

VMware Workstation

System Requirements

Host System Requirements

Like physical computers, the virtual machines running under Workstation perform better if they have faster processors and more memory.

PC Hardware

- Standard x86-compatible or x86-64-compatible personal computer
- 733MHz or faster CPU minimum

Compatible processors include:

- Intel: Celeron, Pentium II, Pentium III, Pentium 4, Pentium M (including computers with Centrino mobile technology), Xeon (including “Prestonia”), and Core 2 processors
- AMD: Athlon, Athlon MP, Athlon XP, Athlon 64, Duron, Opteron, Turion 64
- AMD Sempron
- 64-bit systems supported: AMD Opteron, AMD Athlon 64, AMD Turion 64, AMD Sempron, Intel EM64T. Support for 64-bit guest operating systems is available only on the following versions of these processors:
 - AMD Athlon 64, revision D or later
 - AMD Opteron, revision E or later
 - AMD Turion 64, revision E or later
 - AMD Sempron, 64-bit-capable revision D or later
 - Intel Pentium 4 and Core 2 processors with EM64T and Intel Virtualization Technology

For additional information, including notes on processors that are not compatible, see the VMware knowledge base at www.vmware.com/support/kb/enduser/std_adp.php?p_faqid=967.

Memory

512MB minimum (2GB is recommended).

NOTE You must have enough memory to run the host operating system, plus the memory required for each guest operating system and for applications on the host and guest. See your guest operating system and application documentation for their memory requirements. As of version 6.0 of Workstation, the total amount of memory you can assign to all virtual machines running on a single host is unlimited. The maximum amount of memory per virtual machine is 8GB.

Display

16-bit or 32-bit display adapter is recommended.

Disk Drives

Guest operating systems can reside on physical disk partitions or in virtual disk files.

Hard Disk

- IDE and SCSI hard drives supported.
- At least 1GB free disk space recommended for each guest operating system and the application software used with it. If you use a default setup, the actual disk space needs are approximately the same as those for installing and running the guest operating system and applications on a physical computer.

For installation – 200MB (Linux) or 650MB (Windows) free disk space required for basic installation. You can delete the installer afterwards to reclaim disk space.

Optical CD-ROM/DVD-ROM Drive

- IDE and SCSI optical drives supported.
- CD-ROM and DVD-ROM drives supported.
- ISO disk image files supported.

Floppy Drives

Virtual machines can connect to the host's floppy drives. Floppy disk image files are also supported.

Local Area Networking (Optional)

- Any Ethernet controller supported by the host operating system.
- Non-Ethernet networks supported using built-in network address translation (NAT) or using a combination of host-only networking plus routing software on the host operating system.

Host Operating System

VMware Workstation is available for both Windows and Linux host operating systems.

Windows Host Operating Systems (32-Bit)

Workstation supports the following Windows 32-bit host operating systems:

- Windows Vista Enterprise Edition
 - Windows Vista Business Edition
 - Windows Vista Home Basic and Premium Editions
 - Windows Vista Ultimate Edition
 - Windows Server 2003 Standard Edition, SP1
 - Windows Server 2003 Web Edition, SP1
 - Windows Server 2003 Enterprise Edition, SP1
 - Windows Server 2003 R2
- (Listed versions are also supported with no service pack.)
- Windows XP Home Edition, SP1, SP2
 - Windows XP Professional, SP1, SP2
- (Listed versions are also supported with no service pack.)
- Windows 2000 Server SP3, SP4
 - Windows 2000 Professional, SP3, SP4
 - Windows 2000 Advanced Server, SP3, SP4

Windows Host Operating Systems (64-Bit)

- Windows Vista Enterprise Edition
- Windows Vista Business Edition
- Windows Vista Home Basic and Premium Editions
- Windows Vista Ultimate Edition
- Windows Server 2003 x64 Edition SP1
- Windows Server 2003 x64 Edition R2
- Windows XP Professional x64 Edition

A Web browser is required for the Help system.

Linux Host Operating Systems (32-Bit)

Supported distributions and kernels are listed below. Workstation might not run on systems that do not meet these requirements.

