

# ManageEngine Free Tools User Manual



## VMware Configuration Tool [ VMWare ESX Configuration Tool ]

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## Overview

### Free VMware ESX Configuration

The ManageEngine's Free VMware Configuration tool is a light weight tool, can configure VMware Virtual server (VM's ) resources such as CPU, RAM or execute Power operations or change the Name of the VM'S, and also it fetches comprehensive data about the servers and its virtual machines and presents them as visually elegant graphs and reports in a desktop tool dashboard.

ManageEngine Free VM Configuration Tool can configure VMware ESX server from the remote location. The best part is that the tool is made available to you absolutely FREE of cost.

### Key Benefits

ManageEngine Free VMware Configuration Tool provides an exclusive configuration solution for VMware ESX server. Using the free tool, the administrator can increase or decrease the RAM capacity, or allocate more number of CPU processor for the VM, or execute 'power operations' on the Virtual servers like 'power-on' the VM's , suspend the VM's , 'Power Off' the VM and Reset the VM, and it allows the operator to change the names of the VM dynamically.

You can also monitor performance metrics like CPU usage, Memory details, provisioned storage details and Network adapter details of VMware host server and its VM's. The dashboard quickly shows how many virtual machines are present, how many are powered-on / powered-off or suspended state in a elegant Tree-View. Tool also shows VM Events which is received from virtual servers.

The ManageEngine VMware Configuration Tool serves as a smart desktop tool that continuously monitors VMware ESX server across your network and more importantly, Administrator then effortlessly can manage / configure those VM's in real-time and ensures your mission-critical applications run smoothly.

## Features

### Free VMware Configuration

VMware Configuration Tool helps administrators to monitor VMware ESX 4.0 & VMware ESX 4.1 hosts and it can manage/configure some important attributes of the virtual machines available in the host machine.

Parameters that can be managed/configured for a virtual machine(s) using this tool are as follows:

- \* Power Operations
- \* CPU - Configuration
- \* Memory - Configuration
- \* Rename Virtual Machine

### Power Operations

- \* Power On - Powers on the virtual machine.
- \* Power Off - Powers off the virtual machine.
- \* Suspend - Suspends the execution of the virtual machine.
- \* Reset - Reset means powerOff the virtual server and powerOn the virtual server.

Using the Configuration tool, Administrator can configure power operations.

### CPU - Configuration

- Number of CPU(s) - Number of virtual CPU(s) in a virtual machine. (Value more than total number of CPUs of the Host is not allowed )
- Resource limit - The CPU utilization of a virtual machine will not exceed this limit even if there are available resources.( in MHz)
- Resource reserved - The amount of resource that is maximum available to a virtual machine.

Using this tool, Administrator can allocate virtual CPU(s) to the virtual machines.

### Memory - Configuration

- Memory Allocated - Size of the memory in a virtual machine. ( in MB)
- Resource limit - The memory utilization of a virtual machine will not exceed this limit even if the memory allocated is higher than its limit.(in MB).
- Resource reserved - The amount of resource that is maximum available to a virtual machine. (in MB)

## **Rename Virtual machine**

Virtual machine can be renamed if required. This allows administrator to configure the name of the virtual machine

## **VM Events**

VM Configuration tool receives events for the virtual machines available in the VMware Host.

Once the tool makes a connection with the host, the tool will be listening for virtual machine events. Based on the event received for the specific virtual machine, parameters of that virtual machine will be updated.

Tool listen for the following Events : VmPoweredOffEvent, VmPowerOnEvent, VmSuspendedEvent, VmAutoRenameEvent, VmGuestRebootEvent, VMGuestShutdownEvent, VmRenamedEvent, VMCreatedEvent and VMRemovedEvent.

## **Performance Monitoring for VMware ESX**

ManageEngine VM Configuration Tool also help an administrator to view the following performance parameters for both VMware Host and its virtual machines.

## **Summary view for VMware ESX Host**

### **General**

Tool populates host name, VM ware ESX product details, number of virtual machine(s) and the boot time in the host machine.

### **CPU**

Number of logical CPU(s), total capacity (in MHz), usage (in MHz) for the host machine are displayed.

### **Memory**

Memory available for host machine( in MB), usage (MB) for the host machine are populated.

### **Storage**

The details of the datastores which are available for the host machine are shown.

## **Network**

List of Networks available in the host machine and the number of virtual machines in each network are shown.

## **Summary view for Virtual machine**

### **General**

This include name, power state, alternate OS and boot time of the virtual machine.

### **CPU**

Number of logical CPU(s) allocated to the virtual machine and its usage (in MHz) are displayed.

### **Memory**

Tool shows memory allocated(in MB) to the virtual machine and its usage (in MB).

### **Storage Disk**

Tool shows details of the hard-disks created in the virtual machine.

### **Network Adapter**

Tool shows the details of the network adapters available for the virtual machine.

