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Hadoop Map/Reduce / MAPREDUCE-4423

Potential infinite fetching of map output

Details

Type:	⬛ Bug	Status:	**CLOSED**
Priority:	🔺 Critical	Resolution:	Fixed
Affects Version/s:	0.23.3, 2.0.0-alpha, 3.0.0-alpha1	Fix Version/s:	0.23.3, 2.0.2-alpha
Component/s:	mrv2		
Labels:	None		
Target Version/s:	0.23.3		

Description

Inside Fetcher.java there are a few cases where an error can happen and the corresponding map task is not marked as a fetch failure. One of these is if the Shuffle server returns a malformed result.

MAPREDUCE-3992 makes this case a lot less common, but it is still possible. IF the shuffle handler always returns a malformed result, but a OK response the Fetcher will never stop trying to fetch those results.

Attachments

📄 MR-4423.txt	12 kB	25/Jul/12 21:06
📄 MR-4423.txt	11 kB	19/Jul/12 17:55
📄 MR-4423.txt	11 kB	17/Jul/12 22:01
📄 MR-4423-branch-0.23.txt	15 kB	26/Jul/12 21:43
📄 MR-4423-trunk.txt	15 kB	26/Jul/12 21:43
📄 MR-4423-trunk.txt	12 kB	26/Jul/12 15:42

Activity

⬆

▾ ◯ Robert Joseph Evans added a comment - 17/Jul/12 22:01

This patch adds in a test, and marks tasks failed on any error while trying to fetch the data.

▾ ◯ Hadoop QA added a comment - 17/Jul/12 22:24

+1 overall. Here are the results of testing the latest attachment
http://issues.apache.org/jira/secure/attachment/12536897/MR-4423.txt
against trunk revision .

+1 @author. The patch does not contain any @author tags.

+1 tests included. The patch appears to include 1 new or modified test files.

+1 javac. The applied patch does not increase the total number of javac compiler warnings.

+1 javadoc. The javadoc tool did not generate any warning messages.

+1 eclipse:eclipse. The patch built with eclipse:eclipse.

+1 findbugs. The patch does not introduce any new Findbugs (version 1.3.9) warnings.

+1 release audit. The applied patch does not increase the total number of release audit warnings.

+1 core tests. The patch passed unit tests in hadoop-mapreduce-project/hadoop-mapreduce-client/hadoop-mapreduce-client-core.

+1 contrib tests. The patch passed contrib unit tests.

Test results: https://builds.apache.org/job/PreCommit-MAPREDUCE-Build/2616//testReport/
Console output: https://builds.apache.org/job/PreCommit-MAPREDUCE-Build/2616//console

This message is automatically generated.

Jason Darrell Lowe added a comment - 18/Jul/12 21:17

Looks good overall. One small nit in that the good boolean was removed, but a comment remains that refers to it.

Robert Joseph Evans added a comment - 19/Jul/12 17:55

This patch updates the comment that mentioned the deleted good variable.

Hadoop QA added a comment - 19/Jul/12 18:15

+1 overall. Here are the results of testing the latest attachment
http://issues.apache.org/jira/secure/attachment/12537218/MR-4423.txt
against trunk revision .

+1 @author. The patch does not contain any @author tags.

+1 tests included. The patch appears to include 1 new or modified test files.

+1 javac. The applied patch does not increase the total number of javac compiler warnings.

+1 javadoc. The javadoc tool did not generate any warning messages.

+1 eclipse:eclipse. The patch built with eclipse:eclipse.

+1 findbugs. The patch does not introduce any new Findbugs (version 1.3.9) warnings.

+1 release audit. The applied patch does not increase the total number of release audit warnings.

+1 core tests. The patch passed unit tests in hadoop-mapreduce-project/hadoop-mapreduce-client/hadoop-mapreduce-client-core.

+1 contrib tests. The patch passed contrib unit tests.

Test results: https://builds.apache.org/job/PreCommit-MAPREDUCE-Build/2627//testReport/
Console output: https://builds.apache.org/job/PreCommit-MAPREDUCE-Build/2627//console

This message is automatically generated.

Thomas Graves added a comment - 19/Jul/12 18:19

+1 looks good. Thanks Bobby! I'll commit this shortly.