NOTE As newer Linux kernels and distributions are released, VMware modifies and tests its products for stability and reliability on those host platforms. VMware makes every effort to add support for new kernels and distributions in a timely manner, but until a kernel or distribution is added to the list below, its use with VMware products is not supported. Look for newer prebuilt modules in the download area of the VMware Web site. Go to www.vmware.com/download/.

Mandriva

- Mandriva Linux 2006 and 2007
- Mandriva Corporate Desktop 4.0
- Mandriva Corporate Server 4.0
- Mandrake Linux 10.1
- Mandrake Linux 9.0 — stock 2.4.19

Red Hat

- Red Hat Enterprise Linux 5.0
- Red Hat Enterprise Linux WS 4.5 (Beta, formerly called 4.0 Update 5)
- Red Hat Enterprise Linux AS 4.0, updates 1, 2, 3, 4
- Red Hat Enterprise Linux ES 4.0, updates 1, 2, 3, 4
- Red Hat Enterprise Linux WS 4.0, updates 1, 2, 3, 4
- Red Hat Enterprise Linux AS 3.0, updates 1, 2, 3, 4, 5, 6, 7, 8
- Red Hat Enterprise Linux ES 3.0, updates 1, 2, 3, 4, 5, 6, 7, 8
- Red Hat Enterprise Linux WS 3.0, updates 1, 2, 3, 4, 5, 6, 7, 8
- Red Hat Enterprise Linux 2.1 — stock 2.4.9-e3
- Red Hat Linux 9.0 — stock 2.4.20-8, upgrade 2.4.20-20.9
- Red Hat Linux 8.0 — stock 2.4.18
- Red Hat Linux 7.3 — stock 2.4.18
- Red Hat Linux 7.2 — stock 2.4.7-10, upgrade 2.4.9-7, upgrade 2.4.9-13, upgrade 2.4.9-21, upgrade 2.4.9-31
- Red Hat Linux 7.1 — stock 2.4.2-2, upgrade 2.4.3-12
- Red Hat Linux 7.0 — stock 2.2.16-22, upgrade 2.2.17-14

SUSE

- SUSE Linux Enterprise Server 10
- SUSE Linux Enterprise Server 9 SP4 (Beta)
- SUSE Linux Enterprise Server 9, 9 SP1, 9 SP2, 9 SP3
(Listed versions are also supported with no service pack.)
- SUSE Linux Enterprise Server 8, stock 2.4.19 openSUSE 10.2 (formerly known as SUSE Linux 10.2)
- SUSE Linux 10.1
- SUSE Linux 10
- SUSE Linux 9.3
- SUSE Linux 9.2, SP1)
- SUSE Linux 9.1 — stock 2.6.4-52
- SUSE Linux 9.0 — stock 2.4.21-99
- SUSE Linux 8.2 — stock 2.4.20

Ubuntu

- Ubuntu Linux 6.10
- Ubuntu Linux 6.06
- Ubuntu Linux 5.10
- Ubuntu Linux 5.04

A Web browser is required for the Help system.

Linux Host Operating Systems (64-Bit)

Supported distributions and kernels are listed below. Workstation might not run on systems that do not meet these requirements.

NOTE As newer Linux kernels and distributions are released, VMware modifies and tests its products for stability and reliability on those host platforms. VMware makes every effort to add support for new kernels and distributions in a timely manner, but until a kernel or distribution is added to the list below, its use with VMware products is not supported. Look for newer prebuilt modules in the download area of the VMware Web site. Go to www.vmware.com/download/.

Mandriva

Mandriva Linux 2006 and 2007
Mandriva Corporate Desktop 4.0
Mandriva Corporate Server 4.0

Important: On 64-bit Mandriva hosts, some 32-bit compatibility libraries are required. Specifically, 32-bit *glibc*, *X11*, and *libXtst.so* are required.

