



# CHAPTER 1

## Introduction

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This tutorial introduces you to QoS Policy Manager (QPM) and provides examples of many of the tasks that you can perform with it. To make these examples easier to follow, you can practice the procedures on virtual devices that are provided with the product.

This tutorial is not intended as an exhaustive description of QPM's features or of quality of service (QoS) technology. For more information about these topics, refer to the QPM online help and *User Guide for QoS Policy Manager*.

The tutorial is structured as follows:

- [Chapter 1, “Introduction,”](#) provides information about getting started with the product and the tutorial.
- [Chapter 2, “Data Network Tutorial,”](#) allows you to practice configuring QoS for data networks.
- [Chapter 3, “IP Telephony Network Tutorial,”](#) allows you to practice configuring QoS for voice-over-IP (VoIP) networks.
- [Chapter 4, “QoS Analysis Tutorial”](#) helps you to understand how to use QPM monitoring to analyze the effect of your QoS policies on your network traffic.

Chapters 2 and 3 use separate example networks, but the virtual devices on which you perform the tutorial procedures are provided in one virtual device file, which is provided with the product.

For more information about the virtual devices, see [“Lesson 1-2: Importing the Tutorial Virtual Devices”](#) section on page 1-6.

### Understanding the Tutorial Environment

The QPM environment for the tutorial has the following characteristics:

- The virtual devices you import from the provided file use IP addresses that are within a range designated as internal and private, so they are unlikely to conflict with any real addresses already in your QPM inventory.
- To separate the tutorial policies from your existing policies, the tutorial instructs you to create a new policy group for the tutorial. For more information, see [Lesson 1-4: Creating the Tutorial Policy Group, page 1-10](#).

### Tutorial User Permission Requirements

To use the tutorial, you must log into QPM with user permissions to modify devices in the default device group. For more information, see the user permissions information in *Installation Guide for QoS Policy Manager*.

This chapter includes the following sections:

- [Lesson 1-1: Getting Started with QPM, page 1-2](#)
- [Lesson 1-2: Importing the Tutorial Virtual Devices, page 1-6](#)
- [Lesson 1-3: Creating the Tutorial Device Folder, page 1-9](#)
- [Lesson 1-4: Creating the Tutorial Policy Group, page 1-10](#)

## Lesson 1-1: Getting Started with QPM

The following topics describe getting started with QPM:

- [Starting QPM, page 1-3](#)
- [Understanding the QPM User Interface, page 1-4](#)
- [Exiting QPM, page 1-6](#)

# Starting QPM

QoS Policy Manager is accessed from the CiscoWorks desktop.

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- Step 1** In your web browser, start CiscoWorks. The default URL is `http://QPMinstall:1741`, where *QPMinstall* is the name of the computer with the QPM installation.
- The CiscoWorks desktop is displayed.
- The first time you start CiscoWorks on a CiscoWorks server or a client machine, the Java Runtime Environment is automatically installed.
- Step 2** Verify on the front page that Java, JavaScript, and cookies are enabled.
- If they are not enabled, change your browser preferences to enable them, then continue to the next step.
- Step 3** Log into CiscoWorks with your user name and password.
- The CiscoWorks navigation tree appears in the left pane.
- Step 4** Click **QoS Policy Manager** in the navigation tree.
- Step 5** Click **QPM** under the QoS Policy Manager drawer.
- A Security Alert window opens. Click **Yes** to proceed.
- QPM opens in a separate browser window.
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## Related Topics

- [Understanding the QPM User Interface, page 1-4](#)
- [Exiting QPM, page 1-6](#)

## Understanding the QPM User Interface

All the pages in the web-based QPM user interface have a consistent look and feel.

Figure 1-1 shows an example of a QPM page.