Hudson added a comment - 19/Jul/12 18:25

Integrated in Hadoop-Common-trunk-Commit #2500 (See https://builds.apache.org/job/Hadoop-Common-trunk-Commit/2500/)
MAPREDUCE-4423. Potential infinite fetching of map output (Robert Evans via tgraves) (Revision 1363454)

Result = SUCCESS
tgraves : http://svn.apache.org/viewcvs.cgi/?root=Apache-SVN&view=rev&rev=1363454
Files :

- /hadoop/common/trunk/hadoop-mapreduce-project/CHANGES.txt
- /hadoop/common/trunk/hadoop-mapreduce-project/hadoop-mapreduce-client/hadoop-mapreduce-client-core/src/main/java/org/apache/hadoop/mapreduce/task/reduce/Fetcher.java
- /hadoop/common/trunk/hadoop-mapreduce-project/hadoop-mapreduce-client/hadoop-mapreduce-client-core/src/test/java/org/apache/hadoop/mapreduce/task/reduce/TestFetcher.java

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Hudson added a comment - 19/Jul/12 18:27

Integrated in Hadoop-Hdfs-trunk-Commit #2565 (See https://builds.apache.org/job/Hadoop-Hdfs-trunk-Commit/2565/)
MAPREDUCE-4423. Potential infinite fetching of map output (Robert Evans via tgraves) (Revision 1363454)

Result = SUCCESS
tgraves : http://svn.apache.org/viewcvs.cgi/?root=Apache-SVN&view=rev&rev=1363454
Files :

- /hadoop/common/trunk/hadoop-mapreduce-project/CHANGES.txt

- /hadoop/common/trunk/hadoop-mapreduce-project/hadoop-mapreduce-client/hadoop-mapreduce-client-core/src/main/java/org/apache/hadoop/mapreduce/task/reduce/Fetcher.java
- /hadoop/common/trunk/hadoop-mapreduce-project/hadoop-mapreduce-client/hadoop-mapreduce-client-core/src/test/java/org/apache/hadoop/mapreduce/task/reduce/TestFetcher.java

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⌄ ◯ Hudson added a comment - 19/Jul/12 19:14

Integrated in Hadoop-Mapreduce-trunk-Commit #2522 (See https://builds.apache.org/job/Hadoop-Mapreduce-trunk-Commit/2522/)
MAPREDUCE-4423. Potential infinite fetching of map output (Robert Evans via tgraves) (Revision 1363454)

Result = FAILURE
tgraves : http://svn.apache.org/viewcvs.cgi/?root=Apache-SVN&view=rev&rev=1363454
Files :

- /hadoop/common/trunk/hadoop-mapreduce-project/CHANGES.txt
- /hadoop/common/trunk/hadoop-mapreduce-project/hadoop-mapreduce-client/hadoop-mapreduce-client-core/src/main/java/org/apache/hadoop/mapreduce/task/reduce/Fetcher.java
- /hadoop/common/trunk/hadoop-mapreduce-project/hadoop-mapreduce-client/hadoop-mapreduce-client-core/src/test/java/org/apache/hadoop/mapreduce/task/reduce/TestFetcher.java

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⌄ ◯ Hudson added a comment - 20/Jul/12 12:40

Integrated in Hadoop-Hdfs-0.23-Build #319 (See https://builds.apache.org/job/Hadoop-Hdfs-0.23-Build/319/)
merge -r 1363454:1363455 from branch-2. FIXES: MAPREDUCE-4423 (Revision 1363456)

Result = SUCCESS
tgraves : http://svn.apache.org/viewcvs.cgi/?root=Apache-SVN&view=rev&rev=1363456
Files :

- /hadoop/common/branches/branch-0.23/hadoop-mapreduce-project/CHANGES.txt
- /hadoop/common/branches/branch-0.23/hadoop-mapreduce-project/hadoop-mapreduce-client/hadoop-mapreduce-client-core/src/main/java/org/apache/hadoop/mapreduce/task/reduce/Fetcher.java
- /hadoop/common/branches/branch-0.23/hadoop-mapreduce-project/hadoop-mapreduce-client/hadoop-mapreduce-client-core/src/test/java/org/apache/hadoop/mapreduce/task/reduce/TestFetcher.java

