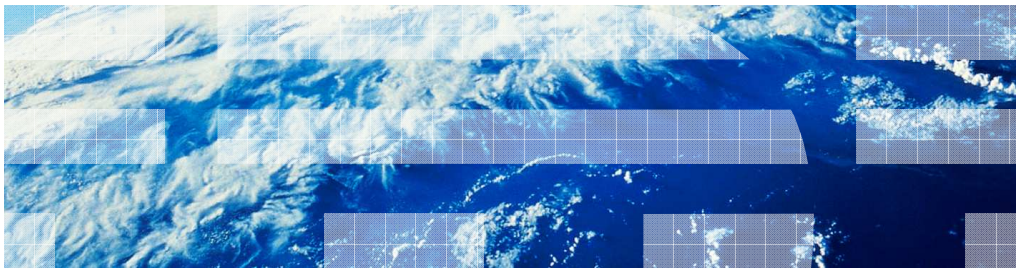
IBM Tivoli Network Manager IP Edition V3.8

Creating real-time MIB graphs



Tivoli software

Welcome to the module for IBM® Tivoli® Network Manager IP Edition V3.8: ***Creating real-time MIB graphs.***

Objectives

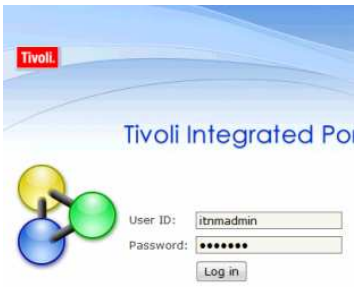
At the end of this module, you should be able to:

- Create a real-time Management Information Base (MIB) graph
- Edit a real-time poll
- Make a real-time poll permanent

In this training module, you will learn how to create a real-time MIB graph, edit the automatically-created poll, and make that poll permanent.

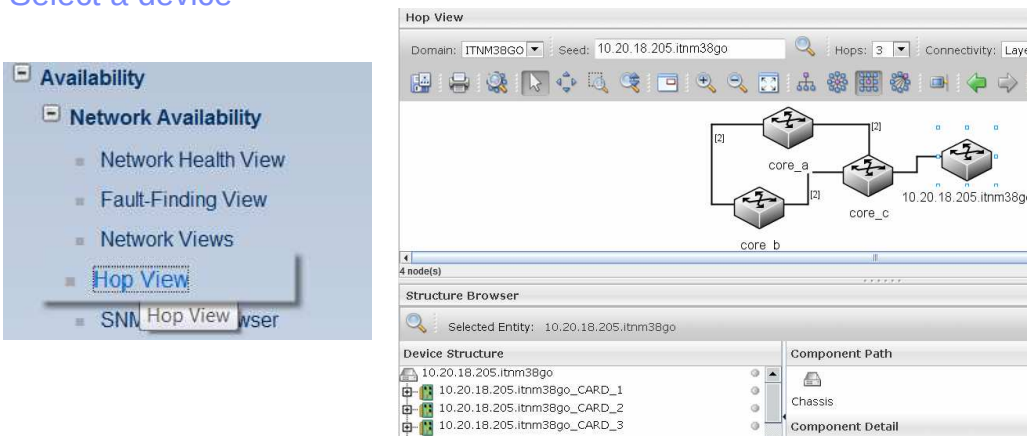
Log on to Tivoli Integrated Portal

- Open the Uniform Resource Locator (URL) for Tivoli Integrated Portal
  https://*<host_IP_address>*:16316/ibm/console
- Log on as a Tivoli Integrated Portal user with rights to use the MIB graphing tool