Red Hat

Red Hat Enterprise Linux 5.0
Red Hat Enterprise Linux 4.5 (Beta, formerly called 4.0 Update 5)
Red Hat Enterprise Linux AS 4.0, updates 3, 4
Red Hat Enterprise Linux ES 4.0, updates 3, 4
Red Hat Enterprise Linux WS 4.0, updates 3, 4
Red Hat Enterprise Linux AS 3.0, stock 2.4.21, updates 2.4.21-15, 6, 7, 8
Red Hat Enterprise Linux ES 3.0, stock 2.4.21, updates 2.4.21-15, 6, 7, 8
Red Hat Enterprise Linux WS 3.0, stock 2.4.21, updates 2.4.21-15, 6, 7, 8

SUSE

SUSE Linux Enterprise Server 10
SUSE Linux Enterprise Server 9 SP4 (Beta)
SUSE Linux Enterprise Server 9, SP1, SP2, SP3
(Listed versions are also supported with no service pack.)
openSUSE 10.2 (formerly known as SUSE Linux 10.2)
SUSE Linux 10.1
SUSE Linux 10
SUSE Linux 9.3
SUSE Linux 9.2, SP1
SUSE Linux 9.1 — stock 2.6.4-52

Ubuntu

Ubuntu Linux 6.10
Ubuntu Linux 6.06
Ubuntu Linux 5.10
Ubuntu Linux 5.04
Important: On 64-bit Ubuntu 6.x hosts, some 32-bit compatibility libraries are required. Specifically, 32-bit glibc and X11 are required. See the VMware Guest Operating System Installation Guide for version details about these operating systems.

A Web browser is required for the Help system.

Virtual Machine Specifications

The following sections describe the devices supported by Workstation virtual machines.

Processor

- Same processor as that on host computer.
- One virtual processor on a host with one or more logical processors.
- Two virtual processors (two-way virtual symmetric multiprocessing, or Virtual SMP) on a host with at least two logical processors.

The following are all considered to have two logical processors:

- A multiprocessor host with two or more physical CPUs
- A single-processor host with a multicore CPU
- A single-processor host with hyperthreading enabled

Chip Set

- Intel 440BX-based motherboard
- NS338 SIO
- 82093AA IOAPIC

BIOS

PhoenixBIOS 4.0 Release 6 with VESA BIOS

Memory

- Up to 8GB, depending on host memory.
- No maximum limit for the total available for all virtual machines.

Graphics

VGA and SVGA support

IDE Drives

- Up to four devices—disks, CD-ROM or DVD-ROM (DVD drives can be used to read data DVD-ROM discs; DVD video is not supported).
- Hard disks can be virtual disks or physical disks.
- IDE virtual disks up to 950GB.
- CD-ROM can be a physical device or an ISO image file.

SCSI Devices

- Up to 60 devices.
- SCSI virtual disks up to 950GB.
- Hard disks can be virtual disks or physical disks.
- Generic SCSI support allows devices to be used without need for drivers in the host operating system. Works with scanners, CD-ROM, DVD-ROM, tape drives and other SCSI devices.
- LSI Logic LSI53C10xx Ultra320 SCSI I/O controller.
- Mylex (BusLogic) BT-958 compatible host bus adapter (requires add-on driver from VMware for Windows XP and Windows Server 2003).

Floppy Drives

- Up to two 1.44MB floppy devices.
- Physical drives or floppy image files.

Serial (COM) Ports

- Up to four serial (COM) ports.
- Output to serial ports, Windows or Linux files, or named pipes.

Parallel (LPT) Ports

- Up to three bidirectional parallel (LPT) ports.
- Output to parallel ports or host operating system files.

USB ports

- USB 1.1 UHCI controller, with a (transparent) virtual hub so that more than two devices can be connected.
- USB 2.0 EHCI controller that supports up to six devices. (You need use the virtual machine settings editor to enable USB 2.0 support.
- Supports most devices, including USB printers, scanners, PDAs, hard disk drives, memory card readers and digital cameras, as well as streaming devices such as web cams, speakers, and microphones.

Keyboard

104-key Windows 95/98 enhanced

Mouse and Drawing Tablets

- PS/2 mouse
- Serial tablets supported

Ethernet Card

- Up to 10 virtual Ethernet cards.
- AMD PCnet-PCI II compatible.
- For 64-bit guests: Intel Pro/1000 MT Server Adapter compatible.

Sound

- Sound output and input.
- Emulates Creative Labs Sound Blaster AudioPCI. (MIDI input, game controllers and joysticks are not supported, except for USB devices.)

