

# Monitor WorkFlow Progress and Fix WorkFlow Errors

Juliane Krug

jkrug@cmcrc.com

The screenshot shows the CMCRC Workflow monitoring interface. At the top, there are several tabs and filters: 'CMCRC Workflow' (selected), 'Home', 'Running jobs', 'SUCCESS (S)', 'STOPPED (X)', 'SLEEPING (Z)', 'KILL, REQ (K)', 'display auto', 'Hide blank rows/columns', 'Hide disabled tasks', 'Filter by last submission/run date', 'Jira', and a date range from '2018-02-01' to '2018-02-28'. Below these are date filters for 'Today', 'Jan', 'Feb', 'Mar', 'Apr', 'May', 'Jun', 'Jul', 'Aug', 'Sep', 'Oct', 'Nov', 'Dec', and years from '1966' to '2017'. A 'Refresh' button is also present.

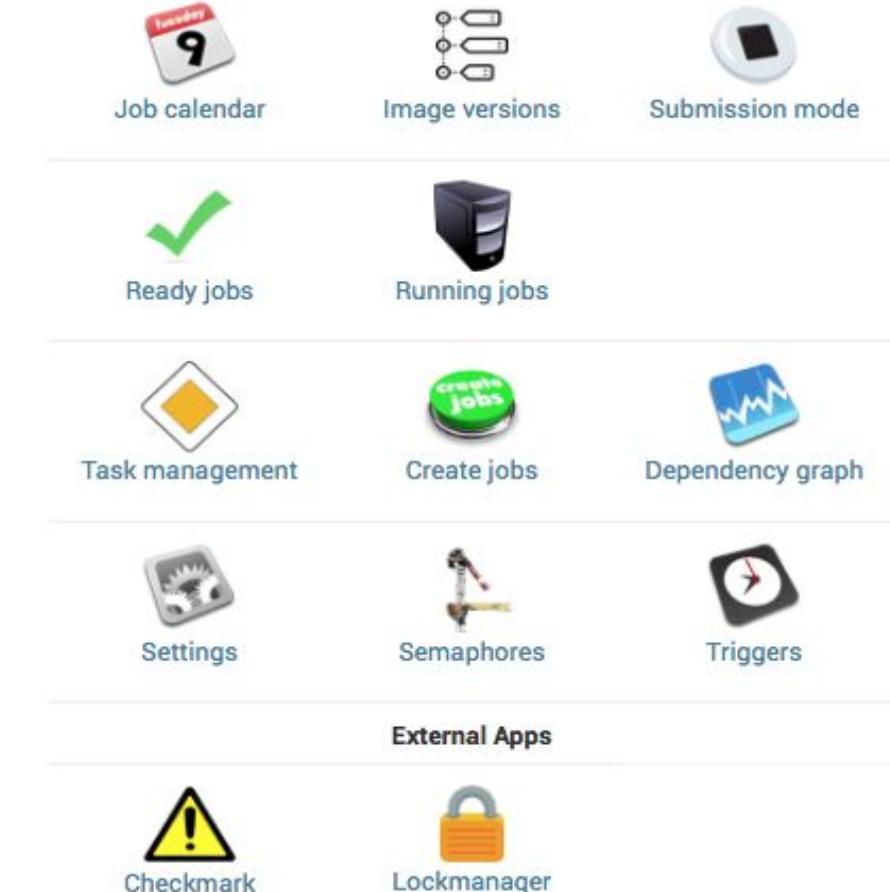
The main area is a grid titled '2018-02-01 - 2018-02-28 task'. The columns represent dates from 01 to 28. The rows list various workflow tasks, such as 'autocorrelation\_generate/nyse\_arca/edgex', 'autocorrelation\_sync/nyse\_arca/edgex', 'conversion\_qa/nyse\_arca/edgex', 'daily\_stats\_generate/nyse\_arca/edgex', 'daily\_trade\_stats\_generate/nyse\_arca/edgex', 'deciles\_calculate/nyse\_arca/edgex', 'effective\_spread\_generate/nyse\_arca/edgex', 'effective\_spread\_sync/nyse\_arca/edgex', 'end\_posit\_dislocation\_generate/nyse\_arca/edgex (disabled)', 'end\_window\_trade\_value\_generate/nyse\_arca/edgex (disabled)', 'high\_low\_volatility\_generate/nyse\_arca/edgex', 'historical\_price\_generate/nyse\_arca/edgex', 'historical\_true\_price\_generate/nyse\_arca/edgex', 'implementation\_shortfall\_generate/nyse\_arca/edgex', 'implementation\_shortfall\_sync/nyse\_arca/edgex', 'intraday\_generate/nyse\_arca/edges', 'intraday\_sync/nyse\_arca/edges', 'intraday\_buy\_sell\_trade\_summary\_generate/nyse\_arca/edgex', 'intraday\_generate/nyse\_arca/edges', 'intraday\_sync/nyse\_arca/edges', 'liquidity\_group\_dailystats\_generate/nyse\_arca/edgex', 'liquidity\_group\_dailystats\_sync/nyse\_arca/edgex', 'prob\_informed\_trading\_generate/nyse\_arca/edgex', 'prob\_informed\_trading\_sync/nyse\_arca/edgex', 'quoted\_spread\_generate/nyse\_arca/edgex', 'quoted\_spread\_sync/nyse\_arca/edgex', 'quote\_to\_trade\_ratio\_generate/nyse\_arca/edges', 'quote\_to\_trade\_ratio\_sync/nyse\_arca/edges', 'realised\_spread\_generate/nyse\_arca/edgex', 'realised\_spread\_multi\_interval\_generate/nyse\_arca/edgex', 'realised\_spread\_multi\_interval\_sync/nyse\_arca/edgex', 'realised\_spread\_sync/nyse\_arca/edgex', 'sqrt\_trade\_value\_generate/nyse\_arca/edges', 'sqrt\_trade\_value\_sync/nyse\_arca/edges', 'variance\_ratio\_generate/nyse\_arca/edges', and 'variance\_ratio\_sync/nyse\_arca/edges'. The grid cells contain icons representing the status of each task for each day.

At the bottom left, there is a link 'All 1120 jobs' and a button 'restart jobs'. On the right side of the grid, there are navigation arrows for navigating through the days.

## Introduction

---

<http://workflow.aws.cmcrc.com>



## Introduction

---

### Why do we need the WorkFlow?

- Managing stages I-V of our MQD ETL process.
- Keeping track of the process and different stages.
- Submitting relevant ETL jobs to the cluster, in an appropriate order.
- Allows to monitor whether jobs have run correctly.
- Allows to track historical job submission and issues.

## Introduction

---

### What is a job?

- Object within the ETL concept: effective\_spread\_generate/asx^asx 2017-07-01.
- Goes with several states: WAITING, READY, RUNNING or SUCCESS.

Jobs are submitted to the cluster, so that a job submission entry is created in the database, tracking the submission and outcome. A job can be successful or fail.

Each job belongs to a **task**: effective\_spread\_generate/asx^asx.

Each task belongs to a **task type**: effective\_spread\_generate.

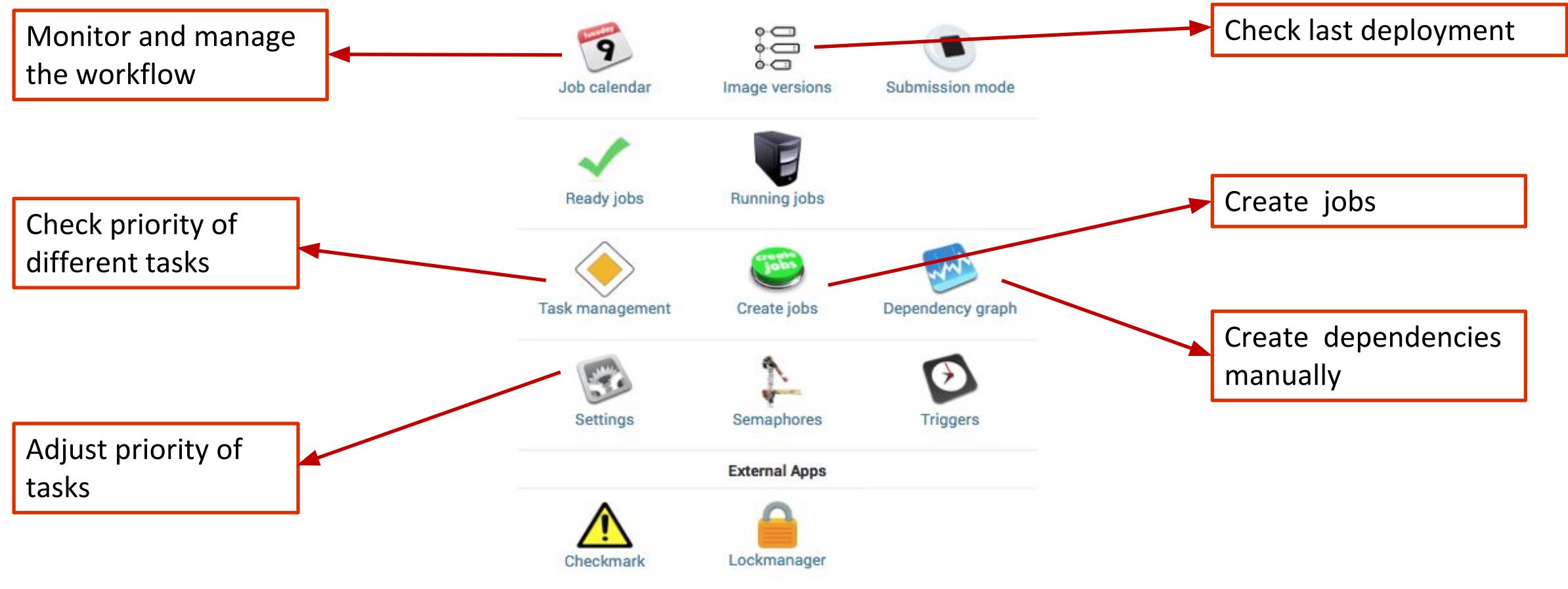
The **task name** is not an object and is used with a task. It refers to the market: asx^asx.

## Proceeding of setting up a market

---

1. Set up market-config file
2. Create dependencies for required metrics
3. Create jobs
- ~~4. Run short test period~~
5. Verify set up - QA
6. If required redo step 1., 4. to 5. till satisfying
7. Run 6 months period on the workflow, monitor, address errors, assure data production
8. Visualize data on MQD-QA
9. QA of all metrics, set warnings, handle data errors. If needed adjust market-config file and rerun

## Overview

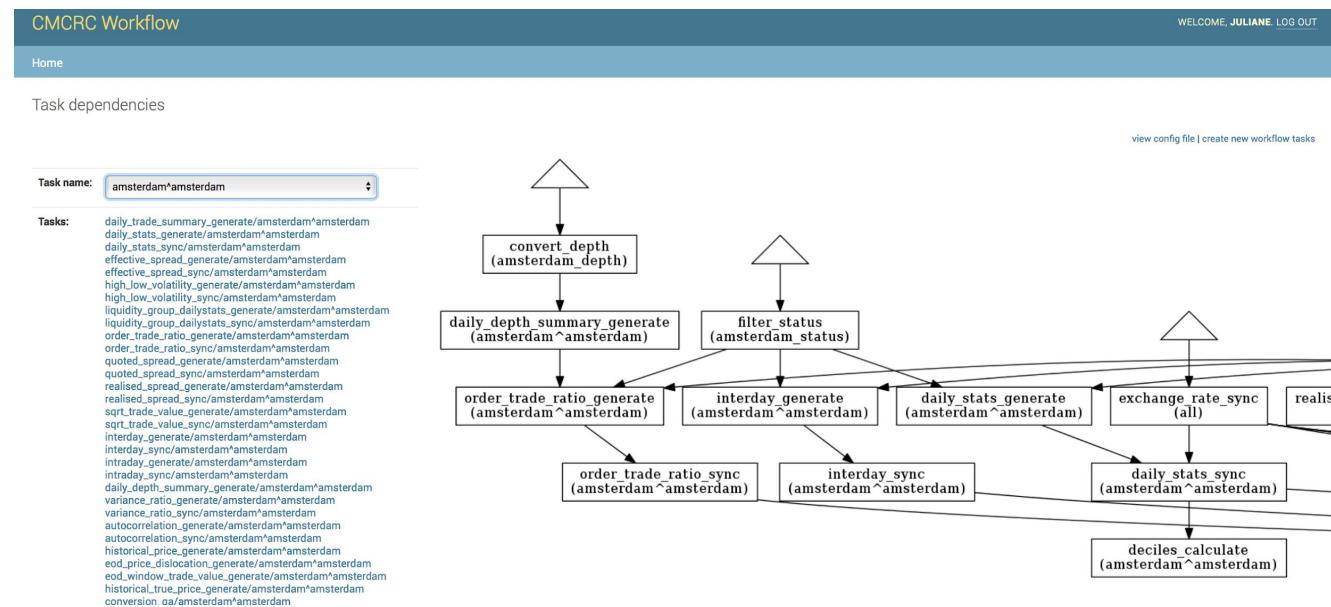


## Overview – Dependency graph

Check and create dependencies manually by clicking on



Check task specific dependencies by selecting the desired Task name:



## Overview – Dependency graph

---

Create dependencies manually by clicking on

[view config file](#) | [create new workflow tasks](#)

in the upper right corner.

Create dependencies by adding tasks and directions and submitting the information:

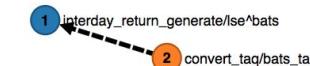
Create New Workflow Tasks

N.B. task dependency follows the arrow from parent to child, e.g. trades\_combine/asx\_mq ---> trades\_sort/asx\_mq

**Task Types**

- convert\_info
- convert\_neo
- convert\_taq**
- corpactions\_sync
- corwin\_schultz\_spread\_generate
- corwin\_schultz\_spread\_sync

**bats\_taq**



## Overview – Create jobs

---

Create jobs by clicking on



Select the task types and task names as well as the time frame. Decide which initial state is appropriate.

Create jobs

**Task types:**

- trth\_download\_endofday\_transactions
- trth\_download\_index
- trth\_exchangebyday\_download
- trth\_haslinks
- trth\_haslinks\_corpactions
- trth\_haslinks\_depth

**Task names:**

- 
- ADC
- ADF
- ADS
- AEMO
- aemo\_taq

**Start date:** 2012-01-01

**End date:** 2018-02-02

**Initial state:** WAITING (run when ready)

**Auto skip jobs:**  Skip any jobs that already exist.

**Auto skip tasks:**  Skip any tasks that do not exist.

**Create** **Dry-run** Please use the "Dry run" button to confirm your selections before using the "Create" button.

## Overview – Image versions

---

Check the last time of deployment by clicking on



What does 'deployment' mean?

- The complete ETL - system is constantly updated by the Business Team, the ETL-Team and others.
- That means changes are made in different areas of the system, such as cmcrc-market-config-data.
- Any change made, is reviewed by the system and appropriate team members.
- If a change is approved, it will be integrated in the system.
- First, it is merged and integrated locally.
- Second, different system parts depend on each other. Basically any change triggers a system update and therefore a new version which runs till the final step. Once, that step has run, the complete WorkFlow system has updated and incorporates the latest changes.
- Hence, if a task fails and the issues have been addressed, **one needs wait for the whole system to update, before the task can be rerun.**
- The approach assures comprehensive testing of the changes and correct integration in the ETL - system.

## Overview – Image versions

Latest version is from 16:49:38 pm.

Your change is deployed if the time of deployment is post the time your changes were locally merged.

More details regarding the process of addressing failed jobs/tasks later.

CMCRC Workflow

Home

Summary of job submissions by image version

Showing successful and failed job submissions that were modified in the previous 5 days, sorted by image version in descending order.

Currently running job submissions are also included, and these may be older than 5 days.

Note that jobs can be flagged as modified for a number of different reasons, not only when they complete.

Current pinned version: None

Image version	Successful	Failures	Success Rate (%)	Currently Running	Pin a version
20180316164938	87	57	60	89	<input type="button" value="Pin"/>
20180316151020	1169	862	57	253	<input type="button" value="Pin"/>

IS / GER.yaml MODIFIED

```
- ignore_regex: '.EUR\.DE$'
- ignore_regex: '.AUD\.DE$'
- ignore_regex: '.GBP\.DE$'
- ignore_regex: '.USD\.DE$'
- ignore_regex: '.SEK\.DE$'
- ignore_regex: '.JPY\.DE$'
- ignore_regex: '.SGD\.DE$'
- ignore_regex: '.CAD\.DE$'
- ignore_regex: '.HKD\.DE$'
- valid_regex: "[A-Za-z0-9]*\.[a-z]{1,2}\.DE$"
+ - valid_regex: "[A-Za-z0-9]*\_[a-z]{1,2}\.DE$"
- otherwise: ignore

instrument types:
```

Blame  0.0.20180309152407

## Overview – Check priorities of different tasks

---

Check the priority of different tasks



What does 'priority' mean?

- Different task types have different priorities, which is necessary to manage the WorkFlow.
- The higher the priority the earlier a task runs, since it jumps the queue.
- Usually priorities are set at 1200 or 1800.
- In case of urgent projects or you feel a job does not run please contact a member of the Business team to discuss.

