

HowTo: Install Sun Solaris 10 inside VMware Workstation 5.5

For this HowTo we'll use VMware Workstation 5.5 RTM (build 18463) and Sun Solaris 10 release 03/05 x86/x64 DVD ISO image (Sun Solaris 10 SPARC edition will not install inside VMware Workstation).

VMware Workstation is installed on a Microsoft Windows XP Professional with Service Pack 2.

At the end of the work you'll be able to run your Sun Solaris 10 virtual machine also inside VMware Player 1.0 and use it without any licensing cost.

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Preparing your virtual machine hardware

First of all grab your evaluation copy of VMware Workstation 5.5 and your copy of Sun Solaris 10 DVD image:

VMware Workstation 5.5 - <http://www.vmware.com/download/ws/eval.html>

Sun Solaris 10 - <http://www.sun.com/software/solaris/get.jsp>

Be sure to check the Solaris DVD image CRC before starting because the image parts can be downloaded corrupted.

You don't need to burn the DVD image since we'll map it directly inside our virtual machine.

Create a new virtual machine with **Typical** configuration.

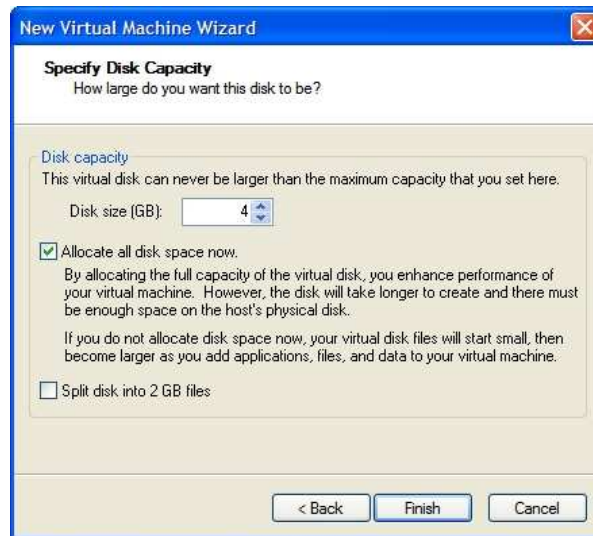
Then be sure to choose **Solaris 10 (experimental)** Guest operating system.



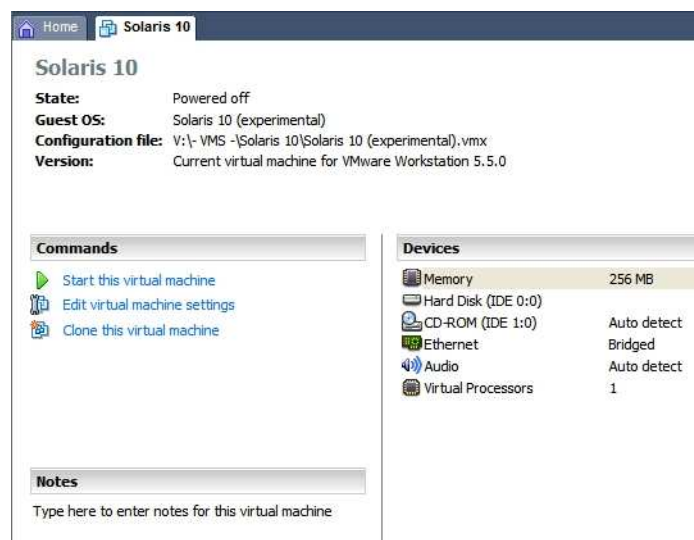
Name the virtual machine as you like and choose your preferred locations for files. I usually put virtual machines in a **VMs** directory excluded from antivirus real-time check.

Configure your network connection with **Use bridged networking** only if there sure there is no way to arrive on the virtual machine from Internet: immediately after the initial installation any guest OS could be feasible of attacks since unpatched. Patch it, eventually configure a firewall and then permit it to connect to Internet.

Configure your disk capacity to **4 GB Disk Size** (you can check the **Allocate all disk space now** box if you have enough space, a fully defragmented hard disk and want to have better performances for guest OS).



Now you should have finished and a virtual machine summary will appear.



