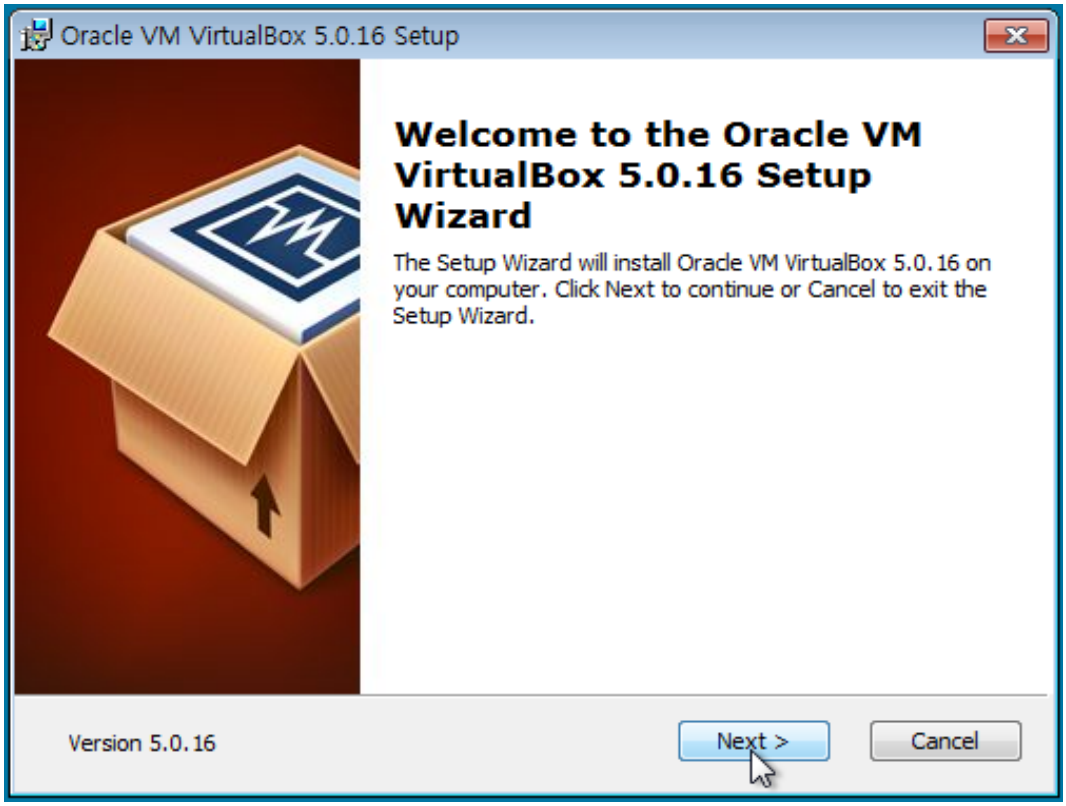
1. VirtualBox Installation

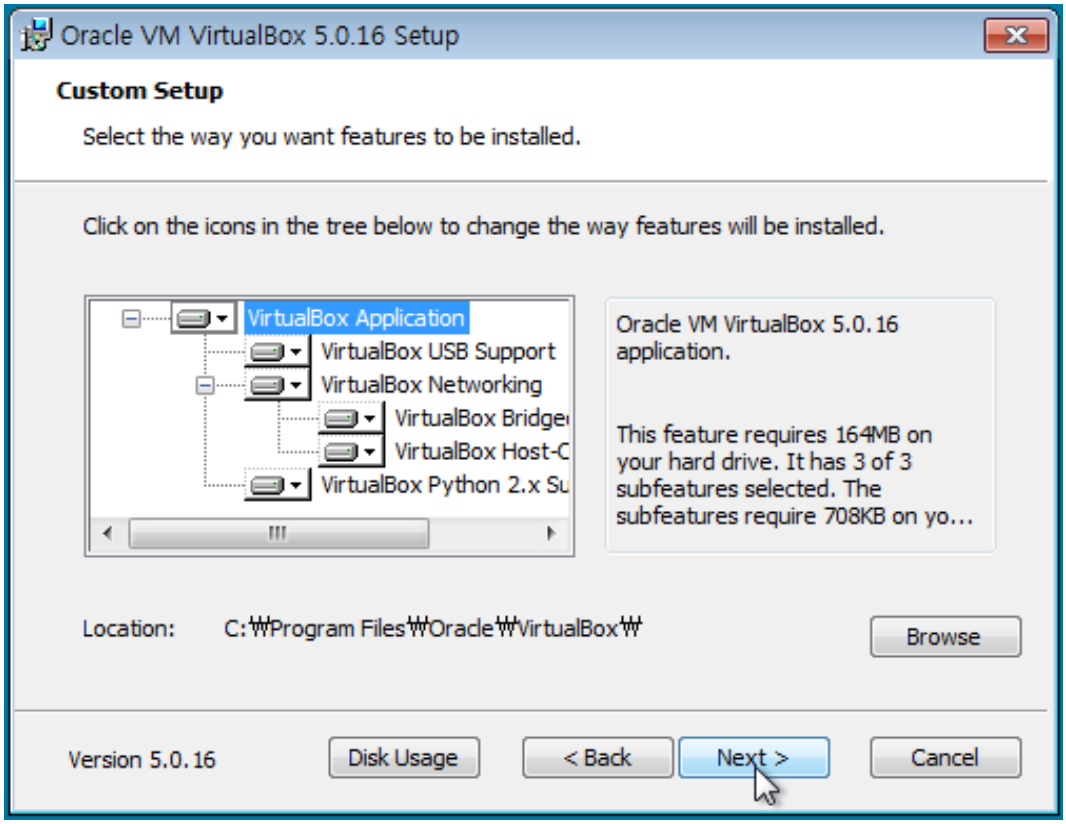
1.1. Visit the VirtualBox download site at http://www.virtualbox.org/wiki/Downloads and download the VirtualBox binaries for your platform (Windows, OS X):

Note: the current version when these instructions were created is Oracle VirtualBox 5.0.16. Download and install the most recent version; the installation process should remain the same.

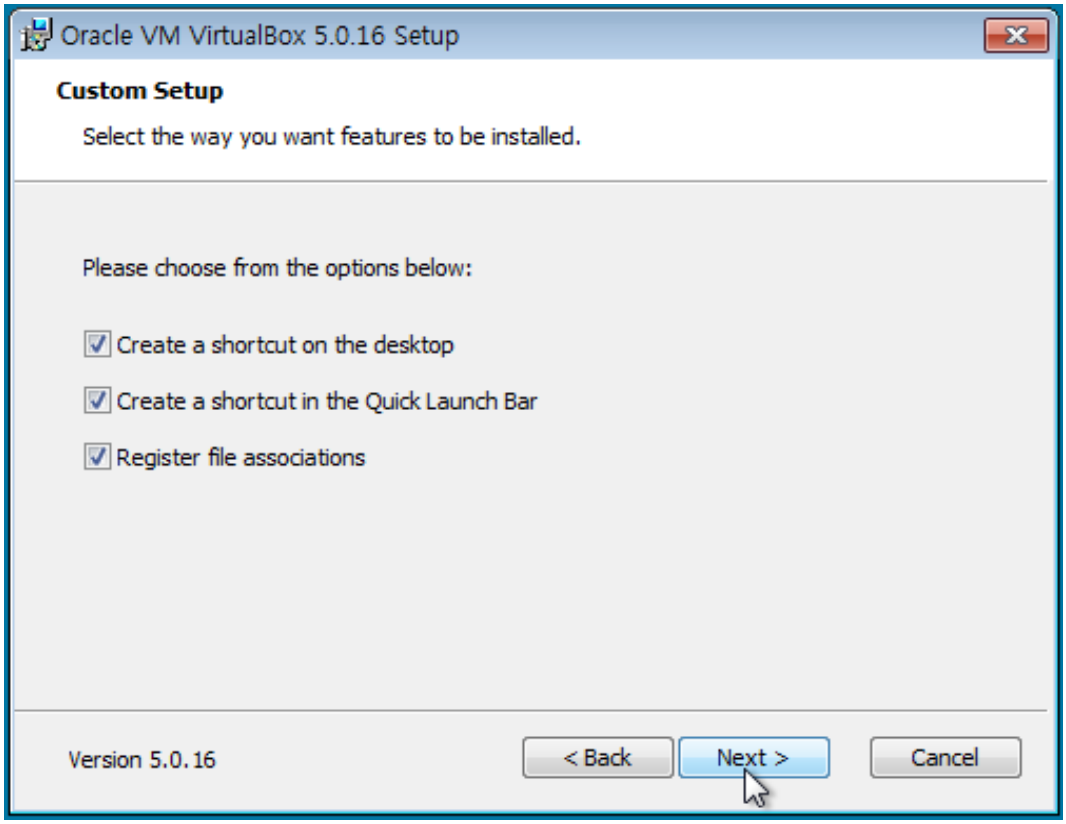
1.2. Execute the downloaded VirtualBox installation file and click “Next>” to begin the installation



