that the DeviceMaster EIP | MOD | PNIO | UP is not available for IP connection, which could mean that an incorrect user name or password was entered.*
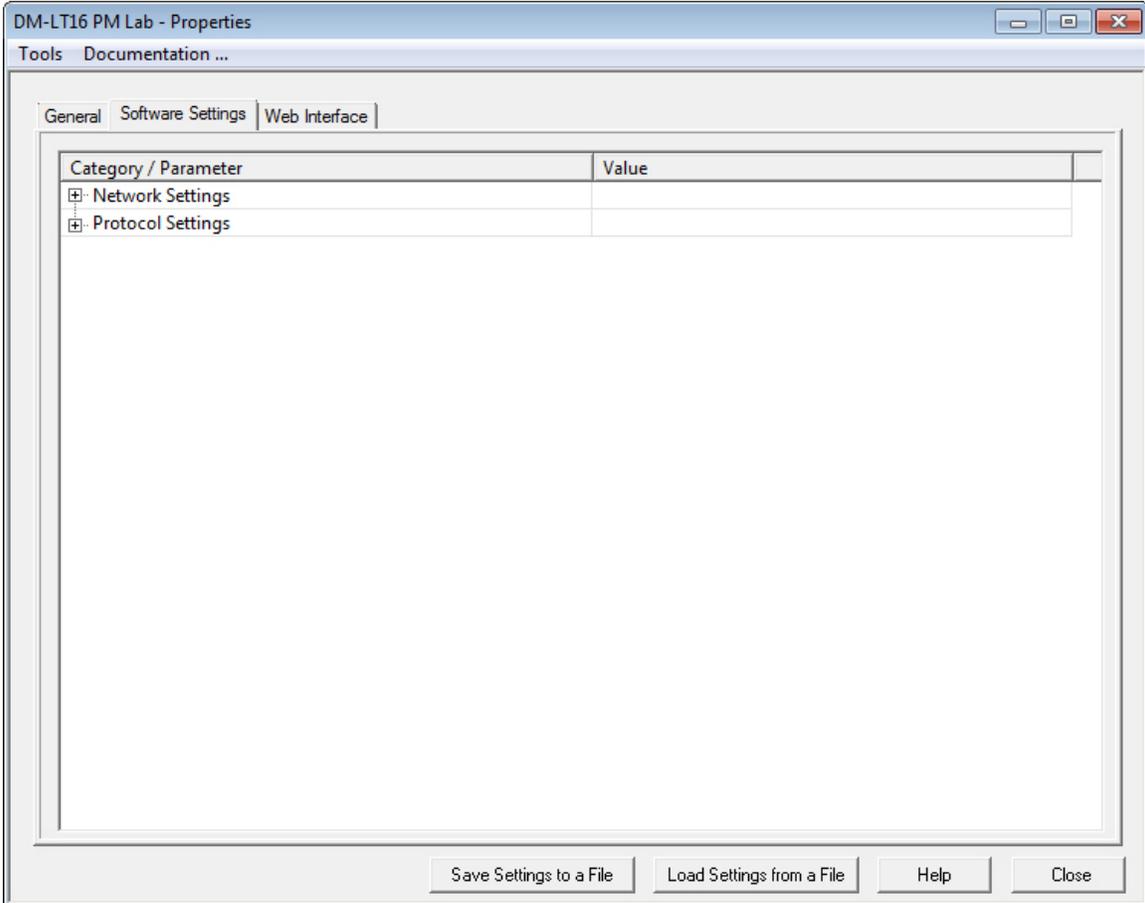
Differences between the protocol settings on the DeviceMaster EIP | MOD | PNIO | UP and the configuration file are displayed in green with an asterisk. For example: Serial Printer 9 *

Buttons (Tools Menu)	Descriptions
Apply Changes	The **Apply Changes** button only appears if you have loaded a configuration file that contains settings different from those on the DeviceMaster EIP	MOD	PNIO	UP. This saves the configuration file that you are viewing in the **Software Settings** tab to the DeviceMaster EIP	MOD	PNIO	UP. In addition, you must reboot the DeviceMaster EIP	MOD	PNIO	UP to

Buttons (Tools Menu)	Descriptions
	activate any changes made to the **Network Settings** tab.
Undo Changes	The **Undo Changes** button only appears if you have loaded a configuration file that contains settings different from those on the DeviceMaster EIP | MOD | PNIO | UP. This selection reloads the protocol settings from the DeviceMaster EIP | MOD | PNIO | UP and the **Apply Changes** button disappears.
Save Settings to a File	Allows you to save the current configuration (protocol settings) of this DeviceMaster EIP | MOD | PNIO | UP in a file. All network and DeviceMaster EIP | MOD | PNIO | UP (if applicable) settings can be saved depending on your selections. A *Field Selection* pop up appears so that you can select appropriate configuration values. For example, you may not want the use the same IP address.
Load Settings from a File	Loads a previously saved DeviceMaster EIP | MOD | PNIO | UP configuration file. A *Field Selection* pop up appears so that you can select appropriate configuration values. After you load a configuration file to the **Software Settings** tab, make sure that you review the differences that are displayed in green with an asterisks before uploading the file to the DeviceMaster EIP | MOD | PNIO | UP. You must click **Apply Changes** before the changes are saved to the DeviceMaster EIP | MOD | PNIO | UP. If the **Apply Change**s is not visible, the configuration file and DeviceMaster EIP | MOD | PNIO | UP contain the same settings.
Help	Opens page-level help for this screen.
Close	Closes the window and queries you as to whether you want to save the settings to a file or not if you made changes and did not click **Apply Changes**. You can disable this query using the *Options...* screen in the **Tools** menu (**Ask for confirmation on closing Properties screen item**).

Web Interface Tab (DeviceMaster EIP | MOD | PNIO | UP)

This allows you to access the protocol web configuration pages for your protocol from PortVision DX.

For information about the web page for your protocol, locate the appropriate documentation for your protocol.

- EtherNet IP

- Modbus Router

- Modbus Server

- Modus/TCP

- PROFINET IO

You can maximize the *Web Interface* page for a better view.

When the screen is maximized, the **Forward** and **Backward** buttons work the same as your browser navigation.
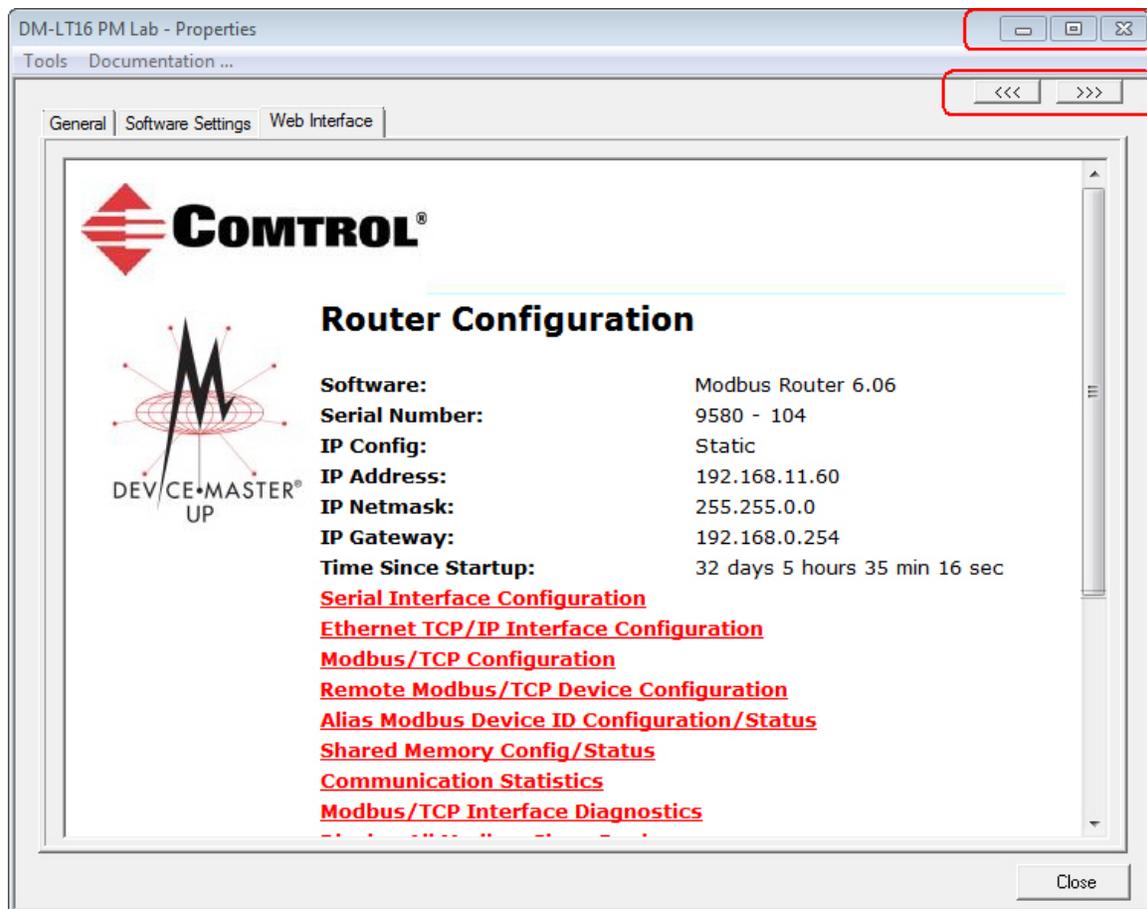
IO-Link Master Properties

The *Properties* screen consists of the following tabs:

- General

- Software Settings

- Web Interface

General Tab (IO-Link Master)

Use the **General** tab of the *Properties* screen to configure the network and device settings for the IO-Link Master. You can also access hardware information about your IO-Link Master using the What's This help feature.

> **Note:** *If you have secured the IO-Link Master with a password, you must enter the user name, Admin, Operator, or User (case-sensitive) and password to access the General tab.*

The **General** tab contains this information:

- Identification

- Network Settings

- Action buttons

Refer to Programming Network Information for procedures for using this screen.

Identification	Description
Device Name	This is the device name that PortVision DX uses, the default value is **Device** and the last three pairs of digits from the MAC address. You can change the name by entering a new name in this field. The name change displays on the *Main* screen after clicking **Apply Changes**. Optionally, you can use the Rename option on the *Main* screen. If this is a PROFINET IO installation, you must configure a device name in STEP 7.
MAC Address	This field contains the MAC address of the IO-Link Master that you are configuring. You cannot change the MAC address of an IO-Link Master. A MAC Address label is located on every IO-Link Master. The first three pairs of digits start with 00 C0 4E.
Serial Number	The IO-Link Master serial number is displayed in the event you require the serial number.
Device Status	This is the Status that displays on the *Main* screen in the *Device List* pane.

Note: *If the IO-Link Master has a Rotary switch, the Rotary settings override the network settings on this page. See the IO-Link Master web interface help system if you need information about the rotary switch or the appropriate IO-Link Master User Guide.*

Network Settings	Description
IP Mode	• **DHCP IP** Configures the IO-Link Master to use DHCP. Make sure that the network administrator is provided with the MAC address of the IO-Link Master so that it can be configured with the network. If you click **DHCP IP**, the **IP Address** text box displays the last IP address programmed in the IO-Link Master. See your System Administrator to acquire a unique reserved IP address if you are using DHCP. • **Static IP** Configures the IO-Link Master with the static IP address information that you provide in the IP Address, Subnet Mask, and Default Gateway fields. If this is a PROFINET IO installation, you must configure the IP address with STEP 7 in your PNIO system, which assigns (or overwrites) the IP address configured using PortVision DX or the IO-Link Master **Network Settings** web page.
IP Address	The **IP address** programmed into the IO-Link Master after applying the changes and rebooting the IO-Link Master. See your network administrator for a valid IP address.

Network Settings	Description
	The default IP address programmed from the factory is **192.168.1.250.**
Subnet Mask	The **Subnet Mask** is a 32-bit value (255.x.x.x) that enables IP packets to distinguish the network ID and host ID portions of the IP address. The default Subnet Mask programmed from the factory is **255.255.255.0**.
Default Gateway	The **Default Gateway** is a TCP/IP configuration item that is the IP address of a directly reachable IP router. The **Default Gateway** programmed from the factory is **0.0.0.0**.

Buttons (Tools Menu)	Descriptions
Apply Changes	This button applies the current changes to the IO-Link Master.
Undo Changes	This button undoes all the changes only, if you have not applied it to the IO-Link Master.
Help	Opens page-level help for this screen.
Close	This button closes the window and queries you as to whether you want to save the settings to a file or not if you made changes and did not click **Apply Changes**. You can disable this query using the *Options...* screen in the **Tools** menu (**Ask for confirmation on closing Properties screen item**).

Software Settings Tab (IO-Link Master)

The **Software Settings** tab provides a way to review, save, and load protocol settings (configuration file) on an IO-Link Master.

> **Note:** *If the Software Settings tab does not appear, that means that the IO-Link Master is not available for connection. This could mean that an incorrect user name or password was entered. Make sure that you initial capitalize the user names, Admin, User, or Operator.*
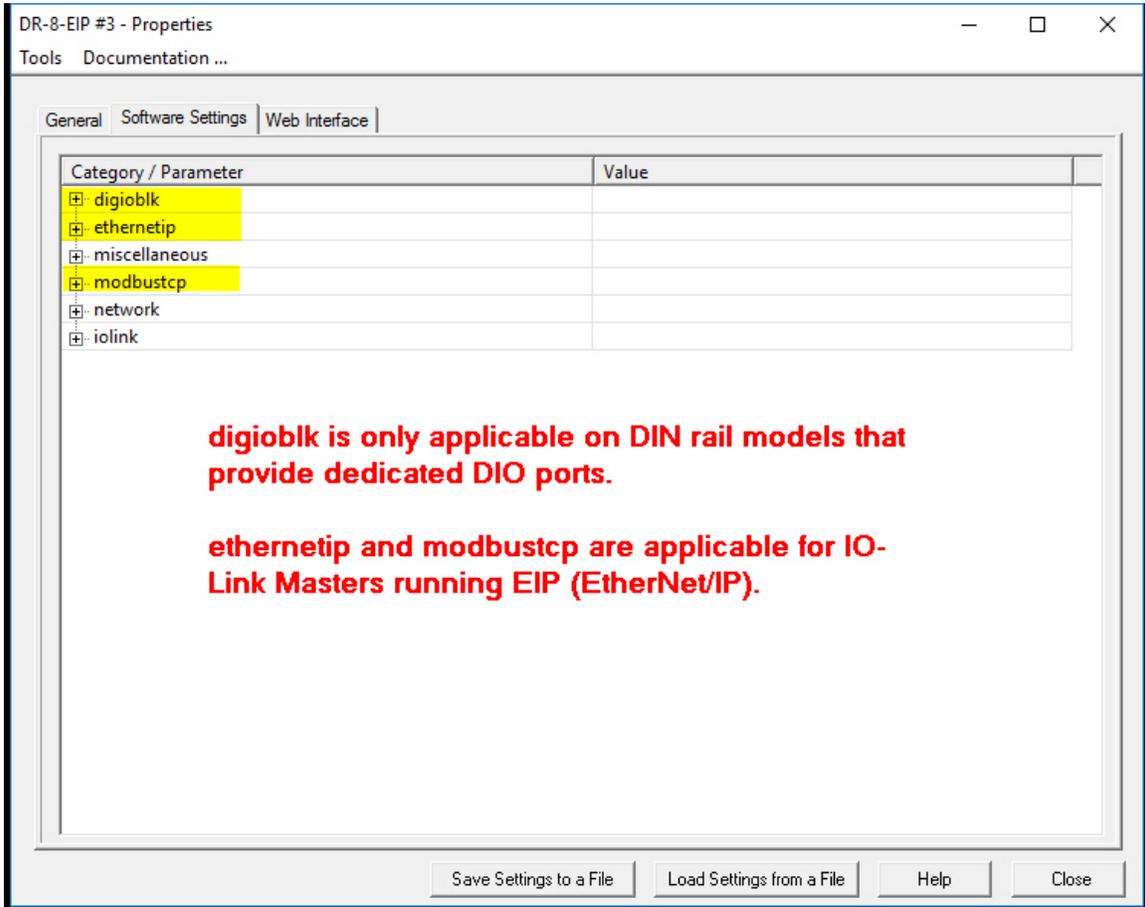
Differences between the settings on the IO-Link Master and the configuration file are displayed in green with an asterisk so that you can review the content before applying the changes. For

example: Serial Printer 9 *

Buttons (Tools Menu)	Descriptions
Apply Changes	The **Apply Changes** button only appears if you have loaded a configuration file that contains settings different from those on the IO-Link Master. This saves the configuration file that you are viewing in the **Software Settings** tab to the IO-Link Master. In addition, you must reboot the IO-Link Master to activate any changes made to the **Network Settings** tab.

Buttons (Tools Menu)	Descriptions
Undo Changes	The **Undo Changes** button only appears if you have loaded a configuration file that contains settings different from those on the IO-Link Master. This selection reloads the protocol settings from the IO-Link Master and the **Apply Changes** button disappears.
Save Settings to a File	Allows you to save the current configuration (protocol settings) of this IO-Link Master in a file. All network and IO-Link Master (if applicable) settings can be saved depending on your selections. A *Field Selection* pop up appears so that you can select appropriate configuration values. For example, you may not want the use the same IP address.
Load Settings from a File	Loads a previously saved IO-Link Master configuration file. A *Field Selection* pop up appears so that you can select appropriate configuration values. After you load a configuration file to the **Software Settings** tab, make sure that you review the differences that are displayed in green with an asterisk before uploading the file to the IO-Link Master. You must click **Apply Changes** before the changes are saved to the IO-Link Master. If the **Apply Change**s is not visible, the configuration file and IO-Link Master contain the same settings.
Help	Opens page-level help for this screen.
Close	Closes the window and queries you as to whether you want to save the settings to a file or not if you made changes and did not click **Apply Changes**. You can disable this query using the *Options...* screen in the **Tools** menu (**Ask for confirmation on closing Properties screen item**).

Web Interface Tab (IO-Link Master)

This allows you to access the IO-Link Master web configuration pages for your protocol from PortVision DX.
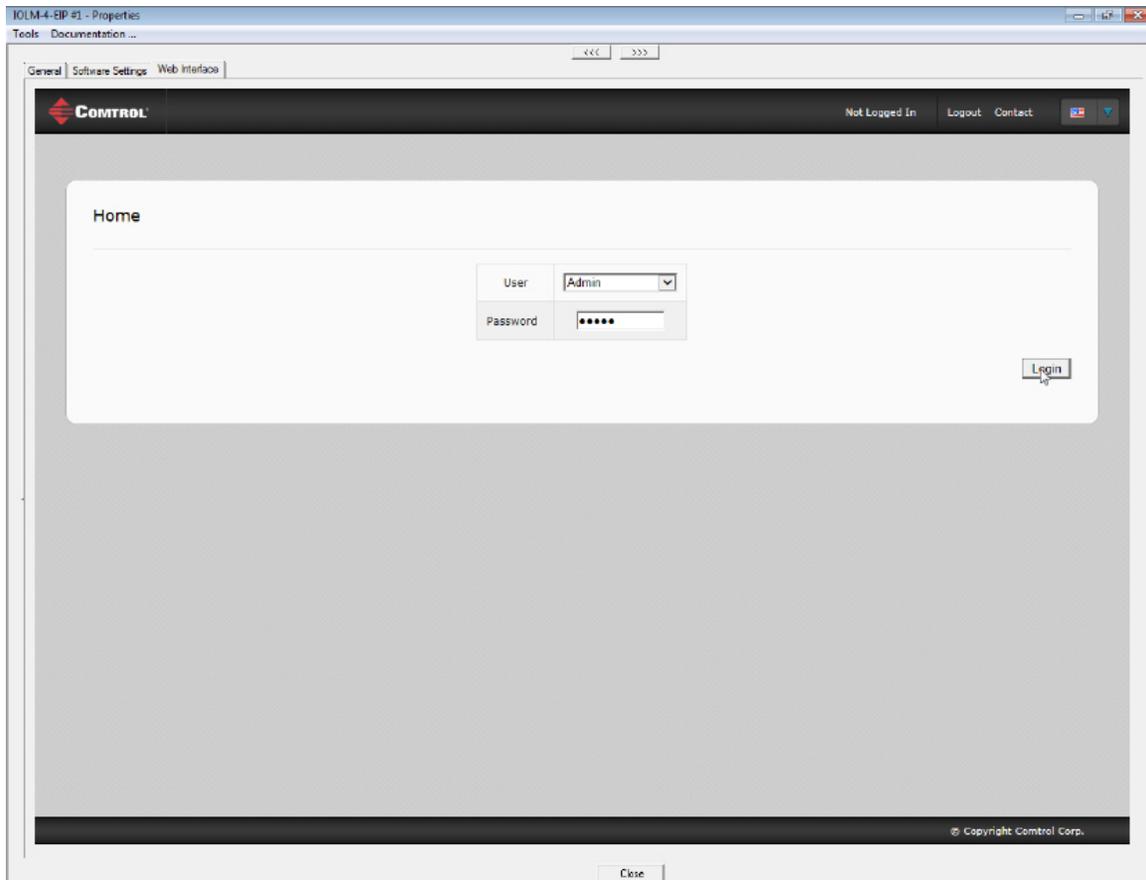
RocketLinx Properties

The *Properties* screen consists of the following tabs:

- [General](#)

- [Web Interface](#)

General Tab (RocketLinx)

Use the **General** tab of the *Properties* screen to configure the network and device settings for a managed RocketLinx switch or to edit an unmanaged RocketLinx added using the [Add New Device](#) screen.

You can also access hardware information about your RocketLinx using the [What's This help](#) feature.

> **Note:** *You cannot configure or locate an unmanaged RocketLinx using PortVision DX. You can [manually add an unmanaged](#) device for display purposes and to maintain a central location to store your network information.*

The **General** tab contains the following information:

- Basic Information

- Network Settings

- Action buttons

> **Note:** *If you have secured the RocketLinx with a password, you must enter the user name and password to access the **General** tab.*

Refer to Programming Network Information for procedures for using this screen.

Basic Information	Description
Device Name	*Managed RocketLinx Switches:* The field default value is **Device** and the last three pairs of digits from the MAC address. *Unmanaged RocketLinx Switches*: This is name that was entered when the switch was added using the Add New Device option. You can change the name by entering a new name in this field. The name change displays on the *Main* screen after clicking **Apply Changes**. Optionally, you can use the Rename option on the *Main* screen.
MAC Address	*Managed RocketLinx Switches:* This field contains the MAC address of the managed RocketLinx that you are configuring. You cannot change the MAC address of a RocketLinx. A MAC Address label is located on every managed RocketLinx. The first three pairs of digits start with 00 C0 4E. *Unmanaged RocketLinx Switches*: This field is empty because unmanaged RocketLinx switches do not have MAC addresses.
Serial Number	You can enter the serial number of the RocketLinx switch in the event you require the serial number. There is a serial number label on the RocketLinx.
Device Status	This is the Status that displays on the *Main* screen in the *Device List* pane. *Managed RocketLinx Switches:* **ON-LINE** means that the RocketLinx is powered on, PortVision DX can access and be used to configure the device. **OFF-LINE** means that the RocketLinx is not available to PortVision DX. It may not be powered on or is not on the same network segment as PortVision DX. *Unmanaged RocketLinx Switches*: You can choose to set this option to ON-LINE or OFF-LINE. This status is

Basic Information	Description
	displayed on the *Main* screen. PortVision DX cannot poll unmanaged switches to determine whether they are on-line or not.

Network Settings	Description
IP Mode	*Managed RocketLinx Switches:* • **DHCP IP** Configures the RocketLinx to use DHCP. If you click **DHCP IP**, the **IP Address** text box is disabled and set to 0.0.0.0. See your System Administrator to acquire a unique reserved IP address if you are using DHCP. They need the MAC address of the unit to provide you with an IP address. • **Static IP** Configures the RocketLinx with the static IP address information that you provide in the IP Address, Subnet Mask, and Default Gateway fields. *Unmanaged RocketLinx Switches: This is an inactive field because unmanaged switches do not use IP addresses.*
IP Address	*Managed RocketLinx Switches:* The **IP address** programmed into the RocketLinx after applying the changes and rebooting the RocketLinx. See your network administrator for a valid IP address. The default IP address programmed from the factory is 192.168.250.250. *Unmanaged RocketLinx Switches: inactive field because unmanaged switches do not use IP addresses.*
Subnet Mask	*Managed RocketLinx Switches:* The **Subnet Mask** is a 32-bit value (255.x.x.x) that enables IP packets to distinguish the network ID and host ID portions of the IP address. The default Subnet Mask programmed from the factory is 255.255.0.0. *Unmanaged RocketLinx Switches: inactive field because unmanaged switches do not use subnet masks.*
Default Gateway	*Managed RocketLinx Switches:* The **Default Gateway** is a TCP/IP configuration item that is the IP address of a directly reachable IP router. The **Default Gateway** programmed from the factory is 192.168.250.1. *Unmanaged RocketLinx Switches: inactive field because unmanaged switches do not use IP addresses.*

Network Settings	Description
Network Topology	This is an informational field. You can select the topology† that reflects on this RocketLinx. The following options are available: • **BUS** - In local area networks where bus topology is used, each node is connected to a single cable. Each computer or server is connected to the single bus cable. A signal from the source travels in both directions to all machines connected on the bus cable until it finds the intended recipient. If the machine address does not match the intended address for the data, the machine ignores the data. Alternatively, if the data matches the machine address, the data is accepted. • **MESH** - The value of fully meshed networks is proportional to the exponent of the number of subscribers, assuming that communicating groups of any two endpoints, up to and including all the endpoints, is approximated by Reed's Law. • **RING** - A network topology that is set up in a circular fashion in which data travels around the ring in one direction and each device on the right acts as a repeater to keep the signal strong as it travels. Each device incorporates a receiver for the incoming signal and a transmitter to send the data on to the next device in the ring. The network is dependent on the ability of the signal to travel around the ring. • **STAR** - In local area networks with a star topology, each network host is connected to a central hub with a point-to-point connection. In Star topology every node (computer workstation or any other peripheral) is connected to central node called hub or switch. The switch is the server and the peripherals are the clients. The network does not necessarily have to resemble a star to be classified as a star network, but all of the nodes on the network must be connected to one central device. All traffic that traverses the network passes through the central hub. • **TREE** - The type of network topology in which a central 'root' node (the top level of the hierarchy) is connected to one or more other nodes that are one level lower in the hierarchy (i.e., the second level) with a point-to-point link between each of the second level nodes and the top level central 'root' node, while each of the second level nodes that are connected to the top level central 'root' node will also have one or more other nodes that are one level lower in the hierarchy (i.e., the third level) connected to it, also with a point-to-point link, the top level central 'root' node being the only node that has no other node above it in the hierarchy (The hierarchy of the tree is symmetrical.) Each node in the network having a specific fixed number, of nodes connected to it at the next lower level in the hierarchy, the number, being referred to as the 'branching factor' of the hierarchical tree. • **HYBRID** - Hybrid networks use a combination of any two or more topologies in such a way that the resulting network does not exhibit one of the standard topologies (e.g., bus, star, ring, etc.). For example, a tree network connected to a tree network is still a tree network topology. A hybrid topology is always produced when two different basic network topologies are connected. Two common examples for Hybrid network are: star ring network and star bus network • **DAISY-CHAIN** - Except for star-based networks, the easiest way to add more computers into a network is by daisy-chaining, or connecting each

Network Settings	Description
	computer in series to the next. If a message is intended for a computer partway down the line, each system bounces it along in sequence until it reaches the destination. A daisy-chained network can take two basic forms: linear and ring. • **POINT-TO-POINT** - The simplest topology is a permanent link between two endpoints. Switched point-to-point topologies are the basic model of conventional telephony

† "Hierarchical Network." Wikipedia. Wikimedia Foundation, 23 Sept. 2012. Web. 25 Sept.2012. http://en.wikipedia.org/wiki/Hierarchical_network.

