



# Community Metrics Report

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Reporting on July 2019

Comparisons are to July 2018 Report

# Contents

Awareness Metrics  
Membership Metrics  
Engagement Metrics  
Code Metrics

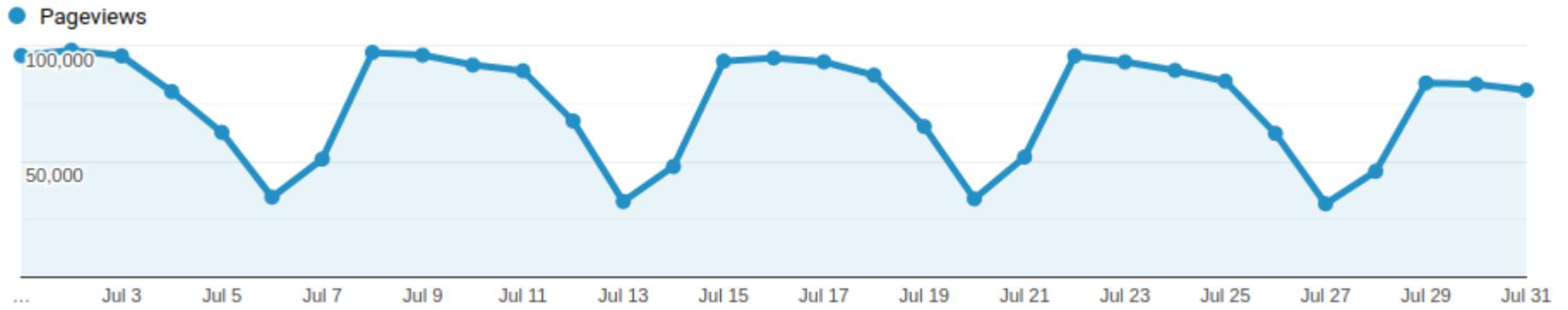
Source: Metrics categories borrowed from Dawn Foster of MeeGo:  
<http://wiki.meego.com/Metrics>

# Awareness Metrics

Discovering the community, learning more about it  
(potential community members)

