

# VMWARE PLAYER

VMWare is one of the oldest players in the virtualisation market. Founded by Diane Greene, Mendel Rosenblum, Scott Devine, Edward Wang and Edouard Bugnion in 1998, VMWare launched its first product, VMWare Workstation, in 1999. VMWare Player is a clipped down version of the paid VMWare Workstation product.

Let's take a look at its features.



Figure 1: The VMware Player Inventory

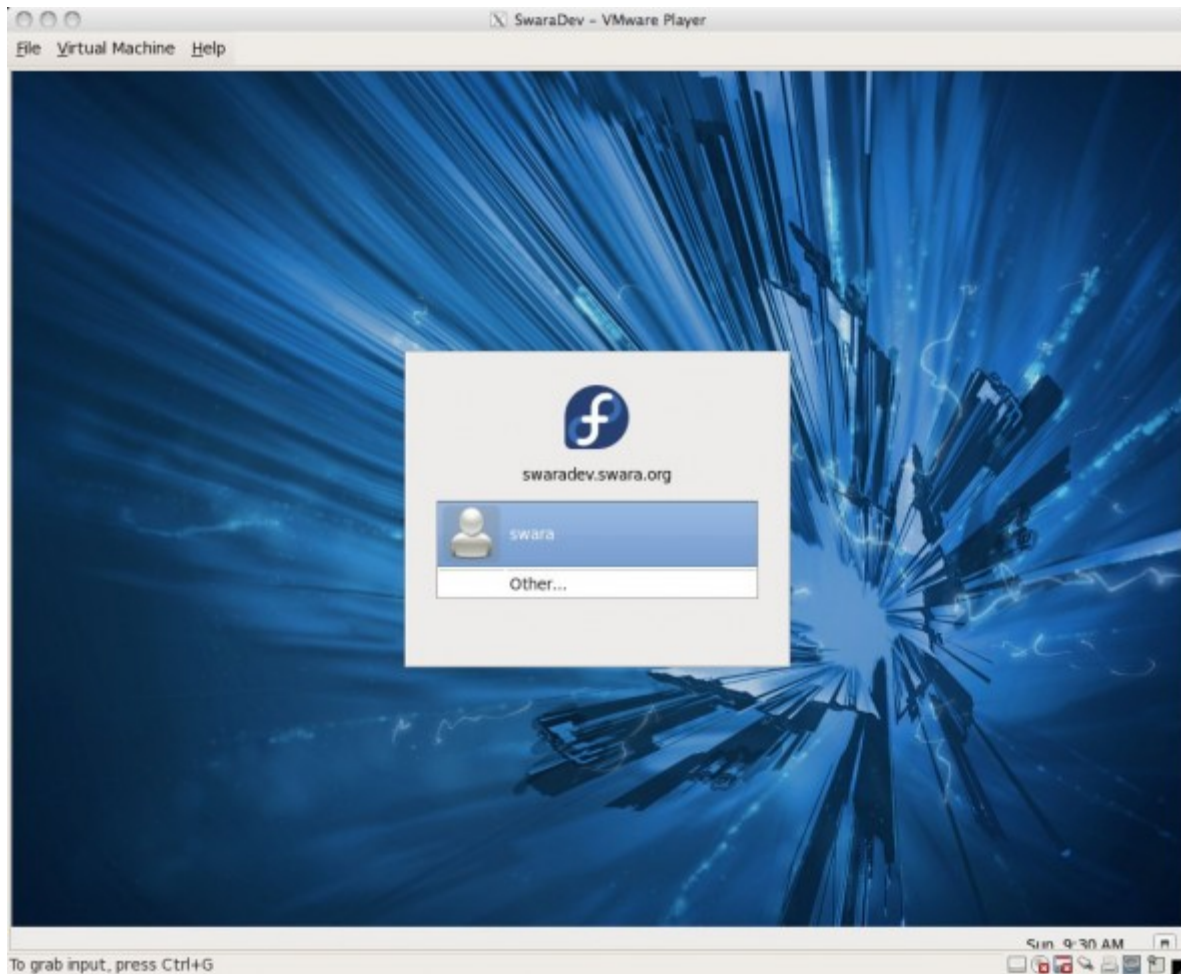


Figure 2: The VM interface on VMware Player. Threadbare or minimalist?