Task management

The screenshot shows a 'Task management' interface with two columns of task lists. On the left, under 'task names', there are several tasks: 'istanbul\_info', 'istanbul^istanbul' (which is highlighted in grey), 'istanbul\_status', 'istanbul\_taq', 'IUS\_FUT', and 'IUS\_OPT'. On the right, another list of tasks includes 'info\_leakage\_sync', 'interday\_generate', 'interday\_return\_generate', 'interday\_return\_sync', 'interday\_sync', and 'intraday\_abnormal\_change\_stats\_generate'. To the right of the lists is a filter panel with fields for 'Min priority' and 'Max priority', and checkboxes for 'Show only enabled tasks' and 'Show only disabled tasks'. At the bottom are buttons for 'Refresh', 'Clear Filter', and 'Select All Tasks'. Below the lists is a table with columns: priority, enabled, start date, end date, task names, and task types. The first row shows '1800.0' priority, 'enabled', 'None', 'None', 'info\_leakage\_sync/istanbul^istanbul, interday\_generate/istanbul^istanbul, interday\_sync/istanbul^istanbul', and 'task types'. The second row shows '1800.0' priority, 'disabled', 'None', 'None', 'variance\_ratio\_generate/istanbul^istanbul, variance\_ratio\_sync/istanbul^istanbul', and 'task types'.

priority	enabled	start date	end date	task names	task types
1800.0	enabled	None	None	info_leakage_sync/istanbul^istanbul, interday_generate/istanbul^istanbul, interday_sync/istanbul^istanbul	
1800.0	disabled	None	None	variance_ratio_generate/istanbul^istanbul, variance_ratio_sync/istanbul^istanbul	

## Overview – Adjust priority of tasks

---

Adjust single task priorities by clicking on



Site administration

Select Tasks:

AUTHENTICATION AND AUTHORIZATION		
Groups	<a href="#">+ Add</a>	<a href="#">Change</a>
Users	<a href="#">+ Add</a>	<a href="#">Change</a>
WORKFLOW_CHECKMARK_APP		
Errors	<a href="#">+ Add</a>	<a href="#">Change</a>
WORKFLOW_ENGINE		
Clusters	<a href="#">+ Add</a>	<a href="#">Change</a>
Semaphores	<a href="#">+ Add</a>	<a href="#">Change</a>
Task types	<a href="#">+ Add</a>	<a href="#">Change</a>
Tasks	<a href="#">+ Add</a>	<a href="#">Change</a>
Triggers	<a href="#">+ Add</a>	<a href="#">Change</a>

## Overview – Adjust priority of tasks

---

Select the relevant Task Name/  
Task combination. Upfront you  
see the current set priority and  
whether the task type is enabled.

Home > Workflow\_Engine > Tasks

Select task to change

ADD TASK +

FILTER

By name

NAME	TASK TYPE	PRIORITY	ENABLE
tsx^	absolute_nbbo_generate	1200.0	✓
tsx_etf^	absolute_nbbo_generate	1200.0	✓
tsx_v^	absolute_nbbo_generate	1200.0	✓
tsx^	absolute_nbbo_sync	1200.0	✓
tsx_etf^	absolute_nbbo_sync	1200.0	✓
tsx_v^	absolute_nbbo_sync	1200.0	✓
aemo_taq	aemo_convert	1500.0	✓
aemo_taq	aemo_preconvert	1500.0	✓
AEMO	aemo_refdata_convert	1800.0	✓
asx^asx	announcement_volatility_generate	1800.0	✗
shanghai^shanghai	announcement_volatility_generate	1800.0	✓
shenzhen^shenzhen	announcement_volatility_generate	1800.0	✓
asx^asx	area_under_the_curve_generate	1800.0	✓
shanghai^shanghai	area_under_the_curve_generate	1800.0	✓
shenzhen^shenzhen	area_under_the_curve_generate	1800.0	✓
ASV	gov_size_exchange_download	1800.0	✗

## Overview – Adjust priority of tasks

The backend of each task allows detailed adjustments

- Priority can be set.
- Dependencies can be checked.
- False dependencies be adjusted.
- Task can be enabled/disabled.

Save any changes!

Django administration

Home > Workflow\_Engine > Tasks > aemo\_preconvert/aemo\_taq

Change task

Name: aemo\_taq

Task type: aemo\_preconvert

Cluster: DOCKERSWARM (cdt-prod)

Parent tasks:

Available parent tasks

- absolute\_nbbo\_generate/tsx^
- absolute\_nbbo\_generate/tsx\_etf^
- absolute\_nbbo\_generate/tsx\_v^
- absolute\_nbbo\_sync/tsx^
- absolute\_nbbo\_sync/tsx\_etf^
- absolute\_nbbo\_sync/tsx\_v^
- aemo\_convert/aemo\_taq
- aemo\_preconvert/aemo\_taq
- aemo\_refdata\_convert/AEMO
- announcement\_volatility\_generate/asx\*as

Chosen parent tasks

- sleep\_until/all

Priority: 1500.0

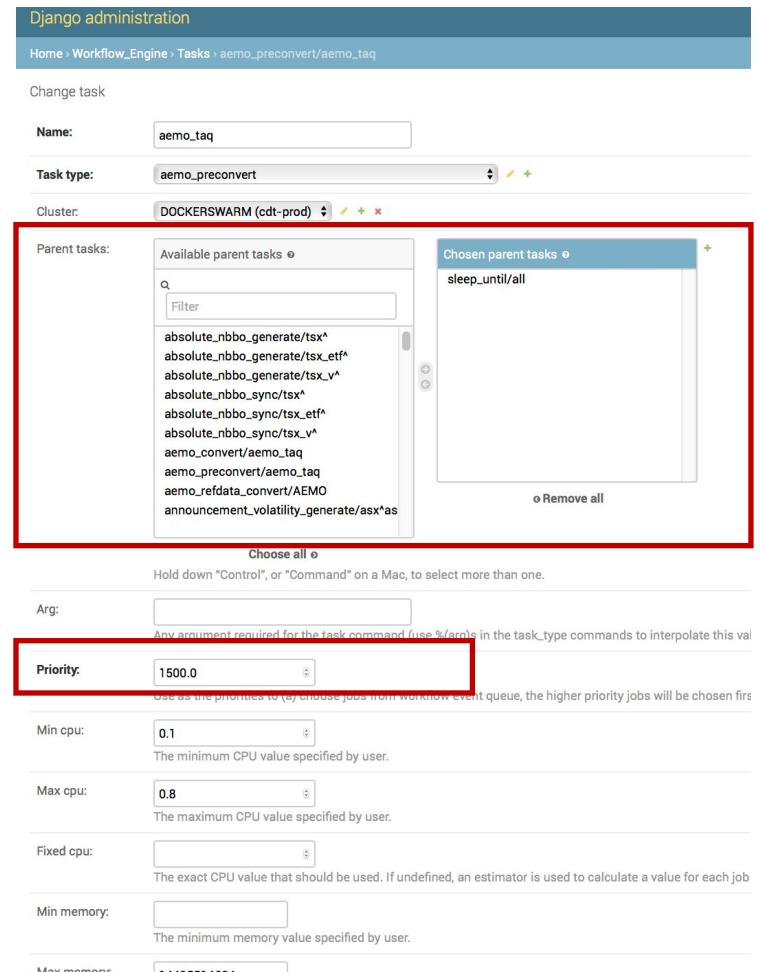
Min cpu: 0.1

Max cpu: 0.8

Fixed cpu:

Min memory:

Max memory:



## Overview - Job calendar

---

To manage and monitor the progress of the WorkFlow



Different types of jobs refer to different steps of the ETL-system:

**DOWNLOAD JOBS:** <Capital letters> **AEX / NAS / TSX**

**CONVERT JOBS:** <Uptickname\_datatype> **convert\_taq / convert\_info**

**METRIC JOBS:** <listing\_market^tading\_market> **nasdaq^nasdaq / lse^bats / paris^turquoise**

## Overview - Job calendar

1. : Task name (incl. Feed names, uptick name)

2. : Task\_type

3. : Job states

4. : Manage view

5. : Adapt time range

Running jobs

The screenshot shows a user interface for monitoring workflow progress. At the top, there are five numbered callouts pointing to specific features:

- Task name (incl. Feed names, uptick name):** Points to a dropdown menu showing task names like "LSE", "absolute\_nbbo\_generate", etc.
- Task\_type:** Points to a list of task types including "absolute\_nbbo\_generate", "absolute\_nbbo\_sync", etc.
- Job states:** Points to a list of job states: WAITING (W), READY (E), RUNNING (R), FAIL (F), SUCCESS (S), STOPPED (X), SLEEPING (Z).
- Manage view:** Points to a section labeled "display: auto" with options to hide blank rows/columns and disabled tasks, and buttons for Refresh and Clear Filter.
- Adapt time range:** Points to a date range selector from "2018-02-01" to "2018-02-28" and a "Today" button, along with a "Filter by last submission run date" checkbox.

The main area displays a timeline grid from February 1, 2018, to February 28, 2018. The grid shows task execution status for various tasks across the days. A legend indicates the colors for different states: W (light blue), E (green), R (yellow), F (red), S (dark blue), X (black), and Z (light gray). The grid shows tasks like "corpactions\_sync/LSE (disabled)", "import\_reference\_data/LSE", "refdata\_corpactions\_convert/LSE", and "refdata\_eod\_convert/LSE" with their respective execution patterns over the month.

## Workflow: Accessing job specific information

Jobs get disabled for two reasons:

1. If a task type has a bug and fails a number of times in a row it will be disabled. Issues need to be addressed.
2. You can disable a task when fixes are applied.

A disabled task does not trigger children jobs.

Disabled task types can be enabled in the back end, see slide 15.

The screenshot shows a workflow monitoring interface with a grid of tasks and a detailed history section.

**Task Grid:**

dublin_info	absolute_nbbo_generate
dublin^instinet_blockmatch	absolute_nbbo_sync
dublin^liquidnet	aemo_convert
dublin^posit	aemo_preconvert

**Legend:**

- RUNNING (R)
- FAIL (F)
- SUCCESS (S)
- STOPPED (X)

**History Section:**

2018-01-01 – 2018-01-31

task	count
daily_stats_generate/dublin^liquidnet (disabled)	01
daily_stats_sync/dublin^liquidnet (disabled)	
daily_trade_summary_generate/dublin^liquidnet (disabled)	X
liquidity_group_dailystats_generate/dublin^liquidnet	
liquidity_group_dailystats_sync/dublin^liquidnet	

**Action Buttons:**

All 28 jobs:

- restart jobs
- stop jobs
- resume jobs
- kill jobs

## Workflow: Accessing job specific information

---

A click on **Task** directs to the current priority for that specific task.

**Restart** allows to restart that specific task

**Parents** refers to the Parent jobs of that specific task, as specified in set up.  
Current state of jobs is given

**Children** refers to the Children jobs of that specific task, as specified in set up.

**Job status history and jobs submissions** presents any state the job has ever had.

Click on **View Details** for any details regarding the successful or failed job

Home > eod\_price\_dislocation\_generate/lse^lse 2017-02-21 job 11700685

eod\_price\_dislocation\_generate/lse^lse 2017-02-21 job 11700685

**Task:** eod\_price\_dislocation\_generate/lse^lse  
**Date:** 2017-02-21 (Tuesday)  
**Status:** success  
[restart job](#)

**Parents:** S historical\_price\_generate/lse^lse , S daily\_info\_generate/lse^lse , P eod\_window\_trade\_value\_generate/lse^lse , S daily\_trade\_summary\_generate/lse^lse , P historical\_true\_price\_generate/lse^lse

**Children:** S eod\_price\_dislocation\_sync/lse\_equity^lse\_equity , S eod\_price\_dislocation\_sync/lse^lse

**Job status history and job submissions:**

Timestamp	Prev Status	New Status	Details
2018-02-02 19:25:14	running	success	OK job result
2018-02-02 19:25:14	Submission	success	Exit status: 0 Time elapsed: 3:07:24 (11244.417842 seconds) Submitted: 2018-02-02 15:54:29 <a href="#">View details</a>
2018-02-02 15:54:29	ready	running	Submitted to DOCKERSWARM (cdt-prod)
2018-02-02 15:54:16	waiting	ready	Dependencies satisfied
2018-02-02 15:54:15	waiting	waiting	Waiting for an earlier waiting job eod_price_dislocation_generate/lse^lse 2017-02-20 to transition.
2018-02-02 15:27:58	waiting	waiting	waiting for dependency eod_window_trade_value_generate/lse^lse 2017-02-21 to be completed
2018-02-02 13:12:20	waiting	waiting	waiting for dependency historical_price_generate/lse^lse 2017-02-21 to be completed
2018-02-02 13:11:57	success	waiting	External state change event

# Workflow: Accessing job specific information

---

**View details** presents any specific information regarding the last run, such as running time, submission time and a comprehensive standard error

Job status history and job submissions.			
Timestamp	Prev Status	New Status	Details
2018-02-02 19:27:10	running	success	OK job result
2018-02-02 19:27:10	Submission	success	Exit status: 0 Time elapsed: 3:15:24 (11724.204494 seconds) Submitted: 2018-02-02 15:54:20 <a href="#">Hide details</a>
Runner job ID: fb82e385326d234477892d521d848026441b3cdbfec7b3e176d61f62d6c902a Cluster: DOCKERSWARM (cdt-prod) Command: /home/sge_ve/bin/metrics_generate_aws --metric=cmcrc.metrics.eod_price_dislocation --uptick_market=lse^lse --date_from=2017-02-09 --date_to=2017-02-09 --reader=uptick_blueShift.reader.BlueShiftS3FeedReader --config_file=/home/config --refdata_reader=refdata.DjangoRefDataReader --refdata-settings-module-name=cmcrc_ref Job submission ID: 37738493 WFJOBS Version: 20180202142359 Memory usage: 0 bytes (requested: 4.3 GB) CPU usage: None (requested: 1.00) Compute node: 172.31.105.82 Standard error: <pre>eod_price_dislocation - 2018-02-02 06:29:53,069 - INFO - lse:GB00BYN59130:GBX is opened at 08:00:00 eod_price_dislocation - 2018-02-02 06:29:53,075 - INFO - lse:LU0599613147:GBX is opened at 08:00:00 eod_price_dislocation - 2018-02-02 06:29:53,080 - INFO - lse:FR0010737544:GBX is opened at 08:00:00 eod_price_dislocation - 2018-02-02 06:29:53,085 - INFO - lse:GB0006450703:GBX is opened at 08:00:00 eod_price_dislocation - 2018-02-02 06:29:53,090 - INFO - lse:GB0005ZLMS59:GBX is opened at 08:00:00 eod_price_dislocation - 2018-02-02 06:29:53,095 - INFO - lse:GB0005372411:GBX is opened at 08:00:00 eod_price_dislocation - 2018-02-02 06:29:53,100 - INFO - lse:JE00068GSP26:USD is opened at 08:00:00 eod_price_dislocation - 2018-02-02 06:29:53,111 - INFO - lse:GB000B1V9NW54:GBX is opened at 08:00:00 eod_price_dislocation - 2018-02-02 06:29:53,116 - INFO - lse:GB0007395642:GBX is opened at 08:00:00 eod_price_dislocation - 2018-02-02 06:29:53,121 - INFO - lse:GB00B0CY5V57:GBX is opened at 08:00:00 eod_price_dislocation - 2018-02-02 06:29:53,126 - INFO - lse:IE000530G562:GBX is opened at 08:00:00 eod_price_dislocation - 2018-02-02 06:29:53,132 - INFO - lse:GG00B4ZWPH08:GBX is opened at 08:00:00 eod_price_dislocation - 2018-02-02 06:29:53,136 - INFO - lse:KYG7091M1096:GBX is opened at 08:00:00 eod_price_dislocation - 2018-02-02 06:29:53,142 - INFO - lse:GB00B03VVN93:GBX is opened at 08:00:00 eod_price_dislocation - 2018-02-02 06:29:53,147 - INFO - lse:GR00RY70Y150:GRX is opened at 08:00:00</pre>			

## Overview - Job states

**Waiting:** Job is either waiting that all parent jobs are successfully completed or in the queue

**Ready:** Parent jobs have run successfully, job is at the front of the queue

**Running:** Task is currently processed

**Fail:** Job ran unsuccessfully – Error

**Success:** Job ran successfully

**Stopped:** Job was stopped, won't run until resumed

**Sleeping:** Temporary stated if for example server is full

**Pretend:** In pretend state the children job will be triggered, as the job task is pretended to have run

successfully



task	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26
eod_window_trade_value_generate/lse^lse	P	P	P	S	S	P	P	P	P	P	S	S	P	S	P	P	P	S	S	P	P	P	P	S		
high_low_volatility_generate/lse^lse	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	
high_low_volatility_sync/lse^lse	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	C	
historical_price_generate/lse^lse	P	P	P	S	S	P	P	P	P	P	S	S	P	P	P	P	P	S	S	S	P	S	P	P	S	
historical_true_price_generate/lse^lse	P	P	P	S	S	P	P	P	P	P	S	S	P	P	P	P	P	S	S	P	P	P	P	P	S	
implementation_shortfall_generate/lse^lse	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	
implementation_shortfall_sync/lse^lse	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	
info_leakage_abnormal_volume_generate/lse^lse	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	
info_leakage_abnormal_volume_sync/lse^lse	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	
info_leakage_generate/lse^lse	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	
info_leakage_sync/lse^lse	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	
interday_generate/lse^lse	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	
interday_return_generate/lse^lse	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	
interday_return_sync/lse^lse	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	
interday_sync/lse^lse	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	
intraday_abnormal_change_stats_generate/lse^lse	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	
intraday_effective_spread_generate/lse^lse	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	
intraday_generate/lse^lse	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	
intraday_index_aggregation_generate/lse^lse (disabled)	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	
intraday_market_quoted_and_effective_spreads_generate/lse^lse	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	
intraday_parkinson_vol_generate/lse^lse	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
intraday_sync/lse^lse	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	

## Workflow: Accessing job specific information

---

Job is in **Waiting** status, since parent jobs has not run successfully

**Note:** Provides information for which specific task the job is waiting. That does not need to be the parent task, some metrics need to run in a subsequent order

realised\_spread\_multi\_interval\_sync/lse^lse 2018-02-07 job 29938021

**Task:** realised\_spread\_multi\_interval\_sync/lse^lse

**Date:** 2018-02-07 (Wednesday)

**Status:** waiting

[stop job](#)

[pretend job](#)

[enqueue job](#)

**Parents:** W [realised\\_spread\\_multi\\_interval\\_generate/lse^lse](#)

**Children:** W [refresh\\_materialised\\_views/lse](#)

**Note:** waiting for dependency [realised\\_spread\\_multi\\_interval\\_generate/lse^lse 2018-02-07](#) to be completed

**Job status history and job submissions:**

Timestamp	Prev Status	New Status	Details
2018-02-12 14:06:28	waiting	waiting	waiting for dependency <a href="#">realised_spread_multi_interval_generate/lse^lse 2018-02-07</a> to be completed



## Workflow: Accessing job specific information

---

Job is in **ready** state. It is in front of the queue.

