

# MetaConsole Client

## User's Guide

version 2.3

**FOR MIB-II**



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## Overview

A *management console* is a single tool used to manage entire networks. It is a framework within which device- or service-specific management modules can share a user interface, alarm monitoring, and other basic functions. Popular management consoles include Microsoft Management Console (MMC), HP OpenView, Tivoli Enterprise, and CA Unicenter.

MetaConsole technology enables development of a single client module that works with multiple management consoles and multiple network protocols on multiple platforms. In addition, *MetaConsole J* permits a Java-enabled Web browser (or custom Java application) to function as a console.

This guide describes how the MetaConsole client manages MIB-II devices.

## MIB-II

A management information base (MIB) is a collection of managed objects. A MIB is often represented as a tree with branches of related objects. The objects, or leaves on the tree, are variables that represent information about network devices and interfaces.

MetaConsole supports the industry-standard printer MIB as well as the Internet-standard MIB-II. MIB-II contains objects organized into branches by protocol (such as TCP, IP, and SNMP) and other categories (such as interfaces).

The client that this guide describes manages MIB-II entities only.

## MetaConsole Documentation

For any type of device you want to manage using MetaConsole, there are two relevant documents in the suite of MetaConsole documentation:

- A *getting started* guide describing MetaConsole's components and explaining the requirements, installation steps, and other details specific to the management environment
- A *client user's guide* describing how the MetaConsole client manages the particular type of device

You are reading the client user's guide for MIB-II devices. Chapter 1 introduces the client, and Chapters 2 and 3 contain instructions for using the client to manage network entities.

## Chapter 1. About the Client

The MetaConsole client provides management for all MIB-II entities. Its main functions are

- Searching the network to discover supported entities
- Maintaining a list of entities
- Allowing you to view and change entity-specific settings
- Reporting protocol and routing details useful for troubleshooting

The client window has two panes. You use the *navigation tree* in the *navigation pane* on the left to select the information you want displayed in the *details pane* on the right.

The navigation tree includes

- A **Help** node for online help for MetaConsole server
- A **Configuration** node for configuring high-level MetaConsole settings  
For information, see the getting started guide for your console.

- A node for each MetaConsole server

Each MetaConsole server node contains

- **Version Information, Service Providers, and View Alarms** nodes for that MetaConsole server

For information, see the getting started guide for your console.

- A node for each type of device that MetaConsole manages

The **MIB-II Devices** node contains

- A **Help** node for online help specific to managing MIB-II devices
- A **Configuration** node for configuring discovery and alarms related to MIB-II entities  
For details, see *Configuration* below.
- A node for each MIB-II entity

For details, see *Device Node* on page 3.

### Configuration

The **Configuration** node for MIB-II entities includes

- **Discovery Ranges** – IP address ranges within which devices are to be discovered
- **Blocked Ranges** – IP address ranges to be excluded from discovery
- **Manual Discovery** – IP addresses of manually added devices
- **Alarm Management** – events that are to trigger MetaConsole alarms
- **Rates and Timeouts** – refresh rate, poll rate, and timeout settings

## Device Node

The node for each MIB-II entity includes

- **Write Community** – the entity's Write Community string
- **System** – information about the entity's hardware and software, as well as the entity's name and contact person
- **Networking** – information about the entity's interfaces, including type and status; and detailed information about any or all of the following network protocols: IP, TCP, UDP, ICMP, and SNMP
- **Host Utility** – the embedded application on the device, if present

### Device Icon

The background color of the device icon itself indicates the state of the device, which can be:

- **Running** — fully operational with no known error conditions  
**Note:** This icon is displayed if MetaConsole cannot determine the state of the device.
- **Testing** — in a testing state and not operational
- **Warning** — operational but in an unusual condition that might degrade functionality (for example, low toner)
- **Down** — not operational

State	Microsoft Management Console Tree	MetaConsole Browser Client Tree	HP OpenView Map	Tivoli NetView Map	CA Unicenter Map
Running	N/A*	none	Dark blue	Light blue	Green
Testing	N/A	none	Green	Green	White
Warning	N/A	Yellow	Light blue	Yellow	Yellow
Down	N/A	Red	Red	Red	Black

\* Not applicable; icon background colors are not supported for MMC

## Chapter 2. Configuring the Client

This chapter presents procedures for configuring the client's behavior regarding MIB-II entities managed through a particular MetaConsole server. For information on higher-level configuration — configuration of MetaConsole servers generally and of a particular MetaConsole server's treatment of *all* devices — see the getting started guide for your console.

At this level, you can configure

- Device discovery
- The events that trigger alarms
- Rates and timeouts

The MIB-II service provider's configuration settings are maintained by the MetaConsole server and are not client specific. All clients use the same values; if any client changes a particular setting, the change affects all clients that use that setting.

### Specifying IP Address Ranges to Include in Device Discovery

For each MetaConsole server, you specify ranges of IP addresses for automatic device discovery.

#### To add a range of IP addresses for device discovery:

1. In the navigation pane, expand the **MIB-II Devices** node and the **Configuration** node, and click **Discovery Ranges**.
2. Under **Add New Discovery Range**, in the **Start Address** boxes, type the lowest IP address in the desired range.
3. In the **End Address** boxes, type the highest IP address in the desired range.
4. Click **Add**.

