OpenSim Installation Guide

1.1 Prerequisites for Programming with OpenSim

During the workshop, we will be using the OpenSim API. To run the API examples at the workshop, you will need the following:

- A computer running Windows XP, Vista or Windows 7 (or Mac OSX with Windows on BootCamp, Parallels, or VMWare). We cannot guarantee support for Mac or Linux.

- Microsoft's Visual C++ 2008 (VC9) Express Edition (http://www.microsoft.com/express/Downloads/#2008-Visual-CPP) or Visual Studio Professional (version 2005 or 2008).
  Note: Visual Studio 2008 Express is recommended, as it is free and tested!
  Please do NOT download Visual C++ 2010 Express! It is not tested.

- CMake 2.6.0 or later (http://www.cmake.org/cmake/resources/software.html)

We also recommend the following tools:

- An XML Editor, for example,
  - notepad++ (http://notepad-plus.sourceforge.net/uk/site.htm)
  - XMLMarker (http://symbolclick.com/download.htm)

- Dependency Walker (http://www.dependencywalker.com/): a third-party, free tool for checking the interdependency between modules (dll, sys, exe, etc.) on Windows. It is useful for troubleshooting installation issues.

1.2 Installing OpenSim

1. **Find OpenSim.** Go to the OpenSim homepage (http://simtk.org/home/opensim) and click on "Downloads" tab on the left-hand side.

   Note: You will need to have an account on SimTK.org to download OpenSim. To create an account, go to https://simtk.org/account/register.php.

2. **Download OpenSim.** Once you're on the "Downloads" page, find the OpenSim 2.2 installation executable *for your specific development environment!*

   Note: Due to incompatibility between various versions of Microsoft Visual Studio, you need to download/install the distribution consistent with your development environment. There are installations for Visual C++ 2008 Express (VC9E), Visual Studio 2008 Pro (VC9P), and Visual Studio 2005 Pro (VC8P).

3. **Install OpenSim.** Run the installation executable, following the installer instructions.

   Note: To be able to run the example programs, you need to add the OpenSim libraries to your PATH. This can be done during installation by selecting the radio button as illustrated below.
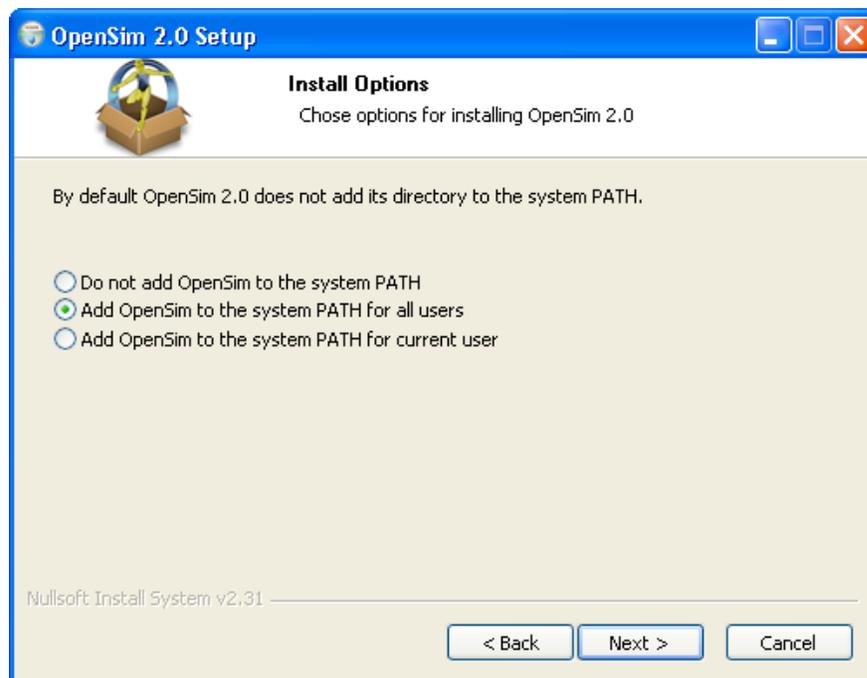
Warning: *By selecting this option, any previous installations of OpenSim on your computer will only be accessible via the GUI (i.e., not from Visual Studio or the command line) unless you edit the system PATH.*

4. **Test OpenSim.** To test your install, go to the *bin* directory for the OpenSim installation (e.g., *C:\OpenSim2.2\bin*). Copy the file *testOpenSimAPI.exe* to the directory *C:\OpenSim2.2\sdk\APIExamples\ExampleMain* and then double-click on it to run the test. If everything was installed correctly, a window should pop up with message like that shown below:
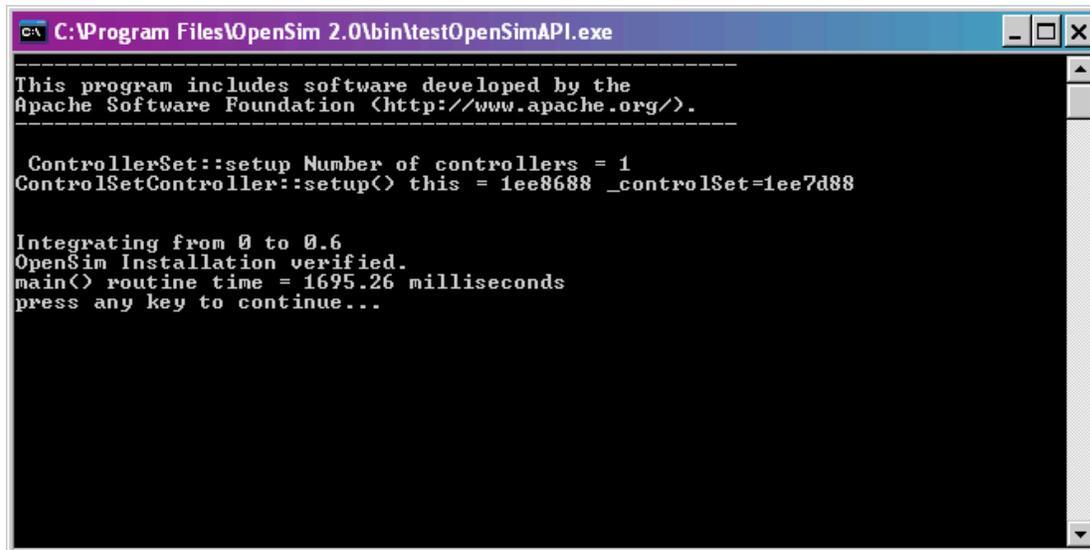
```
C:\Program Files\OpenSim 2.0\bin\testOpenSimAPI.exe
--------------------------------------------------------
This program includes software developed by the
Apache Software Foundation (http://www.apache.org/).
--------------------------------------------------------

 ControllerSet::setup Number of controllers = 1
ControlSetController::setup() this = 1ee8688 _controlSet=1ee7d88


Integrating from 0 to 0.6
OpenSim Installation verified.
main() routine time = 1695.26 milliseconds
press any key to continue...
```