



Getting Started with WhatsVirtual

IPSWITCH

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CHAPTER 1

Welcome

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Welcome to Ipswitch WhatsVirtual

As an integrated plug-in for WhatsUp Gold, Ipswitch WhatsVirtual provides the ability to discover, map, monitor, alert and report on virtual hosts and their associated virtual machines. Now, with WhatsVirtual, you have detailed visibility into your virtual environments in WhatsUp Gold.

Virtualization - Virtual Host [Menu](#)

VM Host details for: atl-esxi.ipswitch_m.ipswitch.com

 atl-esxi.ipswitch_m.ipswitch.com (192.168.3.178)

Host Attributes

Name:	VMware ESX Server 3i
VIM Version:	3.5.0
API Version:	2.5u2
Build:	158869
Boot Time:	1/22/2010 11:45:53 AM

Hardware Information

Vendor:	VMware, Inc.
Model:	ProLiant DL360 G3
Memory:	3.83 GB
CPU Cores:	2
CPU Packages:	2
CPU Threads:	4
CPU Frequency:	2.80 GHz
CPU Model:	Intel(R) Xeon(TM) CPU 2.80GHz

VM Information

Total VM's:	7
Powerd On:	2
Powered Off:	5
Suspended:	0

CHAPTER 2

Using WhatsVirtual

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STEP 1: Purchase and enable the WhatsVirtual license

The files for WhatsVirtual plug-in are installed automatically with Ipswitch WhatsUp Gold. Your license file determines whether or not you can access the WhatsVirtual plug-in.

To update your license with a purchased WhatsVirtual plug-in, visit the MyIpswitch portal (<http://www.myipswitch.com>).

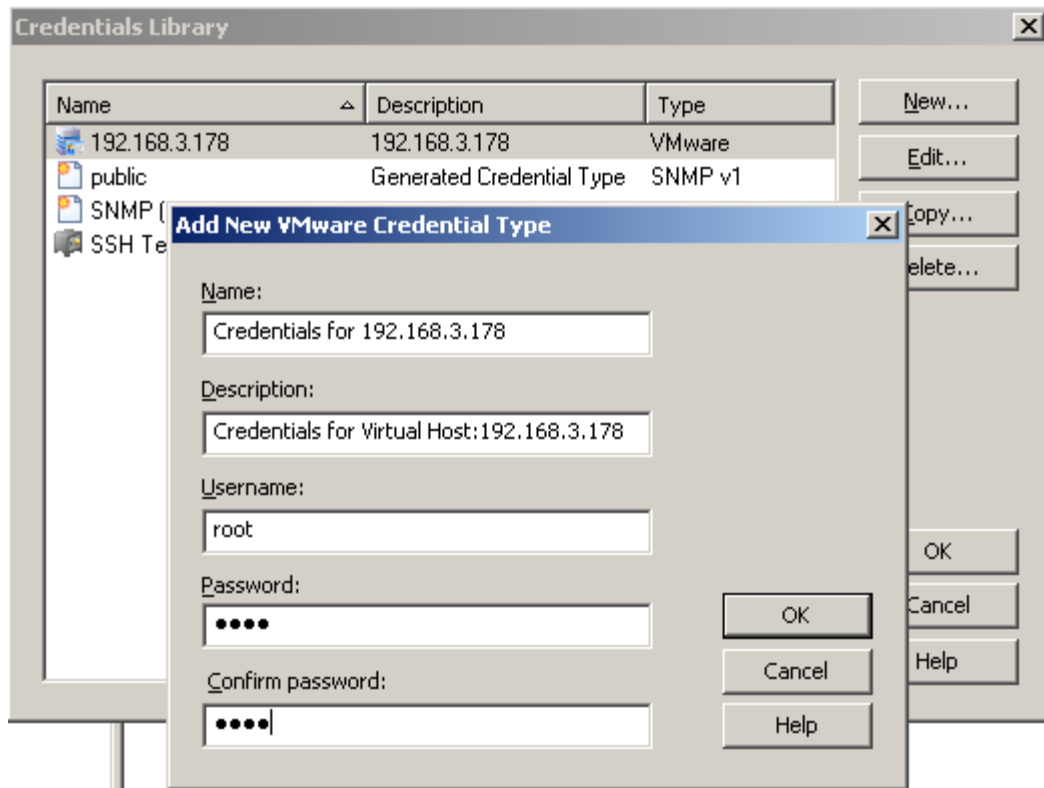
STEP 2: Create Credentials and Perform Discovery

Before using WhatsUp Gold to discover your virtual environments, you must:

- Create VMware credentials for each VMware host you want to discover.
- Ensure that VMware Tools are installed on each VMware host you want to discover.
- Edit the Device Role settings as necessary to meet your operational requirements.
- Configure the Discovery Console settings to use the VMware credentials.
- Set the Scan Advanced Settings so that WhatsUp Gold automatically scans the virtual machines associated with each discovered host.

