

Qt Primer

ESE3005

Introduction

- Qt is a full cross-platform development environment written in C/C++ (so you know it's good! :))
- It is most well-known for user-interface (UI) development, but it also supports:
 - databases
 - threads
 - timers
 - networking
 - multimedia
 - XML processing
 - and more!
- it also extends the capabilities of the C++ language, adding additional macros and a concept known as *introspection*, allowing the examination of type and properties of objects at run-time

Rich User Interfaces

- the ability to add a rich graphical/interactive experience for users is relatively new in embedded systems, and has been greatly facilitated by the adoption of the Linux OS
- therefore, any GUI development tools for Linux are now available in embedded systems
- libraries like GTK+ and Qt (pronounced “cute”) are popular for GUI design

getting started with Qt

we are going to install qt5 development tools and the Qt IDE on your host machine:

```
$ apt-cache search qt5 # will display a number of Qt ver. 5 related packages
```

```
$ sudo apt install qt5-default # installs a foundation of Qt 5 software components
```

```
$ sudo apt install qtcreator # installs the Qt IDE
```

The Qt IDE is fully featured, much like Eclipse. Have a look around, and try to build some example applications for your host platform.