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⌄ ◯ Hudson added a comment - 20/Jul/12 14:05

Integrated in Hadoop-Mapreduce-trunk #1142 (See https://builds.apache.org/job/Hadoop-Mapreduce-trunk/1142/)
MAPREDUCE-4423. Potential infinite fetching of map output (Robert Evans via tgraves) (Revision 1363454)

Result = FAILURE
tgraves : http://svn.apache.org/viewcvs.cgi/?root=Apache-SVN&view=rev&rev=1363454
Files :

- /hadoop/common/trunk/hadoop-mapreduce-project/CHANGES.txt
- /hadoop/common/trunk/hadoop-mapreduce-project/hadoop-mapreduce-client/hadoop-mapreduce-client-core/src/main/java/org/apache/hadoop/mapreduce/task/reduce/Fetcher.java
- /hadoop/common/trunk/hadoop-mapreduce-project/hadoop-mapreduce-client/hadoop-mapreduce-client-core/src/test/java/org/apache/hadoop/mapreduce/task/reduce/TestFetcher.java

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⌄ ◯ Thomas Graves added a comment - 20/Jul/12 20:16

I'm going to revert this because this seems to have uncovered another bug where map output comes back as OK but has internal error in the body. We need to investigate that more.

⌄ ◯ Hudson added a comment - 20/Jul/12 20:27

Integrated in Hadoop-Hdfs-trunk-Commit #2573 (See https://builds.apache.org/job/Hadoop-Hdfs-trunk-Commit/2573/)
svn merge --change -1363454 for reverting MAPREDUCE-4423 (Revision 1363935)

Result = SUCCESS
tgraves : http://svn.apache.org/viewcvs.cgi/?root=Apache-SVN&view=rev&rev=1363935
Files :

- /hadoop/common/trunk/hadoop-mapreduce-project/CHANGES.txt
- /hadoop/common/trunk/hadoop-mapreduce-project/hadoop-mapreduce-client/hadoop-mapreduce-client-core/src/main/java/org/apache/hadoop/mapreduce/task/reduce/Fetcher.java

- /hadoop/common/trunk/hadoop-mapreduce-project/hadoop-mapreduce-client/hadoop-mapreduce-client-core/src/test/java/org/apache/hadoop/mapreduce/task/reduce/TestFetcher.java

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Hudson added a comment - 20/Jul/12 20:34

Integrated in Hadoop-Common-trunk-Commit #2508 (See https://builds.apache.org/job/Hadoop-Common-trunk-Commit/2508/)
svn merge --change -1363454 for reverting ~~MAPREDUCE-4423~~ (Revision 1363935)

Result = SUCCESS
tgraves : http://svn.apache.org/viewcvs.cgi/?root=Apache-SVN&view=rev&rev=1363935
Files :

- /hadoop/common/trunk/hadoop-mapreduce-project/CHANGES.txt
- /hadoop/common/trunk/hadoop-mapreduce-project/hadoop-mapreduce-client/hadoop-mapreduce-client-core/src/main/java/org/apache/hadoop/mapreduce/task/reduce/Fetcher.java
- /hadoop/common/trunk/hadoop-mapreduce-project/hadoop-mapreduce-client/hadoop-mapreduce-client-core/src/test/java/org/apache/hadoop/mapreduce/task/reduce/TestFetcher.java

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Hudson added a comment - 20/Jul/12 21:43

Integrated in Hadoop-Mapreduce-trunk-Commit #2529 (See https://builds.apache.org/job/Hadoop-Mapreduce-trunk-Commit/2529/)
svn merge --change -1363454 for reverting ~~MAPREDUCE-4423~~ (Revision 1363935)

Result = FAILURE
tgraves : http://svn.apache.org/viewcvs.cgi/?root=Apache-SVN&view=rev&rev=1363935
Files :

- /hadoop/common/trunk/hadoop-mapreduce-project/CHANGES.txt
- /hadoop/common/trunk/hadoop-mapreduce-project/hadoop-mapreduce-client/hadoop-mapreduce-client-core/src/main/java/org/apache/hadoop/mapreduce/task/reduce/Fetcher.java
- /hadoop/common/trunk/hadoop-mapreduce-project/hadoop-mapreduce-client/hadoop-mapreduce-client-core/src/test/java/org/apache/hadoop/mapreduce/task/reduce/TestFetcher.java

