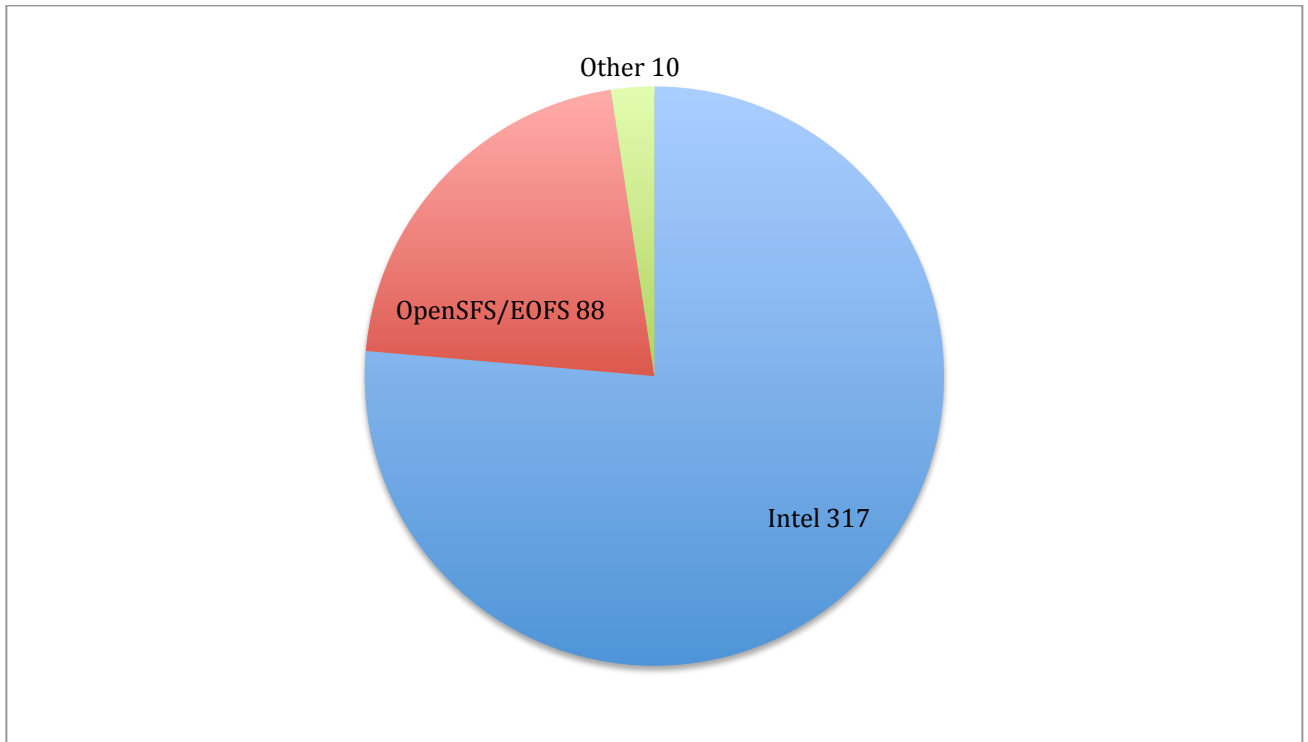




OpenSFS-Intel Lustre Tree Report - Q1 2013

This report provides a brief summary of the highlights of activity on the Lustre master branch for Q1 2013. The full details of landings can be seen at <http://tinyurl.com/wcgit>.