Buttons (Tools Menu)	Descriptions
Apply Changes	Applies the current changes to the RocketLinx.
Undo Changes	Undoes all the changes only, if you have not applied it to the RocketLinx.
Help	Opens page-level help for this screen.
Close	Closes the window and queries you as to whether you want to save the settings to a file or not. You can disable this query using the *Options...* screen in the **Tools** menu (**Ask for confirmation on closing Properties screen item**).

Web Interface Tab (RocketLinx)

This opens your default browser and allows you to access the managed RocketLinx web configuration pages for your switch from PortVision DX.

Use the RocketLinx web page help system or the appropriate RocketLinx User Guide for more information about configuration.

Note: *Java is required to operate RocketLinx web interfaces.*

General Tab (Other Hardware

You must use the *Add New Device* screen to add:

- RocketLinx unmanaged switches

- Third-party switches and devices

After a device is added, you can use the **General** tab on the *Properties* screen to modify any information.
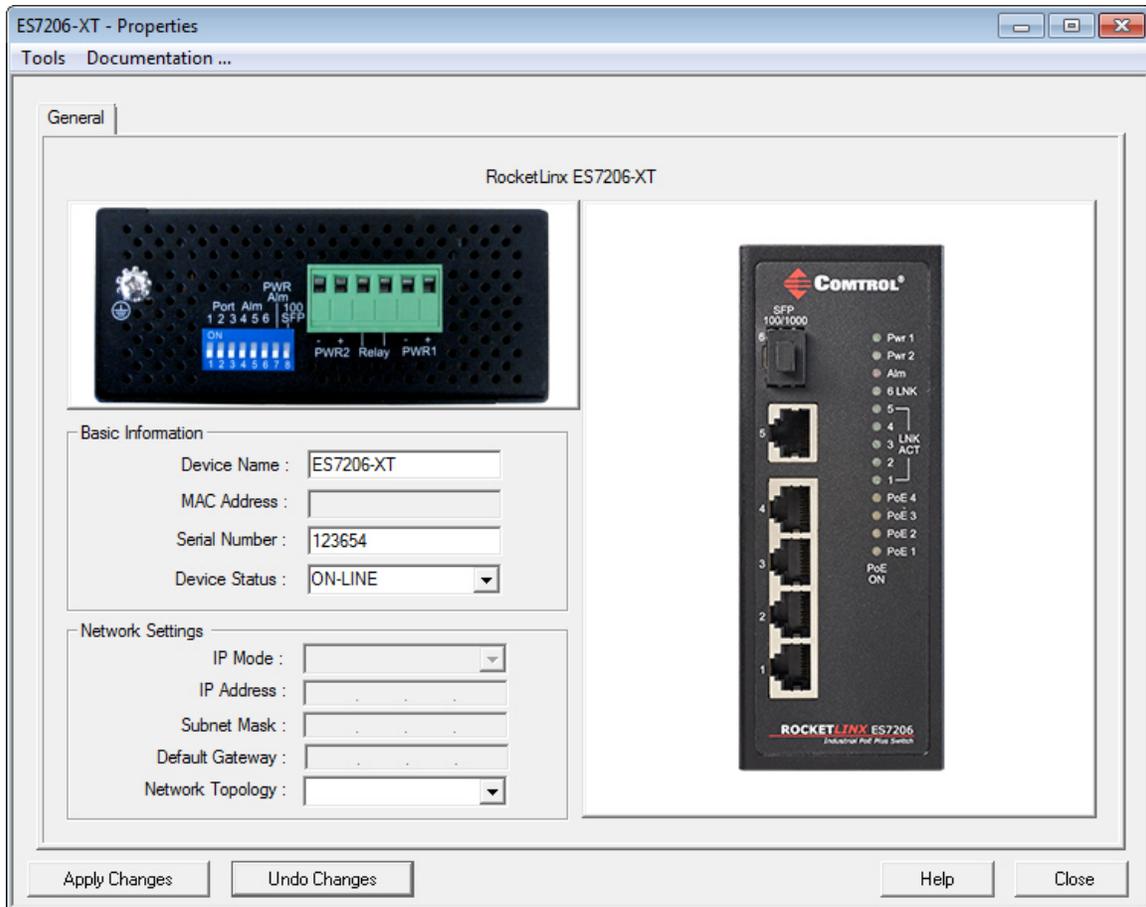
The **General** tab contains the following information:

- Basic Information

- Network Settings

- Action buttons

Basic Information	Description
Device Name	You can change the name by entering a new name in this field. The name change displays on the *Main* screen after clicking **Apply Changes**. Optionally, you can use the Rename option on the *Main* screen.

Basic Information	Description
MAC Address	This field displays a MAC address, if it was entered in the Add New Device screen. You can enter a MAC address if you did not do so during initial set up.
Serial Number	You can enter the serial number of the device or switch for identification purposes.
Device Status	This is the Status that displays on the *Main* screen in the *Device List* pane. You can choose to set this option to ON-LINE or OFF-LINE, which is displayed on the *Main* screen. PortVision DX cannot poll unmanaged switches or third-party devices to determine whether they are on-line or not.

Network Settings	Description
IP Mode	This is an informational field for your convenience.
IP Address	This is an informational field for your convenience.
Subnet Mask	This is an informational field for your convenience.
Default Gateway	This is an informational field for your convenience.

Buttons (Tools Menu)	Descriptions
Apply Changes	Applies the current changes to the device.
Undo Changes	Undoes all the changes only, if you have not applied it to the device.
Help	Opens page-level help for this screen.
Close	Closes the window and queries you as to whether you want to save the settings to a file or not. You can disable this query using the *Options...* screen in the **Tools** menu (**Ask for confirmation on closing Properties screen item**).

Add New Device Screen

You can use the *Add New Device* screen to:

- Configure a Comtrol Ethernet attached products that is not on the local network.

- Add a new Comtrol Ethernet attached product manually, if you do not want to scan the network.

- Add unmanaged devices to the PortVision DX view so that you can maintain information about the devices in your network.

There are several methods available to access the *Add New Device* screen:

- Click the **Manage** menu and then click **Add New... Device**

- Right-click a folder or device in the *Device Tree* pane and then click **Add New... Device** from the menu

Add New Device Screen (Managed)

Use the *Add New Device* screen to configure Comtrol Ethernet attached products that are not on the local network or to add a new Comtrol Ethernet attached product manually, if you do not want to scan the network.

The *Add New Device* screen can be accessed from the **Manage** menu by clicking **Add New...Device** or by right-clicking a folder or device and then clicking **Add New... Device** from the menu.

The following table provides information about the *Add New Device* fields. You can refer to Adding a New Device for procedures. You can change this information using the General tab on the *Properties* screen.

Add New Device	Description
Device Type	Select the type of Comtrol Ethernet attached product that you want to add to PortVision DX.
Device Model	This drop down list contains the Comtrol Ethernet attached product model list.
Device Name	You must enter a Device Name for the Comtrol Ethernet attached product.
Detection Type (DeviceMaster, Only)	If this is a DeviceMaster, click one of the **Detection Types**: • **REMOTE** (default) means that the Comtrol Ethernet attached product is not connected to this segment of the network. • **LOCAL** means that the Comtrol Ethernet attached product is on this local network segment.
Identification	If this is a DeviceMaster you may need to select an appropriate **Identification**

Add New Device	Description

Mode
 	
(DeviceMaster, Only)
	Mode:
	
	• If you click **REMOTE** for the **Detection Type**, you must enter IP Mode values (IP Address, Subnet Mask, and Default Gateway).
	
	• If you click **LOCAL** for the **Detection Type**, you can click **IP** or **MAC**.
	
	  • If you click **IP**, you must enter **IP Mode** values (IP Address, Subnet Mask, and Default Gateway).
	
	  • If you click **MAC**, you must enter the MAC Address.

Serial Number	Depending on the product type, you can optionally enter the Comtrol Ethernet attached product serial number. If this is an IO-Link Master, the serial number is propagated into this field if it has a valid IP address.
MAC Address (DeviceMaster, Only)	If you click MAC as the **Identification Mode** for a DeviceMaster, you must enter the MAC address of the DeviceMaster you want PortVision DX to locate on the network. A MAC address label is attached to all DeviceMasters. The first three pairs of digits start with 00 C0 4E.
IP Address	**DeviceMaster** If you clicked **REMOTE** as the **Detection Type** or **IP** as the **Identification Mode**, you must enter the IP address programmed into the DeviceMaster.
Subnet Mask	A 32-bit value (255.x.x.x) that enables IP packets to distinguish the network ID and host ID portions of the IP address.
Default Gateway	A TCP/IP configuration item that is the IP address of a directly reachable IP router.
Ok	Adds the new configuration to the network as a new Comtrol Ethernet attached product.
Cancel	Closes the window without saving any data.

Add New Device Screen (Other Hardware)

Use the *Add New Device* screen to add other hardware to PortVision DX so that you can maintain information about the devices in your network.

PortVision DX does not manage or configure non-Comtrol Ethernet attached products or unmanaged RocketLinx switches but you can display them and if applicable, enter additional information about them using the Edit Notes function.

The *Add New Device* screen can be accessed from the **Manage** menu by clicking **Add New... Device** or by right-clicking a folder or device in the *Device Tree* pane and then clicking **Add New... Device** from the menu list. You can refer to Adding a New Device for procedures. You can change this information using the General tab on the *Properties* screen.

Add New Device	Description
Device Type	**RocketLinx - Click RocketLinx (Unmanaged).** Select **Other Hardware** if it is not a Comtrol device.
Device Model	**RocketLinx** - Select the appropriate RocketLinx model. **Other Hardware** - Select **Network Switch or Serial/Ethernet Device**.
Device Name	You must enter a name to identify the device.
Detection Type	This field is disabled.
Identification Mode	This field is disabled.

Add New Device	Description
Serial Number	You can optionally enter the device serial number.
MAC Address	**RocketLinx** - Disabled since unmanaged RocketLinx switches do not have MAC addresses. **Other Hardware** - You can optionally enter a MAC address for the device for record keeping practices.
IP Address	**RocketLinx** - disabled since unmanaged RocketLinx switches do not use addresses. **Other Hardware** - You can optionally enter an IP address for this device for record keeping practices.
Subnet Mask	**RocketLinx** - Disabled. **Other Hardware** - You can optionally enter a subnet mask for record keeping practices.
Default Gateway	**RocketLinx** - Disabled. **Other Hardware** - You can optionally enter a default IP gateway address for record keeping practices.
Ok	Adds the new configuration to the network as a new device.
Cancel	Closes the window without saving any data.

Managing the View

PortVision DX makes it easy to manage how your products are displayed. This section discusses the following features:

- Scanning the network

- Managing devices

    - Using folders

    - Adding new devices

    - Renaming devices

    - Deleting devices

    - Changing the Detection Type

    - OFF-LINE Devices

    - Saving Device Diagnostics Files (IO-Link Master)

- Editing notes

- Changing the Device List view

- Refreshing the view

- Managing sessions

Scanning the Network

PortVision DX does not scan the network for new devices unless you chose to do so. You can refresh the view of the devices displayed in PortVision DX without scanning the network or simply wait for the next polling cycle. PortVision DX polls the devices and refreshes the view, which is dependent on the polling cycle interval.

You can follow these steps to scan the network:

1. Click the **Scan** button or optionally do one of the following:

    - Click the **Scan Network** option under the **Tools** menu and click the product type or types for which you want to locate.

    - Click the **Enable the Always scan network** feature under the **Tools** menu in the *Options* screen and click the product type or types for which you want to locate.

2. Click the product type or types for which you want to locate and click the **Scan** button on the *Scan Network* pop up.
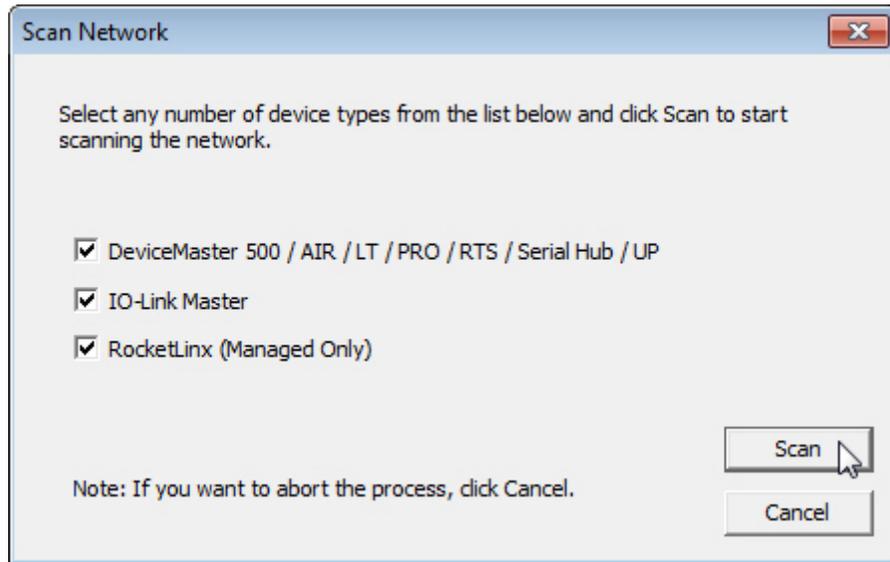
> **Note**: *You can save time and only scan for products that you have connected to the network.*

Managing Devices

After you have scanned the network to locate Comtrol Ethernet attached products, which are placed in the **Scan Results** folder you are ready to customize your view. This subsection discusses the following topics:

- Using folders

- Adding new devices

- Renaming devices

- Deleting devices

- Changing the Detection Type

- Editing Notes

- Changing the Device List view

- Refreshing the view

- Managing sessions

You can create multiple sessions if different views are required.

Using Folders

You can use the **Manage** menu and **Add New... Folder** option to create folders in the *Device Tree* pane and display the contents of the selected folder in the *Device List* pane.

Folders are displayed first numerically and then alphabetically. The number of devices (managed or unmanaged) in a folder are displayed in brackets after the folder name and the number of devices online.

You can use a device as a folder and layer switches or devices under it.
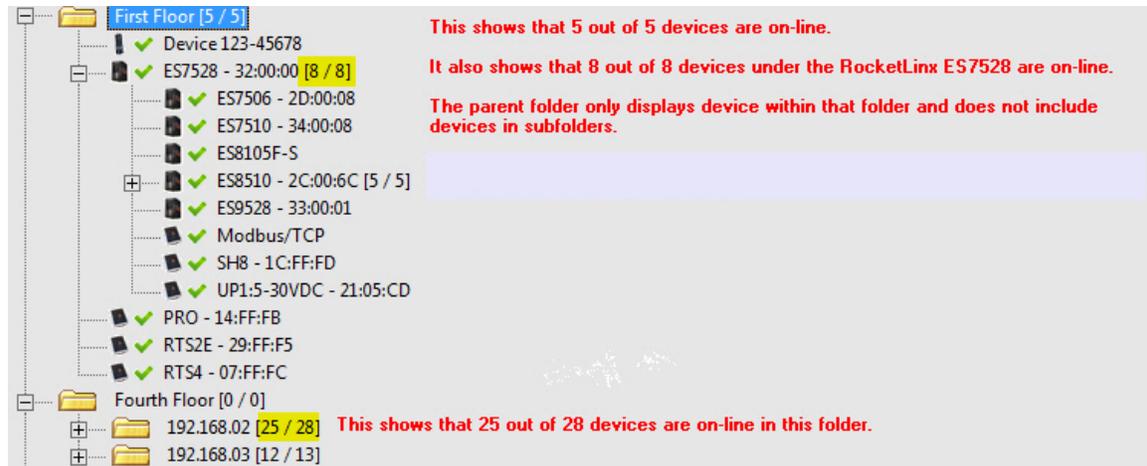
If you want to customize folder names for a specific audience, you may want to create multiple sessions.

Adding Folders

Folders permit you to organize your devices in a logical view. Folders are displayed first numerically and then alphabetically. You can use a device as a folder and layer devices or switches under it.

Use the following procedure to add a folder or folders in the *Device Tree* pane.

1. Right-click the *Device Tree* pane or optionally click an existing folder under which, you want to nest additional folders. You can place folders outside of the **Scan Results** folder or nest them within the folder.

2. Right-click and then click **Add New...Folder**.

   Optionally, you can use the **Manage** menu and the **Add New... Folder** option.

3. Enter the folder name.

The number of devices (managed or unmanaged) in a folder are displayed in brackets after the folder name and the number of devices online.

After you create a folder or folders, you can drag a device or devices to the appropriate folder. A device can only display in a single folder.

You can move or add new devices into the folder.

Moving Folders

You can use several methods to move folders in the *Device Tree* pane.

- Highlight the folder and drag it where you want it to display. You can move devices under another device.

- Right-click the folder, click **Move**, click the target folder and then the **Ok** button.

- Highlight the folder, click the **Manage** menu, click **Move**, click the target folder and then the **Ok** button.

Folders are displayed first numerically and then alphabetically. The number of devices (managed or unmanaged) in a folder are displayed in brackets after the folder name and the number of devices online.

Renaming Folders

Use the following procedure to rename a folder in the *Device Tree* pane.

Folders are displayed first numerically and then alphabetically. The number of devices (managed or unmanaged) in a folder are displayed in brackets after the folder name and the number of devices online.

You may want to rename the folder named **Scan Results [#]** after each **Scan Network** process if you store all of your devices in the **Scan Results** folder. Optionally, create a folder structure to organize your devices.

1. Highlight the folder (or device with children devices) in the *Device Tree* pane that you want to rename.

2. Right-click and then click **Rename**.

   Optionally, you can use one of these methods:

   - Highlight the folder, click the **Manage** menu and the **Rename** option.

   - Click the folder so that you can type the name in the folder.

3. Enter the new folder name and press Enter.

Deleting Folders

Use the following procedure to delete folders and their contents in the *Device Tree* pane.

This action does not affect the functionality of the devices in the folder, it merely removes the folder from the view.

1. Highlight the folder in the *Device Tree* pane that you want to delete.

2. Right-click and then click **Delete**.

   Optionally, you can use one of these methods:

   - Press the **Delete** key.

   - Highlight the folder, click the **Manage** menu and the **Delete** option.

- Highlight the folder, press the **Delete** key, and click **Yes** to *Confirm Delete* pop up message.

Moving Devices into a Folder

Use this procedure to move a device or devices (from the *Device Tree* or *Device List* panes) into another folder. Folders only reside in the *Device Tree* pane.

You can use the procedure below.

1. Right-click the device or devices that you want to move into a folder.

2. Click **Move**.

3. Click the target folder into which you want the device or devices moved.

4. Click **Ok** to close the window.

Optionally, you can use one of these methods:

- Highlight a device or devices and drag the devices into a specific folder or under a managed RocketLinx switch.

- Highlight a device or devices, click the **Manage** menu, select the **Move** option, click the target folder (or managed RocketLinx switch), and then click **Ok**.

Adding a New Device

You can add a new device or switch (managed or unmanaged) manually, if you do not want to scan the network to locate and add new devices.

There may be cases where you want to use the *Add New Device* window to:

- Configure DeviceMasters that are not on the local network or other Comtrol Ethernet attached products, such as: IO-Link Master, or RocketLinx ([remote](#))

- Configure DeviceMasters in PortVision DX that are on the local network segment ([local](#))

- Add RocketLinx [unmanaged switches and](#) [third-party](#) switches or devices

If you use the *Add New Device* screen to add unmanaged RocketLinx switches, third-party switches, or devices remember that you are not using PortVision DX to configure or manage those devices. PortVision DX merely is providing you with a view of your network.

When you add an unmanaged RocketLinx or third-party switch or device, it always shows ON-LINE, unless you use the [General](#) tab on the *Properties* screen to change the status to OFF-LINE.

Remote Using the IP Address

Use the following procedure to add a remote device (Comtrol Ethernet attached product) to PortVision DX.

1. Access the *Add New Device* window using one of these methods:

    - Click **Add New... Device** in the **Manage** menu.

    - Right-click anywhere in the *Device Tree* pane and click **Add New... Device**.

    - Right-click a folder or device and click **Add New... Device**.

2. Select the appropriate **Device Type** from the drop-down list.

3. Select the **Device Model** from the drop-down list.

4. Enter a **Device Name** for the new device.

5. If DeviceMaster, select **REMOTE** for the **Detection Type**.

6. Enter the **IP Address**, **Subnet Mask**, and **Default Gateway**.

7. Click **Ok**.

8. If necessary, click **Refresh** for the new device to display in the *Device List* pane.

Local Using the IP Address or MAC Address

Use the following procedure to add a local DeviceMaster to PortVision DX.

1. Locate the network information or MAC address of the device you want to add.

2. Access the *Add New Device* window using one of these methods:

    - Click **Add New... Device** in the **Manage** menu.

    - Right-click a folder or managed RocketLinx switch and click **Add New... Device**.

3. Select the **Device Type** from the drop-down list.

4. Select the **Device Model** from the drop-down list.

5. Enter a **Device Name** for the new device.

6. Select **LOCAL** for the **Detection Type**.

7. Select the **Identification Mode** to MAC or IP.

    - If you selected **MAC** for the **Identification Mode**, enter the MAC Address. A MAC address label is attached to all Comtrol Ethernet attached products. The first three pairs of digits start with 00 C0 4E. The DeviceMaster EIP | MOD | PNIO | UP and RocketLinx do not support MAC mode.

    - If you selected **IP** for the **Identification Mode**, enter the **IP Address**, **Subnet Mask**, and **Default Gateway**.

8. Optionally, enter the serial number.

9. Click **Ok**. If necessary, click **Refresh** for the new device to display in the *Device List* pane.

Unmanaged Switches or Third-Party Devices

Use the following procedure to add a remote device (managed or unmanaged) to PortVision DX.

Remember PortVision DX does not manage or configure non-Comtrol Ethernet attached products but you can display them and if applicable, enter information about them using the Edit Notes function. If the product has a valid IP address, the **Web Interface** tab appears in the *Properties* page so that you can access any device configuration pages.

1. Access the *Add New Device* window using one of these methods:

    - Click **Add New... Device** in the **Manage** menu.

    - Right-click anywhere in the *Device Tree* pane and click **Add New... Device**.

    - Right-click a folder and click **Add New... Device**.

2. Select the appropriate **Device Type** from the drop-down list.

    - If this is an unmanaged RocketLinx switch, click **RocketLinx (Unmanaged)**.

    - If this is a third-party device, click **Other Hardware**.

3. Select the **Device Model** from the drop-down list.

4. Enter a **Device Name** for the new device.

5. Optionally, enter a serial number for the device.

6. Optionally, enter a MAC address for the device.

7. Optionally, enter the IP address, subnet mask, and IP default gateway.

8. Click **Ok**.

9. If necessary, click **Refresh** for the new device to display in the *Device List* pane.

Renaming a Device

The default device name is *Device* and last three pairs of digits from the MAC address, for example: *Device 15 05 CD*.

You can rename a device using one of the following methods:

- Right-click the device in the *Device Tree* or *Device List* pane, click **Rename** and enter the new name.

- Highlight the device, click **Rename** in the **Manage** menu, and enter the new name.

Deleting a Device

You can delete a device from the PortVision DX display.

This action does not affect the functionality of the device; it merely removes a device from the view.

1. Highlight the device (or devices) that you want to remove from PortVision DX.

2. Use one of the following methods to delete the device or devices:

   - Click **Delete** in the **Manage** menu, and click **Yes** to *Confirm Delete* pop up message..

   - Press the **Delete** key and click **Yes** to *Confirm Delete* pop up message.

   - Right-click the device or devices, click **Delete**, and click **Yes** to *Confirm Delete* pop up message.

Changing the Detection Type (DeviceMaster)

You can change the **Detection Type** for single or multiple DeviceMasters several ways:

- Right-click the device (or devices) in the *List View* pane and then click **Change Detection Type**.

- Highlight the device (or devices) and click **Change Detection Type** on the **Device** menu.

- Double-click on the device, select the desired **Detection Type**, click **Apply Changes**, and then **Close**.

If the **Detection Type** is changed to **Remote**, the DeviceMaster displays in the *Device List* in blue and (TCP) displays with the **Status** as shown in the following graphic.