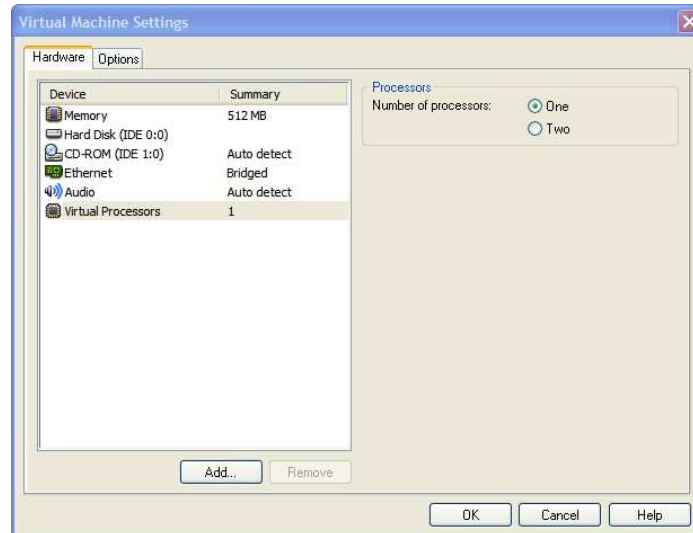
You can change some settings according your needs simply clicking on **Edit virtual machine settings**.

Two virtual components are very important: RAM and Processors.

If you have at least 768MB physical RAM increase your virtual machine memory from 256 MB to 512MB (this will greatly speed up the installation process).

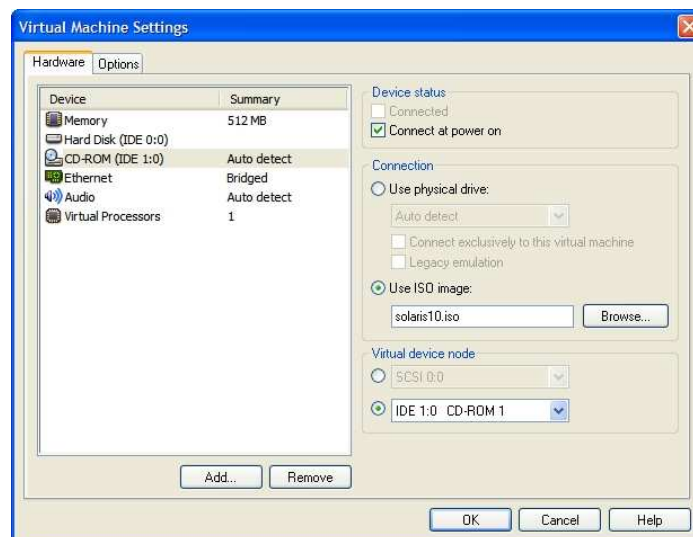
If you have an Intel CPU with HyperThreading enabled or an AMD64 Dual Core CPU you could choose to assign two virtual processors to this virtual machine.

Note: you can safely change the number of virtual processors for the Solaris virtual machine. Sun Solaris doesn't require operating system reinstallation when moving from a single processor to symmetric multi-processing (SMP).



You can also choose to delete the virtual sound card (**Audio** device) if you don't plan to use Solaris 10 as a desktop operating system.

Now change the virtual device CD-ROM Connection from **Use physical drive** to **Use ISO image** and browse for your Sun Solaris 10 DVD ISO image previously downloaded.



We are finally ready to install the operating system.

Installing the Sun Solaris 10 operating system

Launch the just prepared virtual machine and let the DVD ISO image boot.
When required press **1** for **Solaris Interactive**.

Choose your preferred language.

Now choose **Networked Connectivity**. Then specify if your virtual network interface card (recognized as **pcn0**) will grab an IP address by DHCP or not.
If you chosen not detail your virtual machine **hostname, IP address, subnet mask, IPv6 support and default route**.

Enable or not **Kerberos**, detail your eventual **name service system**.
If you chosen DNS as name service system detail your domain name and at least one **DNS server IP address**.

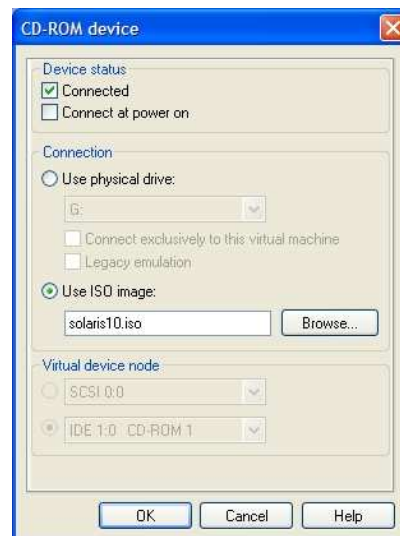
Choose your **Time Zone** and **Date & Time**.