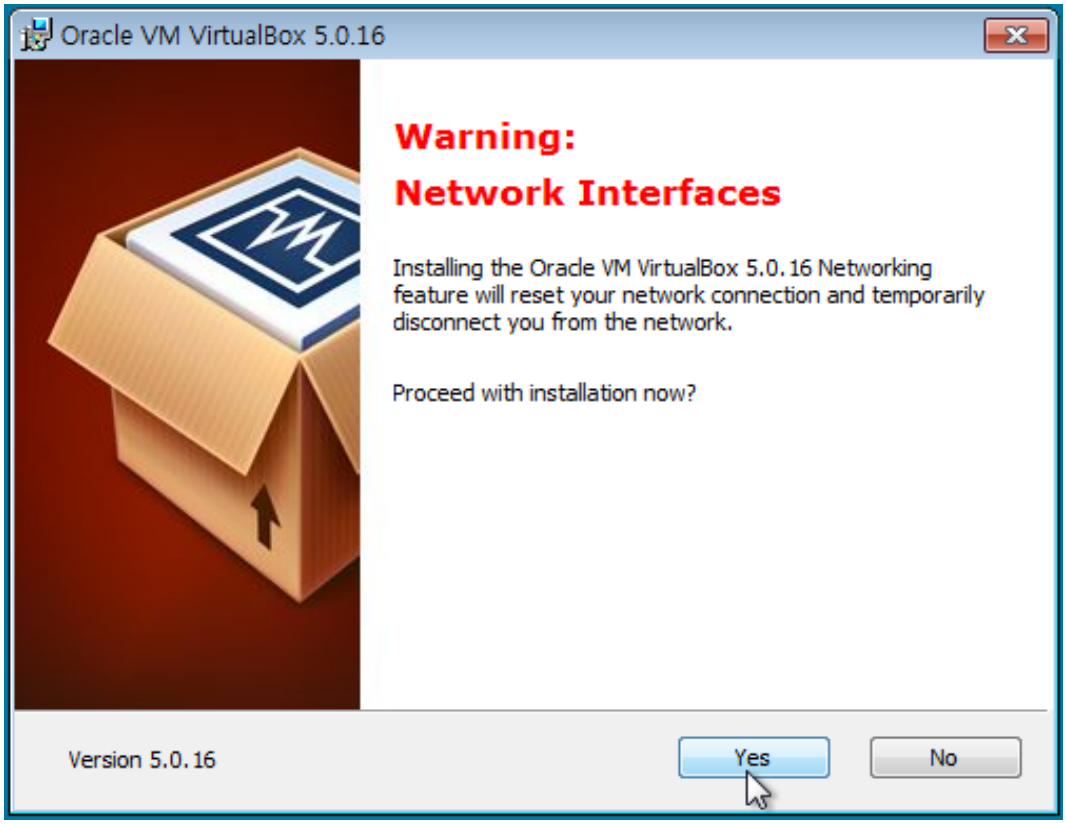
1.3. Confirm the setup by clicking the “Next >” button.



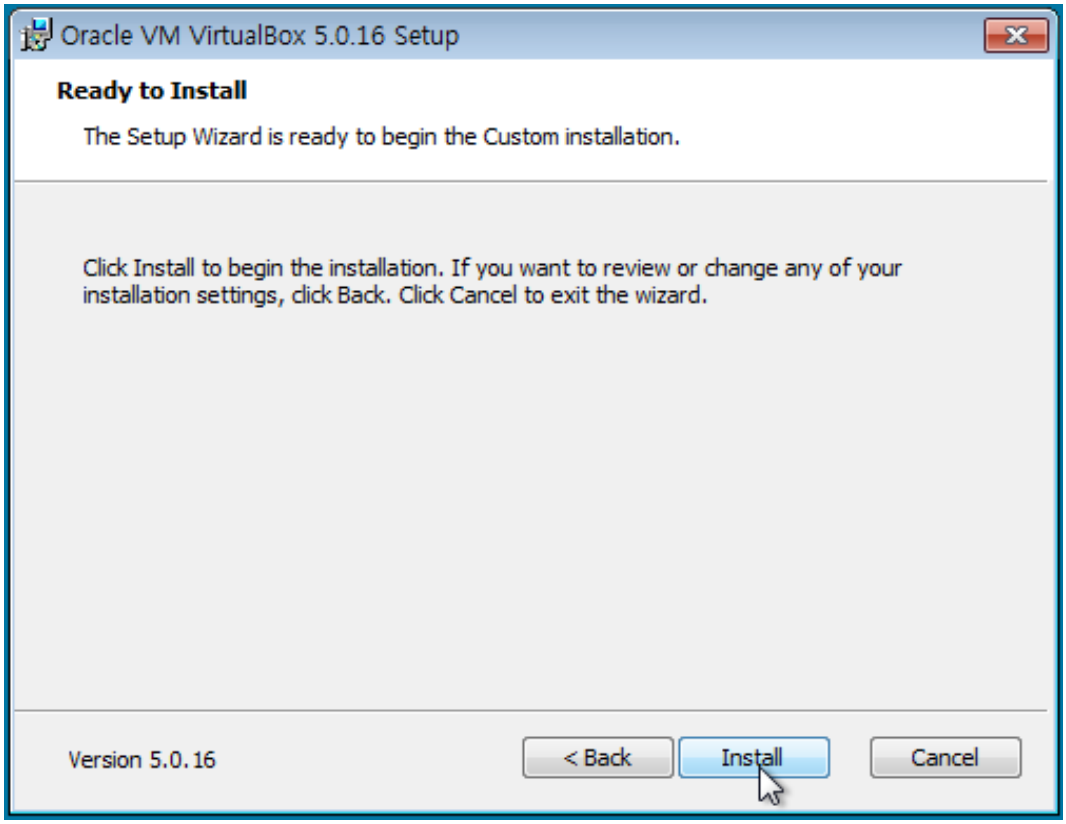
1.4. The shortcut settings are also okay, click “Next >”



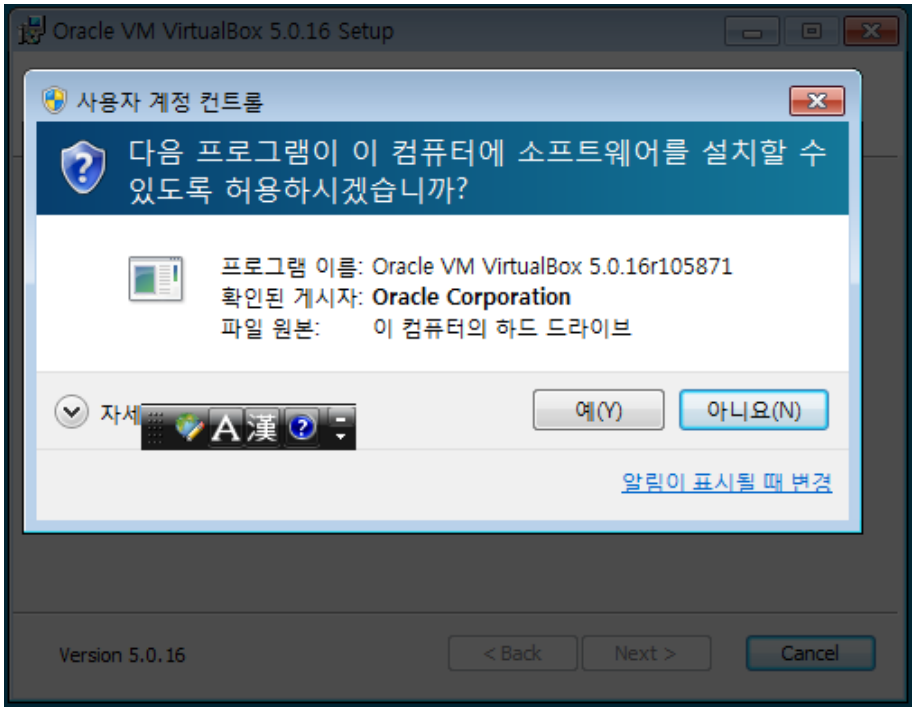
1.5. To install the VirtualBox network driver click “Yes”. (Note that your network may be temporarily unavailable).