Figure 1-1 Example of a QPM Page

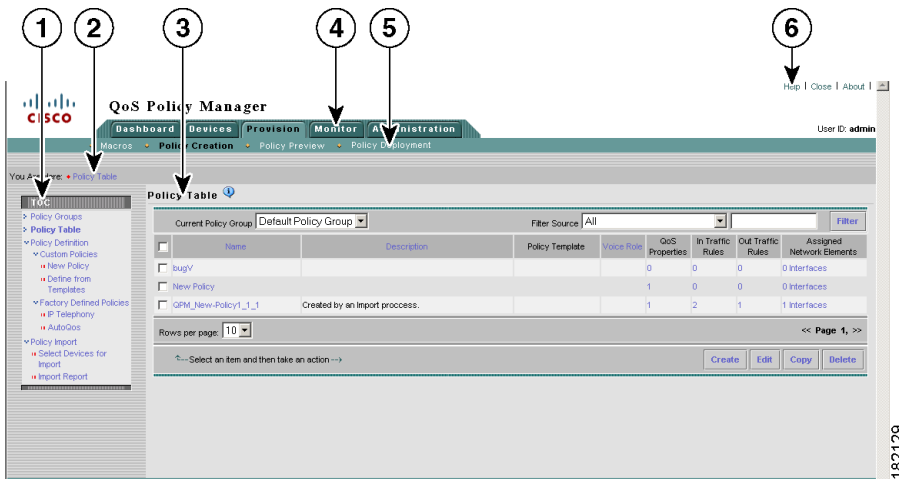


Table 1-1 describes the common elements in each page.

Table 1-1 Common GUI Elements in a QPM Page

Number	Area	Description
1	TOC	Provides up to two additional levels of navigation, if required: <ul style="list-style-type: none"> <li>• A submenu for the selected option.</li> <li>• In a wizard context, this area displays the wizard steps.</li> </ul>
2	Path bar	Provides a context for the displayed page. Indicates from which tab and option the current page is derived.
3	Content area	Displays the page in which you perform application tasks.

**Table 1-1** Common GUI Elements in a QPM Page (continued)

Number	Area	Description
4	QPM tabs	<p>Contains tabs that provide access to QPM functionality. Click a tab to access its options:</p> <ul style="list-style-type: none"> <li>• <b>Dashboard</b>—The Dashboard is the QPM homepage and provides a launch point to the commonly used QoS management operations.</li> <li>• <b>Devices</b>—Contains options for managing devices and device groups in the QPM inventory.</li> <li>• <b>Provision</b>—Contains options for defining policy groups and policies, configuring QoS for IP telephony, and working with global library policy components.</li> </ul> <p>This tab also contains options for deploying QoS policies and for previewing the CLI configuration on the devices. You can view and restore previously deployed jobs through this tab.</p> <ul style="list-style-type: none"> <li>• <b>Monitor</b>—Contains options for monitoring traffic on devices with QoS policies attached to them. You can perform Real-time, Historical, and Threshold analysis of the traffic.</li> <li>• <b>Administration</b>—Contains additional administration options.</li> </ul>
5	Option bar	Displays the options available for the selected tab.

**Note**

It is not recommended to use the browser Back button to navigate in QPM.

Now that you understand the QPM user interface, you are ready to learn how to exit QPM.

**Related Topics**

- [Starting QPM, page 1-3](#)
- [Exiting QPM, page 1-6](#)

## Exiting QPM

When you finish working with QPM, you must log out of CiscoWorks to close the application.

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**Step 1** Click **Close** in any open QPM windows to close them.

**Step 2** Click **Logout** in the CiscoWorks Desktop window.

The CiscoWorks session ends.

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Now you are ready to add devices to the QPM device inventory.

### Related Topics

- [Starting QPM, page 1-3](#)
- [Understanding the QPM User Interface, page 1-4](#)
- [Lesson 1-2: Importing the Tutorial Virtual Devices, page 1-6](#)

## Lesson 1-2: Importing the Tutorial Virtual Devices

A file of the virtual devices that are used in the tutorial is included with QPM. To import the tutorial virtual devices, you must first copy the virtual devices file to your client system.