## Documents

### Free VMware ESX Configuration

#### Getting Started

The Free VM Configuration Tool helps the User/Administrator to Manage and Monitor a VM Ware ESX 4.0/4.1 host.

Start the tool, this will take you to the Settings window where host details can be provided to make connection with Host Server.

#### Settings Screen

Click on the Settings icon to get the server settings window. Give host server details as given.

- \* Hostname/ IP Address
- \* Port (By default 443)
- \* UserName
- \* Password

Click on "Connect" in order to connect to the VMware ESX 4.0/4.1 Host.

If the connection to host is successful, Tool will populate all the attributes of the Host and its Virtual machines

Click the virtual server in the tree, it will take you to summary view. By Default "Summary view" will be selected

#### Configuration/Management of a Virtual machine

To perform configuration and power operation on the virtual machine of connected host, select the virtual machine from the TreeView.

Note: Changes made here may not be reflected if the Host is being managed by a VCenter Server.

#### Performing Power Operations

In this tool, four basic power operations can be performed on a virtual machine. They are:

#### Power On, Power Off, Suspend, Reset

To perform the operation on the selected VM, click on "Power tasks".

Now, Current power state of the virtual machine will be shown. Power operations can be performed by clicking on the power option.

If a Virtual machine is in "PoweredOn" State, then the tool allows administrator to perform Power Off, Suspend and Reset operation.

Also, if a Virtual machine is in "PoweredOff" or "Suspended" State, then the tool allows administrator to perform only Power On operation.

### **Configuring CPU attributes**

In this tool, Three attributes of CPU of a virtual machine can be configured. They are Number of CPU(s), Resource limit and Resource reserved.

To perform the configuration on the selected VM, click on "CPU".

Based on the current values of the attributes, if you wish to configure click on the EDIT icon. Administrator can configure Number of CPU(s), Resource limit and Resource reserved . After changes have been made as per the requirement, click on COMMIT icon to apply the changes.

Note : Number of CPU(s) can only be modified when the virtual machine is in "Powered Off" state.

### **Configuring Memory attributes**

In this tool, three attributes of Memory of a virtual machine can be configured. They are Memory allocated, Resource limit and Resource reserved.

To perform the configuration on the selected VM, click on "Memory".

Based on the current values of the attributes, if you wish to configure click on the EDIT icon. Administrator can configure Memory allocated, Resource limit and Resource reserved. After changes have been made as per the requirement, click on COMMIT icon to apply the changes.

Note : Memory Allocation can only be modified when the virtual machine is in "Powered Off" state.

The Resource Limit in case of CPU and Memory can be set to "No Limit" by clicking on the checkbox. "No Limit" means there is no limitation other than available resources. So, Once the No Limit is selected and configuration is committed, then respective resource limit is set to the maximum resources allocated for the virtual machine.

## **VM Event Handling**

- This tool once makes a connection with the host, the tool will be listening for some virtual machine events. Based on the event received for the specific virtual machine, all parameters of that virtual machine will be updated.
- Events for which virtual machine attributes are updated are as follows:  
VmPoweredOffEvent, VmPowerOnEvent, VmSuspendedEvent,  
VmAutoRenameEvent, VmGuestRebootEvent, VMGuestShutdownEvent,  
VmRenamedEvent.
- To View the events of all the virtual machines, Click on the Host Node in the Tree.

## **Editing Virtual Machine Name**

To rename the Virtual machine, Select the virtual machine from the TreeView.

Now, click on the selected virtual machine again in order to make VM Name editable. Press enter perform rename operation on the virtual machine.

## **Refresh the Selected Virtual machine**

If the need is to fetch all the attributes of the selected virtual machine, click on "Refresh" icon.

To get technical assistance or to receive further details regarding VM Configuration tool, contact [free-tools@manageengine.com](mailto:free-tools@manageengine.com).

## **FAQ**

### **1. Unable to connect to the host server?**

Please check host server is running properly and check host server is behind firewall and also port 443 is accessible. if the server is behind firewall and if not accessible, then open the port by configuring firewall.

### **2. I have downloaded the tool but it is not running. What should I do?**

Please check Dot Net platform is installed in your system. Run the utility available in the bin directory, DotNetUtilities.exe , It will tell you the Dot Net version. If Dot Net platform is not available in the system, download the platform. Please see the software requirements page for downloading the platform.

### **3. I performed power operations and CPU/Memory configuration on the VM successfully, but its reverted after refresh. Why?**

changes made on any VM of a VMware ESX Host may be reverted, if the Host is being managed by a VCenter Server.

### **4. Can I monitor more than one VMware ESX server simultaneously?**

To monitor more servers, please visit <http://www.manageengine.com/network-monitoring/vmware-monitoring.html> or send mail to [free-tools@manageengine.com](mailto:free-tools@manageengine.com).