



Logging and Error Reporting

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Cloud



Agenda

Course Intro

Monitoring

Logging and Error Reporting

Troubleshooting and Debugging

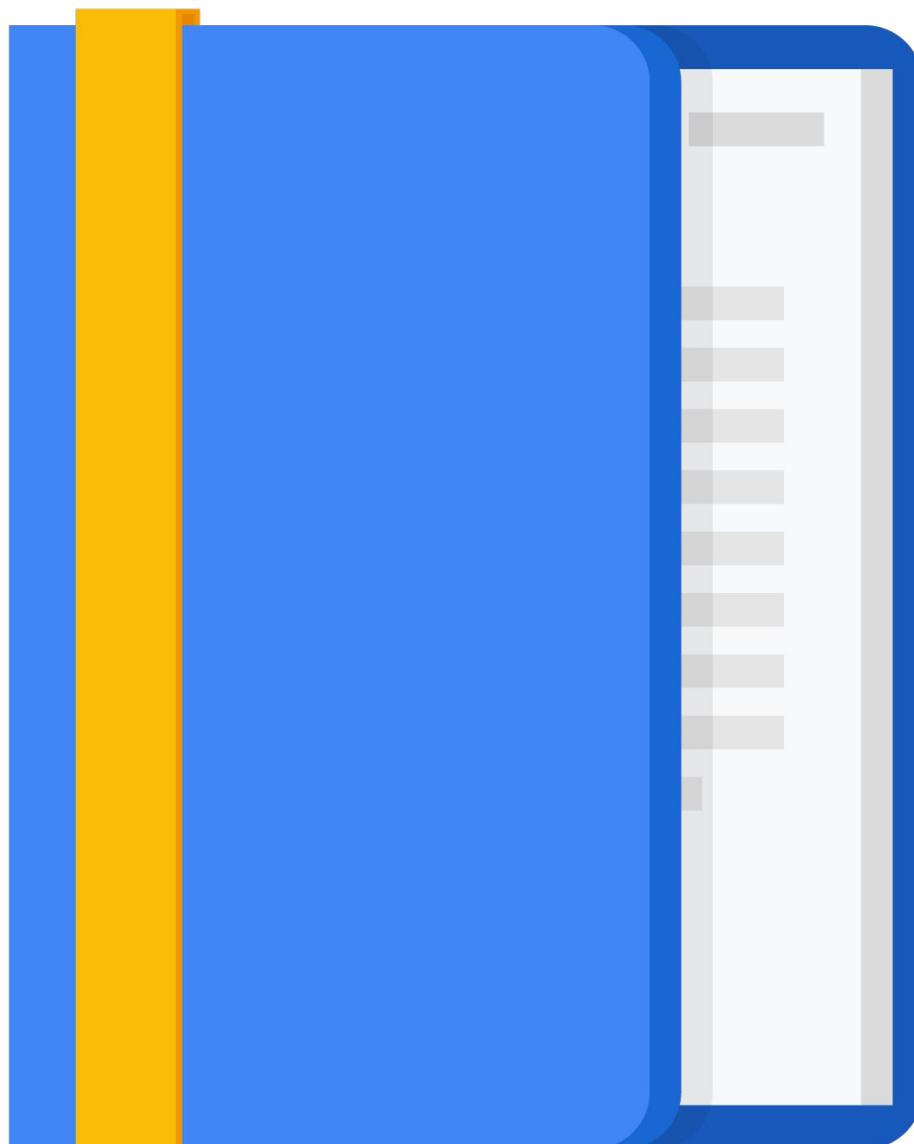
Performance

Testing and CI/CD

Reliability

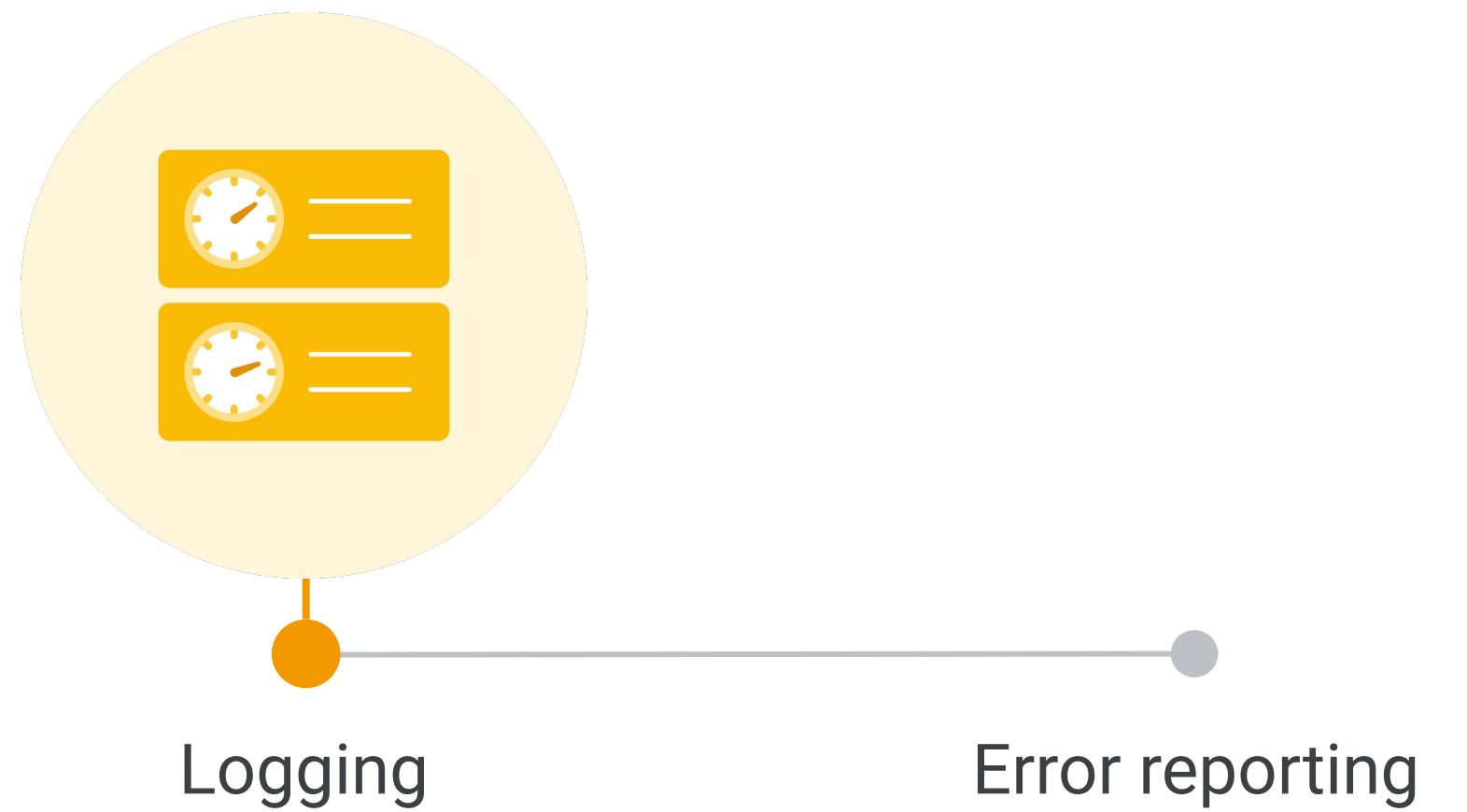
Flex Templates

Course Summary

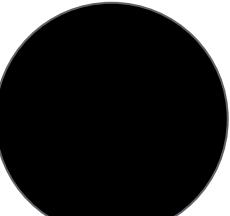
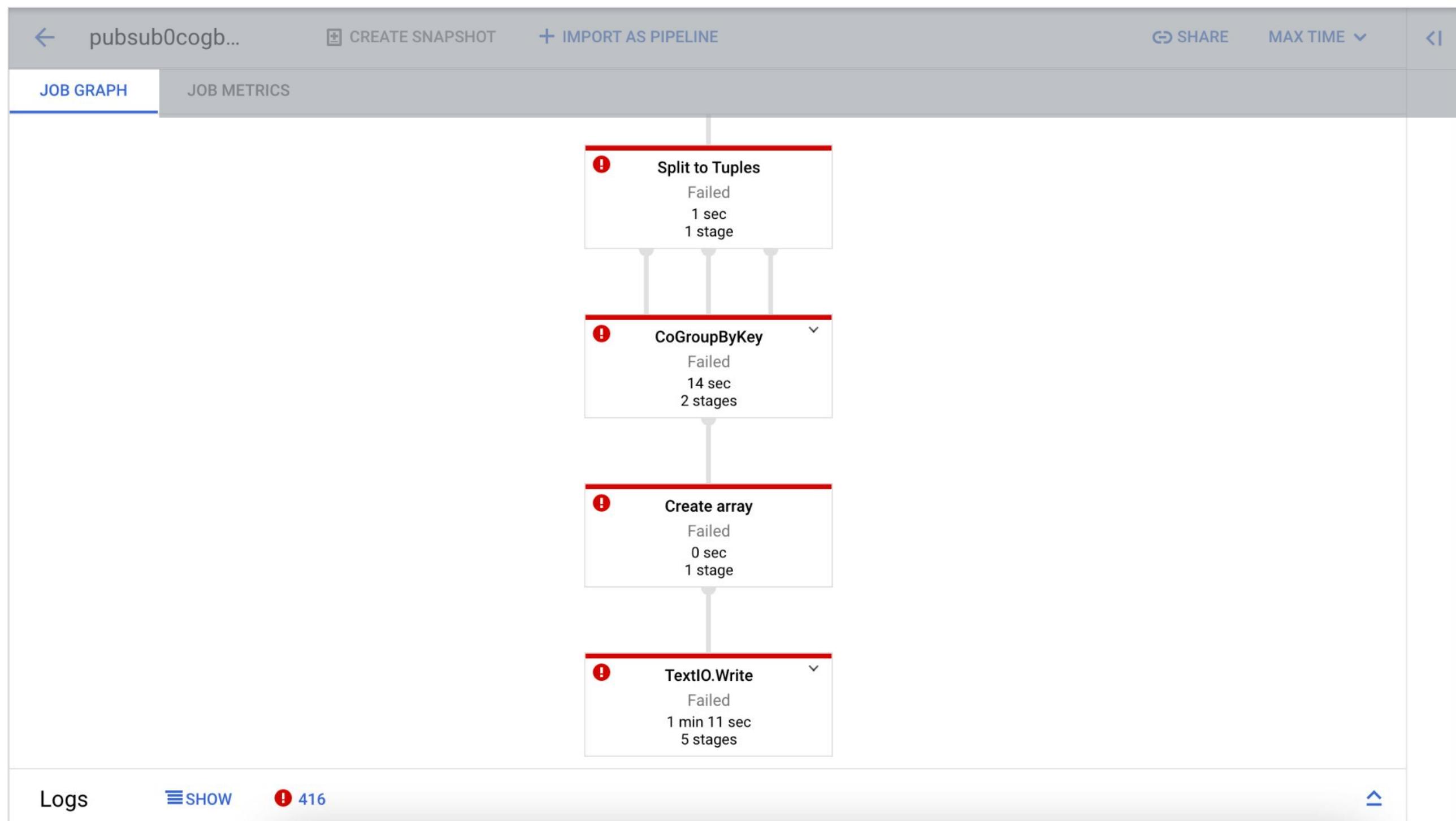


Logging and Error Reporting

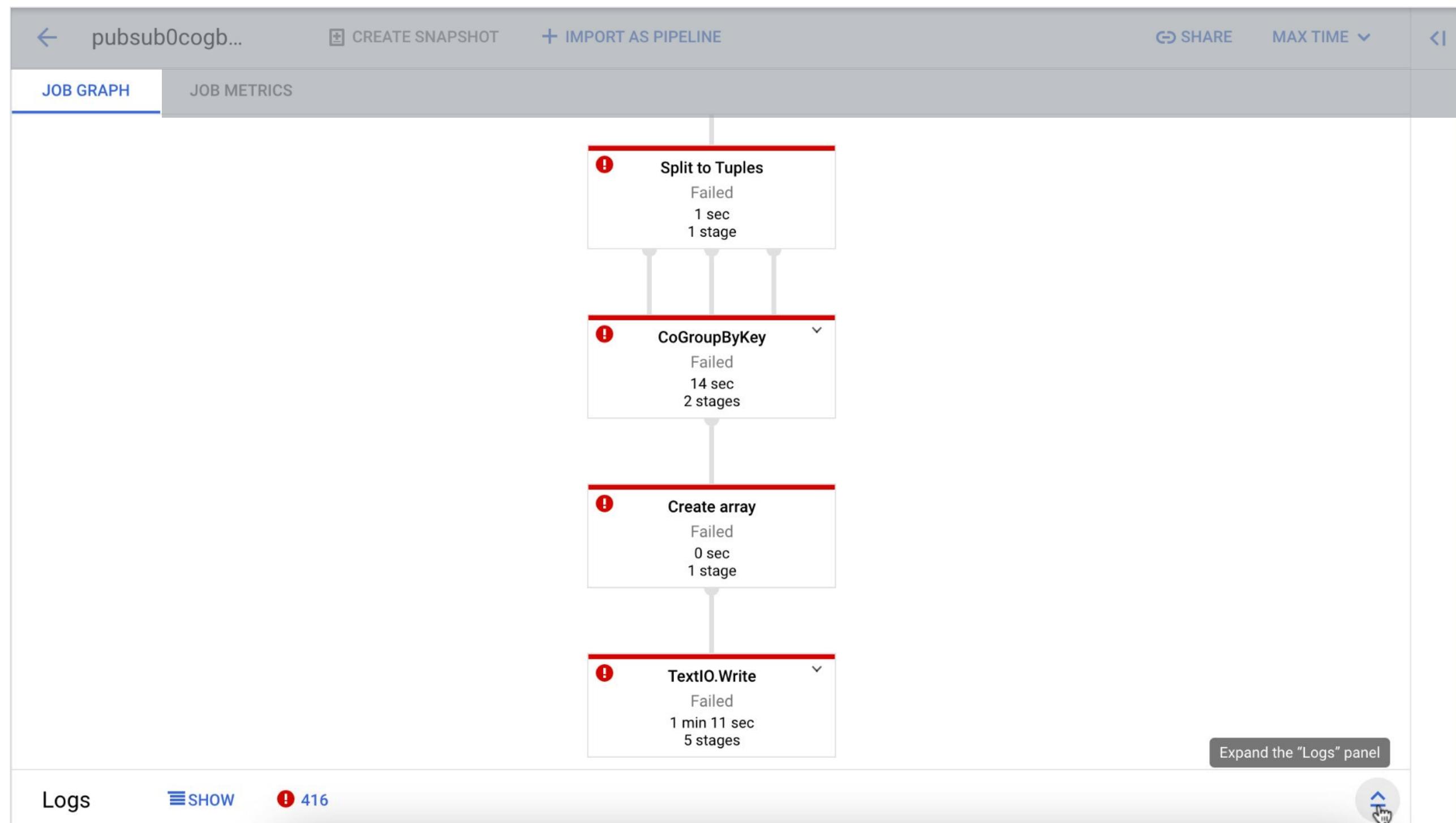
Agenda



Logs



Logs



Job Logs tab

The screenshot shows the Google Cloud Dataflow interface for a job named "pubsub0cogb...". The top navigation bar includes options like "CREATE SNAPSHOT", "IMPORT AS PIPELINE", "SHARE", and "MAX TIME". Below the navigation is a "JOB GRAPH" section with a single node labeled "Split to Tuples" which has failed. The main content area is the "Logs" tab, which displays 416 messages. The log entries are as follows:

