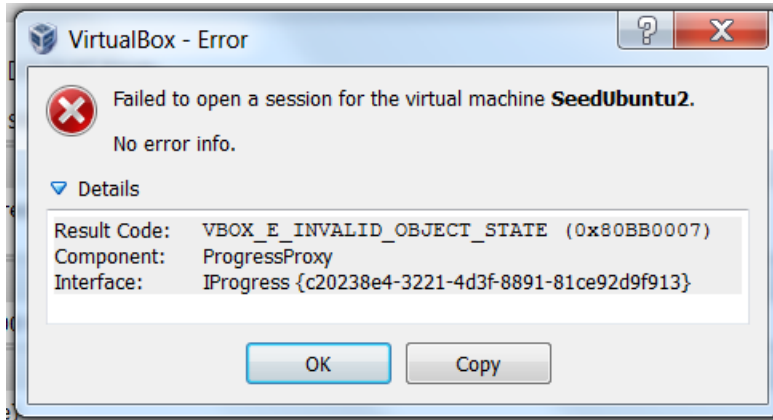


Loading Multiple VMs into VirtualBox: Problems and Solutions

Several SEED labs require loading multiple virtual machines into VirtualBox and running at the same time. You can create multiple VirtualBox VMs from the image that we provide. However, there are several common problems that students may encounter.

Problem 1: Some students created multiple VMs in VirtualBox, but these VMs use the same vmdk file. When you run multiple VMs at same time, you may see the following error message.



Reason and Solution: The vmdk file that VirtualBox uses to create a VM is the actual file that contains disk images. If two VMs share the same disk, it will definitely cause problems. To solve this problem, you simply need to make sure that each VM uses its own vmdk file. Namely, when unzipping our pre-built VM image, unzip it multiple times, and each time, save files to a different folder. Here is the detailed instruction for building two VMs (assuming that you are using our pre-built SEEDUbuntu12.04 VM image):

1. Unzip the image folder to /home/Dir_1/
2. Create the first VM using SEEDUbuntu12.04.vmdk from /home/Dir_1/
3. Unzip the image folder to /home/Dir_2/
4. Create the second VM using SEEDUbuntu12.04.vmdk from /home/Dir_2/

Problem 2: Some students may see the following error messages when trying to run the second VM:

**Failed to open the hard disk <FilePath>.
Cannot register the hard disk <FilePath> {GUID} because a hard disk <DifferentFilePath>
with UUID {GUID} already exists.**

Reason and Solution: When we set up the VM in VirtualBox, we need to provide a vmdk file. Even though we make sure each VM uses its own vmdk file, these vmdk files have the same

name (although in different folders), because they are unzipped from the same image that we provide. VirtualBox will try to use the same UUID to allocate the disk space for each of them, which will fail in some cases (not always). If that happens, you will see the error message described above.

This is a well document problem and future VirtualBox may fix it, but before that happens; we can assign a different UUID for the second VM. Here are instructions:

➤ **On a Windows machine**, you can do it by following Reference [1]:

To summarize, totally three steps are needed, shown as follows:

1. Open the Command Prompt
2. Change the directory to where VirtualBox is installed
(Default: C:\Program Files\Oracle\VirtualBox)
3. Type the following command:
VBOXMANAGE.EXE internalcommands sethduuid PathOfNewVMDK

Note that **internalcommands** and **sethduuid** need to be lowercase.

➤ **On a MAC machine**, you can follow the link at Reference [2]:

The underlying logic is the same, as explained before. The different part is that Windows and MAC stores the VirtualBox manager in different locations and the name of the manager is slightly different.

1. Open the Command Prompt;
2. Change to the `Virtualbox.app` directory
(e.g. `/Applications/VirtualBox.app/Contents/MacOS`)
3. Type the following command:
VBoxManage internalcommands sethduuid PathOfYourVMDK

References:

[1] <http://www.bradleyschacht.com/virtualbox-cannot-register-the-hard-drive-because-a-hard-drive-with-uuid-already-exists/>

[2] <http://it-and-more.blogspot.com/2012/10/virtualbox-cannot-register-hdddvd.html>