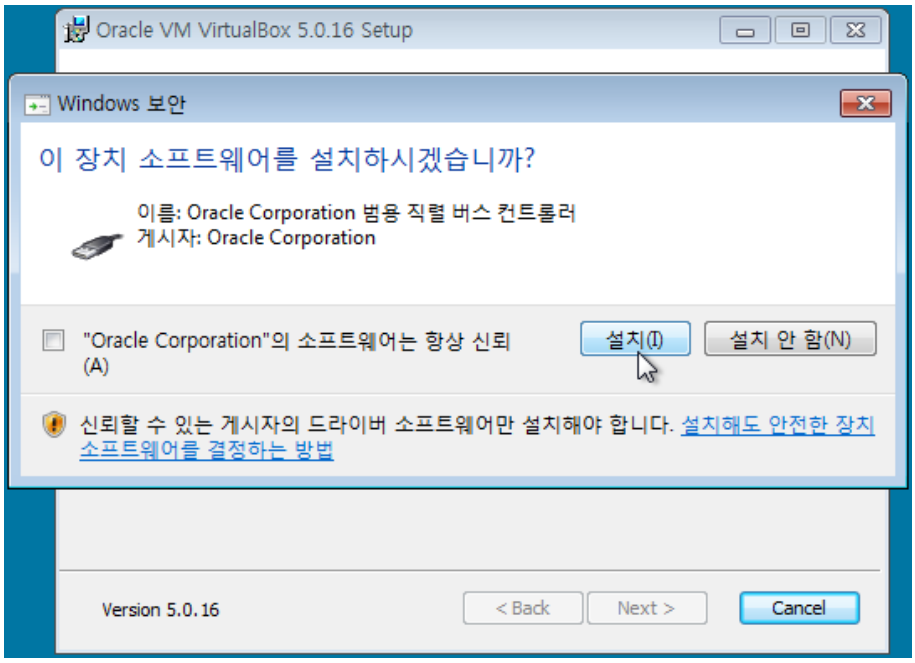


1.6. Finally click the “Install” button to start the installation.

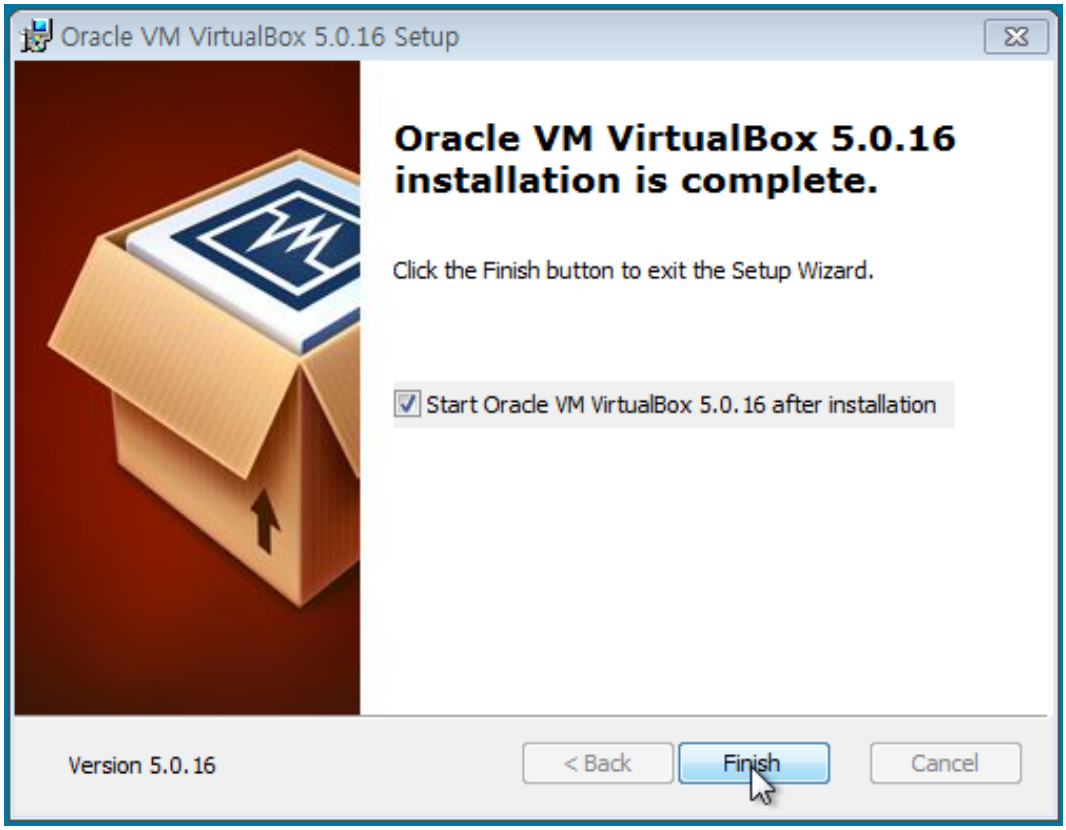


1.7. The installation will then proceed. During the installation, you will have to confirm installation of a few Oracle VirtualBox drivers.



