

Getting to know the code and the wiki

Ken Conley

Overview

- Where's the documentation (ROS Wiki)
- Where's the code (repositories)
- Releasing code (roscat, rosdistro)

ROS.org Wiki

- Our wiki is open, please setup a page for your repository
- Our wiki has been ROS-ified
 - Auto-generates Doxygen, Epydoc (rosdoc)
 - Macros for ROS data

Wiki macros

<<StackHeader(arm_navigation)>>

<<PackageHeader(move_arm)>>

<<MsgLink(std_msgs/String)>>

<<SrvLink(std_srvs/Empty)>>

<<MsgSrvDoc(actionlib_msgs)>>

More: [http://ros.org/wiki/
WikiMacros](http://ros.org/wiki/WikiMacros)

Node API documentation

- Easy templating language for documenting your ROS API for nodes
- <http://www.ros.org/wiki/StyleGuide#ROS>
- <http://www.ros.org/wiki/gmapping>

```
{}
#!clearsilver CS/NodeAPI
{}
#!clearsilver CS/NodeAPI
name = slam_gmapping
desc = The `slam_gmapping` node takes in <<MsgLink(sensor_msgs/
LaserScan)>> messages and builds a map (<<MsgLink(nav_msgs/
OccupancyGrid)>>). The map can be retrieved via a ROS [[Topics|topic]] or
[[Services|service]].
sub {
  0{
    name = tf
    type = tf/tfMessage
    desc = Transforms necessary to relate frames for laser, base, and odometry (see
below)
  }
}
```

Code

Stacks vs. Packages

- Packages: atomic unit of building
 - Goldilocks: large enough to be useful, not too large to be overweight
- Stacks: atomic unit of 'releasing'
 - Versioned

Code repositories

ros-pkg: robot-generic, open to everyone

wg-ros-pkg: the PR2/WG-specific stuff

*-ros-pkg: your repositories and many more

Most repositories have a wiki page

<http://www.ros.org/wiki/Repositories>

<http://www.ros.org/browse/list.php>

<http://www.ros.org/wiki/ua-ros-pkg>

boxturtle, latest

- **Box Turtle:** stable code (use whenever possible)
- **Latest:** bleeding edge
- **C-Turtle:** will be created from 'latest' once it stabilizes

Branches + Tags

- Development

<https://code.ros.org/svn/ros-pkg/stacks/navigation/trunk>

<https://code.ros.org/svn/ros-pkg/stacks/navigation/branches/navigation-1.0>

- Release tags

<https://code.ros.org/svn/ros-pkg/stacks/navigation/tags/latest>

<https://code.ros.org/svn/ros-pkg/stacks/navigation/tags/boxturtle>

<https://code.ros.org/svn/ros-pkg/stacks/navigation/tags/navigation-1.0.4>

Variants

- **base**: robot-generic stuff for everyone
- **pr2**: stable PR2 code
- **pr2all**: stuff we stick on the robot but may have unstable APIs
- **create-your-own**

Releasing

- **rosinstall**: great for 'overlays'
- **roscdistro**: great for complete systems, other robots. Can be used to generate rosinstall files.
- **debian packages**: future
- Can also contribute to existing stacks

roscin

- Basically a list of source code tree to checkout
- For both developers and end-users
- Most lightweight way to 'release'

- svn:

uri: https://code.ros.org/svn/wg-ros-pkg/stacks/arm_navigation/tags/boxturtle
local-name: stacks/arm_navigation

- svn:

uri: https://code.ros.org/svn/wg-ros-pkg/stacks/collision_environment/tags/boxturtle
local-name: stacks/collision_environment

roscdistro

- We use this to generate roscinstalls and releases
- Useful to creating “software spec” (e.g. for a class, for a robot, etc...)
- <http://www.ros.org/wiki/roscdistro>

```
robot_model: {version: 1.0.1}
```

```
ros:
```

```
  _rules:
```

```
    dev-svn: 'https://code.ros.org/svn/ros/stacks/ros/tags/rc',
```

```
    distro-svn: 'https://code.ros.org/svn/ros/stacks/ros/tags/\$RELEASE\_NAME',
```

```
    release-svn: 'https://code.ros.org/svn/ros/stacks/ros/tags/\$STACK\_NAME-\$STACK\_VERSION',
```

```
    source-tarball: 'http://ros.org/download/stacks/\$STACK\_NAME/\$STACK\_NAME-\$STACK\_VERSION.tar.bz2'
```

```
  version: 1.0.1
```

Summary

- ros.org is a community site; please contribute
- ROS is a federated project; please host your own repository
- A goal of the beta program is code reuse; please release what you write