**Note:** refers to further information, here the cluster is full

eod\_price\_dislocation\_generate/lse^lse 2017-11-01 job 24918274

**Task:** eod\_price\_dislocation\_generate/lse^lse

**Date:** 2017-11-01 (Wednesday)

**Status:** ready

**Parents:** S historical\_price\_generate/lse^lse , S daily\_info\_generate/lse^lse , S eod\_window\_trade\_value\_generate/lse^lse , S daily\_trade\_summary\_generate/lse^lse , S historical\_true\_price\_generate/lse^lse

**Children:** S eod\_price\_dislocation\_sync/lse\_equity^lse\_equity , W eod\_price\_dislocation\_sync/lse^lse

**Queue:** On time queue for 2018-03-16 02:52:14, extra priority 0.

**Note:** Submitting to cluster currently backed off because it is full, will try again later.

### Job status history and job submissions:

Timestamp	Prev Status	New Status	Details
2018-03-16 01:51:01	ready	ready	Submitting to cluster currently backed off because it is full, will try again later.
2018-03-16 01:40:14	ready	ready	Error encountered when submitting job 24918274 to DOCKERSWARM (cdt-prod): ServerException('Could not submit: swarm(mesos1): Error connecting to server: ConnectionError(MaxRetryError("HTTPConnectionPool(host='swarm.marathon.mesos1\\', port=2376): Max retries exceeded with url: /containers/create?name=eod_price_dislocation_generate-lse%5Else-2017-11-01-1521124684 (Caused by NewConnectionError(\\: Failed to establish a new connection: [Errno 110] Connection timed out\\'))\\'))')
2018-03-16 00:41:14	ready	ready	Error encountered when submitting job 24918274 to DOCKERSWARM (cdt-prod): ServerException('Could not submit: swarm(mesos1): Error connecting to server: ConnectionError(MaxRetryError("HTTPConnectionPool(host='swarm.marathon.mesos1\\', port=2376): Max retries exceeded with url: /containers/create?name=eod_price_dislocation_generate-lse%5Else-2017-11-01-1521124684 (Caused by NewConnectionError(\\: Failed to establish a new connection: [Errno 110] Connection timed out\\'))\\'))')

## Workflow: Accessing job specific information

Job is in **running** state.

Running time depends on the specific task type and the size of the market.

Job status history and job submissions:			
Timestamp	Prev Status	New Status	Details
2018-03-17 01:37:08	ready	running	Submitted to DOCKERSWARM (cdt-prod)
2018-03-17 01:37:08	Submission	running	Submitted: 2018-03-17 01:37:08 (This job is still running.) <a href="#">View details</a>
2018-03-17 00:41:03	ready	ready	Error encountered when submitting job 30988938 to DOCKERSWARM (cdt-prod): Server port=2376: Read timed out. (read timeout=210.5").,'.)'
2018-03-17 00:17:10	ready	ready	Submitting to cluster currently backed off because it is full, will try again later.
2018-03-17 00:06:27	ready	ready	DockerSwarmRunner did not accept the job due to insufficient resources. will try later.
2018-03-17 00:02:46	waiting	ready	Dependencies satisfied
2018-03-13 01:19:59	waiting	waiting	waiting for dependency <a href="#">convert_taq/paris_taq</a> 2018-03-07 to be completed

## Workflow: Accessing job specific information

---

Job is in **stopped** state.

Tasks should be stopped when it is known that the task type has issues. No children job will be triggered. Must be resumed if job can be rerun.

CMCRC Workflow

Home > daily\_trade\_summary\_generate/dublin^liquidnet 2018-01-04 job 28392179

daily\_trade\_summary\_generate/dublin^liquidnet 2018-01-04 job 28392179

**Task:** daily\_trade\_summary\_generate/dublin^liquidnet

**Date:** 2018-01-04 (Thursday)

**Status:** stopped - task disabled [settings]

[resume job](#)  
[pretend job](#)

**Parents:** S convert\_taq/liquidnet\_taq

**Children:** W daily\_stats\_generate/dublin^liquidnet

**Job status history and job submissions:**

Timestamp	Prev Status	New Status	Details
2018-02-02 13:35:00	ready	stopped	External state change event
2018-02-02 13:34:02	ready	stopped	Stopped through the Workflow UI by jkrug
2018-02-02 12:59:04	waiting	ready	Dependencies satisfied
2018-02-02 02:15:00	waiting	waiting	waiting for dependency convert_taq/liquidnet_taq 2018-01-04 to be completed
2018-02-01 04:11:42	success	waiting	External state change event
2018-02-01 01:24:57	success	waiting	Restarted through the Workflow UI by jkrug
2018-01-13 01:14:24	running	success	OK job result
2018-01-13 01:14:24	Submission	success	Exit status: 0 Time elapsed: 0:00:06 (6.067415 seconds) Submitted: 2018-01-13 01:14:14 <a href="#">View details</a>
2018-01-13 01:14:14	ready	running	Submitted to DOCKERSWARM (cdt-prod)
2018-01-12 19:30:39	waiting	ready	Dependencies satisfied
2018-01-11 22:12:36	waiting	waiting	waiting for dependency convert_taq/liquidnet_taq 2018-01-04 to be completed

## Workflow: Accessing job specific information

---

Job is in **pretended** state.

Tasks should be pretended if the task has run outside WorkFlow. The children tasks will be triggered, since the task is pretended to have run successfully.

Can also be used if a task was falsely restarted.

Pretended tasks are restarted if necessary.

Home > daily\_depth\_summary\_generate/lse^lse 2018-01-05 job 28283232

daily\_depth\_summary\_generate/lse^lse 2018-01-05 job 28283232

**Task:** daily\_depth\_summary\_generate/lse^lse

**Date:** 2018-01-05 (Friday)

**Status:** pretend - task disabled [settings]

[restart job](#)

**Parents:** W convert\_depth/lse\_depth , W auction\_trade\_stats\_generate/lse^lse

**Children:** W order\_trade\_ratio\_generate/lse^lse

**Job status history and job submissions:**

Timestamp	Prev Status	New Status	Details
2018-01-31 17:24:12	waiting	pretend	External state change event
2018-01-31 17:14:01	waiting	pretend	Pretended through the Workflow UI by jkrug

## Workflow: Accessing job specific information

---

Job is in **success** state.

If everything ran correctly then the task will change to success. A successful sync job should have produced the final data, which will be visualized.

Home > eod\_price\_dislocation\_generate/lse^lse 2017-02-21 job 11700685

eod\_price\_dislocation\_generate/lse^lse 2017-02-21 job 11700685

**Task:** eod\_price\_dislocation\_generate/lse^lse  
**Date:** 2017-02-21 (Tuesday)  
**Status:** success

[restart job](#)

**Parents:** S historical\_price\_generate/lse^lse , S daily\_info\_generate/lse^lse , P eod\_window\_trade\_value\_generate/lse^lse , S daily\_trade\_summary\_gene P historical\_true\_price\_generate/lse^lse

**Children:** S eod\_price\_dislocation\_sync/lse\_equity^lse\_equity , S eod\_price\_dislocation\_sync/lse^lse

**Job status history and job submissions:**

Timestamp	Prev Status	New Status	Details
2018-02-02 19:25:14	running	success	OK job result
2018-02-02 19:25:14	Submission	success	Exit status: 0 Time elapsed: 3:07:24 (11244.417842 seconds) Submitted: 2018-02-02 15:54:29 <a href="#">View details</a>
2018-02-02 15:54:29	ready	running	Submitted to DOCKERSWARM (cdt-prod)
2018-02-02 15:54:16	waiting	ready	Dependencies satisfied
2018-02-02 15:54:15	waiting	waiting	Waiting for an earlier waiting job eod_price_dislocation_generate/lse^lse 2017-02-20 to transition.
2018-02-02 15:27:58	waiting	waiting	waiting for dependency eod_window_trade_value_generate/lse^lse 2017-02-21 to be completed
2018-02-02 13:12:20	waiting	waiting	waiting for dependency historical_price_generate/lse^lse 2017-02-21 to be completed
2018-02-02 13:11:57	success	waiting	External state change event

## Workflow: Task details

---

Job is **fail** state. It did not run successfully.

Investigate details to the failure by **View details**.

daily\_adjusted\_return\_generate/lse^lse 2017-11-08 job 24917072

**Task:** daily\_adjusted\_return\_generate/lse^lse

**Date:** 2017-11-08 (Wednesday)

**Status:** fail

[restart job](#)

[pretend job](#)

**Parents:** S refdata\_corpactions\_convert/LSE , S filter\_status/lse\_status , S convert\_endofday\_transactions/lse\_taq

**Children:** W catastrophic\_risk\_generate/lse^lse , S daily\_adjusted\_return\_sync/lse\_equity^lse\_equity , W daily\_adjusted\_return\_sync/lse^lse , W daily\_abnormal\_log\_return\_generate/lse^lse

### Job status history and job submissions:

Timestamp	Prev Status	New Status	Details
2018-03-15 11:09:57	running	fail	FAIL job result
2018-03-15 11:09:54	Submission	failed	Exit status: 1 Time elapsed: 0:00:31 (31.084818 seconds) Submitted: 2018-03-15 11:09:18 <a href="#">View details</a> Standard error: data_format, File "/usr/local/lib/python3.6/dist-packages/refdata/_init__.py", line 1310, in _get_event_field return raw_data[key] KeyError: <TRTH_Corax_Field.DIVIDEND_DESCRIPTION: 'Corax DR::Dividend Event Description'> 2018-03-15 00:09:48,486 - INFO - [BlueshiftReader] Processed 21581 records.
2018-03-15 11:09:18	ready	running	Submitted to DOCKERSWARM (cdt-prod)
2018-03-15 10:57:52	ready	ready	Submitting to cluster currently backed off because it is full, will try again later.
2018-03-15 10:52:34	sleeping	ready	Awoken (from process_sleeping)

## Addressing jobs failures by creating a Jira

---

If a job has failed the reason for failure needs to be determined and the issue addressed.

Click on **View details** and study the standard error.

Any fixes need to be described tracked and fixed via a Jira/ticket.

There are 3 different types of Jiras:

a) **BUS-Jira:** Errors can and will be fixed by the student/Business- team.

b) **ETL-Jira:** Errors which are due to issues which cannot be fixed by the Business-team/student and will be addressed by the ETL-team.

c) **PDEV-Jira:** New features, will be addressed by the DEV-team.

daily_adjusted_return_generate/lse^lse 2017-11-08 job 24917072			
Task: daily_adjusted_return_generate/lse^lse			
Date: 2017-11-08 (Wednesday)			
Status: fail			
<a href="#">restart job</a>			
<a href="#">pretend job</a>			
Parents: <a href="#">S refdata_corporations_convert/LSE</a> , <a href="#">S filter_status/lse_status</a> , <a href="#">S convert_endofday_transactions/lse_taq</a>			
Children: <a href="#">W catastrophic_risk_generate/lse^lse</a> , <a href="#">S daily_adjusted_return_sync/lse_equity^lse_equity</a> , <a href="#">W daily_adjusted_return_sync/lse^lse</a> , <a href="#">W daily_abnormal_log_return_generate/lse^lse</a>			
Job status history and job submissions:			
Timestamp	Prev Status	New Status	Details
2018-03-15 11:09:57	running	fail	FAIL job result
2018-03-15 11:09:54	Submission	Failed	Exit status: 1 Time elapsed: 0:00:31 (31.084818 seconds) Submitted: 2018-03-15 11:09:18 <a href="#">View details</a> Standard error: data_format, File "/usr/local/lib/python3.6/dist-packages/refdata/_init__.py", line 1310, in _get_event_field return raw_data[key] KeyError: <TRTH_Corax_Field.DIVIDEND_DESCRIPTION: 'Corax DR::Dividend Event Description'> 2018-03-15 00:09:48,486 - INFO - [BlueshiftReader] Processed 21581 records.
2018-03-15 11:09:18	ready	running	Submitted to DOCKERSWARM (cdt-prod)
2018-03-15 10:57:52	ready	ready	Submitting to cluster currently backed off because it is full, will try again later.
2018-03-15 10:52:34	sleeping	ready	Awoken (from process_sleeping)
2018-03-15 10:52:34	fail	fail	FAIL job result

# About Jiras

Please see: <https://jira.aws.cmcrc.com/secure/Dashboard.jspa>

Access the BUS/ETL or other boards for an overview about all Jiras, not just yours

The screenshot shows the CMRC Jira System Dashboard. At the top, there's a navigation bar with links for Dashboards, Projects, Issues, Boards, Portfolio, Dataplane Reports, a red 'Create' button, and a search bar. Below the navigation is a 'System Dashboard' section with an 'Introduction' panel and a 'Projects' section listing several boards. The 'Assigned to Me' section on the right lists tasks assigned to the user. Red arrows point from callout boxes to specific parts of the interface.

**Create a new Jira**

**Jiras assigned to yourself, these are your responsibility**

T	Key	Summary	P
<input checked="" type="checkbox"/>	TK-32	Time Keeping_Juliane Krug	
<input type="checkbox"/>	BUS-1963	EMEA-Smartpool:Collecting Info &Building up market	
<input type="checkbox"/>	BUS-2018	nbbo effective spread and half spread should work by tradable	
<input type="checkbox"/>	BUS-2193	CHIX: Combine feeds pre 4/2012	
<input checked="" type="checkbox"/>	BUS-2675	EMEA: Bats related spreads metrics structural break after 14-07-2017	
<input type="checkbox"/>	BUS-2725	GER:Value error: Duplicate listings for security	
<input type="checkbox"/>	BUS-2741	TRQ dark	
<input type="checkbox"/>	BUS-2766	EMEA Workflow check	
<input checked="" type="checkbox"/>	BUS-2772	EMEA: index download ftp or api	
<input type="checkbox"/>	BUS-2812	Venue info share does not produce results	

## About Jiras

The screenshot shows the Jira System Dashboard. On the left, there are three red boxes with arrows pointing to specific sections of the dashboard:

- A red box labeled "Any Jira you personally came in contact with recently" points to the top-left area of the dashboard.
- A red box labeled "Jira's assigned to you, which are opened.\\" points to the "Projects" section.
- A red box labeled "Jiras of any kind, you created" points to the "Recent Issues" section.

The dashboard itself displays the following information:

- Introduction:** Welcome to CMCRC Issue tracking system. New to JIRA? Check out the JIRA User's Guide.
- Projects:**
  - (DO NOT USE) Market Quality Dashboard (QUA)
  - (DO NOT USE) Outsourced Surveillance (OS)
  - (DO NOT USE) Research Infrastructure (RIN)
  - (DO NOT USE) Trading Platform (TRDPLTFM)
- Recent Issues:** A list of recent issues with icons and titles:
  - ETL-3677 A mechanism to run me...
  - ETL-3836 Scrape news headlines...
  - ETL-3843 convert\_taq/bats exce...
  - BUS-2766 EMEA Workflow check
  - PDEV-2830 MQD-QA: Negative agg...
- Favorites:** A sidebar with user names and status indicators (Julia, Create, Assigned, Ke, TK, BL, BL, BL, BL, BL, BL).
- Filters:** Options for managing filters.

## About Jiras

---

Access the Business-Team, ETL-Team Jira board to receive an overview about all current and historical Jiras and their state and the responsible person.

The screenshot shows the CMCRC Jira instance homepage. At the top, there is a navigation bar with links for Dashboards, Projects, Issues, Boards (which is currently selected and has a dropdown arrow), Portfolio, Dataplane Reports, Create, and a user icon. Below the navigation bar, the page title is "CMCRC Issue Dashboard". A dark grey sidebar on the left contains sections for "Introduction" (with a "Welcome to CMCRC Issue tracking system" message and a blue stylized human icon) and "New to JIRA? Check out the JIRA User's Guide.". The main content area features a "RECENT BOARDS" section with links to "HMQ Projects" and "Business Team Kanban", and a "View all boards" link. To the right of this is a "Favourite Filters" section with a link to "Juliane's Filter" and buttons for "Create Filter" and "Manage Filters".

## About Jiras

**Assigned person**

**Jira title**

**Type (Bug/Idea/Feature)**

**Urgency of the Jira**

**Filter to your needs**

**Jira number**

**State of the Jira (Triage/Backlog/ToDo/In Progress/To Review/Review/Done)**

The Jira board shows the following state distribution across columns:

- Triage:** 55 issues (B...-2869, B...-2867, B...-2866, B...-2847, B...-2846, B...-2849)
- Backlog:** 6 issues (B...-1623, B...-1928, B...-1566, B...-2820, BUS-65, BUS-64)
- To Do:** 10 issues (B...-2035, B...-1451, B...-2245, B...-2627, B...-2822, B...-2823, B...-2183, B...-2803)
- In Progress:** 23 issues (B...-2848, Stockholm on MQD, U.S. Markets instrument, Calculate adjusted returns for, Bulk Download all markets, daily\_adjusted\_return\_sync fail with, daily\_trade\_summary\_sync fail with, EMEA-CPH: Build up CPH)
- To Review:** 37 issues (Setting up Copenhagen on MQD, ICE\_FUT download by chain, SAO: Add and update metric data, LSE: 20Nov 17 MiFID II changes, Capture Buyer and Seller, Grok: Fix the CAPM Regression)
- In Review:** 0 issues
- Reviewed:** 0 issues
- Done:** 0 issues

## About Jiras

---

To create a new Jira select **Create** on the front page.

A **Create Issue** field pops up which needs to be filled.

Please note, always fill the fields in a way a third person can understand. Attach all relevant documents, name them in a reasonable way, update the ticket and communicate about the ticket in the comment section.

