Creating Debian packages for Maemo 5 Qt applications and showing in the application menu

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The article is believed to be still valid for the original topic scope.

This article shows how to build a **.deb** package for a Qt application on Maemo. Note that the Qt SDK produces Debian package for you, so this is not mandatory to read and follow this article. The other problem that this article will address is how to put the Qt application at **Menu of Maemo Device**. The proposed strategy does not use dh_make to create the basic debian package structure, as described in Qt for Maemo Developers Guide.

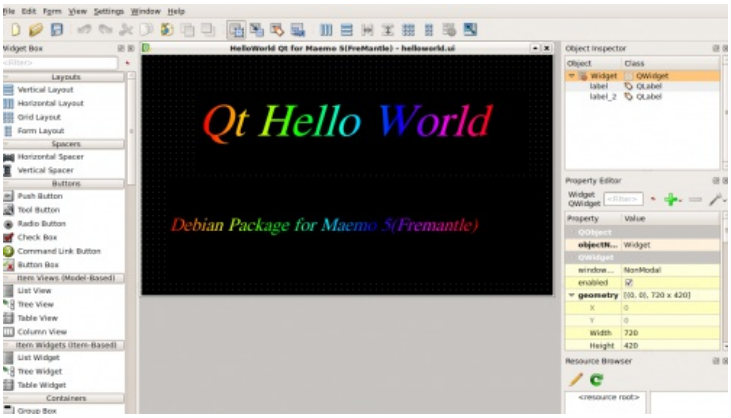
Debian Packages In Brief

.deb is the extension of the Debian software package format and the most often used name for such binary packages. Like the **Deb** part of the term Debian. **Debian** packages are used in distributions based on **Debian**, such as **Ubuntu** and others.

Prerequisites

You need to have **libqt4-dev** and **Maemo 5 SDK** installed on your Computer and **libqt4-dev** installed on your **Scratchbox ARM** target. For more information on **Maemo 5 SDK** Installation follow the link.

Creating the Application



You need to create a simple **Qt HelloWorld** Project on computer. I created a project with two labels how is showed below. Remember of to set the size of QWidget to 720 of Width and 420 of Height because the resolution of Maemo Device.

Copying the Application to Scratchbox

First, copy the sources files of application to a folder at **Scratchbox**. In general the address is **/scratchbox/users/username/home/username/**. I do this:

```
flavio@flavio-desktop:~/workspace$ cp -r HelloWorld/ /scratchbox/users/${USER}/home/${USER}/
```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Compiling the Application at Scratchbox

At Start, you need **login** at **Scratchbox**:

```
~$ /scratchbox/login
```

If necessary select the **ARM** target using **sb-conf se FREMANTLE_ARMEL** . To compile do this :

```
[sbox-FREMANTLE_ARMEL: ~] > cd HelloWorld
[sbox-FREMANTLE_ARMEL: ~/HelloWorld] > qmake
[sbox-FREMANTLE_ARMEL: ~/HelloWorld] > make
```

Creating the Debian Source Package

The method of creation Debian packages is described in an external article Packaging a Qt application. Maemo is derivative of Debian Linux distribution, thus, should you have a question, feel free to consult Debian documentation Debian New Maintainer's Guide.

Sample source Debian package containing a very simple Qt application File:Sample-0.0.1.zip.

Building the Debian Package

To build both source and binary packages with checking build dependencies use the following command

```
[sbox-FREMANTLE_ARMEL: ~/HelloWorld] > dpkg-buildpackage -i -rfakeroot -D
```

Append "-nc -b" keys to avoid cleaning the source tree. This will speed up building a binary package. This is relevant for huge packages like Qt libraries, which are being built for several hours.

Sending the Debian Package to Maemo Device

I used the **scp** command with the **IP** address of device. The **IP** address of device is searched at **Settings->Connection Manager** , after that, click at Connection Manager at **left-Up-Corner->internet connection->IP address**.

```
[sbox-FREMANTLE_ARMEL: ~/HelloWorld] > scp hello-world-application.deb root@10.0.0.13:/home/user/
```

Installing the Debian Package at Maemo Device

```
[sbox-FREMANTLE_ARMEL: ~/HelloWorld] > ssh root@10.0.0.13 dpkg -i /home/user/hello-world-application.deb
```

Now, the application is installed at **Maemo** Device.

You will need to click at **More... Menu** and you will can see the **HelloWorld** Application with a icon of N900 :

Snapshoot of HelloWorld Application

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