# ros.org: Visitors & Page Views

# wiki.ros.org Visitors: July 2019



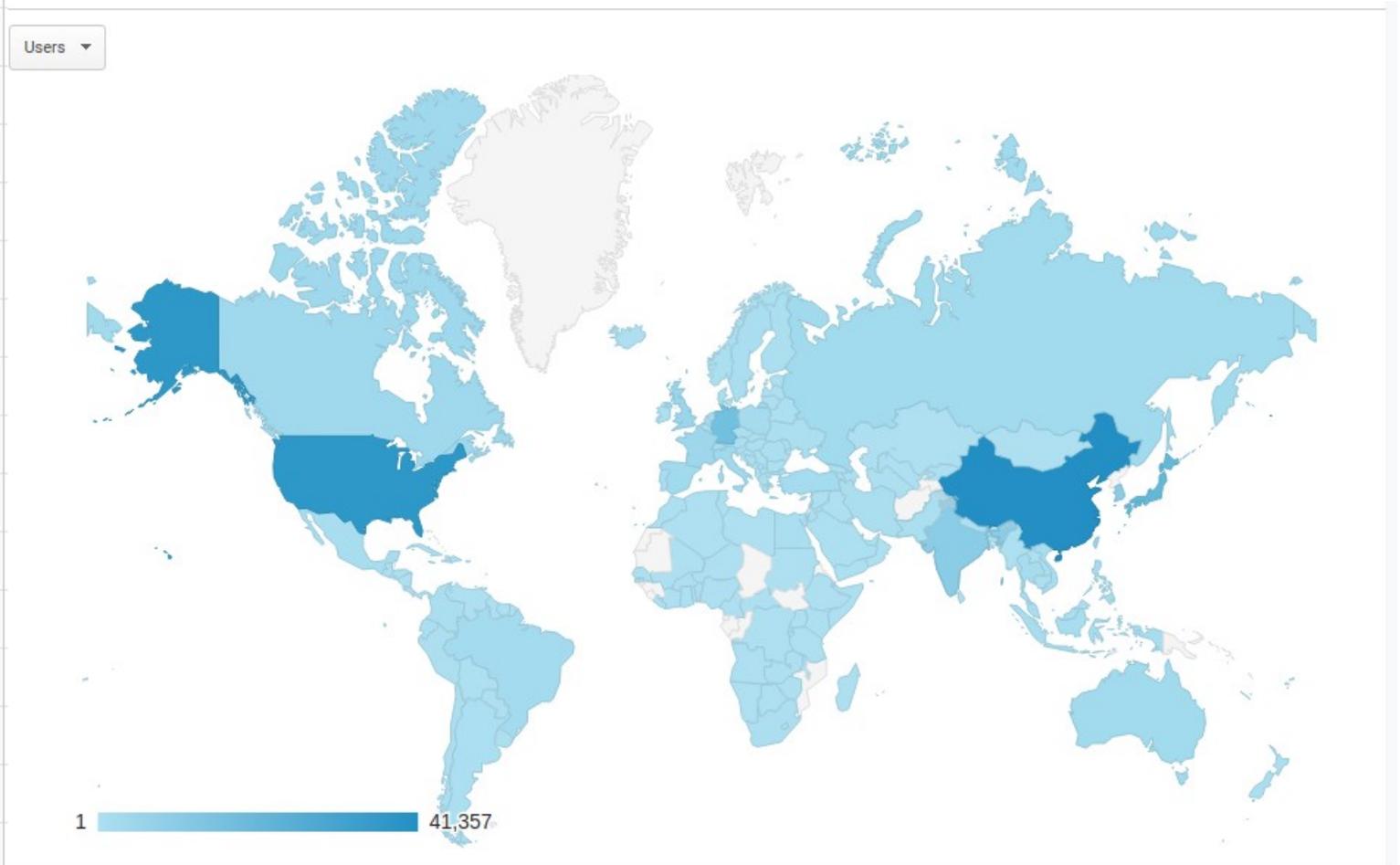
<b>Users</b> <b>203,403</b>	<b>New Users</b> <b>128,953</b>
<b>Sessions</b> <b>720,326</b>	<b>Number of Sessions per User</b> <b>3.54</b>
<b>Pageviews</b> <b>2,307,659</b>	<b>Pages / Session</b> <b>3.20</b>
<b>Avg. Session Duration</b> <b>00:06:42</b>	<b>Bounce Rate</b> <b>47.72%</b>

Site: wiki.ros.org  
 Source: Google Analytics  
 Annual Growth: 5%

Page ?	Pageviews ? ↓
	<b>2,307,659</b> % of Total: 100.00% (2,307,659)
1. /ROS/Tutorials	<b>107,466</b> (4.66%)
2. /kinetic/Installation/Ubuntu	<b>58,837</b> (2.55%)
3. /	<b>57,317</b> (2.48%)
4. /ROS/Installation	<b>49,095</b> (2.13%)
5. /kinetic/Installation	<b>38,889</b> (1.69%)
6. /melodic/Installation/Ubuntu	<b>37,539</b> (1.63%)
7. /ROS/Tutorials/InstallingandConfiguringROSEnvironment	<b>30,438</b> (1.32%)
8. /cn/ROS/Tutorials	<b>28,308</b> (1.23%)
9. /melodic/Installation	<b>27,874</b> (1.21%)
10. /ROS/Tutorials/CreatingPackage	<b>25,987</b> (1.13%)

# wiki.ros.org visitor locations:

1.	 China	<b>41,357</b> (19.88%)
2.	 United States	<b>36,531</b> (17.56%)
3.	 Japan	<b>19,738</b> (9.49%)
4.	 Germany	<b>15,525</b> (7.46%)
5.	 South Korea	<b>9,382</b> (4.51%)
6.	 India	<b>9,345</b> (4.49%)
7.	 United Kingdom	<b>4,972</b> (2.39%)
8.	 Taiwan	<b>4,856</b> (2.33%)
9.	 France	<b>4,056</b> (1.95%)
10.	 Canada	<b>3,854</b> (1.85%)
11.	 Singapore	<b>3,516</b> (1.69%)
12.	 Italy	<b>3,464</b> (1.66%)
13.	 Russia	<b>3,207</b> (1.54%)
14.	 Australia	<b>3,114</b> (1.50%)
15.	 Spain	<b>3,080</b> (1.48%)
16.	 Hong Kong	<b>2,941</b> (1.41%)
17.	 Brazil	<b>2,548</b> (1.22%)
18.	 Turkey	<b>2,253</b> (1.08%)
19.	 Netherlands	<b>1,822</b> (0.88%)
20.	 Poland	<b>1,820</b> (0.87%)
21.	 Philippines	<b>1,711</b> (0.82%)
22.	 Thailand	<b>1,585</b> (0.76%)
23.	 Switzerland	<b>1,478</b> (0.71%)
24.	(not set)	<b>1,429</b> (0.69%)
25.	 Indonesia	<b>1,345</b> (0.65%)