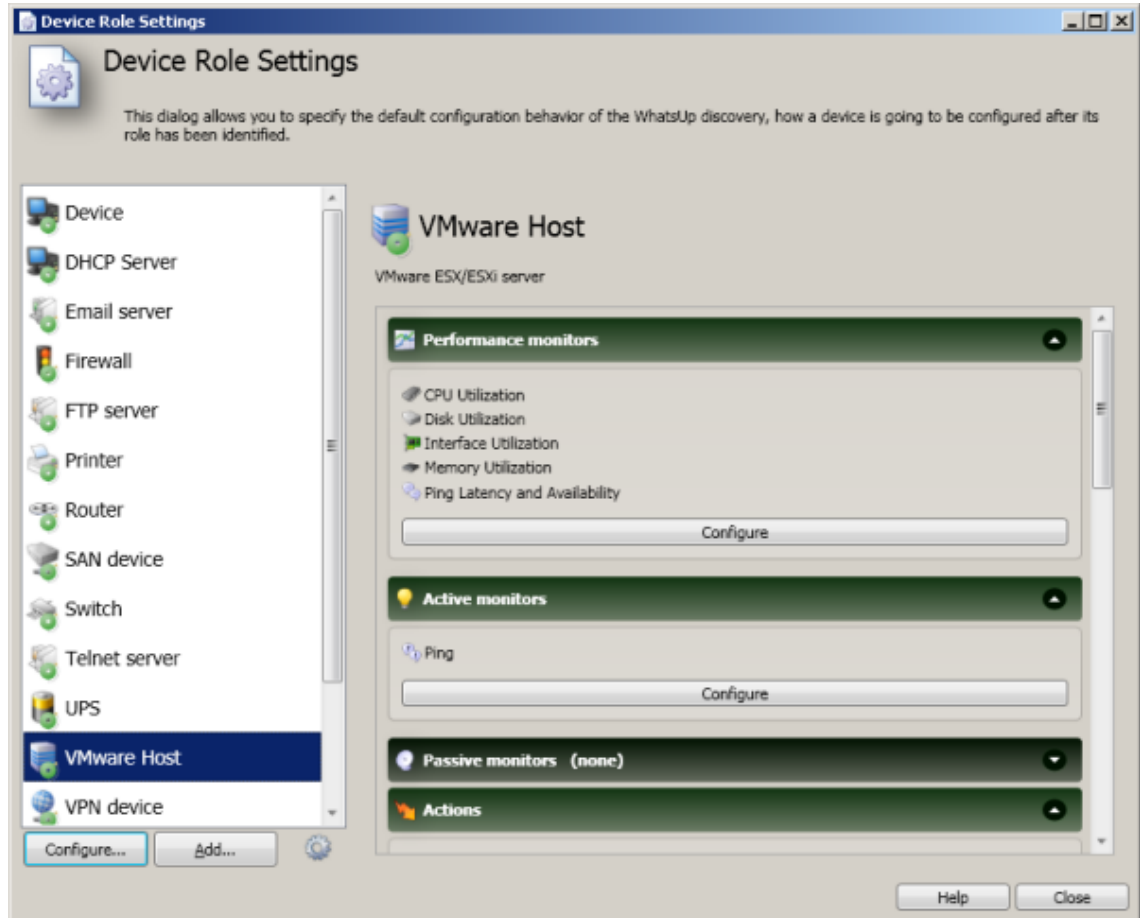
Creating credentials

The credentials in the Credentials Library allow WhatsUp Gold to connect to the VMware Virtual Infrastructure API (VI API). WhatsUp Gold uses this connection to establish the device's role as a VMware Host. VMware credentials are also used to connect to the virtual host during polling, and while performing actions on the virtual machines associated with a virtual host.