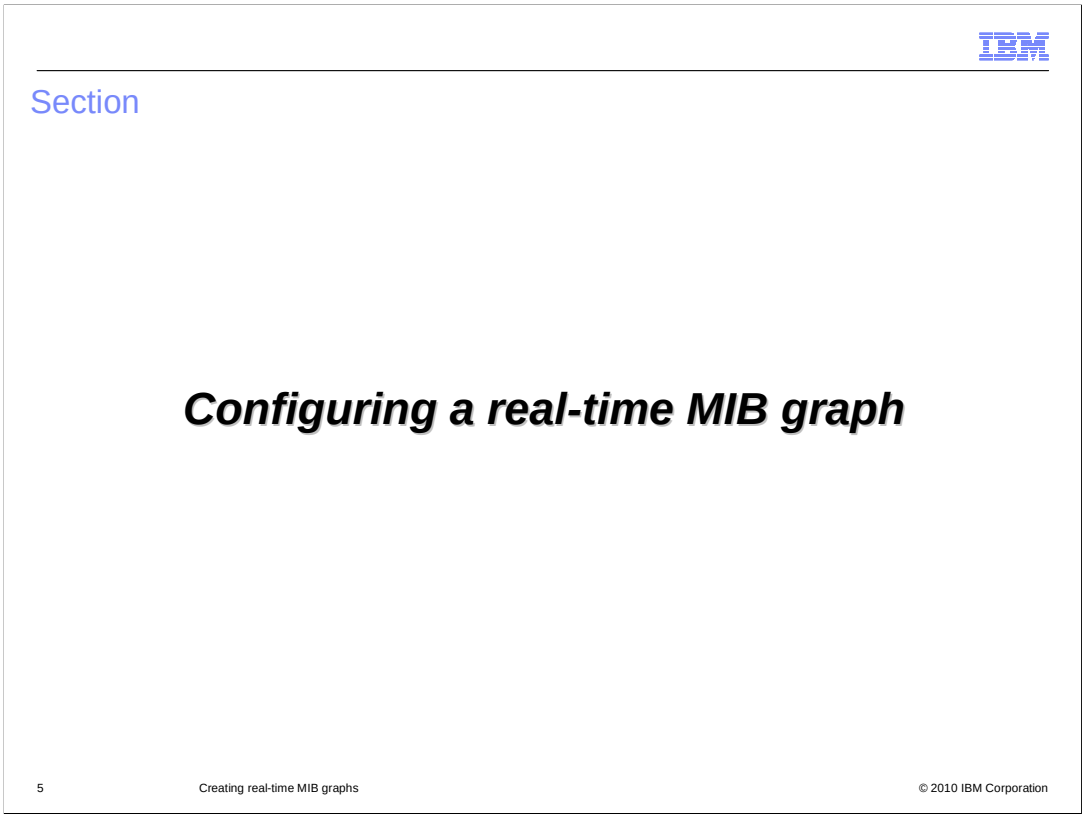
First, log on to the Tivoli Integrated Portal graphical user interface. To do this, open your compatible browser and enter the uniform resource locator (URL) of the Tivoli Integrated Portal server. The default installation uses https on port 16316. Make certain that you log on as a user that has sufficient rights to create a MIB graph. The administrator for Tivoli Network Manager or Tivoli Integrated Portal can define these permissions.

Select a device



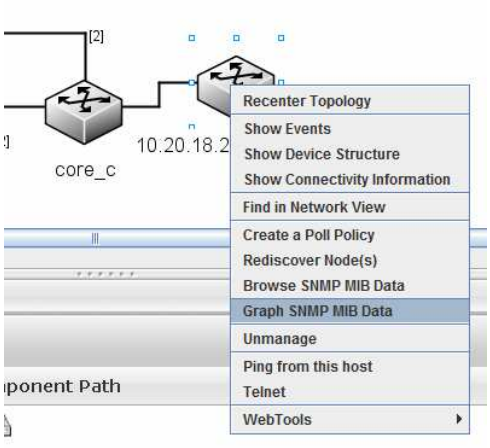
- Choose a device from the **Hop View** or **Network Views**
- Right-click the selected icon

Select the device for which you want to create a real-time MIB graph. There are a number of ways to do this. You can select a node from the event list. Or, you can select a device from the Hop View or Network Views. In the Hop View, you can enter the IP address or host name of the device in the Seed box. Then, click the green arrow to the right of the Connectivity box. The selected device will be highlighted by small blue squares around the device icon. After you select a device, right-click the device icon.