▲	Device Name	Model	IP Address	MAC Address	Software Version	Status
📄✓	Device 07:FF:FC	RTS-4P (DB9)	192.168.11.40	00:C0:4E:07:FF:FC	NS-Link 8.00	ON-LINE
📄✓	Device 15:04:7A	UP-1P (5V)	192.168.11.53	00:C0:4E:15:04:7A	Modbus/TCP 5.07	ON-LINE
📄✓	Device 17:FF:FB	PRO-8P (DB9)	192.168.11.20	00:C0:4E:17:FF:FB	NS-Link 8.00	ON-LINE (TCP)
📄✓	Device 1C:FF:FD	SH-8P (DB9)	192.168.11.14	00:C0:4E:1C:FF:FD	NS-Link 8.00	ON-LINE
📄✓	Device 21:05:CD	UP-1P (5-30V)	192.168.11.55	00:C0:4E:21:05:CD	Modbus Router 5.07	ON-LINE
📄✓	Device 29:FF:F5	RTS-2P (2E)	192.168.11.52	00:C0:4E:29:FF:F5	SocketServer 9.02	ON-LINE (TCP)

Saving Device Diagnostics Data Files (IO-Link Master)

The **Save Device Diagnostics Data** option is available for the IO-Link Master.

If you are experiencing technical difficulties, Comtrol Technical Support may request that you send this file to Comtrol.

1. Right-click the IO-Link Master, click **Advanced**, and then **Save Device Diagnostics Data**.

2. Browse to the location where you want to save the file.

3. Enter a file name and click **Save**.

Editing Notes

You can store information about a folder or device in the **Notes** field in the *Tree Details* and *Device List Details* panes of the *Main* screen. The information is displayed when the folder or device is highlighted.

Use the following procedure to enter up to 1028 characters of information about a device or folder.

1. Highlight the device or folder for which you want record notes.

2. Click the **Notes** button or the **Edit Device Note** option under the **Manage** menu.

3. Enter up to 1028 characters of information about the device.

4. Click **Ok**.

The notes display immediately in the *Tree Details* or *Device List Details* panes.

You can change the notes by following the above procedure.

Changing the Device List View

You can customize what order the information is displayed in the *Device List* pane, which does not affect the contents of the *Tree Details* pane.

By default PortVision DX displays the information in this order:

Device Name	Model	IP Address	▲ MAC Addr...	Software Version	Status

You can change the order by clicking the column heading and moving it to the position you want to view. For example, you may want to view the information by the **Model**.

▲ Status	Model	Software Version	IP Address	Device Name	MAC Address
OFF-LINE	UP-1P (5-30V)	Modbus Router 5.07	192.168.11.55	📓✖ Device 21:05:CD	00:C0:4E:21:05:CD
ON-LINE	UP-1P (5V)	Modbus/TCP 5.07	192.168.11.53	📓✔ Device 15:04:7A	00:C0:4E:15:04:7A
ON-LINE	SH-8P (DB9)	NS-Link 8.00	192.168.11.14	📓✔ Device 1C:FF:FD	00:C0:4E:1C:FF:FD
ON-LINE	RTS-4P (DB9)	NS-Link 8.00	192.168.11.40	📓✔ Device 07:FF:FC	00:C0:4E:07:FF:FC
ON-LINE (TCP)	PRO-8P (DB9)	NS-Link 8.00	192.168.11.20	📓✔ Device 17:FF:FB	00:C0:4E:17:FF:FB
ON-LINE (TCP)	RTS-2P (2E)	SocketServer 9.02	192.168.11.52	📓✔ Device 29:FF:F5	00:C0:4E:29:FF:F5

Remember that you can also click a column name so PortVision DX orders the column either alphabetically or numerically.

You can also create different sessions to display information using different criteria.

Refreshing the View

You can refresh a specific device or refresh all of the devices in PortVision DX. Refreshing the view is not the same as scanning for new devices.

Use one of the following methods to refresh the view on the *Main* screen.

- Click the **Refresh All** button to refresh all devices.

- Right-click a device or devices and then click **Refresh** in the popup menu to refresh a single or multiple devices.

You can change the [polling interval](#) in the **Options** menu that PortVision DX uses to refresh the *Device List* pane.

Managing Sessions

Sessions can be useful if you wish to create a different friendly view of devices on the network.

A default session is being saved or updated every time you exit the application. PortVision DX opens the same default session at the next start up. The default session name is **PVPDefSes.pxs** and is located in the **Program Files/Comtrol/PortVision DX** subdirectory if you installed PortVision DX in the default location.

You can use [folders](#) to organize the devices, which allows you to display a network organized by meaningful labels or allow different people to open different sessions designed for their needs.

Importing PortVision Plus Sessions

You can use this procedure to import existing PortVision Plus sessions so that you can save them in PortVision DX.

1. Click **File** and then **Import Session ...**

2. Respond to the *Do you want to save the current session* query:

   - If you click **No**:

     a. Browse to the location that your PortVision Plus files are located. The default PortVision Plus subdirectory is **Program Files (x86)/Comtrol/PortVision Plus**.

     b. Highlight the session name.

     c. Select **PortVision Plus Sessions (*.pvs)** in the drop list and then click **Open**.
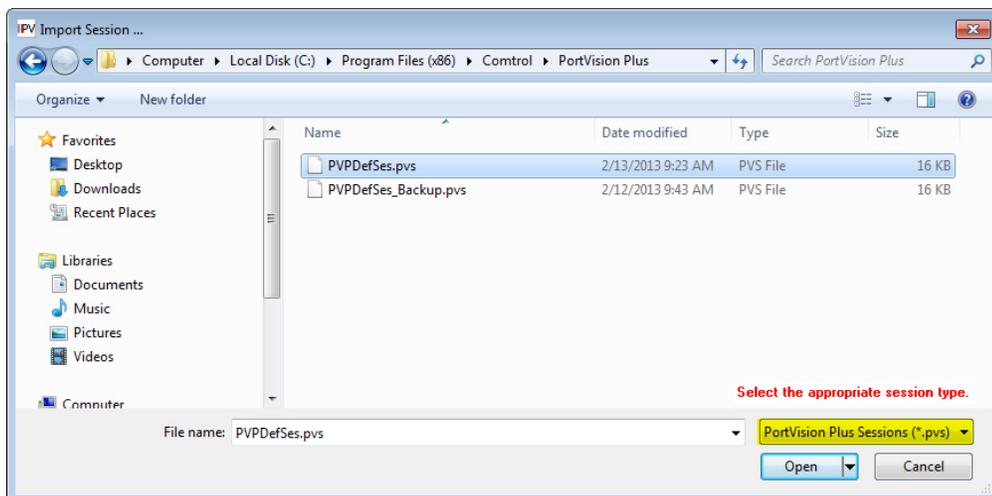
- If you click **Yes:**

  a. Browse to the location you want to save the PortVision DX session files. The default PortVision DX subdirectory is **Program Files (x86)/Comtrol/PortVision DX**.

  b. Enter a file name and click **Save**.

  c. Browse to the location that your PortVision Plus files are located. The default PortVision Plus subdirectory is **Program Files (x86)/Comtrol/PortVision Plus**.

  d. Select **PortVision Plus Sessions (*.pvs)** in the drop list and then click **Open**.
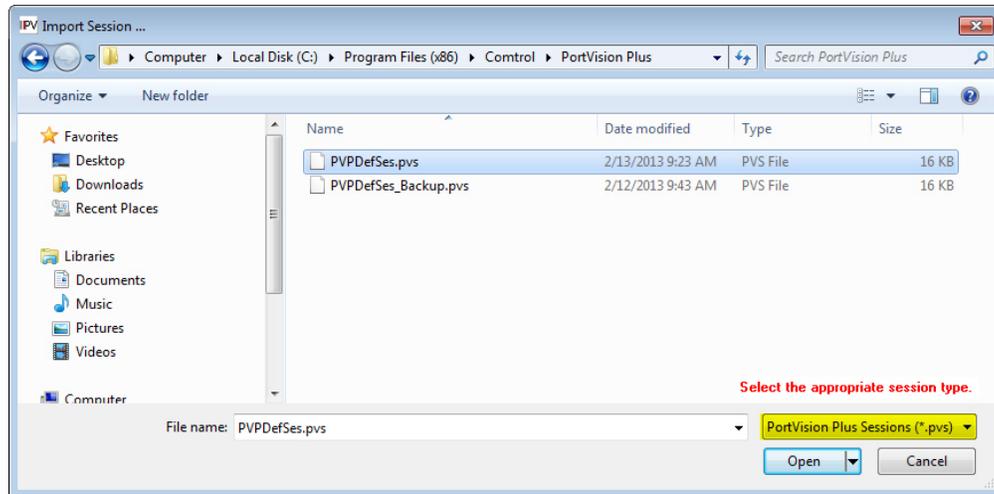
You can save the session with a new file name in the PortVision DX subdirectory or the session is saved as the default session (**PVDXDefSes.pvsx**) when you close PortVision DX.

Creating a New Session

You can create a new session from an empty session by using the following procedure or you can edit an existing session and save the session with a new name.

1. Click **New Session** under the **File** menu.

   Note: *If you have PortVision Plus sessions, you can import the sessions and save them as PortVision DX sessions.*

2. Scan the network using the **Scan** button or the **Scan Network** option under the **Tools** menu.

3. Optionally, edit the contents of the *Device Tree* or *Device List* panes:

   - Create folders and move the devices under meaningful folder names.

   - Rename devices.

   - Reorganize the *Device List* pane by Model, IP Address, MAC Address, Software Version, or Status.

4. Click **Save Session As...** in the **File** menu to save the session under a unique file or optionally click **Exit** to save the session under the default name, **PVPDefSes.pxs**.

Saving a Session

PortVision DX allows you to save the existing view (session) as a file.

Optionally, you can do the following to create a unique session in the *Device Tree* and *Device List* panes:

- Create or move <u>folders</u> and <u>move devices</u> under meaningful folder names.

- <u>Rename</u> the devices.

- <u>Organize</u> the *Device List* pane by Device Name, Model, IP Address, MAC Address, Software Version, or Status.

Use the following steps to save a session:

1. Click **Save Session As...** in the **File** menu.

2. Enter a name that corresponds to that session and click **Save**.

3. Optionally, browse to a new directory. By default, PortVision DX saves the session to the directory in which the current session was opened.

   The default directory is **Program Files/Comtrol/PortVision DX** and the default session under the default name, **PVPDefSes.pxs**.

Opening an Existing Session

Use the following to open a different PortVision DX session.

PortVision DX always opens the session last saved.

1. Click **Import Session ...** on the **File** menu.

2. Click **No** or *Yes* to the *Do you want to save the current session?* query.

3. If necessary, browse to a directory that contains the PortVision DX session.

   By default, PortVision DX opens the directory where the current session was opened. The default directory is **Program Files/Comtrol/PortVision DX** and the default name is **PVPDefSes.pxs**.

4. Highlight the appropriate session.

5. Select **PortVision DX Sessions (*.pvsx)** in the drop list and then click **Open**.
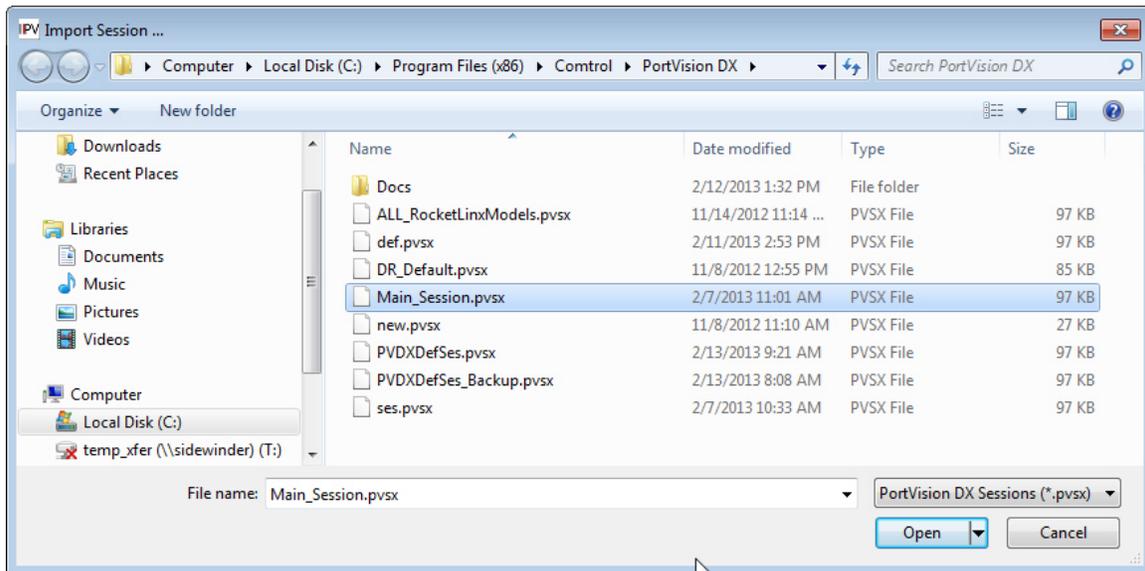
Exporting the Device List

You may want to use the **Export Device List to Notepad** option so that you can import data into a spreadsheet.

Only devices with an ON-LINE status are exported.

1. Click **File | Export Device List to Notepad**.

2. Optionally, save the file. The default name is **PVDX-DeviceList.txt**.

You can import the data in this file into a spreadsheet, using commas as the delimiter.

Network Configuration

Select the appropriate link to locate network settings configuration procedures for your product:

- [DeviceMaster](#), which includes the following models:
    - DM-2000 Series
    - DeviceMaster LT
    - DeviceMaster PRO
    - DeviceMaster RTS
    - DeviceMaster Serial Hub
- [DeviceMaster EIP | MOD | PNIO | UP](#)
- [IO-Link Master](#)
- [RocketLinx](#)

DeviceMaster (DM-Series | LT | PRO | RTS | Serial Hub)

Use the following procedure to program network information into a single DeviceMaster at a time.

If necessary, you can program multiple DeviceMasters at the same time.

> Note: *For initial configuration, the DeviceMaster must be on the same network segment.*

1. Highlight the DeviceMaster for which you want to program network information and access the **General** tab on the *Properties* screen using one of these methods:

   - Double-click the DeviceMaster in the *Device Tree* or *Device List*.

   - Right-click the DeviceMaster in the *Device Tree* or *Device List* and click **Properties**.

   - Highlight the DeviceMaster in the *Device Tree* or *Device List*, click the **Properties** button.

   - Highlight the DeviceMaster in the *Device Tree* or *Device List*, click the **Manage** menu, and then **Properties**.

2. If necessary, enter the user name and password.

3. Optionally, change the **Device Name**. The default **Device Name** is the last three pairs of numbers from the MAC address. A device name is required.

> **Note**: *You cannot edit the MAC Address field, it is automatically populated with the DeviceMaster MAC address, if it was discovered during a scan.*

4. If the serial number does not display, you can enter the serial number of the DeviceMaster in the event that you require it later.

   Note: *The **Device Status** field is an informational field that displays the same status displayed on the Main screen.*

5. Select the appropriate **Detection Type**, local or remote.

6. Click the appropriate **IP Mode**:

   - **Disable IP** to run the DeviceMaster using the MAC addressing scheme and disable all IP communications.

   - **DHCP IP** to use the DeviceMaster with DHCP. Contact the Network Administrator to provide the MAC address of the DeviceMaster and ask if you should change the Subnet Mask, or Default Gateway values.

   - **Static IP** to program a static IP address and enter the appropriate values (IP address, subnet mask, and default gateway) for your site.

7. Optionally, change the **Bootloader Timeout** value.

   Note: *You must have SocketServer v9.06 or higher for the Bootloader Timeout field to display.*

8. After entering the changes, click **Apply Changes**.

9. Click **Close**.

10. After programming the network information, you need to verify that you have the latest version of SocketServer loaded before performing any other configuration procedures.

You can use the **Web Interface** tab if you need to configure socket or serial tunneling settings or you can use the Webpage feature. Optionally, you can modify socket or serial tunneling settings using the Software Settings tab if you are familiar with the parameters.

Assigning IP Addresses to Multiple Devices

Use the appropriate procedure to assign IP addresses to multiple DeviceMaster units.

- Assign a range of IP address to multiple DeviceMasters, which may be useful if you are setting up multiple new DeviceMasters

- Same IP address on multiple DeviceMasters

    Note: *For initial configuration, the DeviceMasters must be on the same network segment.*

Assign a Range of IP Address to Multiple DeviceMasters

Use this procedure to assign a range of IP addresses. Make sure that the DeviceMasters are not daisy-chained to another.

1. Right-click the DeviceMasters in the *Device Tree* or *Device List* pane, which you want to assign the IP addresses and then click **Assign IP to Multiple Devices** (or optionally, use the **Manage** menu).

2. Enter the starting IP address that you want assigned to the DeviceMasters.

3. Optionally, enter the **Subnet Mask** and **Default Gateway** values that you want to assign to the units. These fields are left blank if you do not enter values.

4. Click **Proceed**.

5. After programming the network information, you need to verify that you have the latest version of SocketServer loaded before performing any other DeviceMaster configuration procedures.

You can use the **Web Interface** tab if you need to configure socket or serial tunneling settings or you can use the Webpage feature. Optionally, you can modify socket or serial tunneling settings using the Software Settings tab if you are familiar with the parameters.

Same IP Address on Multiple DeviceMasters

If you use duplicate IP addresses for DeviceMasters that the Detection Type is set to REMOTE, you may lose the DeviceMaster connection completely. Make sure that the DeviceMasters are not daisy-chained to another.

1. Right-click the DeviceMasters in the *Device Tree* or *Device List* pane, which you want to assign the IP addresses and then click **Assign IP to Multiple Devices** (optionally, use the **Manage** menu).

2. If you want to assign the same IP address to all units, click **Use the same IP address for all the selected devices**.

3. Click **Yes** to the *Assign Duplicate IP* popup message.

4. Enter the IP address that you want programmed into the DeviceMasters.

5. Click **Proceed**.

6. After programming the network information, you need to verify that you have the latest version of SocketServer loaded before performing any other DeviceMaster configuration procedures.

You can use the **Web Interface** tab if you need to configure socket or serial tunneling settings or you can use the Webpage feature. Optionally, you can modify socket or serial tunneling settings using the Software Settings tab if you are familiar with the parameters.

DeviceMaster EIP | MOD | PNIO | UP

Use the following procedure to program network information into a single DeviceMaster EIP | MOD | PNIO | UP at a time.

You can optionally, program multiple DeviceMaster EIP | MOD | PNIO | UPs at the same time.

> **Note:** *For initial configuration, the DeviceMaster EIP | MOD | PNIO | UP must be on the same network segment.*

1. Highlight the DeviceMaster EIP | MOD | PNIO | UP for which you want to program network information and access the **General** tab on the **Properties** screen using one of these methods:

   - Double-click the DeviceMaster EIP | MOD | PNIO | UP in the *Device Tree* or *Device List*.

   - Right-click the DeviceMaster EIP | MOD | PNIO | UP in the *Device Tree* or *Device List* and click **Properties**.

   - Highlight the DeviceMaster EIP | MOD | PNIO | UP in the *Device List* or *Device Tree*, click the **Properties** button.

   - Highlight the DeviceMaster EIP | MOD | PNIO | UP in the *Device Tree* or *Device List*, click the **Manage** menu, and then **Properties**.
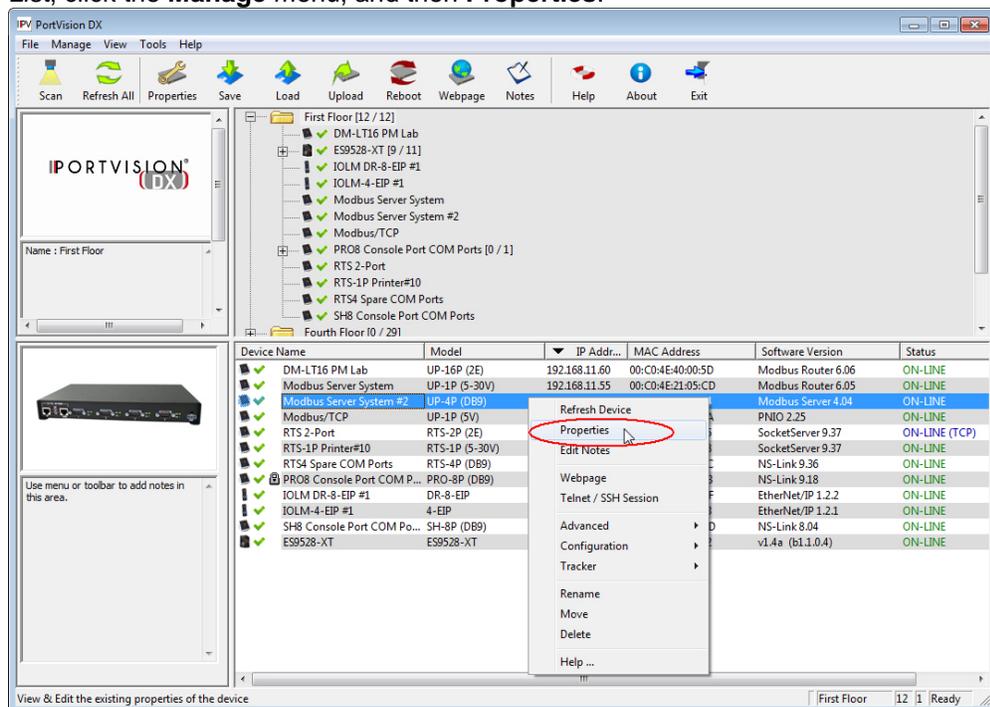
2. If necessary, enter the user name and password.

3. Optionally, change the **Device Name**. The default **Device Name** is the last three pairs of numbers from the MAC address. A device name is required.

> **Note**: *You cannot edit the MAC Address field, it is automatically populated with the DeviceMaster EIP | MOD | PNIO | UP MAC address, if it was discovered during a scan.*

4. If the serial number does not display, you can enter the serial number of the DeviceMaster EIP | MOD | PNIO | UP in the event that you require it later.

5. Select the appropriate **Detection Type**, local or remote.

    Note: *The **Device Status** field is an informational field that displays the same status displayed on the Main screen.*

6. Click the appropriate **IP Mode**:

    *   **Disable IP** disables IP communications. Do not use this option unless you are going to load the NS-Link device driver to run in MAC mode and not load any DeviceMaster EIP | MOD | PNIO | UP protocol.

    *   **DHCP IP** to use the DeviceMaster EIP | MOD | PNIO | UP with DHCP. Contact the Network Administrator to provide the MAC address of the DeviceMaster EIP | MOD | PNIO | UP and ask if you should change the Subnet Mask, or Default Gateway values.

    *   **Static IP** to program a static IP address and enter the appropriate values for your site.

7. After entering the changes, click **Apply Changes**.

8. Click **Close**.

9. After programming the network information, you need to verify that you have the latest version of firmware for your protocol loaded before performing any other configuration procedures.

You can use the **Web Interface** tab to configure protocol settings or you can use the Webpage feature. Optionally, you can modify protocol settings using the Software Settings tab if you are familiar with the parameters.

Assigning IP Addresses to Multiple Devices

Use the appropriate procedure to assign IP addresses to multiple DeviceMaster EIP | MOD | PNIO | UP units.

- Assign a range of IP address to multiple DeviceMaster EIP | MOD | PNIO | UPs

- Same IP address on multiple DeviceMaster EIP | MOD | PNIO | UPs

Assign a Range of IP Address to Multiple DeviceMasters (EIP | MOD | PNIO | UP)

1. Right-click the DeviceMaster EIP | MOD | PNIO | UPs in the *Device List* pane, which you want to assign the IP addresses and then click **Assign IP to Multiple Devices** (optionally, use the **Manage** menu).

2. Enter the starting IP address that you want assigned to the DeviceMaster EIP | MOD | PNIO | UPs.


3. Optionally, enter the Subnet Mask and Default Gateway values that you want to assign to the units. These fields are left blank if you do not enter values.

4. Click **Proceed**.

5. After programming the network information, you need to verify that you have the latest version of firmware for your protocol loaded before performing any other configuration procedures.

You can use the **Web Interface** tab to configure protocol settings or you can use the Webpage feature. Optionally, you can modify protocol settings using the Software Settings tab if you are familiar with the parameters.

Same IP Address on Multiple DeviceMasters (EIP | MOD | PNIO | UP)

If you use duplicate IP addresses for non-local DeviceMaster EIP | MOD | PNIO | UPs, you may lose the DeviceMaster EIP | MOD | PNIO | UP connection completely.

1. Right-click the DeviceMaster EIP | MOD | PNIO | UPs in the *Device List* pane, which you want to assign the IP addresses and then click **Assign IP to Multiple Devices** (optionally, use the **Manage** menu).

2. If you want to assign the same IP address to all units, click **Use the same IP address for all the selected devices**.

3. Click **Yes** to the *Assign Duplicate IP* popup message.

4. Enter the IP address that you want programmed into the DeviceMasters.

5. Click **Proceed**.

6. After programming the network information, you need to verify that you have the latest version of firmware for your protocol loaded before performing any other configuration procedures.

You can use the **Web Interface** tab to configure protocol settings or you can use the Webpage feature. Optionally, you can modify protocol settings using the Software Settings tab if you are familiar with the parameters.

IO-Link Master

Use the following procedure to program network information into a single IO-Link Master at a time.

<mark>If the IO-Link Master is a PNIO (PROFINET IO) model, you must insert the IO-Link Master into PROFINET IO and configure the IP address and IO-Link Master. Use STEP 7 to configure the modules. Refer to the IO-Link Master PROFINET IO User Guide for configuration information.</mark>

> **Note**: *For initial configuration, the IO-Link Master must be on the same network segment.*

1. Highlight the IO-Link Master for which you want to program network information and access the **Properties** screen using one of these methods:

   - Double-click the IO-Link Master in the *Device Tree* or *Device List*.

   - Right-click the IO-Link Master in the *Device Tree* or *Device List* and click **Properties**.

   - Highlight the IO-Link Master in the *Device Tree* or *Device List*, click the **Properties** button.

   - Highlight the IO-Link Master in the *Device Tree* or *Device List*, click the **Manage** menu, and then **Properties**.