Choose your Root **password**.

Finally accept your summary settings page.

Say yes to both **Reboot automatically after software installation** and Eject **additional CDs/DVDs automatically after software installation**.

Before saying **OK** on the final Notice window be sure to modify your VMware virtual CD-ROM device to have checked **Connected** and unchecked **Connect at power on** checkboxes.



Now let's start the software packages installation.

Let unmodified to **CD/DVD** as **Media**.

Accept the License Agreement and choose **Custom Install**.

Select your **Software Localizations** region only if you want Solaris 10 in your national language. **English** will be installed by default.

Select **Products** to install as you need. Remember we set up a small 4GB virtual disk so you couldn't be able to install everything now.

Select **None** as **Additional Product** to install.

Now you need to select how many Solaris software packages install. I personally suggest choosing **End User Group** (2141.4 GB occupied).

On **Disk Selection** just hit **Next** since our virtual disk (recognized as **c0d0 (bootdisk)**) is already selected.

On **fdisk Partition Customization** hit **Next** as well.

On **Customize fdisk Partitions** you'll see a single Solaris partition of 4095 MB size. If you are unsure on how to partition your virtual hard disk just hit **Next**.

If you hit Next on the previous screen a default **File System Lay Out** will appear. Just hit **Next**.

Now the packages installation starts. It will take some time.

At the end Solaris Installer will inform you the system is configured to run NFS v4 asking if you need to **override default settings**. Say **No** and let the OS restart.

After reboot Sun Solaris 10 will arrive at console login asking for name login and password.

After logging in launch **kdmconfig** from the shell.

At the X Server Selection be sure to choose **Xsun server**.

On the next screen the system will have already recognized your VMware virtual video card with a default resolution of 1024x768 and 256 colors @ 70 Hz.

If you want different settings move on **Change Video Device/Monitor** and press **Space**.

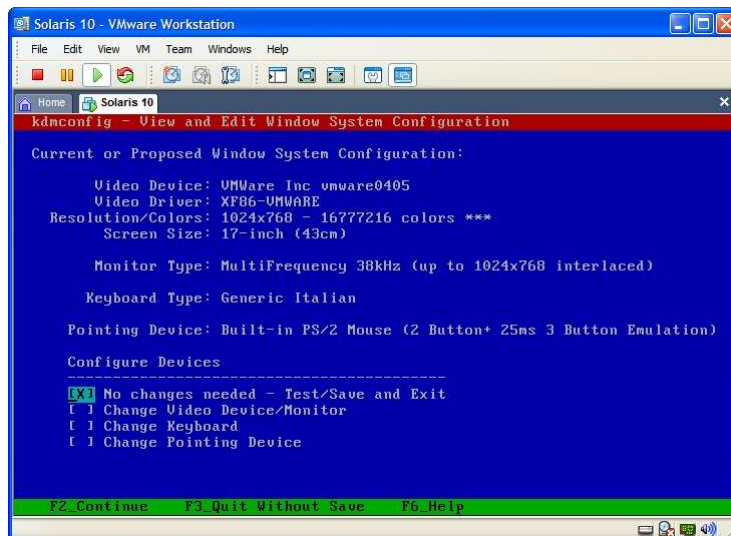
Then hit **F2** and arrive at the **Video Device Selection**: be sure to untouch **XF86-VMware VMWare Inc vmware0405**. Press **F2** again.

On **Monitor Type Selection** be sure to choose a **Multifrequency Monitory** with no more resolution of your physical monitor.

On the **Screen Size Selection** choose **17-inch**.