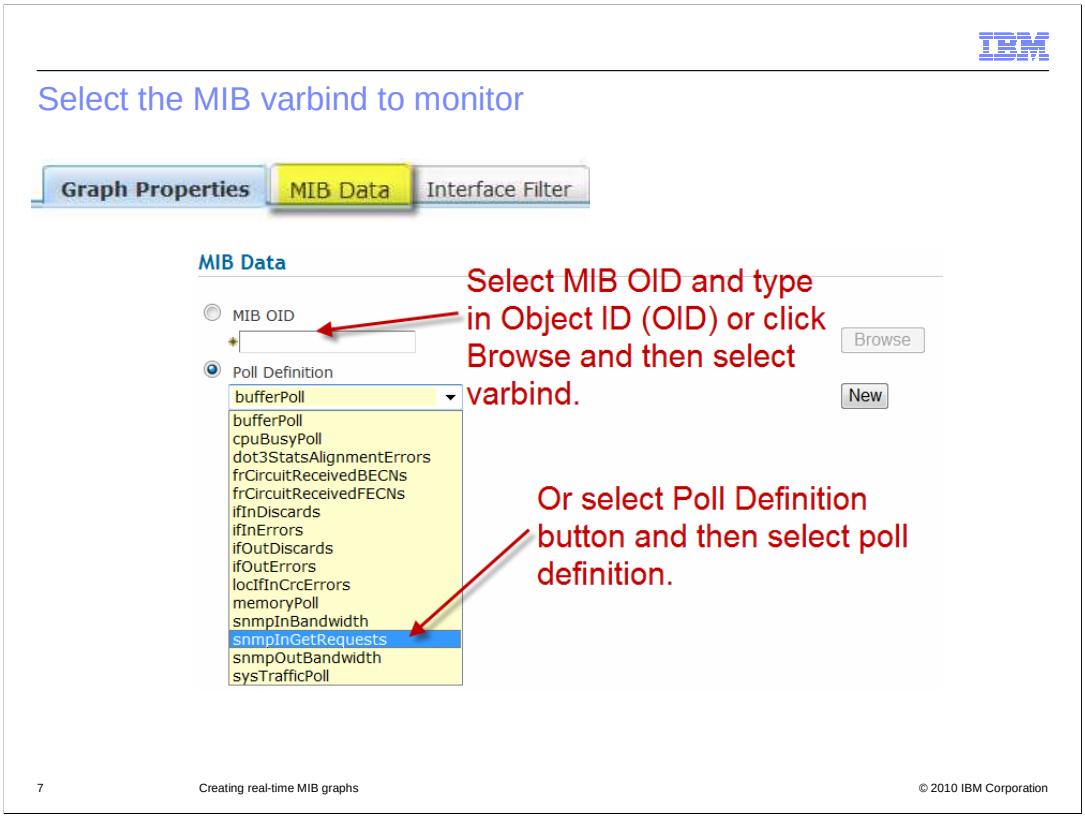
From a hop view, network partition view, or even from an event list, you can configure real-time MIB graphs.

Select Graph SNMP MIB Data



Select **Graph SNMP MIB Data** from the menu

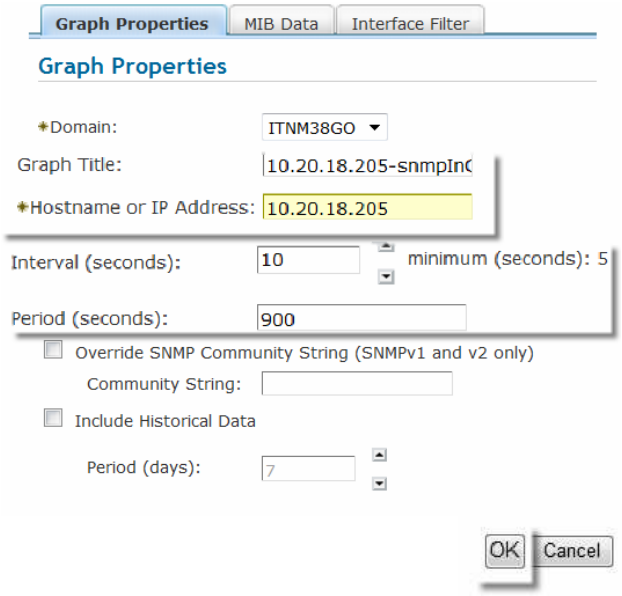
Right-click the device icon and select **Graph SNMP MIB Data** from the menu.



