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)
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Current Capabilities

- Import/Create Catkin Workspace
- Templates
  - Package
  - Industrial Robot Package
  - Basic Launch File
  - Basic URDF File
  - Basic Node File
  - Note: Users may create their 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
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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
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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
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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