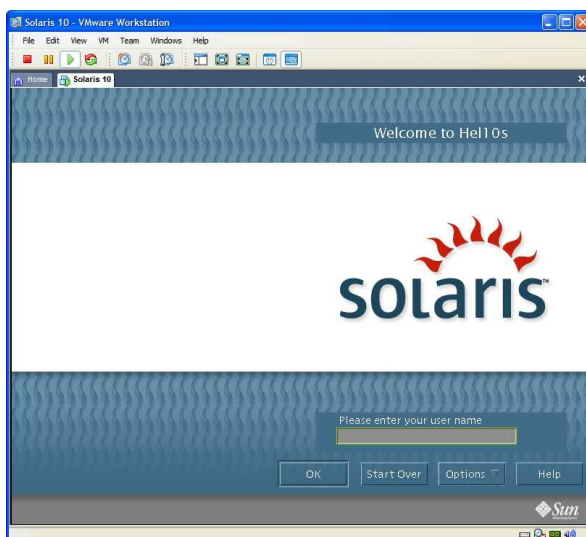
On the **Resolution/Colors Selection** I suggest you to choose a resolution a bit smaller than your physical maximum (I personally run every VM on 1024x768 with a physical resolution of 1400x1050) and your preferred amount of colors.

Now you're back to **kdmconfig** system configuration summary.



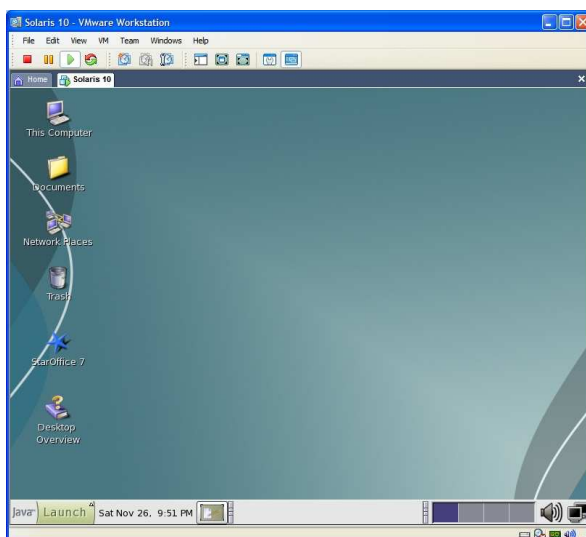
Hit **F2** to test the configuration, save and exit to the console (if something goes wrong simply relaunch **kdmconfig** and start over).

Now write **Exit** on the console and, if you did a correct configuration, the system will automatically launch the graphical login screen (it could take some seconds).



Now, from the **Options** menu, you can choose if run a **Common Desktop Environment (CDE)** or **Java Desktop System 3** graphical session (I strongly recommend the last one).

Login and enjoy your Sun Solaris 10 virtual machine.



Running virtual machine inside VMware Player

As you probably know Sun Solaris 10 is free to use even for commercial environments. So you could want to have a virtual machine of it for any case.

Since some times VMware offers everybody the possibility to use its virtualization technology for free anywhere with the new VMware Player. So you could want to have a Solaris 10 virtual machine with a copy of VMware Player for any case.

First of all download VMware Player here:
<http://www.vmware.com/download/player/>

Now burn it with your whole Sun Solaris 10 virtual machine directory in a DVD.

Copy Sun Solaris 10 virtual machine directory on the new hard disk of a different computer and install VMware Player: VMware Player cannot be installed on the same machine where is VMware Workstation.

Start your VMware Player and point to the directory where you copied your Sun Solaris 10 virtual machine.

At the warning about creating a new **UUID** answer **Create**.

Done! You have a free fully working virtual machine with a free fully working enterprise operating system inside.



Final Notes

If you find some errors or would suggest some further steps please drop a comment on the related blog post:

How to install Sun Solaris 10 inside VMware Workstation 5.5

<http://www.virtualization.info/2005/11/how-to-install-sun-solaris-10-inside.html>

To experience better virtual machine performance you could want to review the following post:

How to improve disk I/O performances with VMware Workstation

<http://www.virtualization.info/2005/11/how-to-improve-disk-io-performances.html>

If you find interesting the use of VMware Player you could want to review another couple of posts:

How to create a new virtual machine with VMware Player

<http://www.virtualization.info/2005/10/how-to-create-new-virtual-machine-with.html>

Guide to create .vmx files for VMware Player

<http://www.virtualization.info/2005/12/guide-to-create-vmx-files-for-vmware.html>

Finally you could check the following top visited contents of virtualization.info:

What is Virtualization

<http://www.virtualization.info/2006/04/what-is-virtualization.html>

Virtualization Industry Roadmap

<http://www.virtualization.info/2006/04/virtualization-industry-roadmap.html>

virtualization.info Review Center

<http://www.virtualization.info/2006/03/virtualizationinfo-review-center.html>