After selecting the menu option, a pop-up window is displayed. The tabs in this window are used to configure the Real-time MIB graph. Begin selecting the MIB data tab. Specify the MIB varbind you want to monitor. If you know the Object ID for the varbind, you can enter it here and select the MIB OID button. You can also select the Browse button and browse the MIB tree to locate the specific value you want to poll. If you want to poll something that is a standard poll definition, select the **Poll Definition** button and select a value from the list of available values.

Configure graph properties

- Enter a **Graph Title**
- Specify the polling **Interval**
- Specify the polling **Period** (duration) for the graph
- Click **OK**



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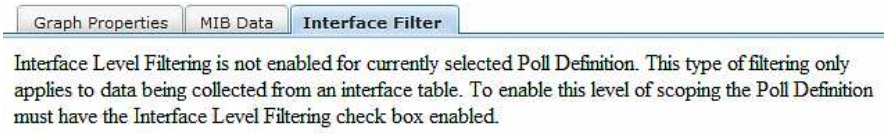
Now, click the Graph Properties tab. You see a **Graph Title** that has the host name or IP address followed by a hyphen and an indication of the variable you are polling. Edit the graph title if you want to name it something different. Specify the polling interval as the number of seconds between polls. Specify the duration of the real-time MIB graph as a number of seconds. This specification determines how long the real-time poll will run before ceasing operation. If you have previously been polling this same value, you can select the box labeled **Include Historical Data**. This selection puts historical data on the graph so that you can compare it to the real-time data being generated by the new poll.

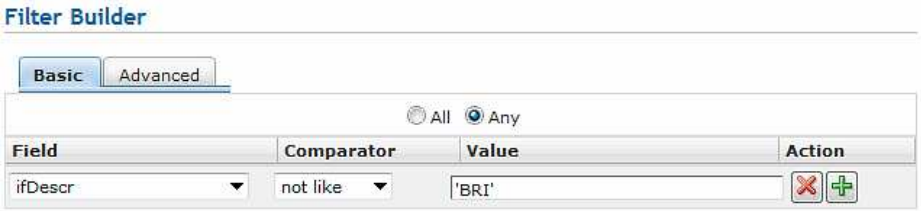
At this point, you can click OK, and the real-time MIB graph will be shown. If, however, you are making a specific interface-related poll, you can select the **Interface Filter** tab. You can then specify the type of interfaces that you do or do not want to poll. This option is useful if the device has backup ISDN interfaces that you do not want to poll.

Interface filtering

- Polls that do not use data from an interface table do not permit interface filtering as an option



