



Community Metrics Report

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Reporting on August 2020

Comparisons are to July 2019 Report

Contents

Awareness Metrics
Membership Metrics
Engagement Metrics
Code Metrics

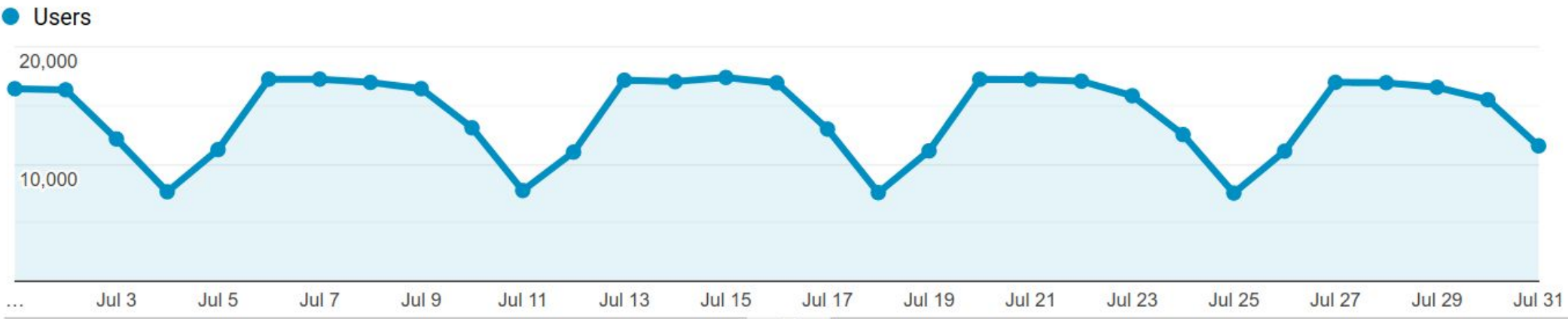
Source: Metrics categories borrowed from Dawn Foster of MeeGo:
<http://wiki.meego.com/Metrics>

