



VMware Workstation

Powerful Virtual Machine Software for the Technical Professional

What Is VMware Workstation?

VMware® Workstation is powerful desktop virtualization software for software developers/testers and IT professionals that runs multiple operating systems simultaneously on a single PC. Users can run Windows, Linux, NetWare or Solaris x86 in fully networked, portable virtual machines – no rebooting or hard drive partitioning required. VMware Workstation delivers excellent performance and advanced features such as memory optimization and the ability to manage multi-tier configurations and multiple snapshots.

With millions of customers and dozens of major product awards over the last six years, VMware Workstation is a proven technology that improves productivity and flexibility. VMware Workstation has become an indispensable tool for software developers and IT professionals worldwide.

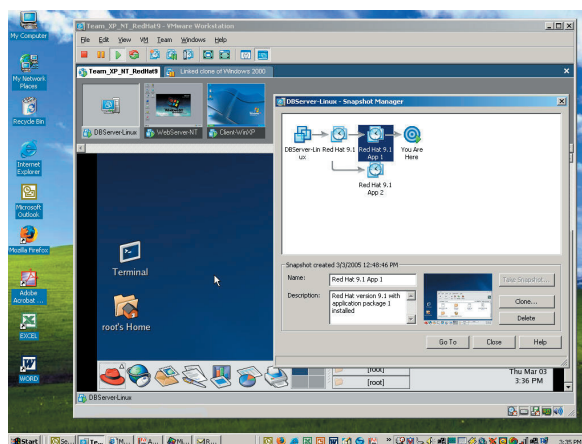
How Is VMware Workstation Used?

The powerful and flexible virtualization properties and features of VMware Workstation enable a wide range of solutions for a diverse set of users. Individuals and organizations use VMware Workstation to:

- **Streamline software development and testing operations.** Create multiple development and testing environments as virtual machines on a single PC and use them to test “real world” multi-tier configurations, complex networks, and multiple operating systems and applications all on a single machine.
- **Improve team collaboration.** The portability and hardware-independent property of virtual machines, coupled with new features in VMware Workstation, lets users easily share development environments and pre-packaged testing configurations without risk, and also facilitates collaboration between development and QA.

“VMware Workstation streamlines our work in QA so we can release more quickly new, higher quality products. We cut our costs by buying fewer, higher-end PCs, and we can do more on one computer than we could with separate boxes. We can also isolate issues without having to worry about degradation of hardware or needing to rebuild systems.”

Cliff Thornton
Manager, Cognos Solution and Interoperability Quality Control
Cognos



VMware Workstation runs multiple operating systems – Windows, Linux, NetWare – and their applications simultaneously on a single physical PC in fully networked, portable virtual machines.

- **Enhance the productivity of IT professionals.** Allows system administrators and other enterprise IT professionals to test software, including new applications, application updates, and operating system patches, in virtual machines prior to deployment on physical PCs or servers in a production environment. IT help desk departments can create and reference a virtual library of end-user configurations to help them resolve problems more quickly.
- **Introduce Virtual Infrastructure to your enterprise.** Virtual machines created in Workstation can be deployed to the other desktop and server virtualization platforms offered by VMware. Introducing VMware Workstation virtualization to the desktop is an ideal first step to transforming your physical IT infrastructure into virtual infrastructure.

How Does VMware Workstation Work?

VMware Workstation works by creating fully isolated, secure virtual machines that encapsulate an operating system and its applications. The VMware virtualization layer maps the physical hardware resources to the virtual machine's resources, so each virtual machine has its own CPU, memory, disks, and I/O devices, and is the full equivalent of a standard x86 machine. VMware Workstation installs onto the host operating system and provides broad hardware support by inheriting device support from the host.

KEY FEATURES

- The only desktop virtual machine software that runs on both Windows and Linux host operating systems, allows users to create two-processor virtual machines, and supports certain 64-bit host and guest operating systems and 64-bit extended processors
- Broader device support, better performance and more powerful functionality than any other desktop virtual machine software
- Powerful virtual networking options with NAT devices, DHCP server, and multiple network switches, let you connect virtual machines to each other, the host machine, and public networks
- Shared folders, drag-and-drop operations, and copying and pasting between guest and host
- Get the full functionality of native program debugging in a virtual machine with support for both user and kernel-level debuggers
- Easily switch between virtual machines and suspend/resume them
- Each virtual machine has configurable memory size, disks, and I/O devices, and also support for CD, floppy, USB, DVD, and CD-ROM devices
- Virtual machines are isolated from each other, ensuring that if one crashes, the other virtual machines and the host machine are unaffected
- A virtual machine is a set of portable, hardware-independent files that can easily be shared.
- Multiple snapshot feature to easily capture and manage point-in-time copies of running virtual machines and “undo” changes
- Teams feature to more easily manage connected virtual machines and simulate “real-world” multi-tier configurations
- Full and linked clone capabilities to easily copy and share virtual machines
- Support for new 32-bit guest and host operating systems
- Support for certain 64-bit host and guest OSs and 64-bit extended processors
- Experimental support for 2-Way Virtual SMP™
- Improved performance, especially for multi-virtual machine and networking workloads
- Movie record and playback feature to capture all activity in a running virtual machine
- Command line interface to automate certain repetitive tasks, including snapshots
- Improved Linux user interface and wireless networking capabilities
- Support for a class of streaming USB devices, including webcams and speakers
- Support for NX bit and experimental support for Sun Solaris x86
- Includes VMware Player*

NEW IN VMWARE WORKSTATION 5.5

Why Use VMware Workstation?