Comprehensive documentation about Jiras:

[http://docs.aws.cmcrc.com/cmcrc-docs/user\\_guides/jira.html#creating-a-jira-issue](http://docs.aws.cmcrc.com/cmcrc-docs/user_guides/jira.html#creating-a-jira-issue)

The screenshot shows the 'Create Issue' dialog box from the Jira software. At the top, there's a 'Configure Fields' button. Below it, the 'Project' dropdown is set to 'Business Team (BUS)'. The 'Issue Type' dropdown is set to 'Bug'. The 'Summary' field is empty. The 'Assignee' dropdown is set to 'Automatic'. There's a 'Description' rich-text editor with a toolbar. Below the editor, there's an 'Attachment' section with a placeholder 'Drop files to attach, or browse.' and a 'Component/s' field set to 'None'. At the bottom right, there are 'Create another', 'Create', and 'Cancel' buttons.

## About Jiras

---

Select the correct Project type:

**BUS:** Issues which are handled by the Business Team or the relevant student. Usually anything related the set up and corrections of the market\_config-data repository. Further, issues related to metrics configuration.

**CDT-ETL:** Issues which cannot be handled by the Business Team or the student. These are usually related to overall WorkFlow Issues as the background configuration. Can be used for issues where the reporter does not know how to proceed. The ETL-Team reviews the Description and either reassigned the Jira to a BUS-Jira, if that issue can be handled by the Business-Team/student (usually with an explanation), or it will be handled by the ETL-team.

**CDT-PDEV:** Ideas and Features. Mostly related to the MQD, but also for the WorkFlow. Please talk to Yiping upfront.

**Note:** The reporter is responsible that the issue is handled properly and in a reasonable time frame. Please follow up on any Jira reported by you.

The screenshot shows the 'Create Issue' form in Jira. The 'Project' field is set to 'Business Team (BUS)'. The 'Issue Type' field is set to 'CDT - ETL (ETL)'. The 'Summary' and 'Assignee' fields are empty. The 'Description' field is also empty. The 'Attachment' field has a placeholder 'Drop files to attach, or browse.' The 'Component/s' field is set to 'None'. At the bottom right, there are 'Create another', 'Create', and 'Cancel' buttons. The 'Configure Fields' button is located at the top right of the form.

## About Jiras

## Select the correct Issue type:

**Design Spec:** Usually used in combination with PDEV tickets. Please discuss with Yiping first.

Idea: Usually used in combination with PDEV tickets.  
Please discuss with Yiping first. Also possible with  
BUS-Jiras, if you execute an idea.

**Feature:** Usually used with PDEV tickets, also possible with ETL. Please discuss with Yiping upfront.

**Bug:** Used for BUS- and ETL tickets. Any code changes in any repository or in the background of the WorkFlow or MQD require to select Bug.

## Create Issue

Configure Fields ▾

---

Project\*

Issue Type\*  ?

- Bug
- Design Spec
- Idea
- Feature
- Automatic

---

Summary\*

Assignee

Assign to me

Description

Attachment  ?

Drop files to attach, or [browse](#).

Component/s

[Create another](#) Create Cancel



## About Jiras

Provide a **summary** of the issue:

*“LSE convert fails due to missing currencies” (BUS)*

*“MQD-QA: Negative aggregate On market volume in downloaded csv” (PDEV)*

*“AEX import reference data fails due to a.ImportRefDataToMQDFailedException: stream: 'AEX', Date: '2014-01-02'. Exit Code: 1” (ETL)*

Provide **Background** information to the issue as well as your **Expectations**.

Any Jira beside a BUS-Jira, will be resolved by a third person. This person needs to be able to understand the issue and the instructions just by the provided info. Any questions cause delays.

If you create a BUS-Jira, any third person should be able to understand the issue, take over or help. Again, **the description of the issue is crucial**.

Create Issue

Configure Fields ▾

Project\* Business Team (BUS)

Issue Type\* Bug

Summary\*

Assignee Automatic

Assign to me

Description

Style B I U A <sup>3</sup>A \*Background\*  
\*Expectations\*

Attachment Drop files to attach, or browse.

Component/s None

Priority Normal

Create another Create Cancel

## Creating a Ticket

---

Titles should be unique and descriptive

For BUS tickets: Please include the market/task\_type if market/task\_type specific. General description is enough for common issues.

For ETL tickets: Please include details about the error message.

Bad title example	Good title example
check_workflow_dependencies failing	check_workflow_dependencies ImportError: No module named converters.taq_converter
checkmark broken on beanstalk	checkmark broken on beanstalk - table id=search_results - Ajax error
workflow unit tests failed	workflow unit tests all failed with "pg_config executable not found"
workflow_jobs autoupgrade not passing	workflow_jobs autoupgrade has cmcrc-metrics version conflict
Trades convert jobs failed for JNX and CHJ	Trades convert jobs failed for JNX and CHJ with "Unknown security: 4096ta.JNX"
Convert fails due to currencies	Convert_taq/lse failsd due to missing currencies
WFJobs Auto upgrade are failing	WFJobs Auto upgrade are failing as pysmarts-utils tests were failing due to sonarqube issue

## Creating a Ticket

---

**ETL-Tickets** require to define a motivation:

**Customer** Anything that will improve the product or service that we deliver to the customer, e.g. demos, customer requests, improvements to MQD UI, keeping MQD data up to date at T-5, improvements to data quality.

**Developer** Anything that makes life easier for the developers, e.g. refactoring, reducing technical debt, upgrading software versions, monitoring. By definition, most devops issues will fall under this category.

**ETL/Business team** Anything that makes life easier for the ETL/business team, e.g. improved workflow UI, simplified market configuration.

**Cost** Anything aimed at cutting costs, e.g. retiring unused servers, reducing AWS spending

**Business continuity** Requirements for the purposes of business continuity, such as avoiding loss of data, e.g. security policies, backups, audit trails.

**Management** Directly requested by senior management. Only use if motivation is otherwise unclear; most features requested by senior management would fall under *Customer*.

## Creating a Ticket

---

### Who do you assign the ticket to?

**BUS-Jira:** BUS related issues are handled by yourself. You can consult anybody of the Business-Team, for more technical issues also the ETL-team (Jiri, Tim).

Address questions personally or within the comment section by typing @<Name> and a dropdown list will appear. The relevant person will receive an email notification with a link to the Jira.

**ETL-/ PDEV-Jira:** Nobody. The team lead of the relevant team will be notified, and evaluate and assign the issue.

**Please link affected persons in the Jira.** Hence, always link the team lead (@Team lead) of the relevant market as well as your mentor in the Jira. If you plan to adapt any metrics, this would affect all markets. Please speak first to Yiping Lin, Pallab Dey and/or Hansi Hu. If changes are made, please link all team leads.

# Creating a Ticket

CDT - ETL / ETL-3735  
BTE\_trth\_haslinks\_corpactions fails due to UnboundLocalError: local variable 'job\_ids' referenced before assignment

[Edit](#) [Comment](#) [Assign](#) [More ▾](#) [Export ▾](#)

Details		People	
Type:	Bug	Status:	CLOSED
Priority:	Normal	Resolution:	Duplicate
Component/s:	Request & conversion	Fix Version/s:	None
Labels:	None	Votes:	0
Kanban colour:	white	Watchers:	2 Stop watching this issue
<b>Description</b>			
<b>Background</b> The job above fails due to 2018-01-24 06:31:35,232 - INFO - [root] Using TRTH account reuters9. 2018-01-24 06:31:35,295 - INFO - [root] Using TRTH account reuters9. 2018-01-24 06:31:35,296 - INFO - [trth_haslinks] Waiting for semaphore yiping.lin@unsw.edu.au 2018-01-24 06:31:35,305 - INFO - [trth_haslinks] Semaphore yiping.lin@unsw.edu.au acquired 2018-01-24 06:31:35,318 - ERROR - [trth_haslinks] Exception raised: 'set' object has no attribute 'extend' <b>Traceback (most recent call last):</b> File "/usr/local/lib/python3.6/dist-packages/workflow_jobs/trth_haslinks.py", line 110, in main <code>job_ids = get_parent_trth_job_ids()</code> File "/usr/local/lib/python3.6/dist-packages/workflow_jobs/utilities_aws.py", line 202, in get_parent_trth_job_ids <code>job_ids.extend(parent_result['job_ids'].split(','))</code> AttributeError: 'set' object has no attribute 'extend' <b>Traceback (most recent call last):</b> File "/home/sge_ve/bin/trth_haslinks", line 11, in <module> <code>load_entry_point('workflow-jobs==1.0.dev0', 'console_scripts', 'trth_haslinks')()</code> File "/usr/local/lib/python3.6/dist-packages/workflow_jobs/trth_haslinks.py", line 153, in main <code>join(job_ids))</code> <b>UnboundLocalError: local variable 'job_ids' referenced before assignment</b> <a href="http://workflow.aws.cmrc.com/job/29029573">link: http://workflow.aws.cmrc.com/job/29029573</a>			
<b>Dates</b> Created: 04/Feb/18 5:45 PM Updated: 05/Feb/18 12:57 PM Resolved: 05/Feb/18 12:54 PM			
<b>Development</b> <a href="#">Create branch</a>			
<b>Agile</b> <a href="#">View on Board</a>			
<b>HipChat discussions</b> Confirm access to your HipChat account for more information.			

# Creating a Ticket

---

Business Team / BUS-2067

EMEA: metric gen jobs fail due to InvalidOperandType: unsupported operation between Money and '<type 'NoneType'>': '<'

[Edit](#) [Comment](#) [Assign](#) [More ▾](#)

Details		People	
Type:	Bug	Status:	CLOSED (View Workflow)
Priority:	Normal	Resolution:	Fixed
Labels:	None	Fix Version/s:	None
		Assignee:	Yiping Lin
		Reporter:	Juliane Krug
		Votes:	0
		Watchers:	7 Stop watching this iss
Description			
<p><b>Background</b>          Ise, johannesburg, xetra and paris metric jobs such as historical_true_price, quoted_spread_gen, nbboImplementation from 2017-01 fail due to the following error:          InvalidOperandType: unsupported operation between Money and '&lt;type 'NoneType'&gt;': '&lt;'. This operation can only be performed with another Money object. You can access the amount of a money object 'foo' with 'foo.amount' (decimal.Decimal).          see link:  <a href="http://workflow.aws.cmcrc.com/job/11925387">http://workflow.aws.cmcrc.com/job/11925387</a>  <a href="http://workflow.aws.cmcrc.com/job/12299721">http://workflow.aws.cmcrc.com/job/12299721</a>  <a href="http://workflow.aws.cmcrc.com/job/12309956">http://workflow.aws.cmcrc.com/job/12309956</a>  <a href="http://workflow.aws.cmcrc.com/job/12017458">http://workflow.aws.cmcrc.com/job/12017458</a>  <a href="http://workflow.aws.cmcrc.com/job/11683671">http://workflow.aws.cmcrc.com/job/11683671</a> </p>			
Dates			
		Created:	18/Apr/17 2:27 PM
		Updated:	Just now
		Resolved:	15/Jun/17 5:24 PM
Development			
		4 commits	Late
		1 pull request MERGED	Upc
<a href="#">Create branch</a>			

## Creating a Ticket

The screenshot shows a ticket creation interface with two red boxes highlighting specific areas:

- Add documentation here**: Points to the "Attachments" section, which includes a "Drop files to attach, or browse." area.
- Communicate here**: Points to the "Activity" section, which displays a list of comments. One comment from Jiri Baum is highlighted with a blue border and labeled "Initial stage".

**Attachments**

Drop files to attach, or [browse](#).

**Activity**

All Comments Work Log History Activity Transitions

10 older comments

bot Automated account added a comment - 20/Apr/17 2:20 PM  
Pull request for review/BUS-2067\_Nonetype\_error created SUCCESSFULLY: <http://bitbucket.cmcrc.com:7990/projects/RIN/repos/cmcrc-metrics/pull-requests/427/overview>

Jiri Baum added a comment - 20/Apr/17 2:44 PM  
**Initial stage**  
Juliane Krug, Leo Liu — you can use checkmark to:

- Find all metrics that fail with this error message.
- Restart failed jobs after you have fixed them.

Leo Liu added a comment - 20/Apr/17 2:57 PM  
Cannot fix the nbbo\_implementation\_shortfall due to my limited understanding of the codes. Can someone else have a look at it please!

Yilian Guo added a comment - 02/May/17 6:56 PM  
Hi Yiping Lin, please assign this task to another team member. Thank you!

Yiping Lin added a comment - 15/Jun/17 5:24 PM  
Yilian GuoJuliane Krug, the jobs are now all successful except: <http://workflow.aws.cmcrc.com/job/11925387>. Please take a look. But the error is gone now.

Agile View  
HipCh

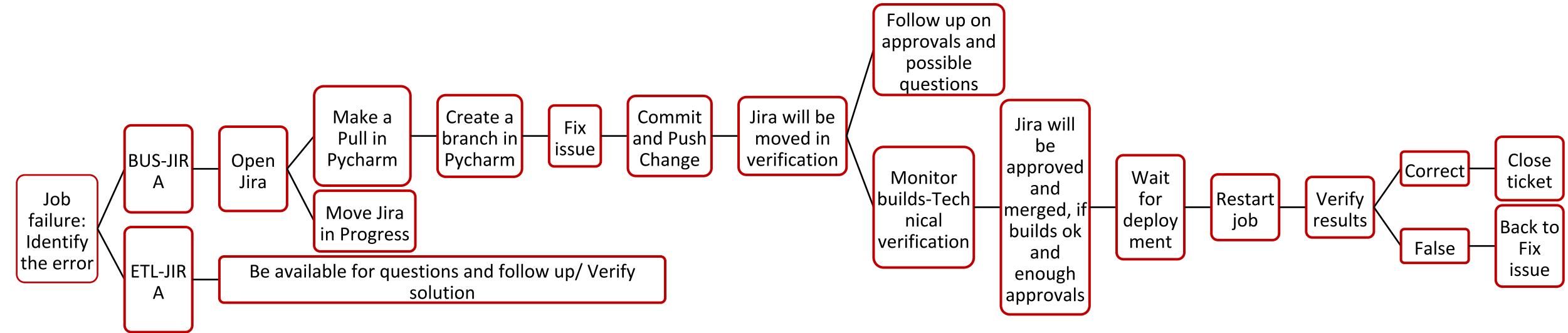
## Jira status

---

- |                |                               |   |
|----------------|-------------------------------|---|
| Status:        | <b>TRIAGE</b> (View Workflow) | <ul style="list-style-type: none"><li>Initial stage</li></ul> |
| Resolution:    | Unresolved                    |   |
| Fix Version/s: | None                          |   |
- 
- |                |                                |  |
|----------------|--------------------------------|--|
| Status:        | <b>BACKLOG</b> (View Workflow) | <ul style="list-style-type: none"><li>Personal organisation/Not much difference to <b>Triage</b></li></ul> |
| Resolution:    | Unresolved                     |  |
| Fix Version/s: | None                           | <ul style="list-style-type: none"><li>Move Jiras which will be done the week into <b>Open</b></li></ul>    |
- 
- |                |                             |  |
|----------------|-----------------------------|--|
| Status:        | <b>OPEN</b> (View Workflow) | <ul style="list-style-type: none"><li>Move Jiras you are working on to <b>In Progress</b>. Anytime you push a change in pycharm your Jira must be in this stage.</li></ul> |
| Resolution:    | Unresolved                  |  |
| Fix Version/s: | None                        |  |
- 
- |                |                                    |  |
|----------------|------------------------------------|--|
| Status:        | <b>IN PROGRESS</b> (View Workflow) | <ul style="list-style-type: none"><li>After a Push in Pycharm, your ticket moves automatically <b>In Verification</b> and will be reviewed by ETL- and Business-Team members</li></ul> |
| Resolution:    | Unresolved                         |  |
| Fix Version/s: | None                               |  |
- 
- |                |  |  |
|----------------|--|--|
| Status:        | <b>NEED VERIFICATION</b> (View Workflow) | <ul style="list-style-type: none"><li>After an issue is resolved <b>please close</b> the Jira.</li></ul> |
| Resolution:    | Unresolved                               |  |
| Fix Version/s: | None                                     |  |
- 
- 
- |                |                               |  |
|----------------|-------------------------------|--|
| Status:        | <b>CLOSED</b> (View Workflow) |  |
| Resolution:    | Fixed                         |  |
| Fix Version/s: | None                          |  |

