

VMware Remote Console for vSphere

VMware Remote Console 9.0

This document supports the version of each product listed and supports all subsequent versions until the document is replaced by a new edition. To check for more recent editions of this document, see <http://www.vmware.com/support/pubs>.

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Contents

- 1 About VMware Remote Console 5
- 2 Install VMware Remote Console on a Client 7
- 3 Open Virtual Machine Console 9
- 4 Using the VMware Remote Console Application 11
 - Shut Down a Guest 11
 - Suspend and Resume a Virtual Machine 12
 - Restart a Guest 13
 - Configure VMware Tools Updates for a Specific Virtual Machine 13
 - Use a Removable Device in a Virtual Machine 13
- 5 Configuring and Managing Virtual Machines 15
 - Change the Name of a Virtual Machine 15
 - Change the Guest Operating System for a Virtual Machine 15
- 6 Configuring and Managing Devices 17
 - Change the Memory Allocation for a Virtual Machine 17
 - Change the Virtual Processor Settings 18
 - Add a New Virtual Hard Disk to a Virtual Machine 18
 - Add an Existing Virtual Hard Disk to a Virtual Machine 20
 - Compact a Virtual Hard Disk 20
 - Defragment a Virtual Hard Disk 20
 - Remove a Virtual Hard Disk from a Virtual Machine 21
 - Add a DVD or CD-ROM Drive to a Virtual Machine 21
 - Add a Floppy Drive to a Virtual Machine 22
 - Add a Virtual Network Adapter to a Virtual Machine 23
 - Add a USB Controller to a Virtual Machine 23
 - Configure Sound Card Settings 23
 - Add a Parallel Port to a Virtual Machine 24
 - Add a Serial Port to a Virtual Machine 25
 - Add a Generic SCSI Device to a Virtual Machine 25
- Index 27

About VMware Remote Console

VMware Remote Console, also referred to as VMRC, provides access to virtual machines on remote clients and performs console and device operations such as configuring operating system settings and monitoring the VM console for *VMware vSphere*. VMware Remote Console can also modify virtual machine settings such as RAM, CPU cores, and disks.

VMware Remote Console for vSphere describes the tasks required to install the VMware Remote Console application.

NOTE You can perform device operations, console interaction, power operations, and manage settings when you connect vSphere VM using VMware Remote Console. When you connect vRealize Automation VM using VMware Remote Console, the operations you can perform is strictly limited to console interaction.

For more information, see the *VMware Remote Console for vRealize Automation* guide.

[Chapter 6, “Configuring and Managing Devices,”](#) on page 17 and [Chapter 5, “Configuring and Managing Virtual Machines,”](#) on page 15 are not applicable when you use VMware Remote Console for vRealize Automation.

Intended Audience

This information is intended for administrators and users who need to access the VM console and connect client-side devices.

Where to Find Additional Information

For additional information on known issues and workaround, see the Release Notes.

Install VMware Remote Console on a Client

2

VMware Remote Console provides an embedded user-guest interaction in the various products and environments that require it. This section details the tasks required to install VMware Remote Console on Windows, Linux and Apple OS X.

Procedure

- 1 Click www.vmware.com/go/download-vmrc.
- 2 Download the VMware Remote Console installer and follow the steps in the install wizard. You can also click the **Download Remote Console** link from the **Summary** page of the virtual machine in vSphere Web Client.

Open Virtual Machine Console

You can access virtual machines in vSphere Web Client using VMware Remote Console.

Perform the following steps to launch an external virtual machine console:

Prerequisites

- Verify that VMware Remote Console is installed on your local system.
- Select a virtual machine in the vSphere Web Client and navigate to the **Summary** page.

Procedure

- 1 Click **Launch Remote Console** from vSphere Web Client, version 6.0 or newer.

NOTE Click **Open with VMRC** if you are using version 5.5 Update 2b or Update 3.

- 2 Launch VMware Remote Console.