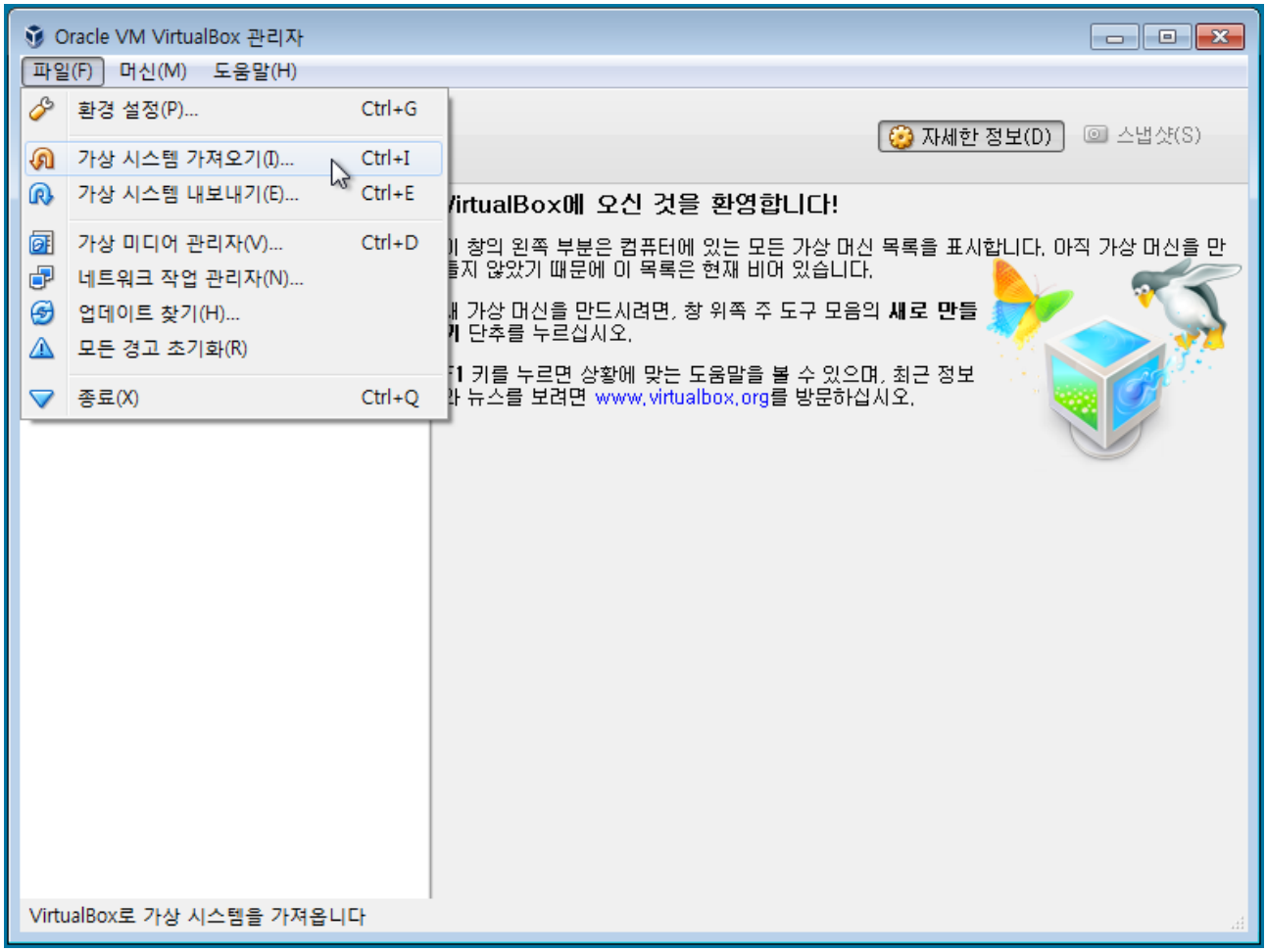


1.8. Click the “Finish” button to complete the installation and launch VirtualBox for the first time.

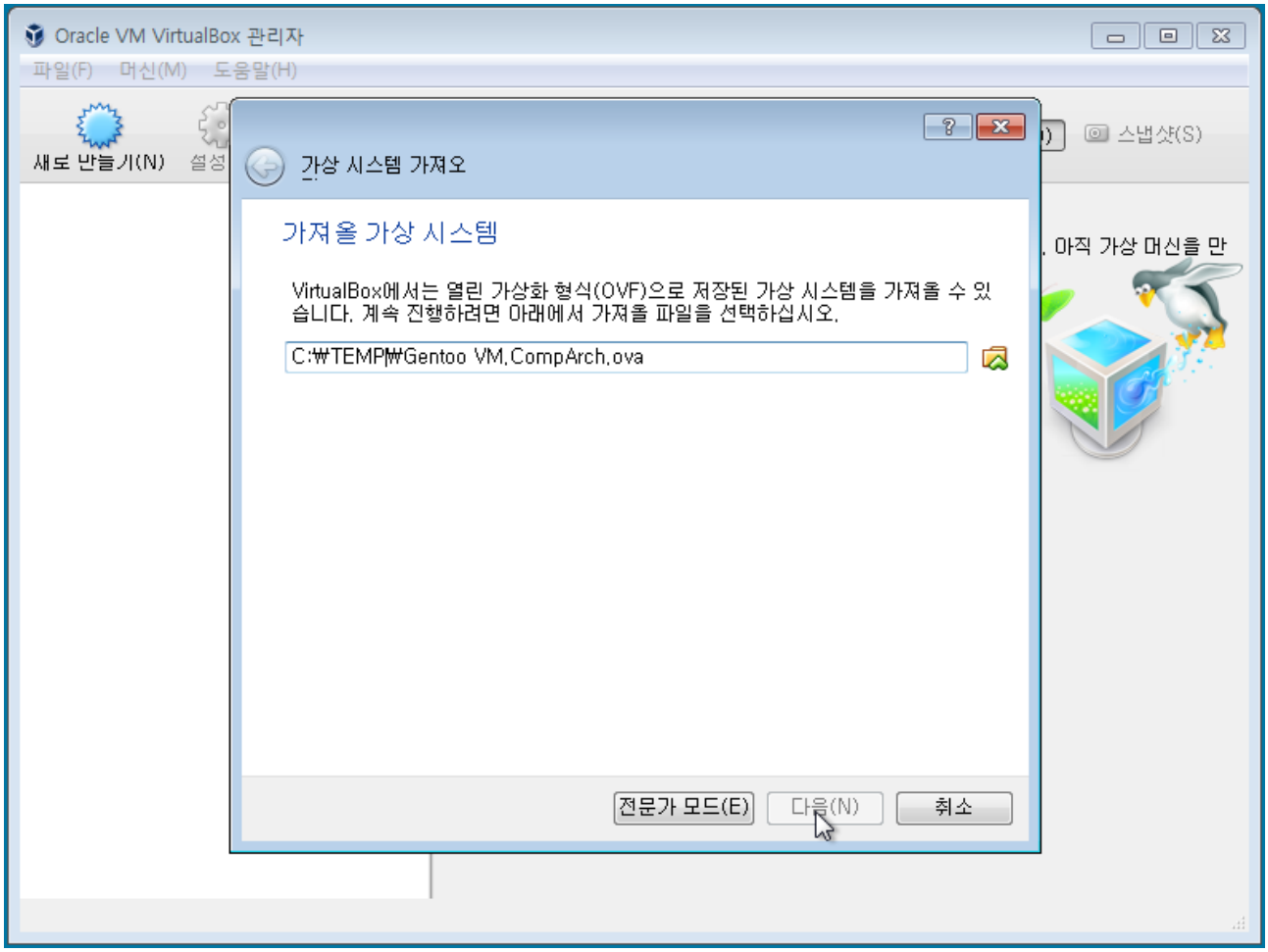


2. Importing the Gentoo Development Machine

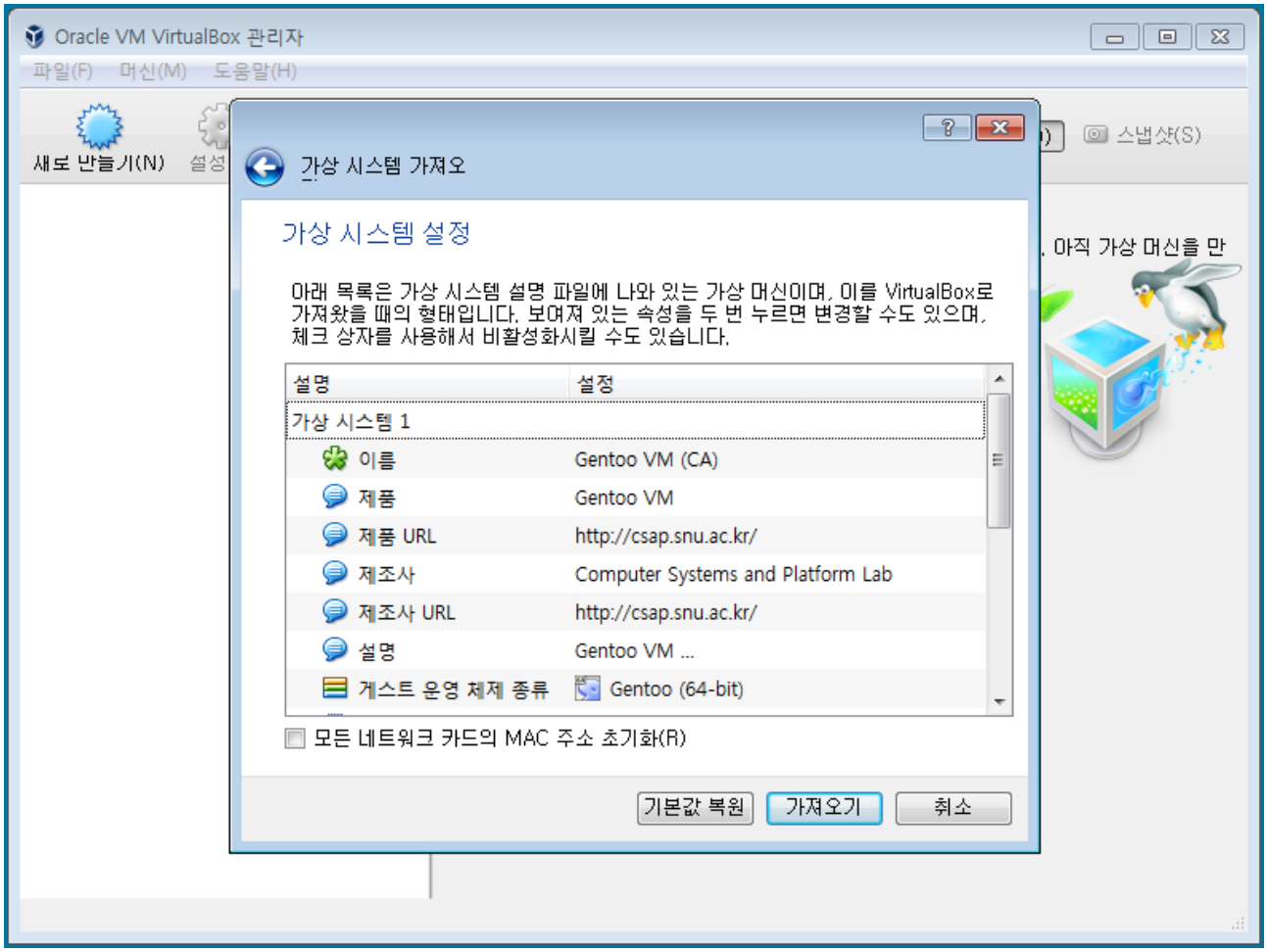
2.1. Select “File” → “Import Appliance”, or “파일” → “가상 시스템 가져오기”, respectively.



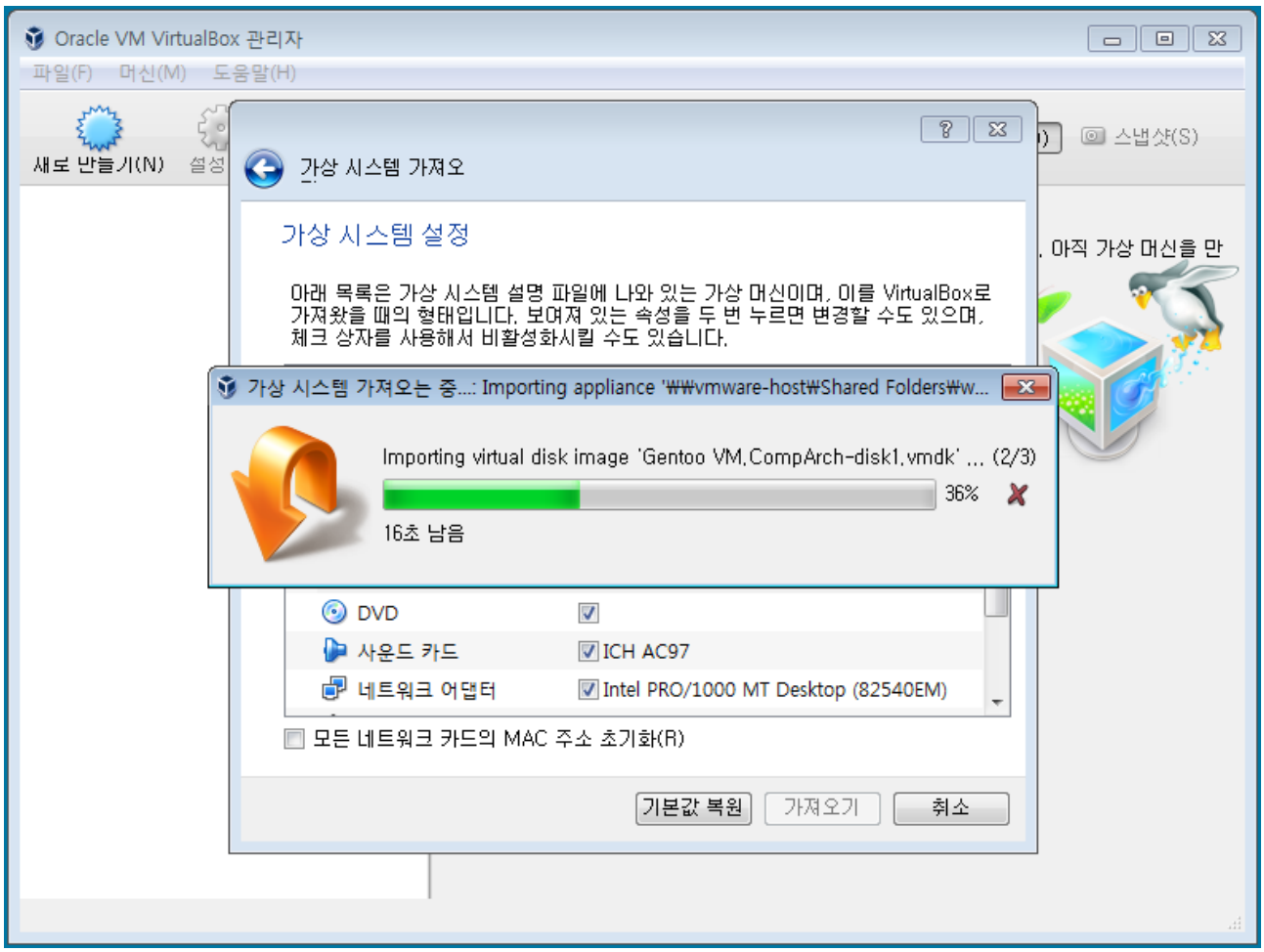
2.2. Select the Gentoo VM file downloaded from eTL (GentooVM.CompArch.ova) and click “Next”.