For information about the virtual devices used in the data network tutorial, see the [Understanding the Data Network Tutorial, page 2-2](#). For information about the devices used in the voice-over-IP network tutorial, see [Understanding the IP Telephony Network Example, page 3-3](#).

Virtual devices are not physical devices, but rather are defined in a file that contains the same device information required to import a physical device.

You can import these virtual devices into the inventory and use them to perform the tasks described in the tutorial.

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**Step 1** Copy the tutorial virtual devices file from the QPM server to a location you will remember on your client system.

The file is named `TutorialDevices.xml`. It is located in the `Tutorial` folder that is located in the `CiscoWorks Common Services` installation directory on the QPM server at `CSCOpX\MDC\qpm\tutorial`.

**Step 2** Select **Devices > Managed Devices**.

The `Managed Devices` Table appears.

**Step 3** Select **Add/Import**.

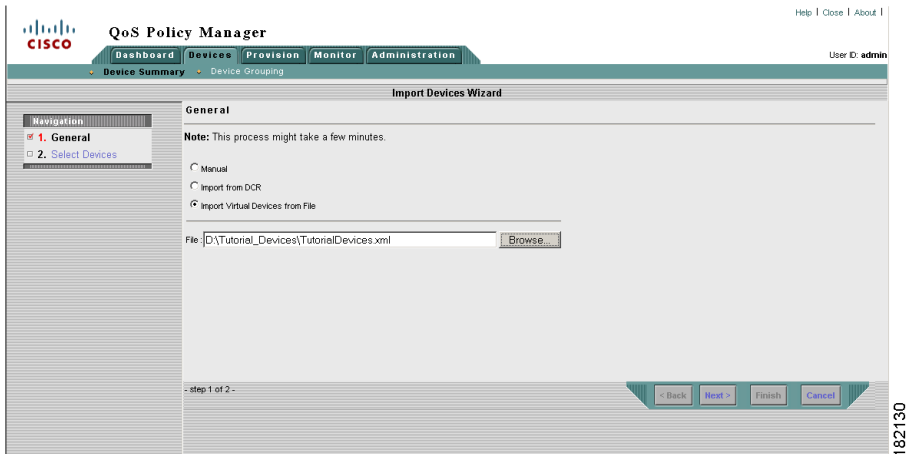
The `Import Devices Wizard - General` page appears.

**Step 4** Do the following in the `Import Devices Wizard - General` page:

- a. Select the `Import Virtual Devices` from `File` radio button.
- b. Enter the path to the virtual devices file on your client system in the `File` field, or click **Browse** to navigate to the file. [Figure 1-2](#) shows the completed `Import Devices Wizard - General` page.
- c. Click **Next**.

The `Import Devices Wizard - Select Devices` page appears.

Figure 1-2 Lesson 1-2—Importing the Tutorial Virtual Devices



- Step 5** In the Import Devices Wizard - Select Devices page, select the check box next to all of the devices, then click **Finish**.

QPM imports the devices from the file, and displays the Discovery Status page so you can see the status of the import. The discovery job that you just started is the first entry in the table.

Wait until the discovery job is complete, as indicated by an entry appearing in the End column.

- Step 6** Verify that the tutorial virtual devices and their elements were added to the inventory:

- a. Select **Managed Devices** from the TOC.

The Managed Devices page appears.

Note that the imported devices now appear in the device table.

- b. To view the network elements on a device, click the icon in the Interfaces column.

The Interfaces page appears, and links to view any other network elements on the device appear in the TOC.

Now that you have imported the tutorial virtual devices, you are ready to create the tutorial policy group.

**Related Topics**

- [Lesson 1-3: Creating the Tutorial Device Folder, page 1-9](#)
- [Lesson 1-4: Creating the Tutorial Policy Group, page 1-10](#)

## Lesson 1-3: Creating the Tutorial Device Folder

To make it easier to keep track of the devices used in the tutorial, create a device folder named “Tutorial” for the tutorial and move the tutorial virtual devices into it.