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Hudson added a comment - 21/Jul/12 12:39

Integrated in Hadoop-Hdfs-0.23-Build #320 (See https://builds.apache.org/job/Hadoop-Hdfs-0.23-Build/320/)
svn merge --change -1363456 for reverting ~~MAPREDUCE-4423~~ (Revision 1363937)

Result = UNSTABLE
tgraves : http://svn.apache.org/viewcvs.cgi/?root=Apache-SVN&view=rev&rev=1363937
Files :

- /hadoop/common/branches/branch-0.23/hadoop-mapreduce-project/CHANGES.txt
- /hadoop/common/branches/branch-0.23/hadoop-mapreduce-project/hadoop-mapreduce-client/hadoop-mapreduce-client-core/src/main/java/org/apache/hadoop/mapreduce/task/reduce/Fetcher.java
- /hadoop/common/branches/branch-0.23/hadoop-mapreduce-project/hadoop-mapreduce-client/hadoop-mapreduce-client-core/src/test/java/org/apache/hadoop/mapreduce/task/reduce/TestFetcher.java

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Hudson added a comment - 21/Jul/12 12:48

Integrated in Hadoop-Hdfs-trunk #1111 (See https://builds.apache.org/job/Hadoop-Hdfs-trunk/1111/)
svn merge --change -1363454 for reverting ~~MAPREDUCE-4423~~ (Revision 1363935)

Result = FAILURE
tgraves : http://svn.apache.org/viewcvs.cgi/?root=Apache-SVN&view=rev&rev=1363935
Files :

- /hadoop/common/trunk/hadoop-mapreduce-project/CHANGES.txt
- /hadoop/common/trunk/hadoop-mapreduce-project/hadoop-mapreduce-client/hadoop-mapreduce-client-core/src/main/java/org/apache/hadoop/mapreduce/task/reduce/Fetcher.java
- /hadoop/common/trunk/hadoop-mapreduce-project/hadoop-mapreduce-client/hadoop-mapreduce-client-core/src/test/java/org/apache/hadoop/mapreduce/task/reduce/TestFetcher.java

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Hudson added a comment - 21/Jul/12 14:03

Integrated in Hadoop-Mapreduce-trunk #1143 (See https://builds.apache.org/job/Hadoop-Mapreduce-trunk/1143/)
svn merge --change -1363454 for reverting ~~MAPREDUCE-4423~~ (Revision 1363935)

Result = FAILURE
tgraves : http://svn.apache.org/viewcvs.cgi/?root=Apache-SVN&view=rev&rev=1363935
Files :

- /hadoop/common/trunk/hadoop-mapreduce-project/CHANGES.txt
- /hadoop/common/trunk/hadoop-mapreduce-project/hadoop-mapreduce-client/hadoop-mapreduce-client-core/src/main/java/org/apache/hadoop/mapreduce/task/reduce/Fetcher.java
- /hadoop/common/trunk/hadoop-mapreduce-project/hadoop-mapreduce-client/hadoop-mapreduce-client-core/src/test/java/org/apache/hadoop/mapreduce/task/reduce/TestFetcher.java

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⌄ ◯ Robert Joseph Evans added a comment - 25/Jul/12 21:06

I determined what the problem was. It was not that this patch is flawed, but it was exposing another transient issue that was committed recently MAPREDUCE-4384.

I did find a few minor issue with the previous patch that I have fixed in this one.

⌄ ◯ Hadoop QA added a comment - 25/Jul/12 21:24

+1 overall. Here are the results of testing the latest attachment
http://issues.apache.org/jira/secure/attachment/12537898/MR-4423.txt
against trunk revision .

+1 @author. The patch does not contain any @author tags.

+1 tests included. The patch appears to include 1 new or modified test files.

+1 javac. The applied patch does not increase the total number of javac compiler warnings.

+1 javadoc. The javadoc tool did not generate any warning messages.

+1 eclipse:eclipse. The patch built with eclipse:eclipse.

+1 findbugs. The patch does not introduce any new Findbugs (version 1.3.9) warnings.

+1 release audit. The applied patch does not increase the total number of release audit warnings.