Landings By Organization



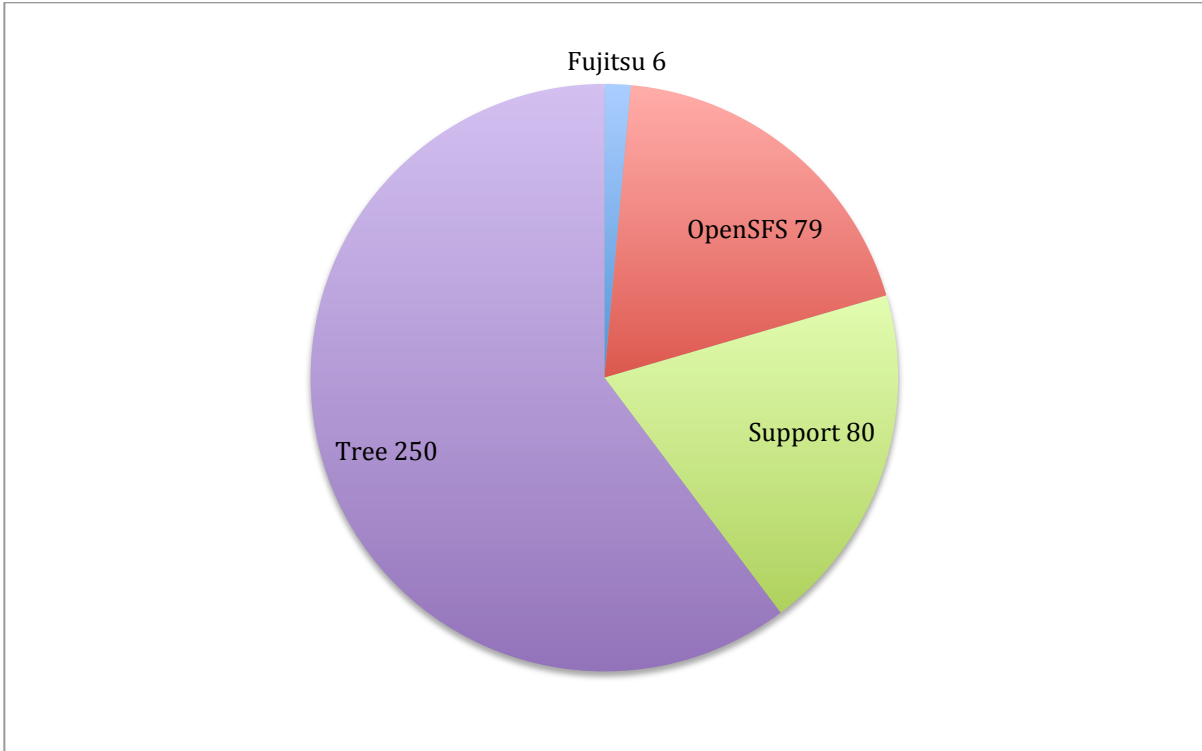
These are just straight totals of the number of landings made to master during the quarter broken down by the organization. Contributions from outside Intel are broken down by the contributing engineer's community affiliation.

Note that the number of landings is lower than the number of git commits because it excludes

- Landings which were subsequently reverted within the same cycle, thus reinstating the original code
- The creation of tags



