HP Network Node Manager i-Series Software

For the Windows®, HP-UX, Linux, and Solaris operating systems

Software Version: NNMi 8.1x patch 4 (8.12)

Online Help: Custom Poller for Operators

PDF Version of NNMi Online Help

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Table of Contents

About Custom Poller

The NNMi Custom Polling feature enables your NNMi administrator to take a proactive approach to network management by gathering additional device information using SNMP MIB variables. For example, an NNMi administrator might want NNMi to monitor the Status of COM (communication) ports on all of your Windows servers.

Using Custom Poller, your NNMi administrator can also configure NNMi to do the following:

- Send incidents when certain MIB values are detected

- Map returned MIB values to States and include these States as part of node Status calculations.

The NNMi Custom Poller feature enables network operators to:

- View the list of topology nodes for which additional information is being polled as well as the name of the associated Policy.

- View the polling results. The first time the results for a specified MIB variable are discovered, the results appear in a Polled Instance object. The Polled Instance object is updated whenever a change in State is detected and includes the most current polled value that caused the State to change.

- View incidents that are generated by Custom Poller for a MIB Poll Variable.

Custom Node Collections View

Tip: Mouse over a column heading for the complete name of a column heading attribute. See "Custom Node Collections Form" (on page 9) for more details about the attributes that appear in the view's column headings.

The **Custom Node Collections** view in the **Monitoring** workspace is useful for identifying the node objects for which Polices have been created.

For each Custom Node Collection displayed, you can identify a Custom Node Collection's overall Status (for example, **Normal**, **Warning**, **Minor**, **Major**, **Critical**, or **Unknown**), the Name of the associated topology node, the Active State of the Custom Node Collection's Policy (for example, **Active**, **Inactive**, or **Suspended**), the name of the Policy that is applied to the current Custom Node Collection, as well as discovery information regarding the MIB Poll Variable on each node for which you are collecting data, such as Discovery State, the Discovery Time Stamp, and Discovery State Information.

Note the following:

- The Custom Node Collection's Status is the most severe State value returned from the Polled Instances for the Custom Node Collection.

- The Active State for any Custom Node Collection associated with a Not Managed or Out of Service node becomes **Inactive**. NNMi deletes all of the Polled Instances associated with the Not Managed or Out of Service node.

Custom Polled Instances View

Tip: Mouse over a column heading for the complete name of a column heading attribute. See "Polled Instance Form" (on page 12) for more details about the attributes that appear in the view's column headings.

The Custom Polled Instances view in the **Monitoring** workspace is useful for viewing the polling results for Custom Poller Nodes.

Note: A Custom Poller Node is not the same object as a topology node object in NNMi. A Custom Poller Node is created for each Policy that applies to a topology node. Because you can configure multiple Custom Poller Collections, each with its own set of Custom Poller Policies, each node in your NNMi topology can have multiple Custom Poller Nodes.

The first time the specified MIB Poll Variable for a Custom Poller Collection's Policy is polled, the results appear in a Custom Polled Instance object. The Custom Polled Instance object is updated whenever a change in State is detected and includes the most recent polled value that caused the State to change.

Note: The Active State for any Custom Node Collection associated with a Not Managed or Out of Service node becomes **Inactive**. NNMi deletes all of the Polled Instances associated with the Not Managed or Out of Service node.

For each Custom Polled Instance displayed, you can identify the State of the Custom Polled Instance (for example, **Normal**, **Warning**, **Minor**, **Major**, and **Critical**), the returned value from the MIB Poll Variable that caused the State to change, the MIB Poll Variable instance, name of the topology Node on which the Custom Poller Policy information is being collected, the MIB Poll Variable name, and the date and time the Custom Polled Instance State was last modified.

Custom Node Collections Form

The Custom Node Collections form provides details about the Custom Node Collection you selected from the Monitoring workspace. The following table describes the attributes included on the Custom Node Collection form.

The Custom Node Collections form also provides details about the Status, Conclusions, and Polled Instances associated with this Custom Poller Node.