- 2021-02-14 21:15:05.071 EST Error message from worker: java.lang.RuntimeException: org.apache.beam.sdk.util.UserCodeException: java.io.IOException: Error ac...
- 2021-02-14 21:15:15.066 EST Error message from worker: java.lang.RuntimeException: org.apache.beam.sdk.util.UserCodeException: java.io.IOException: Error ac...
- 2021-02-14 21:15:25.065 EST Error message from worker: java.lang.RuntimeException: org.apache.beam.sdk.util.UserCodeException: java.io.IOException: Error ac...
- 2021-02-14 21:15:35.042 EST Error message from worker: java.lang.RuntimeException: org.apache.beam.sdk.util.UserCodeException: java.io.IOException: Error ac...
- 2021-02-14 21:15:45.046 EST Error message from worker: java.lang.RuntimeException: org.apache.beam.sdk.util.UserCodeException: java.io.IOException: Error ac...
- 2021-02-14 21:15:48.158 EST Cancel request is committed for workflow job: 2021-02-14_17_00_40-16130639497705473472.
- 2021-02-14 21:15:48.217 EST Finished operation TextIO.Write/WriteFiles/WriteShardedBundlesToTempFiles/GroupIntoShards/ReadStream+TextIO.Write/WriteFiles/Wri...
- 2021-02-14 21:15:48.217 EST Finished operation CoGroupByKey/GBK/ReadStream+CoGroupByKey/GBK/MergeBuckets+CoGroupByKey/ConstructCoGbkResultFn+Create array+Te...
- 2021-02-14 21:15:48.217 EST Finished operation TextIO.Write/WriteFiles/GatherTempFileResults/Reshuffle/GroupByKey/ReadStream+TextIO.Write/WriteFiles/GatherT...
- 2021-02-14 21:15:48.264 EST Finished operation Read PubSub Subscription/PubsubUnboundedSource+Read PubSub Subscription/MapElements/Map+Window.Into()/Window...

Job Logs tab

The screenshot shows the Google Cloud Dataflow interface for a job named "pubsub0cogb...". The top navigation bar includes options like "CREATE SNAPSHOT", "IMPORT AS PIPELINE", "SHARE", and "MAX TIME". Below the navigation is a "JOB GRAPH" section with a single node labeled "Split to Tuples" which has failed. The main content area is the "Logs" tab, which displays 416 messages. The log entries are as follows:

- 2021-02-14 21:15:05.071 EST Error message from worker: java.lang.RuntimeException: org.apache.beam.sdk.util.UserCodeException: java.io.IOException: Error ac...
- 2021-02-14 21:15:15.066 EST Error message from worker: java.lang.RuntimeException: org.apache.beam.sdk.util.UserCodeException: java.io.IOException: Error ac...
- 2021-02-14 21:15:25.065 EST Error message from worker: java.lang.RuntimeException: org.apache.beam.sdk.util.UserCodeException: java.io.IOException: Error ac...
- 2021-02-14 21:15:35.042 EST Error message from worker: java.lang.RuntimeException: org.apache.beam.sdk.util.UserCodeException: java.io.IOException: Error ac...
- 2021-02-14 21:15:45.046 EST Error message from worker: java.lang.RuntimeException: org.apache.beam.sdk.util.UserCodeException: java.io.IOException: Error ac...
- 2021-02-14 21:15:48.158 EST Cancel request is committed for workflow job: 2021-02-14_17_00_40-16130639497705473472.
- 2021-02-14 21:15:48.217 EST Finished operation TextIO.Write/WriteFiles/WriteShardedBundlesToTempFiles/GroupIntoShards/ReadStream+TextIO.Write/WriteFiles/Wri...
- 2021-02-14 21:15:48.217 EST Finished operation CoGroupByKey/GBK/ReadStream+CoGroupByKey/GBK/MergeBuckets+CoGroupByKey/ConstructCoGbkResultFn+Create array+Te...
- 2021-02-14 21:15:48.217 EST Finished operation TextIO.Write/WriteFiles/GatherTempFileResults/Reshuffle/GroupByKey/ReadStream+TextIO.Write/WriteFiles/GatherT...
- 2021-02-14 21:15:48.264 EST Finished operation Read PubSub Subscription/PubsubUnboundedSource+Read PubSub Subscription/MapElements/Map+Window.Into()/Window...

Job Logs tab

The screenshot shows the Google Cloud Dataflow interface with the 'Job Logs' tab selected. At the top, there's a navigation bar with buttons for 'CREATE SNAPSHOT' and 'IMPORT AS PIPELINE'. Below the navigation bar, there are two tabs: 'JOB GRAPH' (selected) and 'JOB METRICS'. The 'JOB GRAPH' section displays a pipeline diagram with a node labeled 'Split to Tuples' which has failed. The 'JOB LOGS' tab is active, showing a list of 100 messages. The log entries include error messages from February 14, 2021, at 21:15:05.071 EST, and informational messages about workflow jobs and file operations. A legend on the left maps log levels to colors: Emergency (red), Alert (orange), Critical (dark orange), Error (orange), Warning (yellow), Debug (blue), Info (light blue), and Notice (gray). A 'Filter logs' input field is also present.

Time	Message Type	Content
2021-02-14 21:15:05.071 EST	Error	java.lang.RuntimeException: org.apache.beam.sdk.util.UserCodeException: java.io.IOException: Error ac...
2021-02-14 21:15:15.066 EST	Error	java.lang.RuntimeException: org.apache.beam.sdk.util.UserCodeException: java.io.IOException: Error ac...
2021-02-14 21:15:25.065 EST	Error	java.lang.RuntimeException: org.apache.beam.sdk.util.UserCodeException: java.io.IOException: Error ac...
2021-02-14 21:15:35.042 EST	Error	java.lang.RuntimeException: org.apache.beam.sdk.util.UserCodeException: java.io.IOException: Error ac...
2021-02-14 21:15:45.046 EST	Error	java.lang.RuntimeException: org.apache.beam.sdk.util.UserCodeException: java.io.IOException: Error ac...
2021-02-14 21:15:48.158 EST	Cancel re	or workflow job: 2021-02-14_17_00_40-16130639497705473472.
2021-02-14 21:15:48.217 EST	Finished	TextIO.Write/WriteFiles/WriteShardedBundlesToTempFiles/GroupIntoShards/ReadStream+TextIO.Write/WriteFiles/Wri...
2021-02-14 21:15:48.217 EST	Finished	ey/GBK/ReadStream+CoGroupByKey/GBK/MergeBuckets+CoGroupByKey/ConstructCoGbkResultFn+Create array+Te...
2021-02-14 21:15:48.217 EST	Finished operation	TextIO.Write/WriteFiles/GatherTempFileResults/Reshuffle/GroupByKey/ReadStream+TextIO.Write/WriteFiles/GatherT...
2021-02-14 21:15:48.264 EST	Finished operation	Read PubSub Subscription/PubsubUnboundedSource+Read PubSub Subscription/MapElements/Map+Window.Into()/Window...

Job Logs tab

The screenshot shows the Google Cloud Dataflow interface for a job named "pubsub0cogb...". The top navigation bar includes options like "CREATE SNAPSHOT", "IMPORT AS PIPELINE", "SHARE", and "MAX TIME". Below the navigation is a "JOB GRAPH" section with a single node labeled "Split to Tuples" which has failed. The main content area is titled "Logs" and contains three tabs: "JOB LOGS" (selected), "WORKER LOGS", and "DIAGNOSTICS". Under "JOB LOGS", it says "Showing 50 messages" and "Error". A "Filter logs" dropdown is also present. The log entries are as follows:

- i Scanned up to 2/14/21, 9:07 PM. Scanned 8.6 MB.
- !! 2021-02-14 21:07:25.061 EST Error message from worker: java.lang.RuntimeException: org.apache.beam.sdk.util.UserCodeException: java.io.IOException: Error ac...
- !! 2021-02-14 21:07:35.029 EST Error message from worker: java.lang.RuntimeException: org.apache.beam.sdk.util.UserCodeException: java.io.IOException: Error ac...
- !! 2021-02-14 21:07:45.063 EST Error message from worker: java.lang.RuntimeException: org.apache.beam.sdk.util.UserCodeException: java.io.IOException: Error ac...
- !! 2021-02-14 21:07:55.059 EST Error message from worker: java.lang.RuntimeException: org.apache.beam.sdk.util.UserCodeException: java.io.IOException: Error ac...
- !! 2021-02-14 21:08:05.060 EST Error message from worker: java.lang.RuntimeException: org.apache.beam.sdk.util.UserCodeException: java.io.IOException: Error ac...
- !! 2021-02-14 21:08:15.060 EST Error message from worker: java.lang.RuntimeException: org.apache.beam.sdk.util.UserCodeException: java.io.IOException: Error ac...
- !! 2021-02-14 21:08:25.058 EST Error message from worker: java.lang.RuntimeException: org.apache.beam.sdk.util.UserCodeException: java.io.IOException: Error ac...
- !! 2021-02-14 21:08:35.054 EST Error message from worker: java.lang.RuntimeException: org.apache.beam.sdk.util.UserCodeException: java.io.IOException: Error ac...
- !! 2021-02-14 21:08:45.064 EST Error message from worker: java.lang.RuntimeException: org.apache.beam.sdk.util.UserCodeException: java.io.IOException: Error ac...

Job Logs tab

The screenshot shows the Google Cloud Dataflow Job Logs tab for a job named "pubsub0cogb...". The top navigation bar includes links for "CREATE SNAPSHOT", "+ IMPORT AS PIPELINE", "SHARE", and "MAX TIME". Below the navigation, there are tabs for "JOB GRAPH" (selected) and "JOB METRICS". A callout box highlights a failed step named "Split to Tuples" which failed in 1 second across 1 stage.

The main area is titled "Logs" with a "HIDE" button and a count of 416 messages. It has three sub-tabs: "JOB LOGS" (selected), "WORKER LOGS", and "DIAGNOSTICS". The "JOB LOGS" tab shows 50 messages, with a "Filter" button set to "403" and a "Filter logs" input field. The log entries are as follows:

- i Scanned up to 2/14/21, 9:07 PM. Scanned 14.9 MB.
- !! 2021-02-14 21:07:25.061 EST Error message from worker: java.lang.RuntimeException: org.apache.beam.sdk.util.UserCodeException: java.io.IOException: Error ac...
- !! 2021-02-14 21:07:35.029 EST Error message from worker: java.lang.RuntimeException: org.apache.beam.sdk.util.UserCodeException: java.io.IOException: Error ac...
- !! 2021-02-14 21:07:45.063 EST Error message from worker: java.lang.RuntimeException: org.apache.beam.sdk.util.UserCodeException: java.io.IOException: Error ac...
- !! 2021-02-14 21:07:55.059 EST Error message from worker: java.lang.RuntimeException: org.apache.beam.sdk.util.UserCodeException: java.io.IOException: Error ac...
- !! 2021-02-14 21:08:05.060 EST Error message from worker: java.lang.RuntimeException: org.apache.beam.sdk.util.UserCodeException: java.io.IOException: Error ac...
- !! 2021-02-14 21:08:15.060 EST Error message from worker: java.lang.RuntimeException: org.apache.beam.sdk.util.UserCodeException: java.io.IOException: Error ac...
- !! 2021-02-14 21:08:25.058 EST Error message from worker: java.lang.RuntimeException: org.apache.beam.sdk.util.UserCodeException: java.io.IOException: Error ac...
- !! 2021-02-14 21:08:35.054 EST Error message from worker: java.lang.RuntimeException: org.apache.beam.sdk.util.UserCodeException: java.io.IOException: Error ac...
- !! 2021-02-14 21:08:45.064 EST Error message from worker: java.lang.RuntimeException: org.apache.beam.sdk.util.UserCodeException: java.io.IOException: Error ac...

Worker Logs tab

The screenshot shows the Google Cloud Dataflow interface with the "Worker Logs" tab selected. At the top, there's a navigation bar with links for "CREATE SNAPSHOT" and "IMPORT AS PIPELINE". Below the navigation bar, there are two tabs: "JOB GRAPH" (selected) and "JOB METRICS". A modal window is open over the job graph, showing a step named "Split to Tuples" with a status of "Failed" and metrics "1 sec" and "1 stage".

The main area is titled "Logs" and shows 416 messages. There are three tabs: "JOB LOGS" (disabled), "WORKER LOGS" (selected), and "DIAGNOSTICS". The "WORKER LOGS" tab displays 50 messages, with a "Filter logs" dropdown and icons for refresh, copy, and help.

Sample log entries from the WORKER LOGS tab:

- Scanned up to 2/14/21, 9:13 PM. Scanned 12.5 MB.
- Request failed with code 403, performed 0 retries due to IOExceptions, performed 0 retries due to unsuccessful status codes, HTTP...
- Execution of work for computation 'S6' on key '' failed with uncaught exception. Work will be retried locally.
- Opening writer f35c1b9d-2ea8-43c9-a37a-12a7cfef41ba for window org.apache.beam.sdk.transforms.windowing.GlobalWindow@693f4dcf pa...
- Request failed with code 403, performed 0 retries due to IOExceptions, performed 0 retries due to unsuccessful status codes, HTTP...
- Execution of work for computation 'S6' on key '' failed with uncaught exception. Work will be retried locally.
- Opening writer 30dec003-f203-457f-a332-c4449d319db2 for window org.apache.beam.sdk.transforms.windowing.GlobalWindow@693f4dcf pa...
- Request failed with code 403, performed 0 retries due to IOExceptions, performed 0 retries due to unsuccessful status codes, HTTP...
- Execution of work for computation 'S6' on key '' failed with uncaught exception. Work will be retried locally.
- Opening writer 29fa28fc-e973-4a1d-a2d9-8c8a06281f97 for window org.apache.beam.sdk.transforms.windowing.GlobalWindow@693f4dcf pa...