2. If necessary, enter the user name and password. In the event that you need to type the user names, remember that they are case-sensitive (Admin, Operator, and User).
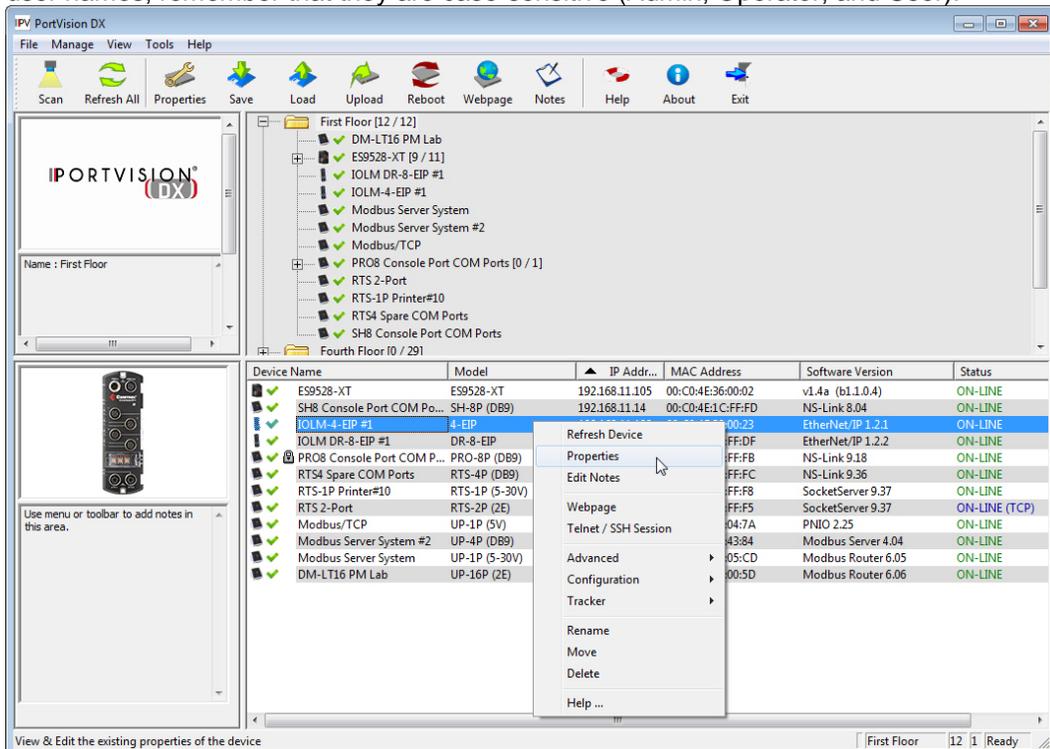
3. Optionally, change the **Device Name**. The default **Device Name** is the last three pairs of numbers from the MAC address.

> **Note**: *The MAC Address and Serial Number fields are automatically populated if the IO-Link Master was discovered during a scan. The Device Status field displays the same status as the Main screen.*

4. Click the appropriate **IP Mode**:

- **DHCP IP** to use the IO-Link Master with DHCP. Contact the Network Administrator to provide the MAC address of the IO-Link Master and ask if you should change the Subnet Mask, or Default Gateway values.

- **Static IP** to program a static IP address and enter the appropriate values for your site.

5. After entering the changes, click **Apply Changes**.

6. Click **Close**.

7. After programming the network information, you need to verify that you have the latest version of software (images and applications) loaded before performing any other configuration procedures.

You can use the **Web Interface** tab to configure IO-Link Master settings or you can use the Webpage feature. Optionally, you can modify IO-Link Master settings using the Software Settings tab if you are familiar with the parameters.

RocketLinx

Use the following procedure to program network information into a single RocketLinx at a time.

You can optionally, program multiple RocketLinx switches at the same time.

> **Note**: *For initial configuration, the RocketLinx must be on the same network segment.*

1. Highlight the RocketLinx for which you want to program network information and access the **Properties** screen using one of these methods:

   - Double-click the RocketLinx in the *Device Tree* or *Device List*.

   - Right-click the RocketLinx in the *Device Tree* or *Device List* and click **Properties**.

   - Highlight the RocketLinx in the *Device Tree* or *Device List*, click the **Properties** button.

   - Highlight the RocketLinx in the *Device Tree* or *Device List*, click the **Manage** menu, and then **Properties**.
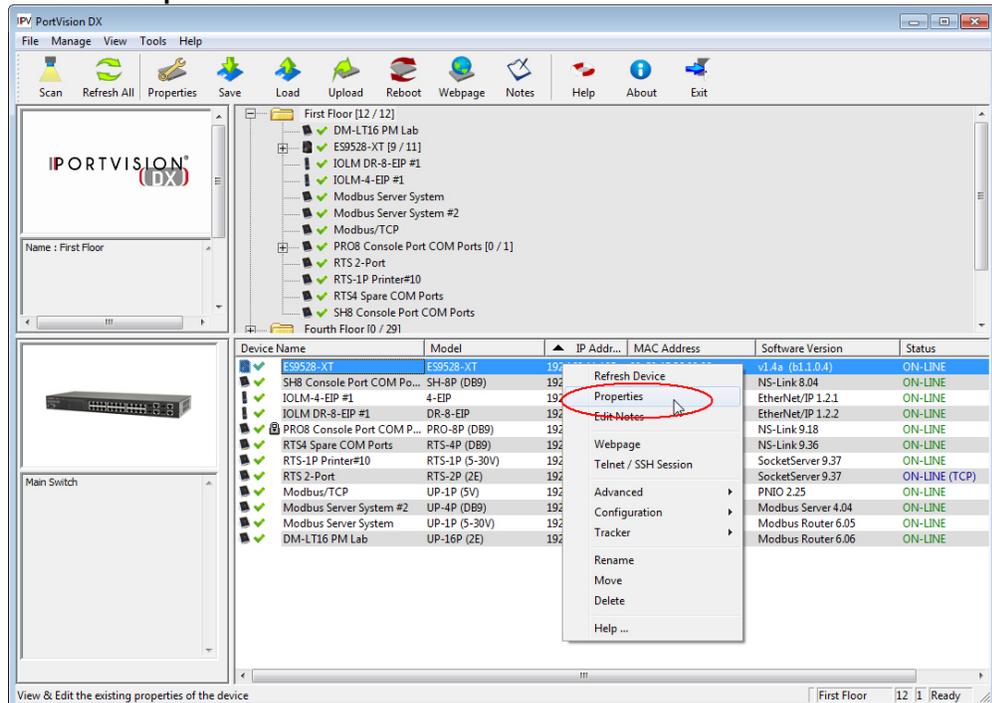
2. If necessary, enter the user name and password.

3. Optionally, change the **Device Name**. The default **Device Name** is the last three pairs of numbers from the MAC address.

> **Note**: *The MAC Address field is automatically populated when the RocketLinx is discovered during a scan.*

4. Optionally, enter the serial number of the RocketLinx in the event that you require it later.

> **Note**: *The **Device Status** field displays the same status as the Main screen.*

5. Click the appropriate **IP Mode**:

- **DHCP IP** to use the RocketLinx with DHCP. Contact the Network Administrator to provide the MAC address of the RocketLinx and ask if you should change the Subnet Mask, or Default Gateway values.

- **Static IP** to program a static IP address and enter the appropriate values for your site.

Note: *PortVision DX does not support DHCP programming on the RocketLinx ES7506. If you want to configure the RocketLinx ES7506, you must use the web interface or CLI.*

6. If using a static IP address, enter a valid IP address, subnet mask, and default gateway for your network.

7. Optionally, select the Network Topology. This is an informational field.

8. After entering the changes, click **Apply Changes**.

9. Click **Close**.

10. After programming the network information, you need to verify that you have the latest version of firmware loaded before performing any other configuration procedures.

You can use the **Web Interface** tab to configure RocketLinx settings or you can use the Webpage feature.

Firmware

Refer to the following pages for information about the firmware for your product:

- DeviceMaster including these models:
    - DM-2000 Series
    - DeviceMaster LT
    - DeviceMaster PRO
    - DeviceMaster RTS
    - DeviceMaster Serial Hub
- DeviceMaster EIP | MOD | PNIO | UP
- IO-Link Master (images and applications)
- RocketLinx (managed switches only)

DeviceMaster (DM-Series | LT | PRO | RTS | Serial Hub)

You may need to update the firmware on the DeviceMaster to support the latest features and functionality. If you have a **DeviceMaster EIP | MOD | PNIO | UP**, see the DeviceMaster EIP | MOD | PNIO | UP Firmware page for protocol-specific firmware.

There are several types of firmware that run on the DeviceMaster:

- *SocketServer* is the default application shipped on most DeviceMaster models, excluding models shipped with protocol-specific firmware for the DeviceMaster EIP | MOD | PNIO | UP.

    Note: *Technical Supports recommends that you update to the latest version of SocketServer before installing an NS-Link device driver or configuring socket ports.*

- *Bootloader* is the Redboot operating system that runs the DeviceMaster during the power on phase, which then starts a default application on the DeviceMaster.

    Note: *Typically, you do not update the Bootloader unless instructed by Technical Support or the download site.*

Checking the SocketServer Version

SocketServer is integrated in the firmware that comes pre-installed on most DeviceMasters, which provides an interface to TCP/IP socket mode configuration and DeviceMaster services.

You should update SocketServer before:

- Configuring serial socket ports using SocketServer.
- Installing an NS-Link device driver for tty or COM ports.

Comtrol recommends verifying that your DeviceMaster contains the latest SocketServer version to avoid installation problems.

Use the following procedure to check the SocketServer version on the DeviceMaster.

1. If necessary, click **Scan**.

2. Check the SocketServer version number (or NS-Link version if you have installed a DeviceMaster NS-Link device driver for your operating system) of the *Software Version* for the DeviceMaster.
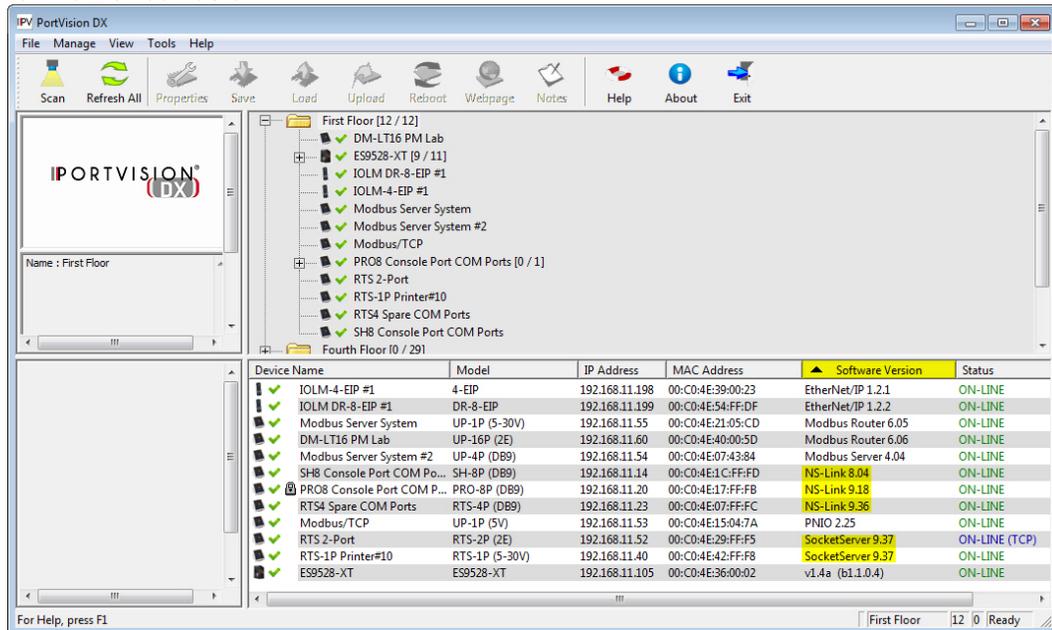
3. Check to see if a later version is available using one of these methods:

   - Comtrol download site

   - Direct link to the Comtrol download directory that contains the latest SocketServer version

   Note: *Although this link goes to the DeviceMaster RTS subdirectory, the firmware for the DeviceMaster family is the same.*

4. If the version on the download site is later than the version on the DeviceMaster, download the file and then go to Uploading SocketServer.

   If the SocketServer version on the DeviceMaster is current, you are ready to continue the installation and configuration process.

5. You can use the appropriate DeviceMaster Guide to complete the DeviceMaster configuration and installation process:
   - NS-Link COM ports - Optionally, refer to the DeviceMaster NS-Link Device Driver Guide for Windows for detailed information about device driver configuration.

   - TCP/IP socket ports - Optionally refer to the SocketServer help system for additional information.

   - NS-Link tty ports - Refer to the readme file packaged with the device driver.

Uploading SocketServer

Use this section to upload SocketServer on the DeviceMaster. Technical Support recommends updating SocketServer before any software installation or configuration to avoid configuration problems.

Note: ***Do not attempt to upload firmware across a wifi connection.***

You can upload one DeviceMaster or several DeviceMasters at a time.

1. Make sure that you have downloaded the latest version.

   Note: *Although this link goes to the DeviceMaster RTS subdirectory, the firmware for the DeviceMaster family is the same.*

2. If necessary, disable DeviceMaster NS-Link driver for Windows before uploading the Bootloader.

   a. Click the **Start** button and open the **Comtrol | DeviceMaster | DeviceMaster Driver Management Console**.

   b. If necessary, click **Yes** to the *User Account Control* pop up message.

   c. Right-click the DeviceMaster that you want to disable.

   d. Select **Disable**.

   e. Click **Ok** to close the *Comtrol Drivers Management Console*.

3. In the *Device List* pane, use one of the following methods to start the upload firmware process:

   • Highlight the DeviceMaster or shift-click multiple DeviceMasters and click the **Upload** button

   • Right-click the DeviceMaster or shift-click multiple DeviceMasters, click **Advanced,** and then **Upload Firmware**

   • Highlight the DeviceMaster or shift-click multiple DeviceMasters, click **Advanced** and then **Upload Firmware** on the *Manage* menu
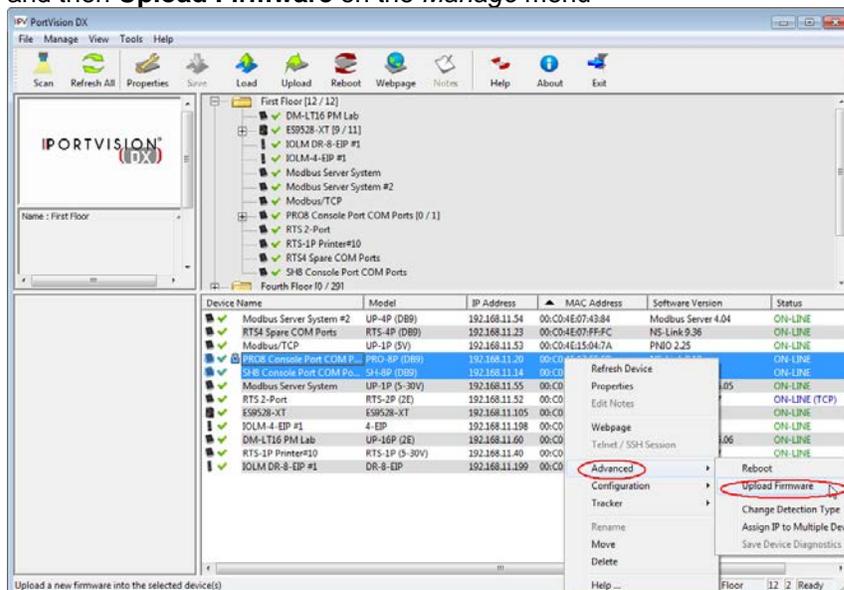
4. **Browse** to the SocketServer **file and then click Open.**
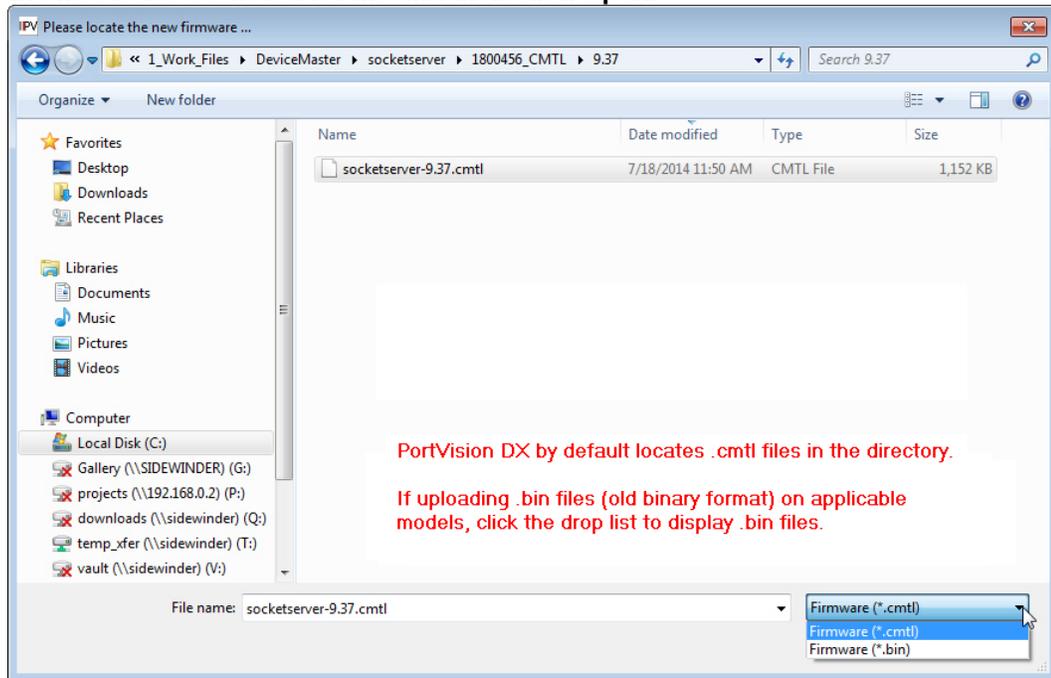
5. Click **Yes** to the *Upload Firmware* message that warns you that this is a sensitive process.

   It may take a few moments for the firmware to upload onto the DeviceMaster. The DeviceMaster reboots itself during the upload process.

6. Click **Ok** to the advisory message about waiting to use the DeviceMaster until the status reads *ON-LINE*. In the next polling cycle, PortVision DX updates the *Device List* pane and displays the new SocketServer version.

7. You can use the *appropriate DeviceMaster Configuration and Installation Guide* to complete the DeviceMaster configuration process.

   - NS-Link COM ports - Optionally, refer to the *DeviceMaster NS-Link Device Driver Guide for Windows* for detailed information about device driver configuration.

   Note: *Make sure that you enable the driver if you disabled it before uploading SocketServer.*

   - TCP/IP socket ports - Optionally refer to the SocketServer help system for additional information.

   - NS-Link tty ports - Refer to the readme file packaged with the device driver.

If the firmware uploads fail and it is on the other side of several switches, a router, or wireless you can use TFTP to upload SocketServer.

Checking the Bootloader Version

Use the following procedure to check the Bootloader version.

Note: *Typically, you do not update the Bootloader unless instructed by Technical Support or the download site.*

1. You can check the <u>Comtrol download site</u> to see if a later version is available.

2. In PortVision DX, right-click the DeviceMaster in the *Device List* pane for which you want to determine the Bootloader version and click **Reboot**.

3. Click **Yes** to the *Confirm Reboot* query.

4. Right-click the DeviceMaster and click **Refresh** as many times as necessary to catch the reboot cycle in the *Device List* pane.

   The Bootloader version displays briefly during the reboot cycle before the default application (SocketServer) loads.
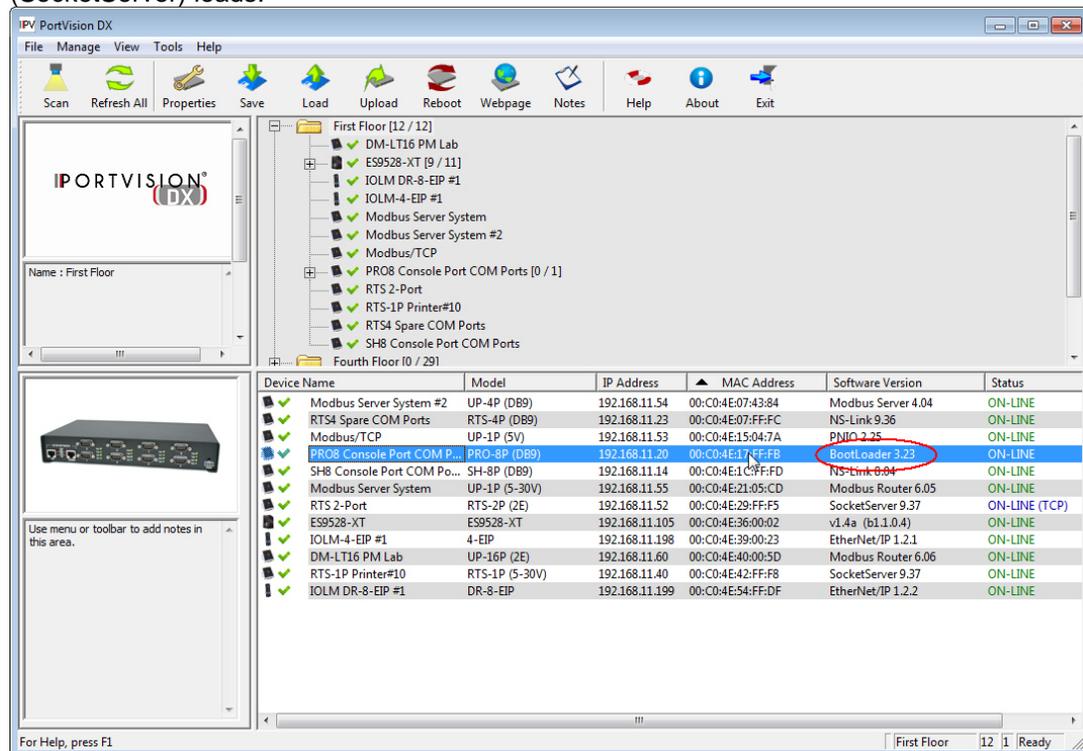
Note: *Although this link goes to the DeviceMaster RTS subdirectory, the firmware for the DeviceMaster family is the same.*

Uploading Bootloader

Typically, do not upload the Bootloader unless advised to by Technical Support or the download site. Technical Support recommends connecting the DeviceMaster directly to a PC or laptop when uploading Bootloader.

**Note:** *Do not attempt to upload firmware across a wifi connection.*

You may also want to connect the DeviceMaster to a UPS while uploading Bootloader to avoid any power interruption. A power interruption while loading Bootloader will require that you send the DeviceMaster back to Comtrol for repair.

> **Note:** *Only upload Bootloader to one DeviceMaster at a time.*

1. Make sure that you have downloaded the latest version.

> **Note:** *Although this link goes to the DeviceMaster RTS subdirectory, the firmware for the DeviceMaster family is the same.*

2. If necessary, disable DeviceMaster NS-Link driver for Windows before uploading the Bootloader.

   a. Click the **Start** button and open the **Comtrol | DeviceMaster | DeviceMaster Driver Management Console**.

   b. If necessary, click **Yes** to the *User Account Control* pop up message.

   c. Right-click the DeviceMaster that you want to disable.

   d. Select **Disable**.

   e. Click **Ok** to close the *Comtrol Drivers Management Console*.

3. Right-click the DeviceMaster in the *Device List* pane for which you want to update, click **Advanced** and then **Upload Firmware**.
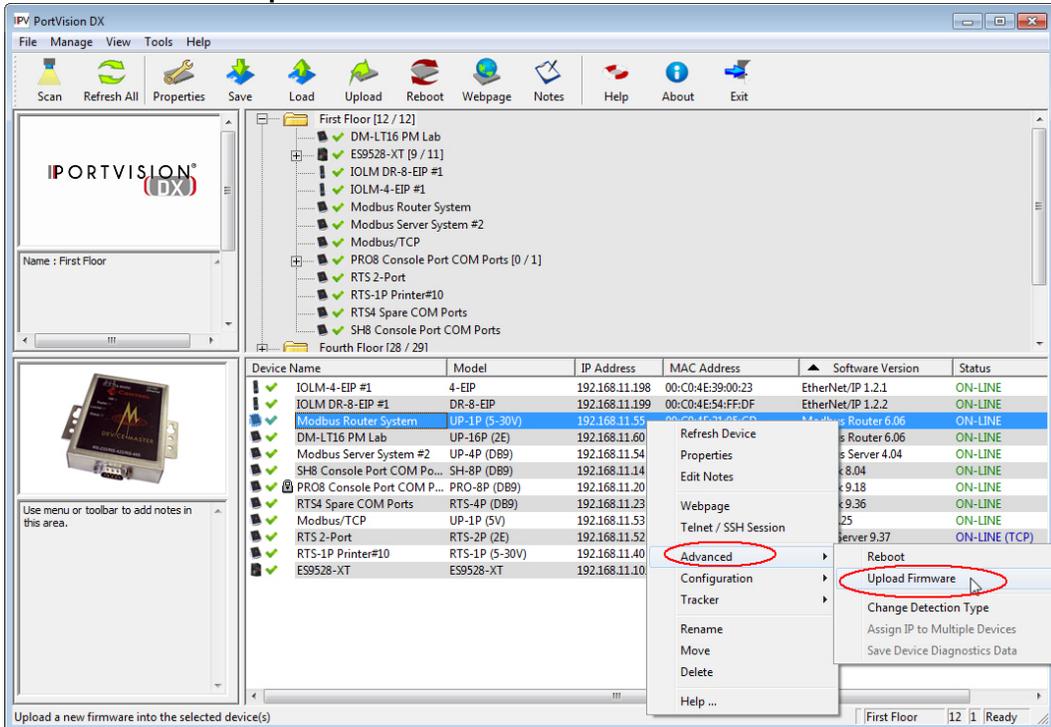
4. Browse to the Bootloader file, and then click **Open** (*Please locate the new firmware*), and then click **Yes** (*Upload Firmware*).
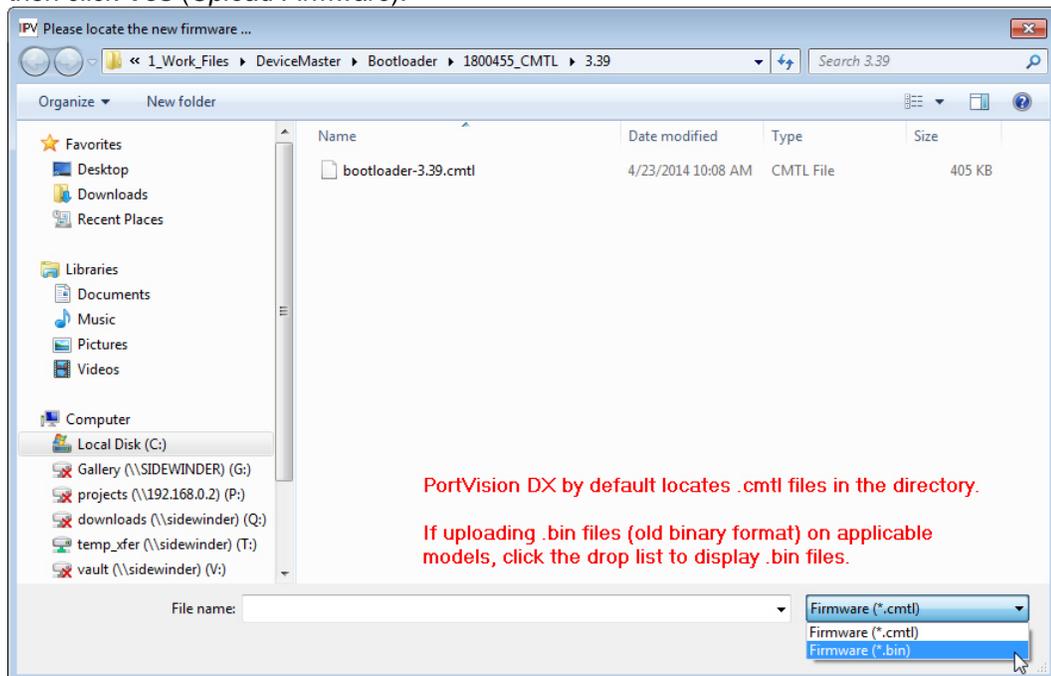
5. It may take a few moments for the firmware to upload onto the DeviceMaster. The DeviceMaster reboots itself during the upload process.