## How do you address a failed job?

---



# Reading the standard error message

Job status history and job submissions:			
Timestamp	Prev Status	New Status	Details
2018-02-14 16:44:04	running	fail	FAIL job result
2018-02-14 16:44:01	Submission	failed	Exit status: 3 Time elapsed: 0:06:07 (366.821398 seconds) Submitted: 2018-02-14 16:36:33 [Hide details]           Standard error for n, record in enumerate(self, start=1):           File "/usr/local/lib/python3.6/dist-packages/cmrc/converter/_taq_converter/_init__.py", line 3059, in __iter__           raise Exception("There were %d errors in the converter, aborting." % error_count)           Exception: There were 871 errors in the converter, aborting.           2018-02-14 05:42:23,332 - INFO - [MsgpackS3Writer] Filtered out records by trading market: bats_chi_x_bxtr: 525889, darkpool_emptytrades: 13708...
<b>Runner job ID:</b> 335e615b722e2f2b3158074952f76e1faa79c0e86b22ef6d1147f302bf1e4247			
<b>Cluster:</b> DOCKERSWARM (cdt-prod)			
<b>Command:</b> /home/sge_ve/bin/aws_convert --track=ubs_dark_taq --date=2018-02-07 --data_type=trade --writer=msgpack_s3 --config_file=/home/config --stage=convert			
<b>Job submission ID:</b> 38527156			
<b>WFJOBS Version:</b> 20180214102228			
<b>Memory usage:</b> 147.4 MB (requested: 450.0 MB)			
<b>CPU usage:</b> 0:03:58 (237.605783611 seconds) (requested: 1.00)			
<b>Compute node:</b> 172.31.87.251			
<b>Standard output:</b>			
RESULT:{"status": "FAIL", "error_message": "There were 871 errors in the converter, aborting."}			
<b>Standard error:</b>			
<pre>2018-02-14 16:36:38,188 - INFO - [workflow.jobs.qws_convert] Using exchangebyday data for stream 'BC0' and download_method 'DownloadMethod' /usr/local/lib/python3.6/dist-packages/psycopg2/_init__.py:144: UserWarning: The psycopg2 wheel package will be renamed from release 2.8; it 2018-02-14 05:36:38,478 - INFO - [TRTHS3Reader] Ignoring Instrument File s3://cmrc-workflow/trth_exchangebyday_download/BC0/2018-02-07/ 2018-02-14 05:36:38,478 - INFO - [TRTHS3Reader] Ignoring Instrument File s3://cmrc-workflow/trth_exchangebyday_download/BC0/2018-02-07/ 2018-02-14 05:36:38,478 - INFO - [TRTHS3Reader] Ignoring Instrument File s3://cmrc-workflow/trth_exchangebyday_download/BC0/2018-02-07/ 2018-02-14 05:36:38,479 - INFO - [TRTHS3Reader] Ignoring Instrument File s3://cmrc-workflow/trth_exchangebyday_download/BC0/2018-02-07/ 2018-02-14 05:36:38,479 - INFO - [TRTHS3Reader] Reading Instrument File s3://cmrc-workflow/trth_exchangebyday_download/BC0/2018-02-07/ 2018-02-14 05:36:38,491 - WARNING - [FasterCsvDictReader] StopIteration raised reading 2018-02-14 05:36:38,912 - INFO - [TRTHS3Reader] Ignoring Instrument File s3://cmrc-workflow/trth_exchangebyday_download/BC0/2018-02-07/ 2018-02-14 05:36:38,913 - INFO - [TRTHS3Reader] Ignoring Instrument File s3://cmrc-workflow/trth_exchangebyday_download/BC0/2018-02-07/ 2018-02-14 05:36:38,913 - INFO - [TRTHS3Reader] Ignoring Instrument File s3://cmrc-workflow/trth_exchangebyday_download/BC0/2018-02-07/ 2018-02-14 05:36:38,914 - INFO - [TRTHS3Reader] Ignoring Instrument File s3://cmrc-workflow/trth_exchangebyday_download/BC0/2018-02-07/ 2018-02-14 05:36:38,914 - INFO - [TRTHS3Reader] Ignoring Instrument File s3://cmrc-workflow/trth_exchangebyday_download/BC0/2018-02-07/ 2018-02-14 05:36:38,914 - INFO - [TRTHS3Reader] Ignoring Instrument File s3://cmrc-workflow/trth_exchangebyday_download/BC0/2018-02-07/ 2018-02-14 05:36:38,915 - INFO - [TRTHS3Reader] Skipping s3://cmrc-workflow/trth_exchangebyday_download/BC0/2018-02-07/BC0-2018-02-07-0 2018-02-14 05:36:38,915 - INFO - [TRTHS3Reader] Skipping s3://cmrc-workflow/trth_exchangebyday_download/BC0/2018-02-07/BC0-2018-02-07-0 2018-02-14 05:36:38,916 - INFO - [TRTHS3Reader] Skipping s3://cmrc-workflow/trth_exchangebyday_download/BC0/2018-02-07/BC0-2018-02-07-0 2018-02-14 05:36:38,916 - INFO - [TRTHS3Reader] Skipping s3://cmrc-workflow/trth_exchangebyday_download/BC0/2018-02-07/BC0-2018-02-07-0 2018-02-14 05:36:38,916 - INFO - [TRTHS3Reader] Skipping s3://cmrc-workflow/trth_exchangebyday_download/BC0/2018-02-07/BC0-2018-02-07-0 2018-02-14 05:36:38,917 - INFO - [TRTHS3Reader] Skipping s3://cmrc-workflow/trth_exchangebyday_download/BC0/2018-02-07/BC0-2018-02-07-0 2018-02-14 05:36:38,917 - INFO - [TRTHS3Reader] Skipping s3://cmrc-workflow/trth_exchangebyday_download/BC0/2018-02-07/BC0-2018-02-07-0 2018-02-14 05:36:38,918 - INFO - [TRTHS3Reader] Skipping s3://cmrc-workflow/trth_exchangebyday_download/BC0/2018-02-07/BC0-2018-02-07-0 2018-02-14 05:36:38,918 - INFO - [TRTHS3Reader] Reading s3://cmrc-workflow/trth_exchangebyday_download/BC0/2018-02-07/BC0-2018-02-07-T 2018-02-14 05:36:39,572 - INFO - [MsgpackS3Writer] Started day 2018-02-07, writing to temporary file /mnt/tmp/tmptf0mw9eb 2018-02-14 05:37:04,028 - INFO - [TrthConverter] Converted 50000 records. Counter{ 'Trade': 49607, 'Status': 392, 'DayStart': 1 } 2018-02-14 05:37:07,942 - INFO - [StreamConfig] Listing market for 1660n BC0 in BC0 found using the listing market map fallback. 2018-02-14 05:37:08,659 - INFO - [StreamConfig] Listing market for 1661n BC0 in BC0 found using the listing market map fallback. 2018-02-14 05:37:08,659 - INFO - [StreamConfig] Listing market for 1662n BC0 in BC0 found using the listing market map fallback. 2018-02-14 05:37:08,668 - INFO - [StreamConfig] Listing market for 1658n BC0 in BC0 found using the listing market map fallback. 2018-02-14 05:37:09,013 - INFO - [StreamConfig] Listing market for 1776n BC0 in BC0 found using the listing market map fallback. 2018-02-14 05:37:09,065 - INFO - [StreamConfig] Listing market for 1788n BC0 in BC0 found using the listing market map fallback. 2018-02-14 05:37:09,098 - INFO - [StreamConfig] Listing market for 1816n BC0 in BC0 found using the listing market map fallback. 2018-02-14 05:37:09,133 - INFO - [StreamConfig] Listing market for 1888n BC0 in BC0 found using the listing market map fallback. 2018-02-14 05:37:10,261 - INFO - [StreamConfig] Listing market for 2288n BC0 in BC0 found using the listing market map fallback. 2018-02-14 05:37:10,261 - INFO - [StreamConfig] Listing market for 7700n RBN in RBN found using the listing market map fallback.</pre>			

## Reading the standard error message

- Information about any occurrences while running the job.
- Relevant for failing: ERROR and information at the bottom of the standard error.

```

2018-02-14 05:39:45:302 - INFO - [StreamConfig] Listing market for IVTN.BCO in BCO found using the listing market map fallback
2018-02-14 05:39:42:137 - INFO - [TrthConverter] Converted 400000 records; Counter({'Trade': 397679, 'Status': 2320, 'DayStart': 1})
2018-02-14 05:39:49:274 - INFO - [StreamConfig] Listing market for JHEFL.BCO in BCO found using the listing market map fallback
2018-02-14 05:39:49:460 - WARNING - [StreamConfig] Conflating RIC JPXGL.BCO with JPX4L.BCO as lse:LU1646359452 on 2018-02-07 in BCO.
2018-02-14 05:39:49:487 - INFO - [StreamConfig] Listing market for KAPN.BCO in BCO found using the listing market map fallback
2018-02-14 05:39:49:800 - WARNING - [StreamConfig] Conflating RIC KOGO.BCO with KOGOS.BCO as oslo.bors:N00003043309 on 2018-02-07 in BCO.
2018-02-14 05:39:59:554 - INFO - [StreamConfig] Listing market for LBHN.BCO in BCO found using the listing market map fallback
2018-02-14 05:40:07:574 - INFO - [TrthConverter] Converted 450000 records; Counter({'Trade': 447477, 'Status': 2522, 'DayStart': 1})
2018-02-14 05:40:09:256 - WARNING - [StreamConfig] Conflating RIC LSGO.BCO with LSGS.BCO as oslo.bors:N00003096208 on 2018-02-07 in BCO.
2018-02-14 05:40:15:538 - INFO - [StreamConfig] Listing market for MFON.BCO in BCO found using the listing market map fallback
2018-02-14 05:40:16:993 - WARNING - [StreamConfig] Conflating RIC MHGO.BCO with MHGS.BCO as oslo.bors:N00003054108 on 2018-02-07 in BCO.
2018-02-14 05:40:20:429 - INFO - [StreamConfig] Listing market for MOXN.BCO in BCO found using the listing market map fallback
2018-02-14 05:40:24:824 - WARNING - [StreamConfig] Conflating RIC NAMO.BCO with ASO50.BCO as oslo.bors:N00003091140 on 2018-02-07 in BCO.
2018-02-14 05:40:48:827 - INFO - [StreamConfig] Listing market for NMKN.BCO in BCO found using the listing market map fallback
2018-02-14 05:40:50:930 - WARNING - [StreamConfig] Conflating RIC NODO.BCO with NODOS.BCO as oslo.bors:N00003055501 on 2018-02-07 in BCO.
2018-02-14 05:40:50:138 - INFO - [TrthConverter] Converted 500000 records; Counter({'Trade': 497188, 'Status': 2811, 'DayStart': 1})
2018-02-14 05:40:50:812 - INFO - [StreamConfig] Conflating RIC NORo.BCO with NORo.BCO as oslo.bors:N000010379266 on 2018-02-07 in BCO.
2018-02-14 05:40:53:260 - WARNING - [StreamConfig] Conflating RIC NRSo.BCO with NRSS0.BCO as oslo.bors:N000010331838 on 2018-02-07 in BCO.
2018-02-14 05:40:53:927 - INFO - [StreamConfig] Listing market for NVTK.BCO in BCO found using the listing market map fallback
2018-02-14 05:40:35:452 - WARNING - [StreamConfig] Conflating RIC OCYO.BCO with OCYOS.BCO as oslo.bors:N000010657448 on 2018-02-07 in BCO.
2018-02-14 05:40:36:120 - WARNING - [StreamConfig] Conflating RIC OLTo.BCO with OLTOs.BCO as oslo.bors:N000005638858 on 2018-02-07 in BCO.
2018-02-14 05:40:43:466 - INFO - [StreamConfig] Listing market for PFGN.BCO in BCO found using the listing market map fallback
2018-02-14 05:40:44:693 - WARNING - [StreamConfig] Conflating RIC PGSO.BCO with PGSOs.BCO as oslo.bors:N00001019915 on 2018-02-07 in BCO.
2018-02-14 05:40:45:093 - INFO - [StreamConfig] Listing market for PFLV.BCO in BCO found using the listing market map fallback
2018-02-14 05:40:45:468 - INFO - [StreamConfig] Listing market for PLZn.BCO in BCO found using the listing market map fallback
2018-02-14 05:40:48:155 - WARNING - [StreamConfig] Conflating RIC PROTc.BCO with PROTCo.BCO as oslo.bors:N000010209331 on 2018-02-07 in BCO.
2018-02-14 05:40:52:642 - INFO - [TrthConverter] Converted 550000 records; Counter({'Trade': 546993, 'Status': 3096, 'DayStart': 1})
2018-02-14 05:41:02:269 - INFO - [StreamConfig] Listing market for RMHN.BCO in BCO found using the listing market map fallback
2018-02-14 05:41:02:330 - INFO - [StreamConfig] Listing market for RMN.BCO in BCO found using the listing market map fallback
2018-02-14 05:41:07:803 - INFO - [StreamConfig] Listing market for S32An.BCO in BCO found using the listing market map fallback
2018-02-14 05:41:09:915 - WARNING - [StreamConfig] Conflating RIC SALMO.BCO with SALMOS.BCO as oslo.bors:N000010310956 on 2018-02-07 in BCO.
2018-02-14 05:41:12:535 - INFO - [TrthConverter] Converted 600000 records; Counter({'Trade': 596752, 'Status': 3247, 'DayStart': 1})
2018-02-14 05:41:12:884 - WARNING - [StreamConfig] Conflating RIC SCHBO.BCO with SCHBOS.BCO as oslo.bors:N000010736879 on 2018-02-07 in BCO.
2018-02-14 05:41:12:888 - WARNING - [StreamConfig] Conflating RIC SEMBL.BCO with SEMBLs.BCO as oslo.bors:N000010736883 on 2018-02-07 in BCO.
2018-02-14 05:41:12:901 - WARNING - [StreamConfig] Conflating RIC SJPA1.BCO with IJPAL.BCO as lse:IE00B4LSYX21 on 2018-02-07 in BCO.
2018-02-14 05:41:12:904 - WARNING - [StreamConfig] Listing market for SNHSD.BCO in BCO found using the listing market map fallback
2018-02-14 05:41:30:612 - INFO - [StreamConfig] Listing market for SNGSN.BCO in BCO found using the listing market map fallback
2018-02-14 05:41:30:841 - INFO - [StreamConfig] Listing market for SNHSD.BCO in BCO found using the listing market map fallback
2018-02-14 05:41:33:096 - WARNING - [StreamConfig] Conflating RIC SPGPL.BCO with IAUP1.BCO as lse:IE00BGR52036 on 2018-02-07 in BCO.
2018-02-14 05:41:33:402 - WARNING - [StreamConfig] Conflating RIC SPVM1.BCO with MVUS1.BCO as lse:IE00BGPMPN59 on 2018-02-07 in BCO.
2018-02-14 05:41:34:169 - WARNING - [StreamConfig] Conflating RIC SRBANS.BCO with SRBANOs.BCO as oslo.bors:N000010631567 on 2018-02-07 in BCO.
2018-02-14 05:41:34:949 - INFO - [TrthConverter] Converted 650000 records; Counter({'Trade': 646496, 'Status': 3503, 'DayStart': 1})
2018-02-14 05:41:35:188 - INFO - [StreamConfig] Conflating RIC SSO5.BCO with SSOS0.BCO as oslo.bors:N00001015139 on 2018-02-07 in BCO.
2018-02-14 05:41:39:820 - WARNING - [StreamConfig] Conflating RIC STB0.BCO with STBS0.BCO as oslo.bors:N000010093605 on 2018-02-07 in BCO.
2018-02-14 05:41:39:962 - WARNING - [StreamConfig] Conflating RIC STB1.BCO with STBS1.BCO as oslo.bors:N000010093625 on 2018-02-07 in BCO.
2018-02-14 05:41:40:324 - WARNING - [StreamConfig] Conflating RIC SWDC.BCO with SWDC0.BCO as oslo.bors:N00001007564925 on 2018-02-07 in BCO.
2018-02-14 05:41:43:183 - INFO - [StreamConfig] Listing market for TATN.BCO in BCO found using the listing market map fallback
2018-02-14 05:41:43:174 - WARNING - [StreamConfig] Conflating RIC TGSo.BCO with TGSOs.BCO as oslo.bors:N00003078800 on 2018-02-07 in BCO.
2018-02-14 05:41:43:274 - WARNING - [StreamConfig] Conflating RIC THINo.BCO with THINOs.BCO as oslo.bors:N000010299068 on 2018-02-07 in BCO.
2018-02-14 05:41:52:115 - INFO - [StreamConfig] Listing market for TKGn.BCO in BCO found using the listing market map fallback
2018-02-14 05:41:56:126 - INFO - [TrthConverter] Converted 700000 records; Counter({'Trade': 696284, 'Status': 3715, 'DayStart': 1})
2018-02-14 05:42:02:891 - WARNING - [StreamConfig] Conflating RIC UIFST.BCO with UIFSTs.BCO as lse:IE00B4JNQZ49 on 2018-02-07 in BCO.
2018-02-14 05:42:06:180 - INFO - [StreamConfig] Listing market for USFL.BCO in BCO found using the listing market map fallback
2018-02-14 05:42:08:750 - WARNING - [StreamConfig] Conflating RIC VELO.BCO with VELOS.BCO as oslo.bors:N00005806802 on 2018-02-07 in BCO.
2018-02-14 05:42:10:094 - WARNING - [StreamConfig] Conflating RIC VLP1.BCO with VLP1s.BCO as lse:IE00B3SPG531 on 2018-02-07 in BCO.
2018-02-14 05:42:12:669 - INFO - [TrthConverter] Converted 750000 records; Counter({'Trade': 46092, 'Status': 5916, 'DayStart': 1})
2018-02-14 05:42:30:598 - WARNING - [StreamConfig] Conflating RIC WWIO.BCO with WWIOS.BCO as oslo.bors:N000010594698 on 2018-02-07 in BCO.
2018-02-14 05:42:31:163 - WARNING - [StreamConfig] Conflating RIC XXLo.BCO with XXLOS.BCO as oslo.bors:N000010716863 on 2018-02-07 in BCO.
2018-02-14 05:42:33:323 - INFO - [FasterCsvDictReader] StopIteration raised reading /mnt/tmp/tmp4lg37bbBCO-2018-02-07-TAS-Data-1-of-1
2018-02-14 05:42:23:323 - INFO - [TRTH3Reader] Skipping s3://cmcrc-workflow/trth_exchangebyday/download/BCO/2018-02-07/BCO-2018-02-07-1
2018-02-14 05:42:23:328 - INFO - [TRTH3Reader] Skipped records on other days: Trade(56)
2018-02-14 05:42:23:328 - ERROR - [TrthConverter] Sumble ignored records: 1 1 "RIC: QA2PM.BCO dateobj: 2018-02-07-10:00:00"
2018-02-14 05:42:23:329 - ERROR - [TrthConverter] ERROR: No listing_market_override file for BCO *** No RefData can be found for stream: BCO
2018-02-14 05:42:23:329 - ERROR - [TrthConverter] ERROR: No listing_market_override file for BCO *** No RefData can be found for stream: BCO
2018-02-14 05:42:23:329 - ERROR - [TrthConverter] ERROR: No listing_market_override file for BCO *** No RefData can be found for stream: BCO, sync: 1
2018-02-14 05:42:23:329 - ERROR - [TrthConverter] Traceback (most recent call last):
2018-02-14 05:42:23:329 - ERROR - [TrthConverter]   File "/usr/local/lib/python3.6/dist-packages/cmcrc/convertisers/taq_converter/_init_.py", line 3059, in convert
2018-02-14 05:42:23:329 - ERROR - [TrthConverter]     for r, record in enumerate(self._start1):
2018-02-14 05:42:23:329 - ERROR - [TrthConverter]       raise Exception("There were %d errors in the converter, aborting." % error_count)
2018-02-14 05:42:23:331 - ERROR - [WorkflowJobsAWSConvert] An exception occurred when converting
2018-02-14 05:42:23:331 - ERROR - [WorkflowJobsAWSConvert] Traceback (most recent call last):
2018-02-14 05:42:23:331 - ERROR - [WorkflowJobsAWSConvert]   File "/usr/local/lib/python3.6/dist-packages/workflow_jobs/aws_convert.py", line 359, in main
2018-02-14 05:42:23:331 - ERROR - [WorkflowJobsAWSConvert]     num_processed = converter.convert(W)
2018-02-14 05:42:23:331 - ERROR - [WorkflowJobsAWSConvert]   File "/usr/local/lib/python3.6/dist-packages/cmcrc/convertisers/taq_converter/_init_.py", line 3073, in convert
2018-02-14 05:42:23:331 - ERROR - [WorkflowJobsAWSConvert]     for r, record in enumerate(self._start1):
2018-02-14 05:42:23:331 - ERROR - [WorkflowJobsAWSConvert]       raise Exception("There were %d errors in the converter, aborting." % error_count)
2018-02-14 05:42:23:332 - INFO - [Msgpack3Writer] Filtered out records by trading market: bats_chi_x_bxtr: 525889, darkpool_emptytrades
2018-02-14 05:42:23:332 - INFO - [Msgpack3Writer] /

