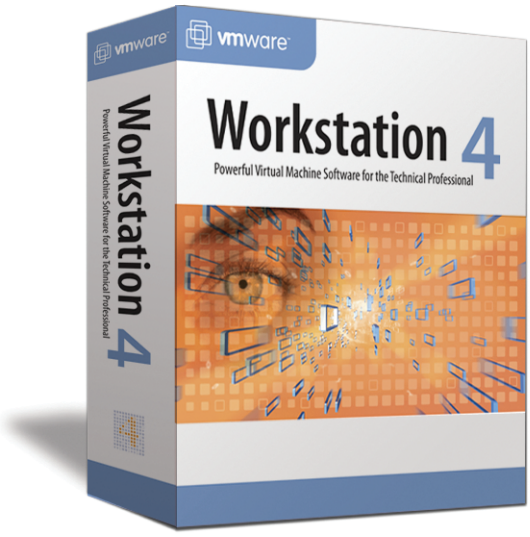

VMware Workstation 4.5.3

Virtual Machine

A new release version of VMware workstation is finally out. We take a look at the pros and cons of this commercial software. BY JOHN SOUTHERN

VMware workstation [1] is a product that keeps appearing in development houses. Its job is to provide a virtual machine on your desktop. This means you can load on another operating system and have it running inside a window on your desktop. The uses are varied and typically feature MS Windows on a Linux box or Linux on a MS Windows box, although these are not the only combinations of operating systems that are supported.

Assuming you have an MS license, VMware's main use is to run copies of Windows on your Linux desktop, or vice versa without the need to close down and dual boot.

It is a very popular choice if you are considering testing new operating systems such as the new Windows Beta of Longhorn or trying out a new distribution because it comes with a later version of GNOME and you do not want to risk your working setup.

Installation

The new 4.5.3 version arrived as an RPM file that installed within a couple of seconds on a standard Suse 9.1 box. Following the pdf instruction file, we then ran the vmware-config.pl script as root to agree to the license.

At this point we had a little trouble with the installation, as we had updated the Suse box for a kernel fix and this meant our sources were different from the official supported versions.. After adding the correct sources we were still unable to complete the installation as it fell over making the necessary modules. From a machine that we had not updated the kernel, the installation took only a few seconds, but even then complained about kernel version numbers. See the screenshot in Figure 1, below.

Installing a guest OS proved straightforward, but anyone wanting to install on anything just slightly different from the supported host systems should consider doing a Google for VMware patches. Those sites in .cz might be lucky for you.

The VMware site states that it supports the 2.6.4-52 kernel for Suse 9.1. Alas, this kernel is a little out of date and Suse have posted updates for security issues. As a consequence you have a choice. VMware or security.

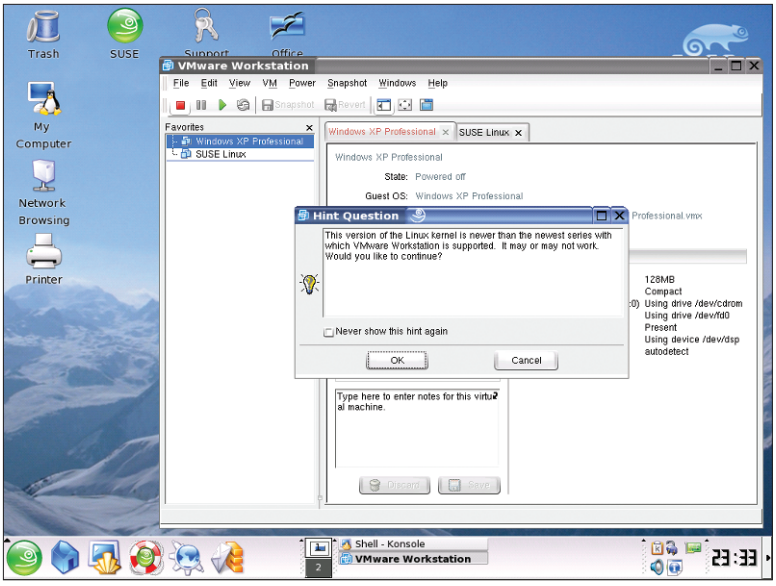

Figure 1: Even with the supported host OS, VMware was not always happy.

So that was it. Our guest OS was installed then the VM Tools were added and with the aid of bridging we could share files with the host Linux system and also browse the web. Unfortunately, any speed improvements over 4.5.2 were not noticeable.

The system is optimized for Windows, Linux, Netware and Solaris because these are the main markets. This does mean that other OSes will find it a little hard. Our OpenBSD installation kept crashing in our labs so we finally gave up and admitted defeat, whereas FreeBSD ran without a problem.

Sound took a little bit of a hit although MS media player actually worked without a problem. WinAmp managed to have a little stutter, but this was fine on a second test machine which had more RAM. DreamWeaver ran without a problem. As usual you should remember that the guest OS is going to run much slower than the host OS.

It is aimed at being a commercial, professional application that does give a developer the flexibility to have many different environments for testing code. LiveCD Linuxes just do not provide all the tools for development that you need, although this may be a niche market that someone could soon fill.