6. Click **Ok** to the advisory message about waiting to use the DeviceMaster until the status reads *ON-LINE*.

Note: *Make sure that you enable the driver if you disabled it before uploading the Bootloader.*

DeviceMaster EIP | MOD | PNIO | UP

You may need to update the firmware on the DeviceMaster EIP | MOD | PNIO | UP to support the latest features and functionality.

There are several types of firmware that run on the DeviceMaster EIP | MOD | PNIO | UP:

- *SocketServer* is the default application shipped on some DeviceMaster EIP | MOD | PNIO | UP models, excluding models shipped with protocol-specific firmware for the DeviceMaster EIP | MOD | PNIO | UP.

  If your DeviceMaster EIP | MOD | PNIO | UP has SocketServer loaded, you will need to load the appropriate protocol for your environment, unless you want to operate the DeviceMaster EIP | MOD | PNIO | UP with the NS-Link device driver and SocketServer.

- Protocol-specific firmware for the DeviceMaster EIP | MOD | PNIO | UP. You can use these links to check the download site for the latest version.

    - [EtherNet/IP](#)

    - [Modbus Router](#)

    - [Modbus Server](#)

    - [Modbus/TCP](#)

    - [PROFINET IO](#)

  Typically, one of the first steps after installing the hardware is to upload firmware that meets your protocol requirements, which overwrites SocketServer.

  DeviceMaster EIP | MOD | PNIO | UP models that are shipped from the factory with one of the protocols listed above includes protocol identification on the compliance label on the DeviceMaster EIP | MOD | PNIO | UP and PortVision DX displays the protocol type in the *Software Version* column on the main page..

- *Bootloader* is the Redboot operating system that runs the DeviceMaster EIP | MOD | PNIO | UP during the power on phase, which then starts a default application on the DeviceMaster EIP | MOD | PNIO | UP. Typically, you do not update the Bootloader unless instructed by Technical Support or the web site.

Checking Protocol-Specific Firmware Versions

The DeviceMaster EIP | MOD | PNIO | UP may or may not have come from the factory loaded with the protocol firmware that you want to configure.

The first step is to check to see if the appropriate firmware is loaded and if it is the latest version.

1. If necessary, click **Scan** so that the DeviceMaster EIP | MOD | PNIO | UP displays.

2. Check the name and version number of the *Software Version* loaded on the DeviceMaster EIP | MOD | PNIO | UP.

3. If the *Software Version* displays as SocketServer, you will need to download the protocol firmware that you want to configure.

4. If the appropriate protocol displays, check the Comtrol download site to see if a later version is available.

5. If the version on the download site is later than the version on the DeviceMaster EIP | MOD | PNIO | UP, download the file and then go to Uploading Protocol-Specific Firmware.

If the firmware type is the protocol that you want to configure and the version on the DeviceMaster EIP | MOD | PNIO | UP is current, you are ready to open the configuration web page using the DeviceMaster EIP | MOD | PNIO | UP IP address or highlight the DeviceMaster EIP | MOD | PNIO | UP in PortVision DX and click the **Webpage** button.

You can download and access the latest *Quick Start* and *User Guides* for your protocol for configuration procedures.

Uploading Protocol-Specific Firmware

Use this section to upload protocol firmware on the DeviceMaster EIP | MOD | PNIO | UP. Technical Support recommends updating firmware before any software installation or configuration to avoid configuration problems.

**Note:** *Do not attempt to upload firmware across a wifi connection.*

You can upload one DeviceMaster EIP | MOD | PNIO | UP or several DeviceMasters at a time.

1. Make sure that you have downloaded the latest version.

2. Unpackage the firmware assembly by executing the .msi file.

   Note: *If you attempt to unpackage the .msi file of the previous or same version on the same system, the installation program prompts you to remove the existing version.*

3. In the *Device List* pane, use one of these methods to start the upload firmware process:

   - Highlight the DeviceMaster EIP | MOD | PNIO | UP or shift-click multiple DeviceMaster EIP | MOD | PNIO | UPs and click the **Upload** button

   - Right-click the DeviceMaster EIP | MOD | PNIO | UP or shift-click multiple DeviceMaster EIP | MOD | PNIO | UPs, click **Advanced,** and then **Upload Firmware**

- Highlight the DeviceMaster EIP | MOD | PNIO | UP or shift-click multiple DeviceMaster EIP | MOD | PNIO | UPs, click **Advanced** and then **Upload Firmware** on the *Manage* menu
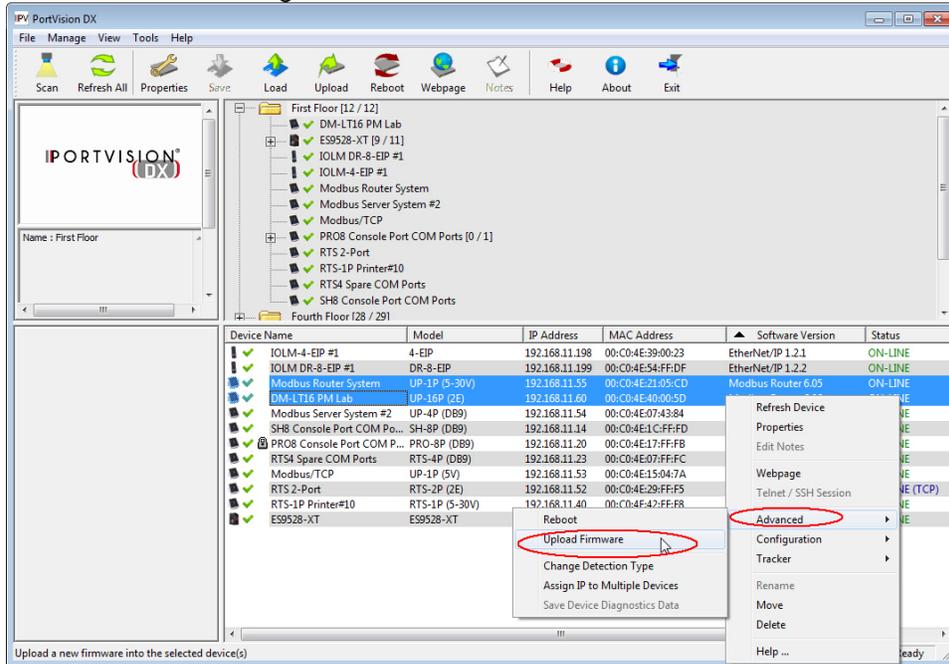
4. **Browse**, click the firmware (**.cmtl**) file, **Open** (*Please locate the new firmware*), and then click **Yes** (*Upload Firmware*).
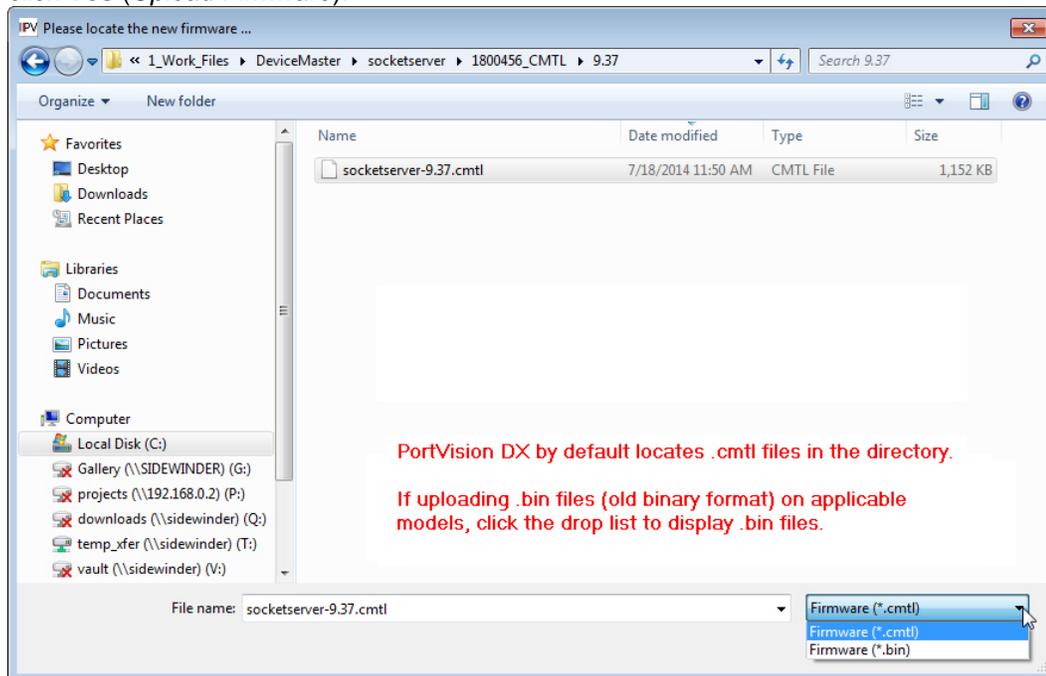
5. It may take a few moments for the firmware to upload onto the DeviceMaster EIP | MOD | PNIO | UP. The DeviceMaster EIP | MOD | PNIO | UP reboots itself during the upload process.

6. Click **Ok** to the advisory message about waiting to use the DeviceMaster EIP | MOD | PNIO | UP until the status reads *ON-LINE*. In the next polling cycle, PortVision DX will update the *Device List* pane and display the new firmware version.

You can use PortVision DX to download and access the latest *Quick Start* and *User Guides* for your protocol.

If the firmware uploads fail and it is on the other side of several switches, a router, or wireless you can use TFTP to upload firmware.

Checking the Bootloader Version

Note: *Typically, you do not update the Bootloader unless instructed by Technical Support or the download site.*

Use the following procedure to check the Bootloader version.

1. You can check the Comtrol download site to see if a later version is available.

2. In PortVision DX, right-click the DeviceMaster EIP | MOD | PNIO | UP in the *Device List* pane for which you want to determine the Bootloader version and click **Reboot**.

3. Click **Yes** to the *Confirm Reboot* query.

4. Right-click the DeviceMaster EIP | MOD | PNIO | UP and click **Refresh** as many times as necessary to catch the reboot cycle in the *Device List* pane.
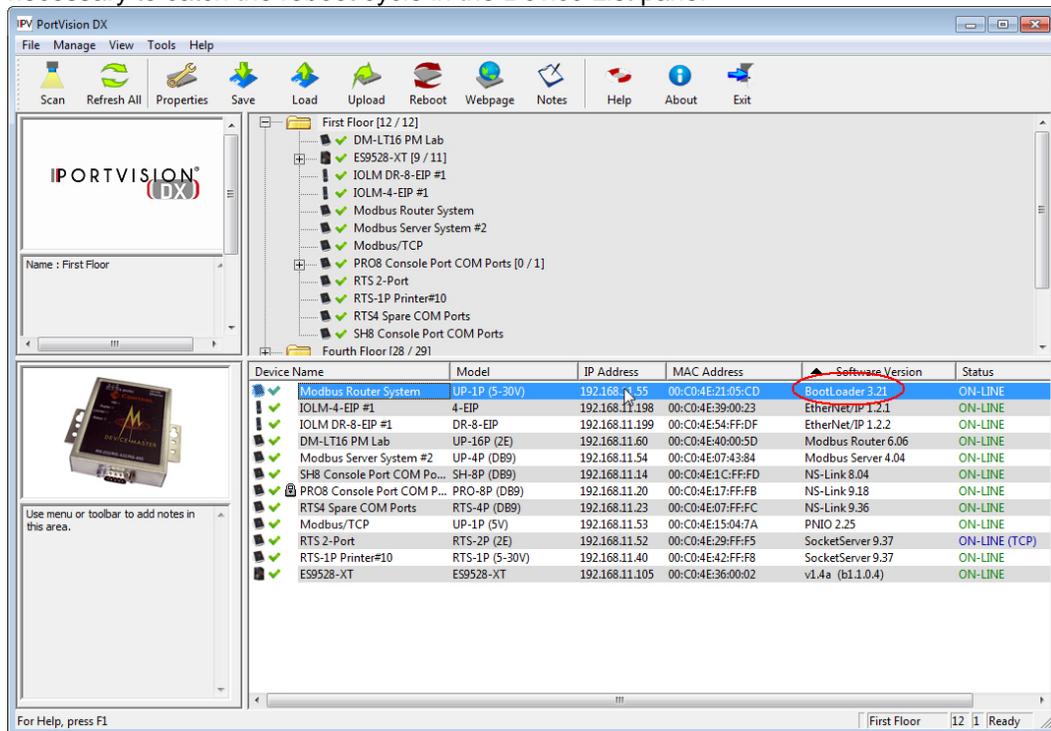
The Bootloader version is briefly displayed during the reboot cycle before the default application loads.

Uploading Bootloader

Typically, do not upload the Bootloader unless advised to by Technical Support or the download site.

Note: *Do not attempt to upload firmware across a wifi connection.*

Technical Support recommends connecting the DeviceMaster EIP | MOD | PNIO | UP directly to a PC or laptop when uploading Bootloader. You may also want to connect the DeviceMaster EIP | MOD | PNIO | UP to a UPS while uploading Bootloader to avoid any power interruption. A power interruption while loading Bootloader will require that you send the DeviceMaster EIP | MOD | PNIO | UP back to Comtrol for repair.

Note: *Only upload Bootloader to one DeviceMaster EIP | MOD | PNIO | UP at a time.*

1. Make sure that you have downloaded the latest version.

2. Right-click the DeviceMaster EIP | MOD | PNIO | UP in the *Device List* pane for which you want to update, click **Advanced** and then **Upload Firmware**.

3. Browse to the Bootloader file, and then click **Open** (*Please locate the new firmware*), and then click **Yes** (*Upload Firmware*).
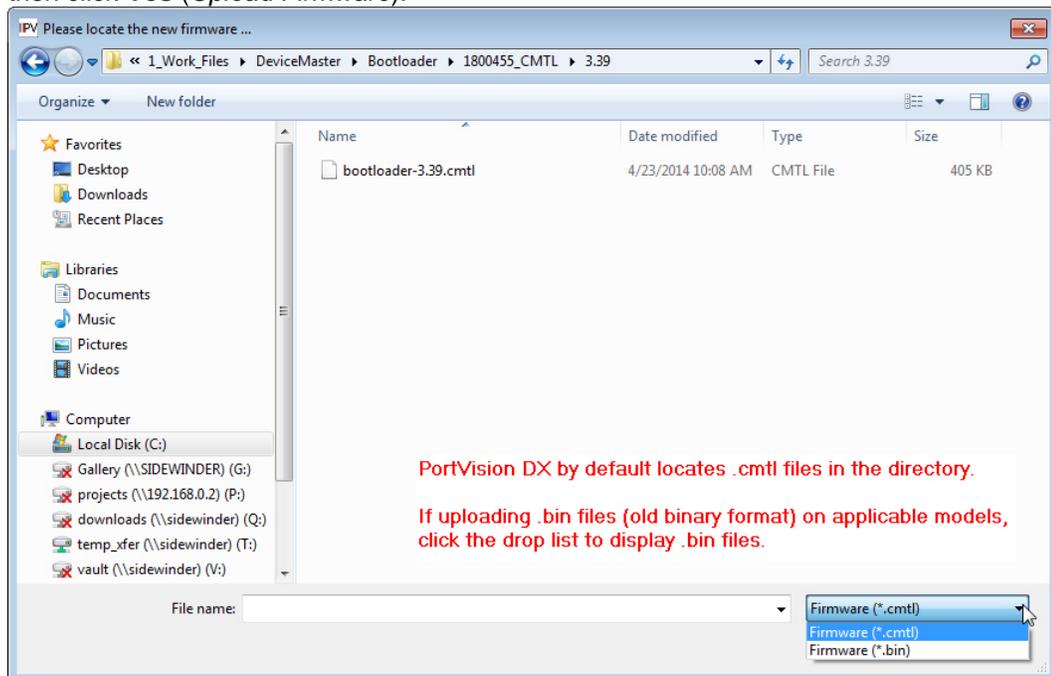
4. It may take a few moments for the firmware to upload onto the DeviceMaster EIP | MOD | PNIO | UP. The DeviceMaster EIP | MOD | PNIO | UP reboots itself during the upload process.

5. Click **Ok** to the advisory message about waiting to use the DeviceMaster EIP | MOD | PNIO | UP until the status reads *ON-LINE*.

IO-Link Master

The following topics are discussed in this section:

- [Images and software](#)

- [Checking image and application versions](#)

- [Uploading image and application files](#)

EtherNet/IP and Modbus/TCP

Images and Applications

You may need to update the images or application on the IO-Link Master to support the [latest features](#) and functionality.

Images	Description
U-Boot Bootloader	U-Boot is a high-level bootloader that has networking and console command line capabilities. Among other things, it implements a TFTP server and Comtrol's new discovery protocol. This verifies that a Linux kernel image exists in NAND and then copies it to RAM, which starts the IO-Link Master. The U-Boot version is displayed after the image name.
FPGA	The FPGA partition/image contains configuration data used by programmable hardware within the IO-Link Master unit. Make sure that you download the appropriate FPGA image for your hardware model and protocol type.
uImage - Primary/Backup	The uImage contains the Linux kernel and the RAM-resident root file system. It does not contain industrial protocol support or application-specific features. There is a Primary and Backup version loaded on the IO-Link Master. The IO-Link Master automatically reloads the Backup uImage if the file system corrupted. The uImage version is displayed after the Primary/Backup uImage.
Application Base	The Application Base image comprises a flash-resident file system containing application and protocol support. The Application Base is built from a collection of [application subassemblies](#) -- each of which may be updated individually between releases of the application base as a whole. The application subassemblies in the Application Base image are displayed in the lower portion of this page. The Application Base assembly has a 3-tuple version number: (for example, 1.4.4).

Application subassemblies have 4-tuple version numbers (for example, 1.4.4.3). The first two values in a subassembly version correspond to the version of the application base assembly for which it was built and tested.

For example, a subassembly with version 1.4.4.3 was tested with application base version 1.4.4. When using this page or PortVision DX, an application subassembly can install only if its version number matches that of the installed application base assembly. A subassembly with a version of 1.20.2.4 will only install if the application base version is 1.20.2. It will not install on a device with application base version 1.09.0 or 1.20.0

Application Subassemblies	Description
application-manager	The Application Manager version loaded on the IO-Link Master.
configuration-manager	The Configuration Manager version loaded on the IO-Link Master.
discovery-protocol	The Discovery Protocol version loaded on the IO-Link Master.
ethernetip	The EtherNet/IP version loaded on the IO-Link Master.
event-log	The Event log version loaded on the IO-Link Master.
iolink-driver	The IO-Link version loaded on the IO-Link Master.
modbus	The Modbus version loaded on the IO-Link Master.
web-help	The web help system version loaded on the IO-Link Master.
web-user-interface	The web interface version loaded on the IO-Link Master.

Checking the Software Versions

The IO-Link Master has multiple images and applications loaded.

The PortVision DX *List Device* pane only displays the application base version.
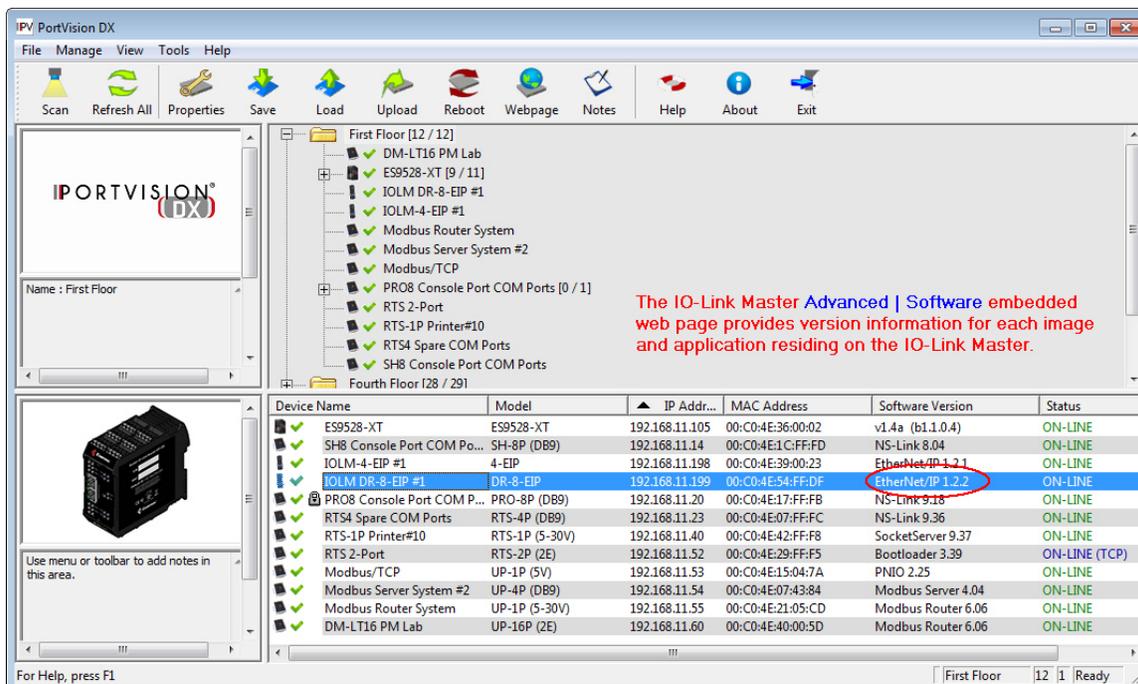
The fastest and easiest way to determine all of your software versions is to view the IO-Link Master **Advanced/Software** page.

1. Highlight the IO-Link Master in the *Device List* pane and click **Webpage**.

2. Click **Advanced** and then **Software**.

   Note: *Optionally, you can click **Help | Support**, which also provides complete image and application version information.*

3. Check the Comtrol download site for the latest versions.

Uploading Images and Applications

You can use the following procedure to load images and applications on the IO-Link Master. Optionally, you can use the IO-Link Master **Advanced/Software** page in the web interface to load images or applications.

Note: *Do not attempt to upload images or applications across a wifi connection.*

1. Make sure that you have downloaded the latest version.

2. In the *Device List* pane that you want to update or shift-click multiple IO-Link Masters, and use one of the following methods:

   • Highlight or shift-click multiple IO-Link Masters and click the **Upload** button

   • Right-click or shift-click multiple IO-Link Masters, click **Advanced**, and then **Upload Firmware**

   • Highlight or shift-click multiple IO-Link Masters, click **Advanced** and then **Upload Firmware** on the *Manage* menu
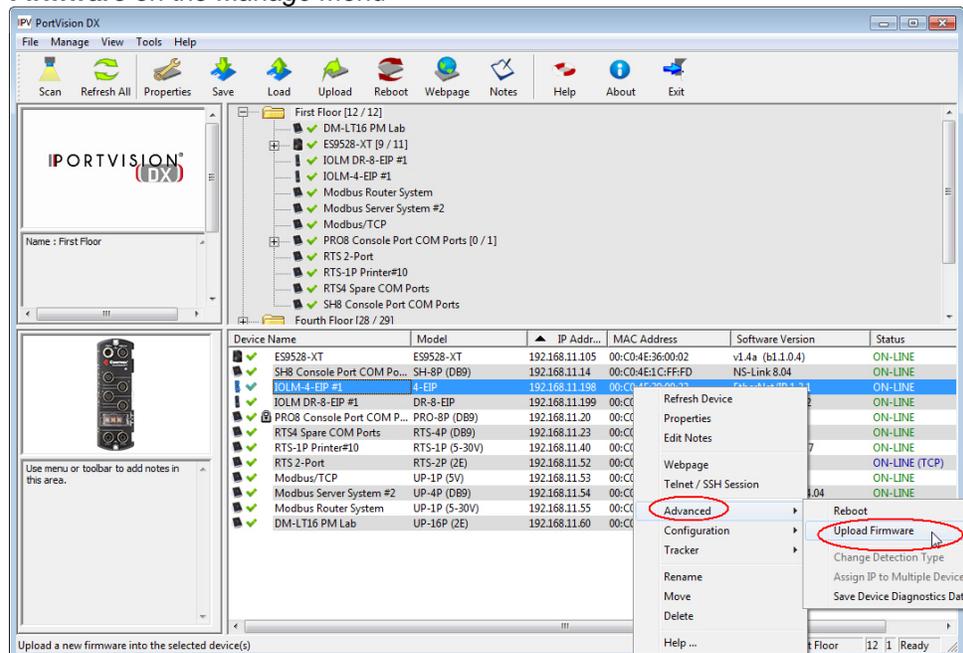
3. **Browse** to the image or application file, highlight the file, and then click **Open**.
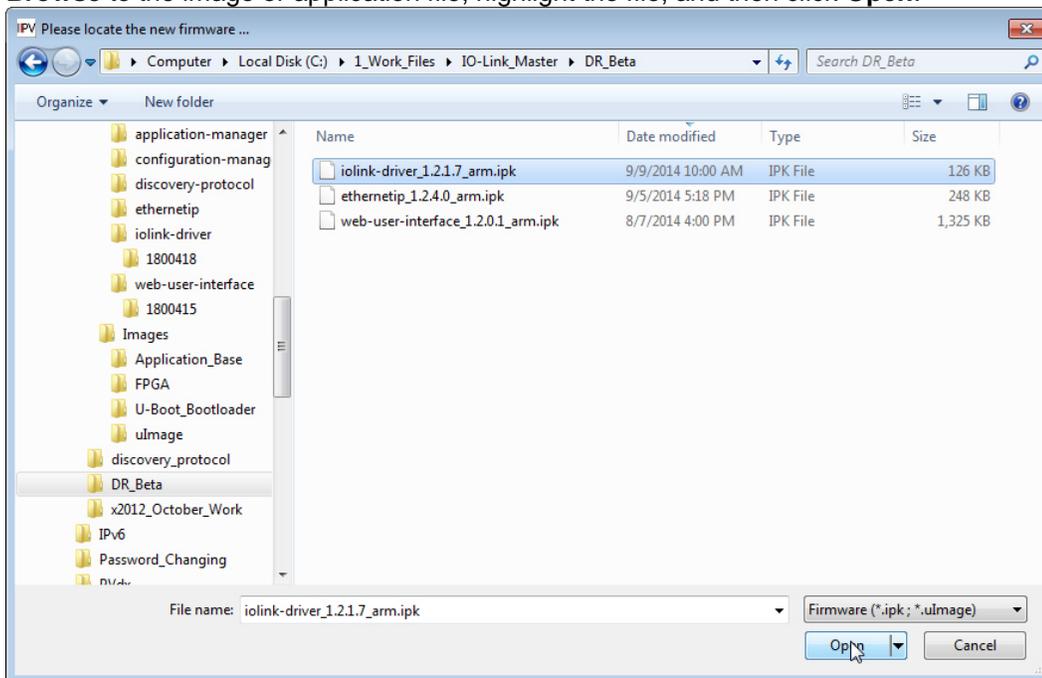
4. Click **Yes** to the *Upload Firmware* message that warns you that this is a sensitive process.