For information about each tab:

Basic Attributes

Attribute	Description
Node	Name of the topology node on which the Custom Poller Policy information is being collected. This is the current value in the NNMi database for the Name attribute of the node. The value could be a DNS name, a MIB II sysName, or an address (depending on how your NNMi administrator configured the discovery process). Click the ⬛ ▾ Lookup icon and select 📋 Quick View or 📂 Open to display more information about the node.
Active State	Specifies the Active State for the associated Policy. Possible values are: **Active** - Indicates the Custom Poller Policy is in use. **Inactive** - Indicates the Custom Poller Policy is not in use. NNMi removes all Polled Instances associated with the Policy. **Suspended** - Indicates the Custom Poller Policy is temporarily disabled. NNMi suspends polling and retains the most recent State value from before the Policy was suspended.
Status	The most severe State value returned from the Custom Poller Polled Instances for this Custom Node Collection. Possible values are: ✅ Normal 🔺 Warning ⚠️ Minor 🔻 Major ❌ Critical
Policy	A Policy specifies the Node Group and Polling Interval that NNMi should use when polling the results of the MIB Poll Variable configured for the current Custom Poller Collection. Click the ⬛ ▾ Lookup icon and select 📋 Quick View or 📂 Open to display more information about the current Custom Poller Node's Policy.
Discovery State	Indicates the progression of discovery of the MIB Poll Variable objects for which you are collecting information.
Discovery Time Stamp	Indicates when the Discovery State value was last modified.

Attribute	Description
Discovery Information	Indicates any problems that have contributed to the Discovery State.

Custom Node Collections Form: Status Tab

The "Custom Node Collections Form" (on page 9) provides details about the selected Custom Node Collection.

For information about each tab:

Overall Status

Attribute	Description
Status	The most severe State value returned from the Polled Instances for this Custom Node Collection. Possible values are: ⊘ Normal △ Warning ⚠ Minor ▽ Major ✖ Critical
Status Last Modified	Date and time indicating when the Status last changed.

Status History Table

Attribute	Description
Status History	List of up to the last 30 changes in status for the selected Custom Node Collection. This view is useful for obtaining a summary of the Custom Node Collection Status so that you can better determine any patterns in node behavior and activity. Click the 📖 Open icon to view more information about a specific Status.

Custom Node Collections Form: Conclusions Tab

Tip: The "Custom Node Collections Form" (on page 9) provides details about the selected Custom Node Collection.

For information about each tab:

Outstanding Status Conclusions Table

Attribute	Description
Outstanding Status Conclusions	The dynamically generated list of summary statuses of the Custom Poller Node at points in time that contributed to the current overall Status of the selected Custom Poller Node.
	Each conclusion listed is still outstanding and applies to the current overall Status.
	This view is useful for obtaining a quick summary of the Status and problem description that led up to the Custom Poller Node's most current Status.
	The Status value is correlated based on the most critical outstanding conclusions. Click the ⬆ Open icon to view more information about a specific conclusion.

Custom Node Collections Form: Polled Instances Tab

Tip: The "Custom Node Collections Form" (on page 9) provides details about the selected Custom Node Collection.

For information about each tab:

Polled Instance Table

Attribute	Description
State	The State of the Polled Instance. This value is determined by any Thresholds or Comparison Maps configured for the current Custom Poller Collection's MIB Poll Variable.
	2.
	Possible values are:
	🟢 Normal
	🔺 Warning
	⚠ Minor
	🔻 Major
	❌ Critical
Last State Change Value	The returned value from the MIB Poll Variable that most recently caused the State to change.
MIB Instance	This attribute contains the instance value for the MIB Poll Variable. Each instance value identifies a row in the MIB table.
MIB Poll Variable	The MIB variable that NNMi polls according to configuration settings.
State Last Modified	The date and time the Polled Instance State was last modified.

Polled Instance Form

The Custom Polled Instance form provides details about the Custom Polled Instance you selected from the **Monitoring** workspace. The following table describes the attributes included on the Polled Instance form.

Basic Attributes

Attribute	Description
Node	Name of the topology node on which the Custom Poller Policy information is being collected. This is the current value in the NNMi database for the Name attribute of the node. The value could be a DNS name, a MIB II sysName, or an address (depending on how your NNMi administrator configured the discovery process). Click the ⊞ ▾ Lookup icon and select ▤ Quick View or ⬀ Open to display more information about the topology node.
State	The State of the Polled Instance. This value is determined by any Thresholds or Comparison Maps configured for the current Custom Poller Collection's MIB Poll Variable. Possible values are: ✔ Normal 🔺 Warning ⚠ Minor 🔻 Major ❌ Critical **Note**: The most severe State value returned from the Polled Instances for a Custom Node Collection becomes the Custom Node Collection Status.
MIB Poll Variable	The MIB variable that NNMi polls according to configuration settings.
MIB Instance	This attribute contains the instance value for the MIB Poll Variable. Each instance value identifies a row in the MIB table.
Last State Change Value	The returned value from the MIB Poll Variable that most recently caused the State to change.
State Last Modified	The date and time the Polled Instance was last modified.