## Creating, editing and managing VMs

Initially, VMWare Player did not allow users to create their own VMs. After version 3, this limitation no longer applies, though several features available in VMWare Workstation are missing on VMWare Player. For example, VMWare Player defaults to a SCSI hard disk during VM creation. This cannot be changed, unless the VM is edited in VMWare Workstation. While this does not pose a problem for the average user, power users who like to tweak configurations will find this irritating. The same limitation also applies to the virtual NIC.

One cool feature during VM creation is EasyInstall, which allows you to customise the guest OS with such things as licence keys and user accounts, directly through VMWare Workstation, without interacting with the guest during installation. This means that you can now start that long OS installation in your VM before hitting the sack, and wake up to a fully installed OS.

The network stack on VMWare Player is also noteworthy. VMWare allows three modes of networking for the guest: bridged, NAT and host-only. What I particularly like is that in NAT mode, VMWare creates a virtual network interface and assigns an IP to the host on the same subnet as the

guest, allowing network communication between the guest and the host over the NAT interface. VMWare's approach to virtual networking makes it very easy for the user to switch between networks. It is almost akin to pulling your LAN cable from one switch and plugging it into another.

## Device support

While VMWare may be finicky about the hardware that it uses for its bare-metal hypervisor, the support for end-user devices that VMWare Player inherits from VMWare Workstation is quite good. VMWare is usually able to recognise the device type (for example, my installation could differentiate a USB webcam from a pen drive) and treat it accordingly.

One of the most beloved features of VMWare Player/Workstation is virtual printing, enabled through VMWare's partnership with ThinPrint Inc. Essentially, any printer installed on your host can be used by applications running in the VM, without installing additional drivers. This is a super feature when it comes to convenience, since most printer driver installers take forever to download and install, on account of bloat-ware.

## Other features

VMWare Workstation offers the ability to snapshot incrementally, thereby allowing multiple points of recovery. VMWare Player, however, does not have the snapshot feature at all. If you really wanted to back up your machine, you could copy the VM folder altogether, providing a poor man's snapshot capability. However, VirtualBox and KVM both come with snapshot support out of the box in the free and open source versions.

The Unity feature allows applications running in the guest to integrate seamlessly with the host. This works particularly well when the only reason to run a guest at all is to use a particular application. With Unity, you can continue to use your own familiar desktop, with the application from the guest fully integrated. The only limitation is that the guest application continues to see the filesystem of the guest. However, with the ability to share folders between guests and hosts, this is easy to work around.

Another much-touted VMWare feature is the ability to drag and drop files between the host and the guest, and between guests. While "drag and drop" works well when both the host and the guest are running Windows, it is somewhat limited for other OSs, such as Linux.

## Ease of use

VMWare Player is one of the easiest products to use, because of VMWare's great packaging and simplified user interface, particularly if it is used for its intended purpose, which is to run pre-built VMs. Several VM appliances, preconfigured for common use-cases (like a LAMP server, Ubuntu Desktop, etc) are available for download, and can be run with little or no configuration changes in VMWare Player.

# Installation

The VMWare download site was particularly slow on both my broadband connection and high-speed data card. It took about three hours and two attempts to download the 105 MB binary. Also, since VMWare requires you to sign up and accept several pages worth of legal agreements before any download, there is no link that can be used to download directly from the command line. Since I was running a headless system, with no browser, I had to download to my desktop and then copy the file over the network. However, after the download, the installation was fairly simple.

# Administration

VMWare's administrative tools are usually rather slick. However, much of the goodness of the VMWare Workstation UI is missing in VMWare Player. The entire experience is of using something that can do more, but has been artificially stripped down. The VM runs in a floating window on your desktop, or in full screen mode, while the VMWare Player inventory stays in the background as a separate window.

There is no ribbon with convenient power buttons as with the paid version. All options are tucked away under menus. The Virtual Machine settings page allows you to change machine settings — except, of course, the hard drive.