Worker Logs tab

The screenshot shows the Google Cloud Dataflow interface. At the top, there are navigation links: back (left arrow), project name ('pubsub0cogb...'), 'CREATE SNAPSHOT', 'IMPORT AS PIPELINE', 'SHARE', 'MAX TIME ▾', and a refresh icon. Below these are two tabs: 'JOB GRAPH' (selected) and 'JOB METRICS'. The 'JOB GRAPH' view displays a DAG with nodes like 'TextIO.Write' and 'WriteFiles'. A specific node, 'WriteShardedBundlesToTempFiles', is highlighted with a red border and a warning icon, indicating it has failed. Below the graph, the 'Logs' section is expanded, showing 416 messages. The log table has columns for timestamp, severity (info or warning icon), message, and log ID. The first few log entries are as follows:

Timestamp	Severity	Message	Log ID
2021-02-14 21:15:07.120 EST	Info	Opening writer 991d1188-2116-4046-b82b-0455ba599eff for window org.apache.beam.sdk.transforms.windowing.GlobalWindow@693f4dcf pa...	
2021-02-14 21:15:07.258 EST	Warning	Request failed with code 403, performed 0 retries due to IOExceptions, performed 0 retries due to unsuccessful status codes, HTT...	
2021-02-14 21:15:17.267 EST	Info	Opening writer efa1cdeb-3eb1-46db-8e07-ad1a93f4cf0c for window org.apache.beam.sdk.transforms.windowing.GlobalWindow@693f4dcf pa...	
2021-02-14 21:15:17.399 EST	Warning	Request failed with code 403, performed 0 retries due to IOExceptions, performed 0 retries due to unsuccessful status codes, HTT...	
2021-02-14 21:15:27.409 EST	Info	Opening writer 18203e10-9636-4675-8bd3-f36736889be8 for window org.apache.beam.sdk.transforms.windowing.GlobalWindow@693f4dcf pa...	
2021-02-14 21:15:27.545 EST	Warning	Request failed with code 403, performed 0 retries due to IOExceptions, performed 0 retries due to unsuccessful status codes, HTT...	
2021-02-14 21:15:37.554 EST	Info	Opening writer d53ef4b1-e4ed-4f63-813e-d55fa1eba221 for window org.apache.beam.sdk.transforms.windowing.GlobalWindow@693f4dcf pa...	
2021-02-14 21:15:37.692 EST	Warning	Request failed with code 403, performed 0 retries due to IOExceptions, performed 0 retries due to unsuccessful status codes, HTT...	
2021-02-14 21:15:47.702 EST	Info	Opening writer a851c06c-4a7d-42d3-883f-bb9646056d3b for window org.apache.beam.sdk.transforms.windowing.GlobalWindow@693f4dcf pa...	
2021-02-14 21:15:47.861 EST	Warning	Request failed with code 403, performed 0 retries due to IOExceptions, performed 0 retries due to unsuccessful status codes, HTT...	

Worker Logs tab

The screenshot shows the Google Cloud Dataflow interface. At the top, there's a navigation bar with a back arrow, the job name 'pubsub0cogb...', and various buttons like 'CREATE SNAPSHOT', 'IMPORT AS PIPELINE', 'SHARE', and 'MAX TIME'. Below the navigation is a tabs section with 'JOB GRAPH' (selected) and 'JOB METRICS'. The main area displays a 'JOB GRAPH' diagram where a step named 'WriteShardedBundlesToTempFiles' is highlighted in red, indicating it has failed. A tooltip for this step shows the status: 'Failed' with a duration of '1 min 11 sec' and '2 stages'. Below the graph, there's a 'Logs' section with a 'HIDE' button and a count of '416' logs. This section is expanded to show 'Worker logs for step "WriteShardedBundlesToTempFiles"' with 50 messages. The log entries are timestamped from 2021-02-14 21:15:07.120 EST to 2021-02-14 21:15:47.861 EST, detailing multiple attempts to open writers and failing with code 403 due to IOExceptions or unsuccessful status codes.

Timestamp	Message
2021-02-14 21:15:07.120 EST	Opening writer 991d1188-2116-4046-b82b-0455ba599eff for window org.apache.beam.sdk.transforms.windowing.GlobalWindow@693f4dcf pa...
2021-02-14 21:15:07.258 EST	Request failed with code 403, performed 0 retries due to IOExceptions, performed 0 retries due to unsuccessful status codes, HTT...
2021-02-14 21:15:17.267 EST	Opening writer efa1cdeb-3eb1-46db-8e07-ad1a93f4cf0c for window org.apache.beam.sdk.transforms.windowing.GlobalWindow@693f4dcf pa...
2021-02-14 21:15:17.399 EST	Request failed with code 403, performed 0 retries due to IOExceptions, performed 0 retries due to unsuccessful status codes, HTT...
2021-02-14 21:15:27.409 EST	Opening writer 18203e10-9636-4675-8bd3-f36736889be8 for window org.apache.beam.sdk.transforms.windowing.GlobalWindow@693f4dcf pa...
2021-02-14 21:15:27.545 EST	Request failed with code 403, performed 0 retries due to IOExceptions, performed 0 retries due to unsuccessful status codes, HTT...
2021-02-14 21:15:37.554 EST	Opening writer d53ef4b1-e4ed-4f63-813e-d55fa1eba221 for window org.apache.beam.sdk.transforms.windowing.GlobalWindow@693f4dcf pa...
2021-02-14 21:15:37.692 EST	Request failed with code 403, performed 0 retries due to IOExceptions, performed 0 retries due to unsuccessful status codes, HTT...
2021-02-14 21:15:47.702 EST	Opening writer a851c06c-4a7d-42d3-883f-bb9646056d3b for window org.apache.beam.sdk.transforms.windowing.GlobalWindow@693f4dcf pa...
2021-02-14 21:15:47.861 EST	Request failed with code 403, performed 0 retries due to IOExceptions, performed 0 retries due to unsuccessful status codes, HTT...

Worker Logs tab

The screenshot shows the Google Cloud Dataflow interface with the "Worker Logs" tab selected. At the top, there's a navigation bar with options like "CREATE SNAPSHOT" and "IMPORT AS PIPELINE". Below the navigation bar, there are tabs for "JOB GRAPH" and "JOB METRICS", with "JOB GRAPH" currently active. In the center, a job graph visualization shows a node labeled "TextIO.Write" which has a child node "WriteFiles". A specific node, "WriteSharde...oTempFiles", is highlighted with a red border and a warning icon, indicating it failed. Below the graph, the "Logs" section is expanded, showing 416 messages. The "WORKER LOGS" tab is selected, displaying log entries from February 14, 2021, at 21:15:27.409 EST. The logs include various informational and error messages related to writer operations and computation execution.

Time	Message
2021-02-14 21:15:27.409 EST	Opening writer 18203e10-9636-4675-8bd3-f36736889be8 for window org.apache.beam.sdk.transforms.windowing.GlobalWindow@693f4dcf pa...
2021-02-14 21:15:27.545 EST	Request failed with code 403, performed 0 retries due to IOExceptions, performed 0 retries due to unsuccessful status codes, HTT...
2021-02-14 21:15:27.547 EST	Execution of work for computation 'S6' on key '' failed with uncaught exception. Work will be retried locally.
2021-02-14 21:15:37.554 EST	Opening writer d53ef4b1-e4ed-4f63-813e-d55fa1eba221 for window org.apache.beam.sdk.transforms.windowing.GlobalWindow@693f4dcf pa...
2021-02-14 21:15:37.692 EST	Request failed with code 403, performed 0 retries due to IOExceptions, performed 0 retries due to unsuccessful status codes, HTT...
2021-02-14 21:15:37.694 EST	Execution of work for computation 'S6' on key '' failed with uncaught exception. Work will be retried locally.
2021-02-14 21:15:47.702 EST	Opening writer a851c06c-4a7d-42d3-883f-bb9646056d3b for window org.apache.beam.sdk.transforms.windowing.GlobalWindow@693f4dcf pa...
2021-02-14 21:15:47.861 EST	Request failed with code 403, performed 0 retries due to IOExceptions, performed 0 retries due to unsuccessful status codes, HTT...
2021-02-14 21:15:47.862 EST	Execution of work for computation 'S6' on key '' failed with uncaught exception. Work will be retried locally.

Diagnostics tab

The screenshot shows the Google Cloud Dataflow interface for a job named "pubsub0cogb...". The top navigation bar includes "CREATE SNAPSHOT", "+ IMPORT AS PIPELINE", "SHARE", and "MAX TIME". Below the navigation is a "JOB GRAPH" tab, which displays a DAG diagram. A specific stage, "WriteSharde...oTempFiles", is highlighted with a red border and marked as "Failed" with a duration of "1 min 11 sec" and "2 stages". The "TextIO.Write" and "WriteFiles" components are also visible in the graph. Below the graph, the "Logs" section shows 416 errors. The "DIAGNOSTICS" tab is selected, displaying a table with columns "Occurrences", "Count", and "Error". One row shows 422 occurrences of the error: "RuntimeException: org.apache.beam.sdk.util.UserCodeException: java.io.IOException: Error accessing gs://random-bucket/.temp-beam-7abec98f-e2c9-4...".

Occurrences	Count	Error
422		RuntimeException: org.apache.beam.sdk.util.UserCodeException: java.io.IOException: Error accessing gs://random-bucket/.temp-beam-7abec98f-e2c9-4...

Diagnostics tab

The screenshot shows the Google Cloud Dataflow interface for a job named "pubsub0cogb...". The top navigation bar includes "CREATE SNAPSHOT", "+ IMPORT AS PIPELINE", "SHARE", and "MAX TIME". Below the navigation is a "JOB GRAPH" tab, which displays a DAG diagram. A specific node, "WriteSharder...oTempFiles", is highlighted with a red border and labeled as "Failed" with a duration of "1 min 11 sec" and "2 stages". The "JOBTIME" section shows a timeline from "Aug 24, 2020" to "Aug 25, 2020". The "Logs" section shows 416 log entries under "JOBLONG". The "DIAGNOSTICS" tab is selected, displaying a table of errors:

Message	Users	First seen	Last seen	Status
on: org.apache.beam.sdk.util.UserCodeException: java.io.IOException: Error accessing gs://random-bucket/.temp-beam-7abec98f-e2c9-4...	-	Aug 24, 2020	1 hour ago	-

Diagnostics tab

The screenshot shows the Google Cloud Dataflow interface for a job named "pubsub0cogb...". The top navigation bar includes "CREATE SNAPSHOT", "+ IMPORT AS PIPELINE", "SHARE", and "MAX TIME". Below the navigation is a "JOB GRAPH" tab, which displays a node labeled "TextIO.Write" with a red error icon. A tooltip for this node indicates it is a "WriteSharder...oTempFiles" step that failed in 1 min 11 sec across 2 stages. The "JOBT METRICS" tab is also visible. Below the graph, the "Logs" section shows 416 log entries. The "DIAGNOSTICS" tab is selected, displaying a table of errors. The first error row is highlighted with a purple background and shows the following details:

on: org.apache.beam.sdk.util.UserCodeException: java.io.IOException: Error accessing gs://random-bucket/.temp-beam-7abec98f-e2c9-4...	Users	First seen	Last seen	Status
	-	Aug 24, 2020	1 hour ago	-

Diagnostics tab: Job insights

Initialization failure?

Worker jar file misconfiguration

Memory pressure?

Out of memory: Kill process

Shutting down JVM after consecutive periods of measured GC thrashing

Slow processing?

Lengthy operation in step

Hot key detected

Large amount of data?

Commit Key request Exceeds Size Limit

Too much logging?

Throttling logger worker

Diagnostics tab: Job insights

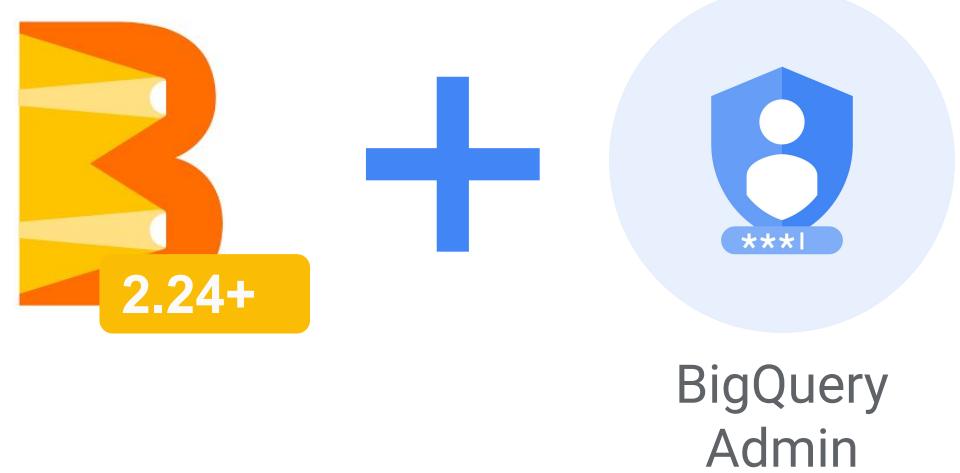
The screenshot shows the Google Cloud Dataflow interface for a job named "omarismail-thrash-gc-attempt". The top navigation bar includes a back arrow, the job name, an "IMPORT AS PIPELINE" button, "SHARE" and "MAX TIME" dropdowns, and a refresh icon.

The main area has tabs for "JOB GRAPH" (selected) and "JOB METRICS". Below these, a central panel displays a failed stage: "Combine.perKey(Count)" with status "Failed" (0 sec), showing "0 of 2 stages succeeded".

Under the "Logs" section, there are tabs for "HIDE" (with 4 errors), "JOB LOGS", "WORKER LOGS", and "DIAGNOSTICS" (selected). The "DIAGNOSTICS" table has columns: Occurrences, Count, and Error. One entry shows 1 occurrence with the error message: "Shutting down JVM after 8 consecutive periods of measured GC thrashing. Memory is used/total/max = 9598/9610/9610 MB, GC last/max = 99.77/112.5...". A note below states: "The worker was shut down after a long period of high memory pressure."