   It may take a few moments for the firmware to upload onto the IO-Link Master.

5. Click **Ok** to the advisory message about waiting to use the IO-Link Master until the status reads *ON-LINE*. In the next polling cycle.

6. You can use the appropriate IO-Link Master document to complete the IO-Link Master configuration process.

RocketLinx (Managed)

RocketLinx managed switches contain firmware for which an updated may be available. Typically, firmware updates provide new features or functionality.

There are two types of firmware that run on managed RocketLinx switches, Bootloader and the *Configuration Web Page* firmware. You can check for latest version of firmware for your RocketLinx on the download site.

- ES7506

- ES7510

- ES7510-XT

- ES7528

- ES8508 and ES8508-XT

- ES8508F and ES8508F-XT (Single- and Multi-Mode)

- ES8509-XT

- ES8510 and ES8510-XT

- ES8510-XTE

- ES9528 and ES9528-XT

> **Note:** *The above list reflects the managed RocketLinx switches at the release of this PortVision DX help system. See the Comtrol web site for the latest RocketLinx models.*

Checking the Configuration Web Page Version

The web user interface for configuration is integrated in the firmware that comes pre-installed on managed RocketLinx switches.

You may want to verify that you have the latest web user interface before configuring the RocketLinx. Comtrol recommends verifying that your RocketLinx contains the latest web user interface version so that you have the latest features and functionality.

Use the following procedure to check the web user interface version on the RocketLinx.

1. If necessary, click **Scan**.

2. Check the web user interface version number of the *Software Version* for the RocketLinx.
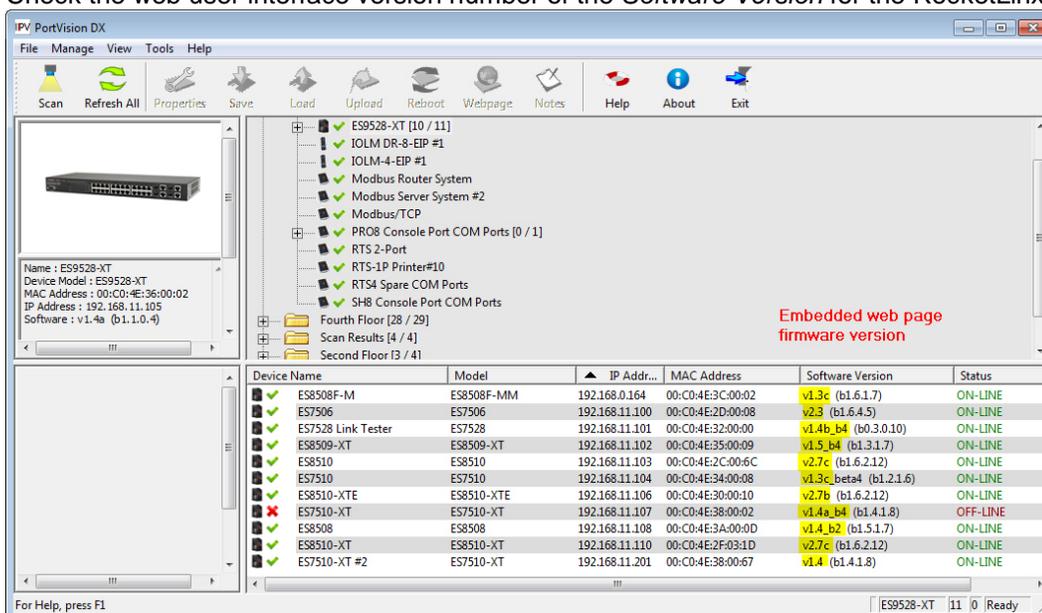
3. Check the Comtrol download site to see if a later version is available.

4. If the version on the download site is later than the version on the RocketLinx, download the file and then go to Uploading RocketLinx Firmware.

5. If the firmware version on the RocketLinx is current, you are ready to continue the installation and configuration process.

6. You can use the appropriate User Guide to complete the RocketLinx configuration process.

Uploading Firmware

Use this page to upload the web user interface on the RocketLinx. Technical Support recommends updating the firmware before initial configuration to make sure that you have all of the features and functionality available for your RocketLinx model.

Note: *Do not attempt to upload firmware or Bootloader across a wifi connection.*

You can upload one RocketLinx or several RocketLinx switches at a time.

Uploading Firmware on a Single RocketLinx

Use this procedure to load the latest firmware on one RocketLinx.

1. Make sure that you have downloaded the latest firmware version.

2. Highlight the RocketLinx on the *Main* screen in the *Device List* pane that you want to update and use one of the following methods:

    - Click the **Upload** button

    - Right-click and then click **Advanced** and then **Upload Firmware**

    - Click **Advanced** and then **Upload Firmware** on the *Manage* menu

3. Browse to the firmware **.bin** file and then click **Open**.

4. Click **Yes** to the *Upload Firmware* message that warns you that this is a sensitive process.

5. It may take a few moments for the firmware to upload onto the RocketLinx. The RocketLinx reboots itself during the upload process.

6. Click **Ok** to the advisory message about waiting to use the RocketLinx until the status reads *ON-LINE*. In the next polling cycle, PortVision DX updates the *Device List* pane and displays the new web user interface version.

7. You can use the appropriate User Guide to complete the RocketLinx configuration process.

Uploading the Web User Interface on Multiple RocketLinx Switches

Use this procedure to load the latest web user interface on several RocketLinx switches. You can only load firmware on multiple switches if they are all of the same model, since the web user interface is model-specific.

> **Note:** *Do **not** use this procedure to upload Bootloader. Technical Support does not recommend uploading Bootloader on multiple RocketLinx switches.*

1. Make sure that you have downloaded the latest firmware version.

2. Shift-click the RocketLinx switches for which you want to update and use one of the following methods:

   - Click the **Upload** button

   - Right-click and then click **Advanced** and then **Upload Firmware**

   - Click **Advanced** and then **Upload Firmware** on the *Manage* menu

3. Browse to the firmware **.bin** file and then click **Open**.

4. Click **Yes** to the *Upload Firmware* message that warns you that this is a sensitive process.

5. It may take a few moments for the firmware to upload onto the RocketLinx. The RocketLinx reboots itself during the upload process.

6. Click **Ok** to the advisory message about waiting to use the RocketLinx until the status reads *ON-LINE*. In the next polling cycle, PortVision DX updates the *Device List* pane and displays the firmware version.

7. You can use the CD that shipped with your product for installation procedures or use the appropriate User Guide to complete the RocketLinx configuration process.

Checking the Bootloader Version

Note: *Typically, you do not update the Bootloader unless instructed by Technical Support or the download site.*

Use the following procedure to check the Bootloader version.

1. In PortVision DX, right-click the RocketLinx for which you want to determine the Bootloader version.
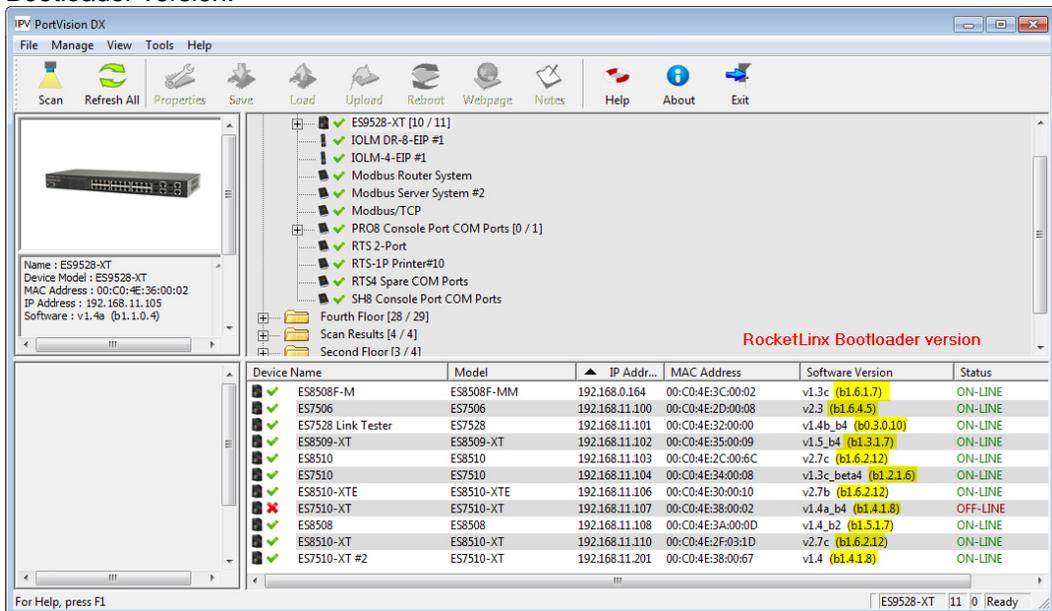
2. You can check the Comtrol download site to see if a later version is available.

Uploading Bootloader

Typically, do not upload the Bootloader unless advised to by Technical Support or the download site.

Technical Support recommends connecting the RocketLinx directly to a PC or laptop when uploading Bootloader. You may also want to connect the RocketLinx to a UPS while uploading Bootloader to avoid any power interruption. A power interruption while loading Bootloader will require that you send the RocketLinx back to Comtrol for repair.

> **Note**: *Only upload Bootloader to one RocketLinx at a time.*

1. Make sure that you have located Bootloader downloaded the <u>latest version</u>.

2. Right-click the RocketLinx in the *Device List* pane for which you want to update, click **Advanced** and then **Upload Firmware**.
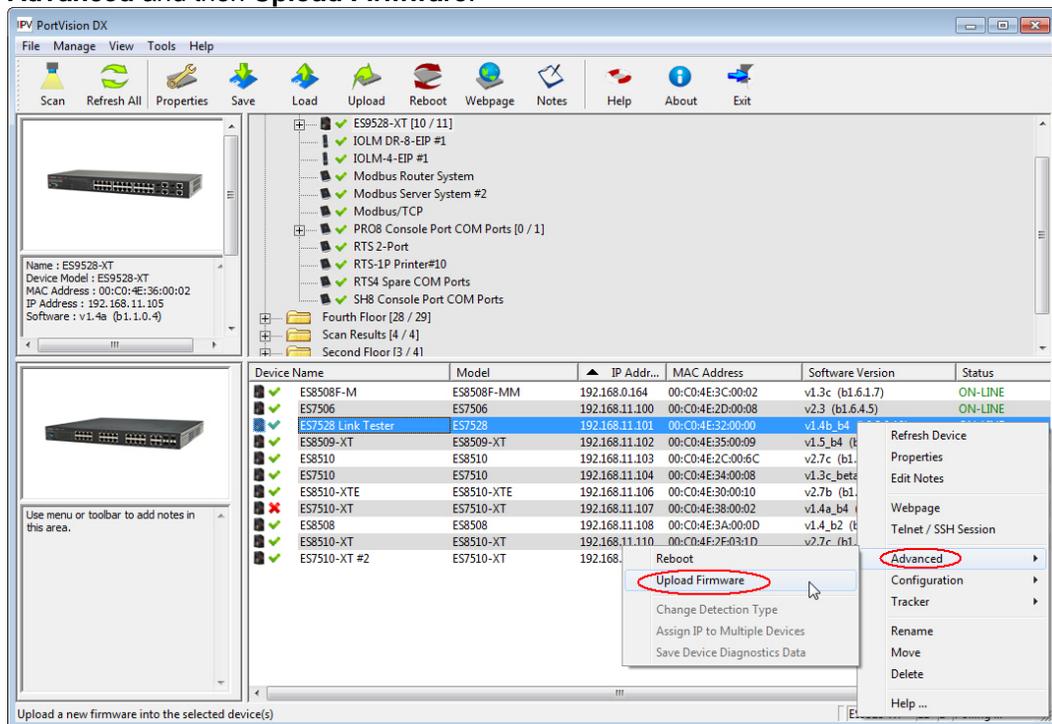
3. Browse to the Bootloader **.bin** file, and then click **Open** (*Please locate the new firmware*), and then click **Yes** (*Upload Firmware*).
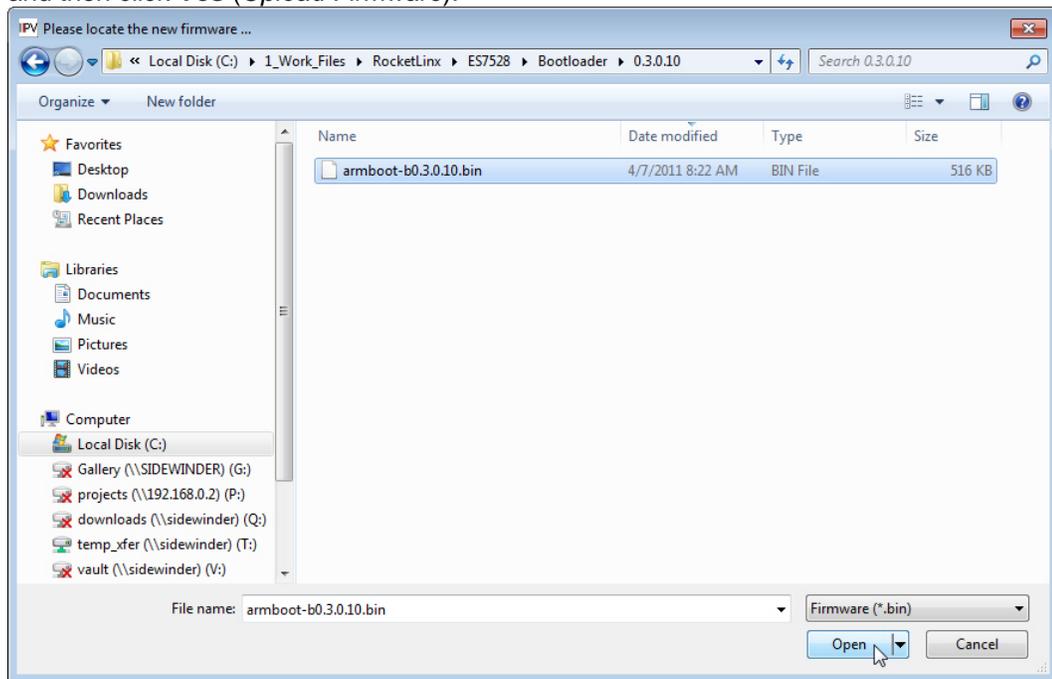
4. It may take a few moments for the firmware to upload onto the RocketLinx. The RocketLinx reboots itself during the upload process.

5. Click **Ok** to the advisory message about waiting to use the RocketLinx until the status reads *ON-LINE*.

Software Settings

The DeviceMaster (DM-Series, LT, PRO, RTS, Serial Hub), DeviceMaster (EIP | MOD | PNIO | UP), and IO-Link Master provide the **Software Settings** tab.

The **Software Settings** tab on the **Properties** screen contains the configuration parameters for the DeviceMaster model or IO-Link Master web interface configuration. You can do the following using the **Software Settings** tab:

- Save device configuration files
- Load device configuration files on similar DeviceMasters, DeviceMaster EIP | MOD | PNIO | UPs, or IO-Link Masters
- Review or edit software settings

    Note: *You must use the embedded web page to edit software settings for the IO-Link Master family or the DeviceMaster EIP | MOD | PNIO | UP, this operation is not supported in the Software Settings tab for these products.*

If you are not familiar with the software parameters for your DeviceMaster, you may want to use the **Web Interface** tab to access the DeviceMaster configuration pages. You must know valid values for software settings parameters to use the **Software Settings** tab. Although the parameters on the **Software Settings** tab reflect the contents of the device's configuration, the order of the parameters on this tab are not be in the same order as the settings in the web interface.

You can access the **Software Settings** tab on the **Properties** screen by using one of these methods:

- Double-click the device in the *Device Tree* or *Device List*.

- Right-click the device in the *Device Tree* or *Device List* and click **Properties**.

- Highlight the device in the *Device Tree* or *Device List*, click the **Properties** button.

- Highlight the device in the *Device Tree* or *Device List*, click the **Manage** menu, and then **Properties**.

DeviceMaster (DM-Series | LT | PRO | RTS | Serial Hub)

The **Software Settings** tab on the **Properties** screen contains configuration parameters for SocketServer and does not contain NS-Link device driver configuration parameters. SocketServer is used to configure sockets and set up serial tunneling.

You can refer to the [SocketServer help system](#) or use the **Web Interface** tab to open the help system for information about the parameters.

If your site is running different versions of SocketServer, you may notice that the parameter categories may not be in the same order or contain the same parameters.

If you are using the **Software Settings** tab to edit parameters and you want to clone port characteristics, you can use the SocketServer web page to clone port parameters.

> **Note***: If the **Software Settings** tab does not appear, that means that the DeviceMaster is not available for IP connection. This could mean that an incorrect user name or password was entered or that you are operating in MAC mode.*

Security Considerations

The following list provides basic PortVision DX operations that are affected how the DeviceMaster interacts with PortVision DX when security is enabled using the web interface (SocketServer/NS-Link).

- PortVision DX must scan the DeviceMaster before configuring security.

- PortVision DX locates the DeviceMaster before setting either **Secure Data Mode** or **Secure Config Mode**.

- If PortVision DX discovers the DeviceMaster after setting security, the following conditions occur:

  - The IP address of the DeviceMaster does not display.

  - The **Software Settings** and **Web Interface** tabs are not present in the *Properties* page.

  - The **IP mode** displays as DHCP without the ability to modify.

    - The **Upload** and **Reboot** icons are grayed out and the options are disabled in the popup menus.

> **Note**: *If the DeviceMaster was previously configured with security, PortVision DX features are reduced.*

Accessing the Software Settings Tab

You can access the **Software Settings** tab on the **Properties** screen using one of these methods:

- Double-click the DeviceMaster in the *Device Tree* or *Device List*.

- Right-click the DeviceMaster in the *Device Tree* or *Device List* and click **Properties**.

- Highlight the DeviceMaster in the *Device Tree* or *Device List*, click the **Properties** button.

- Highlight the DeviceMaster in the *Device Tree* or *Device List*, click the **Manage** menu, and then **Properties**.

DeviceMaster EIP | MOD | PNIO | UP

The **Software Settings** tab on the **Properties** screen provides a way to review the firmware configuration values for your DeviceMaster EIP | MOD | PNIO | UP.

You can refer to the User Guide for your protocol or reference the **Web Interface** tab for information about the configuration parameters.

> **Note:** *If the **Software Settings** tab does not appear, that means that the DeviceMaster EIP | MOD | PNIO | UP is not available for IP connection. This could mean that an incorrect user name or password was entered, or it is in MAC mode (DIsable IP), which is not supported in the DeviceMaster EIP | MOD | PNIO | UP.*

Accessing the Software Settings Tab

You can access the **Software Settings** tab using one of these methods:

- Double-click the DeviceMaster EIP | MOD | PNIO | UP in the *Device Tree* or *Device List*.

- Right-click the DeviceMaster EIP | MOD | PNIO | UP in the *Device Tree* or *Device List* and click **Properties**.

- Highlight the DeviceMaster EIP | MOD | PNIO | UP in the *Device Tree* or *Device List*, click the **Properties** button.

- Highlight the DeviceMaster EIP | MOD | PNIO | UP in the *Device Tree* or *Device List*, click the **Manage** menu, and then **Properties**.

IO-Link Master

The **Software Settings** tab on the **Properties** screen provides a way to review the firmware configuration values for your IO-Link Master.

If you save and load configuration files for an IO-Link Master, the **Password** fields are populated with passwords (hashed), which means that the IO-Link Master had valid passwords when they saved the configuration file. If they send that same file back to any IO-Link Master, it sets the password of that IO-Link Master accordingly.

> **Note:** *If the **Software Settings** tab does not appear, that means that the IO-Link Master is not available for connection. This could mean that an incorrect user name or password was entered. Make sure that you initial capitalize the user names, Admin, User, or Operator.*

Accessing Configuration Web Pages

This page discusses how to access the Comtrol Ethernet attached product configuration web page and where to locate information about configuration options and procedures.

Comtrol Ethernet attached products provide a browser-based configuration page that can be accessed using one of these methods.

- Entering the IP address of the Comtrol Ethernet attached product in your web browser.

- Highlight the Comtrol Ethernet attached product in the *List View* pane and click the **Webpage** button.

- Right-click the Comtrol Ethernet attached product in the *List View* pane and click **Webpage** from the submenu.

- Use the **Web Interface** tab in the *Properties* screen to open the web page.

Locating Configuration Web Page Information

You can use these links to locate configuration information for the following products:

- DeviceMaster DM-Series | LT | PRO | RTS | Serial Hub (SocketServer): Refer to the SocketServer help system or the appropriate document for your product:

    - DeviceMaster Installation and Configuration Guide for the DM-Series | DeviceMaster PRO | DeviceMaster RTS | DeviceMaster Serial Hub

    - DeviceMaster LT User Guide

- DeviceMaster EIP | MOD | PNIO | UP

    - EtherNet/IP: Refer to the *EtherNet/IP User Guide* and *EtherNet/IP Interface Configuration Quick Start* for detailed information.

    - Modbus Router: Refer to the *Modbus Router User Guide* for detailed information.

    - Modbus Server: Refer to the *Modbus Server User Guide* for detailed information.

    - Modbus/TCP: Refer to the *Modbus/TCP User Guide* and *Modbus/TCP Interface Configuration Quick Start* for detailed information.

    - PROFINET IO: Refer to the *PROFINET IO Installation Quick Start* for configuration information.

- IO-Link Master: Refer to the IO-Link Master web configuration help system or the IO-Link Master Installation and Configuration Guide for detailed information for your protocol.

- RocketLinx: Download the appropriate RocketLinx User Guide.

Configuration Files

If you are deploying multiple Comtrol Ethernet attached products that share common values, you can save the configuration file (.**dc** or .**dcz**), which loads that configuration onto other Comtrol Ethernet attached products of the same model. You can choose what properties you want to save or load. DeviceMaster (DM-Series | LT | PRO | RTS | Serial Hub) and DeviceMaster EIP | MOD | PNIO | UP, and RocketLinx save **.dc** files. IO-Link Master saves **.dcz** files.

You can save configuration files from:

- *Main* screen

- **Software Settings** tab for the DeviceMaster, (DM-Series | LT | PRO | RTS | Serial Hub) and DeviceMaster EIP | MOD | PNIO | UP, or IO-Link Master.

IO-Link Master

The IO-Link Master saves the following configuration parameters:

- IO-Link Master configuration, which includes network, IO-Link, EtherNet/IP, Modbus/TCP, or Profinet IO configuration

- Data Storage contents

- IODD files loaded on the IO-Link Master

DeviceMaster

The DeviceMaster (DM-Series | LT | PRO | RTS | Serial Hub) and DeviceMaster EIP | MOD | PNIO | UP models save the following configuration parameters:

- Network, which includes IP (IPv4/6) addressing information, security settings, Telnet time-out, and the bootloader time-out value

- Server, which includes RFC1006, Rx Polling, TCP Keepalive and the hostname

- Mail settings

- Port settings

RocketLinx

All configured RocketLinx settings are saved in the configuration file.

Converting DeviceMaster Configuration Files

You can use the **Convert DeviceMaster Configuration Files** option to convert a configuration file that was created on a DeviceMaster running SocketServer v8.04 (or previous) and load it onto a DeviceMaster running SocketServer v9.00 (or higher).

This means that you can upgrade SocketServer to the latest version and recover your previous DeviceMaster settings using this option.

Use this procedure to convert DeviceMaster configuration files for SocketServer (v8.04 or previous).