Virtual Networking

Support for 10 virtual Ethernet switches on Microsoft Windows host operating systems. Support for 100 virtual Ethernet switches on Linux hosts. Three switches are configured by default for bridged, host-only, and NAT networking. Support for most Ethernet-based protocols, including TCP/IP, NetBEUI, Microsoft Networking, Samba, Novell Netware, and Network File System. Built-in NAT supports client software using TCP/IP, FTP, DNS, HTTP, and Telnet, including VPN support for PPTP over NAT.

Supported Guest Operating Systems

This section provides a simplified list of guest operating systems supported for virtual machines running in VMware Workstation. For the most recent list of supported guest operating systems, including detailed information about the specific operating system versions, service packs, and updates supported, see the *VMware Guest Operating System Installation Guide*, at <http://pubs.vmware.com/guestnotes/>. This guide also provides notes on installing the most common guest operating systems. Operating systems that are not listed are not supported for use in a Workstation virtual machine.

See the *VMware Guest Operating System Installation Guide* for service pack and version details about these operating systems.

Microsoft Windows 32-Bit

- Windows Vista (3-D effects not yet supported)
- Windows Server 2003, Small Business Server 2003
- Windows Server 2003 Web Edition
- Windows XP Professional and Home Edition
- Windows 2000 Professional
- Windows 2000 Server
- Windows 2000 Advanced Server
- Windows NT Workstation and Server 4.0 Windows NT 4.0 Terminal Server Edition
- Windows Me
- Windows 98
- Windows 95
- Windows for Workgroups
- Windows 3.1

Microsoft Windows 64-Bit

- Windows Vista x64 Edition (3-D effects not yet supported)
- Windows Server 2003 x64 Edition
- Windows XP Professional x64

Microsoft MS-DOS

MS-DOS

Linux 32-Bit

- Mandriva Linux 2006 and 2007
- Mandrake Linux
- Red Hat Linux
- Red Hat Enterprise Linux Advanced Server, Enterprise Server, and Workstation
- SUSE Linux
- SUSE Linux Enterprise Server
- Turbolinux Server, Enterprise Server, Workstation, Desktop
- Novell Linux Desktop
- Sun Java Desktop System (JDS)
- Ubuntu Linux

Linux 64-Bit

- Mandriva Linux 2006 and 2007
- Red Hat Enterprise Linux Advanced Server, Enterprise Server, and Workstation
- SUSE Linux Enterprise Server
- SUSE Linux
- Ubuntu Linux

Novell NetWare 32-Bit

NetWare

Novell Open Enterprise Server 32-Bit

Open Enterprise Server 32-bit

FreeBSD 32-Bit

FreeBSD 32-bit

If you use SCSI virtual disks larger than 2GB with FreeBSD 4.0–4.3, there are known problems, and the guest operating system does not boot. To work around this issue, see the VMware Guest Operating System Installation Guide, at <http://pubs.vmware.com/guestnotes/>.

FreeBSD 64-Bit

FreeBSD 64-bit

Sun Solaris 32-Bit

Solaris x86 32-bit

Sun Solaris 64-Bit

Solaris x86 64-bit

Support for 64-Bit Guest Operating Systems

Workstation supports virtual machines with 64-bit guest operating systems, running on host machines with the following processors:

- AMD Athlon 64, revision D or later
- AMD Opteron, revision E or later
- AMD Turion 64, revision E or later
- AMD Sempron, 64-bit-capable revision D or later
- Intel EM64T VT-capable processors

Workstation supports virtual machines with 64-bit guest operating systems only on host machines that have one of the supported 64-bit processors. When you power on a virtual machine with a 64-bit guest operating system, Workstation performs an internal check: if the host CPU is not a supported 64-bit processor, you cannot power on the virtual machine.

VMware also provides a standalone utility that you can use without Workstation to perform the same check and determine whether your CPU is supported for Workstation virtual machines with 64-bit guest operating systems. You can download the 64-bit processor check utility from www.vmware.com/download.

Workstation supports virtual machines with 64-bit guest operating systems only in versions 5.5 and later. If your version of Workstation is 5.0 or earlier, upgrade to version 5.5 or later for 64-bit guest operating system support. A virtual machine created in Workstation version 5.5 with a 64-bit operating system cannot be powered on or resumed in Workstation versions 5.0 and earlier.