

MetaConsole Client

User's Guide

version 2.3

FOR STANDARD PRINTER MIB



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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 devices with a standard printer MIB.

Standard Printer MIB

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. The client that this guide describes manages standard MIB 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 standard MIB 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 standard printer MIB 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 **Standard Printer MIB Devices** node contains

- A **Help** node for online help specific to managing standard MIB devices
- A **Configuration** node for configuring discovery and alarms related to standard MIB entities

For details, see *Configuration* below.

- A node for each standard MIB entity

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

Configuration

The **Configuration** node for standard MIB 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 entity includes

- **Write Community** – the entity's Write Community string
- **Status** – detailed status of device components, plus the names of the device, service person, operator, and vendor
- **Printing** –
 - The type and status of each paper cassette, and an approximation of how full the cassette is
 - The type and status of each output tray
 - Information about device interpreters and print data channels
 - Details about marking technology, such as the number of process colors supported and the toner level
- **Components** – information about hardware components, such as memory, as well as options to change the device's name and location and the names of the current operator and service person
- **Networking** – information about the entity's interfaces, including type, physical address, and status, as well as 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

Chapter 2. Configuring the Client

This chapter presents procedures for configuring the client's behavior regarding standard printer MIB 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 standard printer MIB 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 **Standard Printer MIB 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 **Standard Printer MIB 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 **Standard Printer MIB 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 **Standard Printer MIB 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 **Standard Printer MIB 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 **Standard Printer MIB 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 **Standard Printer MIB 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 **Standard Printer MIB 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 **Standard Printer MIB 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

To configure the entity's Write Community string:

5. In the navigation pane, expand the entity's node and click **Write Community**.
6. In the **Write community** box, type the string.
7. Click **Apply**.

Displaying Status of the Managed Entity

To display the status of a managed entity and its components:

- In the navigation pane, expand the entity's node and click **Status**.

Displaying Cassette Information

To display information about paper cassettes:

- In the navigation pane, expand the entity's node and the **Printing** node, and click **Cassettes**.

Displaying Tray Information

To display information about output trays:

- In the navigation pane, expand the entity's node and the **Printing** node, and click **Trays**.

Displaying Interface Information

To display information about the printing interface:

- In the navigation pane, expand the entity's node and the **Printing** node, and click **Interface**.

Displaying Marker Information

To display information about the entity's marking technology:

- In the navigation pane, expand the entity's node and the **Printing** node, and click **Marker**.

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 **Components**.
2. In the **Device name**, **Device location**, **Current operator**, and **Service person** boxes, change the information as desired.
3. Click **Apply**.

Displaying Hardware Component Information

To display information about memory and other hardware:

- In the navigation pane, expand the entity's node and click **Components**.

Displaying Network Interface Details

To display network interface details:

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

Information displayed includes the network topology, the entity's physical address, and the number of octets received and transmitted.

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.