```

## Reading the standard error message

---

2018-02-14 05:42:23,328 - ERROR - [TrthConverter] ERROR: No listing\_market\_override file for BCO \*\*\* No RefData can be found for stream: BCO, symbol: CHTEXb.BCO, date: 2018-02-07 and key: opol \*\*\* CHTEXb.BCO not found in the listing market map file (repeated 631 times)

2018-02-14 05:42:23,329 - ERROR - [TrthConverter] ERROR: No listing\_market\_override file for BCO \*\*\* No RefData can be found for stream: BCO, symbol: OCPETb.BCO, date: 2018-02-07 and key: opol \*\*\* OCPETb.BCO not found in the listing market map file (repeated 97 times)

14 05:42:23,329 - ERROR - [TrthConverter] ERROR: No listing\_market\_override file for BCO \*\*\* No RefData can be found for stream: BCO, symbol: PEPb.BCO, date: 2018-02-07 and key: opol \*\*\* PEPb.BCO not found in the listing market map file (repeated 143 times)

2018-02-14 05:42:23,329 - ERROR - [TrthConverter] Exception on line 762526 when writing out converted data. Record: Trade(buy\_order\_id=None, currency=XXX, flags={'DT'}, instrument=six\_swiss:CH0011075394:CHF, meta={'trth\_type': 'Trade', 'trth\_qualifiers': ('-', 'ACT\_FLAG1'), ('SINT', 'GV5\_TEXT')}, on\_market=True, price=CHF 298.829, sell\_order\_id=None, status\_name=None, timestamp=2018-02-07 17:14:42.014287+00:00, venue=bats\_chi\_x\_bxtr, volume=189)

Traceback (most recent call last): File "/usr/local/lib/python3.6/dist-packages/cmcrc/converter/taq\_converter/\_init\_.py", line 3073, in convert for n, record in enumerate(self, start=1): File "/usr/local/lib/python3.6/dist-packages/cmcrc/converter/taq\_converter/\_init\_.py", line 3059, in \_\_iter\_\_ raise Exception("There were %d errors in the converter, aborting." % error\_count) Exception: There were 871 errors in the converter, aborting. 2018-02-14 05:42:23,331 - ERROR - [workflow\_jobs.aws\_convert] An exception occurred when converting Traceback (most recent call last): File "/usr/local/lib/python3.6/dist-packages/workflow\_jobs/aws\_convert.py", line 359, in main num\_processed = converter.convert(w) File "/usr/local/lib/python3.6/dist-packages/cmcrc/converter/taq\_converter/\_init\_.py", line 3073, in convert for n, record in enumerate(self, start=1): File "/usr/local/lib/python3.6/dist-packages/cmcrc/converter/taq\_converter/\_init\_.py", line 3059, in \_\_iter\_\_ raise Exception("There were %d errors in the converter, aborting." % error\_count) Exception: There were 871 errors in the converter, aborting. 2018-02-14 05:42:23,332 - INFO - [MsgpackS3Writer] Filtered out records by trading market: bats\_chi\_x\_bxtr: 525889, darkpool\_emptytrades: 137087, posit: 11792, instinet\_blockmatch: 5661, liquidnet: 424.

## Reading the standard error message: Missing OPOL

---

2018-02-14 05:42:23,328 - ERROR - [TrthConverter] ERROR: No listing\_market\_override file for BCO \*\*\* No RefData can be found for stream: BCO, symbol: CHTEXb.BCO, date: 2018-02-07 and key: opol \*\*\* CHTEXb.BCO not found in the listing market map file (repeated 631 times)

- No listing\_market\_override file and key: opol refer to error message: The system does not find the listing market of the relevant security.
- Information must be added to the listing\_market\_maps in market-config-data/aws
  - Form: <Ric>,<uptickname\_of\_OPOL>,(datefrom),(dateto)
    - Only add a date if there was a change in the listing market.
- Look up the official place of listing (opol) in TRTH during the relevant horizon.
- All errors must be resolved, otherwise the job will remain failing.

## Reading the standard error message: Missing Currency

---

2018-01-30 15:40:50,034 - ERROR - [TrthConverter] ERROR: The **Currency** for stream: LSE, Ric: **MSq.L**, date: 2007-07-09 not found either in Refdata or in currency map (repeated 50 times)

- The system does not find the currency of the relevant security.
- Information must be added to the currency\_lists in market-config-data/aws
  - Form: <Ric>,<Currency>,(datefrom),(dateto)
    - Only add a date if there was a change in the currency.
    - Be careful with the syntax. GBp in TRTH is GBX in Pycharm!
- Look up the currency in TRTH during the relevant horizon
  - Available on the front page of TRTH, after adding the ric.
- All errors must be resolved, otherwise the job will remain failing.

## Reading the standard error message: ServerError

---

```
ERROR: Error encountered when submitting job 17089512 to DOCKERSWARM (cdt-prod):  
ServerException('Error connecting to server:  
ConnectionError(MaxRetryError("HTTPConnectionPool(host='swarm.marathon.cdt-prod',  
port=2376): Max retries exceeded with url:  
/containers/create?name=convert_taq-lse_taq-2007-07-05-1500920321 (Caused by  
NewConnectionError('<urllib3.connection.HTTPConnection object at 0x7f9e98e527d0>: Failed to  
establish a new connection: [Errno 111] Connection refused'),),),)
```

- Issues in transmission.
- Restart the job.
- Create Jira if job keeps failing 3 times.

## Reading the standard error message: 2 rics refer to 1 ISIN

---

2017-04-26 21:56:47,536 - ERROR - [Converter] ERROR: Trying to map (trading\_market: xetra, tradable: xetra:IE00B3VY0M37:EUR, date: 2016-02-18) to ('GER', 'SYB1.DE'), but it is already mapped to ('GER', 'SYBV.DE'). (repeated 81 times)

- The system finds that the ISIN is already mapped to another ric.
- Refers to the concept of tradable which includes the Ric:ISIN:currency, which should form a unique combination at each point of time.
- ISIN – Ric combinations can change, this is handled in the isin\_maps in cmcrc-market-config-data file, which allows to assign a horizon for which the combination is valid.
- Lookup ISIN for that horizon in TRTH.
- By clicking on the relevant rics, you receive any information about changes and the dates.



## Reading the standard error message: 2 rics refer to 1 ISIN

- Lookup ISIN for that time horizon in TRTH
- By clicking on the relevant rics you receive any information about changes and the date:

	RIC	ISIN	CUSIP
	SYB1.DE	IE00B3VY0M37	N/A
	SYBV.DE	IE00B3VY0M37->IE00BYSZ6062	N/A
	USCO.DE	IE00B3VY0M37	N/A

Add the information as follows:

SYBV.DE,IE00BYSZ6062,20160127,  
 SYBV.DE,IE00B3VY0M37,20130903,20160126  
 SYB1.DE,IE00B3VY0M37,20160127,

Reference data changes for SYBV.DE				
Date of Change	Time	Type	Old Value	New Value
20130903	19:02:10.000	Currency		EUR
20130903	19:02:10.000	Description		SPDR US CORP
20130903	19:02:10.000	Exchange		GER
20130903	19:02:10.000	Permission Code		3349
20130903	19:02:10.000	Record Type		112
20130903	19:02:10.000	Template		38
20130904	00:00:00.000	ISIN		IE00B3VY0M37
20130904	00:00:00.000	Underlying RIC		SYBV.DE
20140405	18:46:45.000	Permission Code	3349	5926
20150111	18:38:10.000	Permission Code	5926	3348
20150926	11:28:53.000	Description	SPDR US CORP	SPDR BRC US CORP
20160126	19:14:23.000	Description	SPDR BRC US CORP	** SEE <SYB1.DE>
20160126	19:14:23.000	Permission Code	3348	5926
20160126	19:14:23.000	Record Type	112	225
20160127	00:00:00.000	ISIN	IE00B3VY0M37	IE00BYSZ6062
20160127	17:12:54.000	Description	** SEE <SYB1.DE>	BCLS 10+EURO GOV
20160127	17:12:54.000	Permission Code	5926	3348
20160127	17:12:54.000	Record Type	225	112
20170720	05:48:45.000	Description	BCLS 10+EURO GOV	SPDR BARCL.10+ Y
20170720	08:16:31.000	Description	SPDR BARCL.10+ Y	BCLS 10+EURO GOV
20170826	00:19:17.000	Description	BCLS 10+EURO GOV	SPDR BARCL.10+ Y
20170826	17:05:03.000	Description	SPDR BARCL.10+ Y	BCLS 10+EURO GOV

22 Items

## Reading the standard error message: No ISIN information

---

2017-01-04 04:24:06,176 - ERROR - [Converter] ERROR: No RefData can be found for feed: IST, symbol: KUYASbe.IS, date: 2016-01-19 and key: opol \*\*\* isin\_map file not found for IST

- ISIN for that ric cannot be found.
- Add ric to TRTH and look up ISIN.
- Add ISIN to isin\_maps in cmcrc-market-config-data/aws
  - Form: <Ric>,<ISIN>,(datefrom),(dateto)
    - Only add a date if there was a change in the ISIN.
- If no ISIN can be found, even with external sources, create a Fake ISIN add it to the isin\_maps
- Fake ISIN is the ric without the suffix. Here, KUYASbe

## Solving an error: Missing Opol: 1

---

Following proceeding can be used for any changes in marketconfig-data. The given example is for missing OPOLs.

**Example:** convert\_taq/ubs\_dark\_taq fails due to missing OPOLS in Feb. 2018. To keep it brief, only the error messages of <http://workflow.aws.cmcrc.com/job/29923412> are addressed here. In real life, all similar error messages across all failed jobs are collected and solved in one go.

See the following error message as an example:

```
2018-02-14 05:42:23,328 - ERROR - [TrthConverter] ERROR: No listing_market_override file for  
BCO *** No RefData can be found for stream: BCO, symbol: CHTEXb.BCO, date: 2018-02-07 and  
key: opol *** CHTEXb.BCO not found in the listing market map file (repeated 631 times)
```

## Solving an error: Missing Opel: 2

- Add ric to TRTH and select the appropriate time horizon.
- Note: Endofday information are reported every Saturday, during the week only changes are reported.
- An appropriate horizon is therefore a few weeks before and after.

Home Request ▾ Schedule ▾ Settings ▾ Usage SpeedGuide Help ▾

### New Request

Instruments Fields Output Settings

Identifier: RIC Enter an instrument Add Search... Delete Import... Export...

	RIC	ISIN	CUSIP	SEDOL	GICS	Exchange	Name	Type	Currency	First Date	Last Date
<input type="checkbox"/>	CHTEXb.BCO	N/P	N/A	N/A	N/A	BCO	CHEVRON	113	USD	20180203	20180319

From: 20180205 To: 20180319 Local  
00:00:00.000 23:59:59.999

## Solving an error: Missing Opol: 3

- Click on **Fields** and select **Official Place of Listing OPOL**
- Either submit or preview the data.

Instruments **Fields** Output Settings

Selectable Field Formats Exchange By Day Formats

Available Fields:

- Time & Sales
- Market Depth
- Nasdaq Level II
- Intraday
- End Of Day**
- Corporate Actions
- RTCE - Time & Sales
- RTCE - Market Depth

Selected Fields:

- + x Reference Data

From: 20180205 To: 20180319 Local  
00:00:00.000 23:59:59.999

Request Name:

**Preview...** **Submit**

## Solving an error: Missing Opol: 4

- You receive information about the time horizon requested.
- The OPOL is given in form of a MIC, market identifier code.
- Look up **TNLB** in the 3<sup>rd</sup> column of  
[https://www.iso20022.org/sites/default/files/ISO10383\\_MIC/ISO10383\\_MIC.pdf](https://www.iso20022.org/sites/default/files/ISO10383_MIC/ISO10383_MIC.pdf)

Thomson Reuters Tick History - Preview				
RIC	Date[L]	Time[L]	Type	Official Place Of Listing OPOL
CHTEXb.BCO	20180210		Equities	TNLB
CHTEXb.BCO	20180217		Equities	TNLB
CHTEXb.BCO	20180224		Equities	TNLB
CHTEXb.BCO	20180303		Equities	TNLB
CHTEXb.BCO	20180310		Equities	TNLB
CHTEXb.BCO	20180317		Equities	TNLB

[Download Th](#)

## Solving an error: Missing Opol: 5

---

- TLNB refers to Euronext Brussels

BELGIUM	BE	ENXB	XBRU	S	EURONEXT - EASY NEXT		BRUSSELS	WWW.EURONEXT.COM
BELGIUM	BE	MLXB	XBRU	S	EURONEXT ACCESS BRUSSELS		BRUSSELS	WWW.EURONEXT.COM
BELGIUM	BE	MTSD	BEAM	S	MTS DENMARK		BRUSSELS	WWW.MTSDENMARK.COM
BELGIUM	BE	MTSF	BEAM	S	MTS FINLAND		BRUSSELS	WWW.MTSFINLAND.COM
BELGIUM	BE	TNLB	XBRU	S	EURONEXT - TRADING FACILITY BRUSSELS		BRUSSELS	WWW.EURONEXT.COM
BELGIUM	BE	VPKB	XBRU	S	EURONEXT - VENTES PUBLIQUES BRUSSELS		BRUSSELS	WWW.EURONEXT.COM
BELGIUM	BE	XBRD	XBRU	S	EURONEXT - EURONEXT BRUSSELS - DERIVATIVES		BRUSSELS	WWW.EURONEXT.COM
BELGIUM	BE	XBRU	XBRU	O	EURONEXT - EURONEXT BRUSSELS		BRUSSELS	WWW.EURONEXT.COM
BERMUDA	BM	GTXE	GTXE	O	GTX ECN		HAMILTON	WWW.GAINGTX.COM
BERMUDA	BM	XBDA	XBDA	O	BERMUDA STOCK EXCHANGE LTD	BSX	HAMILTON	WWW.BSX.COM

- Look up uptick name for that market in cmcrc-market-config-data/trading\_markets.yaml.
- In our case it is “brussels”.
- If market is not there the market needs to be added. Contact a senior member.
- If the market is available, please check whether the MIC is included, see mic\_names under the relevant market.
- If not, please add it in addition to the next steps.

# Solving an error: Missing Opol: 6

- TNLB is already added as one MIC code for Euronext Brussels.
- Uptick name is *brussels*.

```

File Edit View Navigate Code Refactor Run Tools VCS Window Help
cmcrc-marketconfig-data > aws > listing_markets.yaml
Project aws Plugins supporting *.yaml files are found
cmcrc-marketconfig-data ~/cmcrc-marketconfig-data
aws
  currency_lists
  isin_maps
  listing_filter
  listing_market_maps
  listing_market_overrides
  public_holidays
  ric_filter
  ric_lists
  streams
  trading_weekends
    divisions.yaml
    exchangebyday.yaml
    listing_markets.yaml
    rbss_code_mappings.csv
    tracks.yaml
    trading_markets.yaml
docs
  .gitignore
  .todolintrc
  .yamllint
  ignored_trth_download_validation_errors
  MANIFEST.in
  reindent_yaml.py
  requirements.in
  requirements.txt
  setup.cfg
  setup.py
brus
  security_code: isin
  mic_names: [XBRN]
boat:
  country: uk
  security_code: isin
  mic_names: [BDS, BOAT]
bratislava:
  country: sk
  security_code: isin
  mic_names: [XBRA]
brussels:
  country: be
  security_code: isin
  mic_names: [XBRU, VPXB, ALXB, MLXB, ENXB, TNLB]
bse:
  country: in
  security_code: ric_prefix
  mic_names: [XBOM, XCAL, MCXX]
  listing_filter:
    - valid_regex: '^[^abdfs]$'
bucharest:
  country: ro
  security_code: isin
  mic_names: [XRAS, XBSE]
budapest:
  country: hu
  security_code: isin
  mic_names: [XBUD]
bulgaria:
  country: bg
  security_code: isin

```

## Solving an error: Missing Opol: 7

- Create a Jira. This is a BUS-Jira.
- Please always follow the instructions, a third person needs to be able to take over.
- Add the team lead of the market and your workflow trainer.
- If you click on **Create**, a number will be assigned.
- Move the Jira into **In Progress**.