Landings By Contract



Fujitsu: Landing of work contributed by Fujitsu

OpenSFS NRE: Landing of work funded by the OpenSFS-Intel NRE contract

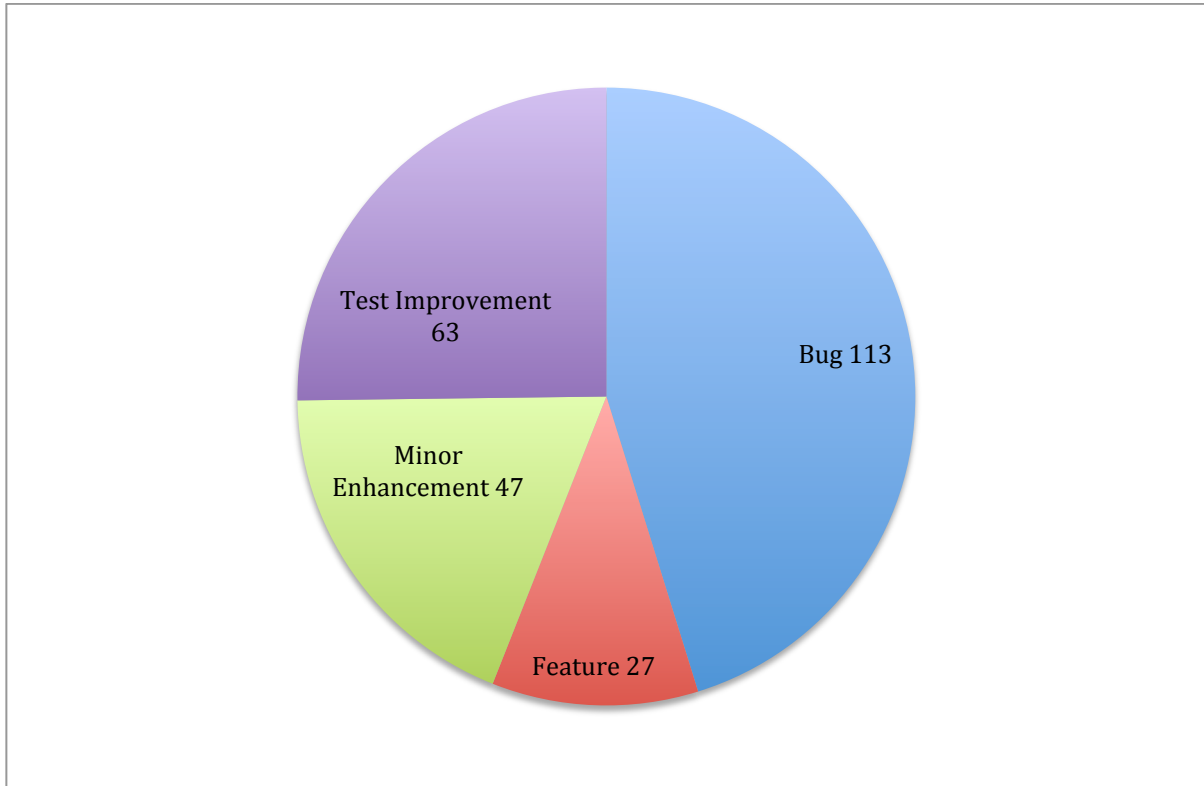
Support: Landing of work funded by Intel support contracts

Intel Funded/Open SFS Tree: Landing of work not covered by other contracts.

This work is partially funded by the OpenSFS-Intel Lustre Tree contract and otherwise covered by Intel.



Intel Funded/OpenSFS Tree Contract Landings by Type



Bug: Correcting Lustre code in response to a defect discovered by Intel or an unsupported organization

Feature: Enhancing Lustre to provide new functionality not funded by other NRE contracts

Minor Enhancement: Enhancing Lustre to provide minor new capabilities e.g. supporting new kernels, etc

Test Improvement: Improvements made to Lustre tests (fixed flaws in the tests that can result in false failures, adding new tests, etc)

Third Party Landing: Performing inspections and testing on contribution from organization without support arrangements in place.



Quality Metrics

The below report shows a summary of testing results from maloo.

Note that many test failures are due to issues with the testing environment or the test scripts themselves, rather than bugs in Lustre.

This report can be generated dynamically at <https://maloo.whamcloud.com/reports> and the individual details can be drilled into and mapped to issues in JIRA.

Tests highlighted in red have either declined compared to the previous revision or else are new tests with at least one failure.

Tests highlighted in orange have one or more failures but an improved pass rate compared to the prior revision.

Tests highlighted in green passed all test runs.

Note that runracer test suite was renamed to racer and liblustre testing was suspended because this code has been deprecated.