Using the VMware Remote Console Application

4

VMware Remote Console provides remote VMs access to your mouse and international keyboard. You can also send the Ctrl+Alt+Delete keystroke combination to shut down a Windows client.

When you click in the console window of a VM that does not have VMware Tools running, the VM grabs the mouse and keyboard input. To release the mouse and keyboard, use the following keys:

- For Windows and Linux OS, use **Ctrl+Alt**
- For Apple OS X, use **Ctrl+Command**

Prerequisites

Verify that the VMware Remote Console is installed on your local system. You can download the VMware Remote Console installer from the VMware Web site at www.vmware.com/go/download-vmrc.

Procedure

- 1 Select a VM or the row and click **Actions > Connect by Using VMRC**.
You will be able to view two options in a separate window.
- 2 Select **Download VMRC** to download VMware Remote Console or choose **Connect to Console using VMRC** to launch VMware Remote Console.

You can also select **Connect by Using VMRC** or **Connect to Console using VMRC** from the **Actions** column.

This chapter includes the following topics:

- [“Shut Down a Guest,”](#) on page 11
- [“Suspend and Resume a Virtual Machine,”](#) on page 12
- [“Restart a Guest,”](#) on page 13
- [“Configure VMware Tools Updates for a Specific Virtual Machine,”](#) on page 13
- [“Use a Removable Device in a Virtual Machine,”](#) on page 13

Shut Down a Guest

A remote VM shutdown can be soft or hard. In other words, you can shutdown a guest in a controlled manner using the **Shut Down** option on the menu or abruptly using the **Power Off** option.

A soft shutdown is preferred to avoid data loss but a hard shutdown is useful if a soft shutdown fails or is not required when a VM is restored to a snapshot. You can shutdown a guest either by using Remote Console menu or using remote operating system.

Shut Down a Guest using Remote Console

Remote Console displays soft shutdown options by default if they are available. However, the options can be overridden per VM in power settings. On Apple OS X, pressing option (alt) displays alternate shutdown options that are not available on Windows OS.

Prerequisites

Power on the virtual machine.

Procedure

- ◆ Select **VMRC > Power > Shut Down Guest** or **Power Off** if you are using Windows or Linux client OS.

NOTE For Apple OS X, select **Virtual Machine > Shutdown** or **Power Off**. To get the hard shutdown or restart options you need to hold down the option key while accessing the menu.

Shut Down a Guest using Remote Operating System

Shut down the virtual machine using the native means of the client operating system. For example, Windows Start Menu.

You can send the **Ctrl+Alt+Delete** key sequence to shut down or log off by following one of the procedures:

- Pressing the key sequence on the client keyboard which will be communicated to the remote VM, but the client OS may also respond.
- Using the menu item in the VMware Remote Console console.

Prerequisites

Power on the virtual machine.

Procedure

- ◆ Select **VMRC > Send Ctrl+Alt+Del** for Windows or Linux client OS.

NOTE For Apple OS X, select **Virtual Machine > Send Ctrl-Alt-Del**.

Suspend and Resume a Virtual Machine

Suspending a virtual machine saves its current state. When you resume the virtual machine, applications that were running before the virtual machine was suspended resume in their running state and their content is unchanged.

How quickly the suspend and resume operations perform depends on how much data changed after you started the virtual machine. The first suspend typically takes longer than subsequent suspend operations.

Procedure

- 1 Select **VMRC > Power > Suspend** to suspend a virtual machine in Windows or Linux client OS, and click **Yes** to confirm.

If soft power operations are configured for the virtual machine in Workstation, Suspend Guest appears in the menu instead of Suspend. The virtual machine is displayed as powered on if the remote virtual machine is started by another user.

NOTE For Apple OS X, select **Virtual Machine > Suspend**.

- 2 To resume a suspended virtual machine, select **VMRC > Power > Power On**.

Restart a Guest

You can reset a virtual machine in VMware Remote Console. Resetting a virtual machine causes it to abruptly power off and restart.