Awareness Metrics

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

ros.org: Visitors & Page Views

wiki.ros.org Visitors: July 2020



Users

199,537

New Users

129,277

Sessions

698,049

Number of Sessions per User

3.50

Pageviews

2,026,515

Pages / Session

2.90

Avg. Session Duration

00:06:07

Bounce Rate

50.38%

Site: wiki.ros.org
Source: Google Analytics
YoY Growth: -1.9%

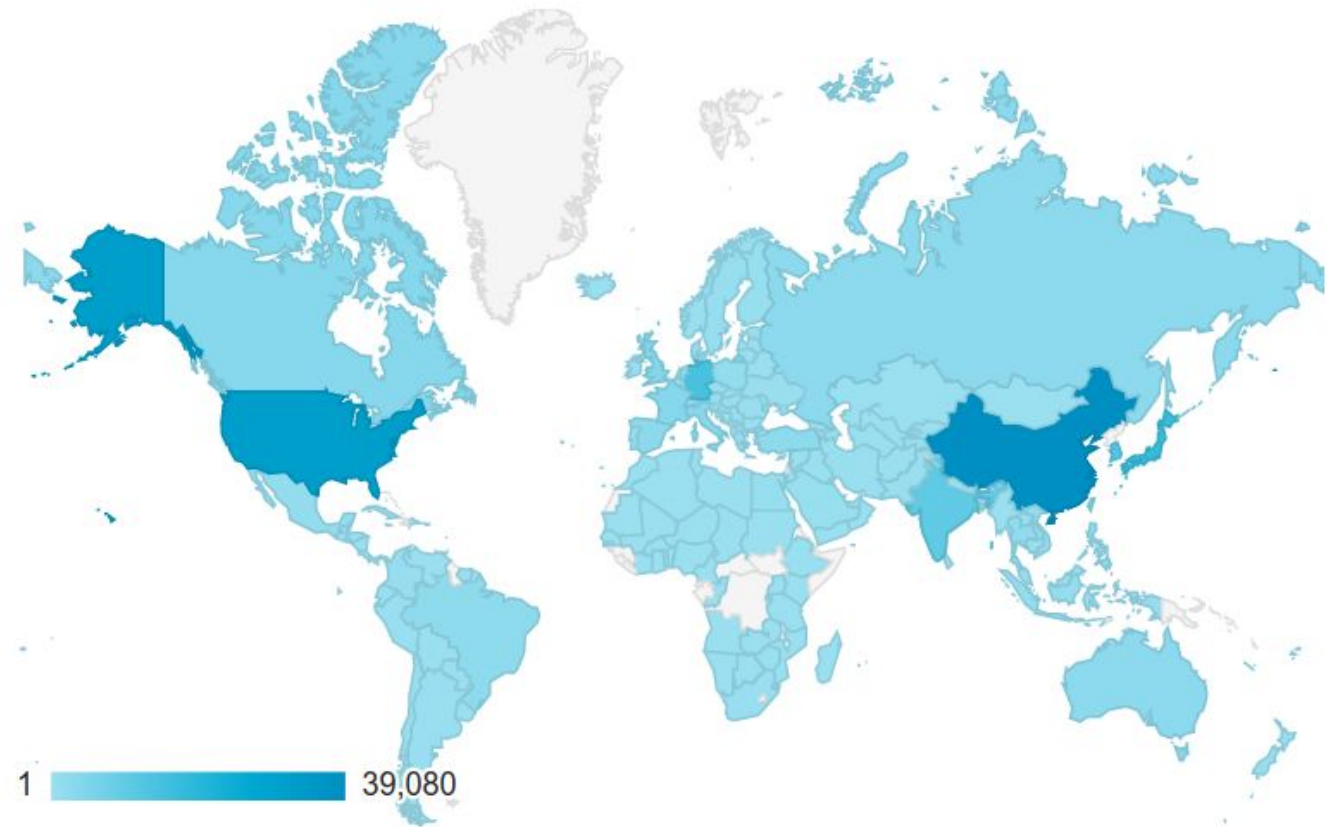
1.	en-us	89,799 (44.61%)
2.	zh-cn	34,855 (17.32%)
3.	en-gb	11,736 (5.83%)
4.	ja	10,059 (5.00%)
5.	ko-kr	6,749 (3.35%)
6.	en	6,536 (3.25%)
7.	zh-tw	4,038 (2.01%)
8.	de-de	3,931 (1.95%)
9.	de	3,546 (1.76%)
10.	ja-jp	2,796 (1.39%)

wiki.ros.org YoY Visitors: July 2020

<input type="checkbox"/>	User Type [?]	Acquisition			Behavior		
		Users [?] ↓	New Users [?]	Sessions [?]	Bounce Rate [?]	Pages / Session [?]	Avg. Session Duration [?]
		0.48% ↓ 199,537 vs 200,493	1.96% ↑ 129,811 vs 127,311	1.01% ↓ 698,049 vs 705,164	5.37% ↑ 50.38% vs 47.81%	9.09% ↓ 2.90 vs 3.19	8.05% ↓ 00:06:07 vs 00:06:39
<input type="checkbox"/>	1. New Visitor						
	Jul 1, 2020 - Jul 31, 2020	130,233 (52.71%)	129,811 (100.00%)	129,811 (18.60%)	57.38%	2.54	00:03:50
	Jul 3, 2019 - Aug 2, 2019	127,556 (52.01%)	127,311 (100.00%)	127,311 (18.05%)	56.90%	2.69	00:04:04
	% Change	2.10%	1.96%	1.96%	0.85%	-5.44%	-5.63%
<input type="checkbox"/>	2. Returning Visitor						
	Jul 1, 2020 - Jul 31, 2020	116,824 (47.29%)	0 (0.00%)	568,238 (81.40%)	48.77%	2.99	00:06:38
	Jul 3, 2019 - Aug 2, 2019	117,701 (47.99%)	0 (0.00%)	577,853 (81.95%)	45.81%	3.30	00:07:13
	% Change	-0.75%	0.00%	-1.66%	6.48%	-9.65%	-8.09%

wiki.ros.org visitor locations:

	100%
1.  China	39,080 (19.26%)
2.  United States	31,853 (15.70%)
3.  Japan	16,766 (8.26%)
4.  Germany	14,521 (7.16%)
5.  South Korea	12,583 (6.20%)
6.  India	10,700 (5.27%)
7.  Taiwan	5,904 (2.91%)
8.  United Kingdom	4,150 (2.05%)
9.  France	3,994 (1.97%)
10.  Singapore	3,881 (1.91%)
11.  Canada	3,748 (1.85%)
12.  Italy	3,590 (1.77%)
13.  Hong Kong	3,509 (1.73%)
14.  Spain	2,936 (1.45%)
15.  Russia	2,820 (1.39%)
16.  Australia	2,782 (1.37%)
17.  Turkey	2,393 (1.18%)
18.  Brazil	2,285 (1.13%)
19.  Netherlands	1,950 (0.96%)
20.  Thailand	1,912 (0.94%)
21.  Philippines	1,845 (0.91%)
22.  Poland	1,594 (0.79%)
23.  Vietnam	1,477 (0.73%)
24.  Mexico	1,430 (0.70%)



Source: Google Analytics
Site: wiki.ros.org in July 2020

Public wiki.ros.org Mirrors

- Asia:
 - Singapore
 - China
 - Tokyo, Japan
 - Ho Chi Minh, Vietnam
- Europe:
 - Ireland
 - Freiburg, Germany
 - Barcelona, Catalonia

This report does not include data from these mirrors.

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

- North America:
 - College Park, Maryland
 - Saint Louis, Massachusetts
 - Potsdam, New York
- South America
 - Sao Paulo, Brazil