1. Click the **File** menu and click the **Convert DeviceMaster Configuration Files** option.

2. Browse and locate the old configuration file.
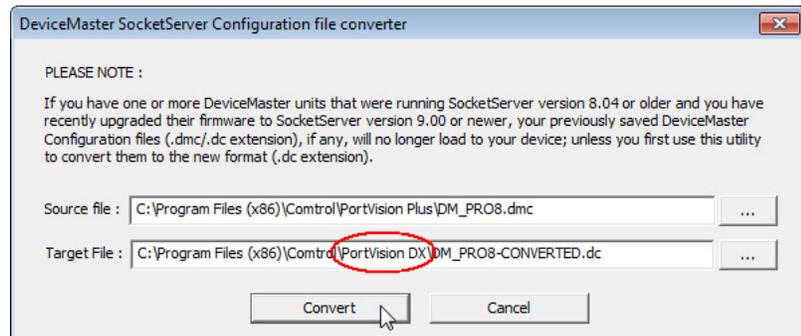
If you placed it in the default folder, it is located in the **Program Files (x86)/Comtrol/PortVision Plus** or **Program Files (x86)/Comtrol/PortVision DX** subdirectory depending on whether you used PortVision Plus or PortVision DX to create the configuration file.

3. Optionally, you may want to change the path to reflect PortVision DX or file name and then click **Convert**.

   You will receive a popup message that notifies you that the file was successfully converted. If the original configuration file was not from SocketServer v8.04 or earlier or the file was corrupt, you will receive a message that reflects a conversion failure.

4. If you have converted your files, you can close the window.

Saving Configuration Files

If you are deploying multiple Comtrol Ethernet attached products of the same model that share common values, you can save the [configuration file](#) (**.dc** or **.dcz**) and load that configuration onto other Comtrol Ethernet attached products of the same model. DeviceMaster (DM-Series | LT | PRO | RTS | Serial Hub), DeviceMaster EIP | MOD | PNIO | UP, and RocketLinx save **.dc** files. IO-Link Master saves **.dcz** files.

If you save a configuration file, you can choose what properties you want to save.

- *[Main](#)* screen (all Comtrol Ethernet attached products)

- **[Software Settings](#)** tab (DeviceMaster (DM-Series | LT | PRO | RTS | Serial Hub), DeviceMaster EIP | MOD | PNIO | UP, and IO-Link Master)

Main Screen

Use this procedure to save a configuration file using the *Main* screen.

1. From the *Device List* pane on the *Main* screen, use one of the following methods:

    - Highlight the Comtrol Ethernet attached product, click the **Save** button

    - Right-click the Comtrol Ethernet attached product, click **Configuration,** and then **Save.**

    - Highlight the Comtrol Ethernet attached product, click the **Manage** menu, click **Configuration,** and then **Save.**
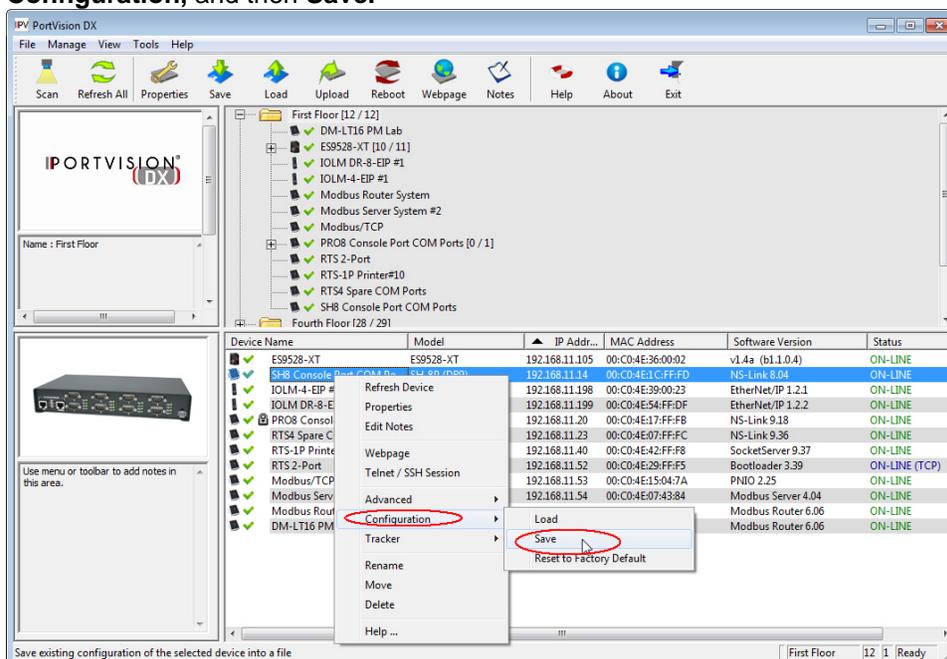
2. Browse to the location you want to save the file, enter a file name and click **Save**.

3. If applicable, click the **All** checkbox or click only the properties that you want saved for each property category in the configuration file.
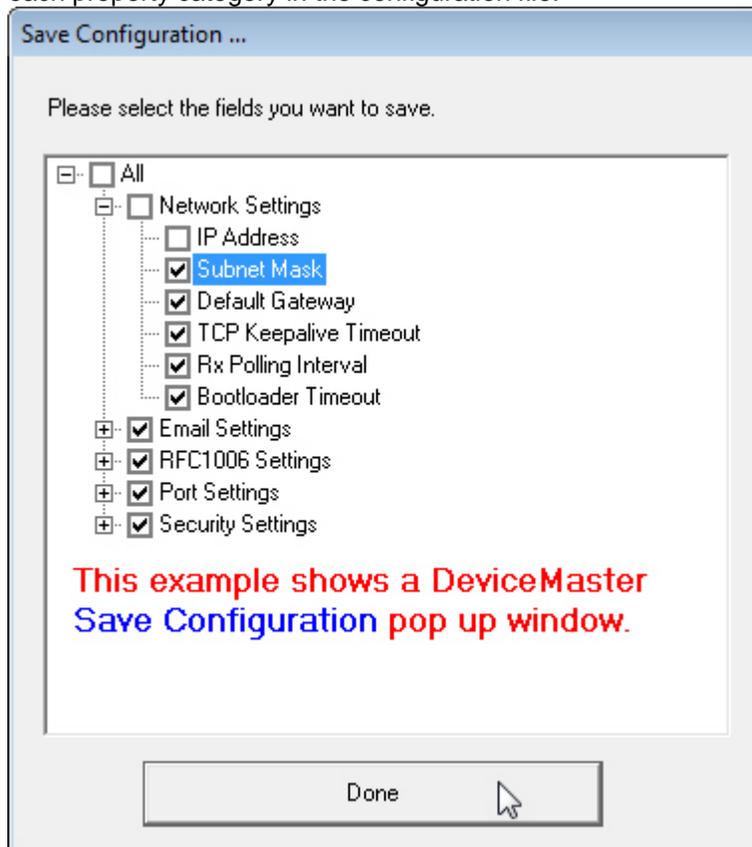

4. Click **Done**.

5. Click **Ok** to close the *Save Configuration Created* popup message.

6. You can now load that configuration file onto another similar Comtrol Ethernet attached product.

Software Settings Tab

Use the following procedure to create a configuration file from the **Software Settings** tab on the DeviceMaster (DM-Series | LT | PRO | RTS | Serial Hub), DeviceMaster EIP | MOD | PNIO | UP, and IO-Link Master.

1. If you have not done so, access the *Properties* screen for the DeviceMaster, DeviceMaster EIP | MOD | PNIO | UP, and IO-Link Master for which you want to save the configuration.

2. Click the **Software Settings** tab.

3. Click the **Save Settings to a File**, browse to the location you want to save the file, enter a file name, and click **Save**.

4. If applicable, click the **All** checkbox or click only the properties that you want saved for each property category in the configuration file.
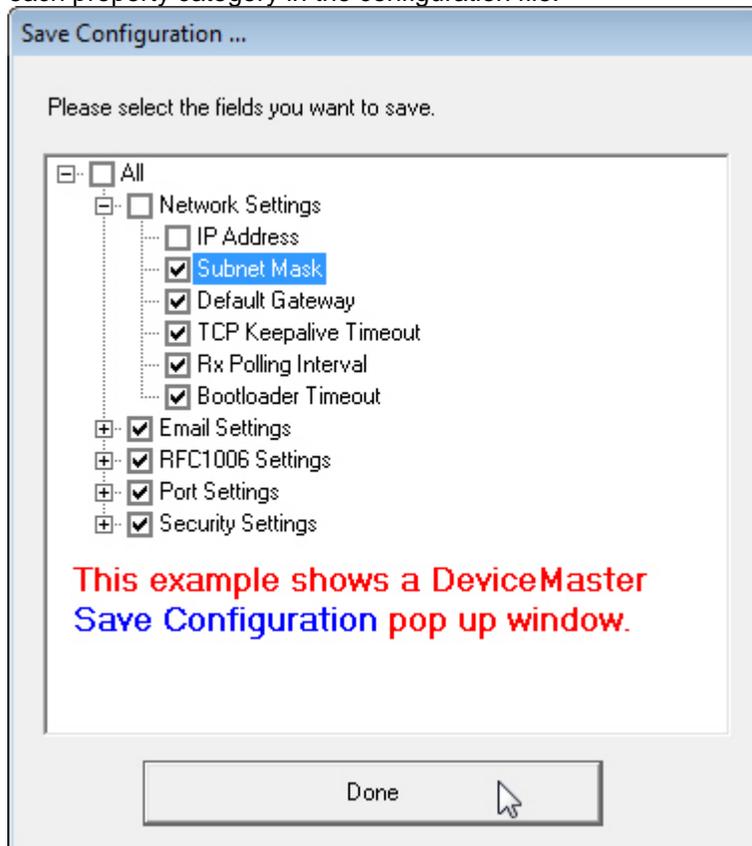
5. Click **Done**.

6. Click **Ok** to close the *Save Configuration Completed* message.

Loading Configuration Files

If you have previously saved a Comtrol Ethernet attached product configuration file, you can load that configuration and apply it to a selected device or devices.

- *Main* screen (all Comtrol Ethernet attached products)

- **Software Settings** tab (DeviceMaster, DeviceMaster EIP | MOD | PNIO | UP, and IO-Link Master)

> **Note:** *If this is a DeviceMaster configuration file with SocketServer v8.04 or previous and you want to load it on a DeviceMaster running SocketServer v9.00 or higher, you must convert the configuration file. See Converting DeviceMaster Configuration Files.*

Main Screen

Use this procedure to load a configuration file using the *Main* screen to one or more devices.

1. From the *Device List* pane on the *Main* screen, use one of the following methods:

   - Highlight the Comtrol Ethernet attached product, click the **Load** button

   - Right-click the Comtrol Ethernet attached product, click **Configuration,** and then **Load.**

   - Highlight the Comtrol Ethernet attached product, click the **Manage** menu, click **Configuration,** and then **Load.**
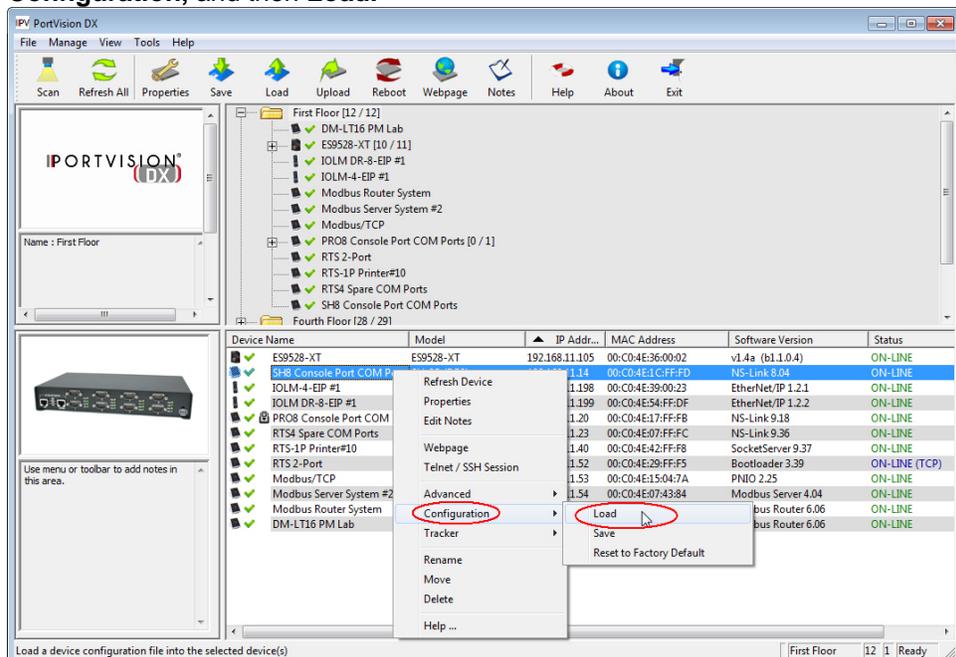
2. Click **Yes** to the warning that it will take 25 seconds per device and that it may also reboot the devices.

3. Browse to the location of the configuration file, click the file name and then **Open**.

4. If applicable, click the **All** checkbox or click only the properties that you want to load for each property category in the configuration file and click **Done**.
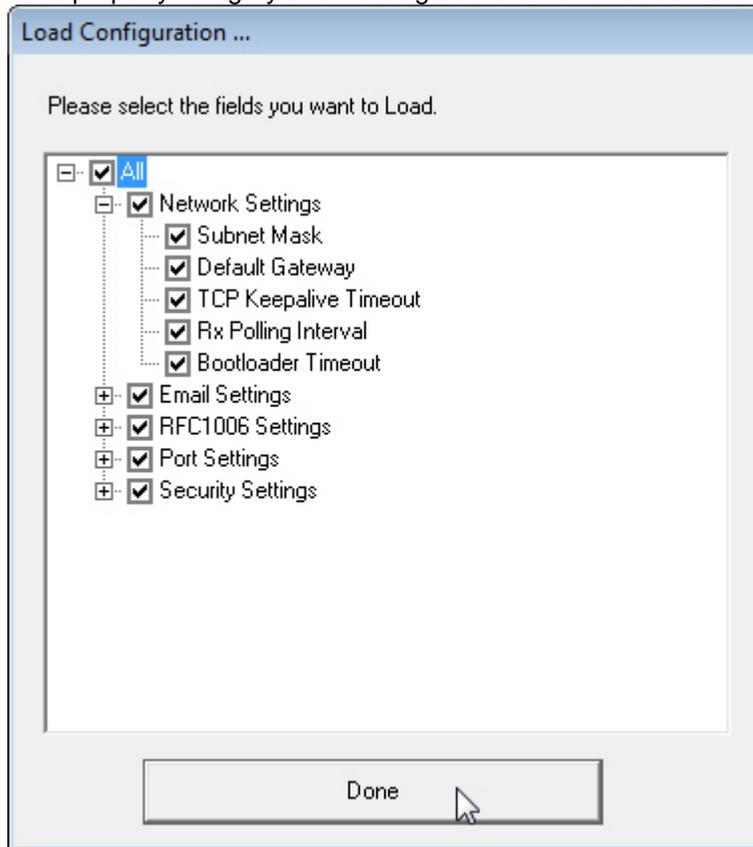

5. Click **Ok** to close the *Load Configuration* popup message.

Software Settings Tab

Use the following procedure to load a configuration file from the **Software Settings** tab.

1. If you have not done so, access the *Properties* screen for the device for which you want to load the configuration.

2. Click the **Software Settings** tab.

3. Click **Load Settings from a File**, browse to the location of the configuration file, click the file name, and then **Open**.

4. If applicable, click the **All** checkbox or click only the properties that you want to load for each property category in the configuration file and click **Done**.
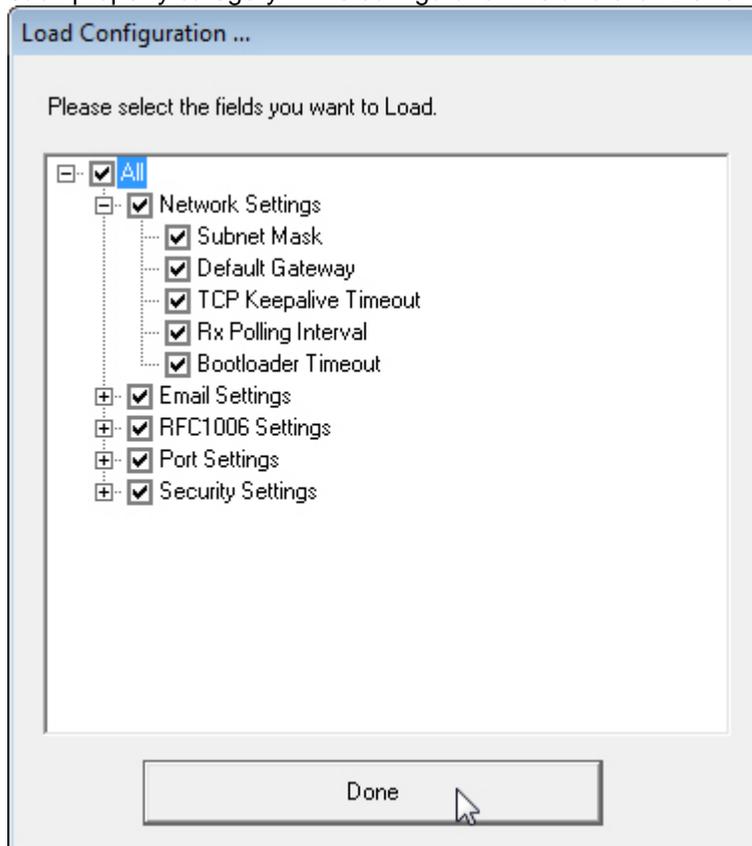
5. Click **Apply Changes**.

6. Click **Close** to exit the **Software Settings** tab.

Note: *PortVision DX does not send it to the device unless you click **Apply Changes**.*

Reset to Factory Default

If you select the **Reset to Factory Default** option, all configuration settings, except for the IP address, subnet mask, and IP gateway are reset to their factory default values.

Use the following procedure to reset the device to it's factory default values.

1. From the *Device List* pane on the *Main* screen, use one of the following methods:

   - Right-click the Comtrol Ethernet attached product, click **Configuration,** and then **Reset to Factory Default.**

   - Highlight the Comtrol Ethernet attached product, click the **Manage** menu, click **Configuration,** and then **Reset to Factory Default.**
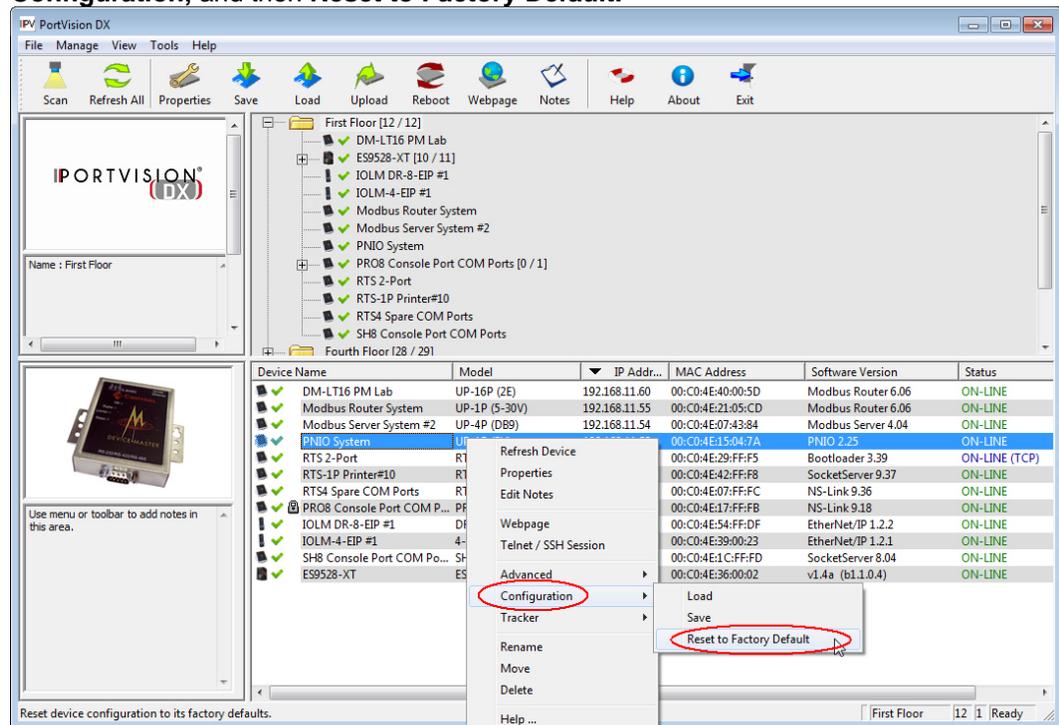
2. Click **Yes** to the *Set Configuration to factory* default pop up message.

PortVision DX will show the status as *Reset to factory default* until the next polling cycle.

Telnet SSH Sessions

There are two ways to access a Telnet/SSH session in PortVision DX:

- Right-click the Comtrol Ethernet attached product in the *Device List* pane and click **Telnet/SSH Session**.

- Highlight the Comtrol Ethernet attached product in the *Device List* pane, click the **Manage** menu and then **Telnet/SSH Session**.

You may need to use the **Telnet/SSH Session** option to upload firmware on DeviceMasters that reside on the other side of several switches, a router, or wireless.

> **Note**: *You can use this option to access the RocketLinx managed switches CLI (Command Line Interface).*

DeviceMaster TCP and UDP Socket Ports

Following list is all of the logical TCP and UDP socket ports implemented in the DeviceMaster.

Socket Port Number	Description
22 SSH 23 Telnet	TCP Ports 22 (ssh) and 23 (telnet) are used for administrative and diagnostic purposes and aren't required for normal use and are enabled by default and Port 23 may be disabled.
80 HTTP 443 SSL or HTTPS	TCP Ports 80 (http) and 443 (https) are used by the web server for administration and configuration and are enabled by default and cannot be disabled.
102 RFC1006	TCP Port 102 is used for RFC1006 (ISO over TCP) serial port access. Not used for normal NS-Link SocketServer access. The RFC1006 server can be disabled by setting the server port number to -1 and is enabled by default.
161 SNMP UDP	Port 161 is used by the SNMP agent if SNMP is enabled which is the default.
4606	TCP Port 4606 is required if you want to use NS-Link or PortVision DX if you want to update firmware without setting up a TFTP server and this port cannot be disabled.
4607	TCP Port 4607 is only used for diagnostic purposes and is not required for normal operation and this port cannot be disabled. If SocketServeris to be used, then the user may enable usage of TCP or UDP ports for access to the serial ports. These ports are not enabled by default and are also user configurable to different values. Defaults for TCP would begin at 8000 and for UDP would begin at 7000.
TCP 8000 - 8xxx	This user configurable port is incremented per serial port on the DeviceMaster. For example: A DeviceMaster 16-port would have Ports 8000 through 8015.

Socket Port Number	Description
UDP 7000 - 7xxx	This user configurable port is incremented per serial port on the DeviceMaster. For example: A DeviceMaster 16-port would have Ports 7000 through 7015.

Accessing Other Applications

You can configure PortVision DX to open up to twenty applications using the **Applications** - **Customize** menu item under the **Tools** menu.

PortVision DX installs three applications, PuTTY, Test Terminal and Port Monitor.

- PuTTY opens PuTTY, which is a free Win32 Telnet, SSH, and Rlogin client. If necessary, refer to the PuTTY help system.

   Note: *If the PuTTY shortcut is not displayed, you can add using the Adding Shortcuts discussion.*

- Test Terminal opens a port, send characters and commands to the port, and toggle the output control signals.

- Port Monitor verifies operation of all Comtrol serial COM ports from a single window if they installed during the installation process.

You can use the Port Monitor and Test Terminal User Guide or the help systems for detailed information about how to use these applications.

Adding Shortcuts

You can add shortcuts for your applications that you may want to access from PortVision DX using the following procedure.

1. From the *Main* screen, click the **Tools** menu, highlight **Applications** and then click **Customize**.
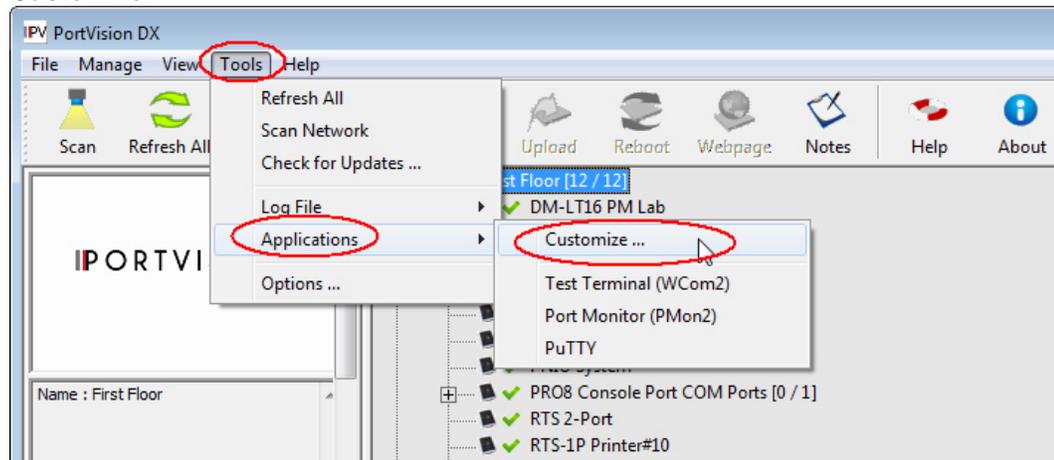

2. Click **New**, if you need to clear the contents of the text boxes on the *Applications Shortcuts* window.

3. Enter an appropriate **Shortcut Name**.

4. Enter an application description.

5. Click the browse button [...] to the location of the executable, highlight the executable, and click **Open**. .

   Note: *If you are missing the PuTTY shortcut, browse to this location and file: **Program Files (x86)\Comtrol\PortVision DX\PUTTY.EXE***

6. If required by the application, enter the working directory for the application.

7. Click **Add** when to add the application.
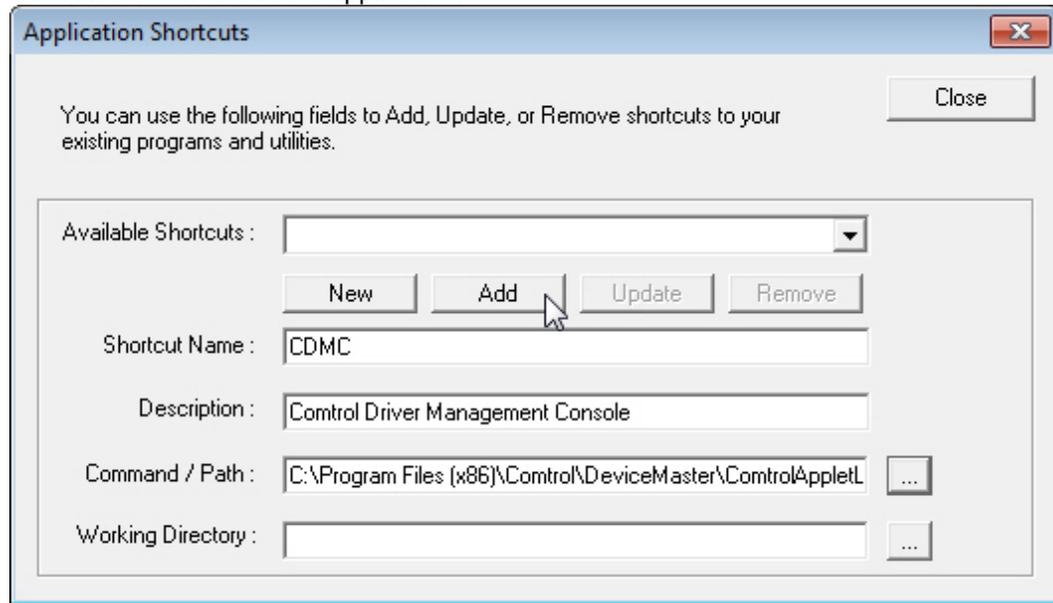
8. Click **Close** when you are done adding applications.