Source: Google Analytics  
Site: wiki.ros.org in July 2019

# Public wiki.ros.org Mirrors

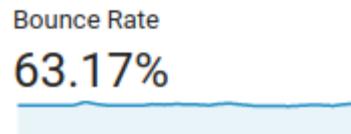
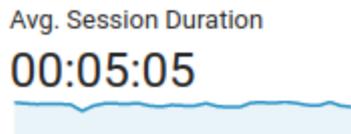
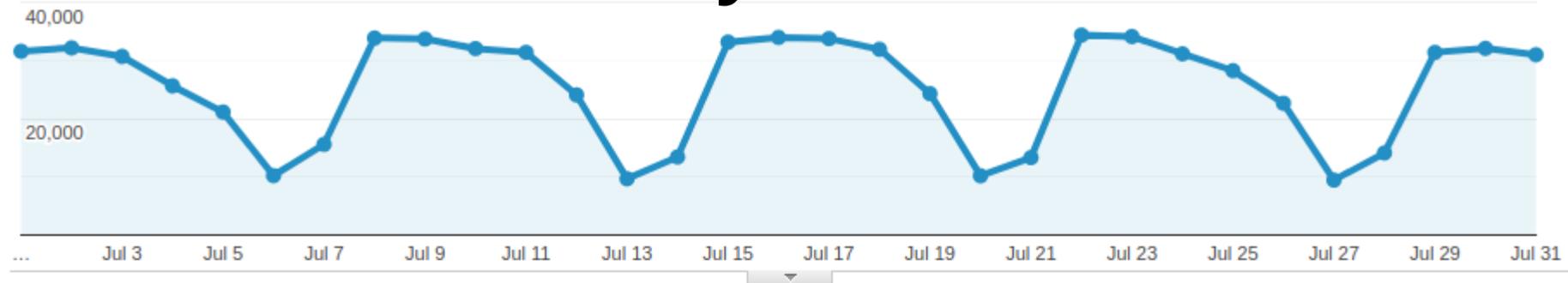
- Asia:
  - Singapore
  - China
  - Tokyo, Japan
  - Ho Chi Minh, Vietnam
- Europe:
  - Ireland
  - Freiburg, Germany
  - Barcelona, Catalonia
- North America:
  - College Park, Maryland
  - Saint Louis, Massachusetts
  - Potsdam, New York
- South America
  - Sao Paulo, Brazil

This report does not include data from these mirrors.