Create Issue

Configure Fields ▾

Project \* Business Team (BUS)

Issue Type \* Bug

Summary \* convert\_tag\_ubs\_dark fails due to missing opol for CHTEXb.BCO

Assignee Juliane Krug

Assign to me

Description

\*Background\*  
convert\_tag\_ubs\_dark fails several times in February 18 due to a missing opol for CHTEXb.BCO.  
see:  
2018-02-14 05:34:33,251 - ERROR - [TrthConverter] ERROR: No listing\_market\_override file for BCO \*\*\* No RefData can be found for stream: BCO, symbol: CHTEXb.BCO & OCPETB.BCO, date: 2018-02-06 and key: opol \*\*\* CHTEXb.BCO not found in the listing market map file (repeated 286 times)

Attachment Drop files to attach, or browse.

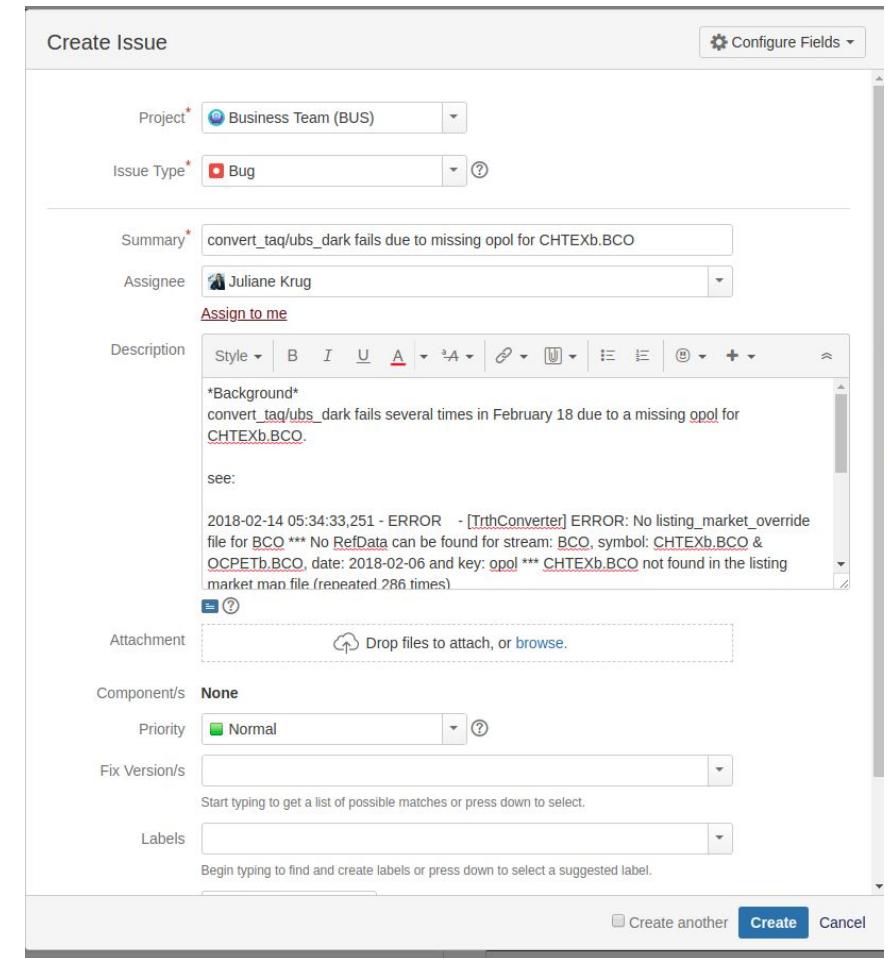
Component/s None

Priority Normal

Fix Version/s Start typing to get a list of possible matches or press down to select.

Labels Begin typing to find and create labels or press down to select a suggested label.

Create another **Create** Cancel



## Solving an error: Missing Opol: 8

- Create a Jira. Since the missing information need to be added in cmcrc-marketconfig-data, it is a BUS-Jira.
- Please always follow the instructions, a third person needs to be able to take over.
- Add the team lead of the market and your workflow trainer.
- If you click on **Create**, a number will be assigned.
- Move the Jira into **In Progress**.

Create Issue

Configure Fields ▾

Project \* Business Team (BUS)

Issue Type \* Bug

Summary \* convert\_taq/ubs\_dark fails due to missing opol for CHTEXb.BCO

Assignee Juliane Krug

Assign to me

Description

\*Background\*  
convert\_taq/ubs\_dark fails several times in February 18 due to a missing opol for CHTEXb.BCO.

see:  
2018-02-14 05:34:33,251 - ERROR - [TrthConverter] ERROR: No listing\_market\_override file for BCO \*\*\* No RefData can be found for stream: BCO, symbol: CHTEXb.BCO & OCPETB.BCO, date: 2018-02-06 and key: opol \*\*\* CHTEXb.BCO not found in the listing market map file (repeated 286 times)

Attachment Drop files to attach, or browse.

Component/s None

Priority Normal

Fix Version/s Start typing to get a list of possible matches or press down to select.

Labels Begin typing to find and create labels or press down to select a suggested label.

Create another **Create** Cancel

## Solving an error: Missing Opol: 9

- By clicking on **Create** you save the Jira.
- It is now on the Kanban board and hence visible to everybody.
- Linked persons receive an email.
- Ticket/Jira is initially in Triage.
- Click on **Open Issue**, which will signal that the Jira is on the ToDo list.

The screenshot shows a Jira ticket page for issue BUS-2873. The ticket title is "convert\_taq/ubs\_dark fails due to missing opol for CHTEXb.BCO". The ticket is in the "Triage" status. The "Details" section shows the type is a Bug, priority is Normal, and resolution is Unresolved. The "Description" section contains a detailed error log from February 14, 2018, about missing OPOL files for streams BCO and CHTEXb.BCO. The "Attachments" section has a placeholder for file uploads. The right sidebar includes sections for People (assignee and reporter), Dates (created and updated), Development (create branch), Agile (view on board), and HipChat discussions.

## Solving an error: Missing Opol: 10

- When you are ready to add missing information to the relevant repository, Click on **Start Progress**.
- The Jira must be in **In Progress** stage to be able to commit and push changes successfully.
- The Jira will move one column forward on the Kanban board.
- It signals that you are working on the issue.
- You can move the Jira back into the backlog by clicking on **Stop Progress**.

Business Team / BUS-2873  
convert\_taq/ubs\_dark fails due to missing opol for CHTEXb.BCO

[Edit](#) [Comment](#) [Assign](#) [More ▾](#) [Stop Progress](#) [Need Verification](#) [Workflow ▾](#)

**Details**

Type:	Bug	Status:	<b>IN PROGRESS</b> (View Workflow)
Priority:	Normal	Resolution:	Unresolved
Labels:	None	Fix Version/s:	None
Kanban colour:	white		

**Description**

**Background**  
convert\_taq/ubs\_dark fails several times in February 18 due to a missing opol for CHTEXb.BCO.

**See:**  
2018-02-14 05:34:33,251 - ERROR - [TtrhConverter] ERROR: No listing\_market\_override file for BCO \*\*\* No RefData can be found for stream: BCO, symbol: CHTEXb.BCO & OCPETb.BCO, date: 2018-02-06 and key: opol \*\*\* CHTEXb.BCO not found in the listing market map file (repeated 286 times)  
2018-02-14 05:34:33,251 - ERROR - [TtrhConverter] ERROR: No listing\_market\_override file for BCO \*\*\* No RefData can be found for stream: BCO, symbol: OCPETb.BCO, date: 2018-02-06 and key: opol \*\*\* OCPETb.BCO not found in the listing market map file (repeated 31 times)  
Link: <http://workflow.aws.cmcrc.com/job/29923412>

**Expectations**  
Find OPOL and add it to cmcrc-marketconfig-data/aws/listing\_market\_maps.

**Attachments**

People

Assignee:	 Juliane Krug
Reporter:	 Juliane Krug
Votes:	0
Watchers:	 1 Stop watching this issue

Dates

Created:	Just now
Updated:	Just now

Development

Create branch
---------------

Agile

View on Board
---------------

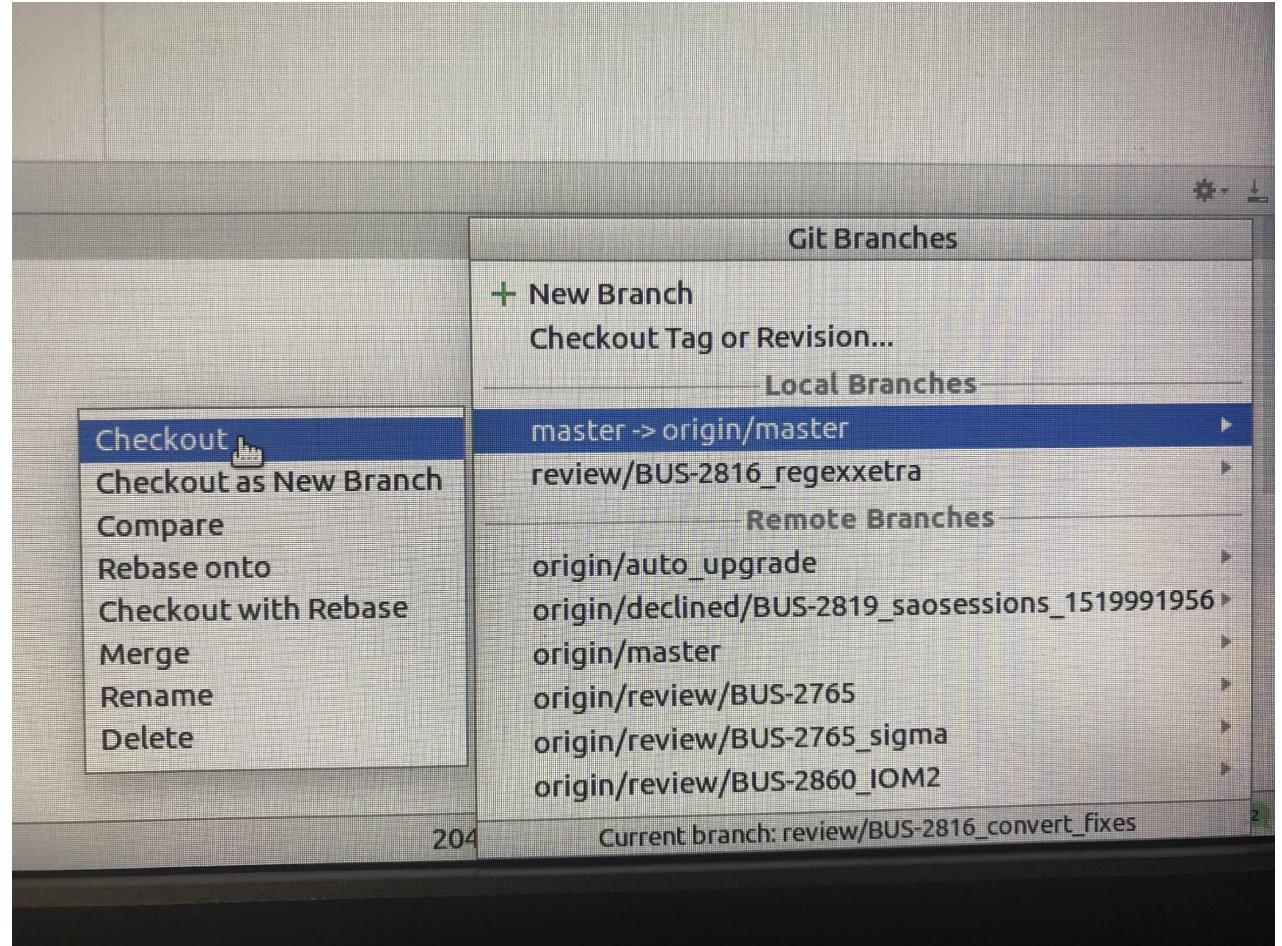
HipChat discussions

Confirm access to your HipChat account for more information.

## Solving an error: Missing Opol: 11

---

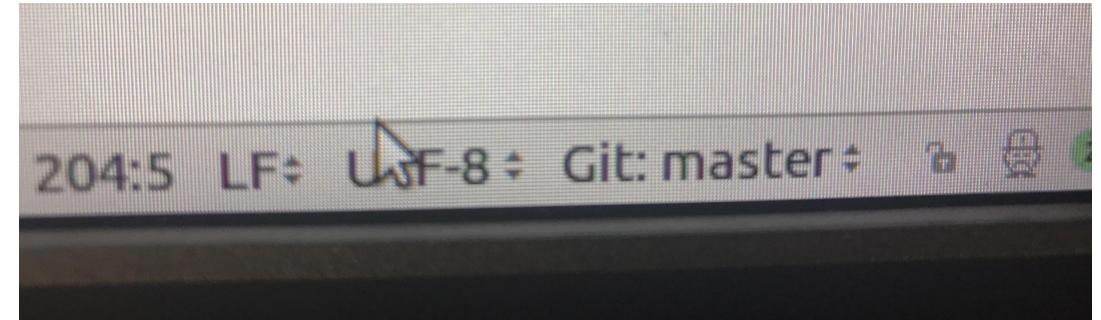
- Open Pycharm.
- Open cmcrc-marketconfig-data.
- Go to lower right corner.
- Checkout to master branch eg master-> origin/master.



## Solving an error: Missing Opol: 12

---

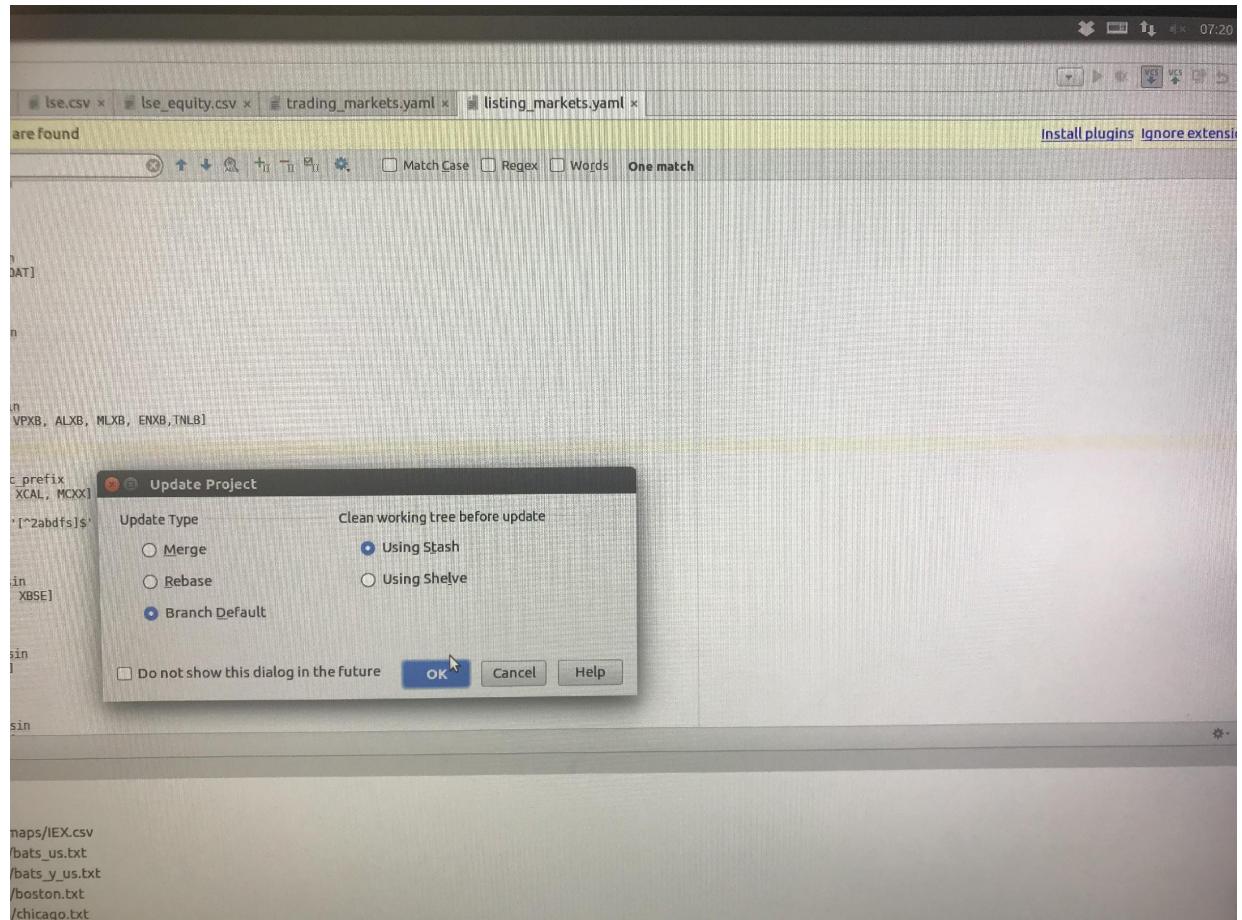
- You should be in the master branch.



## Solving an error: Missing Opol: 13

---

- Select in the upper right corner VCS/down.
- You are about to pull the latest version of the repository on your computer.
- A window pops up.
- Select as in picture.
- Click ok.