- Interface filters can be applied to interface table data



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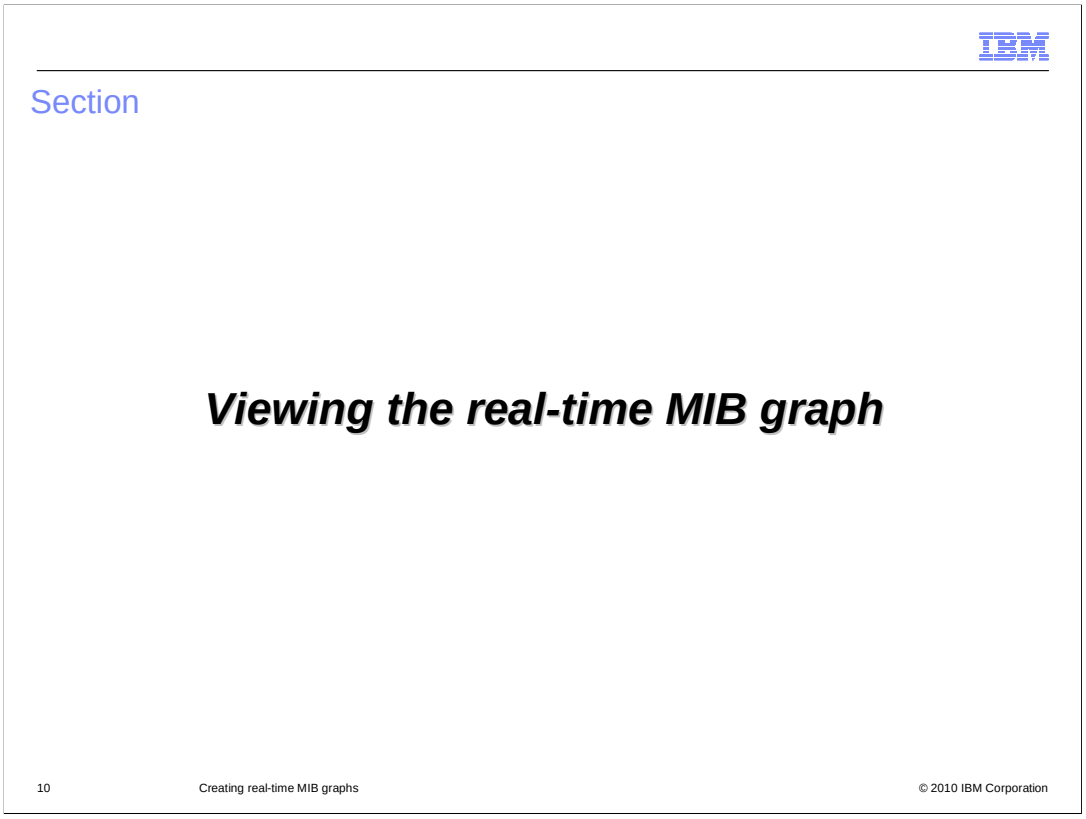
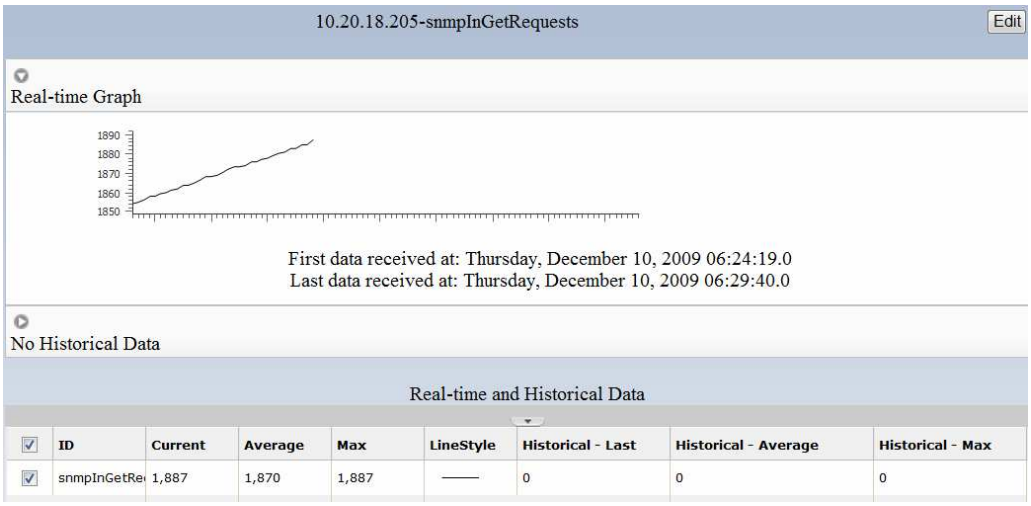
Interface filtering is only available when polling variables come from an interface table. If the variable you selected does not use an interface table, an error message is displayed when you select the Interface Filter tab. However, if you were polling for ifOutDiscards or other variables that use the interface table, you can create an interface filter. You can create a simple one-line filter or use multiple Boolean “ands” or “ors”. In the example shown here, a filter has been created to exclude ISDN basic rate (or BRI) interfaces. This type of filter can be useful in preventing the activation of ISDN dial backup circuits, which can result in telecommunications charges.



After you complete the configuration of the real-time MIB graph, the graph is displayed, and you can view graph data in real-time.

