

Linux Open Source QT & PyQt Installation

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Autodesk® Maya® 2008

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1) Install Qt. Qt is a C++ GUI library.

- Download ["qt-x11-opensource-src-4.2.3.tar.gz"](http://ftp.trolltech.com/qt/source/qt-x11-opensource-src-4.2.3.tar.gz)
- <ftp://ftp.trolltech.com/qt/source/qt-x11-opensource-src-4.2.3.tar.gz>
- <http://www.trolltech.com/developer/downloads/qt/x11>
- Their link to INSTALL is 4.2.1.
- Install Qt. <ftp://ftp.trolltech.com/qt/source/INSTALL> Qt423Install

2) Set some environment variables:

- Make sure you install the environment variables mentioned in <ftp://ftp.trolltech.com/qt/source/INSTALL>

3) Copy some mayaPython files so you can build SIP and PyQt with mayapy:

- Copy the config folder and all it's contents from the /usr/autodesk/maya2008/lib/python25.zip file, into the /usr/autodesk/maya2008/lib/python2.5 folder.

4) Install SIP. SIP is a tool for binding C++ libraries to Python.

- If you have cygwin in your path then installing SIP will fail. You must temporarily remove cygwin from your path so that SIP can build.
- [Download sip source from here:](#)
- <http://www.riverbankcomputing.co.uk/sip/download.php>
- gunzip and tar -xvf SIP and cd into the directory in a shell and execute the following.
- /usr/autodesk/maya2008/bin/mayapy configure.py
- make
- make install

5) Install PyQt. PyQt is a set of Python bindings for Qt.

- Download PyQt source (PyQt-x11-gpl-4.2) from here <http://www.riverbankcomputing.co.uk/pyqt/download.php>
- gunzip source somewhere and cd into the directory in a shell and execute the following.
- /usr/autodesk/maya2008/bin/mayapy configure.py
 - (make sure you are referencing the correct python, you might want to give it a full path to be sure)
 - If you have a problem with this, you can use the -q flag to give it a full path to qmake.
 - /usr/autodesk/maya2008/bin/mayapy configure.py -q /usr/local/Trolltech/Qt-4.2.3/bin/qmake

- If you have to do this, you probably need to go and check the paths in section 3.
- make
- make install

6) Test PyQt.

- You should now be able to run the examples that come with PyQt using the Python 2.5.1 that you have on your system.
- Go to the PyQt folder that you downloaded and unzipped, then navigate to:
- PyQt-x11-gpl-4.2/examples/tools/qtdemo
- /usr/autodesk/maya2008/bin/mayapy qtdemo.py
 - If it opens up and you can navigate around it and look at the demos, then you are installed correctly thus far.

7) Use PyQt from Maya

- `import sys`
- `import PyQt4 as qt`

We instantiate a QApplication passing the arguments of the script to it:

- `app = qt.QApplication(sys.argv)`

Add a basic widget to this application:

The first argument is the text we want this QWidget to show, the second one is the parent widget. Since Our "hello" is the only widget we use, the so-called "MainWidget", it does not have a parent.

- `hello = qt.QLabel("Hello world!", None)`

... and that it should be shown.

- `hello.show()`

In Linux you also need to process the event in order to see your Qt windows

- `app.processEvents()`

If you try to close the window, you will need to repeat this `app.processEvents()` in order to get QT to follow your directions.

- If the Hello world! widget opens up, then you are installed correctly.