+1 core tests. The patch passed unit tests in hadoop-mapreduce-project/hadoop-mapreduce-client/hadoop-mapreduce-client-core.

+1 contrib tests. The patch passed contrib unit tests.

Test results: https://builds.apache.org/job/PreCommit-MAPREDUCE-Build/2660//testReport/
Console output: https://builds.apache.org/job/PreCommit-MAPREDUCE-Build/2660//console

This message is automatically generated.

⌄ ◯ Thomas Graves added a comment - 26/Jul/12 14:17

doesn't apply cleanly to trunk anymore, can you upmerge.

⌄ ◯ Robert Joseph Evans added a comment - 26/Jul/12 15:42

This version has been upmerged to the latest version of trunk. Please use the original patch for branch-0.23.

⌄ ◯ Thomas Graves added a comment - 26/Jul/12 16:17

Still looking, but minor comment, it might be a bit confusing to still log this when you return the empty array when told to wait. I realize the array is empty but still says failed task when it didn't really fail any. Perhaps add a check for empty too.

if(failedTasks != null) {
LOG.warn("copyMapOutput failed for tasks "+Arrays.toString(failedTasks));

⌄ ◯ Robert Joseph Evans added a comment - 26/Jul/12 16:55

That is a great catch. I'll update the patches. If you have anything else please let me know.

⌄ ◯ Hadoop QA added a comment - 26/Jul/12 21:17

+1 overall. Here are the results of testing the latest attachment
http://issues.apache.org/jira/secure/attachment/12538008/MR-4423-trunk.txt
against trunk revision .

+1 @author. The patch does not contain any @author tags.

+1 tests included. The patch appears to include 1 new or modified test files.

+1 javac. The applied patch does not increase the total number of javac compiler warnings.

+1 javadoc. The javadoc tool did not generate any warning messages.

+1 eclipse:eclipse. The patch built with eclipse:eclipse.

+1 findbugs. The patch does not introduce any new Findbugs (version 1.3.9) warnings.

+1 release audit. The applied patch does not increase the total number of release audit warnings.

+1 core tests. The patch passed unit tests in hadoop-mapreduce-project/hadoop-mapreduce-client/hadoop-mapreduce-client-core.

+1 contrib tests. The patch passed contrib unit tests.

Test results: https://builds.apache.org/job/PreCommit-MAPREDUCE-Build/2667//testReport/
Console output: https://builds.apache.org/job/PreCommit-MAPREDUCE-Build/2667//console

This message is automatically generated.

Robert Joseph Evans added a comment - 26/Jul/12 21:43

Updated the logging to not warn on WAIT, and added in a test specifically for WAIT.

Hadoop QA added a comment - 27/Jul/12 00:44

+1 overall. Here are the results of testing the latest attachment
http://issues.apache.org/jira/secure/attachment/12538083/MR-4423-trunk.txt
against trunk revision .

+1 @author. The patch does not contain any @author tags.

+1 tests included. The patch appears to include 1 new or modified test files.

+1 javac. The applied patch does not increase the total number of javac compiler warnings.

+1 javadoc. The javadoc tool did not generate any warning messages.

+1 eclipse:eclipse. The patch built with eclipse:eclipse.

+1 findbugs. The patch does not introduce any new Findbugs (version 1.3.9) warnings.

+1 release audit. The applied patch does not increase the total number of release audit warnings.

+1 core tests. The patch passed unit tests in hadoop-mapreduce-project/hadoop-mapreduce-client/hadoop-mapreduce-client-core.

+1 contrib tests. The patch passed contrib unit tests.

Test results: https://builds.apache.org/job/PreCommit-MAPREDUCE-Build/2668//testReport/
Console output: https://builds.apache.org/job/PreCommit-MAPREDUCE-Build/2668//console

This message is automatically generated.

Thomas Graves added a comment - 27/Jul/12 01:48

+1 thanks Bobby!

