

Prerequisites for Vagrant, VirtualBox, and Docker Session



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Why Prerequisites?

- Because of the size of the installable downloads required for this hands-on lab, it is strongly recommended that you perform these steps at home on a fast network before attending the session:
 - Download and Install VirtualBox and Vagrant
 - Clone the git repo that has the lesson material
 - Bring up the Vagrant images at least once to download packages and install Docker Engine

Some Assembly Required

- Tools you will need to complete this lab:
 - Computer running OS X, Linux, or Windows*
 - Internet Access to download boxes
 - Text Editor (...i will use Atom.io)
 - GitHub Account
 - PC users must have "*VT-x/AMD-V hardware acceleration*" turned on in your BIOS for VirtualBox to work.



* Windows users may need an ssh client

Download and Install VirtualBox

<https://www.virtualbox.org/wiki/Downloads>



The screenshot shows the VirtualBox website's download page. On the left is a sidebar with navigation links: About, Screenshots, Downloads, Documentation, End-user docs, Technical docs, Contribute, and Community. The main content area has the VirtualBox logo and the heading 'Download VirtualBox'. Below this, it states 'Here, you will find links to VirtualBox binaries and its source code.' and 'VirtualBox binaries'. A note says 'By downloading, you agree to the terms and conditions of the respective license.' A green box highlights the 'VirtualBox platform packages' section, which lists four options: VirtualBox 5.0.20 for Windows hosts (x86/amd64), VirtualBox 5.0.20 for OS X hosts (amd64), VirtualBox 5.0.20 for Linux hosts, and VirtualBox 5.0.20 for Solaris hosts (amd64). A green callout box with an arrow points to the 'VirtualBox 5.0.20 for Linux hosts' option, containing the text 'Select the appropriate download for your OS'. Below the highlighted section are links for the 'VirtualBox 5.0.20 Oracle VM VirtualBox Extension Pack' and the 'VirtualBox 5.0.20 Software Developer Kit (SDK)'. At the bottom, there is a link to the 'changelog' and a note about checksums (SHA256 and MD5).

VirtualBox

Download VirtualBox

Here, you will find links to VirtualBox binaries and its source code.

VirtualBox binaries

By downloading, you agree to the terms and conditions of the respective license.

- **VirtualBox platform packages.** The binaries are released under the terms of the GPL version 2.
 - **VirtualBox 5.0.20 for Windows hosts** ⇨ x86/amd64
 - **VirtualBox 5.0.20 for OS X hosts** ⇨ amd64
 - **VirtualBox 5.0.20 for Linux hosts**
 - **VirtualBox 5.0.20 for Solaris hosts** ⇨ amd64
- **VirtualBox 5.0.20 Oracle VM VirtualBox Extension Pack** ⇨ All supported platforms
Support for USB 2.0 and USB 3.0 devices, VirtualBox RDP and PXE boot for Intel cards. See [this chapter from the User Manual](#).
The Extension Pack binaries are released under the [VirtualBox Personal Use and Evaluation License \(PUEL\)](#).
Please install the extension pack with the same version as your installed version of VirtualBox!
If you are using **VirtualBox 4.3.36**, please download the extension pack ⇨ [here](#).
- **VirtualBox 5.0.20 Software Developer Kit (SDK)** ⇨ All platforms