Source: <http://wiki.ros.org/Mirrors>

# answers.ros.org visitors: July 2019

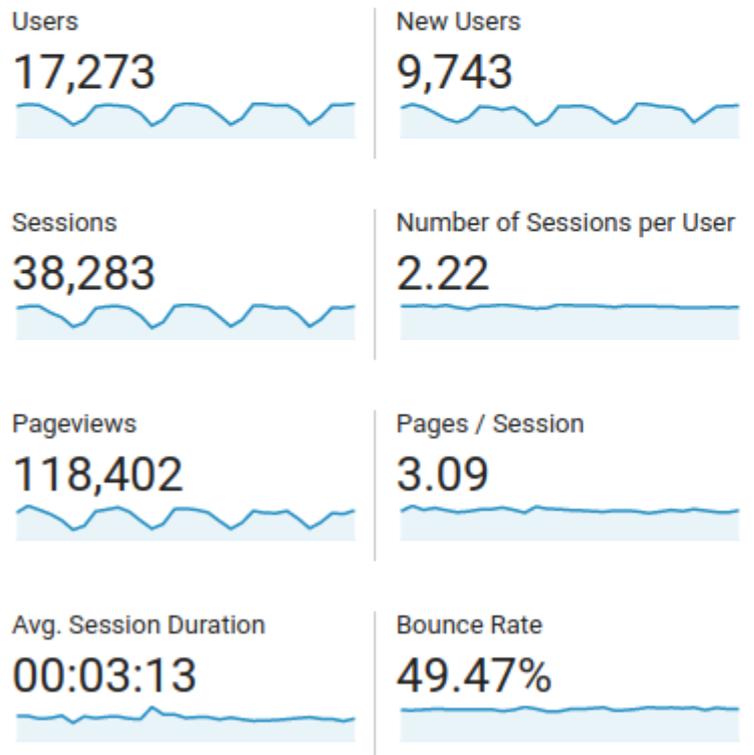
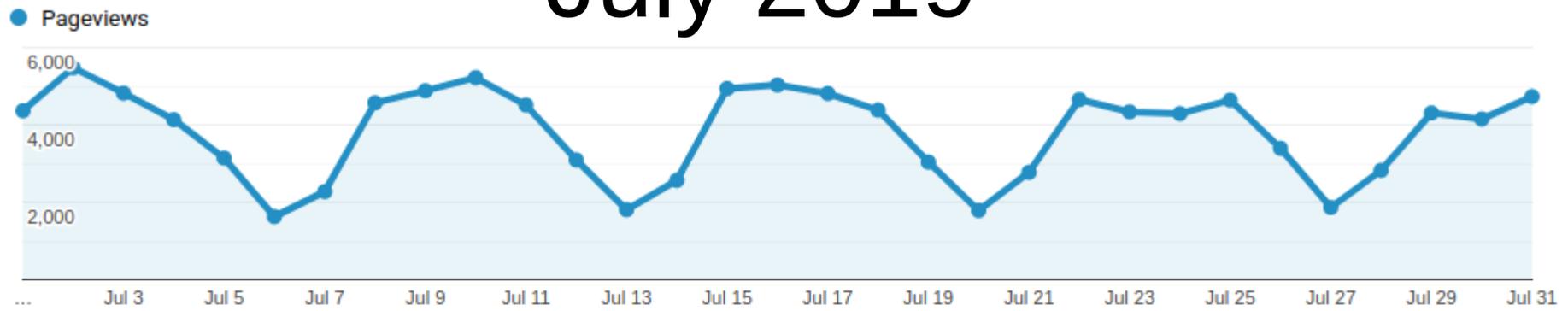
● Pageviews



Site:  
answers.ros.org  
Source: Google Analytics  
Annual Growth:  
22%

Page ?	Pageviews ? ↓
	<b>793,740</b> % of Total: 100.00% (793,740)
1. /questions/	<b>14,781</b> (1.86%)
2. /question/325039/apt-update-fails-cannot-install-pkgs-key-not-working/	<b>5,422</b> (0.68%)
3. /question/57213/how-i-completely-remove-all-ros-from-my-system/	<b>2,844</b> (0.36%)
4. /questions/ask/	<b>2,316</b> (0.29%)
5. /question/143496/roslaunch-is-neither-a-launch-file-in-package-nor-is-a-launch-file-name/	<b>2,014</b> (0.25%)
6. /question/87866/how-to-edit-the-bashrc-file/	<b>2,002</b> (0.25%)
7. /question/33769/how-to-get-ros-version/	<b>1,871</b> (0.24%)
8. /question/235397/e-unable-to-locate-package-ros-kinetic-desktop-full/	<b>1,791</b> (0.23%)
9. /question/39657/importerror-no-module-named-rospkg/	<b>1,481</b> (0.19%)
10. /question/195962/rviz-fixed-frame-world-does-not-exist/	<b>1,412</b> (0.18%)

# index.ros.org visitors: July 2019



Site: index.ros.org  
Source: Google Analytics  
Annual Growth: N/A First Report

Page ?	Pageviews ? ↓
	<b>118,402</b> % of Total: 100.00% (118,402)
1. /doc/ros2/	<b>15,758</b> (13.31%)
2. /doc/ros2/Installation/	<b>8,226</b> (6.95%)
3. /doc/ros2/Installation/Dashing/	<b>6,692</b> (5.65%)
4. /doc/ros2/Tutorials/	<b>5,345</b> (4.51%)
5. /packages/	<b>4,994</b> (4.22%)
6. /doc/ros2/Installation/Dashing/Linux-Install-Debians/	<b>4,238</b> (3.58%)
7. /doc/ros2/Tutorials/Colcon-Tutorial/	<b>3,963</b> (3.35%)
8. /doc/ros2/Installation/Crystal/Linux-Install-Debians/	<b>2,564</b> (2.17%)
9. /doc/ros2/Installation/Crystal/	<b>2,510</b> (2.12%)
10. /doc/ros2/Installation/Dashing/Linux-Development-Setup/	<b>2,260</b> (1.91%)