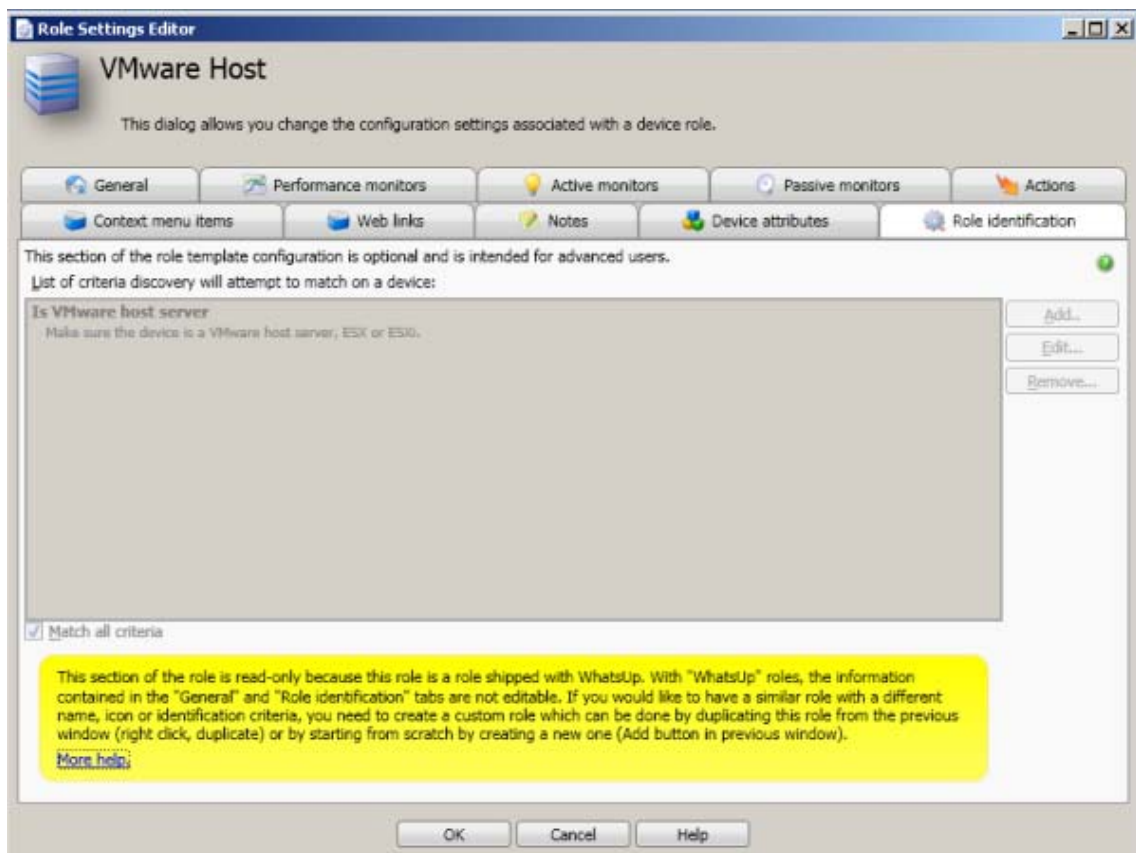
Editing Device Role settings

You can edit the device role settings for a virtual host role on the Device Role Settings dialog for the virtual host type. These settings are used to determine how a device that is assigned the VMware role is configured.



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The Device Role Settings menu determines which monitors, context menu items, and custom web links are assigned to the device, as well as defining which device attributes are collected during polling.

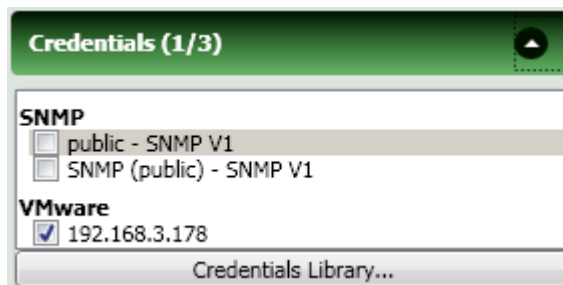


The virtual machine role for each virtual machine type is defined using identification parameters defined on the Role Identification tab of the Role Settings Editor. Because the virtual machine host role is a default role, these parameters cannot be modified.

You can use the Role Settings Editor dialog to add, edit or remove performance monitors, active monitors, or passive monitors from the VMware Host role.

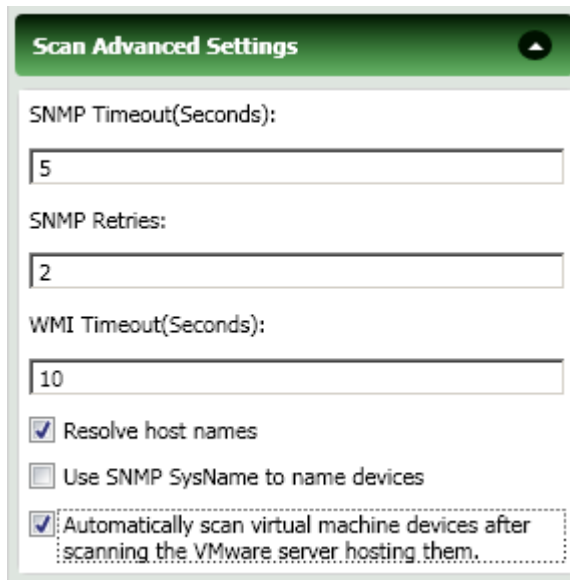
Enabling credentials

After you have created the VMware credentials in the Credentials Library, configure the Discovery Console Settings - Credentials section to use the VMware credentials.



Setting the Scan Advanced Settings

In the Discovery Console Settings - Scan Advanced Settings section, configure the scan to automatically scan the virtual machines associated with each host as it is discovered.