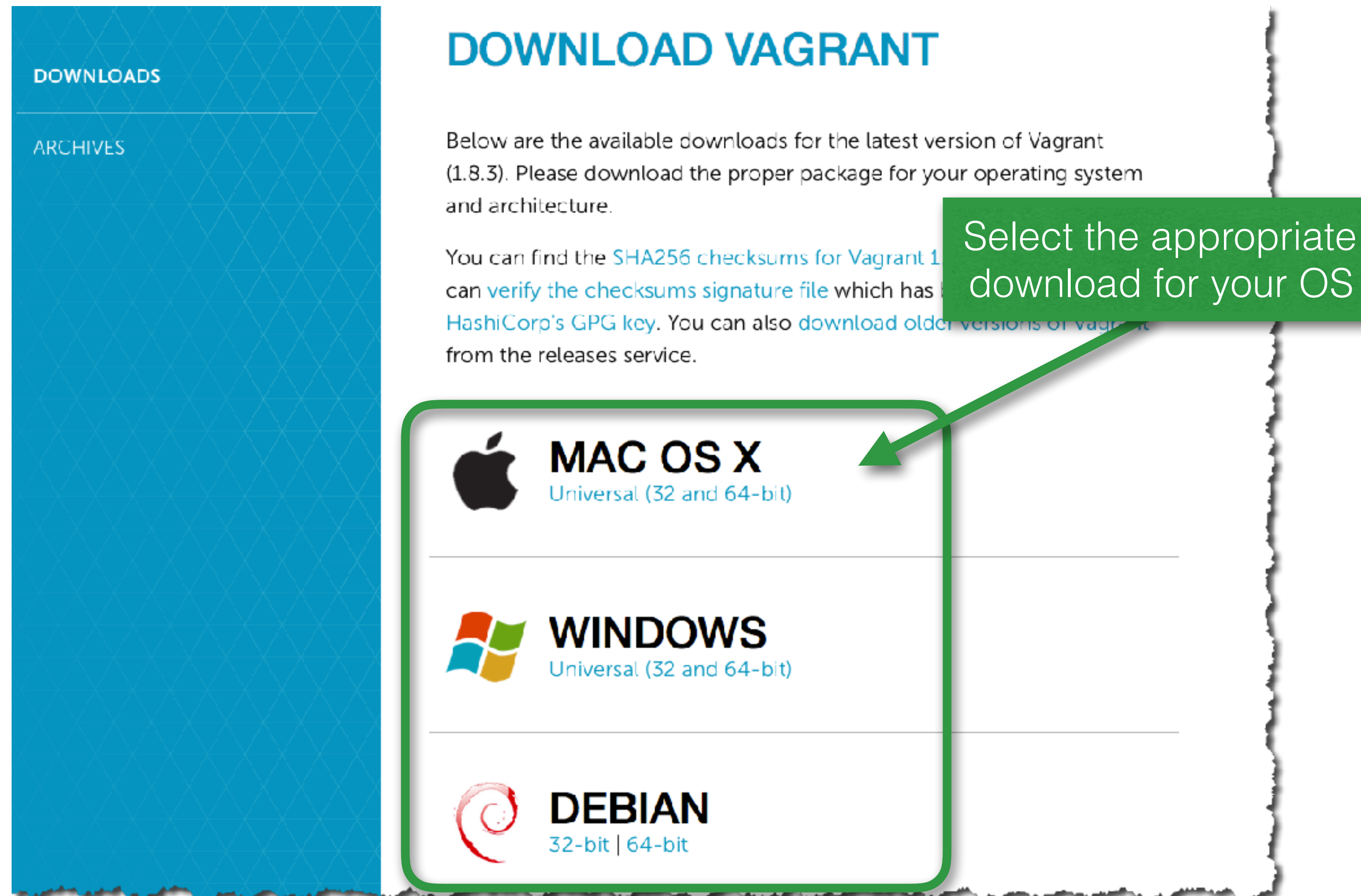
See the [changelog](#) for what has changed.
You might want to compare the

- [SHA256](#) checksums or the
- [MD5](#) checksums

Select the appropriate download for your OS

Download and Install Vagrant

<https://www.vagrantup.com/downloads.html>



DOWNLOADS




ARCHIVES

DOWNLOAD VAGRANT

Below are the available downloads for the latest version of Vagrant (1.8.3). Please download the proper package for your operating system and architecture.

You can find the [SHA256 checksums for Vagrant 1.8.3](#) which can verify the checksums signature file which has HashiCorp's GPG key. You can also [download older versions of Vagrant](#) from the releases service.