2.3. The default settings are fine for most machines; start the process by clicking “Import” / “가져오기”.



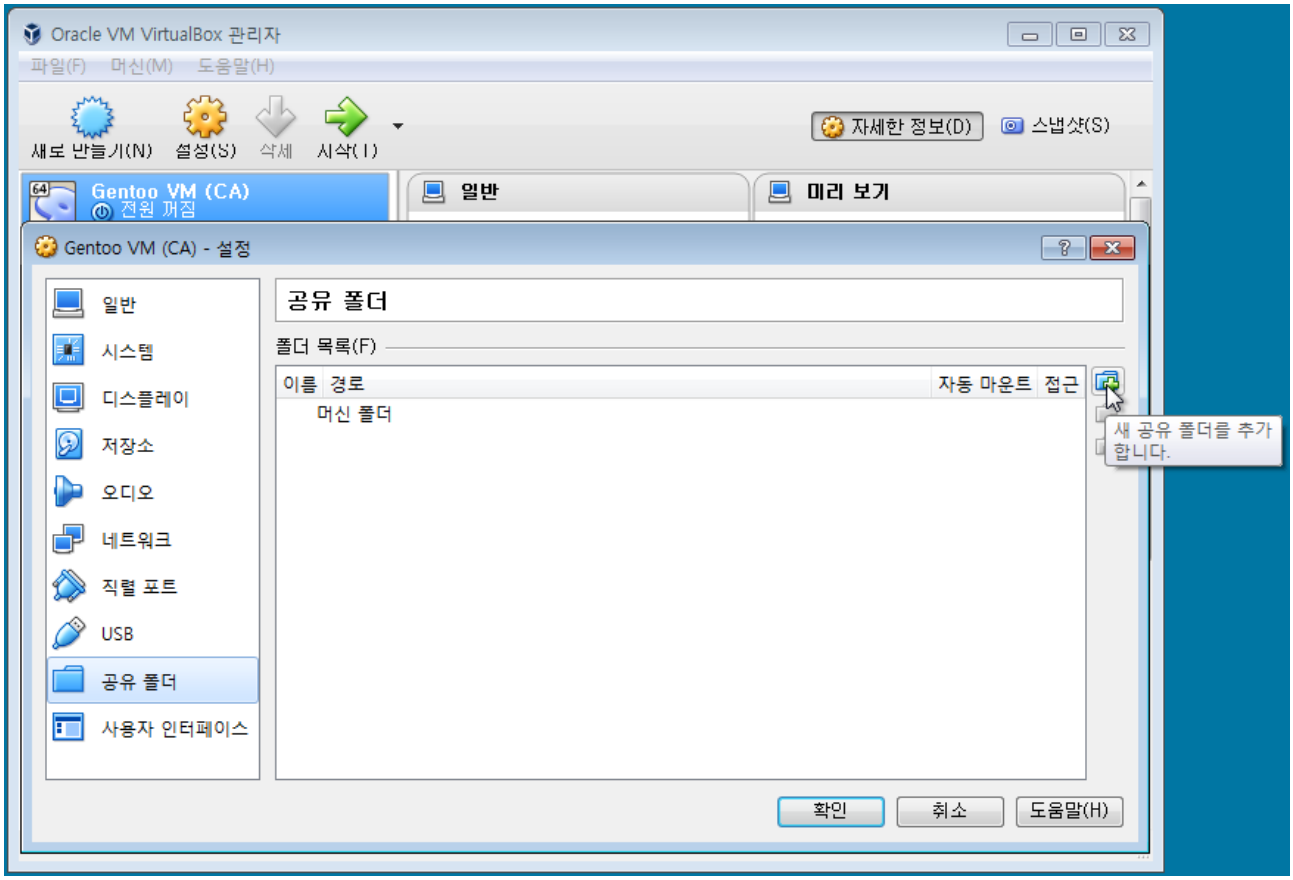
2.3. VirtualBox will now import the Gentoo VM



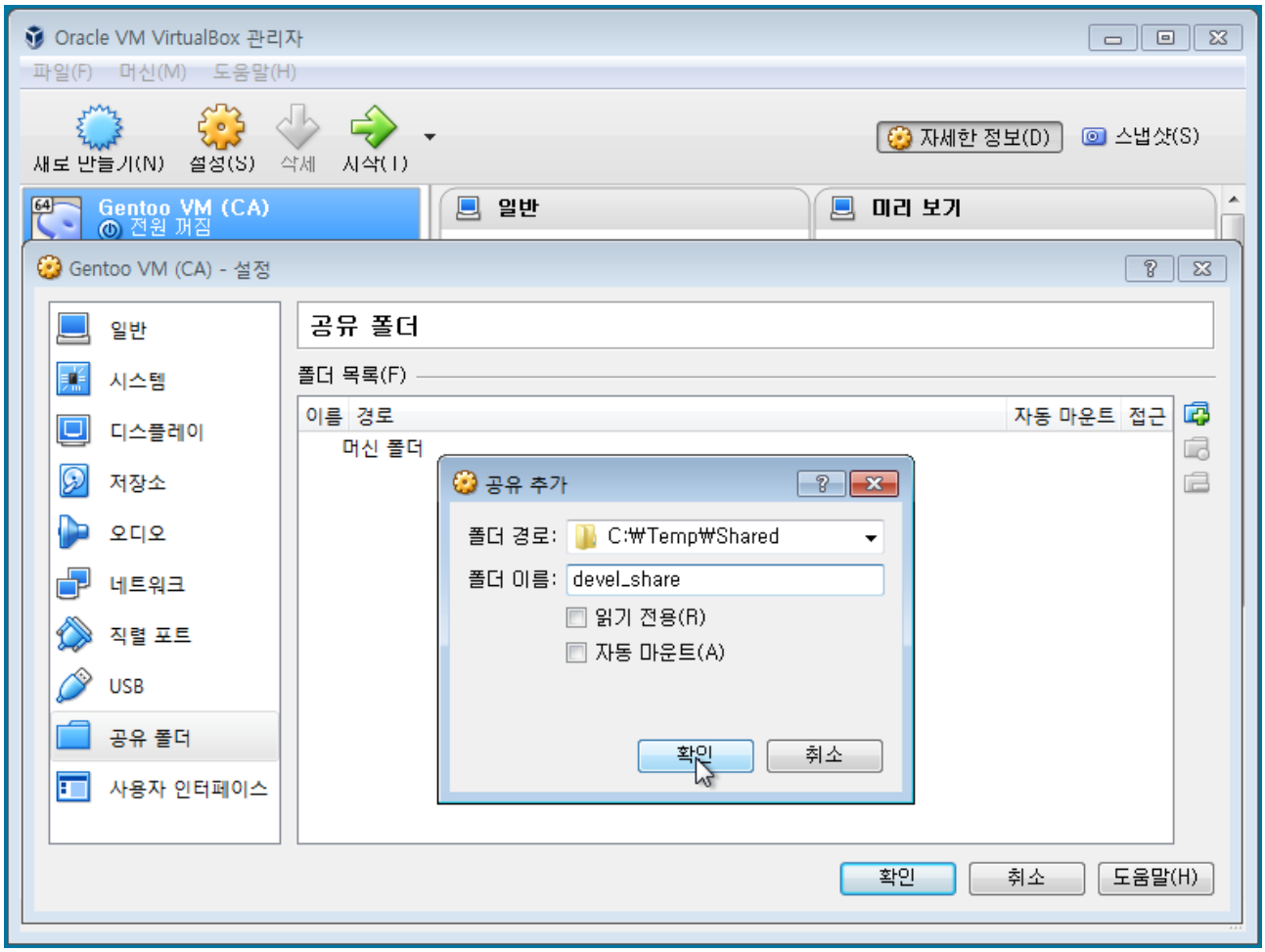
3. Setting up a Shared Folder between the Host and the Gentoo VM

A shared folder between the Gentoo VM and your operating system will allow you to easily share files between the two machines. Files in the shared folder are visible in both the host and the virtual machine.