Prerequisites

- Power on the virtual machine.
- Verify that the virtual machine is in a safe state. Resetting a virtual machine can damage data. When possible, shut down the virtual machine with its operating system.

Procedure

- ◆ Select **VMRC > Power > Restart Guest** in Windows or Linux client OS.

NOTE For Apple OS X, select **Virtual Machine > Restart**.

Configure VMware Tools Updates for a Specific Virtual Machine

You can configure virtual machines that have Windows to update VMware Tools.

Procedure

- 1 Select the virtual machine and select **VMRC > Manage > Virtual Machine Settings** in a Windows client OS.

For Linux client OS, select **VMRC > Virtual Machine > Virtual Machine Settings** and for Apple OS X, select **VMRC > Virtual Machine > Settings**.

- 2 On the **Options** tab, select **VMware Tools**.

Select **VMware Tools** update setting.

Table 4-1. VMware Tools Update Options

Option	Description
Update manually (do nothing)	You must update VMware Tools manually. A message appears on the status bar of the guest operating system when a new version of VMware Tools is available.
Update automatically	VMware Tools is updated automatically when a new version is available. The status bar indicates when an update is in progress.

To install a VMware Tools update, use the same procedure that you used for installing VMware Tools the first time.

Use a Removable Device in a Virtual Machine

You can connect and disconnect removable devices in a virtual machine. You can also change the settings for a removable device by modifying virtual machine settings.

Prerequisites

- Power on the virtual machine.
- If you are connecting or disconnecting a USB device, familiarize yourself with the way VMware Remote Console handles USB devices.

Procedure

- 1 To connect a removable device in a Windows or Linux client OS, select the virtual machine, select **VMRC > Removable Devices**, select the device, and select **Connect**.

If the device is connected to the client through a USB hub, the virtual machine sees only the USB device, not the hub.

A check mark appears next to the name of the device when the device is connected to the virtual machine and a device icon appears on the virtual machine taskbar.

NOTE For Apple OS X, select **Virtual Machine**, select the device, and select **Connect**

After you connect to a device, the **Connect** option changes to **Disconnect** and an information about the device is displayed below the **Connect / Disconnect** submenu item. For example, if you selected the **CD/DVD(IDE)** option, the ISO or DMG file is displayed along with another choice for selection.

- 2 To change the settings for a removable device, select **VMRC > Removable Devices**, select the device, and select **Settings**
- 3 To disconnect a removable device, select **VMRC > Removable Devices**, select the device, and select **Disconnect**.

You can also disconnect the device by clicking or right-clicking the device icon on the virtual machine taskbar. Using the taskbar icon is especially useful if you run the virtual machine in full screen mode.

Configuring and Managing Virtual Machines

5

You can change virtual machine options such as the name of a virtual machine and guest OS.

This chapter includes the following topics:

- [“Change the Name of a Virtual Machine,”](#) on page 15
- [“Change the Guest Operating System for a Virtual Machine,”](#) on page 15

Change the Name of a Virtual Machine

When you run a virtual machine, its name appears in the title bar.

Procedure

- 1 Select **VMRC > Manage > Virtual Machine Settings** for Windows client OS or select **VMRC > Virtual Machine > Virtual Machine Settings** for Linux client OS.

NOTE For Apple OS X, select **Virtual Machine > Settings > General**.

- 2 On the **Options** tab, select **General**.
- 3 Type the new name.
- 4 Click **OK** to save your changes.

Change the Guest Operating System for a Virtual Machine

If you upgrade the guest operating system that is installed in a virtual machine, or if you specify the wrong operating system version when you create the virtual machine, you must change the guest operating system type that is configured for the virtual machine.

When you change the operating system type, the virtual machine configuration (.vmx) file changes. The guest operating system itself does not change. To upgrade the guest operating system, obtain the appropriate software from the operating system vendor.

Prerequisites

Power off the virtual machine.

Procedure

- 1 Select **VMRC > Manage > Virtual Machine Settings** for Windows client OS or **VMRC > Virtual Machine > Virtual Machine Settings** for Linux client OS.

