Getting to know the code and the wiki

Ken Conley
Overview

- Where’s the documentation (ROS Wiki)
- Where’s the code (repositories)
- Releasing code (rosinstall, 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
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**

```plaintext
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)
    }
}"
```
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’
- `rosdistro`: great for complete systems, other robots. Can be used to generate rosinstall files.
- `debian packages`: future
- Can also contribute to existing stacks
rosinstall

- 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
rosdistro

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

```toml
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/$RELEASE_NAME',
    source-tarball: 'http://ros.org/download/stacks/$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