# Membership Metrics

Taking the time to sign up and join the community  
(passive and active community members)

# Site & list membership

- discourse.ros.org users
  - 4.2k (39% increase)
- ros-users@lists.ros.org subscribers (deprecated):
  - 1,902 (2% decrease)
- wiki.ros.org users:
  - 8,473 (10% increase)
- answers.ros.org users:
  - 34,054 (51% increase)

Answers is currently subject to a profile spam attack. There are several thousand zero trust users that need to be cleared.

# Engagement Metrics

Interacting with other community members  
(active community members)

# wiki.ros.org: activity in July 2018

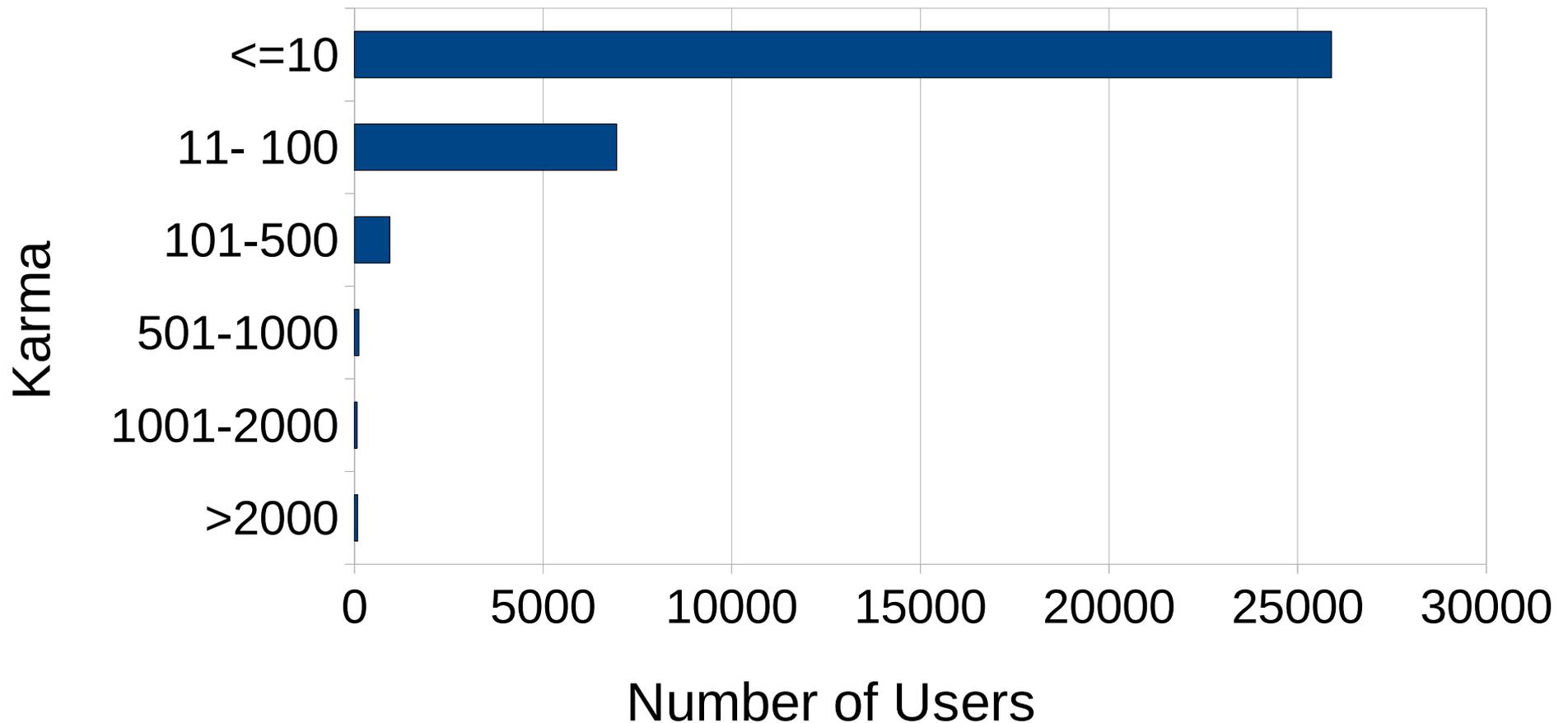
- Wiki pages:
  - 117,488 ( 15% increase )
- Wiki page edits:
  - 24.1 / day (averaged over July, 40% increase)
- Wiki page views:
  - 74,440 / day (averaged over July, 5% increase)

