Using a custom Management Information Base (MIB) poller, Orion NPM (NPM) has the ability to monitor more than just network status, availability, bandwidth, and errors. With custom MIB pollers, you can monitor virtually any statistic that your network devices can record including:

- Fan status
- CPU temperature
- UPS battery capacity
- UPS battery status
- Current connections to a website

These custom MIB pollers can both collect realtime statistics and record historical statistics. Collected data is easily accessible within the Orion NPM Web Console.
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Custom MIBs in Orion NPM 10.04.2007
Introduction – What is a MIB?

A Management Information Base (MIB) is the formal description of a set of objects that can be managed using SNMP. MIB-I refers to the initial MIB definition, and MIB-II refers to the current definition. Each MIB stores a value such as sysUpTime, bandwidth utilization, or sysContact. During custom polling, Orion NPM sends a SNMP GET request to each network device to poll the specified MIBs and then records the response in the database.

Each network device can support several different types of MIBs. While most devices support the standard MIB-II MIBs, they may support additional MIBs that you may want to monitor. Using a custom MIB poller, you can gather information from virtually any MIB on any network device to which you have access.

Creating Custom MIB Pollers

With custom MIB polling, Orion NPM can not only poll any MIB that is currently in the SolarWinds MIB Database, but Orion can also poll any other OID that you may need to monitor. This capability allows you to monitor virtually any statistic that your network devices can record. The following procedure uses the Custom MIB Poller Wizard to create a custom MIB poller.

To create a custom MIB poller:

1. Click Start > All Programs > SolarWinds Orion > System Manager.
2. Click File > Custom MIB Pollers.
3. Click New.
4. Click Browse next to the Select Node or Interface field.
   Note: The node or interface that you select here is assigned to the custom MIB poller. Additional nodes or interfaces can be assigned to the poller after completing the wizard. For more information, see “Assigning Nodes or Interfaces to a Custom MIB Poller” on page 3.
5. Select a node or interface, and then click OK.
6. Click Browse next to the Select OID field.
7. If you want to search the SolarWinds MIB Database for an OID, proceed as follows:
   a. Click Search.
   b. If you know the OID that you want to monitor, click Search by OID, enter the OID, and then click Show in MIB Tree.
   c. If you want to find an OID by searching for the OID name, click Search by Name, enter the full or partial name of the OID, click Search, select the OID from the list, and then click Show in MIB Tree.
      Note: If you don’t know the exact name of the OID, use the wildcard character (*) in the OID name to expand your search results.
   d. If you want to find an OID by searching within MIB descriptions, click Search by Description, enter search keywords, click Search, select the OID from the list, and then click Show in MIB Tree.
8. Click Done.
10. **If the test failed**, check the following:
   - Are you using the correct community string for the node that is being used for the test?
   - Does the device support the MIB/OID that is being polled? Refer to the documentation supplied by the vendor to see what MIBs are supported by your device.
   - Can you access the device from the Orion NPM server? Ping the device to see if it responds or use a SolarWinds Toolset application such as IP Network Browser to see if it is responding to both ICMP and SNMP.

11. **If the test succeeded**, click **Close**, and then continue with the wizard.

12. Click **OK** on the Select OID window.

13. Enter or edit the **Name** of the new custom MIB poller.

14. **If you want to add the custom MIB poller to a group**, select one from the **Group** list or type a new group name in the **Group** field.

15. **If you want to add a description to the custom MIB poller**, type one in the box provided.

16. Check **Enabled**, and then click **Next**.

17. Select the **MIB Value Type**.

18. **If you are monitoring a rate or a counter**, enter the **Unit**, and then select a **Timeframe**.

19. **If you are monitoring a raw value**, select the **Type**.

20. **If you are monitoring an enumeration MIB type**, you will need to define the enumeration map for your MIB as follows, and then click **OK**:
   a. Click **Map**.
   b. Enter a **Raw Value**, and then enter the corresponding **Text Value**. Repeat this until all raw values for the MIB have been defined.

   **Notes:**
   - The **Raw Value** field contains the value read from the SNMP response while the **Text Value** is the value that is written to the database.
   - Most devices return a 0 (zero) if the OID is unsupported. If 0 is not mapped in the enumerations table of the MIB database, you can add 0 to the raw value field and define your own error text in the text value field.

21. Select either **Keep real-time and historical statistics** or **Keep real-time statistics only**, and then click **Finish**.

After you have created a custom MIB poller, you must assign nodes or interfaces to it. For more information, see “Assigning Nodes or Interfaces to a Custom MIB Poller” on page 3.

As soon as the custom MIB poller has been enabled and nodes or interfaces have been assigned, the poller will begin collecting statistics. To view these statistics, log in to the Orion NPM Web Console and browse to a node or interface that has been assigned to the poller. For more information, see “Viewing Custom MIB Poller Statistics” on page 4.

**Note:** The SNMP port used to collect custom MIB poller statistics is the same port used for standard SNMP statistics collection. For more information on changing the SNMP Port, see “Viewing Custom MIB Poller Statistics” in the *SolarWinds Orion Network Performance Monitor Administrator Guide*. 
Assigning Nodes or Interfaces to a Custom MIB Poller

Orion NPM is packaged with a few predefined example custom MIB pollers. To use one of these example pollers or one of your own custom pollers, you will need to assign it to a node or interface, and then enable the poller, as in the following procedure. For more information on creating your own custom MIB pollers, see "Creating Custom MIB Pollers" on page 1.