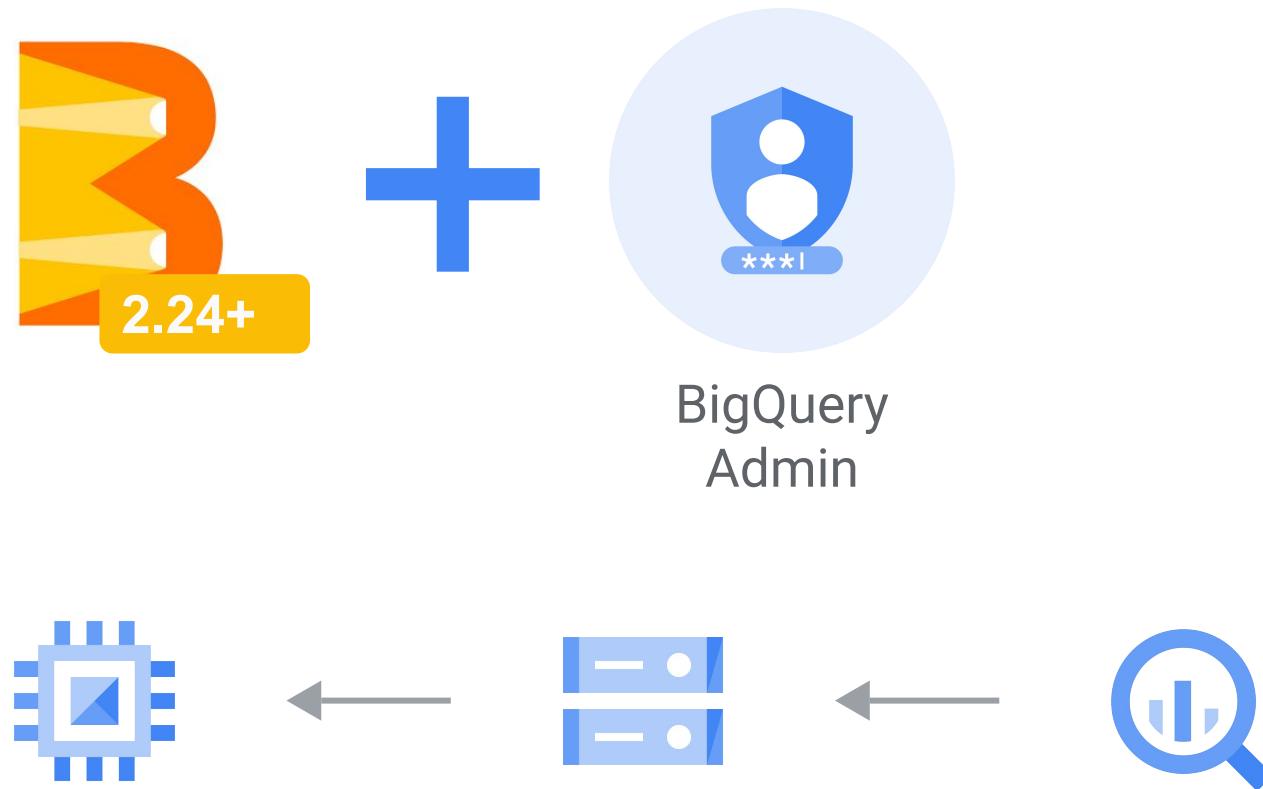
BigQuery Jobs tab

- Beam 2.24+ and user with BigQuery Admin role



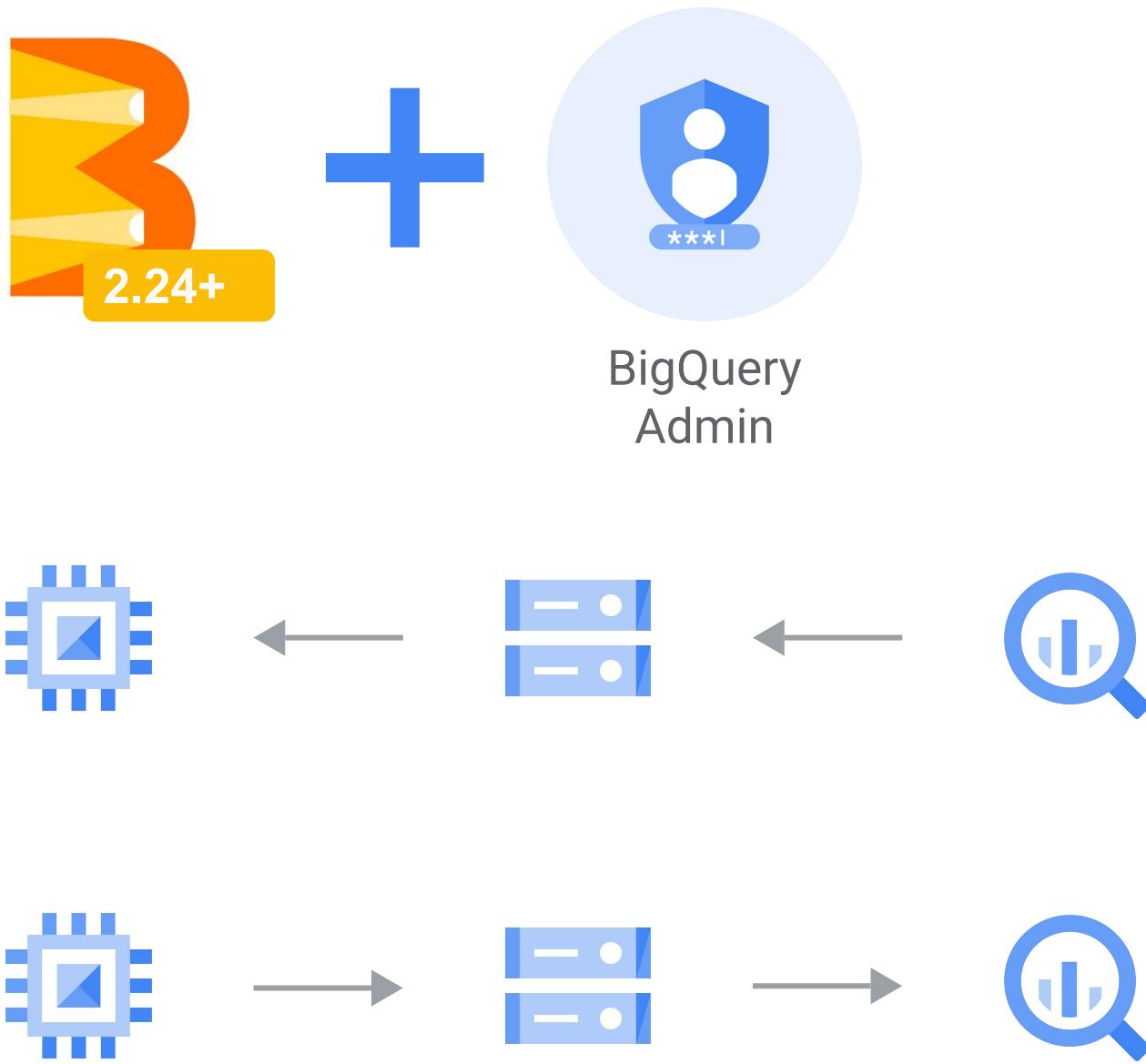
BigQuery Jobs tab

- Beam 2.24+ and user with BigQuery Admin role
- BigQueryIO.Read:
 - Extract jobs
 - Query jobs



BigQuery Jobs tab

- Beam 2.24+ and user with BigQuery Admin role
- BigQueryIO.Read:
 - Extract jobs
 - Query jobs
- BigQueryIO.Write:
 - Load jobs



BigQuery Jobs tab

The screenshot shows the Google Cloud BigQuery Jobs tab for a job named "bq-tornado". The top navigation bar includes a back arrow, the job name "bq-tornado", an "IMPORT AS PIPELINE" button, a "SHARE" button, a "MAX TIME" dropdown, and a refresh icon. Below the navigation is a toolbar with "JOB GRAPH" and "JOB METRICS" tabs, and a "Logs" section with a "HIDE" button. A "BIGQUERY JOBS" tab is selected, indicated by a blue underline. A tooltip for a "BQ Write" step shows it succeeded in 5 sec with 7 of 7 stages succeeded. The main content area displays a message: "This will incur a billing cost to query the underlying BigQuery table which stores this information. [Learn more](#)". At the bottom left is a "Data location" dropdown and a "LOAD BIGQUERY JOBS" button.

BigQuery Jobs tab

The screenshot shows the Google Cloud BigQuery Jobs tab for a project named "bq-tornado". The top navigation bar includes a back arrow, the project name, an "IMPORT AS PIPELINE" button, a "SHARE" button, and a "MAX TIME" dropdown. Below the navigation is a toolbar with "JOB GRAPH" and "JOB METRICS" tabs, and a "Logs" section with a "HIDE" button. A "BIGQUERY JOBS" tab is selected, indicated by a blue underline. A tooltip for a "BQ Write" stage shows it succeeded in 5 seconds with 7 of 7 stages succeeded. At the bottom left is a "Data location" dropdown with a question mark icon, and a "LOAD BIGQUERY JOBS" button with a question mark icon.

This will incur a billing cost to query the underlying BigQuery table which stores this information. [Learn more](#)

Data location ?

LOAD BIGQUERY JOBS ?

BigQuery Jobs tab

The screenshot shows the Google Cloud BigQuery Jobs tab for a project named "bq-tornado". The interface includes:

- A top navigation bar with back, forward, and search icons, along with "bq-tornado", "+ IMPORT AS PIPELINE", "SHARE", and "MAX TIME" dropdowns.
- A header with "JOB GRAPH" and "JOB METRICS" tabs, where "JOB GRAPH" is selected.
- A sidebar with a "Type to filter" input field and a list of regions:
 - United States (US) (selected)
 - European Union (EU)
 - Los Angeles (us-west2)
 - Northern Virginia (us-east4)
 - Montréal (northamerica-northeast1)
 - São Paulo (southamerica-east1)
 - London (europe-west2)
 - Finland (europe-north1)
- A main content area showing a job card for "BQ Write" which "Succeeded" in "5 sec" with "7 of 7 stages succeeded".
- Below the job card, tabs for "DIAGNOSTICS" and "BIGQUERY JOBS" are visible, with "BIGQUERY JOBS" selected.
- A note at the bottom states: "Query the underlying BigQuery table which stores this information. [Learn more](#)".
- Buttons for "LOAD BIGQUERY JOBS" and a question mark icon.

BigQuery Jobs tab

The screenshot shows the Google Cloud BigQuery Jobs tab for a project named "bq-tornado". The top navigation bar includes a back arrow, the project name, an "IMPORT AS PIPELINE" button, a "SHARE" button, and a "MAX TIME" dropdown. Below the navigation is a toolbar with "JOB GRAPH" and "JOB METRICS" tabs, and a "Logs" section with a "HIDE" button. A "BIGQUERY JOBS" tab is selected, indicated by a blue underline. A tooltip for a "BQ Write" step shows it succeeded in 5 seconds with 7 of 7 stages succeeded. The main area displays a message about incurring a billing cost to query underlying BigQuery tables, a "Data location" dropdown set to "United States (US)", and a "LOAD BIGQUERY JOBS" button.

This will incur a billing cost to query the underlying BigQuery table which stores this information. [Learn more](#)

Data location
United States (US) ?

LOAD BIGQUERY JOBS ?

BigQuery Jobs tab

The screenshot shows the Google Cloud BigQuery Jobs tab for a project named "bq-tornado". The top navigation bar includes a back arrow, the project name, an "IMPORT AS PIPELINE" button, a "SHARE" button, a "MAX TIME" dropdown, and a search icon. Below the navigation is a toolbar with "JOB GRAPH" and "JOB METRICS" tabs, and a "Logs" section with a "HIDE" button. A modal window is open over the main content, showing a single job step: "BQ Write" with status "Succeeded", duration "5 sec", and "7 of 7 stages succeeded". The main content area has tabs for "JOB LOGS", "WORKER LOGS", "DIAGNOSTICS", and "BIGQUERY JOBS", with "BIGQUERY JOBS" currently selected. A message box states: "This will incur a billing cost to query the underlying BigQuery table which stores this information. [Learn more](#)". Below this is a "Data location" dropdown set to "United States (US)". The main table header includes columns: ID, Type, End time, Elapsed time, Start time, State, and More Info. A loading message "Loading jobs... This may take a few minutes." is displayed.

BigQuery Jobs tab

The screenshot shows the Google Cloud BigQuery Jobs tab for a project named "bq-tornado". The top navigation bar includes a back arrow, the project name, an "IMPORT AS PIPELINE" button, a "SHARE" button, a "MAX TIME" dropdown, and a search icon. Below the navigation is a toolbar with "JOB GRAPH" and "JOB METRICS" tabs, and a "Logs" section with a "HIDE" button. The main content area has tabs for "JOB LOGS", "WORKER LOGS", "DIAGNOSTICS", and "BIGQUERY JOBS", with "BIGQUERY JOBS" currently selected. A warning message states: "This will incur a billing cost to query the underlying BigQuery table which stores this information. [Learn more](#)". Below this is a "Data location" dropdown set to "United States (US)" with a refresh button and a help icon. The status message "Last updated: Just now" is displayed. The main table lists two jobs:

ID	Type	End time	Elapsed time	Start time	State	More Info
beam_bq_job_LOA...	LOAD	Mar 6, 2021, 1:17:52 PM	1 sec	Mar 6, 2021, 1:17:51 PM	DONE	COMMAND LINE
beam_bq_job_EXP...	EXTRACT	Mar 6, 2021, 1:16:56 PM	0 sec	Mar 6, 2021, 1:16:55 PM	DONE	COMMAND LINE

BigQuery Jobs tab

The screenshot shows the Google Cloud BigQuery Jobs tab for a project named "bq-tornado". The top navigation bar includes a back arrow, the project name, an "IMPORT AS PIPELINE" button, a "SHARE" button, a "MAX TIME" dropdown, and a search icon. Below the navigation is a toolbar with "JOB GRAPH" and "JOB METRICS" tabs, and a "Logs" section with a "HIDE" button. The main content area has tabs for "JOB LOGS", "WORKER LOGS", "DIAGNOSTICS", and "BIGQUERY JOBS", with "BIGQUERY JOBS" currently selected. A warning message states: "This will incur a billing cost to query the underlying BigQuery table which stores this information. [Learn more](#)". Below this is a "Data location" dropdown set to "United States (US)" with a refresh button and a help icon. The status message "Last updated: Just now" is displayed. The main table lists two jobs:

ID	Type	End time	Elapsed time	Start time	State	More Info
beam_bq_job_LOA...	LOAD	Mar 6, 2021, 1:17:52 PM	1 sec	Mar 6, 2021, 1:17:51 PM	DONE	COMMAND LINE
beam_bq_job_EXP...	EXTRACT	Mar 6, 2021, 1:16:56 PM	0 sec	Mar 6, 2021, 1:16:55 PM	DONE	COMMAND LINE

BigQuery Jobs tab

The screenshot shows the Google Cloud BigQuery Jobs tab for a job named "bq-tornado". The main interface includes tabs for "JOB GRAPH" and "JOB METRICS", and sections for "Logs" (with "HIDE" and "JOB LOGS / WORKER LOGS" options) and "Data location" (set to "United States (US)"). A modal window is overlaid, containing the following text:

Find more information with the gcloud command line.