View graph data



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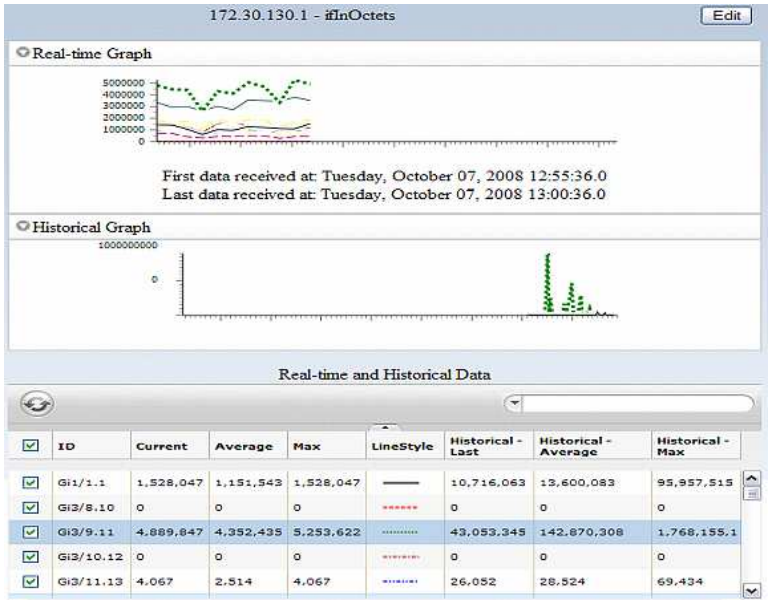
When you have finished defining the real-time MIB poll and have clicked OK, the graph is displayed in the pop-up window. Historical data, if configured to display, is shown on the chart. A tabular summary of data is shown beneath the graph.

Device with multiple interfaces

- Interface data can result in multiple rows of data in the graph



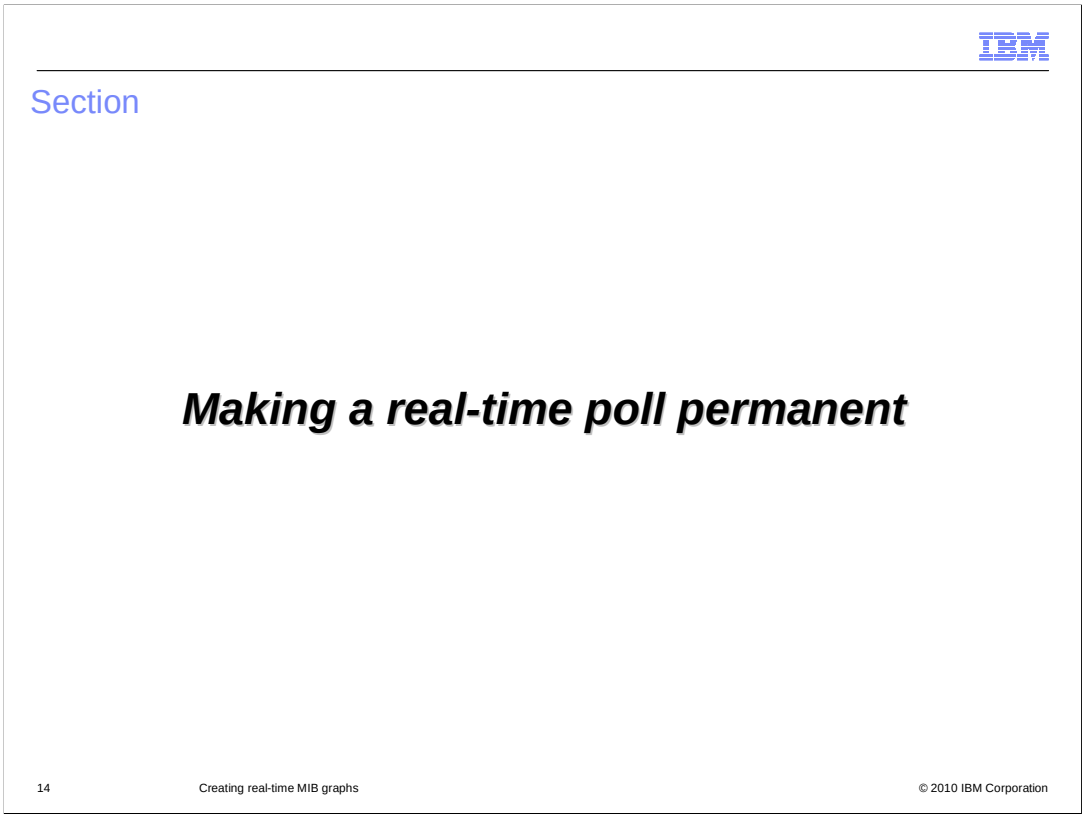
ID	Current	Average	Max	LineStyle	Historical - Last	Historical - Average	Historical - Max
Gi1/1.1	1,528,047	1,151,543	1,528,047	———	10,716,063	13,600,083	95,957,515
Gi3/8.10	0	0	0	- - - - -	0	0	0
Gi3/9.11	4,889,847	4,352,435	5,253,622	.....	43,053,345	142,870,308	1,768,155,1
Gi3/10.12	0	0	0	-.-.-.-	0	0	0
Gi3/11.13	4,067	2,514	4,067	-..-..-	26,052	28,524	69,434

