Virtual Machine FAQ

Getting Started

> **Prerequisites**
> You will need to install the latest versions of virtualbox (https://www.virtualbox.org/wiki/Downloads) and vagrant (https://docs.vagrantup.com/v2/installation/) in order to continue. Installers for `OSX` , `Linux` , and `Windows` hosts should be available. Make sure you download the 64 bit versions!

Setting Up and Running Your VM

Make a directory called `ucrcse` somewhere that you will remember it later. Create a file named `Vagrantfile` , place it in that directory, and save it with the following:

```
Vagrant.configure("2") do |config|
  config.vm.box = "ucrcse/centos6.6"
  config.vm.box_url = "https://boxes.cs.ucr.edu/boxes/centos/6.6/metadata.json"
end
```

Then simply open your terminal, go to the directory where your `Vagrantfile` is located and do the following to start the virtual machine:

```
vagrant up
```

The first time you do this, it will download the virtual machine image that you will use. It will take time depending on your internet connection, as the file is over 2GB. Once it downloads the image, it will import it, and then start running it. You should be seeing a `virtualbox` window popping up shortly. This is your virtual machine, give it a couple of seconds to boot and it should be ready to use.

Every time you run `vagrant up` later on, it will be fast since it only needs to download the virtual machine image the first time.

Notes

Store any files that you intend to keep in the `/vagrant` directory in the virtual machine. These files are shared with your computer, you can see them in the `ucrcse` folder you created above.

Default Configuration

The VM starts with the following default configuration:

- 2GB of RAM
- About 30GB of free diskspace (in reality, limited by your computer's hard drive)
- Shared clipboard
- Shared `Vagrantfile` directory
- Graphical mode enabled

All these configurations (except for diskspace), can be modified by editing the `Vagrantfile` you use to boot the VM with. Below is an example of a custom `Vagrantfile` setup you may wish to modify for your own use:

```
Vagrant.configure("2") do |config|
  config.vm.box = "ucrcse/centos6.6"
  config.vm.box_url = "https://boxes.cs.ucr.edu/boxes/centos/6.6/metadata.json"

  config.vm.provider "virtualbox" do |vb|
    # Non-graphical "headless" VM
    vb.gui = false
    # Use 4GB of RAM
    vb.memory = 4096
  end
end
```

Please consult the vagrant virtualbox documentation (https://docs.vagrantup.com/v2/virtualbox/configuration.html) for more configuration options.

Troubleshooting

The following are errors that you could encounter, and how to deal with them.

After downloading and installing `VirtualBox` and `Vagrant` in Windows, the `vagrant` command is not found.

After downloading and installing `VirtualBox` and `Vagrant`, you run `vagrant up` and the virtual machine does not start.

After downloading and installing `VirtualBox` and `Vagrant`, and successfully starting a virtual machine by running `vagrant up`, the virtual machine does not have networking.

After downloading and installing `VirtualBox` and `Vagrant`, and successfully starting a virtual machine by running `vagrant up`, the shared `/vagrant` folder is missing.

When editing files in `gedit` in your virtual machine, inside the `/vagrant` folder, you get a message similar to `Unexpected error Text file busy`.

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