answers.ros.org visitors: July 2020

answers.ros.org
Source: Google Analytics
YoY Growth: 3.98%



Users

142,115

New Users

102,122

Sessions

393,043

Number of Sessions per User

2.77

Pageviews

795,114

Pages / Session

2.02

Avg. Session Duration

00:04:56

Bounce Rate

63.35%

Users

3.98%

142,115 vs 136,672

New Users

4.64%

102,122 vs 97,595

Sessions

8.28%

393,043 vs 362,980

Number of Sessions per User

4.14%

2.77 vs 2.66

Pageviews

8.91%

795,114 vs 730,043

Pages / Session

0.58%

2.02 vs 2.01

Avg. Session Duration

-2.60%

00:04:56 vs 00:05:04

Bounce Rate

0.18%

63.35% vs 63.24%

index.ros.org visitors: July 2020



Users

34,402



New Users

20,494



Sessions

87,862



Number of Sessions per User

2.55



Pageviews

250,913



Pages / Session

2.86



Avg. Session Duration

00:04:35



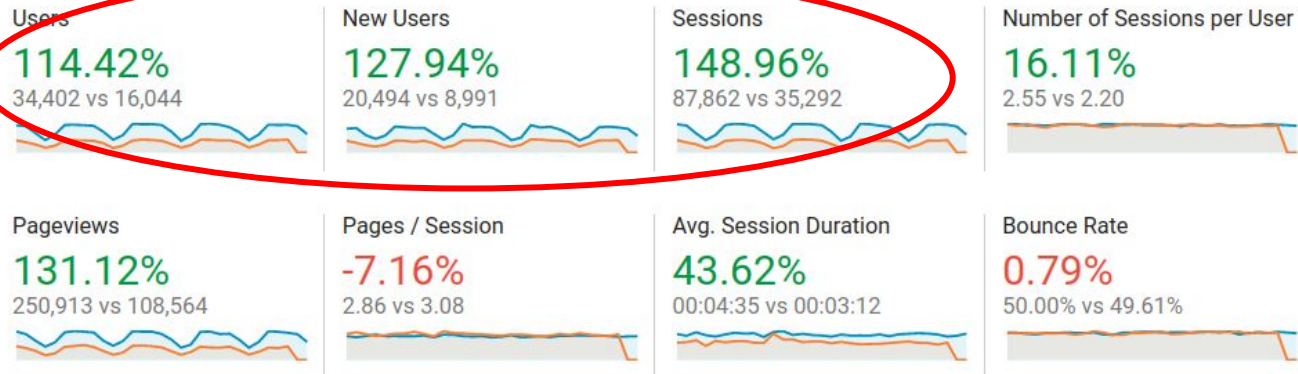
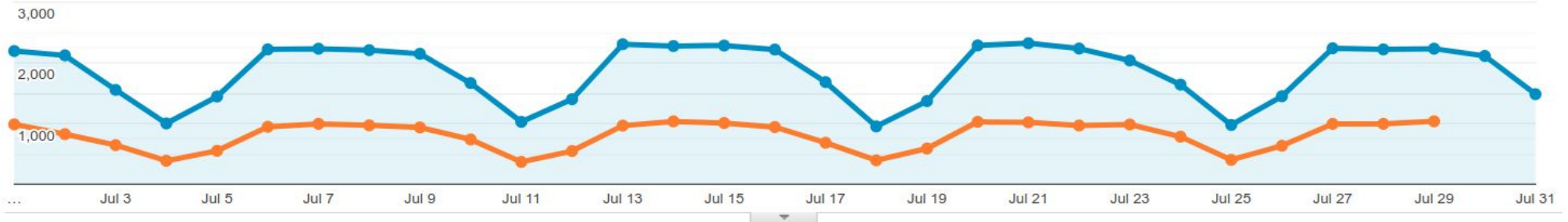
Bounce Rate

50.00%



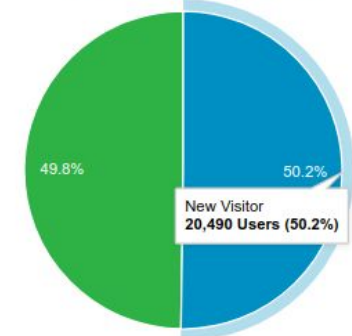
index.ros.org Year Over Year: July 2020

Jul 1, 2020 - Jul 31, 2020: ● Users
 Jul 3, 2019 - Jul 31, 2019: ● Users



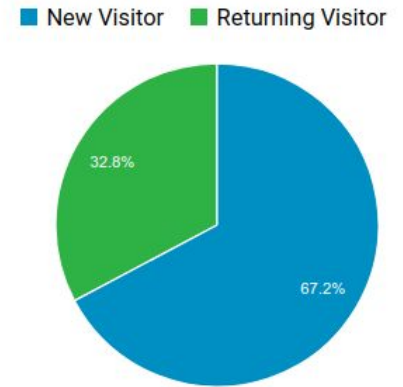
■ New Visitor ■ Returning Visitor

Jul 1, 2020 - Jul 31, 2020



discourse.ros.org Visitors

July 2020



discourse.ros.org Visitors YoY

July 2020



Users
16.18%
21,376 vs 18,399



New Users
14.73%
16,543 vs 14,419



Sessions
27.94%
39,662 vs 31,000



Number of Sessions per User
10.12%
1.86 vs 1.68



Pageviews
33.66%
79,110 vs 59,188



Pages / Session
4.47%
1.99 vs 1.91



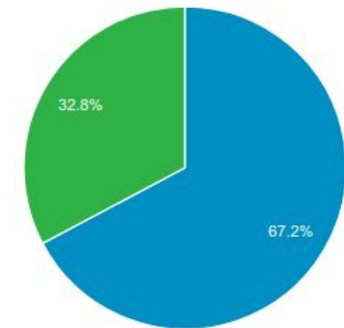
Avg. Session Duration
7.57%
00:02:05 vs 00:01:56



Bounce Rate
-2.64%
69.82% vs 71.72%



■ New Visitor ■ Returning Visitor
Jul 1, 2020 - Jul 31, 2020



Membership Metrics

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

Community Resource Membership

- discourse.ros.org users
 - 5.6k (33% increase)
- wiki.ros.org users:
 - 2019 \Rightarrow 2020
 - 8,473 \Rightarrow 9,148 (~8% increase)
- answers.ros.org users:
 - 40,530 (19% increase)