Node Form: Custom Polled Instances Tab

Tip: The "Polled Instance Form" (on page 12) provides details about the selected Polled Instance.

For information about each tab:

Basics Attributes

Attribute	Description
Node	Name of the topology node on which the Custom Poller Policy information is being collected. This is the current value in the NNMi database for the Name attribute of the node. The value could be a DNS name, a MIB II sysName, or an address (depending on how your NNMi administrator configured the discovery process).
State	The State of the Custom Poller Polled Instance. This value is determined by any Thresholds or Comparison Maps configured for the current Custom Poller Collection's MIB Poll Variable. Possible values are: ⊘ Normal ▲ Warning ⚠ Minor ▼ Major ✖ Critical **Note**: The most severe State value returned from the Polled Instances for a Custom Poller Node becomes the Custom Poller Node Status.
MIB Poll Variable	The MIB variable that NNMi polls according to configuration settings.
MIB Instance	This attribute contains the instance value for the MIB Poll Variable. Each instance value identifies a row in the MIB table.
Last State Change Value	The returned value from the MIB Poll Variable that caused the State to change.
State Last Modified	The date and time the Custom Poller Polled Instance was last modified.

Interpret Custom Poller Incidents

Custom Poller incidents can be generated when your NNMi administrator has configured one or more Custom Poller Collections that specify MIB variables whose values NNMi should poll at regular intervals. When configuring a Custom Collection, your NNMi administrator must have specified that NNMi should generate Custom Polling Policy incidents.

A Custom Poller incident indicates the MIB Poll variable returned a value that is mapped to a particular State that causes NNMi to generate an incident.

A Custom Poller incident identifies the MIB variable whose threshold was reached or whose value is mapped to a particular State. It also identifies the associated Custom PollerPolicy and Collection.

A Custom Poller incident Family is **Custom Poller** and the Category is **Performance**.

Each Custom Poller incident appears in the following format:

```
<Policy_Name/Collection_Name> for variable <Name> (<variable_OID>) is in the
<State> State
```

For example:

```
Windows Node Group/Disk Status for variable hrDev-
iceStatus(.1.3.6.1.2.1.25.3.2.1.5) is in the CRITICAL State
```

To view more details regarding Custom Pollerattributes related to the incident:

1. Click the ⛏ Open icon to view the Incident form.

2. Navigate to the **Custom Attributes** tab.

See Incident Form for more information.

Related Topics

"Custom Node Collections Form: Status Tab" (on page 10)

"Custom Node Collections Form: Conclusions Tab" (on page 10)

"Custom Polled Instances View" (on page 8)

Appendix A: Glossary Terms

A

Anycast Rendezvous Point IP Address

Rendezvous Point addresses are loopback addresses used for routers in multi-cast network configurations.

L

Layer 2

Refers to the Data Link layer of the multilayered communication model, Open Systems Interconnection (OSI). The Data Link layer moves data across the physical links in the network. The switches and bridges are devices that redirect data messages at the layer 2 level, using the destination Media Access Control (MAC) address to determine where to direct the message.

Layer 3

Refers to the Network layer of the multilayered communication model, Open Systems Interconnection (OSI). The Network layer is concerned with knowing the address of the neighboring nodes in the network, selecting routes and quality of service, and recognizing and forwarding incoming messages to local host domains. The router and switch-router are the devices that redirect data messages at the Layer 3 level. Everything in a subnet is connected at the Layer 3 (IP) level.

Link Aggregation

A Link Aggregation is comprised of an Aggregator Link, Aggregator Interface, and the physical interfaces and connections that they represent. An Aggregator Link object represents many-to-many physical connections. For example, two nodes might be connected with four physical connections. These four physical connections are depicted as a single Aggregator Link object using a thick line on the Layer 2 Neighbor View map. The interface depicted at each end of the Aggregator Link object is an Aggregator Interface object. An Aggregator Interface object represents the collection of physical interfaces for one end of an Aggregator Link.

loopback address

The address associated with the loopback interface. The loopback interface is a virtual interface on a device that provides a route for internal communication. Many vendors provide a specially configured

loopback for management purposes. Exact details of how loopbacks are configured varies by vendor and model. See each device's documentation for details. NNMi identifies these loopback addresses by using IfType 24, softwareloopback from the IANA ifType-MIB.

Appendix B: Index