NOTE For Apple OS X, select **Virtual Machine > Settings > General**.

- 2 On the **Options** tab, select **General**.
- 3 Select the new operating system and version.
- 4 Click **OK** to save your changes.

Configuring and Managing Devices

You can use VMware Remote Console to add devices to virtual machines, including DVD and CD-ROM drives, floppy drives, USB controllers, virtual and physical hard disks, parallel and serial ports, generic SCSI devices, and processors. You can also modify settings for existing devices.

This section does not apply for vRealize Automation users. You can configure and manage devices only using vRealize Automation web client. For more information, see the *VMware Remote Console for vRealize Automation* guide.

This chapter includes the following topics:

- [“Change the Memory Allocation for a Virtual Machine,”](#) on page 17
- [“Change the Virtual Processor Settings,”](#) on page 18
- [“Add a New Virtual Hard Disk to a Virtual Machine,”](#) on page 18
- [“Add an Existing Virtual Hard Disk to a Virtual Machine,”](#) on page 20
- [“Compact a Virtual Hard Disk,”](#) on page 20
- [“Defragment a Virtual Hard Disk,”](#) on page 20
- [“Remove a Virtual Hard Disk from a Virtual Machine,”](#) on page 21
- [“Add a DVD or CD-ROM Drive to a Virtual Machine,”](#) on page 21
- [“Add a Floppy Drive to a Virtual Machine,”](#) on page 22
- [“Add a Virtual Network Adapter to a Virtual Machine,”](#) on page 23
- [“Add a USB Controller to a Virtual Machine,”](#) on page 23
- [“Configure Sound Card Settings,”](#) on page 23
- [“Add a Parallel Port to a Virtual Machine,”](#) on page 24
- [“Add a Serial Port to a Virtual Machine,”](#) on page 25
- [“Add a Generic SCSI Device to a Virtual Machine,”](#) on page 25

Change the Memory Allocation for a Virtual Machine

You can adjust the amount of memory that is allocated to a virtual machine.

On 64-bit clients, the maximum amount of memory for each virtual machine is 32 GB. On 32-bit clients, the maximum amount of memory for each virtual machine is 8 GB. The total amount of memory that you can assign to all virtual machines running on a single client system is limited only by the amount of RAM on the client system.

Prerequisites

Power off the virtual machine.

Procedure

- 1 Select **VMRC > Manage > Virtual Machine Settings** for Windows OS or select **VMRC > Virtual Machine > Virtual Machine Settings** for Linux OS.

NOTE For Apple OS X, select **Virtual Machine > Settings > Processors & Memory**.

- 2 On the **Hardware** tab, select **Memory**.

The Memory panel includes information to help you select the appropriate amount of memory for the virtual machine. The high end of the range is determined by the amount of memory that is allocated to all running virtual machines.

- 3 Align the slider with the corresponding icon to change the amount of memory.

The color-coded icons indicate the maximum recommended memory, the recommended memory, and the guest operating system minimum memory amounts.

- 4 Click **OK** to save your changes.

Change the Virtual Processor Settings

You can modify the number of processors by viewing the virtual machine hardware settings.

Prerequisites

Power off the virtual machine.

Procedure

- 1 Select **VMRC > Manage > Virtual Machine Settings**

NOTE For Apple OS X, select **Virtual Machine > Settings > Processors & Memory**.

- 2 On the **Hardware** tab, select **Processors**.

- 3 Change the **Number of processors** setting to 1, 2, 4, 8 or 16.

After you commit a change to this setting, the original setting for the number of processors is discarded and no longer appears as an option.

- 4 Click **OK** to save your changes.

- 5 If you want to disable acceleration in the virtual machine, select **Disable acceleration for binary translation** in the **Virtualization engine** pane.

Disabling acceleration slows down virtual machine performance and you should use it for troubleshooting if VMRC stops responding when you install or run software inside a virtual machine.