Sources: MailMan, MoinMoin,
askbot, Discourse
Sampled: 2020-08-20

Engagement Metrics

Interacting with other community members
(active community members)

wiki.ros.org: activity in July 2020

- Wiki pages:
 - 17,488 \Rightarrow 16542(-5.4% YoY)
 - This is due to removing cruft/spam
- Wiki page edits:
 - 21.8 / day (-9.5% YoY)
- Wiki page views:
 - 2019 \Rightarrow 2020
 - 2,374,659 \Rightarrow 2,026,525 (-12.18%)

answers.ros.org: activity

- Between 2019 \Rightarrow 2020
- Total Questions:
 - 48,222 \Rightarrow 54,205 (12.4% increase)
- Answered Questions:
 - 32,605 \Rightarrow 34,256 (5% increase)
- New questions in July:
 - 677 \Rightarrow 726
 - 21.8 / day \Rightarrow 23.4 / day
 - 7.2% Increase

discourse.ros.org activity

 Site Statistics	2019		
	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

 Site Statistics	2020		
	Last 7	Last 30	All Time
Topics	30	104	4.4k
Posts	290	1.2k	38.8k
Users	54	194	5.7k
Active Users	519	947	—
Likes	263	984	17.6k

Source: <http://discourse.ros.org/about>
Sampled: 2020-08-23

Code Metrics

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

Binary Downloads

	July 2019	July 2020	YoY Change
Total Packages	55277	86128	55.81%
Diff Pkgs	11403	16044	40.70%
Deb Downloads	20645089	38554145	86.75%
Unique Visitors	437,687	714,247	63.19%

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 20 Downloaded Packages

Direct downloads from packages.ros.org - July 2020

2020 Rank	Package Name	2020 Downloads	2019 Downloads	YoY % Change
1	<i>python-catkin-pkg-modules</i>	176359	83507	111.19%
2	<i>python-catkin-pkg</i>	174668	82976	110.50%
3	<i>python-rospkg-modules</i>	169937	73874	130.04%
4	<i>python-rospkg</i>	169401	73853	129.38%
5	<i>python-rosdistro-modules</i>	150564	73370	105.21%
6	<i>python-rosdistro</i>	150008	73468	104.18%
7	<i>python-rosdep-modules</i>	132648	73874	79.56%
8	<i>python-rosdep</i>	131927	75091	75.69%
9	ros-melodic-python-qt-binding	116712	23863	389.09%
10	ros-melodic-rviz	114501	22895	400.11%
11	ros-melodic-qt-gui	108777	19749	450.80%
12	ros-melodic-rqt-gui	108661	19003	471.81%
13	ros-melodic-rqt-gui-py	107082	18418	481.40%
14	ros-melodic-rqt-py-common	102931	17778	478.98%
15	ros-melodic-qt-gui-cpp	102593	17919	472.54%
16	ros-melodic-rqt-logger-level	102078	17443	485.21%
17	ros-melodic-rqt-console	102002	17437	484.97%
18	ros-melodic-rqt-gui-cpp	101900	17074	496.81%
19	ros-melodic-rqt-reconfigure	101209	17389	482.03%
20	ros-melodic-qt-gui-py-common	100917	17001	493.59%

Downloads by architecture

Direct downloads from packages.ros.org - July 2020

Results larger than 0.001%

Arch	2019 %	2020 %	YoY Change
i386	0.93	0.34	-0.59
amd64	87.24	87.35	0.11
armhf	2.6	1	-1.6
arm64	4.29	4.38	0.09
source	0	0	0