The screenshot shows a configuration window titled "Scan Advanced Settings" with a green header and a close button. It contains several input fields and checkboxes:

- SNMP Timeout(Seconds):
- SNMP Retries:
- WMI Timeout(Seconds):
- Resolve host names
- Use SNMP SysName to name devices
- Automatically scan virtual machine devices after scanning the VMware server hosting them.

If you do not select this option, virtual machines associated with the host that are outside of the scan range are not discovered, and virtual machines discovered because they are included in the scan range are not automatically associated with the virtual host.

Running the discovery scan

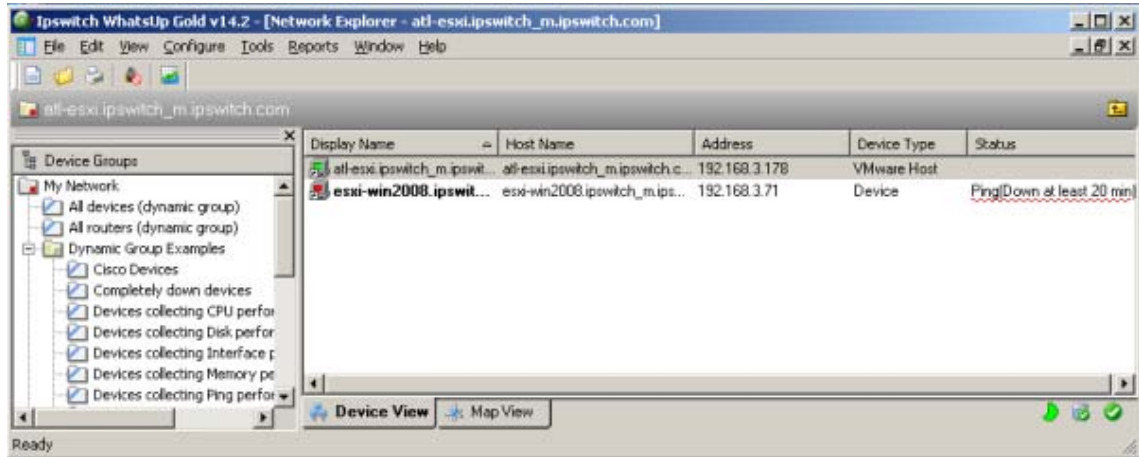
Virtual device discovery occurs during a discovery scan along with the discovery of physical devices. As each device is discovered, WhatsUp Gold attempts to connect using the VMware VI API.

If a connection is made using VMware Credentials, the device is assigned to the VMware Host role, and a query is made through the VI API to determine which virtual machines are associated with the virtual host.

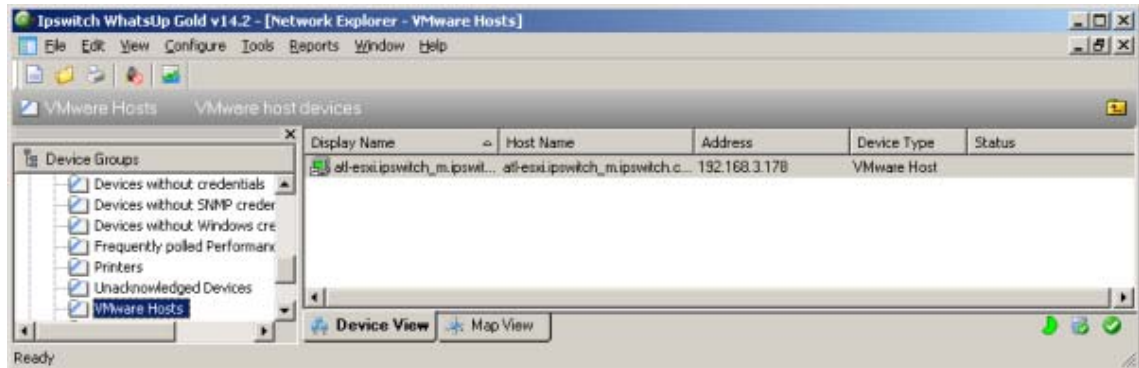
When the virtual machines associated with the VMware Host are identified, WhatsUp Gold scans each device and associates it with the virtual host.