Select the appropriate download for your OS

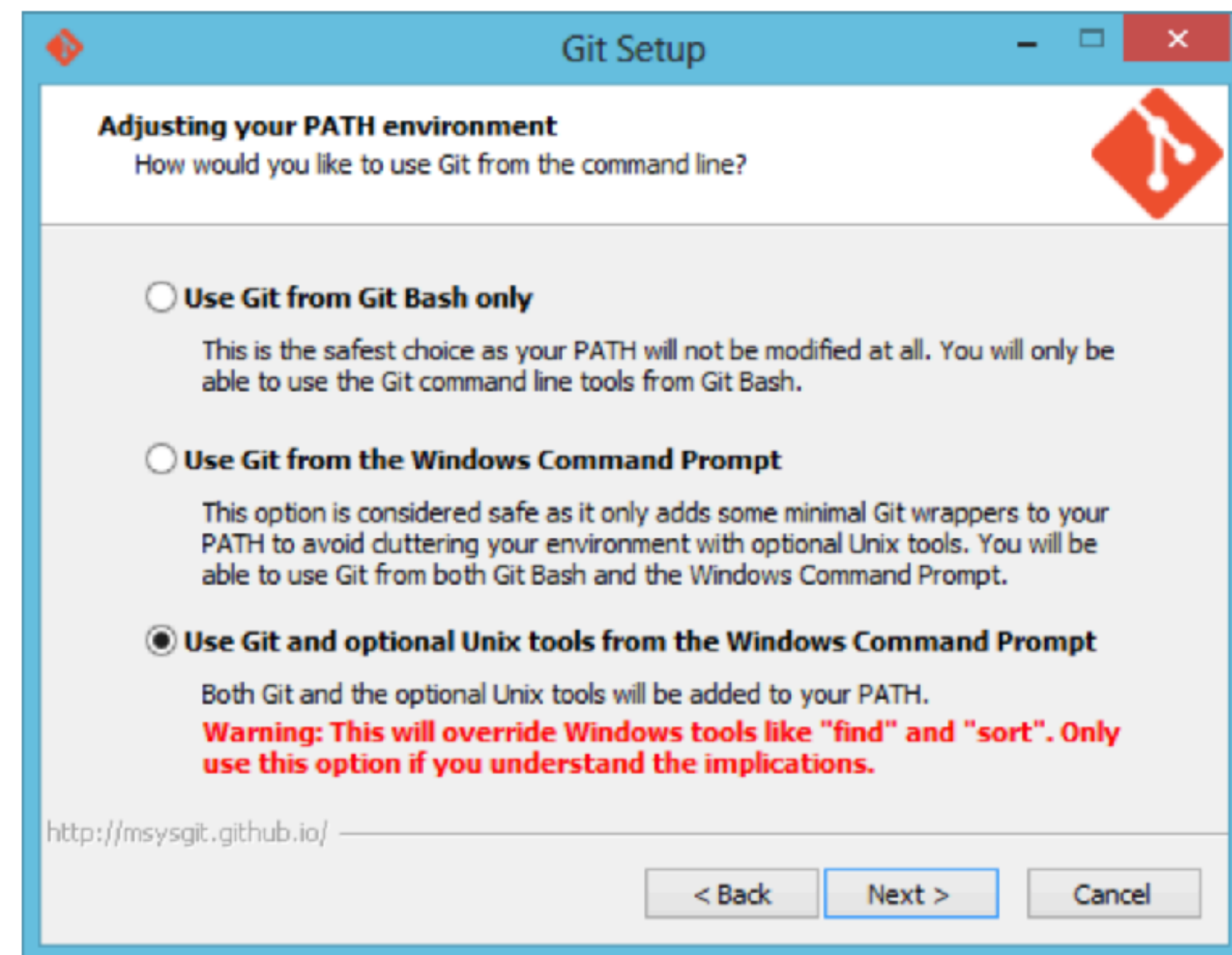
-  **MAC OS X**
Universal (32 and 64-bit)
-  **WINDOWS**
Universal (32 and 64-bit)
-  **DEBIAN**
32-bit | 64-bit



Windows SSH

- Vagrant requires an SSH client which Windows doesn't have by default
- The easiest way to solve this is to install git with the optional unix tools
- Here is a tutorial:

<http://tech.osteel.me/posts/2015/01/25/how-to-use-vagrant-on-windows.html>



Install VirtualBox and Vagrant

- Once you have the downloads for your OS:
 - Install VirtualBox taking all of the defaults
 - If prompted to download extensions say "Yes"
 - Install Vagrant taking all of the defaults

Clone the Project from GitHub

- You should clone this project and run `vagrant up` to download all of the need components, `vagrant ssh` to make sure ssh works.
- Then `exit` and use `vagrant halt` to stop everything until you get to the LISA16 session

```
$ git clone https://github.com/rofrano/lab-vagrant.git
$ cd lab-vagrant
$ vagrant up
. . . <- lots will happen here
$ vagrant ssh
$ exit
$ vagrant halt
```


What did 'vagrant up' do?

- In addition to having Vagrant and VirtualBox installed before the session, by performing these steps you will have:
 - Downloaded a Linux Ubuntu Trusty 64 box
 - Downloaded and installed all of the packages needed for the session
 - Downloaded and installed Docker Engine onto the virtual machine
 - Pull the Docker images needed for the session

That's It !!!
See you in Boston! 😊