To assign nodes or interfaces to a custom MIB poller:
1. Click Start > All Programs > SolarWinds Orion > System Manager.
2. Click File > Custom MIB Pollers.
3. Select a poller from the list, and then click Assign.
4. Select a node or interface from the list on the left, and then click Assign.
5. If you are finished with assigning nodes or interfaces, click OK.
6. Select your new custom poller.
7. If the State value in the status field is not Enabled, click Edit, check Enabled, and then click Finish.

As soon as the custom MIB poller has been enabled and nodes or interfaces have been assigned to it, the poller will begin collecting statistics. To view these statistics, log in to the Orion NPM Web Console and browse to a node or interface that was just assigned to the poller. For more information, see “Viewing Custom MIB Poller Statistics” on page 4.

Importing Custom MIB Pollers

SolarWinds provides the ability to import custom MIB pollers into Orion NPM. You can not, however, import MIBs directly into the Orion MIB database. This import mechanism allows you to import the association of a MIB with a poller. The custom MIB poller can then be associated with a node or interface within your environment. Use the following procedure to import a custom MIB poller.

To import a custom MIB poller:
1. Click Start > All Programs > SolarWinds Orion > System Manager.
2. Click File > Custom MIB Pollers.
3. Click Import.
4. Navigate to the poller file that you want to import, and then click Open.
5. If you want to add additional pollers, click Open, navigate to the poller file that you want to import, and then click Open.
6. Select the custom MIB pollers that you want to add from the list on the left, and then click Import.
   Notes:
   - Select multiple pollers by using Shift+click and Ctrl+click.
   - To collapse all folders and see just the group names, Shift+click the “+” next to any of the group names.
7. Click OK.
8. Assign nodes or interfaces to the imported poller. For more information, see “Assigning Nodes or Interfaces to a Custom MIB Poller” on page 3.
9. Select your new, imported custom poller.

10. If the State value in the status field is not Enabled, click Edit, check Enabled, and then click Finish.

As soon as the custom MIB poller has been enabled and nodes or interfaces have been assigned, the poller will begin collecting statistics. To view these statistics, log in to the Orion NPM Web Console and browse to a node or interface that was just assigned to the poller. For more information, see “Viewing Custom MIB Poller Statistics” on page 4.

**Viewing Custom MIB Poller Statistics**

Once you have configured and enabled a custom MIB poller, you can view the statistics that it records in the Orion NPM Web Console. Before you can see these new statistics, however, you need to add some resources to the views in your web console. There are three basic areas to which you can add these resources: node detail views, interface detail views, and summary views. The following sections present the procedures for adding these resources to their appropriate views.

**Adding Node, Interface, and Summary Resources to the Orion Web Console**

The following procedure will include custom MIB poller resources on any Orion NPM Web Console view.

To add node-, interface-, or summary-based custom MIB poller statistics to the Orion Web Console:

1. Log in to the Orion NPM Web Console as an administrator.
2. Click Admin in the views tool bar.
3. Click Manage Views in the left pane menu.
4. Select a node detail, an interface detail, or a network summary view, as appropriate, and then click Edit.

   **Note:** Node Details is the default node detail view; Interface Details is the default interface detail view, and Network Summary is the default network summary view.

5. Click + next to either column to display the Add Resources page.
6. Click + next to a resource group to expand the tree and display all available resources for the group.

   **Note:** Resources that are already listed on your view will not be checked on this page, as this page is a view of all resources. It is, therefore, possible to pick duplicates of resources that you are already viewing. Some resources may require additional configuration. For more information about configuring resources, see “Resource Configuration Examples” in the SolarWinds Orion Network Performance Monitor Administrator Guide.

7. Check the resources that you want to add, and then click Submit.

   **Note:** There are several custom MIB poller resources that are available in each resource group. Expand resource titles fully to view all available resources.

8. If you have added all of the resources that you want to view, click Submit.

9. If you want to delete a resource from a column, select the resource, and then click X to delete it.

10. If you want to rearrange the order in which resources appear in your view, select resources, and then use the arrow keys to arrange them.
11. **If you have finished configuring your view, click Preview.**

   **Note:** A preview of your custom web console opens in a new window. A message that acts as a placeholder appears in the locations for some resources. For more information, see “Resource Configuration Examples” in the *SolarWinds Orion Network Performance Monitor Administrator Guide*.

12. Close the preview window.

13. **If you still want to change aspects of your view**, repeat the preceding steps, as needed.

14. **If you are satisfied with the configuration of your view**, click Done.

   **Notes:**
   
   - For more information about adding your customized view to menu bars as a custom item, see “Adding a Custom Menu Item” in the *SolarWinds Orion Network Performance Monitor Administrator Guide*.
   
   - For more information about assigning your customized view as the default view for a user, see “Editing user Accounts” in the *SolarWinds Orion Network Performance Monitor Administrator Guide*.

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**Creating Alerts for Custom MIB Pollers**

Alerts for custom MIB pollers are configured using the advanced alert engine. For more information on creating advanced alerts, see “Configuring Advanced Alerts” in the *SolarWinds Orion Network Performance Monitor Administrator Guide*.

**Note:** When creating a new alert for a custom MIB poller, on the Trigger Condition tab, change the alert type to **Custom Node Poller** or **Custom Interface Poller**, as appropriate.