Viewing discovery output

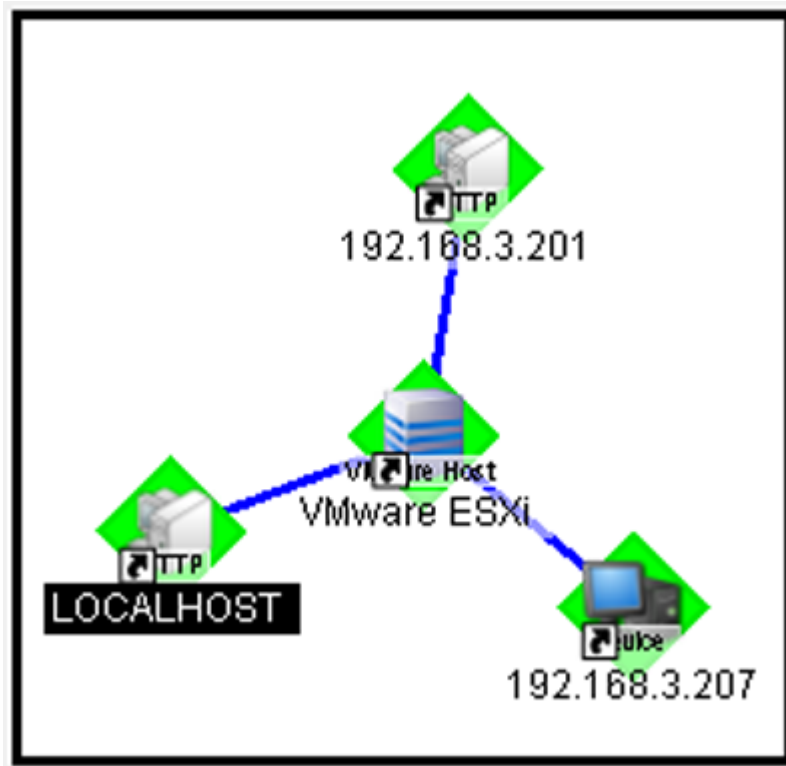
Virtual devices are displayed in the Device View along with the physical devices. A group is created for each virtual host that contains the virtual host and all of its associated virtual machines.



A VMware Hosts dynamic group identifies all VMware hosts discovered during the discovery scan.



Discovered virtual hosts and associated virtual machines can be viewed on the Map View. Select the group created for the virtual host on the **Device Groups** pane, then select the **Map View**. The selected virtual host and all of its associated virtual machines appear on the Map View.



STEP 3: Managing and monitoring virtual devices

In WhatsUp Gold virtual devices are managed similar to physical devices; you can add performance monitors, active monitors, and passive monitors. You can set thresholds in the Alert Center and create alerts associated with these thresholds. You can create customized actions and create action policies that invoke these actions. While much of the management and monitoring of virtual devices is the same as physical devices, areas where there are differences include:

- Performance monitor data gathering methods for virtual hosts
- Extended right-click menu options for virtual machines
- Manual addition and classification of virtual hosts and virtual machines

Performance Monitors

You can assign performance monitors to a virtual device using a device role, or manually from the Performance Monitors tab of the Device Properties menu.

The performance monitors for the virtual hosts use a proprietary API to gather statistics. Because SNMP is not used for collecting performance data for virtual hosts, reports on the parameters monitored by these performance monitors do not contain real time or split second graphs.