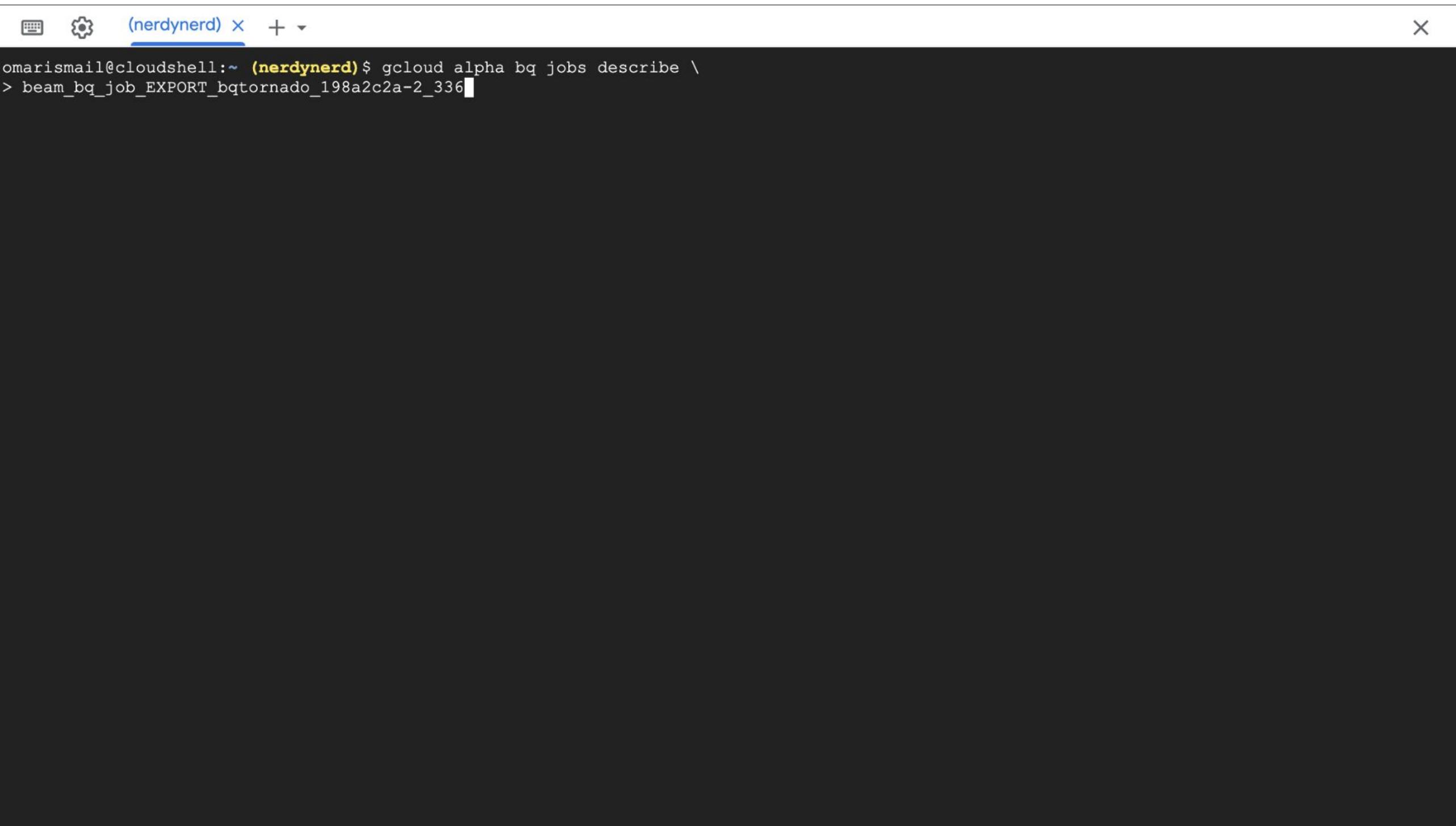
Using the BigQuery job ID, you can run the following command to display more information about a job. [Learn more](#)

```
$ gcloud alpha bq jobs describe \
beam_bq_job_EXPORT_bqtornado_198a2c2a-2_336
```

Buttons at the bottom of the modal include "CLOSE" and "RUN IN CLOUD SHELL" (which has a hand cursor icon).

ID	Type	End time	Elapsed time	Start time	State	More Info
beam_bq_job_LOA...	LOAD	Mar 6, 2021, 1:17:52 PM	1 sec	Mar 6, 2021, 1:17:51 PM	DONE	COMMAND LINE
beam_bq_job_EXP...	EXTRACT	Mar 6, 2021, 1:16:56 PM	0 sec	Mar 6, 2021, 1:16:55 PM	DONE	COMMAND LINE

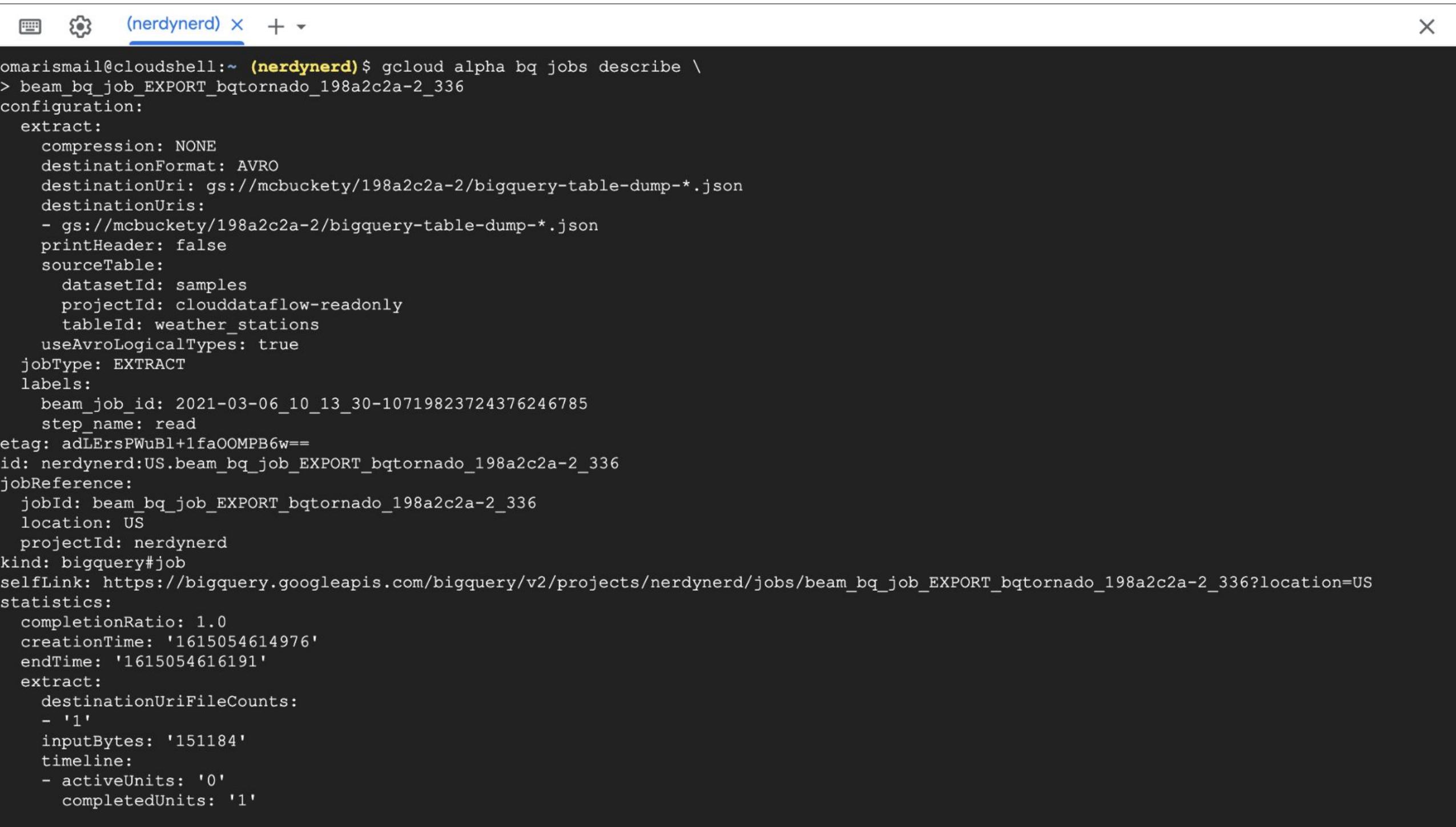
BigQuery Jobs tab



A screenshot of a terminal window titled '(nerdynerd)'. The window contains the following command:

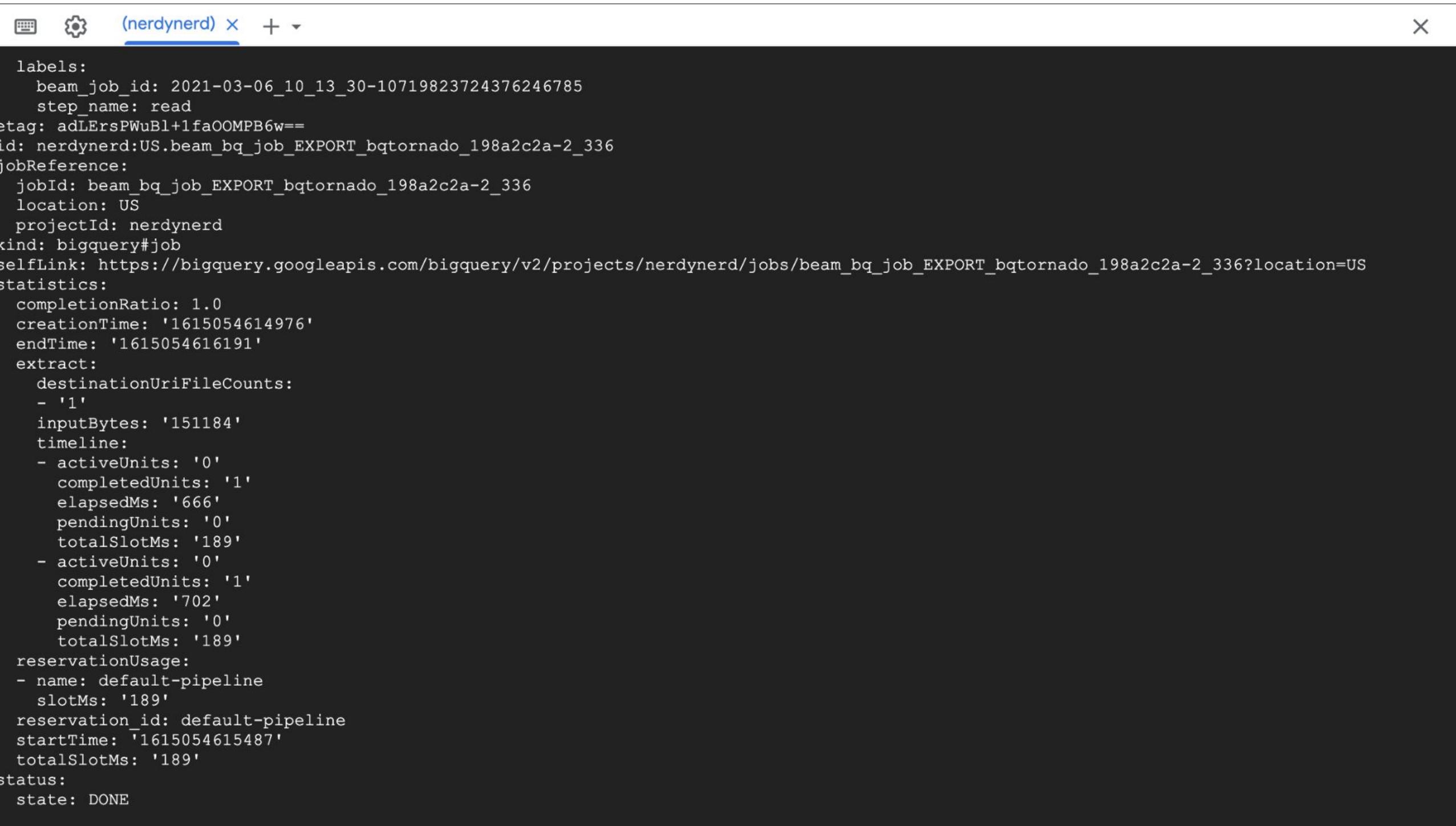
```
omarismail@cloudshell:~ (nerdynerd)$ gcloud alpha bq jobs describe \  
> beam_bq_job_EXPORT_bqtornado_198a2c2a-2_336
```

BigQuery Jobs tab



```
omarismail@cloudshell:~ (nerdynerd)$ gcloud alpha bq jobs describe \
> beam_bq_job_EXPORT_bqtornado_198a2c2a-2_336
configuration:
  extract:
    compression: NONE
    destinationFormat: AVRO
    destinationUri: gs://mcbuckety/198a2c2a-2/bigquery-table-dump-*.json
    destinationUris:
      - gs://mcbuckety/198a2c2a-2/bigquery-table-dump-*.json
    printHeader: false
    sourceTable:
      datasetId: samples
      projectId: clouddataflow-readonly
      tableId: weather_stations
      useAvroLogicalTypes: true
    jobType: EXTRACT
    labels:
      beam_job_id: 2021-03-06_10_13_30-10719823724376246785
      step_name: read
  etag: adLErsPWuBl+1faOMPB6w==
  id: nerdynerd:US.beam_bq_job_EXPORT_bqtornado_198a2c2a-2_336
  jobReference:
    jobId: beam_bq_job_EXPORT_bqtornado_198a2c2a-2_336
    location: US
    projectId: nerdynerd
  kind: bigquery#job
  selfLink: https://bigquery.googleapis.com/bigquery/v2/projects/nerdynerd/jobs/beam_bq_job_EXPORT_bqtornado_198a2c2a-2_336?location=US
  statistics:
    completionRatio: 1.0
    creationTime: '1615054614976'
    endTime: '1615054616191'
    extract:
      destinationUriFileCounts:
        - '1'
      inputBytes: '151184'
      timeline:
        - activeUnits: '0'
          completedUnits: '1'
```