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- Step 1** In the **Devices > Device Grouping** TOC, select **Device Folders**.  
The Device Folders page appears.
- Step 2** Click **Create**.  
The Device Folder Properties page appears.
- Step 3** Do the following in the Device Folder Properties page:
- a. Enter **Tutorial** in the Device Folder Name field.
  - b. Enter **Tutorial device folder** in the Description field.
  - c. Click **Save**.  
The Device Folders page appears.
- Step 4** Select **Device > Managed Devices** in the TOC.  
The Device Table page appears.
- Step 5** Do the following in the Device Table page:
- a. Select the tutorial virtual devices by selecting the check boxes next to them.  
The following are the tutorial virtual devices:
    - Access-Cat2900-2
    - Access-Cat3500-2
    - Access-Cat6000-1
    - Access-Cat6000-2
    - Access-Cat6000-3

- Access-Cat6000-4
- Core-2600-1
- Core-3600-1
- Core-3600-2
- Core-7200-1

**b. Click Set Device Folder.**

The Device Folder setting dialog box opens.

**Step 6** Do the following in the Device Folder Setting dialog box:

- a. Select the Set Device Folder radio button.
- b. Select the radio button next to the Tutorial folder name.
- c. Click **OK**.

The Device Table page refreshes.

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#### Related Topics

- [Lesson 1-2: Importing the Tutorial Virtual Devices, page 1-6](#)
- [Lesson 1-4: Creating the Tutorial Policy Group, page 1-10](#)

## Lesson 1-4: Creating the Tutorial Policy Group

To separate the tutorial policy groups from any existing policy groups, create a policy group named “Tutorial” for the tutorial.

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**Step 1** Select **Policy > Policy Creation > Policy Groups**.

The Policy Groups page appears.

**Step 2** Do the following in the Policy Groups page:

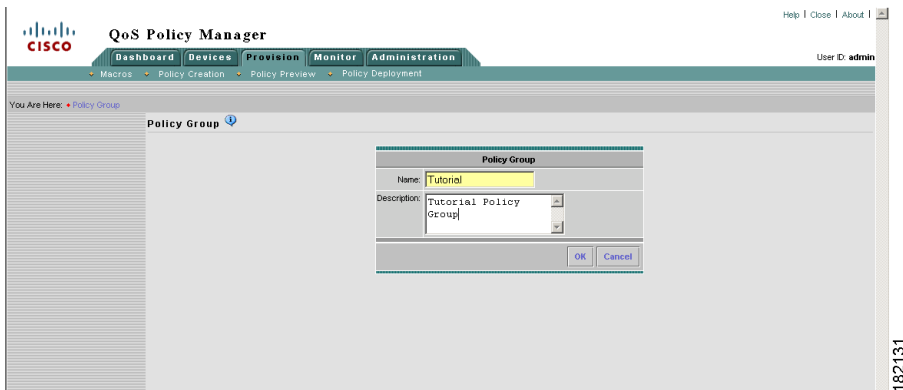
- a. Click **Create**.

The Policy Group page appears.

- b. Enter the name **Tutorial** in the Name field.

- c. Enter the description of the **Tutorial policy group** in the Description field. [Figure 1-3](#) shows the completed Policy Groups page.
- d. Click **OK**.  
The Policy Groups page appears.

**Figure 1-3** Lesson 1-3—Creating the Tutorial Policy Group



- Step 3** Verify that the Tutorial policy group appears in the list.

After completing all the lessons in this chapter, you are ready to proceed with the data network or IP telephony tutorial. You can use the tutorials in any order (they are not sequential).

### Related Topics

- [Chapter 2, “Data Network Tutorial”](#)
- [Chapter 3, “IP Telephony Network Tutorial”](#)