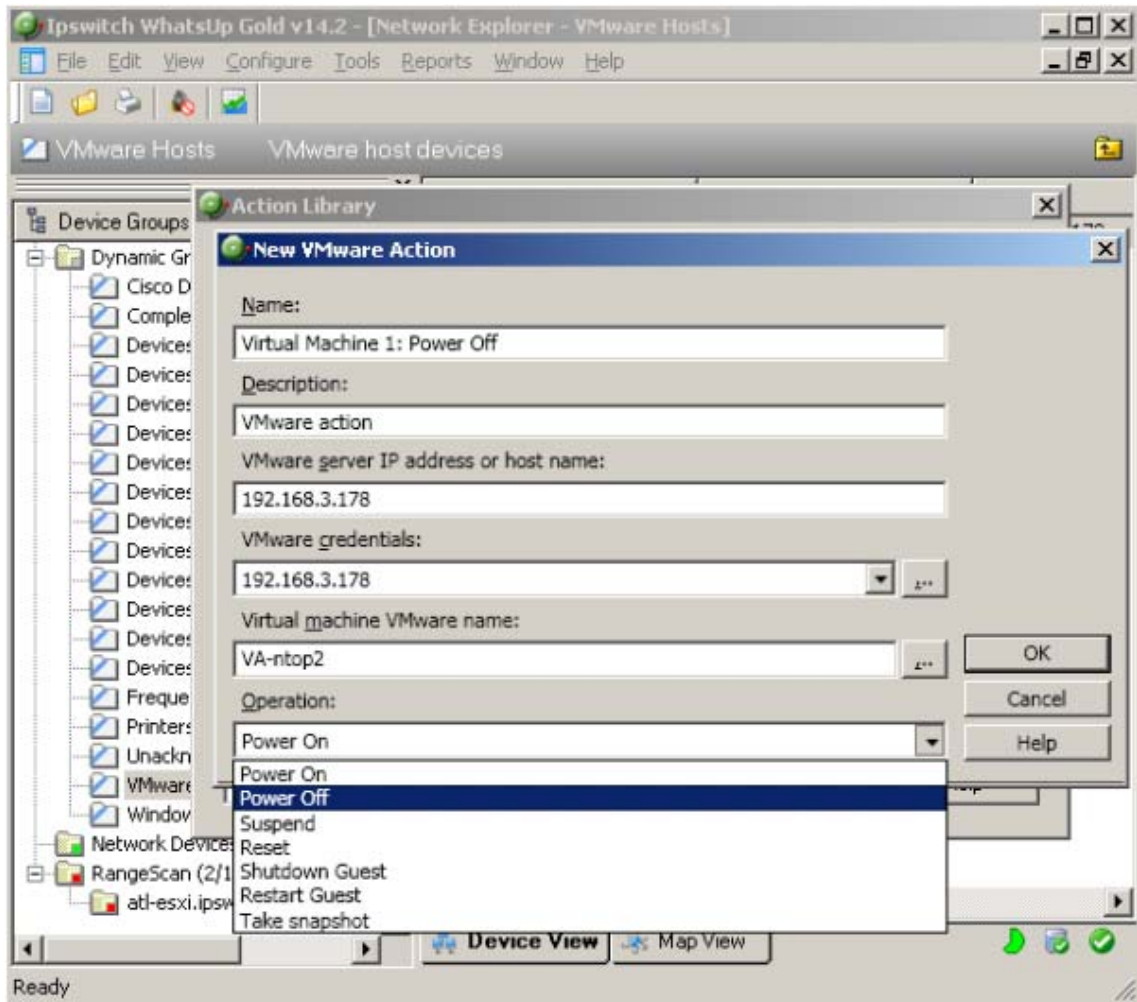


Because the Disk Utilization and Interface Utilization Performance Monitors for virtual machines use SNMP, you must add SNMP credentials to these devices prior to enabling these performance monitors. You can add the SNMP credentials from the Credentials tab of the Device Properties dialog.

Statistics for the CPU Utilization and Memory Utilization performance monitors are collected through the virtual host using the proprietary API, so no additional configuration is required for these monitors.

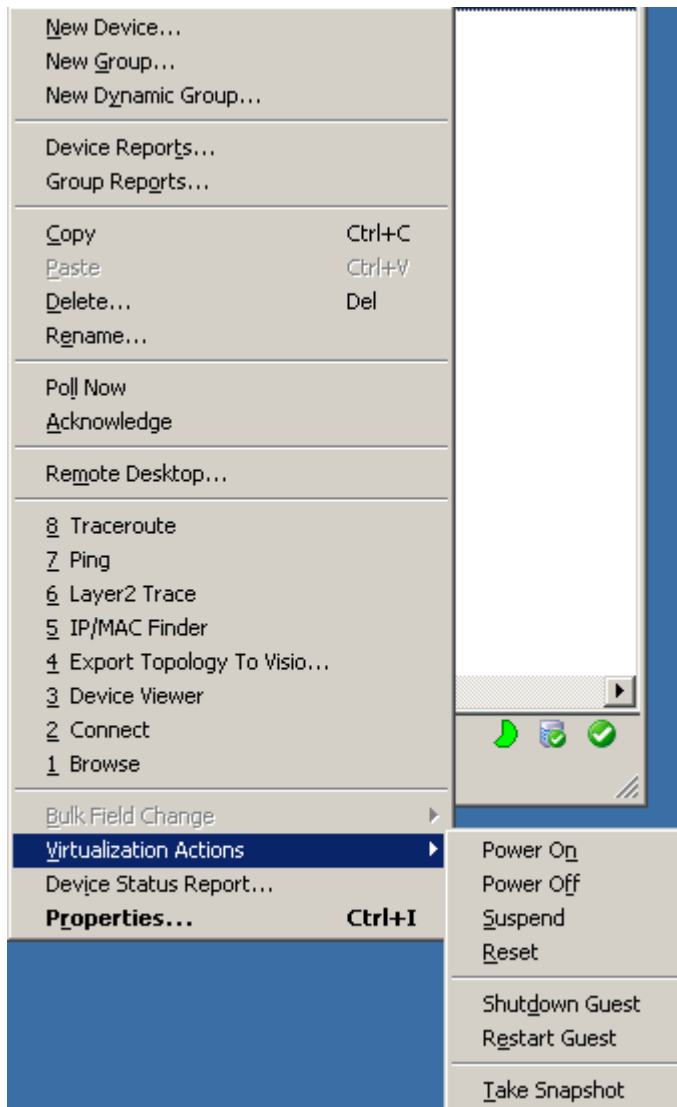
Actions on virtual machines

You can create actions to be applied to virtual machines from the New VMware Action dialog (**Configure > Action Library > New > VMware**). You can power on, power off, suspend, reset, shutdown a guest, restart a guest, or take a snapshot of the virtual machine.