The shortcuts now appear nested under the **Applications** submenu.

Changing Application Shortcuts

You can make changes to the application shortcuts using the following procedure. You can also remove a shortcut.

1. From the *Main* screen, click the **Tools** menu, highlight **Applications** and then click **Customize**.

2. Select the shortcut in the **Available Shortcuts** drop list.

3. Make any necessary changes.

4. Click **Update**.

5. Click **Close** when you have made all of your changes to the shortcuts.

Removing Application Shortcuts

You can remove application shortcuts using the following procedure. You can also change a shortcut.

1. From the *Main* screen, click the **Tools** menu, highlight **Applications** and then click **Customize**.

2. Select the shortcut in the **Available Shortcuts** drop list.

3. Click **Remove**.

4. Click **Close** when you have made all of your changes to the shortcuts.

Test Terminal

DeviceMaster (DM-Series | LT | PRO | RTS | Serial Hub) users can use Test Terminal to open a port, send characters and commands to the port, and toggle the output control signals.

1. To use Test Terminal, you will need to know the COM port number or numbers that you want test.

2. To start Test Terminal, click **Test Terminal (WCom2)** from the **Applications** drop list in the **Tools** menu.

If you need help using Test Terminal, use the help system in Test Terminal or refer to the Port Monitor and Test Terminal User Guide.

Port Monitor

DeviceMaster (DM-Series | LT | PRO | RTS | Serial Hub) users can use Port Monitor to verify operation of all Comtrol serial COM ports from a single window if you installed them during the installation process.

1. To use Port Monitor, you will need to know the COM port number or numbers that you want test.

2. To start Port Monitor, click **Port Monitor (PMon2)** from the **Applications** drop list in the **Tools** menu.

If you need help using Port Monitor, use the help system in Port Monitor or refer to the Port Monitor and Test Terminal User Guide.

PuTTY

PuTTY is a free (MIT-licensed) Windows 32-bit Telnet, SSH, and Rlogin client that is included with PortVision DX.

Refer to the PuTTY help system if you need information about using the application.

Changing PortVision DX Options

This section discusses using the *Options...* screen that is located in the **Tools** menu, which allows you to change or reset PortVision DX default settings.

You can use the following procedure to change or reset PortVision DX options.

1. Click *Options...* from the **Tools** menu.

2. Click or uncheck options to fit your environment. See Options... for an explanation of the choices in this screen.
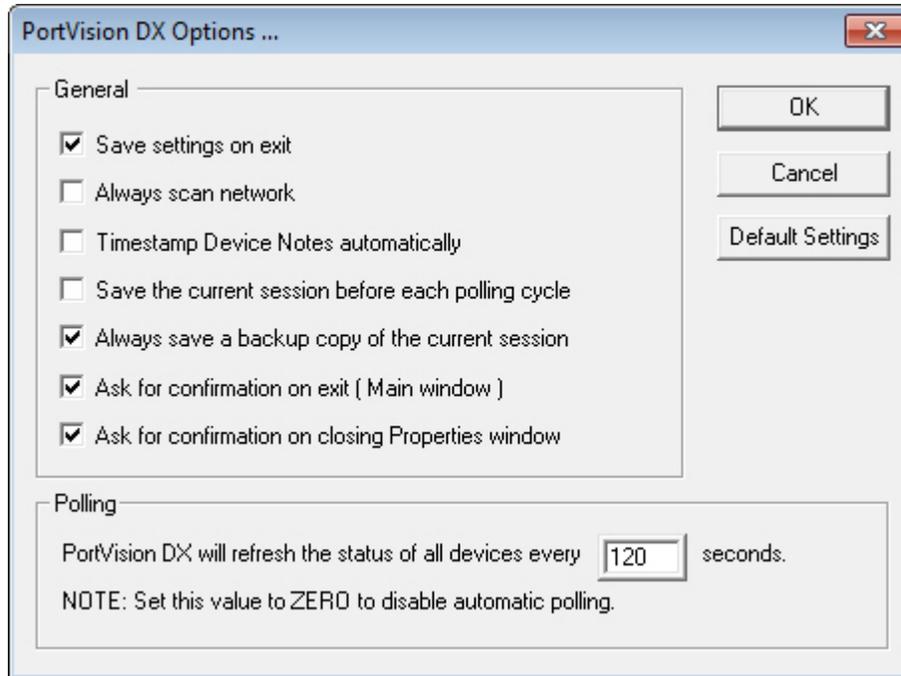
Logging Events

PortVision DX has an event logging feature available that you can enable if you want to log device-level or application-level (or both types of events). If you enable application-level event logging, you can disable the *Polling...* messages.

Enabling Event Logging

For PortVision DX to create an event log, you must enable logging in the **Log File Settings** menu.

1. From the *Main* screen, click the **Tools** menu, click **Log File**, and then click the **Settings...** option.
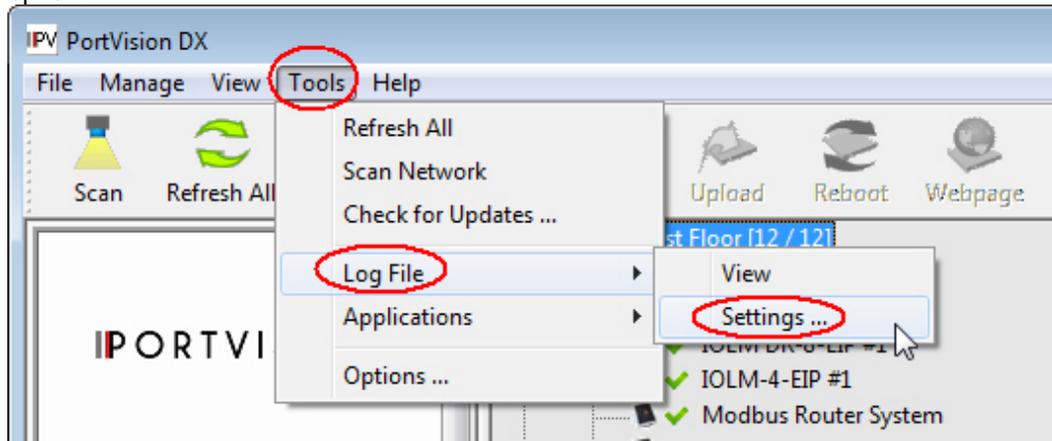
2. Check the **Enable logging** option.

3. If necessary, adjust the other options to fit the type of events you want to log.

4. Optionally, use the **Save Log as...** button and provide a different log file name before clicking the **Ok** button.
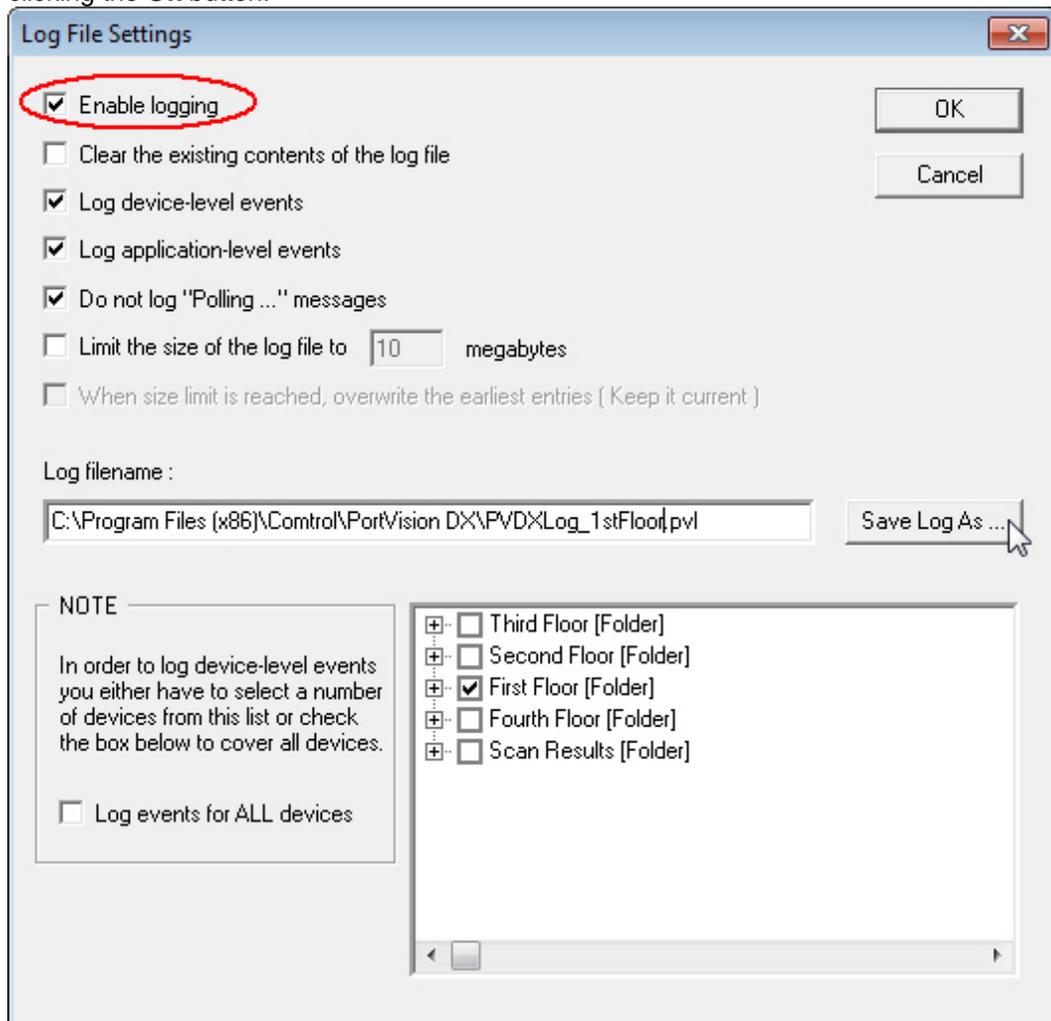

5. Use a **.pvl** extension on the file name so that PortVision DX quickly locates your file in the *View* screen.

Accessing the Event Log

Before you can access the event log, you must have previously created a log file and know the location.

1. From the *Main* screen, click the **Tools** menu, click **Log File**, and then click **View**.
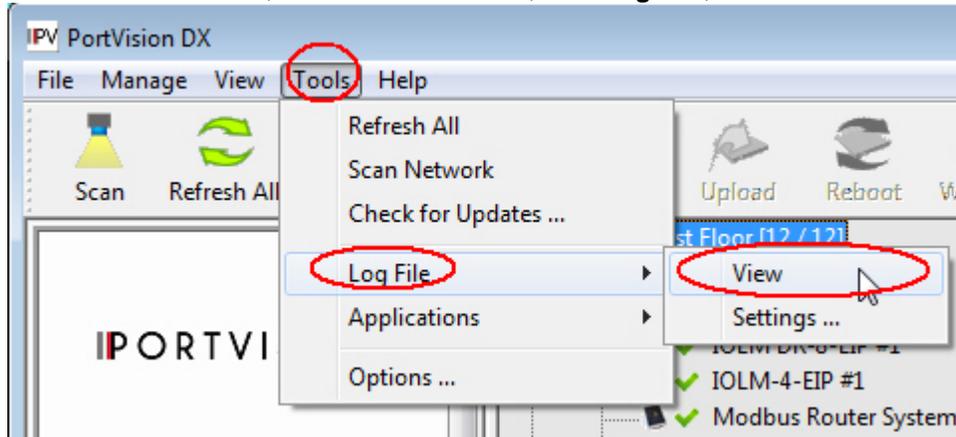
2. If necessary, use the **Browse** button to locate the log file or manually enter the location and log file name.

3. If necessary, disable or enable the **Filters** (Device-Level, Application-Level, or Skip "Polling..." messages events) to view the type of logging events you want to review.

4. Click the **View Log/Refresh View** button.
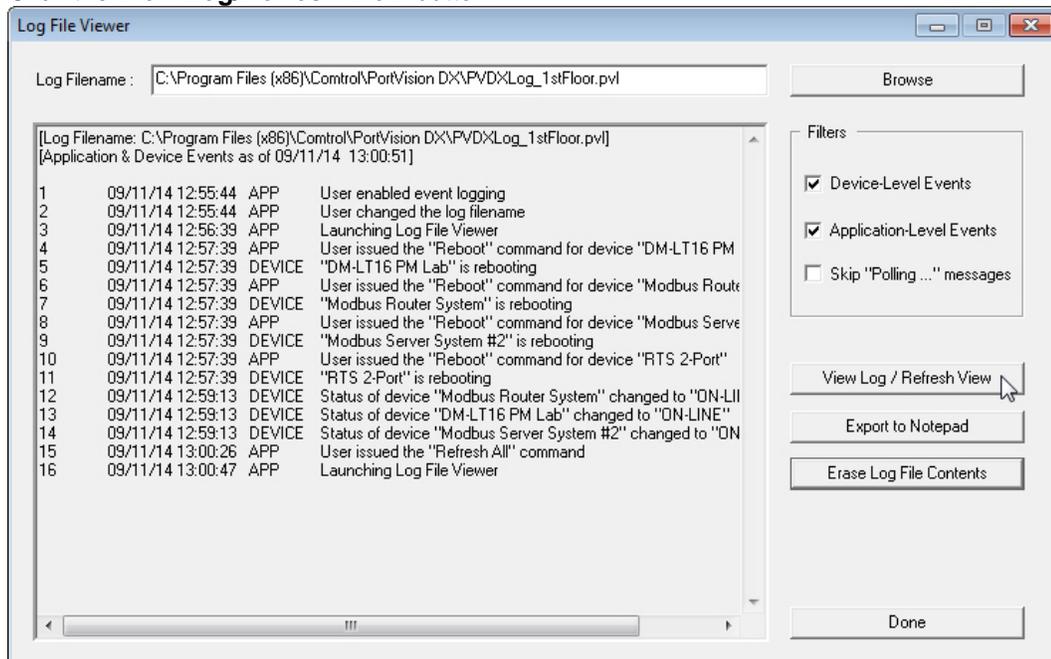
5. Optionally, save or print the log file to a Notepad file using the **Export to Notepad** button.

6. To refresh the event log, click the **View Log/Refresh View** button.

Clearing the Event Log

Use the following steps to clear the event log. Optionally, you can delete the log file using any means available in Windows.

You may want to save the contents of the existing log using the **Log File - View** menu.

1. If necessary, minimize the **Log File - View** menu.

2. From the *Main* screen, click the **Tools** menu and then **Log File - Settings**.

3. Verify that the correct **Log Filename** is displayed or use the **Browse** button to locate the appropriate file.

4. Check the **Erase Log File Contents**.

5. Click **Yes** to the *Are you sure you want to ERASE fog file contents permanently* query.

6. Click **Done** to close the window.

Troubleshooting

The following topics are available in this section:

- [Using the LED Tracker](#)

- [OFF-LINE Devices](#)

Using the LED Tracker

The IO-Link Master and RocketLinx supports the LED Tracker feature, which allows you to toggle on/off the LEDs on a specific device so that you can locate the physical unit.

- [IO-Link Master](#)

- [RocketLinx](#)

> **Note:** *The DeviceMaster and DeviceMaster EIP | MOD | PNIO | UP do not support the LED Tracker option.*

IO-Link Master

Use this procedure to toggle the LED Tracker feature on the IO-Link Master.

1. Right-click or highlight the IO-Link Master in the *Device List* pane, click **Tracker**, and then click **ON**.
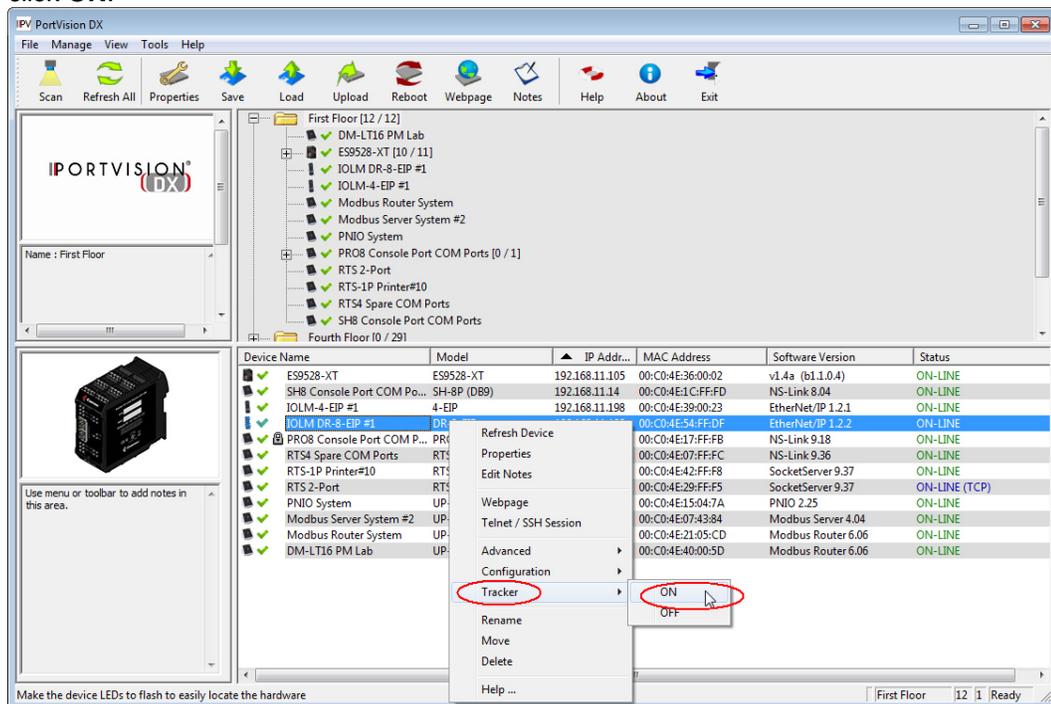
The IO-Link Master cycles the IO-Link and DI LEDs. PortVision DX displays *LEDs are flashing* in the *Status*.
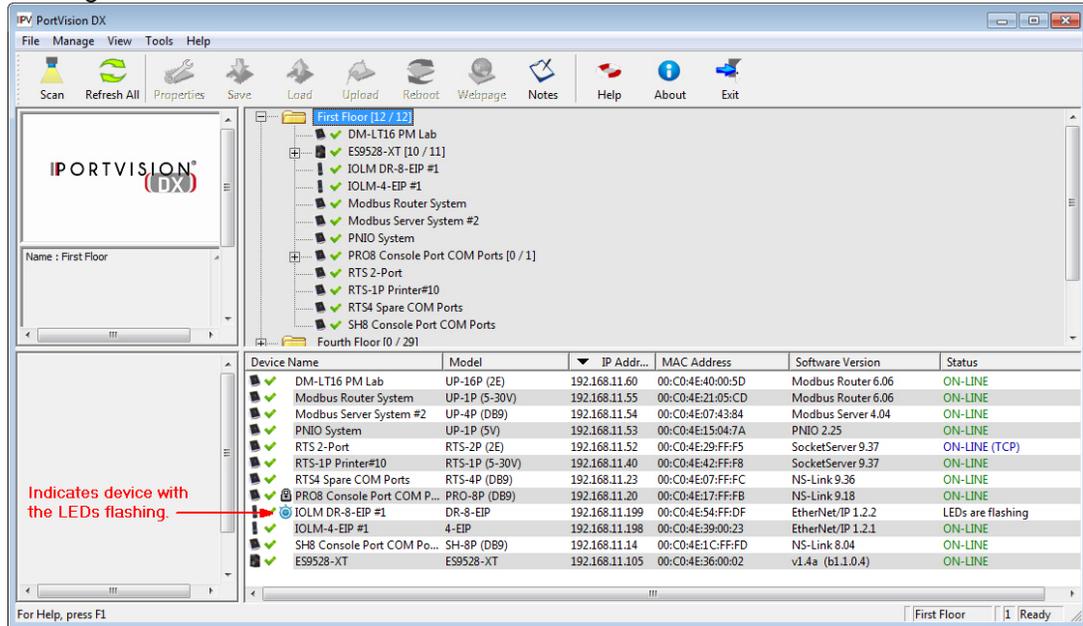
2. Right-click or highlight the IO-Link Master in the *Device List* pane, click **Tracker**, and then **OFF**.

Note: *The IO-Link Master LEDs will continue cycling the LEDs until you turn the **Tracker** OFF*.

RocketLinx

Use this procedure to toggle the LED Tracker feature on the RocketLinx (managed).

1. Right-click or highlight the RocketLinx in the *Device List* pane, click **Tracker**, and then click **ON**. The LED Tracker disables itself after a few moments.
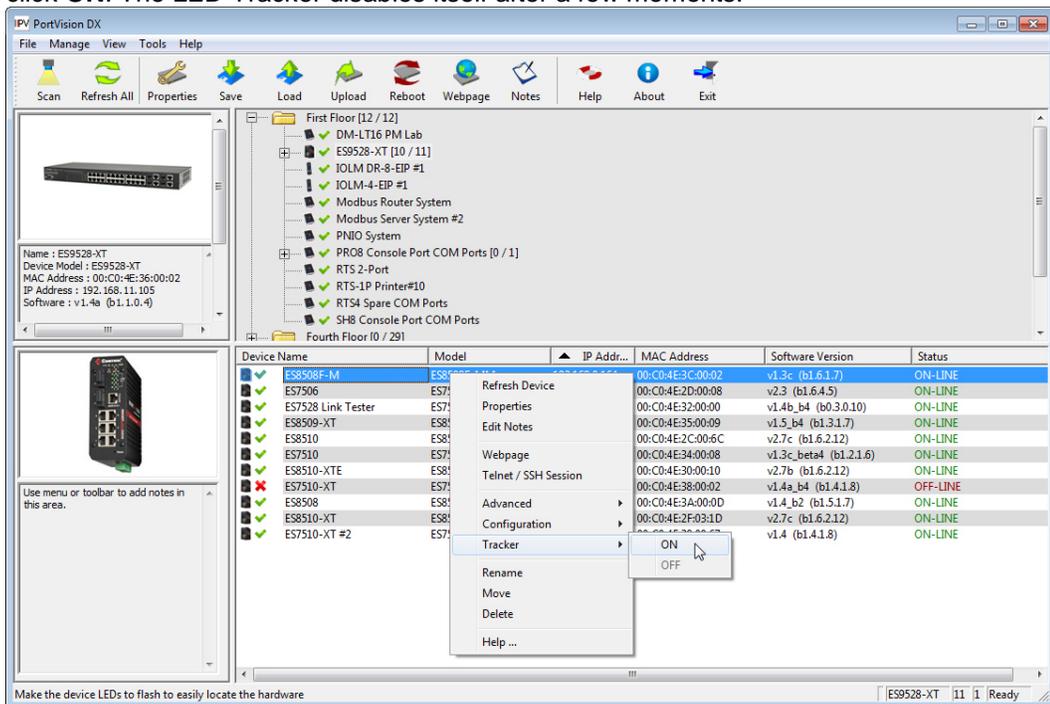
The RocketLinx flashes the **SYS** LED for five seconds.

2. If necessary, you may need to click **Tracker** and **ON** several times to catch the flashing **SYS** LED.

OFF-LINE Devices

The *Device List* may display OFF-LINE device status for a variety of reasons. You may want to click **Refresh** to see if the device displays ON-LINE.

> **Note:** *Remember, unmanaged RocketLinx switches and other hardware can be toggled from ON-LINE to OFF-LINE using the General tab of the Properties screen. PortVision DX can only determine whether a Comtrol Ethernet attached product is on-line or off-line.*

- The device is not powered.

- The device is in the process of booting up and may show as ON-LINE at the next PortVision DX request.

- The device has not completed loading firmware. If possible, check the status LED on the Comtrol Ethernet attached product.

- A firewall is blocking communications between the device and PortVision DX.

- The device is using the same IP address as another device. If this is the case, an asterisk is displayed behind the IP address in the *Device List* pane.

- Incorrect IP addressing in the device has been implemented.

- The device is getting an IP address from a DHCP server so the address is different than what PortVision DX knows.

- A DeviceMaster is using **LOCAL** as the **Detection Type** but it is on the other side of a router or switch that has Layer 2 MAC mode disabled and only supports Layer 3. If this is the case, simply change the Detection Type from LOCAL to REMOTE.

- The device is too busy to respond to the PortVision DX request for status.

- The device's Ethernet cable is disconnected or connected into the wrong Ethernet port.

The DeviceMaster 2E/4/8/16-port models with external power supplies follow the IEEE specifications for standard Ethernet 10/100BASE-TX topologies.

When using the **UP** and **DOWN** ports, the DeviceMaster 2E/4/8/16 is classified as a switch. When using the **UP** port only, it is a simple end node device. The maximum number of daisy-chained DeviceMaster 2E/4/8/16 units, and the maximum distance between units is based on the Ethernet standards and will be determined by your own environment and the conformity of your network to these standards.

Contacting Technical Support

You can contact Comtrol by calling +1.763.957.6000 (8AM to 6PM CST/USA).

Optionally, you can refer to the Comtrol forum for more information.