Pass rate report for lustre-release - master

| | 2.3.63 d7a79a 2013-03-22 | 2.3.62 87a778 2013-03-06 | 2.3.61 2c6725 2013-02-19 | 2.3.59 787226 2013-01-19 | 2.3.58 177325 2013-12-31 | 2.3.56 472863 2013-11-19 | 2.3.54 241180 2013-10-29 | 2.3.53 59a423 2013-10-08 | 2.2.93 86110f 2012-08-16 | 2.2.92 6a0648 2012-07-30 | 2.2.91 c6a77c 2012-07-19 | 2.2.90 152485 2012-07-10 | 2.2.89 8a4a16 2012-07-02 | 2.2.87 3338b5 2012-06-19 | 2.2.86 68a962 2012-06-11 | 2.2.85 4ac3d6 2012-06-14 | 2.2.84 24204f 2012-05-29 | 2.2.83 046398 2012-05-23 | 2.2.82 352606 2012-05-08 | 2.2.80 388476 2012-05-08 | 2.1.96 641a56 2012-05-18 | 2.1.95 125a4d 2012-01-31 | |
|-----------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|-------|
| clean_post_upgrade | | | | | | | | | | | | | | | | | | | | | | | |
| clean_pre_upgrade | | | | | | | | | | | | | | | | | | | | | | | |
| conf-sanity | 1/1 | 2/4 | 1/1 | 2/5 | 3/8 | 1/2 | 1/1 | | 6/6 | 9/10 | 4/6 | 10/10 | 6/6 | 6/6 | 3/3 | 4/4 | 5/7 | | | 9/9 | 3/3 | 6/6 | 0/13 |
| insanity | 1/1 | 4/4 | 1/1 | 3/5 | 7/7 | 3/3 | 1/1 | | 6/6 | 10/10 | 6/6 | 10/10 | 6/6 | 6/6 | 3/3 | 0/4 | 7/7 | | | 9/9 | 3/3 | 5/5 | 8/8 |
| large-scale | 1/1 | 4/4 | 1/1 | 3/5 | 7/7 | 3/3 | 1/1 | | 6/6 | 6/9 | 4/6 | 10/10 | 6/6 | 6/6 | 3/3 | 3/4 | 6/6 | | | 8/8 | 2/2 | 5/5 | 7/7 |
| ifack | 1/1 | 3/4 | 0/1 | 5/5 | 7/8 | 2/3 | 0/1 | | 2/6 | 2/10 | 2/6 | 3/10 | 4/6 | 1/6 | 1/3 | 0/4 | 3/7 | | | 6/6 | 2/3 | 7/8 | 1/10 |
| liblustre | | | | | | | | | | | | | | | | | | | | | | | 3/5 |
| liblustre | | | | | | | | | | | | | | | | | | | | | | | 10/16 |
| intel-selftest | 1/1 | 3/4 | 1/1 | 5/5 | 7/7 | 3/3 | 1/1 | | 6/6 | 6/9 | 5/6 | 10/10 | 6/6 | 6/6 | 3/3 | 3/4 | 6/6 | | | 8/8 | 2/2 | 5/5 | 7/7 |
| lustre-async-test | 1/1 | 3/4 | 1/1 | 3/5 | 6/7 | 2/3 | 1/1 | | 5/5 | 6/9 | 4/5 | 7/8 | 5/5 | 5/5 | 2/2 | 3/4 | 5/6 | | | 9/9 | 2/2 | 5/5 | 9/9 |
| mids-survey | 1/1 | 3/3 | 1/1 | 5/5 | 7/7 | 3/3 | 1/1 | | 5/5 | 3/7 | 3/4 | 7/7 | 4/4 | 4/4 | 2/2 | 2/3 | 2/5 | | | 5/6 | | | |
| metadata-updates | 1/1 | 4/4 | 1/1 | 3/5 | 7/7 | 2/3 | 1/1 | | 6/6 | 10/10 | 5/6 | 10/10 | 6/6 | 6/6 | 3/3 | 3/4 | 7/7 | | | 9/9 | 2/2 | 5/5 | 10/10 |
| mmp | 1/1 | 4/4 | 1/1 | 3/6 | 7/9 | 3/3 | 1/1 | | 6/6 | 7/10 | 5/8 | 10/14 | 6/6 | 6/7 | 3/3 | 4/5 | 7/9 | | | 9/9 | 2/2 | 5/5 | 8/8 |
| obdfilter-survey | 1/1 | 4/4 | 1/1 | 3/5 | 7/7 | 2/3 | 1/1 | | 1/6 | 6/9 | 5/6 | 10/10 | 6/6 | 6/6 | 3/3 | 3/4 | 6/6 | | | 8/8 | 2/2 | 5/5 | 6/6 |
| ost-pools | 1/1 | 4/4 | 0/1 | 3/5 | 3/7 | 1/2 | 1/1 | | 5/6 | 6/10 | 5/6 | 10/10 | 6/6 | 6/6 | 3/3 | 3/4 | 7/7 | | | 9/9 | 2/2 | 5/5 | 4/10 |
| parallel-scale | 0/1 | 4/4 | 1/1 | 2/5 | 4/7 | 2/3 | 1/1 | | 5/6 | 6/10 | 4/6 | 7/10 | 6/6 | 5/6 | 3/3 | 3/4 | 4/7 | | | 4/6 | 2/2 | 4/5 | 2/7 |