Add a New Virtual Hard Disk to a Virtual Machine

To increase storage space, you can add a new virtual hard disk to a virtual machine. Any of these devices can be a virtual or physical hard disk or DVD or CD-ROM drive.

Virtual hard disks are stored as files on the client computer or on a network file server. A virtual IDE drive or SCSI drive can be stored on a physical IDE drive or on a physical SCSI drive.

If you have a Windows NT 4.0 virtual machine that has a SCSI virtual hard disk, you cannot add both an additional SCSI disk and an IDE disk to the configuration.

Procedure

- 1 **VMRC > Manage > Virtual Machine Settings** for Windows client OS or select **VMRC > Virtual Machine > Virtual Machine Settings** for Linux client OS.
- 2 On the **Hardware** tab, click **Add**.
- 3 In the New Hardware wizard, select **Hard Disk**.
- 4 Select **Create a new virtual disk**.
- 5 Select the disk type.

Option	Description
IDE	Create an IDE device. You can add up to four IDE devices to a virtual machine.
SCSI	Create a SCSI device. You can add up to 60 SCSI devices to a virtual machine.

- 6 (Optional) To exclude the disk from snapshots, select **Independent** for the mode and select a persistence option.

Option	Description
Persistent	Disks in persistent mode behave like conventional disks on a physical computer. All data written to a disk in persistent mode is written permanently to the disk.
Nonpersistent	Changes to disks in nonpersistent mode are discarded when you power off or reset the virtual machine. With nonpersistent mode, you always restart the virtual machine with a virtual disk in the same state. Changes to the disk are written to and read from a redo log file that is deleted when you power off or reset the virtual machine.

- 7 Set the capacity for the new virtual hard disk.
You can set a size between 0.001 GB and 8 TB for a virtual disk.
- 8 Specify how to allocate the disk space.

Option	Description
Allocate all disk space now	Allocating all of the disk space when you create the virtual hard disk can enhance performance, but it requires all of the physical disk space to be available now. If you do not select this setting, the virtual disk starts small and grows as you add data to it.
Store virtual disk as a single file	Select this option if the virtual disk is stored on a file system that does not have a file size limitation.
Split virtual disk into multiple files	Select this option if the virtual disk is stored on a file system that has a file size limitation. When you split a virtual disk less than 950GB, a series of 2 GB virtual disk files are created. When you split a virtual disk greater than 950 GB, two virtual disk files are created. The maximum size of the first virtual disk file is 1.9 TB and the second virtual disk file stores the rest of the data.

- 9 Accept the default filename and location, or browse to and select a different location.
- 10 Click **Finish** to add the new virtual hard disk.
The wizard creates the new virtual hard disk. The disk appears to the guest operating system as a new, blank hard disk.
- 11 Click **OK** to save your changes.
- 12 Use the guest operating system tools to partition and format the new drive.

Add an Existing Virtual Hard Disk to a Virtual Machine

You can reconnect an existing virtual hard disk that was removed from a virtual machine.

Procedure

- 1 Select **VMRC > Manage > Virtual Machine Settings** for Windows client OS or select **VMRC > Virtual Machine > Virtual Machine Settings** for Linux client OS.
- 2 In the Add Hardware wizard, select **Hard Disk**.
- 3 Select **Use an existing virtual disk**.
- 4 Specify the path name and filename for the existing disk file.
- 5 Click **Finish** to add the existing virtual hard disk.
- 6 Click **OK** to save your changes.

Compact a Virtual Hard Disk

Compacting a virtual hard disk reclaims unused space in the virtual disk. If a disk has empty space, this process reduces the amount of space the virtual disk occupies on the client drive.

Prerequisites

- Power off the virtual machine.
- Verify that the virtual disk is not mapped or mounted. You cannot compact a virtual disk while it is mapped or mounted.
- Verify that the disk space is not preallocated for the virtual hard disk. If the disk space was preallocated, you cannot compact the disk.
- If the virtual hard disk is an independent disk, verify that it is in persistent mode.

