Community Metrics Report

Tully Foote
Reporting on July 2015

Comparisons are to August 2014 Report
Contents

Awareness Metrics
Membership Metrics
Engagement Metrics
Code Metrics

Source: Metrics categories borrowed from Dawn Foster of MeeGo: http://wiki.meego.com/Metrics
Awareness Metrics

Discovering the community, learning more about it (potential community members)
ros.org:
Visitors & Page Views
### wiki.ros.org Visitors: July 2015

Site: wiki.ros.org
Source: Google Analytics
Annual Growth: 18%

<table>
<thead>
<tr>
<th>Page Title</th>
<th>Pageviews</th>
<th>% Pageviews</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. /ROS/Tutorials</td>
<td>51,170</td>
<td>4.43%</td>
</tr>
<tr>
<td>2. /</td>
<td>43,628</td>
<td>3.78%</td>
</tr>
<tr>
<td>3. /ROS/Installation</td>
<td>23,399</td>
<td>2.03%</td>
</tr>
<tr>
<td>4. /indigo/Installation/Ubuntu</td>
<td>18,860</td>
<td>1.63%</td>
</tr>
<tr>
<td>5. /jade/Installation/Ubuntu</td>
<td>15,646</td>
<td>1.36%</td>
</tr>
<tr>
<td>6. /ROS/Tutorials/installingandConfiguringROSEnvironment</td>
<td>14,214</td>
<td>1.23%</td>
</tr>
<tr>
<td>7. /ROS/Tutorials/CreatingPackage</td>
<td>12,068</td>
<td>1.05%</td>
</tr>
<tr>
<td>8. /ROS/Tutorials/WritingPublisherSubscriber(c++)</td>
<td>11,355</td>
<td>0.98%</td>
</tr>
<tr>
<td>9. /Robots</td>
<td>10,169</td>
<td>0.88%</td>
</tr>
<tr>
<td>10. /cn/ROS/Tutorials</td>
<td>9,076</td>
<td>0.79%</td>
</tr>
</tbody>
</table>
wiki.ros.org visitor locations:

Source: Google Analytics
Site: wiki.ros.org in July 2015
Public wiki.ros.org Mirrors

- Asia:
  - Singapore
  - Sun Yat-Sen University, China
  - China
  - Tokyo, Japan
- Europe:
  - Ireland
  - Freiburg, Germany
  - Barcelona, Catalonia
- North America:
  - College Park, Maryland
- South America
  - Sao Paulo, Brazil

This report does not include data from these mirrors.

Source: http://wiki.ros.org/Mirrors
answers.ros.org visitors: July 2015

Site: answers.ros.org
Source: Google Analytics
Annual Growth: 1%
Membership Metrics

Taking the time to sign up and join the community (passive and active community members)
Site & list membership

- ros-users@lists.ros.org subscribers:
  - 2069  (18% increase)

- wiki.ros.org users:
  - 4884  (20% increase)

- answers.ros.org users:
  - 11406  (32% increase)

Sources: MailMan, MoinMoin, askbot

Sampled: 2015-09-11
Engagement Metrics

Interacting with other community members
(active community members)
wiki.ros.org: activity in July 2015

- Wiki pages:
  - 16,043 (9% increase)
- Wiki page edits:
  - 31.6 / day (averaged over July, 5% decrease)
- Wiki page views:
  - 37,235 / day (averaged over July, 18% increase)

Source: MoinMoin, Google Analytics (sampled 2015-09-11)
answers.ros.org: activity

- Total questions:
  - 24,026 (+5882, 32% increase)
- Answered questions:
  - 17,414 ( +5154, 42% increase)
- New questions in July:
  - 523 (16.9 / day, 0% increase)

Source: Askbot
Sampled: 2015-09-11
Histogram of users by karma. Users get karma points for having answers upvoted (+10) or accepted (+15) and for accepting someone else’s answer (+2).
Code Metrics

Engaging with the ROS project at a code level (developers and users)
Binary Downloads – July 2015

- Total Unique IP addresses downloading .deb files:
  - 46,611 (5% decrease)
- Total downloads of .deb packages:
  - 3,270,752 (8% decrease)
- Unique package names downloaded as .deb files:
  - 5,592 (40% increase)
- Number of unique versions of .deb packages downloaded:
  - 38,415 (17% decrease)