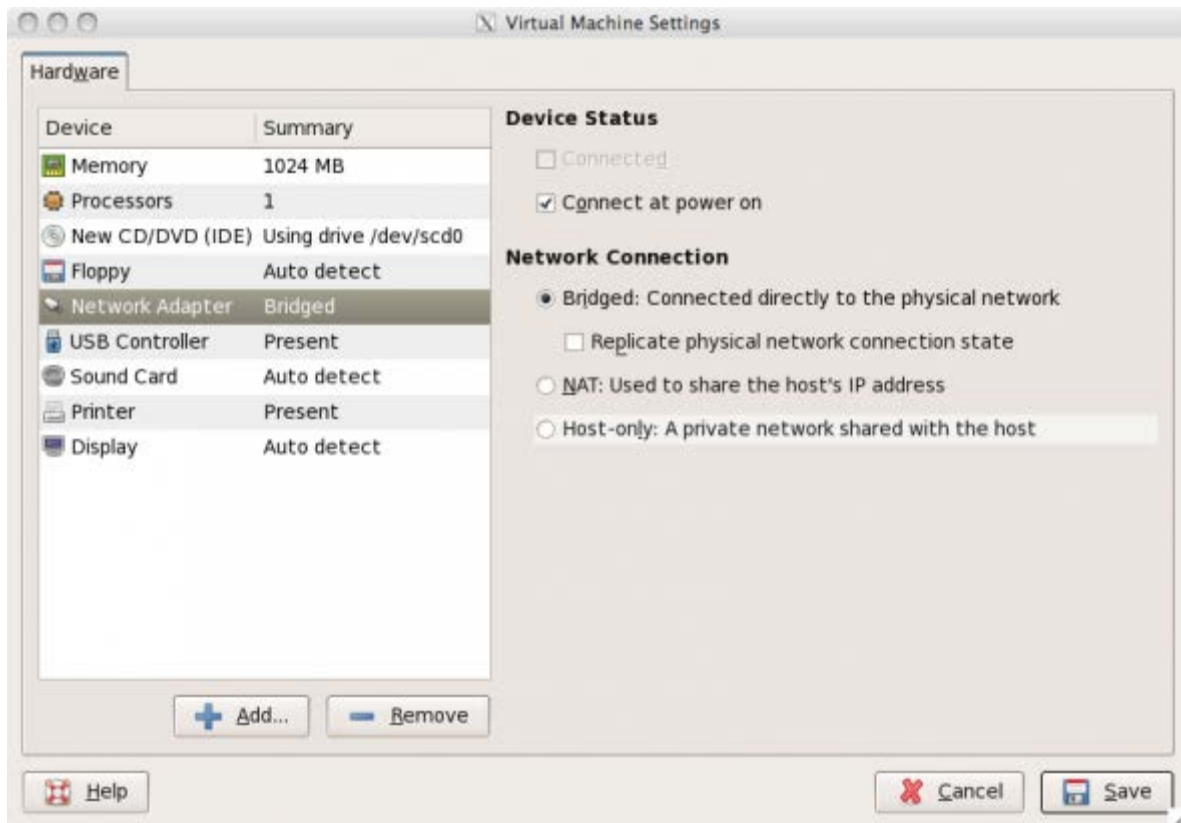


Figure 3: VMware Player's VM hardware settings. No HDD :-)