Downloads by architecture

Direct downloads from packages.ros.org - July 2020

Results larger than 0.001%

Arch	2019 %	2020 %	YoY Change
bionic_amd64	25.3	54.96	29.66
bionic_arm64	2.43	3.63	1.2
bionic_armhf	0.82	0.49	-0.33
buster_amd64	N/A	0.12	0.12
buster_arm64	N/A	0.02	0.02
focal_amd64	N/A	6.60	6.60
focal_arm64	N/A	0.36	0.36
focal_armhf	N/A	0.05	0.05
precise_amd64	0.05	0.06	0.01
stretch_amd64	0.38	0.15	-0.23
stretch_arm64	0.05	0.04	-0.01
trusty_amd64	5.83	1.25	-4.58
trusty_armhf	0.13	0.03	-0.1
trusty_i386	0.16	0.04	-0.12
xenial_amd64	50.27	21.35	-28.92
xenial_arm64	1.61	0.29	-1.32
xenial_armhf	1.45	0.38	-1.07
xenial_i386	0.68	0.26	-0.42

July Binary Downloads by rosdistro

Distro	2019 %	2020 %	YoY Change
hydro and earlier	<0.01	<0.01	0.0
indigo (LTS)	5.02	1.18	-3.84
jade	<0.01	<0.01	0.0
kinetic (LTS)	53.06	22.04	-31.02
lunar	0.85	0.18	-0.67
melodic (LTS)	26.71	47.06	20.35
noetic (LTS)	0	4.43	4.43
ardent	0.07	0.01	-0.06
bouncy	0.05	0.03	-0.02
crystal	0.62	0.12	-0.5
dashing LTS	1.51	7.3	5.79
eloquent	0	4.65	4.65
foxy (LTS)	0	2.14	2.14
none	12.1	10.78	-1.32

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

Public Debian Package Mirrors

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

This report does not include data from these mirrors.

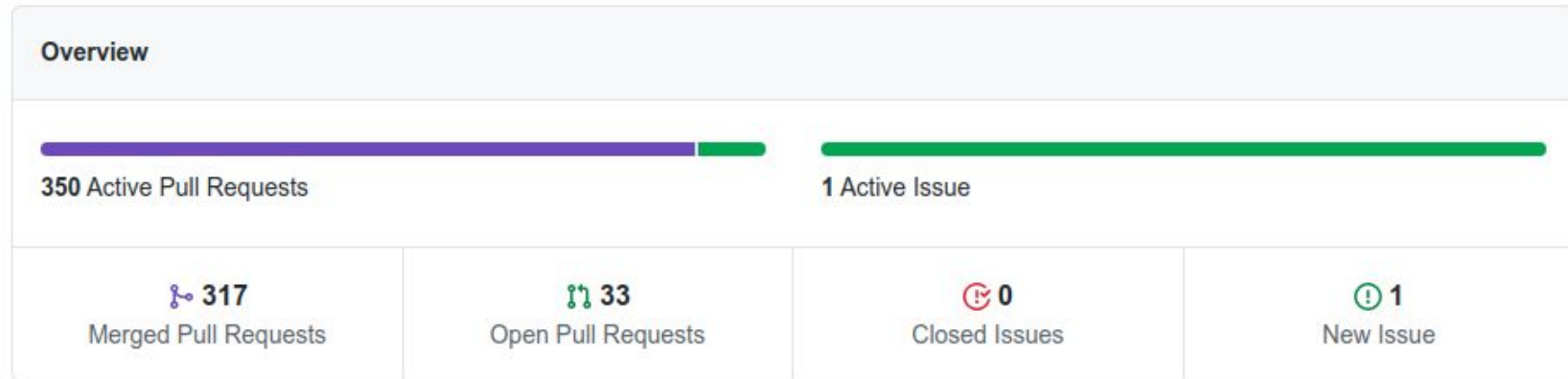
Source:

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

rostdistro activity (~up 43%)

July 24, 2020 – August 24, 2020

Period: 1 month ▾



Excluding merges, **89 authors** have pushed **317 commits** to master and **321 commits** to all branches. On master, **17 files** have changed and there have been **1,922 additions** and **238 deletions**.



317 Pull requests merged by 84 people

The rostdistro <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

Total number of papers citing:

[“ROS: an open-source Robot Operating System”](#)

(Quigley et al., 2009)

7410 (26% increase)