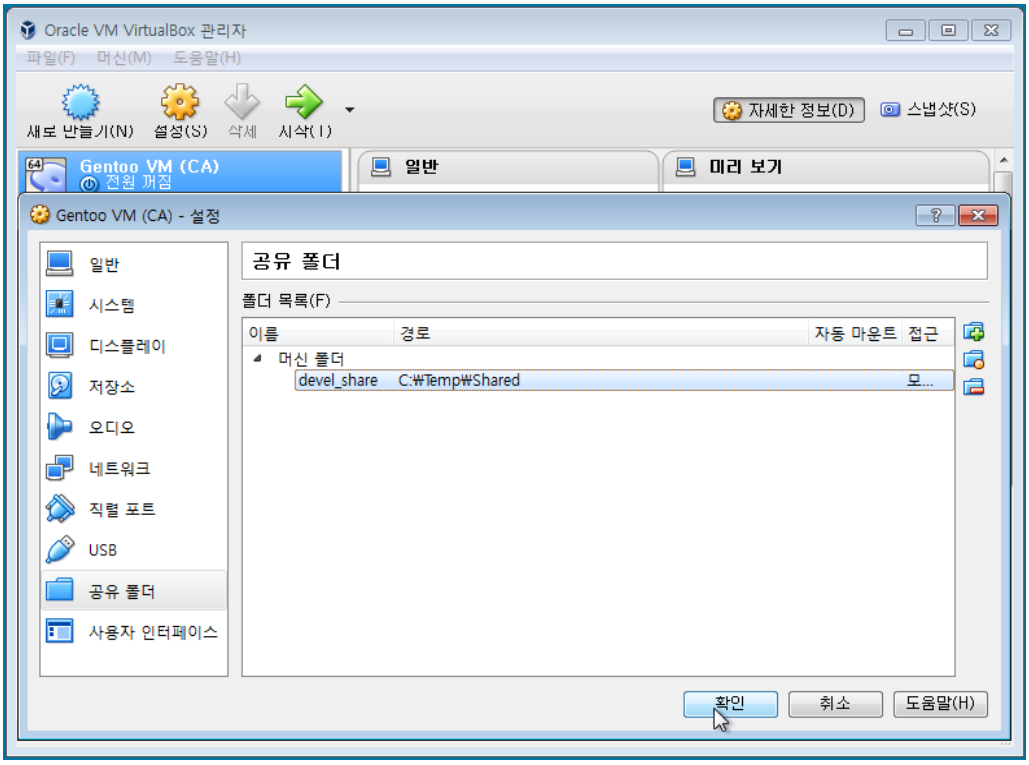
3.1. After the import has finished, the “Gentoo VM” is shown in the VM list on the left. Select the VM, then click the “Settings”/“설정” button in the toolbar. Now select “Shared Folders”/“공유 폴더” on the left, then click on the icon to add a new shared folder.



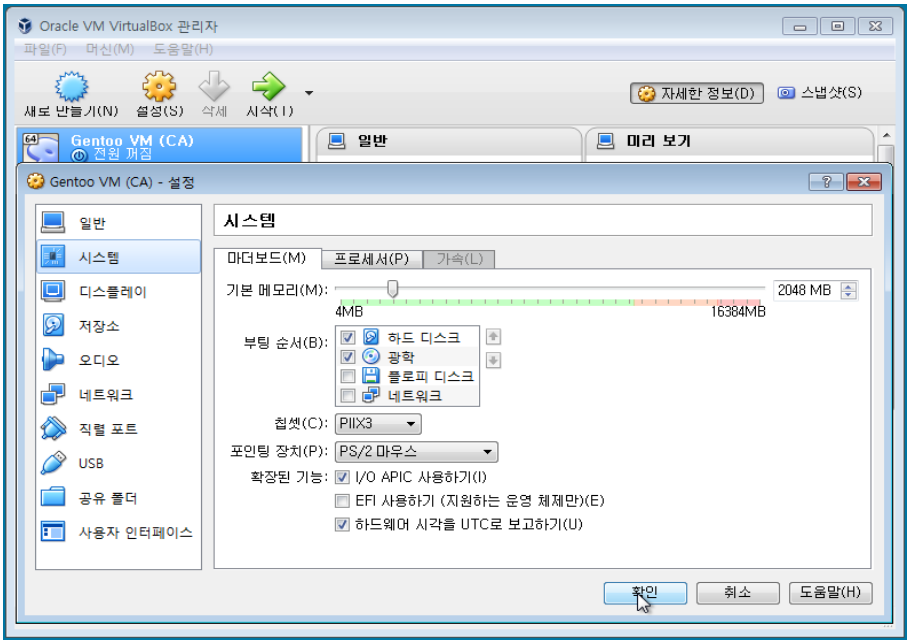
3.2. Create and select a folder on your computer that you want use to share files between the Gentoo VM and your host operating system. The label of the share must be “devel_share” (without quotes), otherwise the share will not work. Leave the checkboxes unchecked, then click “Ok”.



3.3. Close the dialog and check that the folder is setup correctly.



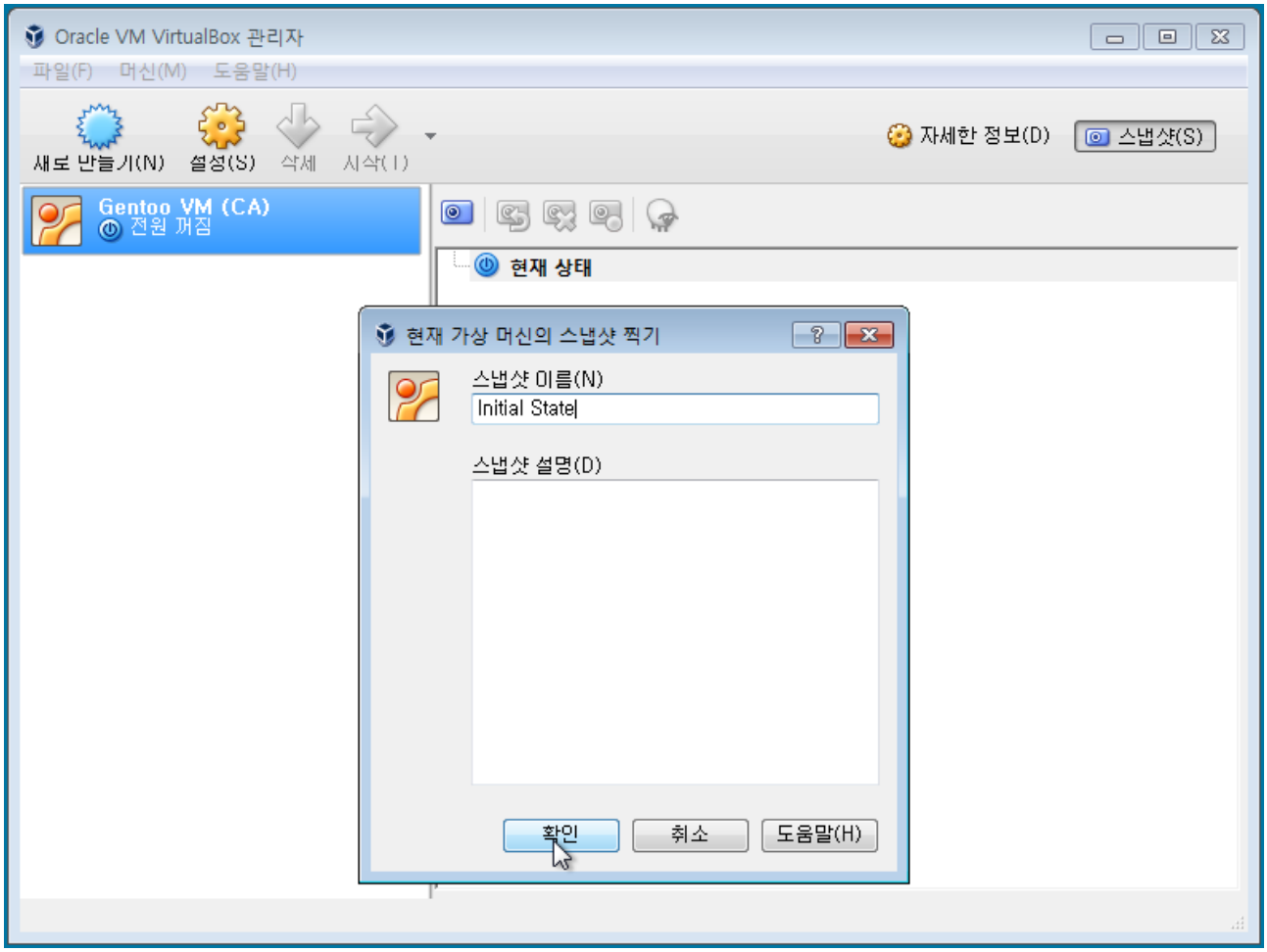
Note: in the settings dialog you can also adjust the amount of memory and the number of processors the Gentoo VM is allowed to use. Click on “System” on the left, then the “Motherboard” or “Processor” tab, and modify the settings to your liking.