Procedure

- 1 Select **VMRC > Manage > Virtual Machines Settings** for Windows client OS and select **VMRC > Virtual Machine > Virtual Machine Settings** for Linux client OS.
- 2 On the **Hardware** tab, select the virtual hard disk to compact.
- 3 Click **Compact** in the **Disk Utilities** pane.
- 4 Click **OK** after the disk compacting process is complete.

Defragment a Virtual Hard Disk

Like physical disk drives, virtual hard disks can become fragmented. Defragmenting disks rearranges files, programs, and unused space on the virtual hard disk so that programs run faster and files open more quickly. Defragmenting does not reclaim unused space on a virtual hard disk.

Defragmenting disks can take considerable time.

Prerequisites

- Verify that you have allocated adequate free working space on the client. For example, if the virtual hard disk is contained in a single file, there must be free space equal to the size of the virtual disk file. Other virtual hard disk configurations require less free space.
- Verify that the virtual disk is not mapped or mounted. You cannot defragment a virtual disk while it is mapped or mounted.

Procedure

- 1 Run a disk defragmentation utility in the guest operating system.
- 2 If disk space is not allocated previously for the virtual hard disk, use the VMware Remote Console defragmentation tool to defragment it.
 - a Power off the virtual machine.
 - b Select **VMRC > Manage > Virtual Machine Settings** for Windows client OS or select **VMRC > Virtual Machine > Virtual Machine Settings** for Linux client OS.
 - c On the **Hardware** tab, select the virtual hard disk.
 - d Select **Defragment** in the **Disk Utilities** pane.
 - e When the defragmentation process is finished, click **OK**.
- 3 Run a disk defragmentation utility on the client.

Remove a Virtual Hard Disk from a Virtual Machine

Removing a virtual hard disk disconnects it from a virtual machine. It does not delete files from the client.

Procedure

- 1 Select **VMRC > Manage > Virtual Machine Settings** for Windows client OS or select **VMRC > Virtual Machine > Virtual Machine Settings** for Linux client OS.

NOTE For Apple OS X, select **Virtual Machine** and select the desired hard disk.

In the **Settings** window, expand **Advanced options > Remove Hard Disk**.

- 2 On the **Hardware** tab, select the virtual hard disk and click **Remove**.
- 3 Click **OK** to save your changes.

Add a DVD or CD-ROM Drive to a Virtual Machine

You can add one or more DVD or CD-ROM drives to a virtual machine. You can connect the virtual DVD or CD-ROM drive to a physical drive or an ISO image file.

You can configure the virtual DVD or CD-ROM drive as an IDE or a SCSI device, regardless of the type of physical drive that you connect it to. For example, if the client has an IDE CD-ROM drive, you can set up the virtual machine drive as either SCSI or IDE and connect it to the client drive.

Procedure

- 1 Select **VMRC > Manage > Virtual Settings**.
- 2 On the **Hardware** tab, click **Add**.
- 3 In the Add Hardware wizard, select **DVD/CD Drive**.
- 4 Select a physical drive or ISO image file to connect to the drive.

Option	Description
Use physical drive	The virtual machine uses a physical drive.
Use ISO image	The drive connects to an ISO image file.

- 5 Configure the physical drive or ISO image file.

Option	Description
Physical drive	Select a specific drive, or select Auto detect to allow VMRC to auto-detect the drive to use.
ISO image file	Type the path or browse to the location of the ISO image file.

- 6 To connect the drive or ISO image file to the virtual machine when the virtual machine powers on, select **Connect at power on**.
- 7 Click **Finish** to add the drive to the virtual machine.
The drive initially appears as an IDE drive to the guest operating system.
- 8 (Optional) To change which SCSI or IDE device identifier to use for the drive, select the drive and click **Advanced**.
- 9 Click **OK** to save your changes.

Add a Floppy Drive to a Virtual Machine

You can configure a virtual floppy drive to connect to a physical floppy drive or an existing or blank floppy image file. You can add up to two floppy drives to a virtual machine.

Prerequisites

Power off the virtual machine.