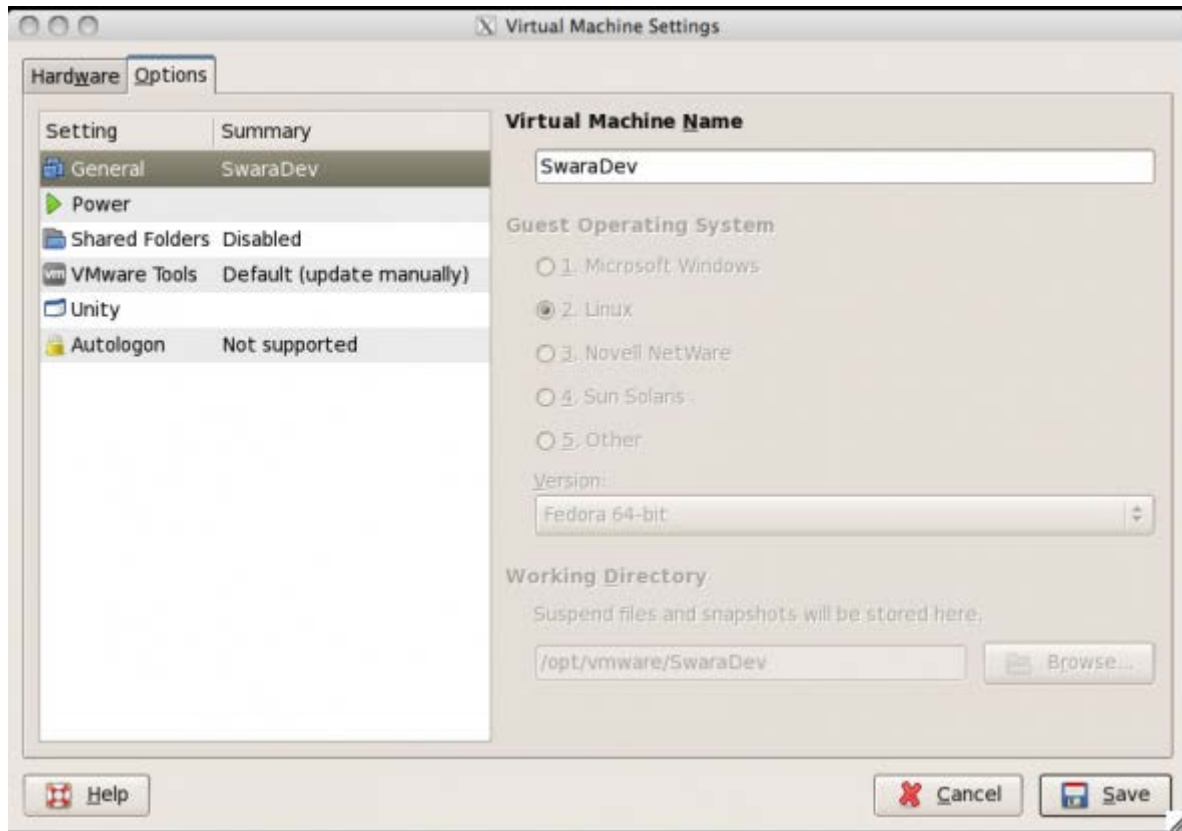


Figure 4: Options settings on VMware Player

## Look and feel

Having been in the desktop user-space for a while, VMware has learnt its UI lessons well. VMware Player definitely scores high on the look-and-feel aspect. Even over a remote X server connection, the VM display remained smooth and responsive. The mouse-pointer integration works extremely well. Cute features from the paid version, like “quick switch” and “docked view”, would definitely be nice to see in the free version.

## Performance

VMware uses a mix of full virtualisation and para-virtualisation. According to VMware documentation, VMware combines the best of all worlds, and picks the appropriate virtualisation strategy for each task. On VMware’s bare-metal hypervisor ESX, the para-virtualisation support allows fairly drastic performance improvements. However, on VMware Player, I found the performance relatively poor (see Table 1 towards the end of this article for a comparison).

In my experience with VMware, your mileage will definitely vary on the performance front. As long as you comply with the draconian VMware Hardware Compatibility List (HCL), you get the benefits of all of VMware’s proprietary technology. However, any deviation from the HCL and you are on your own.

## Licensing and support

VMWare Player is distributed “free, as in beer”, with a closed-source licence for most of its constituent parts. This immediately makes it unattractive from an open source standpoint. Since VMWare’s focus is enterprise, they have several partnerships and collaborative efforts in place with industry biggies like Cisco and Dell. As a result, much of VMWare’s development is directed towards industry-standard operating systems, with support for bleeding-edge releases of Linux OS flavours somewhat lagging.

There is an open source project that stays ahead of the curve on VMWare Tools features (open-vm-tools) but again, as with non HCL-compliant hardware, you’re on your own with it.

Moreover, I have increasingly found that VMWare’s communities are dominated by enterprise users, and finding community support to solve tricky configuration issues at the bleeding edge is difficult. VMWare’s exorbitantly priced support is also unresponsive when it comes to uncommon support issues, particularly with non-compliant or experimentally supported hardware.

Source : <http://www.opensourceforu.com/2011/09/vmware-player-virtualbox-kvm-virtualization-comparative-review/>