Nice idea

Image capture is a nice option. Here you can take a snapshot of your guest installation by copying the directory with the OS and config files. This means once you have taken the time

to install an OS you can keep a copy and quickly revert back to it whenever you break a running copy. Why is this useful? – well it saves time, especially if you are playing around with trojans and viruses. Help desk staff will find it a useful tool as you can quickly load up software to match a problem and then kill the image when you have finished solving that issue.

Add a couple of NICs to a machine and you can start to test your network and firewalls while all the time your main OS keeps on working.

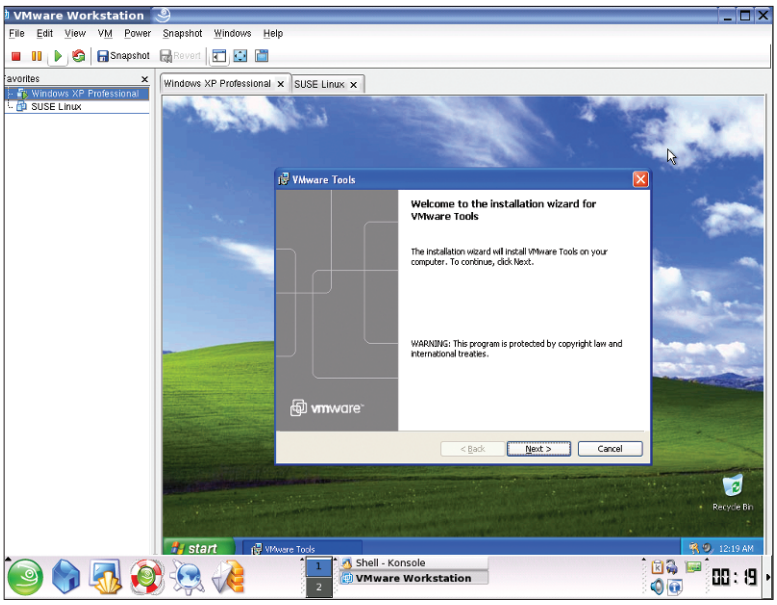

Figure 2: Installing the tools was straightforward.

Tools add the ability to have shared folders between your real Operating System and the guest OS.

Is it right?

VMware is not the panacea for all your OS needs. Its throughput for tasks is not that high and as a result, any CPU intensive tasks will not have the capability they need. Naturally, because it is a machine within a machine, some hardware tasks are not possible. Anyone thinking that this would allow them to play games will be disappointed. If this is what you are after then TransGaming's WineX project may be more suitable. 3D acceleration for graphics cards is not possible under VMware.

If you need to run multiple copies of Linux on virtual machines then the lightweight VM project called Plex86 [2] scales better and has the added benefit of being free. VMware Worksation 4.5.3 costs $199 or if you are willing to have an electronic download version £189.

Any task that needs a CPU beyond the x86 family will also be out of luck. If you need to support more architectures other than x86, then Bochs [3] is a solution as this emulates every x86 instruction and all the devices in a PC system and so can be compiled on other processors such as PPC or StrongArm.

If you really are just curious about Linux, VMware is probably not the right solution. It is easier to try one of the Live CDs such as Knoppix [4] which will not harm your current system, usually take about a minute to be up and running from rebooting your computer, and are obviously much cheaper than buying VMware and Linux.

Other virtual machines to consider include Microsoft Virtual PC 2004 [5], which was previously Connectix Virtual PC.

Xen [6] from the University of Cambridge especially for those in academia. QEMU [7] offers a chance for other architectures while WINE [8] does not give you a virtual machine but has some success in running that much needed Windows application.

Desire for speed

Also, when computers were comparatively slow and expensive, VMware saved you the cost of multiple machines. As prices have fallen, you can now buy a PC for less than VMware. This option would give you faster throughput as the operating system will be running at native speed rather than as a process running under a virtualized job on a machine. The downside of this approach is, yet another machine means more space, power and cables will be needed.

You have to decide whether you need to buy the Linux or Windows version as the price is for just one system.

Conclusion

Other virtual machine projects are available. VMware is expensive, both fiscally and in terms of hardware resources. It cannot handle other architectures. Not all OSes are supported as either a host or as a guest. It is not the fastest means of being able to use an OS.

On the other hand, it does actually work, allowing you to get on with something productive. It is easy to set up if you have the supported host systems.

The snapshot image is an amazing timesaver allowing you to be reckless with what you throw at an OS. The difference from 4.5.2 is quite small although we do now seem to have working USB devices. ■

INFO

[1] VMware: *http://www.vmware.com/*

[2] Plex86: *http://plex86.sourceforge.net/*

[3] Bochs: *http://bochs.sourceforge.net/*

[4] Knoppix LiveCD: *http://www.knoppix.org/*

[5] Microsoft Virtual PC 2004: *http://www.microsoft.com/windows/virtualpc/default.mspx*

[6] Xen: *http://www.cl.cam.ac.uk/Research/SRG/netos/xen/*

[7] QEMU: *http://fabrice.bellard.free.fr/qemu/*

[8] WINE: *http://www.winehq.com/*

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