Procedure

- 1 Select **VMRC > Manage > Virtual Machine Settings** for Windows client OS or select **VMRC > Virtual Machine > Virtual Machine Settings** for Linux client OS.
- 2 On the **Hardware** tab, click **Add**.
- 3 In the Add Hardware wizard, select **Floppy Drive**.
- 4 Select the floppy media type.

Option	Description
Use a physical floppy drive	The virtual machine uses a physical floppy drive.
Use a floppy image	The drive connects to an floppy image (.flp) file.

- 5 If you selected the physical floppy drive media type, select a specific floppy drive or select **Auto detect** to allow VMware Remote Console to auto-detect the drive to use.
- 6 If you selected the floppy image type, provide the name or browse to the location of a floppy image (.flp) file.
- 7 To connect the drive or floppy image file to the virtual machine when the virtual machine powers on, select **Connect at power on**.
- 8 Click **Finish** to add the drive to the virtual machine.
- 9 Click **OK** to save your changes.

Add a Virtual Network Adapter to a Virtual Machine

You can add up to 10 virtual network adapters to a virtual machine.

Procedure

- 1 Select **VMRC > Manage > Virtual Machine Settings** for Windows client OS or select **VMRC > Virtual Machine > Virtual Machine Settings** for Linux client OS.
- 2 On the **Hardware** tab, click **Add**.
- 3 Select **Network Adapter**.
- 4 Click **Finish** to add the virtual network adapter to the virtual machine.
- 5 Click **OK** to save your changes.

Add a USB Controller to a Virtual Machine

A USB controller is required to use a smart card in a virtual machine, regardless of whether the smart card reader is a USB device. You can add one USB controller to a virtual machine.

You can add USB controllers only on a Windows system.

Add a USB Controller on Windows

You can add devices compatible with USB 1.1, USB 2.0, or USB 3.0.

Prerequisites

Power off the virtual machine.

Procedure

- 1 Select **VMRC > Manage > Virtual Machine Settings** for Windows client OS or select **VMRC > Virtual Machine > Virtual Machine Settings** for Linux client OS.
- 2 On the **Hardware** tab, click **Add**.
- 3 In the Add Hardware wizard, select **USB Controller**.
- 4 Select the USB compatibility version from the drop-down menu.
- 5 Click **Finish** to add the USB controller.

Configure Sound Card Settings

The VMware virtual sound device is compatible with a Creative Technology Sound Blaster Audio API. The sound device supports sound in Windows and Linux guest operating systems.

Procedure

- 1 Select **VMRC > Manage > Virtual Machine Settings** for Windows client OS or select **VMRC > Virtual Machine > Virtual Machine Settings** for Linux client OS.
- 2 On the **Hardware** tab, click **Add** and select **Sound Card**.

- 3 Configure one or more sound card settings.

Option	Description
Use default host sound card	Connects to the default host or client sound device.
Specify host sound card	(Windows clients only) Select which sound card to use if you have more than one physical sound card on the host system or client.

- 4 To automatically connect the sound device to the virtual machine when you power on the virtual machine, select **Connect at power on**.
- 5 Click **Finish** to save your changes.

Add a Parallel Port to a Virtual Machine

You can attach up to three bidirectional parallel (LPT) ports to a virtual machine. Virtual parallel ports can output to parallel ports or to files on the client.

Parallel ports are used for a variety of devices, including printers, scanners, dongles, and disk drives. Although these devices can connect to the client, only printers can reliably connect to virtual machines by using parallel ports.

Prerequisites

Power off the virtual machine.

Procedure

- 1 Select **VMRC > Manage > Virtual Machine Settings** for Windows client OS or select **VMRC > Virtual Machine > Virtual Machine Setting** for Linux client OS.

NOTE On Apple OS X, select **Virtual Machine > Settings > Add Device** and double click on the device to add the device.

- 2 On the **Hardware** tab, click **Add**.
- 3 In the Add Hardware wizard, select **Serial Port**.
- 4 Select where the virtual serial port sends output.