BigQuery Jobs tab

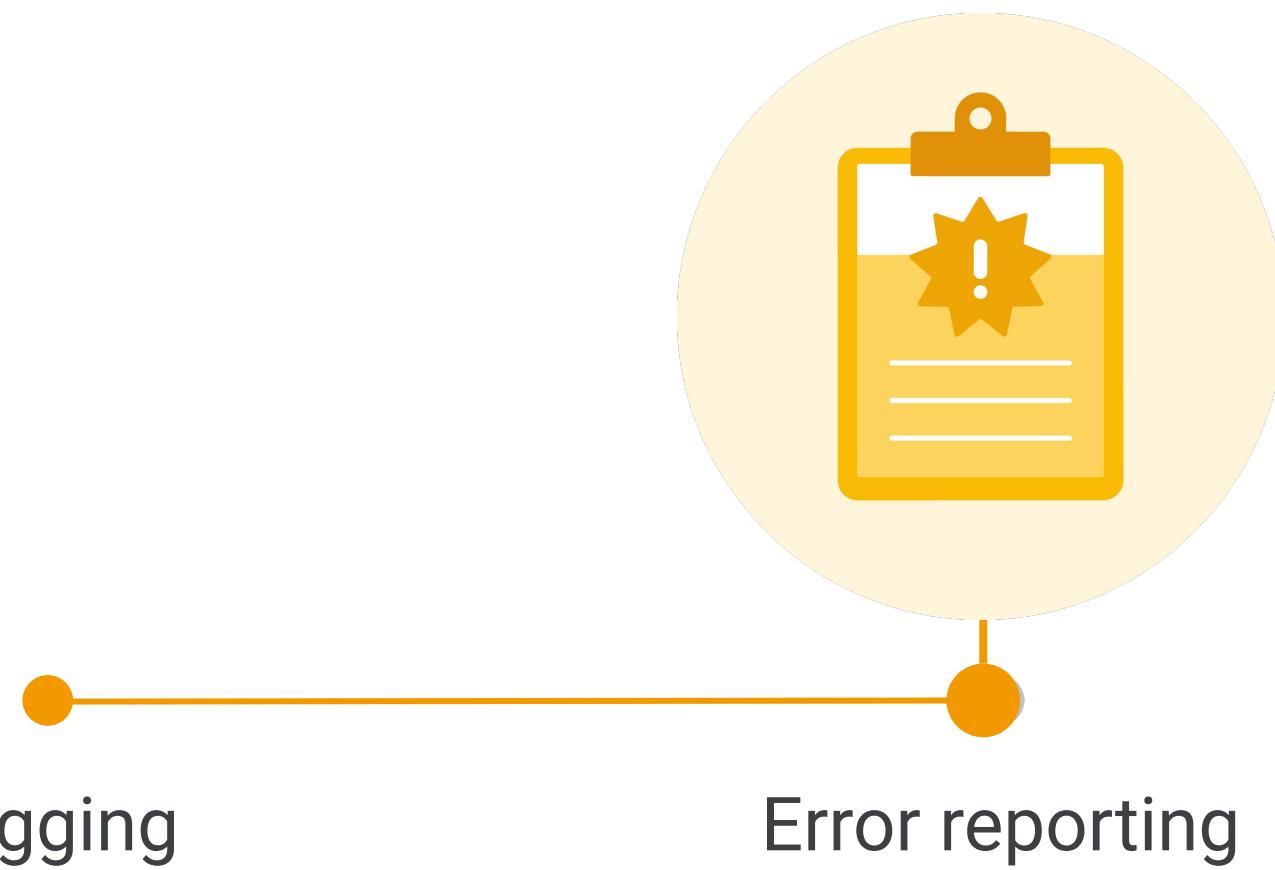


The screenshot shows a browser window with a single tab titled '(nerdynerd)'. The content of the tab is a JSON object representing a BigQuery job. The JSON structure includes fields such as labels, etag, id, jobReference, kind, selfLink, statistics, extract, timeline, reservationUsage, and status. The 'labels' field contains specific identifiers like beam_job_id and step_name. The 'statistics' field provides performance metrics like completionRatio, creationTime, endTime, and various unit counts. The 'status' field indicates the job is 'DONE'.

```
labels:
  beam_job_id: 2021-03-06_10_13_30-10719823724376246785
  step_name: read
etag: adLErsPWuBl+1faOOMPB6w==
id: nerdynerd:US.beam_bq_job_EXPORT_bqtornado_198a2c2a-2_336
jobReference:
  jobId: beam_bq_job_EXPORT_bqtornado_198a2c2a-2_336
  location: US
  projectId: nerdynerd
kind: bigquery#job
selfLink: https://bigquery.googleapis.com/bigquery/v2/projects/nerdynerd/jobs/beam_bq_job_EXPORT_bqtornado_198a2c2a-2_336?location=US
statistics:
  completionRatio: 1.0
  creationTime: '1615054614976'
  endTime: '1615054616191'
  extract:
    destinationUriFileCounts:
    - '1'
    inputBytes: '151184'
    timeline:
    - activeUnits: '0'
      completedUnits: '1'
      elapsedMs: '666'
      pendingUnits: '0'
      totalSlotMs: '189'
    - activeUnits: '0'
      completedUnits: '1'
      elapsedMs: '702'
      pendingUnits: '0'
      totalSlotMs: '189'
    reservationUsage:
    - name: default-pipeline
      slotMs: '189'
    reservation_id: default-pipeline
    startTime: '1615054615487'
    totalSlotMs: '189'
status:
  state: DONE
```

Logging and Error Reporting

Agenda



Diagnostics tab

The screenshot shows the Google Cloud Dataflow interface for a job named "pubsub0cogb...". The top navigation bar includes "CREATE SNAPSHOT", "+ IMPORT AS PIPELINE", "SHARE", and "MAX TIME". Below the navigation is a "JOB GRAPH" tab, which displays a DAG diagram. A specific node, "WriteSharderToTempFiles", is highlighted with a red border and labeled as "Failed" with a duration of "1 min 11 sec" and "2 stages". The "JOBT METRICS" tab is also visible. The main content area is titled "Logs" and contains three tabs: "JOB LOGS", "WORKER LOGS", and "DIAGNOSTICS". The "DIAGNOSTICS" tab is selected, showing a table of errors. The first error listed is:

on: org.apache.beam.sdk.util.UserCodeException: java.io.IOException: Error accessing gs://random-bucket/.temp-beam-7abec98f-e2c9-4...	Users	First seen	Last seen	Status
	-	Aug 24, 2020	1 hour ago	-

Error Reporting

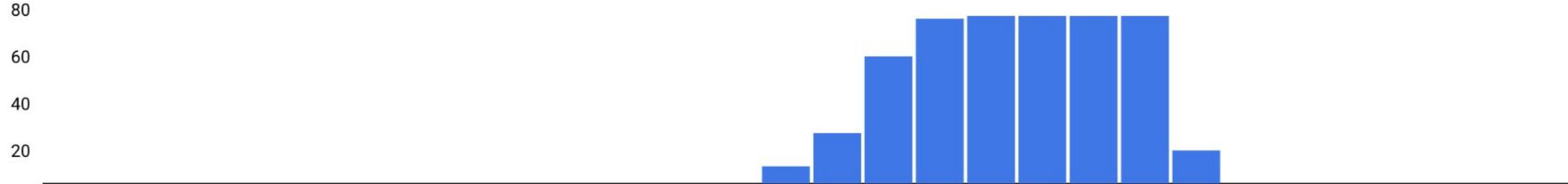
Error Reporting Error Details All services All versions AUTO RELOAD Open :

Filter errors 1 hour 6 hours **1 day** 7 days 30 days

RuntimeException: org.apache.beam.sdk.util.UserCodeException: java.io.IOException: Error accessing g...
org.apache.beam.runners.dataflow.worker.GroupAlsoByWindowsParDoFn\$1.output (GroupAlsoByWindowsParDoFn.java:187)

Resolution Status	Occurrences	Seen in	First seen	Last seen
! Open Link to issue	450	Dataflow Jobs:2021-02-14_16_35_46-16556880619287800299 More	Aug 24, 2020	1 hour ago

Errors



Stack trace sample

Parsed Raw

```
java.lang.RuntimeException: org.apache.beam.sdk.util.UserCodeException: java.io.IOException: Error accessing gs://random-bucket/.temp-beam-7abec98f-e2c9-4c47-b157-d3b2eebf50ac/26a58b6d-65fe-490d-8598-51b0cf44d017
at org.apache.beam.runners.dataflow.worker.GroupAlsoByWindowsParDoFn$1.output (GroupAlsoByWindowsParDoFn.java:187)
at org.apache.beam.runners.dataflow.worker.GroupAlsoByWindowFnRunner$1.outputWindowedValue (GroupAlsoByWindowFnRunner.java:108)
at org.apache.beam.runners.dataflow.worker.repackaged.org.apache.beam.runners.core.ReduceFnRunner.lambda$onTrigger$1 (ReduceFnRunner.java:1060)
at org.apache.beam.runners.dataflow.worker.repackaged.org.apache.beam.runners.core.ReduceFnContextFactory$OnTriggerContextImpl.output (ReduceFnContextFactory.java:445)
```

Error Reporting

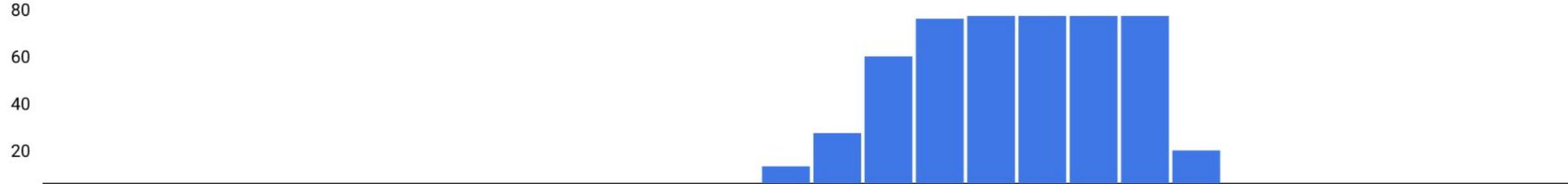
Error Reporting ← Error Details All services All versions ▶ AUTO RELOAD ! Open :

Filter errors 1 hour 6 hours **1 day** (mouse cursor) 1 day 30 days

RuntimeException: org.apache.beam.sdk.util.UserCodeException: java.io.IOException: Error accessing g...
org.apache.beam.runners.dataflow.worker.GroupAlsoByWindowsParDoFn\$1.output (GroupAlsoByWindowsParDoFn.java:187)

Resolution Status	Occurrences	Seen in	First seen	Last seen
! Open Link to issue	450	Dataflow Jobs:2021-02-14_16_35_46-16556880619287800299 More	Aug 24, 2020	1 hour ago

Errors



Stack trace sample

Parsed Raw

```
java.lang.RuntimeException: org.apache.beam.sdk.util.UserCodeException: java.io.IOException: Error accessing gs://random-bucket/.temp-beam-7abec98f-e2c9-4c47-b157-d3b2eebf50ac/26a58b6d-65fe-490d-8598-51b0cf44d017
at org.apache.beam.runners.dataflow.worker.GroupAlsoByWindowsParDoFn$1.output (GroupAlsoByWindowsParDoFn.java:187)
at org.apache.beam.runners.dataflow.worker.GroupAlsoByWindowFnRunner$1.outputWindowedValue (GroupAlsoByWindowFnRunner.java:108)
at org.apache.beam.runners.dataflow.worker.repackaged.org.apache.beam.runners.core.ReduceFnRunner.lambda$onTrigger$1 (ReduceFnRunner.java:1060)
at org.apache.beam.runners.dataflow.worker.repackaged.org.apache.beam.runners.core.ReduceFnContextFactory$OnTriggerContextImpl.output (ReduceFnContextFactory.java:445)
```

Error Reporting

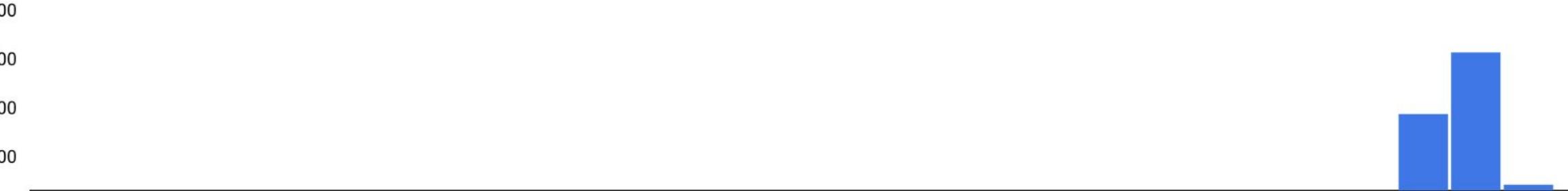
Error Reporting ← Error Details All services All versions ▶ AUTO RELOAD ! Open :

Filter errors 1 hour | 6 hours | **1 day** | 7 days | 30 days

RuntimeException: org.apache.beam.sdk.util.UserCodeException: java.io.IOException: Error accessing g...
org.apache.beam.runners.dataflow.worker.GroupAlsoByWindowsParDoFn\$1.output (GroupAlsoByWindowsParDoFn.java:187)

Resolution Status	Occurrences	Seen in	First seen	Last seen
! Open Link to issue	450	Dataflow Jobs:2021-02-14_16_35_46-16556880619287800299 ▼ More	Aug 24, 2020	1 hour ago

Errors



Stack trace sample

Parsed Raw

```
java.lang.RuntimeException: org.apache.beam.sdk.util.UserCodeException: java.io.IOException: Error accessing gs://random-bucket/.temp-beam-7abec98f-e2c9-4c47-b157-d3b2eebf50ac/26a58b6d-65fe-490d-8598-51b0cf44d017
at org.apache.beam.runners.dataflow.worker.GroupAlsoByWindowsParDoFn$1.output (GroupAlsoByWindowsParDoFn.java:187)
at org.apache.beam.runners.dataflow.worker.GroupAlsoByWindowFnRunner$1.outputWindowedValue (GroupAlsoByWindowFnRunner.java:108)
at org.apache.beam.runners.dataflow.worker.repackaged.org.apache.beam.runners.core.ReduceFnRunner.lambda$onTrigger$1 (ReduceFnRunner.java:1060)
at org.apache.beam.runners.dataflow.worker.repackaged.org.apache.beam.runners.core.ReduceFnContextFactory$OnTriggerContextImpl.output (ReduceFnContextFactory.java:445)
```

Error Reporting

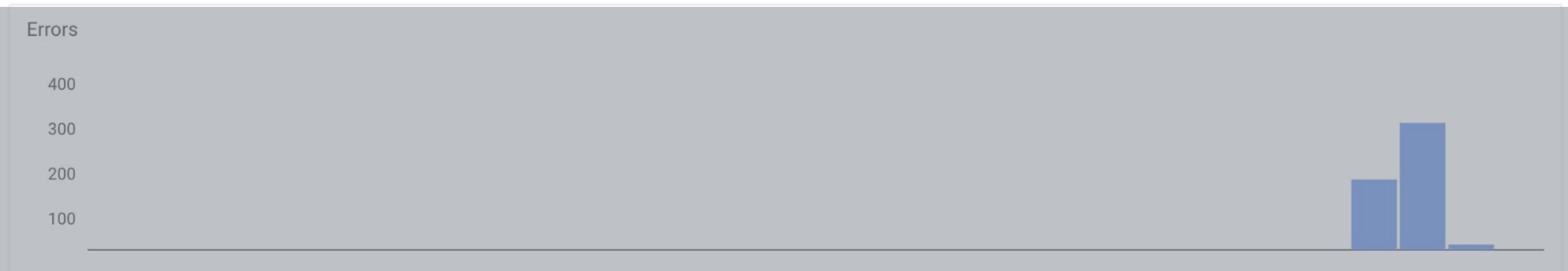
Error Reporting Error Details All services All versions AUTO RELOAD Open :

Filter errors 1 hour | 6 hours | **1 day** | 7 days | 30 days

RuntimeException: org.apache.beam.sdk.util.UserCodeException: java.io.IOException: Error accessing g...
org.apache.beam.runners.dataflow.worker.GroupAlsoByWindowsParDoFn\$1.output (GroupAlsoByWindowsParDoFn.java:187)

Resolution Status	Occurrences	Seen in	First seen	Last seen
Open Link to issue	450	Dataflow Jobs:2021-02-14_16_35_46-16556880619287800299 ▼ More 	Aug 24, 2020	1 hour ago

Errors



Stack trace sample

Parsed Raw

```
java.lang.RuntimeException: org.apache.beam.sdk.util.UserCodeException: java.io.IOException: Error accessing gs://random-bucket/.temp-beam-7abec98f-e2c9-4c47-b157-d3b2eebf50ac/26a58b6d-65fe-490d-8598-51b0cf44d017
at org.apache.beam.runners.dataflow.worker.GroupAlsoByWindowsParDoFn$1.output (GroupAlsoByWindowsParDoFn.java:187)
at org.apache.beam.runners.dataflow.worker.GroupAlsoByWindowFnRunner$1.outputWindowedValue (GroupAlsoByWindowFnRunner.java:108)
at org.apache.beam.runners.dataflow.worker.repackaged.org.apache.beam.runners.core.ReduceFnRunner.lambda$onTrigger$1 (ReduceFnRunner.java:1060)
at org.apache.beam.runners.dataflow.worker.repackaged.org.apache.beam.runners.core.ReduceFnContextFactory$OnTriggerContextImpl.output (ReduceFnContextFactory.java:445)
```