# answers.ros.org: activity

- Total questions:
  - 48,222 (14% increase)
- Answered questions:
  - 32,605 ( 11% increase)
- New questions in July:
  - 677 (21.8 / day, 4% increase)

# answers.ros.org Karma

Sampled 2019-08-26



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).

# discourse.ros.org activity

## Site Statistics

	Last 7	Last 30	All Time
Topics	26	95	3.1k
Posts	208	912	24.0k
Users	42	140	4.2k
Active Users	375	682	—
Likes	106	363	7.9k

Source: <http://discourse.ros.org/about>  
Sampled: 2019-08-19

# Code Metrics

Engaging with the ROS project at a code level  
(developers and users)

# Binary Downloads – July 2019

- Total Unique Visitors downloading .deb files:
  - 437,687 ( 33 % increase)
- Total downloads of .deb packages:
  - 20,645,089 (27% increase)
- Unique package names downloaded as .deb files:
  - 11,403 (3% decrease)
- Number of unique versions of .deb packages downloaded:
  - 55,277 (22 % 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.

# Top 40 Downloaded Packages

Direct downloads from packages.ros.org - July 2019

python-catkin-pkg-modules	83057	ros-kinetic-geneus	49546
python-catkin-pkg	82967	ros-kinetic-genpy	49541
python-rosdep	75091	ros-kinetic-gennodejs	49533
python-rospkg-modules	73874	ros-kinetic-genlisp	49533
python-rospkg	73853	ros-kinetic-std-srvs	49532
python-rosdistro	73468	ros-kinetic-genmsg	49523
python-rosdistro-modules	73370	ros-kinetic-gencpp	49518
ros-kinetic-actionlib	52232	ros-kinetic-message-generation	49492
ros-kinetic-pluginlib	51652	ros-kinetic-roslaunch	49465
ros-kinetic-class-loader	51512	ros-kinetic-cpp-common	49453
ros-kinetic-roscpp	50477	ros-kinetic-rosout	49386
ros-kinetic-catkin	50380	ros-kinetic-rosparam	49380
ros-kinetic-dynamic-reconfigure	50238	ros-kinetic-sensor-msgs	49370
ros-kinetic-std-msgs	49897	ros-kinetic-rostest	49357
ros-kinetic-rosgraph-msgs	49888	ros-kinetic-rosmaster	49291
ros-kinetic-rosconsole	49837	ros-kinetic-rosbuild	49288
ros-kinetic-message-filters	49779	ros-kinetic-message-runtime	49275
ros-kinetic-xmlrpcpp	49708	ros-kinetic-rostime	49269
ros-kinetic-geometry-msgs	49673	ros-kinetic-roslib	49255
ros-kinetic-rospy	49655	ros-kinetic-rosbag	49249

# Downloads by architecture

Direct downloads from packages.ros.org - July 2019

Results larger than 0.001%

i386: 0.93 %  
amd64: 87.24 %  
armhf: 2.60 %  
arm64: 4.29 %  
source: 0.00 %

artful\_amd64: 0.00 %  
bionic\_amd64: 25.30 %  
bionic\_arm64: 2.43 %  
bionic\_armhf: 0.82 %  
precise\_amd64: 0.05 %  
precise\_i386: 0.00 %  
quantal\_amd64: 0.00 %  
quantal\_i386: 0.00 %  
saucy\_amd64: 0.00 %  
saucy\_i386: 0.00 %  
stretch\_amd64: 0.38 %  
stretch\_arm64: 0.05 %  
stretch\_armhf: 0.00 %

trusty\_amd64: 5.83 %  
trusty\_armhf: 0.13 %  
trusty\_i386: 0.16 %  
utopic\_amd64: 0.00 %  
utopic\_i386: 0.00 %  
xenial\_amd64: 50.27 %  
xenial\_arm64: 1.61 %  
xenial\_armhf: 1.45 %  
xenial\_i386: 0.68 %

