



ROS Qt Creator Project Manager Plug-in

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Overview



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Motivation



- Personal History
 - Visual Studio
- Make my life better
- Increase Efficiency
 - Built specifically for ROS
 - Interactive Debugger
 - Remove repetitive tasks
 - Centralized location for tools





Why Qt Creator?



- Surveyed SwRI

- IDE's

- Eclipse
- Qt Creator

- Text Editors

- Sublime
- Atom
- Kate

- Built Specifically for C++

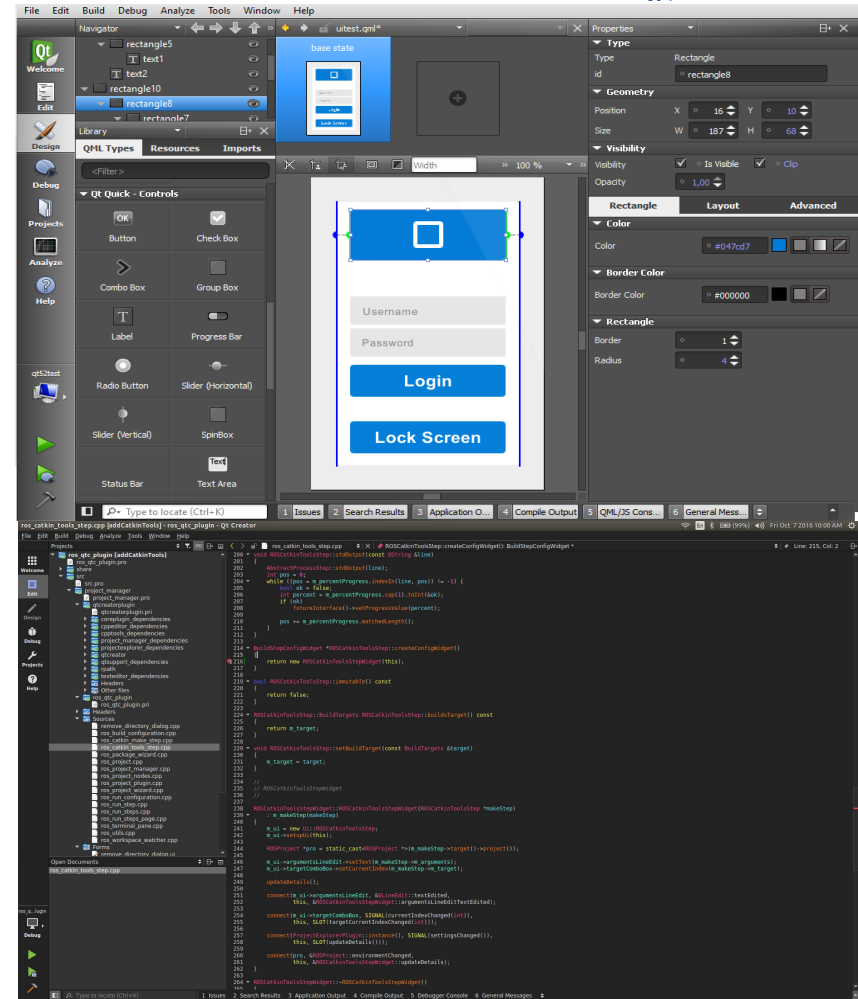
- Built-in GUI Developer

- Cross-Platform

- Sophisticated Code Editor

- context-sensitive help
- code completion
- Navigation and more...

- Version Control



ROS Qt Creator Plug-in

Objective/Goals

- Simplify ROS development
- Increase efficiency
- Centralized location for ROS tools
- Reduce repetitive tasks
- Process Simplification (Templates)





ROS Qt Creator Plug-in



Current Capabilities

- Import/Create Catkin Workspace
- Templates
 - Package
 - Industrial Robot Package
 - Basic Launch File
 - Basic URDF File
 - Basic Node File
 - Note: Users may create there own
- Build/Run Configuration
 - catkin_make
 - roslaunch
 - rosrun
 - sourcing
 - Note: Allows multiple configurations with easy switching
- Integrated Tabbed Terminal





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In-Work Capabilities

- Catkin_Tools Integration
 - Add/Remove/Edit Profiles
 - Custom Build Configurations
- roslaunch editor
 - Custom syntax highlighting
 - Code completion
 - Navigation
- URDF editor
 - Custom syntax highlighting
 - Code completion
 - Navigation
- PythonQt Integration
 - Allow the integration of existing ROS Tools
 - Python Console





ROS Qt Creator Plug-in



Future Capabilities

- ROS Output Parser
 - rqt_console
- Integrate Existing Tools
 - rqt_graph
 - rqt_plot
 - rostopic
 - rosparam
 - dynamic reconfigure
 - Etc.
- ROS Git Clone
- Improved code management
- URDF Viewer
- Yaml Editor
- Code Style Checker
- Templates
 - Topic
 - Service
 - Message



ROS Qt Creator Plug-in

Location

- Source
 - GitHub
 - https://github.com/ros-industrial/ros_qtc_plugin
- Binary
 - Launchpad.net
 - <https://launchpad.net/~levi-armstrong>
- Install Instructions and Tutorials:
 - GitHub
 - https://github.com/ros-industrial/ros_qtc_plugin/wiki



ROS Qt Creator Plug-in

Demonstration



- Create workspace
- Create package
- Create node
- Build configuration
- Update code model
- Setup run configuration
- Debug
- Test different run configurations





Contact Information



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