USAGE SCENARIOS	BENEFITS
Streamline software development and testing • Develop and test multiple operating systems and applications on a single PC • Connect virtual machines to simulate and test multi-tier configurations • Use multiple snapshots and debugging support to facilitate testing • Archive test environments on file servers where they can be easily restored/shared	• Accelerate dev/test cycles and reduce time to market • Reduce hardware costs by 50-60% • Reduce costly configuration and set-up time by 25-55% • Improve project quality with more rigorous testing • Ensure that users always test from a “clean” state
Enhance productivity of IT professionals • Configure and test desktops and servers as virtual machines before deploying them to production • Test new multi-tier applications, application updates, and OS patches on a single PC • Host legacy applications within virtual machines, thus facilitating OS migrations and eliminating the need to port legacy applications • Create a virtual library of end-user configurations on a shared drive	• Reduce hardware costs by 50-60% • Increase operations efficiency by up to 50% • Reduce time needed to test new software and improve quality of deployments • Eliminate risk to production networks by creating isolated virtual test networks • Complete OS migration projects with minimal end-user disruption • Accelerate help desk resolution of end-user problems
Facilitate computer-based training and software demos • Package and deploy classroom material in virtual machines • Allow students to experiment with multiple operating systems, applications, and tools in secure, isolated virtual machines • Configure virtual machines to “undo” all changes at shutdown • Demo complex or multi-tier configurations on a single laptop	• Reduce hardware needed in classroom • Decrease time required to prepare for a new class • Ensure that students always start from a “clean” state • More stable demos and reduced setup time and hardware costs

SPECIFICATIONS

Host System Requirements

PC Hardware

- Standard x86-compatible personal computer
- 500MHz or faster CPU (recommended; 400MHz minimum)

Compatible processors include

- Intel® Celeron®, Pentium® II, Pentium III, Pentium 4, Pentium M (including computers with Centrino™ mobile technology), Xeon™ (including “Prestonia”)
- AMD®: Athlon™, Athlon MP, Athlon XP, Duron™, Opteron™
- Experimental support for AMD Sempron™
- Multiprocessor systems supported
- 64-bit processor support for AMD64 Opteron, Athlon 64, Turion, Sempron and Intel EM64T (including “Nocona”)

Memory

- 128MB minimum (256MB recommended)
- Enough memory to run the host operating system, plus 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

Display

- 16-bit or 32-bit display adapter recommended

- Linux hosts must have an X server that meets the X11R6 specification

Disk Drives

- 150MB (for Windows hosts), 80MB (for Linux hosts) free space required for basic installation. Afterwards, delete the installer to reclaim 50-60MB.
- 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

Host Operating Systems

- Windows 2000 Professional and Server, Windows XP (32- and 64-bit), Windows Server 2003 (32- and 64-bit)
- Popular 32-bit Linux distributions from Red Hat, SUSE, Ubuntu and Mandrake; select RHEL and SLES 64-bit OSs.
- Experimental support for Ubuntu Linux 5.04 and 5.10 (64-bit)

Guest Operating Systems

- Microsoft Windows Server 2003 (32- and 64-bit), Windows XP (32- and 64-bit), Windows 2000 Professional and Server, Windows NT® Workstation and Server 4.0, Windows Me, Windows 98, Windows 95, Windows 3.1, and MS-DOS 6

- Popular Linux distributions from Red Hat (32- and 64-bit), SUSE (32- and 64-bit), Turbolinux, and Mandrake
- FreeBSD 32-bit
- Novell NetWare Server 6.5, 6.0, and 5.1
- Experimental support for Windows “Vista”, Windows “Vista” x64 Edition, Ubuntu, Free BSD 64-bit and Sun Solaris 9 and 10 (32- and 64-bit) for the x86 platform

Each virtual machine provides a full PC that includes:

Processor

- Same processor as that on host computer

Memory

- Up to 3.6GB, depending on host memory
- Maximum of 4GB total available for all virtual machines

IDE Drives

- Up to four IDE devices – disks, CD-ROM, or DVD-ROM
- IDE virtual disks up to 950GB

CD Drives

- CD-ROM or DVD-ROM drives based on IDE or SCSI drives on host
- CD-ROM can be physical devices or ISO images

SCSI Devices

- Up to seven devices; Generic SCSI support allows devices to be used without need for host OS drivers

- SCSI virtual disks up to 950GB

Graphics

- VGA and SVGA

Serial (COM) Ports and Parallel (LPT) Ports

USB Ports

- Two-port USB 1.1 UHCI controller
- Supports most devices including USB printers, scanners, PDAs, hard disk drives, webcams and speakers

Ethernet® Card

- Up to three virtual Ethernet cards; AMD® PCnet™-PCI II compatible

Virtual Networking System

- Nine virtual Ethernet switches
- Virtual NAT device, DHCP server, network adapter, and network bridge with wireless networking support

Please see

www.vmware.com/products/desktop/ws_specs.html for a complete listing of current system requirements.

*Only self-help support is available with VMware Player