If you created a poll using interface table data, you might see multiple lines of graph data. IBM Tivoli Network Manager shows each line of data with a different line style. A key to the line styles is included in the tabular data underneath the graph.

View automatically created policies

- New poll policies are automatically created when you create a real-time MIB graph
- The name of the created definition can be changed and the policies can be applied to a greater scope of devices

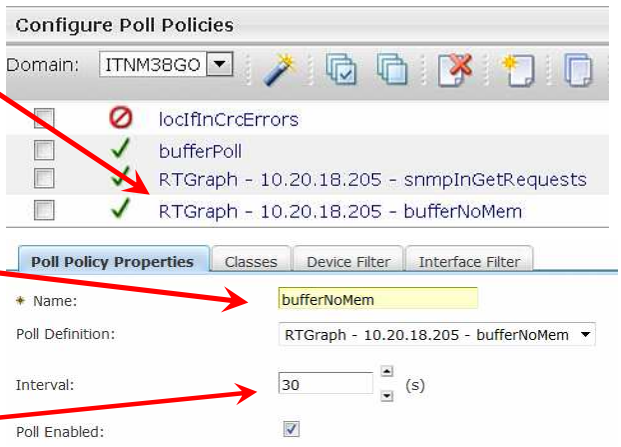
When you configure a real-time poll, a polling policy is created and the name of the policy is prefaced with “RTGraph.” To apply this polling policy to a greater number of devices in your network, you can easily change the name and scope of the polling policy.



Your real-time MIB graph poll policy is automatically saved. You can rename the policy, modify it, and make it into a permanent poll.

Making a policy permanent

- Click the Real-time policy name
- Change the name of the poll policy
- Specify polling interval



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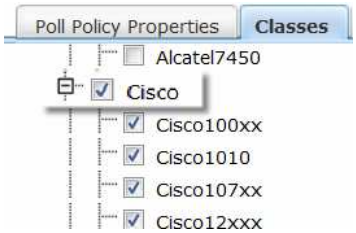
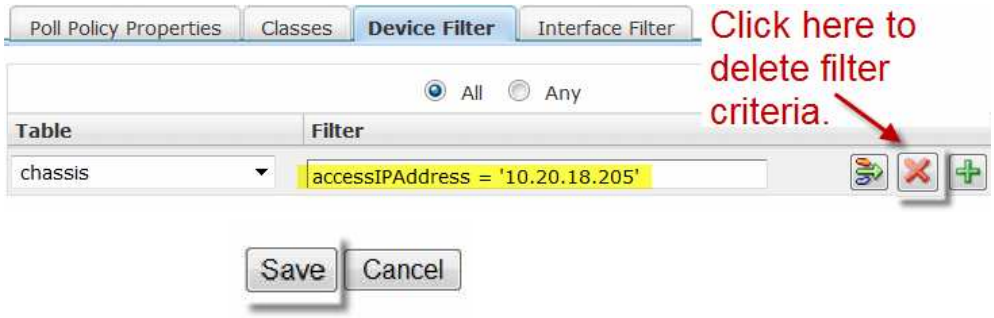
Begin by clicking the hyperlinked name of the polling policy. On **the Poll Policy Properties** tab, edit the name of the policy so that the name reflects what that poll policy will do. Edit the polling interval as necessary.