Error Reporting

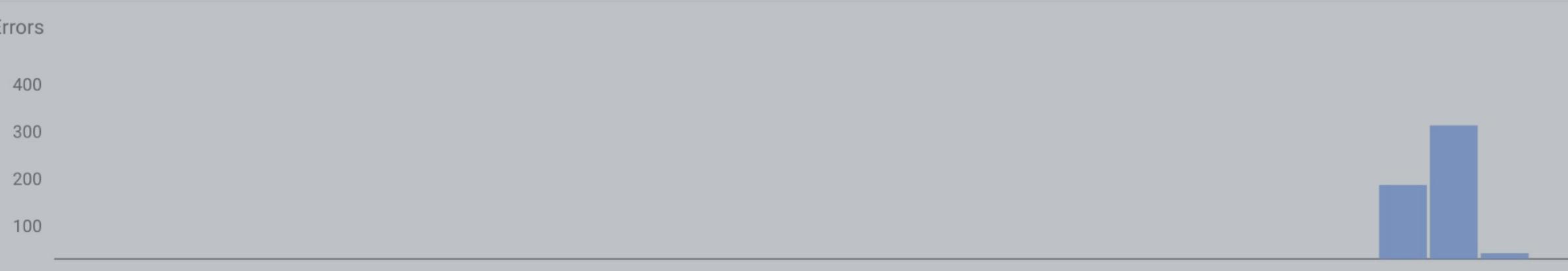
Error Reporting Error Details All services All versions AUTO RELOAD Open :

Filter errors 1 hour | 6 hours | **1 day** | 7 days | 30 days

RuntimeException: org.apache.beam.sdk.util.UserCodeException: java.io.IOException: Error accessing g...
org.apache.beam.runners.dataflow.worker.GroupAlsoByWindowsParDoFn\$1.output (GroupAlsoByWindowsParDoFn.java:187)

Resolution Status	Occurrences	Seen in	First seen	Last seen
Open Link to issue	450	Dataflow Jobs:2021-02-14_16_35_46-16556880619287800299 Dataflow Jobs:2021-02-14_16_42_24-14467906441042675226 Dataflow Jobs:2021-02-14_16_49_04-14269673423427064621 Dataflow Jobs:2021-02-14_16_53_36-14262190441227672794 Dataflow Jobs:2021-02-14_17_00_40-16130639497705473472 Less	Aug 24, 2020	1 hour ago

Errors



Stack trace sample

Parsed Raw

```
java.lang.RuntimeException: org.apache.beam.sdk.util.UserCodeException: java.io.IOException: Error accessing gs://random-bucket/.temp-beam-7abec98f-e2c9-4c47-b157-d3b2eebf50ac/26a58b6d-65fe-490d-8598-51b0cf44d017
```

Error Reporting

Error Reporting Error Details All services All versions AUTO RELOAD Open :

Resolution Status	Occurrences	Seen in	First seen	Last seen
Open Link to issue	450	Dataflow Jobs:2021-02-14_16_35_46-16556880619287800299 ▼ More	Aug 24, 2020	1 hour ago

Errors



Category	Occurrences
Category A	~190
Category B	~310
Category C	~10

Stack trace sample

Parsed Raw

```
java.lang.RuntimeException: org.apache.beam.sdk.util.UserCodeException: java.io.IOException: Error accessing gs://random-bucket/.temp-beam-7abec98f-e2c9-4c47-b157-d3b2eebf50ac/26a58b6d-65fe-490d-8598-51b0cf44d017
    at org.apache.beam.runners.dataflow.worker.GroupAlsoByWindowsParDoFn$1.output (GroupAlsoByWindowsParDoFn.java:187)
    at org.apache.beam.runners.dataflow.worker.GroupAlsoByWindowFnRunner$1.outputWindowedValue (GroupAlsoByWindowFnRunner.java:108)
    at org.apache.beam.runners.dataflow.worker.repackaged.org.apache.beam.runners.core.ReduceFnRunner.lambda$onTrigger$1 (ReduceFnRunner.java:1060)
    at org.apache.beam.runners.dataflow.worker.repackaged.org.apache.beam.runners.core.ReduceFnContextFactory$OnTriggerContextImpl.output (ReduceFnContextFactory.java:445)
    at org.apache.beam.runners.dataflow.worker.repackaged.org.apache.beam.runners.core.SystemReduceFn.onTrigger (SystemReduceFn.java:130)
    at org.apache.beam.runners.dataflow.worker.repackaged.org.apache.beam.runners.core.ReduceFnRunner.onTrigger (ReduceFnRunner.java:1063)
    at org.apache.beam.runners.dataflow.worker.repackaged.org.apache.beam.runners.core.ReduceFnRunner.emit (ReduceFnRunner.java:934)
    at org.apache.beam.runners.dataflow.worker.repackaged.org.apache.beam.runners.core.ReduceFnRunner.onTimers (ReduceFnRunner.java:795)
    at org.apache.beam.runners.dataflow.worker.StreamingGroupAlsoByWindowViaWindowSetFn.processElement (StreamingGroupAlsoByWindowViaWindowSetFn.java:95)
    at org.apache.beam.runners.dataflow.worker.StreamingGroupAlsoByWindowViaWindowSetFn.processElement (StreamingGroupAlsoByWindowViaWindowSetFn.java:42)
...
Caused by: org.apache.beam.sdk.util.UserCodeException: java.io.IOException: Error accessing gs://random-bucket/.temp-beam-7abec98f-e2c9-4c47-b157-d3b2eebf50ac/26a58b6d-65fe-490d-8598-
```

Error Reporting

The screenshot shows the Google Cloud Error Reporting interface. The top navigation bar includes icons for Error Reporting, Error Details, All services, All versions, AUTO RELOAD, Open, and a more options menu. Below the navigation is a search bar and a table header. The main content area is titled "Stack trace sample" and contains two tabs: "Parsed" (selected) and "Raw". The "Parsed" tab displays a detailed stack trace of a Java exception. The stack trace starts with a RuntimeException from org.apache.beam.sdk.utilUserCodeException, which wraps a java.io.IOException from Error accessing gs://random-bucket/.temp-beam-7abec98f-e2c9-4c47-b157-d3b2eebf50ac/26a58b6d-65fe-490d-8598-51b0cf44d017. The trace then follows the execution path through various Beam runner classes like GroupAlsoByWindowsParDoFn\$1.output, GroupAlsoByWindowFnRunner\$1.outputWindowedValue, ReduceFnRunner.lambda\$onTrigger\$1, and others, eventually reaching the SimpleParDoFn.processElement method. There are also sections for "Caused by:" entries, such as the IOException and the GcsUtil.create calls at the bottom.

```
java.lang.RuntimeException: org.apache.beam.sdk.utilUserCodeException: java.io.IOException: Error accessing gs://random-bucket/.temp-beam-7abec98f-e2c9-4c47-b157-d3b2eebf50ac/26a58b6d-65fe-490d-8598-51b0cf44d017
    at org.apache.beam.runners.dataflow.worker.GroupAlsoByWindowsParDoFn$1.output (GroupAlsoByWindowsParDoFn.java:187)
    at org.apache.beam.runners.dataflow.worker.GroupAlsoByWindowFnRunner$1.outputWindowedValue (GroupAlsoByWindowFnRunner.java:108)
    at org.apache.beam.runners.dataflow.worker.repackaged.org.apache.beam.runners.core.ReduceFnRunner.lambda$onTrigger$1 (ReduceFnRunner.java:1060)
    at org.apache.beam.runners.dataflow.worker.repackaged.org.apache.beam.runners.core.ReduceFnContextFactory$OnTriggerContextImpl.output (ReduceFnContextFactory.java:445)
    at org.apache.beam.runners.dataflow.worker.repackaged.org.apache.beam.runners.core.SystemReduceFn.onTrigger (SystemReduceFn.java:130)
    at org.apache.beam.runners.dataflow.worker.repackaged.org.apache.beam.runners.core.ReduceFnRunner.onTrigger (ReduceFnRunner.java:1063)
    at org.apache.beam.runners.dataflow.worker.repackaged.org.apache.beam.runners.core.ReduceFnRunner.emit (ReduceFnRunner.java:934)
    at org.apache.beam.runners.dataflow.worker.repackaged.org.apache.beam.runners.core.ReduceFnRunner.onTimers (ReduceFnRunner.java:795)
    at org.apache.beam.runners.dataflow.worker.StreamingGroupAlsoByWindowViaWindowSetFn.processElement (StreamingGroupAlsoByWindowViaWindowSetFn.java:95)
    at org.apache.beam.runners.dataflow.worker.StreamingGroupAlsoByWindowViaWindowSetFn.processElement (StreamingGroupAlsoByWindowViaWindowSetFn.java:42)
    ...
Caused by: org.apache.beam.sdk.utilUserCodeException: java.io.IOException: Error accessing gs://random-bucket/.temp-beam-7abec98f-e2c9-4c47-b157-d3b2eebf50ac/26a58b6d-65fe-490d-8598-51b0cf44d017
    at org.apache.beam.sdk.utilUserCodeException.wrap (UserCodeException.java:39)
    at org.apache.beam.sdk.io.WriteFiles$WriteShardsToIntTempFilesFn$DoFnInvoker.invokeProcessElement (Unknown Source)
    at org.apache.beam.runners.dataflow.worker.repackaged.org.apache.beam.runners.core.SimpleDoFnRunner.invokeProcessElement (SimpleDoFnRunner.java:232)
    at org.apache.beam.runners.dataflow.worker.repackaged.org.apache.beam.runners.core.SimpleDoFnRunner.processElement (SimpleDoFnRunner.java:188)
    at org.apache.beam.runners.dataflow.worker.SimpleParDoFn.processElement (SimpleParDoFn.java:339)
    at org.apache.beam.runners.dataflow.worker.util.common.worker.ParDoOperation.process (ParDoOperation.java:44)
    at org.apache.beam.runners.dataflow.worker.util.common.worker.OutputReceiver.process (OutputReceiver.java:49)
    at org.apache.beam.runners.dataflow.worker.GroupAlsoByWindowsParDoFn$1.output (GroupAlsoByWindowsParDoFn.java:185)
Caused by: java.io.IOException: Error accessing gs://random-bucket/.temp-beam-7abec98f-e2c9-4c47-b157-d3b2eebf50ac/26a58b6d-65fe-490d-8598-51b0cf44d017
    at com.google.cloud.hadoop.gcsio.GoogleCloudStorageImpl.getObject (GoogleCloudStorageImpl.java:1965)
    at com.google.cloud.hadoop.gcsio.GoogleCloudStorageImpl.getItemInfo (GoogleCloudStorageImpl.java:1857)
    at com.google.cloud.hadoop.gcsio.GoogleCloudStorageImpl.getWriteGeneration (GoogleCloudStorageImpl.java:1930)
    at com.google.cloud.hadoop.gcsio.GoogleCloudStorageImpl.create (GoogleCloudStorageImpl.java:371)
    at org.apache.beam.sdk.extensions.gcp.util.GcsUtil.create (GcsUtil.java:443)
    at org.apache.beam.sdk.extensions.gcp.util.GcsUtil.create (GcsUtil.java:413)
```

Error Reporting

>Error Reporting ← Error Details All services All versions ▶ AUTO RELOAD ! Open :

Stack trace sample

Parsed Raw

```
java.lang.RuntimeException: org.apache.beam.sdk.util.UserCodeException: java.io.IOException: Error accessing gs://random-bucket/.temp-beam-7abec98f-e2c9-4c47-b157-d3b2eebf50ac/26a58b6d-65fe-490d-8598-51b0cf44d017
    at org.apache.beam.runners.dataflow.worker.GroupAlsoByWindowsParDoFn$1.output (GroupAlsoByWindowsParDoFn.java:187)
    at org.apache.beam.runners.dataflow.worker.GroupAlsoByWindowFnRunner$1.outputWindowedValue (GroupAlsoByWindowFnRunner.java:108)
    at org.apache.beam.runners.dataflow.worker.repackaged.org.apache.beam.runners.core.ReduceFnRunner.lambda$onTrigger$1 (ReduceFnRunner.java:1060)
    at org.apache.beam.runners.dataflow.worker.repackaged.org.apache.beam.runners.core.ReduceFnContextFactory$OnTriggerContextImpl.output (ReduceFnContextFactory.java:445)
    at org.apache.beam.runners.dataflow.worker.repackaged.org.apache.beam.runners.core.SystemReduceFn.onTrigger (SystemReduceFn.java:130)
    at org.apache.beam.runners.dataflow.worker.repackaged.org.apache.beam.runners.core.ReduceFnRunner.onTrigger (ReduceFnRunner.java:1063)
    at org.apache.beam.runners.dataflow.worker.repackaged.org.apache.beam.runners.core.ReduceFnRunner.emit (ReduceFnRunner.java:934)
    at org.apache.beam.runners.dataflow.worker.repackaged.org.apache.beam.runners.core.ReduceFnRunner.onTimers (ReduceFnRunner.java:795)
    at org.apache.beam.runners.dataflow.worker.StreamingGroupAlsoByWindowViaWindowSetFn.processElement (StreamingGroupAlsoByWindowViaWindowSetFn.java:95)
    at org.apache.beam.runners.dataflow.worker.StreamingGroupAlsoByWindowViaWindowSetFn.processElement (StreamingGroupAlsoByWindowViaWindowSetFn.java:42)
    ***
Caused by: org.apache.beam.sdk.utilUserCodeException: java.io.IOException: Error accessing gs://random-bucket/.temp-beam-7abec98f-e2c9-4c47-b157-d3b2eebf50ac/26a58b6d-65fe-490d-8598-51b0cf44d017
    at org.apache.beam.sdk.utilUserCodeException.wrap (UserCodeException.java:39)
    at org.apache.beam.sdk.io.WriteFiles$WriteShardsToIntTempFilesFn$DoFnInvoker.invokeProcessElement (Unknown Source)
    at org.apache.beam.runners.dataflow.worker.repackaged.org.apache.beam.runners.core.SimpleDoFnRunner.invokeProcessElement (SimpleDoFnRunner.java:232)
    at org.apache.beam.runners.dataflow.worker.repackaged.org.apache.beam.runners.core.SimpleDoFnRunner.processElement (SimpleDoFnRunner.java:188)
    at org.apache.beam.runners.dataflow.worker.SimpleParDoFn.processElement (SimpleParDoFn.java:339)
    at org.apache.beam.runners.dataflow.worker.util.common.worker.ParDoOperation.process (ParDoOperation.java:44)
    at org.apache.beam.runners.dataflow.worker.util.common.worker.OutputReceiver.process (OutputReceiver.java:49)
    at org.apache.beam.runners.dataflow.worker.GroupAlsoByWindowsParDoFn$1.output (GroupAlsoByWindowsParDoFn.java:185)
Caused by: java.io.IOException: Error accessing gs://random-bucket/.temp-beam-7abec98f-e2c9-4c47-b157-d3b2eebf50ac/26a58b6d-65fe-490d-8598-51b0cf44d017
    at com.google.cloud.hadoop.gcsio.GoogleCloudStorageImpl.getObject (GoogleCloudStorageImpl.java:1965)
    at com.google.cloud.hadoop.gcsio.GoogleCloudStorageImpl.getItemInfo (GoogleCloudStorageImpl.java:1857)
    at com.google.cloud.hadoop.gcsio.GoogleCloudStorageImpl.getWriteGeneration (GoogleCloudStorageImpl.java:1930)
    at com.google.cloud.hadoop.gcsio.GoogleCloudStorageImpl.create (GoogleCloudStorageImpl.java:371)
    at org.apache.beam.sdk.extensions.gcp.util.GcsUtil.create (GcsUtil.java:443)
    at org.apache.beam.sdk.extensions.gcp.util.GcsUtil.create (GcsUtil.java:413)
    at org.apache.beam.sdk.extensions.gcp.storage.GcsFileSystem.create (GcsFileSystem.java:135)
    at org.apache.beam.sdk.extensions.gcp.storage.GcsFileSystem.create (GcsFileSystem.java:61)
    at org.apache.beam.sdk.io.FileSystems.create (FileSystems.java:243)
    at org.apache.beam.sdk.io.FileSystems.create (FileSystems.java:230)
```