# Binary Downloads by rosdistro

The fraction of packages downloaded per rosdistro

- Hydro and earlier: 0.00 %
- Indigo: 5.02 % (Long Term Support Release)
- Jade: 0.00 %
- Kinetic: 53.06 % (Long Term Support Release)
- Lunar: 0.85 %
- Melodic: 26.71 % (Long Term Support Release)
- Bouncy and earlier ROS 2: 0.12 %
- Crystal 0.62 %
- Dashing 1.51 % (Long Term Support Release)
- Rosdistro independent: 12.10% (packages like python-roscpp and python-roscpp, as well as backported 3rdparty libraries like pcl and colladadom)

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

# Public Debian Package Mirrors

- USTC (China)
- Tsinghua University (China)
- Ireland
- Singapore
- Freiburg (Germany)
- Delft University of Technology (The Netherlands)
- Clarkson University (USA)
- University of Maryland (USA)
- Centro Universitário da FEI (Brazil)
- University of Tokyo(Japan)

This report does not include data from these mirrors.

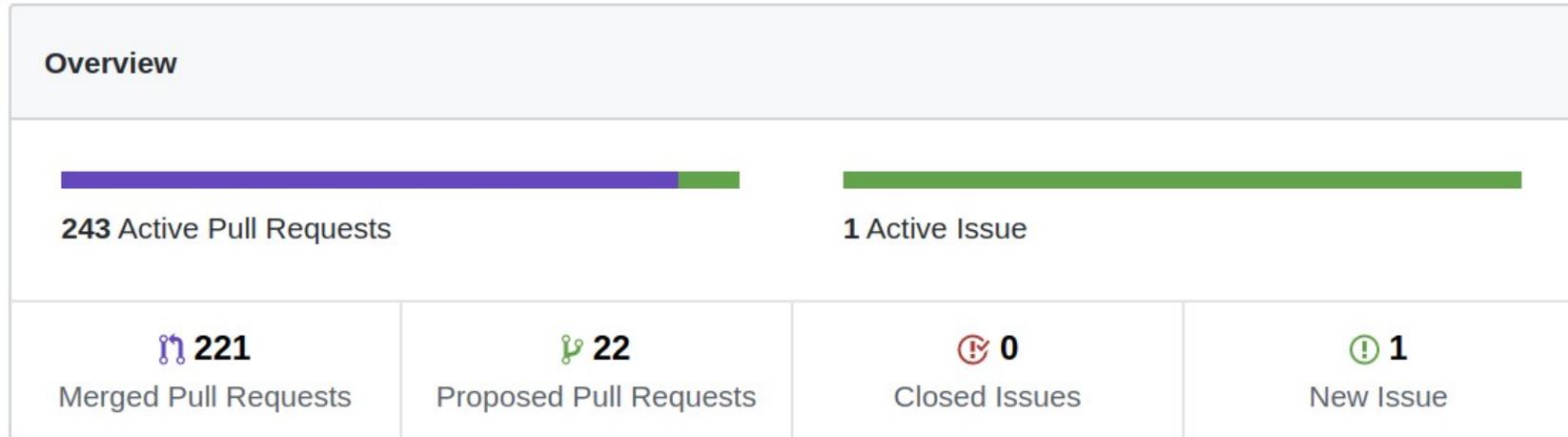
Source:

<http://wiki.ros.org/ROS/Installation/UbuntuMirrors>

# rostdistro activity

July 19, 2019 – August 19, 2019

Period: 1 month ▾



Excluding merges, **65 authors** have pushed **234 commits** to master and **234 commits** to all branches. On master, **10 files** have changed and there have been **1,330 additions** and **258 deletions**.