| parallel-scale-refs0 | 1/1 | 4/4 | 1/1 | 1/5 | 7/7 | 1/3 | 0/1 | | 4/5 | 6/8 | 2/5 | 6/6 | 4/5 | 4/5 | 2/3 | 2/3 | 5/5 | | | 2/7 | 0/1 | 1/5 | |
| parallel-scale-refs4 | 1/1 | 1/4 | 0/1 | 2/5 | 7/7 | 2/2 | 1/1 | | 5/5 | 0/7 | 1/4 | 7/9 | 0/5 | 1/5 | 1/3 | 0/3 | 2/5 | | | 2/7 | 0/1 | 1/6 | |
| performance-sanity | 1/1 | 4/4 | 1/1 | 2/5 | 6/7 | 3/3 | 1/1 | | 6/6 | 7/10 | 4/6 | 9/10 | 6/6 | 6/6 | 3/3 | 4/4 | 6/7 | | | 6/6 | 2/2 | 4/5 | 5/7 |
| posix | 1/1 | 1/4 | 0/1 | 3/5 | 5/7 | 0/2 | 1/1 | | 3/4 | 2/6 | 0/3 | 0/7 | 0/4 | | | | | | | | | | |
| racer | 1/1 | 2/4 | 1/1 | 2/5 | 3/7 | 2/3 | 1/1 | | 2/6 | 6/10 | 5/6 | 10/10 | 5/6 | 6/6 | 3/3 | 4/4 | 7/7 | | | 9/9 | 3/3 | 6/6 | 1/10 |
| recovery-double-scale | | | | 0/1 | 0/2 | | | | | | 0/2 | 0/4 | 0/2 | 1/1 | | 0/2 | 1/2 | | | | | 2/3 | 0/1 |
| recovery-mids-scale | | | | 0/1 | 0/2 | | | | | | 0/2 | 0/4 | 0/2 | 1/1 | | 0/2 | 1/2 | | | 0/1 | | 2/5 | 1/1 |
| recovery-random-scale | | | | 0/1 | 0/2 | | | | | | 0/2 | 0/4 | 0/2 | 1/1 | | 0/2 | 0/2 | | | | | 2/5 | 0/1 |
| recovery-small | 1/1 | 3/4 | 1/1 | 2/6 | 4/9 | 2/3 | 1/1 | | 6/6 | 9/10 | 5/8 | 10/14 | 6/6 | 6/7 | 3/3 | 0/5 | 7/9 | | | 9/9 | 4/4 | 5/7 | 10/10 |
| replay-dual | 1/1 | 3/4 | 1/1 | 1/6 | 5/9 | 2/3 | 1/1 | | 6/6 | 8/10 | 5/8 | 10/14 | 6/6 | 6/7 | 3/3 | 2/5 | 7/9 | | | 6/6 | 5/5 | 5/5 | 10/10 |
| replay-ost-single | 1/1 | 3/4 | 0/1 | 3/6 | 6/9 | 2/3 | 0/1 | | 6/6 | 10/10 | 6/8 | 10/14 | 6/6 | 6/7 | 3/3 | 2/5 | 7/9 | | | 9/9 | 4/4 | 5/5 | 10/10 |
| replay-single | 1/1 | 2/4 | 1/1 | 3/6 | 5/9 | 1/3 | 0/1 | | 6/6 | 7/10 | 4/8 | 0/14 | 6/7 | 0/7 | 3/3 | 0/5 | 5/9 | | | 6/6 | 3/3 | 5/6 | 9/11 |
| replay-vbr | 1/1 | 4/4 | 1/1 | 3/6 | 7/9 | 3/3 | 1/1 | | 6/6 | 9/10 | 6/8 | 10/14 | 6/6 | 6/7 | 3/3 | 0/5 | 7/9 | | | 9/9 | 3/5 | 5/5 | 1/10 |
| runracer | | | | | | | | | | | | | | | | | | | | | | | |
| runtests | 1/1 | 5/5 | 1/1 | 3/5 | 8/8 | 3/3 | 1/1 | | 6/6 | 9/10 | 5/6 | 10/10 | 7/7 | 8/8 | 3/3 | 3/4 | 7/7 | | | 10/10 | 3/3 | 9/9 | 13/13 |
| sanity | 1/1 | 3/5 | 1/1 | 0/5 | 0/8 | 0/3 | 0/1 | | 5/6 | 8/10 | 2/7 | 4/10 | 1/7 | 3/8 | 1/3 | 0/4 | 4/7 | | | 3/10 | 0/3 | 0/9 | 0/13 |
| sanity-benchmark | 0/1 | 1/5 | 0/1 | 5/5 | 8/8 | 2/3 | 1/1 | | 6/6 | 9/10 | 5/6 | 10/10 | 6/6 | 6/7 | 3/3 | 4/4 | 6/7 | | | 7/9 | 3/3 | 9/10 | 10/10 |
| sanity-quota | 1/1 | 3/4 | 1/1 | 3/5 | 3/7 | 1/3 | 0/1 | | 6/6 | 9/10 | 5/6 | 10/10 | 6/6 | 6/6 | 3/3 | 3/4 | 7/7 | | | 9/9 | 2/3 | 5/5 | 7/8 |
| sanity-scrub | | | | | | | | | | | | | | | | | | | | | | | |
| sanity-sec | 1/1 | 4/4 | 1/1 | 3/5 | 7/7 | 3/3 | 1/1 | | 5/5 | 9/9 | 5/5 | 8/8 | 5/5 | 5/5 | 2/2 | 3/4 | 6/6 | | | 9/9 | 2/2 | 5/5 | 9/9 |
| sanityn | 1/1 | 3/4 | 1/1 | 3/5 | 7/8 | 2/3 | 1/1 | | 6/6 | 9/10 | 5/6 | 10/10 | 6/6 | 6/6 | 3/3 | 4/4 | 7/7 | | | 9/9 | 3/3 | 8/8 | 10/10 |
| sgodd-survey | | | | | | | | | | | | | | | | | | | | | | | 0/1 |