Error Reporting

>Error Reporting Error Details All services All versions AUTO RELOAD Open :

```
Caused by: java.io.IOException: Error accessing gs://random-bucket/.temp-beam-7abec98f-e2c9-4c47-b157-d3b2eebf50ac/26a58b6d-65fe-490d-8598-51b0cf44d017
  at com.google.cloud.hadoop.gcsio.GoogleCloudStorageImpl.getObject (GoogleCloudStorageImpl.java:1965)
  at com.google.cloud.hadoop.gcsio.GoogleCloudStorageImpl.getItemInfo (GoogleCloudStorageImpl.java:1857)
  at com.google.cloud.hadoop.gcsio.GoogleCloudStorageImpl.getWriteGeneration (GoogleCloudStorageImpl.java:1930)
  at com.google.cloud.hadoop.gcsio.GoogleCloudStorageImpl.create (GoogleCloudStorageImpl.java:371)
  at org.apache.beam.sdk.extensions.gcp.util.GcsUtil.create (GcsUtil.java:443)
  at org.apache.beam.sdk.extensions.gcp.util.GcsUtil.create (GcsUtil.java:413)
  at org.apache.beam.sdk.extensions.gcp.storage.GcsFileSystem.create (GcsFileSystem.java:135)
  at org.apache.beam.sdk.extensions.gcp.storage.GcsFileSystem.create (GcsFileSystem.java:61)
  at org.apache.beam.sdk.io.FileSystems.create (FileSystems.java:243)
  at org.apache.beam.sdk.io.FileSystems.create (FileSystems.java:230)
  ...
Caused by: com.google.api.client.googleapis.json.GoogleJsonResponseException: 403 Forbidden GET https://storage.googleapis.com/storage/v1/b/random-bucket/o/.temp-beam-7abec98f-e2c9-4c47-b157-d3b2eebf50ac%2F26a58b6d-65fe-490d-8598-51b0cf44d017 { "code" : 403, "errors" : [ { "domain" : "global", "message" : "511307353842-compute@developer.gserviceaccount.com does not have storage.objects.get access to the Google Cloud Storage object.", "reason" : "forbidden" } ], "message" : "511307353842-compute@developer.gserviceaccount.com does not have storage.objects.get access to the Google Cloud Storage object." }
  at com.google.api.client.googleapis.json.GoogleJsonResponseException.from (GoogleJsonResponseException.java:149)
  at com.google.api.client.googleapis.services.json.AbstractGoogleJsonClientRequest.newExceptionOnError (AbstractGoogleJsonClientRequest.java:112)
  at com.google.api.client.googleapis.services.json.AbstractGoogleJsonClientRequest.newExceptionOnError (AbstractGoogleJsonClientRequest.java:39)
  at com.google.api.client.googleapis.services.AbstractGoogleClientRequest$1.interceptResponse (AbstractGoogleClientRequest.java:443)
  at com.google.api.client.http.HttpRequest.execute (HttpRequest.java:1108)
  at com.google.api.client.googleapis.services.AbstractGoogleClientRequest.executeUnparsed (AbstractGoogleClientRequest.java:541)
  at com.google.api.client.googleapis.services.AbstractGoogleClientRequest.executeUnparsed (AbstractGoogleClientRequest.java:474)
  at com.google.api.client.googleapis.services.AbstractGoogleClientRequest.execute (AbstractGoogleClientRequest.java:591)
  at com.google.cloud.hadoop.gcsio.GoogleCloudStorageImpl.getObject (GoogleCloudStorageImpl.java:1959)
  at com.google.cloud.hadoop.gcsio.GoogleCloudStorageImpl.getItemInfo (GoogleCloudStorageImpl.java:1857)
  ...
>Show all
```

Recent samples Learn more

2/14/21, 9:15 PM	RuntimeException: org.apache.beam.sdk.util.UserCodeExce...	View logs
2/14/21, 9:15 PM	RuntimeException: org.apache.beam.sdk.util.UserCodeExce...	View logs
2/14/21, 9:15 PM	RuntimeException: org.apache.beam.sdk.util.UserCodeExce...	View logs

Error Reporting

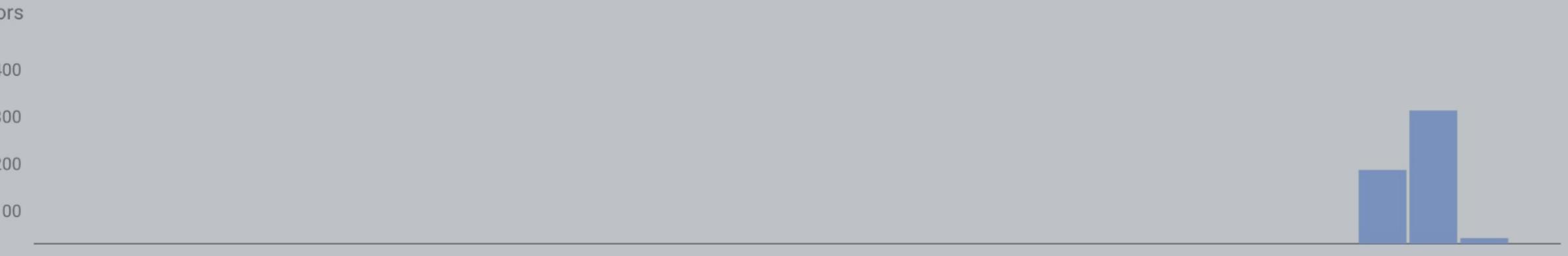
Error Reporting ← Error Details All services All versions ▶ AUTO RELOAD ! Open :

Filter errors 1 hour | 6 hours | **1 day** | 7 days | 30 days

RuntimeException: org.apache.beam.sdk.util.UserCodeException: java.io.IOException: Error accessing g...
org.apache.beam.runners.dataflow.worker.GroupAlsoByWindowsParDoFn\$1.output (GroupAlsoByWindowsParDoFn.java:187)

Resolution Status	Occurrences	Seen in	First seen	Last seen
! Open Link to issue	450	Dataflow Jobs:2021-02-14_16_35_46-16556880619287800299 ▼ More	Aug 24, 2020	1 hour ago

Errors



Stack trace sample

Parsed Raw

```
java.lang.RuntimeException: org.apache.beam.sdk.util.UserCodeException: java.io.IOException: Error accessing gs://random-bucket/.temp-beam-7abec98f-e2c9-4c47-b157-d3b2eebf50ac/26a58b6d-65fe-490d-8598-51b0cf44d017
at org.apache.beam.runners.dataflow.worker.GroupAlsoByWindowsParDoFn$1.output (GroupAlsoByWindowsParDoFn.java:187)
at org.apache.beam.runners.dataflow.worker.GroupAlsoByWindowFnRunner$1.outputWindowedValue (GroupAlsoByWindowFnRunner.java:108)
at org.apache.beam.runners.dataflow.worker.repackaged.org.apache.beam.runners.core.ReduceFnRunner.lambda$onTrigger$1 (ReduceFnRunner.java:1060)
at org.apache.beam.runners.dataflow.worker.repackaged.org.apache.beam.runners.core.ReduceFnContextFactory$OnTriggerContextImpl.output (ReduceFnContextFactory.java:445)
```

Error Reporting

Error Reporting Error Details All services All versions AUTO RELOAD Open :

Filter errors 1 hour | 6 hours | **1 day** | 7 days | 30 days

RuntimeException: org.apache.beam.sdk.util.UserCodeException: java.io.IOException: Error accessing g...
org.apache.beam.runners.dataflow.worker.GroupAlsoByWindowsParDoFn\$1.output (GroupAlsoByWindowsParDoFn.java:187)

Resolution Status	Occurrences	Seen in	First seen	Last seen
Open Link to issue	450	Dataflow Jobs:2021-02-14_16_35_46-16556880619287800299	Aug 24, 2020	1 hour ago

Link an issue URL to this error

Issue URL:

CANCEL SAVE

Errors

400
300
200
100

Stack trace sample

Parsed Raw

```
java.lang.RuntimeException: org.apache.beam.sdk.util.UserCodeException: java.io.IOException: Error accessing gs://random-bucket/.temp-beam-7abec98f-e2c9-4c47-b157-d3b2eebf50ac/26a58b6d-65fe-490d-8598-51b0cf44d017
at org.apache.beam.runners.dataflow.worker.GroupAlsoByWindowsParDoFn$1.output (GroupAlsoByWindowsParDoFn.java:187)
at org.apache.beam.runners.dataflow.worker.GroupAlsoByWindowFnRunner$1.outputWindowedValue (GroupAlsoByWindowFnRunner.java:108)
at org.apache.beam.runners.dataflow.worker.repackaged.org.apache.beam.runners.core.ReduceFnRunner.lambda$onTrigger$1 (ReduceFnRunner.java:1060)
at org.apache.beam.runners.dataflow.worker.repackaged.org.apache.beam.runners.core.ReduceFnContextFactory$OnTriggerContextImpl.output (ReduceFnContextFactory.java:445)
```

Error Reporting

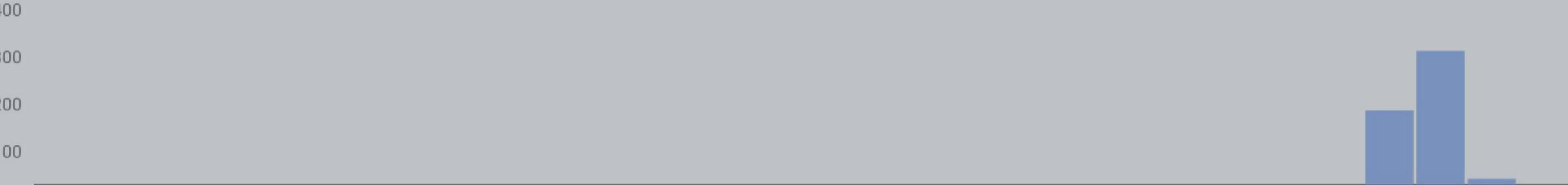
Error Reporting Error Details All services All versions AUTO RELOAD Open

Filter errors 1 hour | 6 hours | **1 day** | 7 days | 30 days

RuntimeException: org.apache.beam.sdk.util.UserCodeException: java.io.IOException: Error accessing g...
org.apache.beam.runners.dataflow.worker.GroupAlsoByWindowsParDoFn\$1.output (GroupAlsoByWindowsParDoFn.java:187)

Resolution Status	Occurrences	Seen in	First seen	Last seen
Open Link to issue	450	Dataflow Jobs:2021-02-14_16_35_46-16556880619287800299 ▼ More	Aug 24, 2020	1 hour ago

Errors



Stack trace sample

Parsed Raw

```
java.lang.RuntimeException: org.apache.beam.sdk.util.UserCodeException: java.io.IOException: Error accessing gs://random-bucket/.temp-beam-7abec98f-e2c9-4c47-b157-d3b2eebf50ac/26a58b6d-65fe-490d-8598-51b0cf44d017
at org.apache.beam.runners.dataflow.worker.GroupAlsoByWindowsParDoFn$1.output (GroupAlsoByWindowsParDoFn.java:187)
at org.apache.beam.runners.dataflow.worker.GroupAlsoByWindowFnRunner$1.outputWindowedValue (GroupAlsoByWindowFnRunner.java:108)
at org.apache.beam.runners.dataflow.worker.repackaged.org.apache.beam.runners.core.ReduceFnRunner.lambda$onTrigger$1 (ReduceFnRunner.java:1060)
at org.apache.beam.runners.dataflow.worker.repackaged.org.apache.beam.runners.core.ReduceFnContextFactory$OnTriggerContextImpl.output (ReduceFnContextFactory.java:445)
```

Error Reporting

Error Reporting Error Details All services All versions AUTO RELOAD

Filter errors

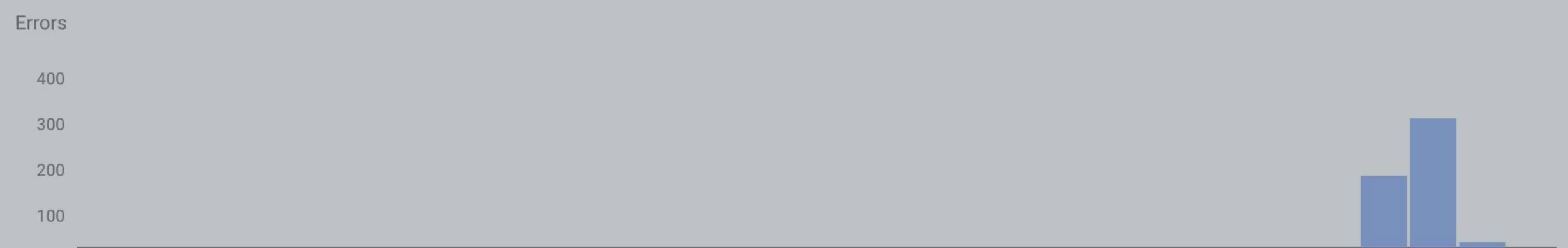
RuntimeException: org.apache.beam.sdk.util.UserCodeException: java.io.IOException: Error accessing g...
org.apache.beam.runners.dataflow.worker.GroupAlsoByWindowsParDoFn\$1.output (GroupAlsoByWindowsParDoFn.java:187)

Resolution Status	Occurrences	Seen in	First seen
! Open Link to issue	450	Dataflow Jobs:2021-02-14_16_35_46-16556880619287800299 More	Aug 24, 2020

! Open ● Acknowledged ✓ Resolved □ Muted

7 days 30 days

Errors



Stack trace sample

Parsed Raw

```
java.lang.RuntimeException: org.apache.beam.sdk.util.UserCodeException: java.io.IOException: Error accessing gs://random-bucket/.temp-beam-7abec98f-e2c9-4c47-b157-d3b2eebf50ac/26a58b6d-65fe-490d-8598-51b0cf44d017
at org.apache.beam.runners.dataflow.worker.GroupAlsoByWindowsParDoFn$1.output (GroupAlsoByWindowsParDoFn.java:187)
at org.apache.beam.runners.dataflow.worker.GroupAlsoByWindowFnRunner$1.outputWindowedValue (GroupAlsoByWindowFnRunner.java:108)
at org.apache.beam.runners.dataflow.worker.repackaged.org.apache.beam.runners.core.ReduceFnRunner.lambda$onTrigger$1 (ReduceFnRunner.java:1060)
at org.apache.beam.runners.dataflow.worker.repackaged.org.apache.beam.runners.core.ReduceFnContextFactory$OnTriggerContextImpl.output (ReduceFnContextFactory.java:445)
```