#### To remove a range of IP addresses:

1. In the navigation pane, expand the **MIB-II Devices** node and the **Configuration** node, and click **Discovery Ranges**.
2. Under **Auto Discovery Range List**, click the start address or end address of the range to be removed.
3. Click **Remove**.

## Specifying IP Address Ranges to Exclude from Device Discovery

If a range of addresses is not specified as described above under *Specifying IP Address Ranges to Include in Device Discovery*, MetaConsole does not discover devices with IP addresses in that range. So in general, it is not necessary to explicitly exclude a range of addresses. However, excluding a range can be useful. For example, if you want MetaConsole to discover devices between 10.0.0.40 and 10.0.0.80 *except for* 10.0.0.52 through 10.0.0.56, you can include the large range but exclude the small range.

### To exclude a range of addresses from device discovery:

1. In the navigation pane, expand the **MIB-II Devices** node and the **Configuration** node, and click **Blocked Ranges**.
2. Under **Add New Blocked Range**, in the **Start Address** boxes, type the lowest IP address in the desired range.
3. In the **End Address** boxes, type the highest IP address in the desired range.
4. Click **Add**.

### To remove a range from the list of excluded ranges:

1. In the navigation pane, expand the **MIB-II Devices** node and the **Configuration** node, and click **Blocked Ranges**.
2. Under **Blocked Discovery Range List**, click the start address or end address of the range to be removed.
3. Click **Remove**.

## Manually Adding or Removing Individual Devices

In addition to specifying address ranges for automatic device discovery, you can manually add addresses to the list of discovered devices.

### To manually add a device to the device list:

1. In the navigation pane, expand the **MIB-II Devices** node and the **Configuration** node, and click **Manual Discovery**.
2. In the **Device Address** boxes, type the device's IP address.
3. Click **Add**.

### To delete a manually added device from the device list:

1. In the navigation pane, expand the **MIB-II Devices** node and the **Configuration** node, and click **Manual Discovery**.
2. Under **Manual Device List**, click the IP address you want to delete.
3. Click **Remove**.

### To delete all manually added devices from the device list:

1. In the navigation pane, expand the **MIB-II Devices** node and the **Configuration** node, and click **Manual Discovery**.
2. Click **Remove All**.

## Specifying Events to Raise Alarms

MetaConsole enables you to select events that will result in alarms. An event is just a change in information of the selected type. For details about the form that the actual alarm takes, see the getting started guide for your console.

### To select events that will raise alarms:

1. In the navigation pane, expand the **MIB-II Devices** node and the **Configuration** node, and click **Alarm Management**.
2. Select the check box for each type of information you want alarms generated for.
3. Click **Apply**.

## Specifying Rates and Timeouts

### To set rate and timeout values:

1. In the navigation pane, expand the **MIB-II Devices** node and the **Configuration** node, and click **Rates and Timeouts**.
2. In the **Discovery Refresh Rate** list, click how often the client should refresh the navigation pane's list of discovered devices.
3. In the **Alarm Poll Rate** list, click how often the client should poll for alarms.

Greater numbers of devices require a greater value for **Alarm Poll Rate**, due to the increased network traffic.

4. Click **Apply**.

## Chapter 3. Using the Client

This chapter presents simple procedures for displaying and changing information about devices and network protocols.

### Editing the Write Community String

The Write Community string is used while writing SNMP data to a device. You must set it correctly in order to change any device information.

**To configure the entity's Write Community string:**

1. In the navigation pane, expand the entity's node and click **Write Community**.
2. In the **Write Community** box, type the string.
3. Click **Apply**.

### Displaying Information About the Managed Entity

**To display a managed entity's description and contact information:**

→ In the navigation pane, expand the entity's node and click **System**.

### Editing the Entity's Name, Location, and Contact Information

**To edit descriptive information about the entity:**

1. In the navigation pane, expand the entity's node and click **System**.
2. In the **Contact Person**, **System Name**, and **System Location** boxes, change the information as desired.
3. Click **Apply**.

### Displaying Network Interface Information

**To display the managed entity's interface information:**

→ In the navigation pane, expand the entity's node and the **Networking** node, and click **Interface**.

### Displaying IP Information

**To display IP information:**

→ In the navigation pane, expand the entity's node, the **Networking** node, and the **Protocol Diagnostics** node, and click **IP**.

### Displaying TCP Information

**To display TCP information:**

→ In the navigation pane, expand the entity's node, the **Networking** node, and the **Protocol Diagnostics** node, and click **TCP**.

## Displaying UDP Information

**To display UDP information:**

- In the navigation pane, expand the entity's node, the **Networking** node, and the **Protocol Diagnostics** node, and click **UDP**.

## Displaying ICMP Information

**To display ICMP information:**

- In the navigation pane, expand the entity's node, the **Networking** node, and the **Protocol Diagnostics** node, and click **ICMP**.

## Displaying SNMP Information

**To display SNMP information:**

- In the navigation pane, expand the entity's node, the **Networking** node, and the **Protocol Diagnostics** node, and click **SNMP**.

## Running the Entity's Host Utility

**To use the entity's embedded Web utility:**

1. In the navigation pane, expand the entity's node, and click **Host Utility**.
2. In the details pane, click **LAUNCH**.

**Note:** An error occurs in any of these cases:

- The specific device does not support this feature.
- The host utility is not properly installed and configured.
- The host's IP address is not reachable from the MetaConsole client.
- The **Network Address** box does not contain a valid IP Address or host name.