Work Completed

The main areas of focus for Q1 2013 were firstly landing features and then testing/stabilization for the upcoming Lustre 2.4 release (targeted for April 2013).

The following features were landed during the quarter

4MB IO: funded by Xyratex. (LU-1431)

Disable Pinging: funded by Fujitsu. (LU-2467)

DNE: funded by the OpenSFS NRE contract. (LU-1187)

Layout Lock: funded by Intel. (LU-1876)

LFSCK: funded by the OpenSFS NRE contract. (LU-1866)

LNET Networks Hashing: funded by Fujitsu. (LU-2466)

NRS: funded by Xyratex and Intel. (LU-398)

Wireshark support: funded by Intel. (LU-1434)

Release testing was completed according to the 2.4 test plan on the following tags – 2.3.58, 2.3.59, 2.3.60, 2.3.61, 2.3.62 and 2.3.63. A number of bugs were found and fixed as a result.

Fedora 18 clients are now routinely tested.

Several five-day windows of exclusive Hyperion access were granted to allow greater scale testing than is routinely available. In January, 2.3.58 was tested with 405 clients; in February, 2.3.61 was tested with 256 clients; and in March, 2.3.63 was tested with 384 clients.

Work In Progress

Further landings have taken place for HSM.

Many patches have already been landed in preparation for supporting servers and clients for newer 3.x kernel

Peter Jones
HPDD, Intel
April 2nd 2013



Appendix A: Timeline for Lustre 2.4

Release criterion is zero blockers remaining on the Lustre 2.4 Blockers filter in JIRA

-

<http://jira.whamcloud.com/secure/IssueNavigator.jspa?mode=hide&requestId=10292>.

| Milestone | Planned Date | Actual Date |
|-------------------|-------------------------------|-------------------------------|
| Open for Landings | October 1 st 2012 | August 21 st 2012 |
| Feature Freeze | January 31 st 2013 | January 31 st 2013 |
| Code Freeze | March 31 st 2013 | TBD |
| GA | April 30 th 2013 | TBD |