Option	Description
Use a physical parallel port	Send output to a physical serial port on the client.
Use output file	Send output to a file on the client. Either locate an existing output file or browse to a directory and type a filename to create a new output file.
Output to named pipe	Set up a direct connection between two virtual machines, or a connection between a virtual machine and an application on the client.

- 5 To connect the port to the virtual machine when the virtual machine powers on, select **Connect at power on**.
- 6 Click **Finish** to add the virtual serial port to the virtual machine.

What to do next

If the guest operating system is Windows 95 or Windows 98, run the Add New Hardware wizard to detect and add the serial port.

Add a Serial Port to a Virtual Machine

You can add up to four serial (COM) ports to a virtual machine. Virtual serial ports can output to physical serial ports, files, or named pipes.

You might want to add a virtual serial port to a virtual machine to make devices such as modems and printers available to the virtual machine. You can also use virtual ports to send debugging data from a virtual machine to the client or to another virtual machine.

NOTE The virtual printer feature configures a serial port to make client printers available to the guest. You do not need to install additional drivers in the virtual machine.

Prerequisites

Power off the virtual machine.

Procedure

- 1 Select **VMRC > Manage > Virtual Machine** for Windows client OS or select **VMRC > Virtual Machine > Virtual Machine Settings** for Linux client OS.

NOTE On Apple OS X, select **Virtual Machine > Settings > Add Device** and double click on the device to add the device.

- 2 On the **Hardware** tab, click **Add**.
- 3 In the New Hardware wizard, select **Serial Port**.
- 4 Select where the virtual parallel port sends output.

Option	Description
Use a physical parallel port	Select a parallel port on the client.
Use output file	Send output from the virtual parallel port to a file on the client. Either locate an existing output file or browse to a directory and type a filename to create a new output file.

- 5 To connect the virtual parallel port to the virtual machine when the virtual machine powers on, select **Connect at power on**.
- 6 Click **Finish** to add the virtual parallel port to the virtual machine.

What to do next

If you set up a connection between two virtual machines, the first virtual machine is set up as the server. Repeat this procedure for the second virtual machine, but set it up as the client by selecting **This end is the client** when you configure the named pipe.

Add a Generic SCSI Device to a Virtual Machine

You must add a generic SCSI device to the virtual machine to map virtual SCSI devices on a virtual machine to physical generic SCSI devices on the client. You can add up to 60 generic SCSI devices to a virtual machine.

Prerequisites

Procedure

- 1 Select **VMRC > Manage > Virtual Machine Settings** for Windows client OS or **VMRC > Virtual Machine > Virtual Machine Settings** for Linux client OS.

NOTE For Apple OS X, select **Virtual Machine > Settings > General**.

- 2 On the **Hardware** tab, click **Add**.
- 3 In the Add Hardware wizard, select **Generic SCSI Device**.
- 4 Select the physical SCSI device to map to the virtual SCSI device.
When you type the path to the SCSI device on a Linux client, do not enter `/dev/st0` or `/dev/sr0`.
- 5 To connect the device when the virtual machine powers on, select **Connect at power on**.
- 6 Click **Finish** to add the device.

Index

C

CD-ROM drives **21**

D

DVD **21**

F

floppy drives **22**

G

generic SCSI devices **25**

guest operating systems **15**

I

Install on Windows **7**

intended audience **5**

M

managing devices **17**

memory allocation **17**

P

parallel ports **25**

processor settings **18**

R

removable devices **13**

restart guest **13**

S

serial ports **24**

shut down **11, 12**

shut down with remote console **12**

sound card **23**

suspend and resume VM **12**

U

USB controller **23**

USB controller on Windows **23**

V

virtual machines

 changing names **15**

 configuring **15**

 managing **15**

virtual hard disks

 adding **20**

 compacting **20**

 defragmenting **20**

 removing **21**

virtual machine console **9, 11**

virtual network adapters **23**

VMware Remote Console **5**

VMware Tools update **13**

