

Using QT Creator To Make a New GUI (Graphic User Interface)

QT Creator is a multi-language overlay that allows an individual to quickly generate GUIs by creating what the application looks like before actually writing code. QT Creator also offers the ability to write new code without creating a GUI and offers a debugging software. This paper, however, will focus only on the creation of a new GUI step by step.

This paper assumes the user already has QT Creator installed onto their desired computer. If the user has not installed the software, please use the Ubuntu Software Center and search Qt Creator. From here, install the program.

Here are some useful videos:

QT C++ GUI Tutorial 2- Create First Qt Program: <https://www.youtube.com/watch?v=WPbvVBGi5oI>

The creator of this video, ProgrammingKnowledge, has a string of videos that will walk you through creating a basic GUI.

Steps for creating your first GUI:

1. Click on the newly added icon called “Qt Creator (community)”.
2. Click on the “New Project” Button.
3. The “New Project” Window will open
4. Under the “Projects” column, select “Application”
5. In the second column in the middle of the page, select “Qt Widgets Application” and click the “Choose” button
6. The “Qt Widgets Application” window will open
7. Under “Name:”, enter the name of the project that you are going to create
8. Under “Create in:”, click the “Browse...” button and navigate to the desired folder
(Recommended that the user should create a folder on the desktop for easy manipulation)
9. Click the “Next >” button.
10. The “Kit Selection” page will now open
11. Ensure that the “Select all kits” checkbox is Checked
12. Click the “Next >” button.
13. The “Class Information” page will now open
14. Under “Class name:” enter in the name of your program (What will appear at the top of the window)
15. Do not change the “Base class:” drop down menu box
16. Under “Header file:” enter in the name of the header file to be generated
17. Under “Source file:” enter in the name of the C++ file to be generated
 - Future reference to this file will be called “sourcefilename.cpp”
18. Leave the “Generate form:” checkbox Checked
19. Under “Form file:” enter in the name of what you want the UI to be called within Qt Creator
 - Future reference to this file will be called “formfilename.ui”
20. Click the “Next >” button.
21. Click the “Finish” button.
22. The Qt Creator window will now open.
23. Under the “Projects” column, click the arrows on the side of the “Headers”, “Sources”, and “Forms” folders to show all of the files created.

24. Under the “Forms” folder, Double click on the “formfilename.ui” to open the GUI manipulator.
 - To Return to the previous window, Click on the “Edit” button in the Leftmost column.
25. Under the column, Click and drag what you would like to have on the application into the main window area.
26. Right click on the newly added element to pull up a manipulation menu.
27. From here, you can change multiple aspects of the element.
28. To make the element do something, click on the “Go to slot...” option.
29. The “Go to slot” window will open.
30. Select what “signal” you would like the application to wait for. (Eg. If the element you created was a push button, and you want to execute something when you clicked on it, select the “clicked()” option)
31. Click the “OK” button
32. Qt Creator will direct you back to the “sourcefilename.cpp” and a new line of code is already generated.
33. Between the brackets, type your desired code in C++ in which you want the application to execute upon the “signal” you selected.
34. Repeat steps 24-34 until your application is how you want it.
35. When finished with the GUI Generation, Navigate to the leftmost column. Down at the bottom is a green play button that should say “Run” when you hover over it.
36. Click the “Run Button”.
37. The “Save Changes” window will open
38. Click on “Save All”.
39. Qt Creator will now begin to compile and debug your code, and will alert you as to where there are error.
40. If there are no errors, the project will build successfully and your application will open.