The rostdistro <http://github.com/ros/rostdistro> 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

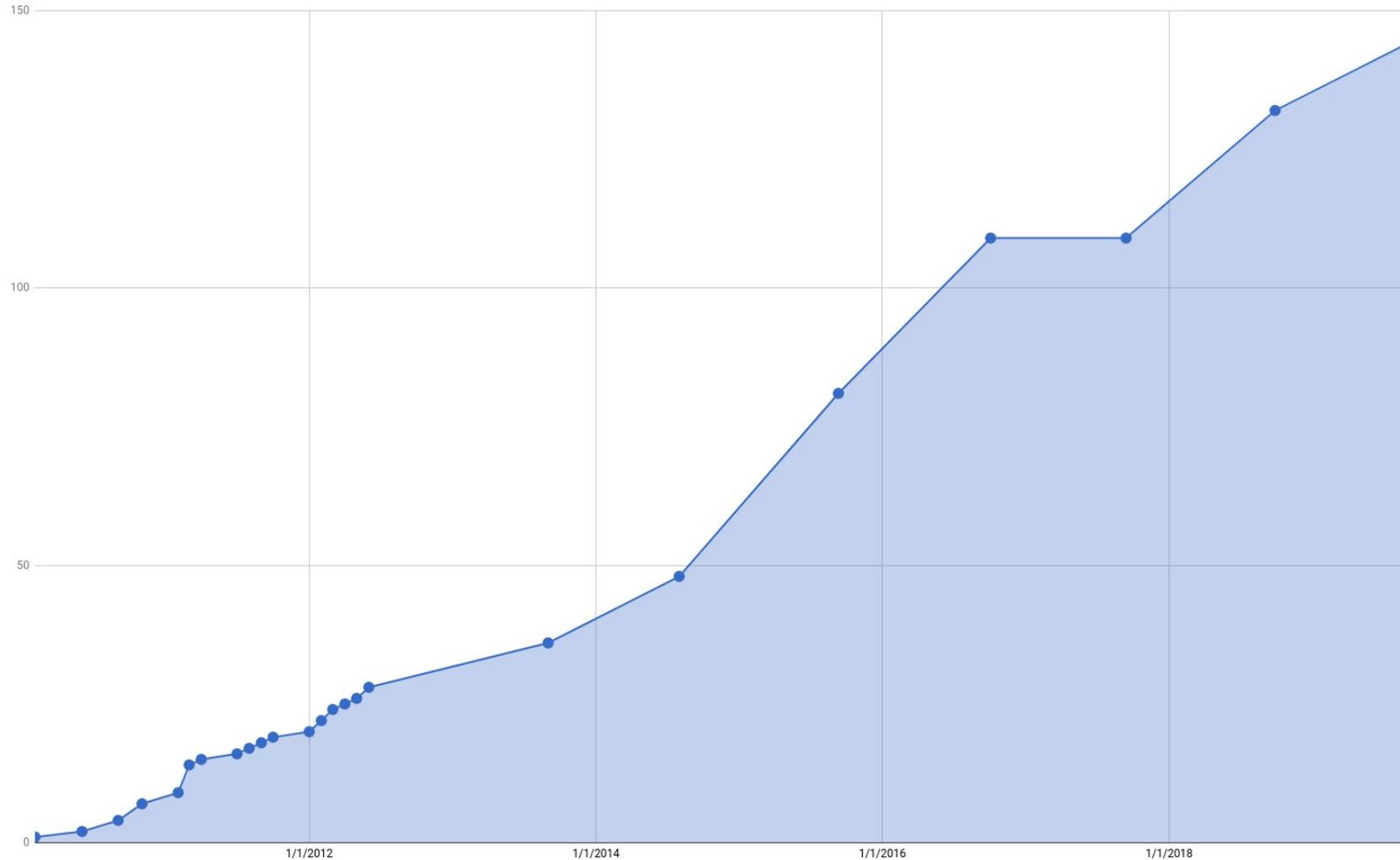
Total number of papers citing “ROS: an open-source Robot Operating System” (Quigley et al., 2009):

5875 ( 22% increase)

Source: Google Scholar 2019-08-19

# Documented ROS Robots

Robots listed on robots.ros.org



The number of different types of robots available to the community with ROS drivers.

Source: Ken Conley, Tully Foote, [wiki.ros.org/Robots](http://wiki.ros.org/Robots), 2017 changed over to robots.ros.org