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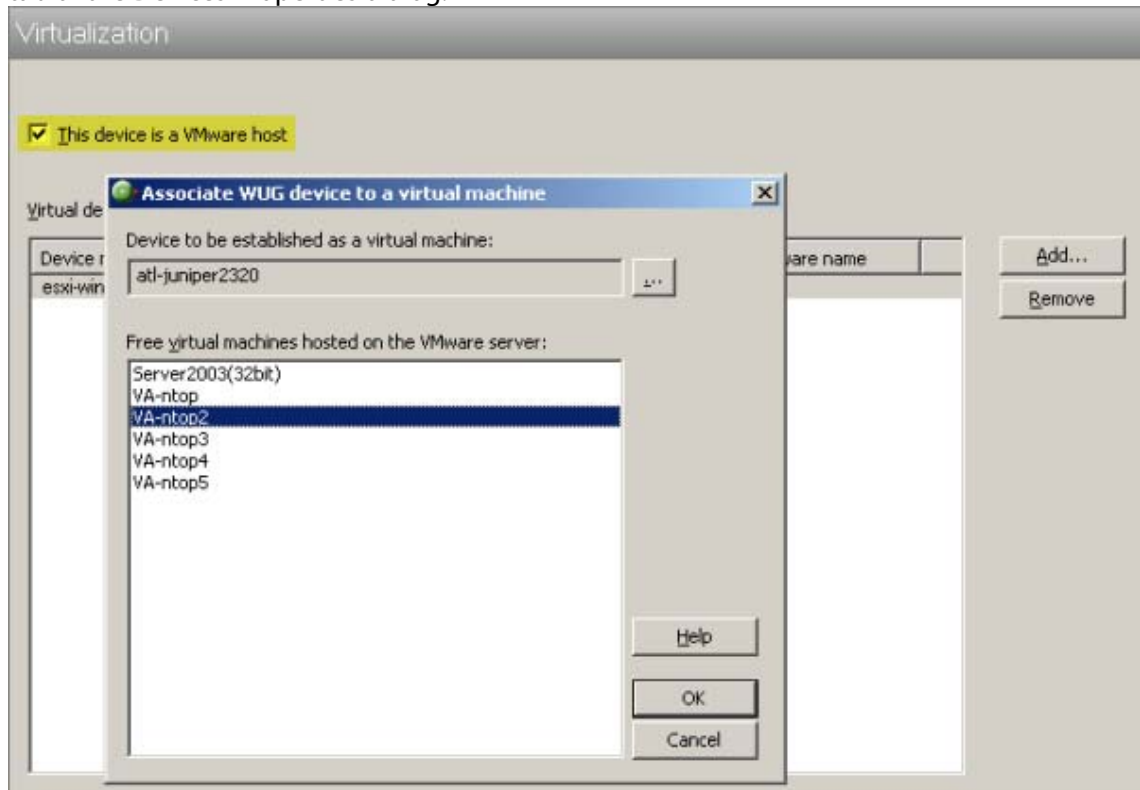
You can immediately run an action on a virtual machine from the Device or Map View by right-clicking on the virtual machine, and then selecting the action you want to perform from the **Virtualization Actions** menu item.



Manually creating a virtual host or virtual machine association on a device

You can manually designate previously discovered devices as virtual hosts or virtual devices without repeating the discovery process.

To manually designate a device as a virtual host, you must select or create credentials for the virtual host, and for a VMware host select **This device is a VMware host** on the Virtualization tab of the Devices Properties dialog.



After a device is designated as a virtual host, you can manually associate the host's virtual machines by clicking the **Add** button on the **Virtualization** tab of the Device Properties dialog. WhatsUp Gold polls the virtual host to discover all of the virtual machines it is hosting, and displays a list of these machines on the Associate WUG device to a virtual machine dialog.

You can use the Associate WUG device to a virtual machine dialog to create an association between a discovered device and its virtual machine name as reported by the virtual host.

Devices that are manually designated as a virtual host or virtual device respond to actions created for virtual environments, and appear as virtual devices in workspace reports, however they do not appear on the **Map View** as virtual devices unless they are discovered using the WhatsUp Gold discovery process.

STEP 4: View WhatsVirtual reports

The following reports have been added to WhatsUp Gold to provide information about your virtual environment:

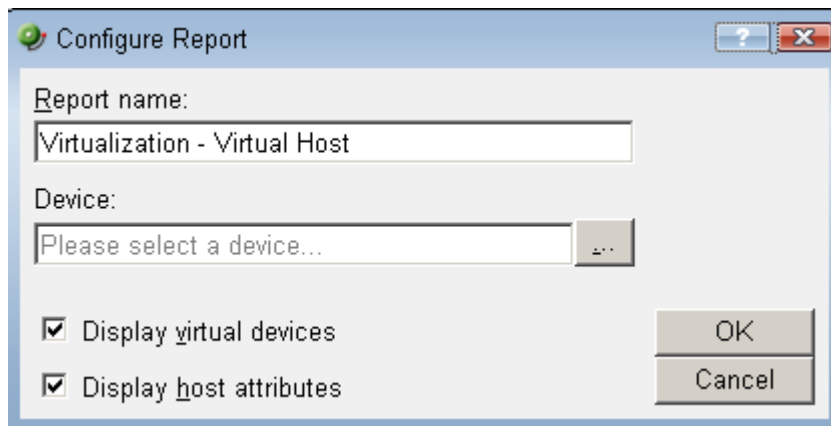
- **Virtual Host.** This home and device level workspace report provides system attributes for the virtual host, and a list of the virtual devices associated with this host.
- **Virtual Host List.** This device level workspace report provides system attributes for the virtual host, and a list of the virtual devices associated with this host.
- **Virtual Machine Instant CPU Utilization.** This home and device level workspace report provides the current CPU utilization for the selected device.
- **Virtual Machine Instant Disk Utilization.** This home and device level workspace report provides the current Disk utilization for the selected device.
- **Virtual Machine Instant Memory Utilization.** This home and device level workspace report provides the current Memory utilization for the selected device.
- **Virtual Machine Instant Interface Utilization.** This home and device level workspace report provides the current Interface utilization for the selected device.