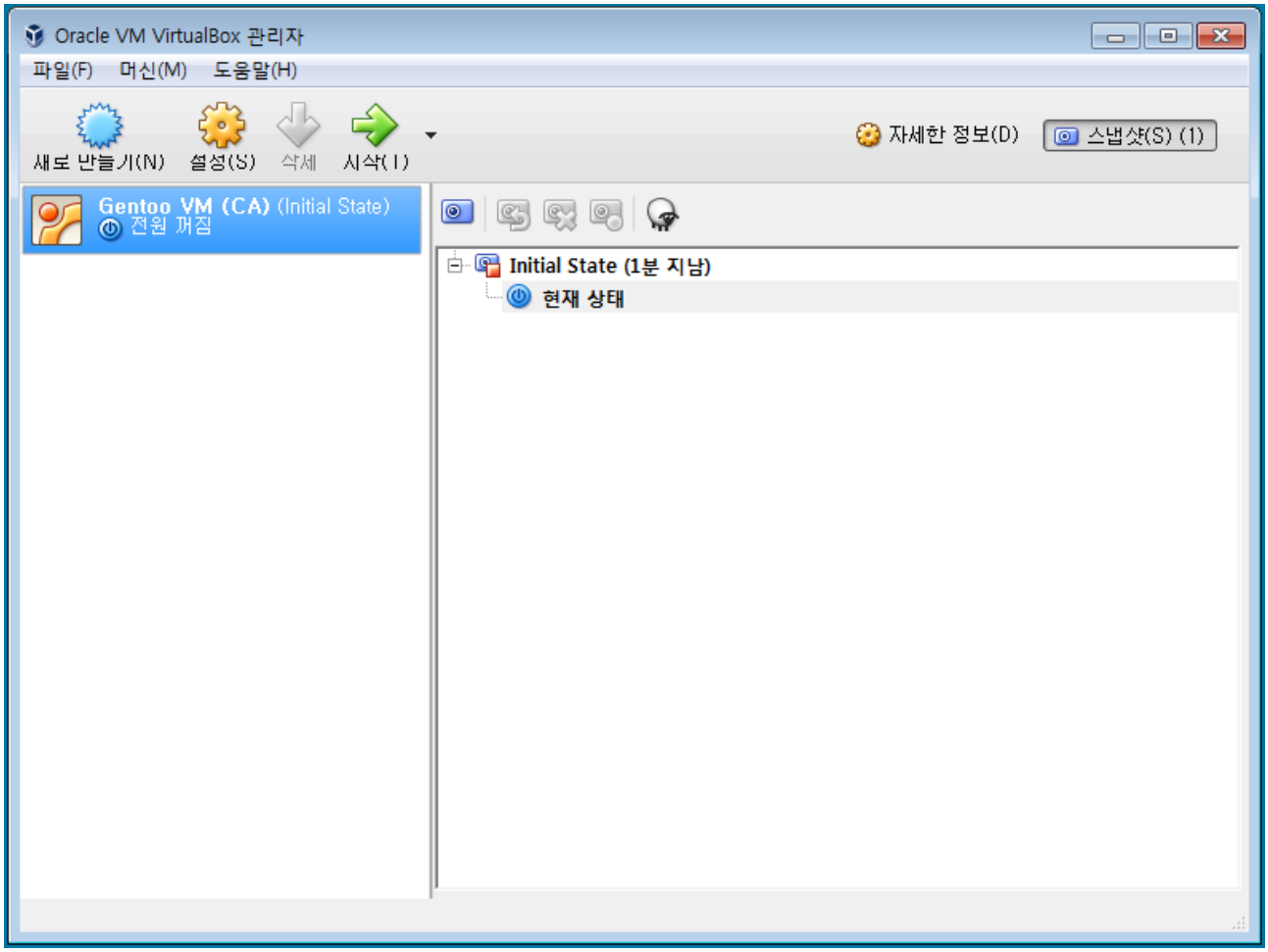
4. Optional: Taking a Snapshot of the Gentoo VM

You can save the state of the VM and later return to it. This is very useful if you want to play around with Linux and may need to go back to the original setup later.

4.1. Select the “Snapshots”/“스랩샷” button, then click the icon to create a snapshot. Enter a descriptive text such as “Initial State”, then hit “Ok”.

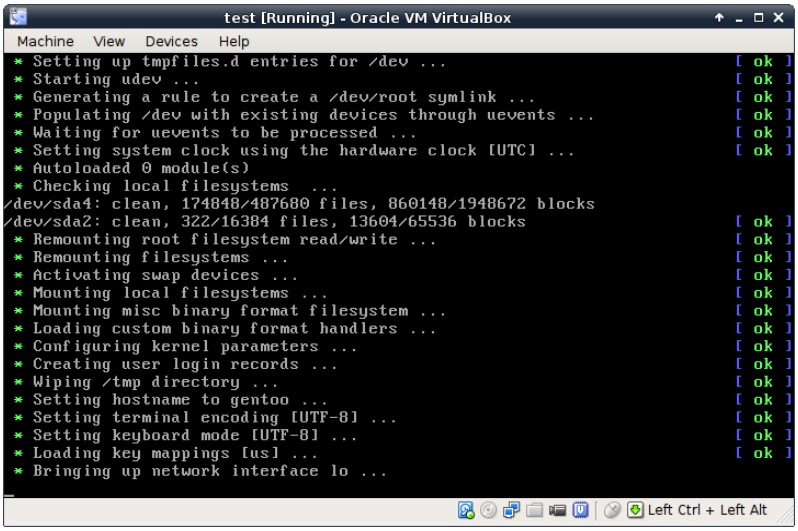


4.2. You will now see the snapshot in the list of snapshots. You can take further snapshots along the way, but be advised that snapshots may consume considerable disk space.