Hudson added a comment - 27/Jul/12 02:15

Integrated in Hadoop-Common-trunk-Commit #2526 (See https://builds.apache.org/job/Hadoop-Common-trunk-Commit/2526/)
MAPREDUCE-4423. Potential infinite fetching of map output (Robert Evans via tgraves) (Revision 1366258)

Result = SUCCESS
tgraves : http://svn.apache.org/viewcvs.cgi/?root=Apache-SVN&view=rev&rev=1366258
Files :

- /hadoop/common/trunk/hadoop-mapreduce-project/CHANGES.txt
- /hadoop/common/trunk/hadoop-mapreduce-project/hadoop-mapreduce-client/hadoop-mapreduce-client-core/src/main/java/org/apache/hadoop/mapreduce/task/reduce/Fetcher.java
- /hadoop/common/trunk/hadoop-mapreduce-project/hadoop-mapreduce-client/hadoop-mapreduce-client-core/src/test/java/org/apache/hadoop/mapreduce/task/reduce/TestFetcher.java

Hudson added a comment - 27/Jul/12 02:19

Integrated in Hadoop-Hdfs-trunk-Commit #2590 (See https://builds.apache.org/job/Hadoop-Hdfs-trunk-Commit/2590/)
~~MAPREDUCE-4423~~. Potential infinite fetching of map output (Robert Evans via tgraves) (Revision 1366258)

Result = SUCCESS
tgraves : http://svn.apache.org/viewcvs.cgi/?root=Apache-SVN&view=rev&rev=1366258
Files :

- /hadoop/common/trunk/hadoop-mapreduce-project/CHANGES.txt
- /hadoop/common/trunk/hadoop-mapreduce-project/hadoop-mapreduce-client/hadoop-mapreduce-client-core/src/main/java/org/apache/hadoop/mapreduce/task/reduce/Fetcher.java
- /hadoop/common/trunk/hadoop-mapreduce-project/hadoop-mapreduce-client/hadoop-mapreduce-client-core/src/test/java/org/apache/hadoop/mapreduce/task/reduce/TestFetcher.java

Hudson added a comment - 27/Jul/12 02:44

Integrated in Hadoop-Mapreduce-trunk-Commit #2546 (See https://builds.apache.org/job/Hadoop-Mapreduce-trunk-Commit/2546/)
~~MAPREDUCE-4423~~. Potential infinite fetching of map output (Robert Evans via tgraves) (Revision 1366258)

Result = FAILURE
tgraves : http://svn.apache.org/viewcvs.cgi/?root=Apache-SVN&view=rev&rev=1366258
Files :

- /hadoop/common/trunk/hadoop-mapreduce-project/CHANGES.txt
- /hadoop/common/trunk/hadoop-mapreduce-project/hadoop-mapreduce-client/hadoop-mapreduce-client-core/src/main/java/org/apache/hadoop/mapreduce/task/reduce/Fetcher.java
- /hadoop/common/trunk/hadoop-mapreduce-project/hadoop-mapreduce-client/hadoop-mapreduce-client-core/src/test/java/org/apache/hadoop/mapreduce/task/reduce/TestFetcher.java

Hudson added a comment - 27/Jul/12 12:41

Integrated in Hadoop-Hdfs-0.23-Build #326 (See https://builds.apache.org/job/Hadoop-Hdfs-0.23-Build/326/)
~~MAPREDUCE-4423~~. Potential infinite fetching of map output (Robert Evans via tgraves) (Revision 1366263)
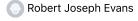
Result = SUCCESS
tgraves : http://svn.apache.org/viewcvs.cgi/?root=Apache-SVN&view=rev&rev=1366263
Files :

- /hadoop/common/branches/branch-0.23/hadoop-mapreduce-project/CHANGES.txt
- /hadoop/common/branches/branch-0.23/hadoop-mapreduce-project/hadoop-mapreduce-client/hadoop-mapreduce-client-core/src/main/java/org/apache/hadoop/mapreduce/task/reduce/Fetcher.java
- /hadoop/common/branches/branch-0.23/hadoop-mapreduce-project/hadoop-mapreduce-client/hadoop-mapreduce-client-core/src/test/java/org/apache/hadoop/mapreduce/task/reduce/TestFetcher.java

People

Assignee:

Robert Joseph Evans

Reporter:

Robert Joseph Evans

Votes:

0 Vote for this issue

Watchers:

6 Start watching this issue

Dates

Created:

10/Jul/12 15:26

Updated:

12/May/16 18:24

Resolved:

27/Jul/12 01:51