Making a policy permanent (continued)

- Select device classes to which the policy will apply
- Edit or delete existing device filters as necessary
- Click Save





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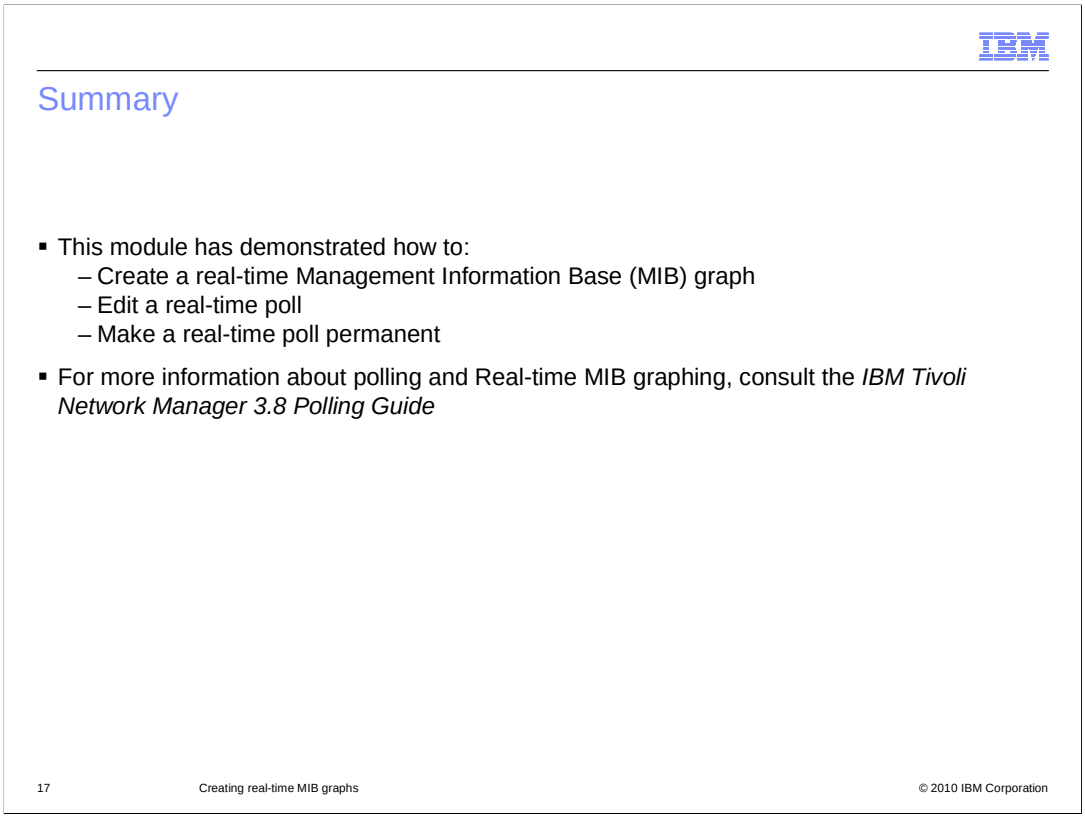
Select the **Classes** tab and select the device classes to which the poll policy will apply. Edit or delete existing device filters as necessary. To delete a filter, click the red X icon to the right of each filter you want to delete. When you finish making changes, click the **Save** button. The polling policy will be saved with its new name and properties and can be enabled or disabled from the **Configure Poll Policies** window.



You have now seen how to create a Real-time MIB graph and view that graph. You have also seen how to make the dynamically created poll policy into a permanent polling policy. For more information about polling and real-time MIB graphing, consult the *IBM Tivoli Network Manager 3.8 Polling Guide.*

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