Source: Apache2, counting only downloads from the main repository (not the testing repository, shadow-fixed, or mirrors). Some server logs may have been lost prior to analysis.
<table>
<thead>
<tr>
<th>Package Name</th>
<th>Downloads</th>
<th>Dependent Package Name</th>
<th>Downloads</th>
</tr>
</thead>
<tbody>
<tr>
<td>python-rosdistro</td>
<td>10334</td>
<td>ros-indigo-actionlib-msgs</td>
<td>7040</td>
</tr>
<tr>
<td>python-catkin-pkg</td>
<td>10331</td>
<td>ros-indigo-message-filters</td>
<td>7040</td>
</tr>
<tr>
<td>python-rosdep</td>
<td>9912</td>
<td>ros-indigo-rostest</td>
<td>7039</td>
</tr>
<tr>
<td>python-rospkg</td>
<td>9910</td>
<td>ros-indigo-rosgraph-storage</td>
<td>7035</td>
</tr>
<tr>
<td>ros-indigo-rosbuild</td>
<td>7098</td>
<td>ros-indigo-topic-tools</td>
<td>7034</td>
</tr>
<tr>
<td>ros-indigo-roscpp-traits</td>
<td>7097</td>
<td>ros-indigo-rosgraph</td>
<td>7033</td>
</tr>
<tr>
<td>ros-indigo-xmlrpcpp</td>
<td>7097</td>
<td>ros-indigo-rostest</td>
<td>7026</td>
</tr>
<tr>
<td>ros-indigo-rosconsole</td>
<td>7096</td>
<td>ros-indigo-rosgen</td>
<td>7024</td>
</tr>
<tr>
<td>ros-indigo-message-runtime</td>
<td>7096</td>
<td>ros-indigo-actionlib</td>
<td>7023</td>
</tr>
<tr>
<td>ros-indigo-cpp-common</td>
<td>7096</td>
<td>ros-indigo-rosservice</td>
<td>7022</td>
</tr>
<tr>
<td>ros-indigo-roscpp-serialization</td>
<td>7095</td>
<td>ros-indigo-rosmsg</td>
<td>7022</td>
</tr>
<tr>
<td>ros-indigo-rostime</td>
<td>7094</td>
<td>ros-indigo-pluginlib</td>
<td>7017</td>
</tr>
<tr>
<td>ros-indigo-roscpp</td>
<td>7093</td>
<td>ros-indigo-roswtf</td>
<td>7010</td>
</tr>
<tr>
<td>ros-indigo-rosgraph-msgs</td>
<td>7088</td>
<td>python-wstool</td>
<td>7004</td>
</tr>
<tr>
<td>ros-indigo-std-msgs</td>
<td>7082</td>
<td>ros-indigo-std-srvs</td>
<td>6982</td>
</tr>
<tr>
<td>ros-indigo-rospy</td>
<td>7063</td>
<td>ros-indigo-nav-msgs</td>
<td>6970</td>
</tr>
<tr>
<td>ros-indigo-geometry-msgs</td>
<td>7062</td>
<td>ros-indigo-bondep</td>
<td>6967</td>
</tr>
<tr>
<td>ros-indigo-sensor-msgs</td>
<td>7057</td>
<td>ros-indigo-diagnostic-msgs</td>
<td>6966</td>
</tr>
<tr>
<td>ros-indigo-roslaunch</td>
<td>7048</td>
<td>ros-indigo-dynamic-reconfigure</td>
<td>6961</td>
</tr>
<tr>
<td>ros-indigo-rosout</td>
<td>7045</td>
<td>ros-indigo-nodelet</td>
<td>6961</td>
</tr>
</tbody>
</table>
Binary Downloads by rosdistro

The fraction of packages downloaded per rosdistro

- Electric: 0.01 %
- Fuerte: 0.80 %
- Groovy: 3.21 %
- Hydro: 19.46 %
- Indigo: 53.40 % (Long Term Support Release)
- Jade: 10.70 %

Source: Apache2, counting only downloads from the main repository (not the testing repository, shadow-fixed, or mirrors)
Public Debian Package Mirrors

- Hefei (China)
- Sun Yat-Sen University (China)
- Shanghai (China)
- Unspecified (China)
- Ireland
- Freiburg (Germany)
- Delft University of Technology (The Netherlands)
- University of Maryland (USA)
- Case Western Reserve University (USA)
- Centro Universitário da FEI (Brazil)
- University of Tokyo (Japan)

This report does not include data from these mirrors.

Source: http://wiki.ros.org/ROS/Installation/UbuntuMirrors
The rosdistro [http://github.com/ros/rosdistro](http://github.com/ros/rosdistro) is the repository where releases are managed and the main index of publicly announced ROS packages. Most pull requests on this repository are requests for indexing or packaging of ROS packages.
Research use

Number of papers citing “ROS: an open-source Robot Operating System” (Quigley et al., 2009):

1843 (52% increase)

Source: Google Scholar 2015-09-11
The number of different types of robots available to the community with ROS drivers.

Source: Ken Conley, Tully Foote, wiki.ros.org/Robots