Configuring the Virtual Host and Virtual Host List workspace reports

Configure the Virtual Host, or Virtual Host List workspace report, on the Configure Report dialog (**Menu > Configure Report**).

On the Configure Report dialog you can use the following controls to configure the report:

- Click the Browse (...) button to select the device you want to use as a data source for the report.
- Select **Display virtual devices** to display each virtual host selected for the report with a list of the associated virtual machines.
- Select **Display host attributes** to display the attributes of a given virtual host. These attributes include the total number of virtual machines associated with the virtual host and the number of virtual machines in a given state among other parameters associated with the virtual host.



The configuration shown above, with both **Display virtual devices** and **Display host attributes** selected, provides the following workspace report.

Virtualization - Virtual Host [Menu](#)

VM Host details for: VMware ESXi

 VMware ESXi (dewwiki.ipswitch_m.ipswitch.com : 192.168.3.200)

Virtual Devices

- LOCALHOST (192.168.3.241)
- 192.168.3.201
- 192.168.3.207

Host Attributes

Name:	VMware ESXi
VIM Version:	4.0.0
API Version:	4.0
Build:	164009
Boot Time:	12/9/2009 3:39:06 PM

Hardware Information

Vendor:	VMware, Inc.
Model:	OptiPlex 760
Memory:	3.83 GB
CPU Cores:	1
CPU Packages:	1
CPU Threads:	1
CPU Frequency:	2.19 GHz
CPU Model:	Intel(R) Celeron(R) CPU 450 @ 2.20GHz

VM Information

Total VM's:	13
Powerd On:	6
Powered Off:	6
Suspended:	1

Configuring the VMware Instant workspace reports

To configure any of the VMware Instant workspace reports, click **Menu > Configure Report**. Then use the Browse (...) button to select the device you want to use as a data source for the report.

CHAPTER 3

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For more information and updates

Following are information resources for WhatsUp Gold. This information may be periodically updated and available on the *WhatsUp Gold web site* (<http://www.whatsupgold.com/support/index.aspx>).

- **Release Notes.** The release notes provide an overview of changes, known issues, and bug fixes for the current release. The notes also contain instructions for installing, upgrading, and configuring WhatsUp Gold. The release notes are available at **Start > Programs > Ipswitch WhatsUp Gold > Release Notes** or on the *WhatsUp Gold web site* (<http://www.whatsupgold.com/wugteslarelnotes>).
- **Application Help for the console and web interface.** The console and web help contain dialog assistance, general configuration information, and how-to's that explain how to use the features. The Table of Contents is organized by functional area, and can be accessed from the main menu or by clicking **Help** in the console, or the **?** icon in the web interface.
- **Additional WhatsUp Gold guides.** For a listing of current and previous guides and help files available for WhatsUp Gold's multiple versions, see the *WhatsUp Gold web site* (<http://www.whatsupgold.com/wug14guides>).
- **WhatsUp Gold optional plug-ins.** You can extend the core features of WhatsUp Gold by installing plug-ins. For information on available plug-ins and to see release notes for each plug-in, see *WhatsUp Gold plug-ins documentation* (<http://www.whatsupgold.com/wug14guides>).
- **Licensing Information.** Licensing and support information is available on the *MyIpswitch licensing portal* (<http://www.myipswitch.com/>). The web portal provides enhanced web-based capabilities to view and manage Ipswitch product licenses.
- **Knowledge Base.** Search the Ipswitch Knowledge Base of technical support and customer service information. The knowledge base is available on the *WhatsUp Gold web site* (<http://www.whatsupgold.com/wugTechSupport>).
- **Support community.** Use the WhatsUp Gold community site to interact with other WhatsUp Gold users and share helpful application information on the forums, view KBs and documentation, submit new product ideas, access the script library, and keep up with the latest news on the blog. The wugSpace support community for WhatsUp Gold is available on the *WhatsUp Gold community site* (<http://www.whatsupgold.com/wwc14forumsmore>).

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