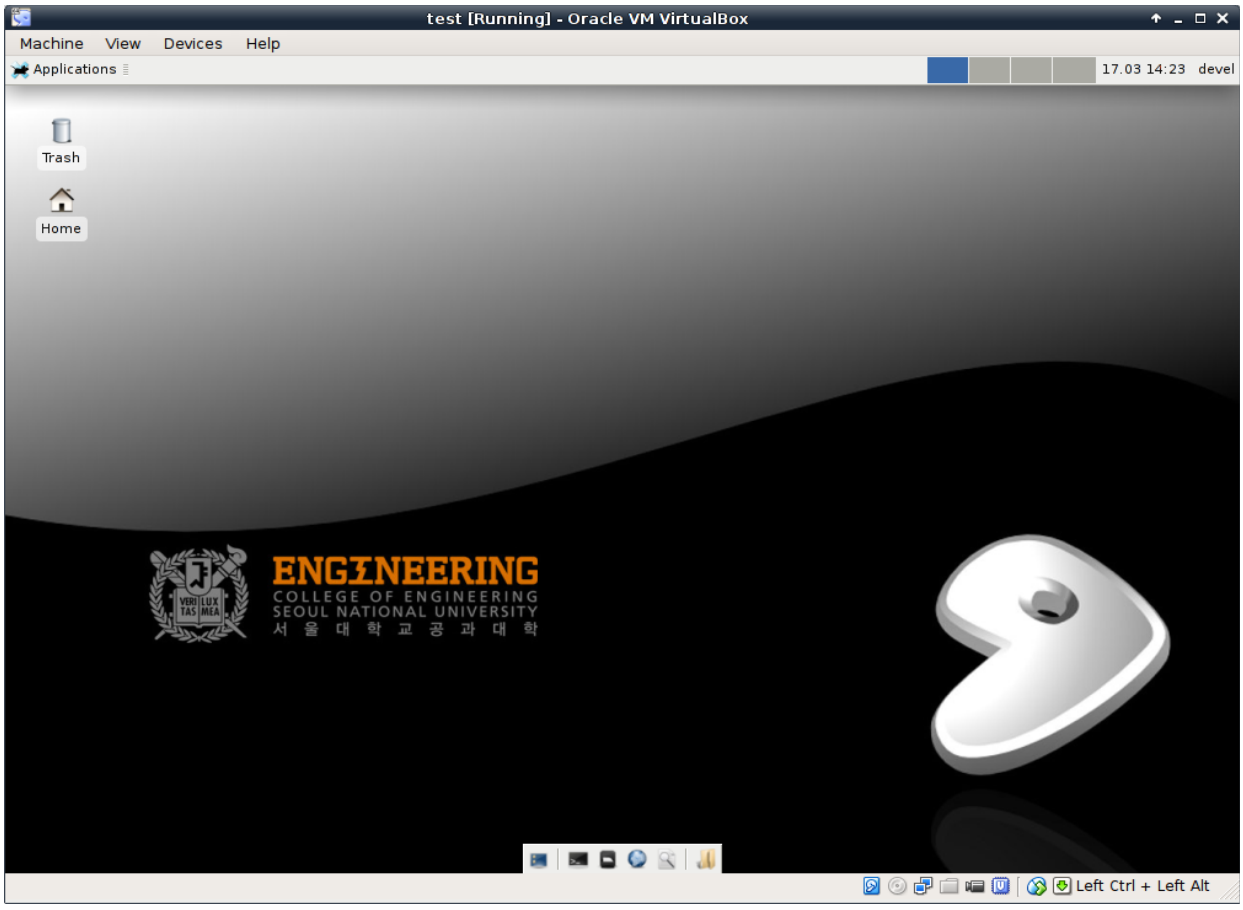


5. Starting and Stopping the Gentoo VM

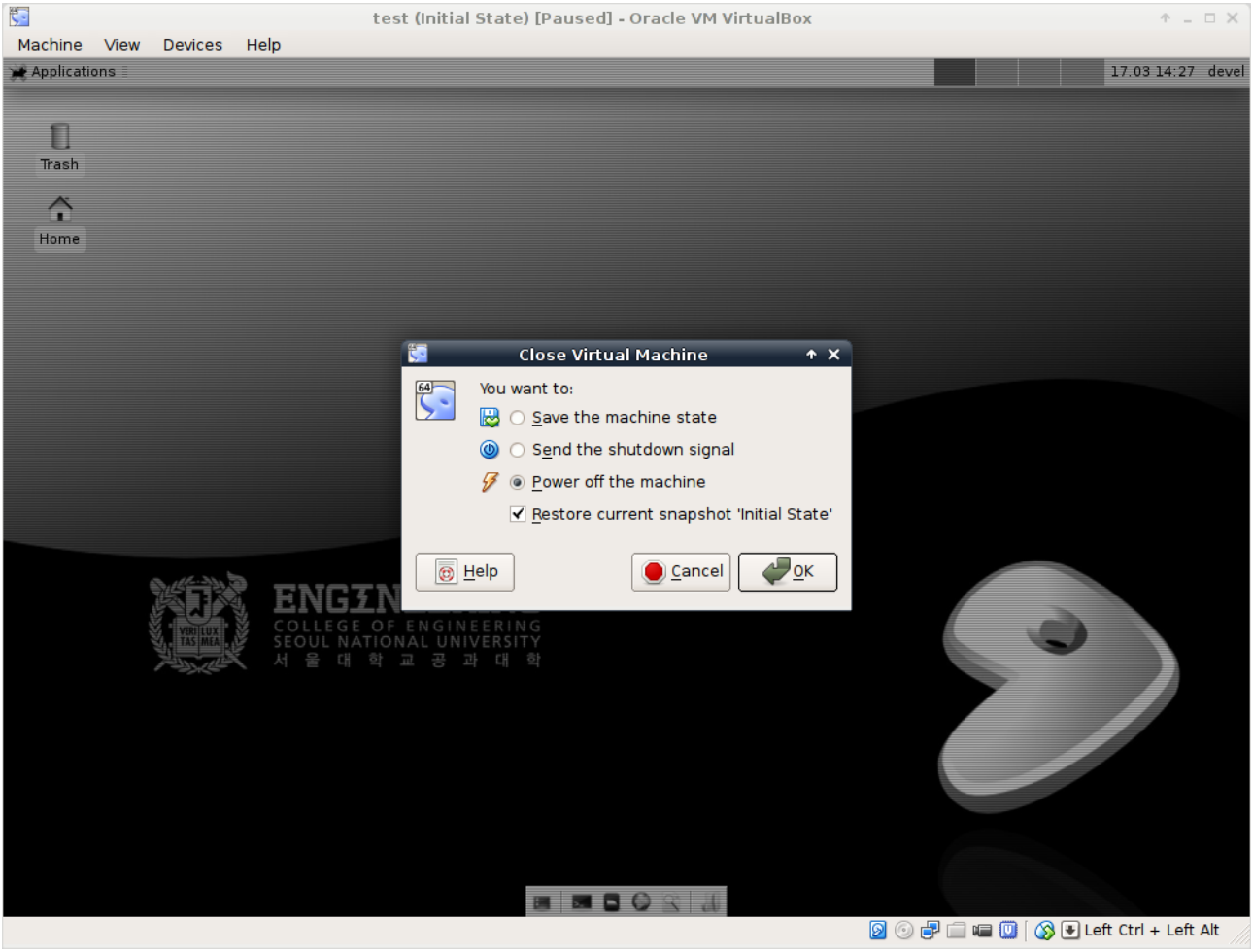
5.1 Start your Gentoo VM by clicking the “Start” / “시작” button in the menubar. The Gentoo VM will boot up.



After a while, you are presented with the desktop.

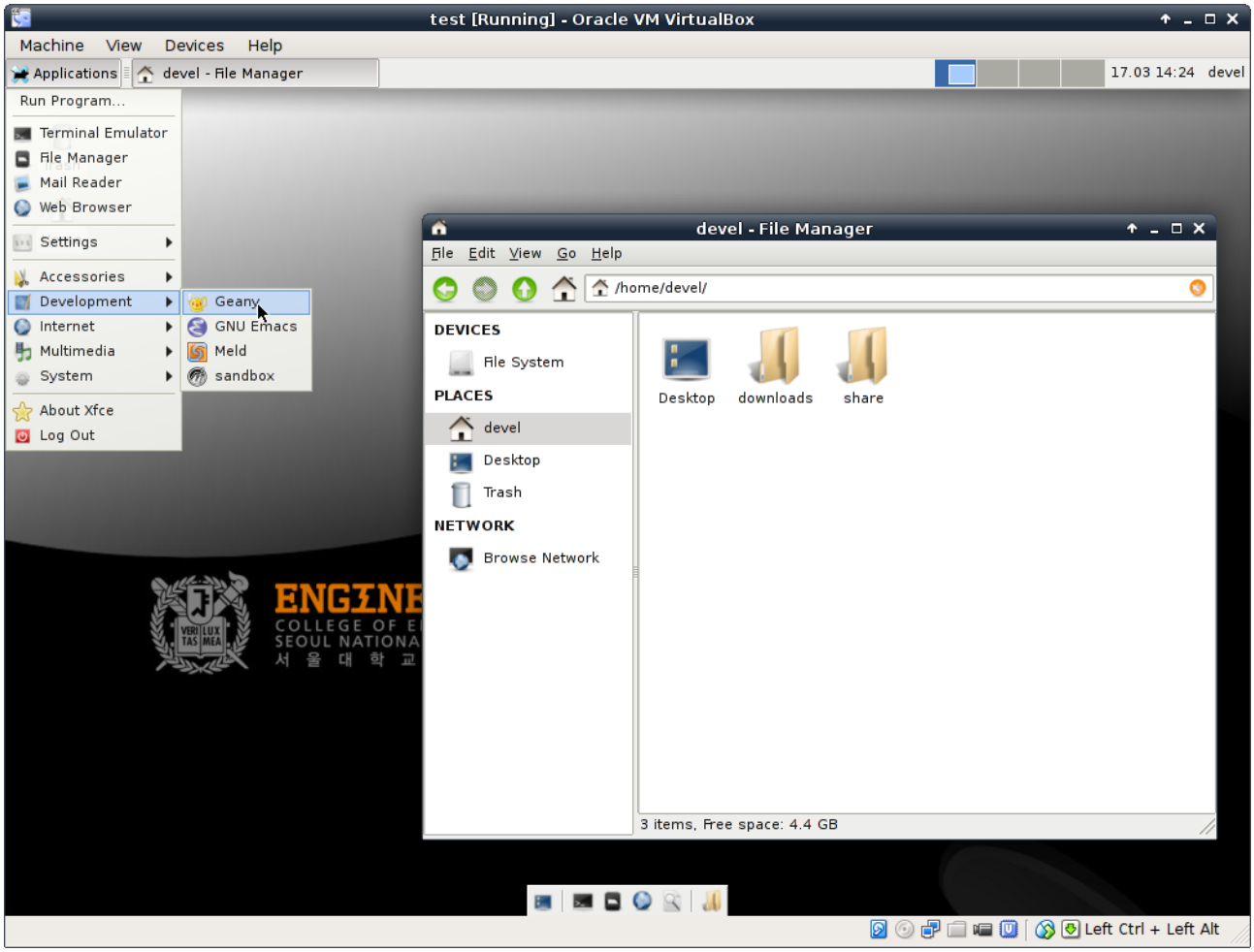


5.2. To stop the Gentoo VM, you can either shut it down by selecting “devel” (top right corner) followed by “Shut Down” or simply revert the VM to the snapshot (if you have created one, see 4. Taking a Snapshot of the Gentoo VM). In the latter case, close the window of the VM and select “Power off the machine” with “Restore current snapshot 'Initial State'” checked.



6. Working with the Gentoo VM

6.1. All tools required to follow the lecture have been installed. Explore the installed applications and the file system by clicking the folder icon at the bottom of the screen.



We have installed a few editors to work on files:

1. VI iMproved
   This is the one used in class. Learning it is a bit hard, but once you know how to use it, it is a very powerful editor.
   How to start: open a terminal and type ‘vi’ + Enter
2. Leafpad
   similar to notepad on Windows. Simple, no extra features.
   Start via Applications → Accessories → Leafpad
3. Geany
   simple and powerful IDE.
   Start with Applications → Development → Geany