## Solving an error: Missing Opol: 14

- By pulling the latest version you assure that you work within the most updated cmcrc-marketconfig-data version.
- You should be notified about all the changes since your last pull request.
- Always create a pull request before creating a new branch.

```
exchangebyday.yaml
listing_markets.yaml
rbss_code_mappings.csv
tracks.yaml
trading_markets.yaml
docs
.gitignore
.todolintrc
.yamllint
ignored_trth_download_validation_errors
MANIFEST.in
reindent_yaml.py
requirements.in
requirements.txt
setup.cfg
setup.py

country: be
security_code: isin
mic_names: [XBRU, VPXB, ALXB, MLXB, ENXB, TNLB]

bse:
country: in
security_code: ric_prefix
mic_names: [XBOM, XCAL, MCXX]
listing_filter:
- valid_regex: '^[^2abdfs]$'

bucharest:
country: ro
security_code: isin
mic_names: [XRAS, XBSE]

budapest:
country: hu
security_code: isin
mic_names: [XBUD]

bulgaria:
country: bg
security_code: isin

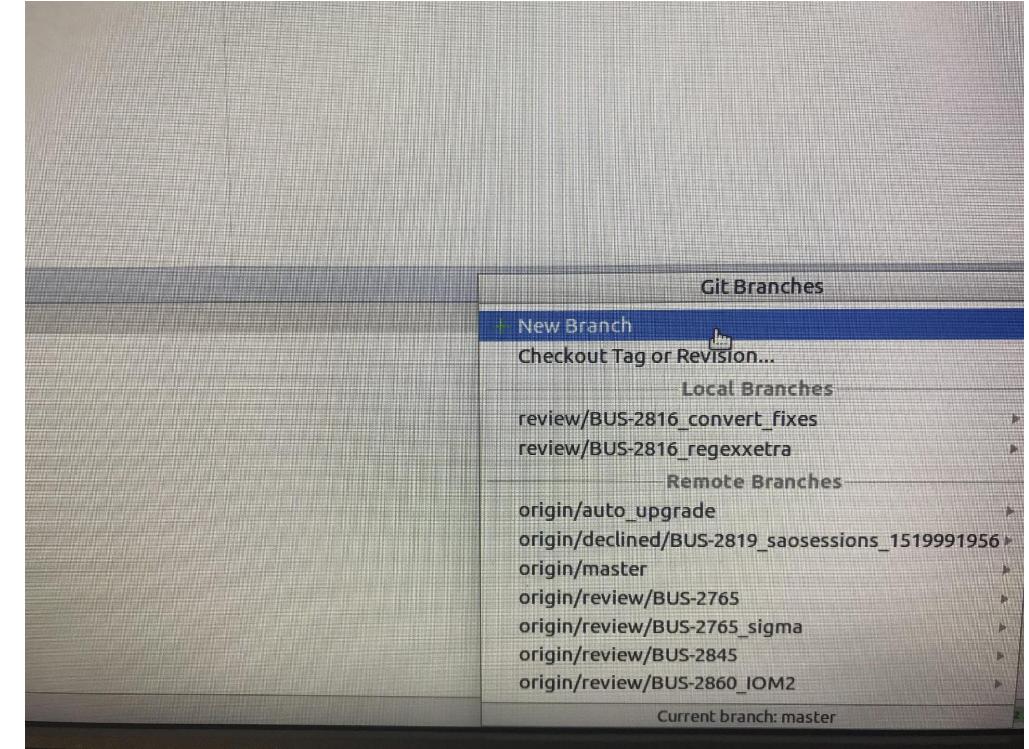
Version Control: Local Changes Log Console Update Info: 19/03/18 7:21 AM
Update Project (14 items)
Updated from server (14 items)
Updated (14 items)
/home/jkrug/cmcrc-marketconfig-data/awsstreams/ADC.yaml
/home/jkrug/cmcrc-marketconfig-data/awsstreams/CBF_FUT.yaml
/home/jkrug/cmcrc-marketconfig-data/awsstreams/CBT_FUT.yaml
/home/jkrug/cmcrc-marketconfig-data/awsstreams/CMX_FUT.yaml
/home/jkrug/cmcrc-marketconfig-data/awsstreams/IEG.yaml
/home/jkrug/cmcrc-marketconfig-data/awsstreams/IES.yaml
/home/jkrug/cmcrc-marketconfig-data/awsstreams/IEU_FUT.yaml
/home/jkrug/cmcrc-marketconfig-data/awsstreams/IEX.yaml
/home/jkrug/cmcrc-marketconfig-data/awsstreams/ION_FUT.yaml
/home/jkrug/cmcrc-marketconfig-data/awsstreams/IUS_FUT.yaml
/home/jkrug/cmcrc-marketconfig-data/awsstreams/IMC.yaml

VCS Update Finished // 14 Files Updated (moments ago)
```

## Solving an error: Missing Opol: 15

---

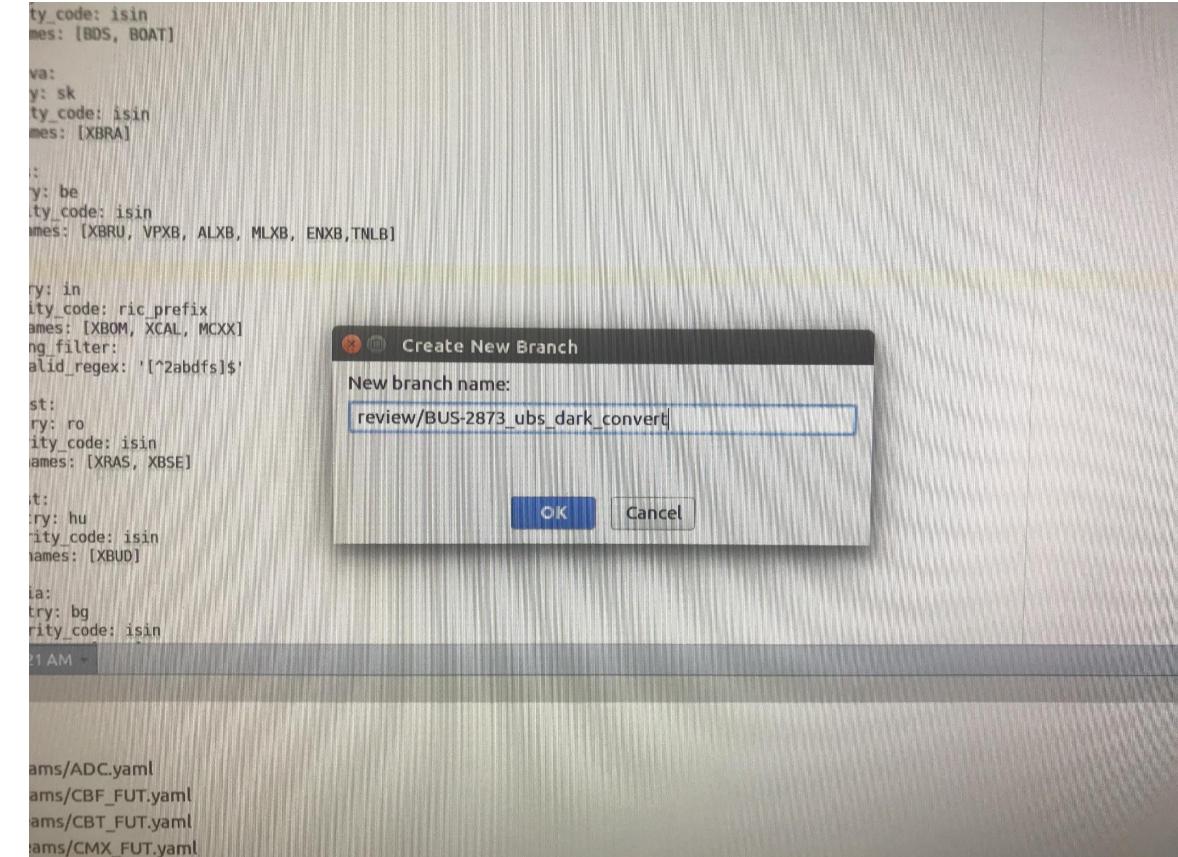
- We track any changes within the ETL – system via Jiras.
- Jiras have unique numbers.
- To allocate any changes in any repository to the correct Jira, we work in branches which are numbered in accordance to the Jira.
- Click in the lower right corner on Current branch: master.
- A window opens.
- Click on **New Branch**.



## Solving an error: Missing Opol: 16

---

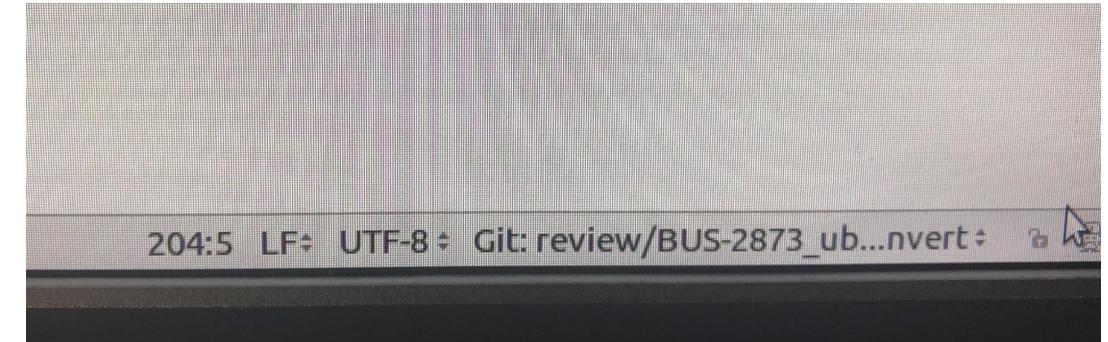
- Another window pops up.
- The branch will be named in accordance to the Jira.
- Always name the branch as follows:  
*review/<TICKET>\_NAME*
- Here, our TICKET is BUS-2873.
- TICKET is followed by \_ .
- The NAME can be chosen as preferred.
- The NAME must not have special characters or space.
- Click Ok.



## Solving an error: Missing Opol: 17

---

- You should now be in the branch corresponding to your Jira.
- See the lower right corner.



## Solving an error: Missing Opol: 18

- Now got the relevant place where you need to make adaptations and add those.
- In our example, we need to add the information to aws/listing\_markets\_maps.
- The csv files are named in accordance to the TRTH feed name, here BCO.

The screenshot shows a code editor interface with a sidebar and a main panel. The sidebar lists a project structure under 'cmcrc-marketconfig-data': 'aws' contains 'currency\_lists', 'isin\_maps', 'listing\_filter', and 'listing\_market\_maps'. The 'listing\_market\_maps' folder contains numerous CSV files, with 'BCO.csv' highlighted by a blue selection bar. The main panel displays a YAML configuration file with several entries, each defining a market with its country, security\_code, and mic\_names. The 'BCO' entry is as follows:

```
bcn:
  country: uk
  security_code: i
  mic_names: [XBRN]
```

Below the code editor, there are status bars for 'Version Control', 'Local Changes', 'Log', 'Console', and 'Update Info: 19/03/18 7:21 AM'. At the bottom, there are buttons for 'Update Project (14 items)' and 'Updated from server (14 items)'.

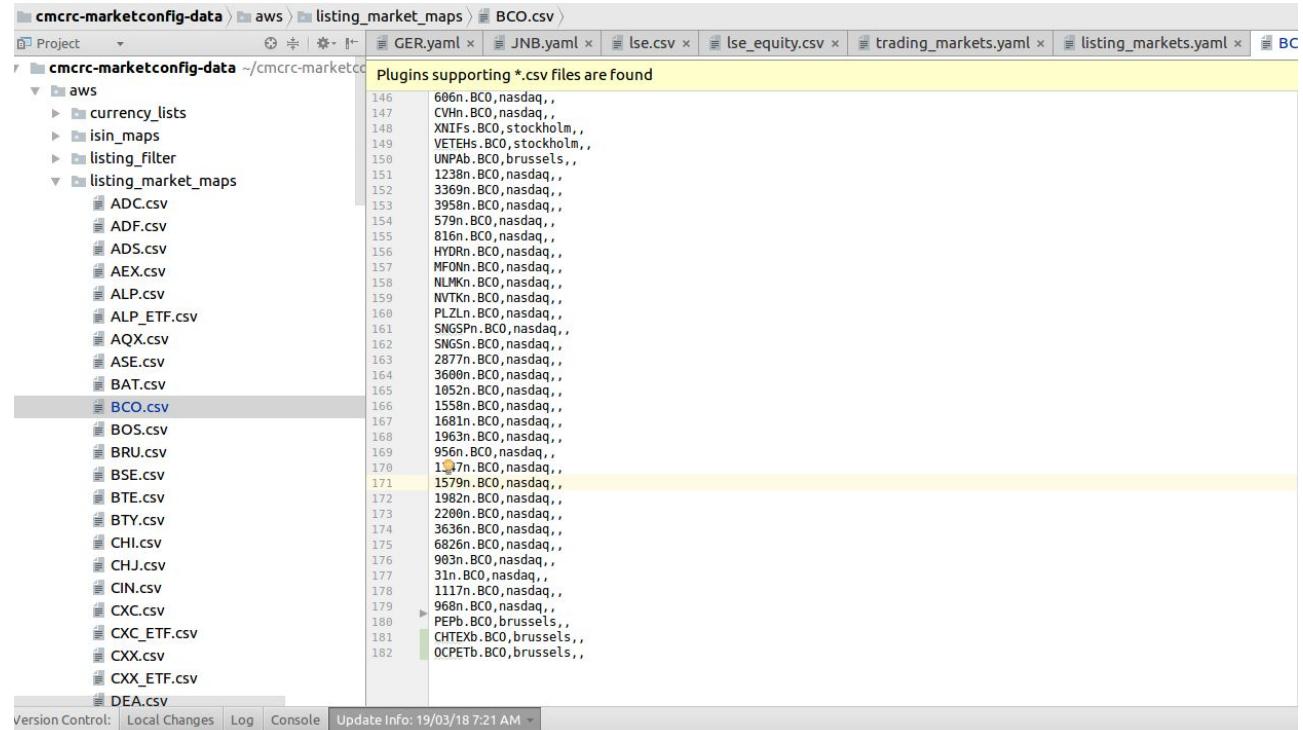
## Solving an error: Missing Opol: 19

- Add the relevant information.
- OPOL information are added like:

*Ric,OPOL,(datefrom),(dateto)*

Date information are only necessary if the missing information changed, disregarding whether a currency, ISIN or OPOL is added.

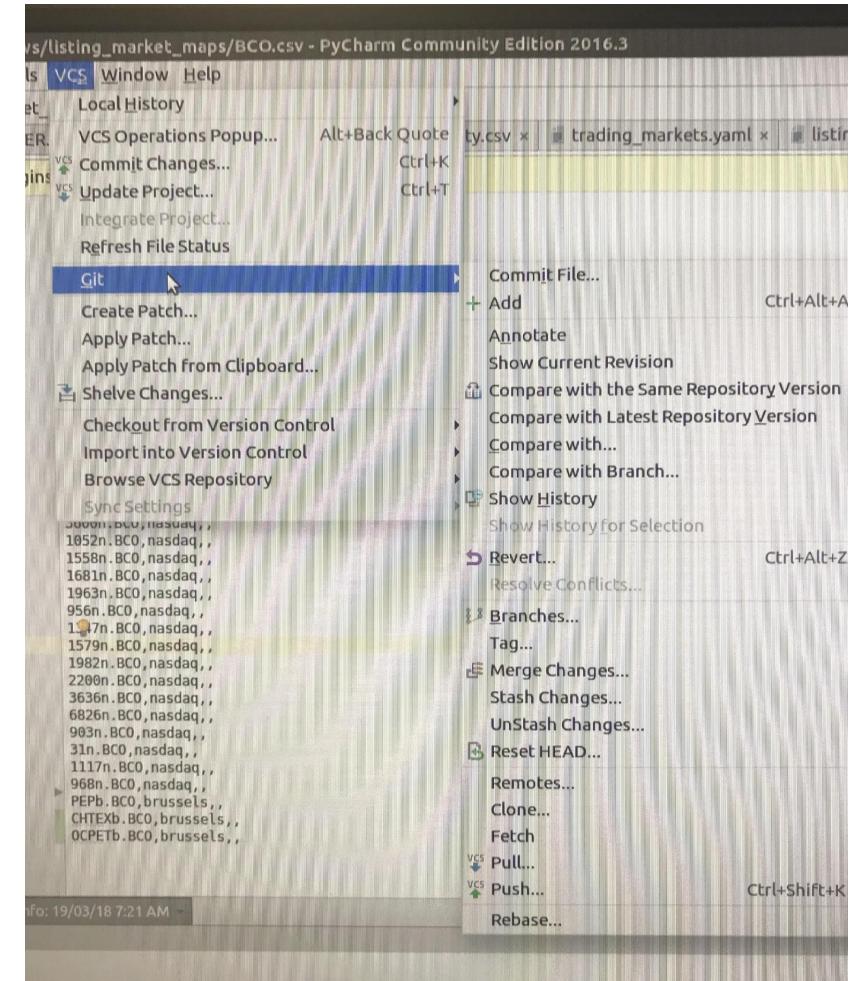
Please see LSE as an example a any time!



The screenshot shows a software interface with a file tree on the left and a large list of CSV files on the right. The file tree includes 'aws', 'listing\_market\_maps' (which contains 'BCO.csv'), and other sub-directories like 'currency\_lists', 'isin\_maps', and 'listing\_filter'. The main list on the right shows numerous entries, each consisting of a number (e.g., 146, 147, 148, ..., 182), followed by 'BCO.', then a code (e.g., '666n.BCO,nasdaq,,', 'C1Hn.BCO,nasdaq,,', 'XN1Fs.BCO,stockholm,,', 'VETEHs.BCO,stockholm,,', 'UNPAb.BCO,brussels,,', '1238n.BCO,nasdaq,,', '3369n.BCO,nasdaq,,', '3958n.BCO,nasdaq,,', '579n.BCO,nasdaq,,', '816n.BCO,nasdaq,,', 'HYDRn.BCO,nasdaq,,', 'MFONn.BCO,nasdaq,,', 'NLMKn.BCO,nasdaq,,', 'NVTKn.BCO,nasdaq,,', 'PLZLn.BCO,nasdaq,,', 'SNGSPn.BCO,nasdaq,,', 'SNGSn.BCO,nasdaq,,', '2877n.BCO,nasdaq,,', '3600n.BCO,nasdaq,,', '1052n.BCO,nasdaq,,', '1558n.BCO,nasdaq,,', '1681n.BCO,nasdaq,,', '1963n.BCO,nasdaq,,', '956n.BCO,nasdaq,,', '137n.BCO,nasdaq,,', '1579n.BCO,nasdaq,,', '1982n.BCO,nasdaq,,', '2200n.BCO,nasdaq,,', '3636n.BCO,nasdaq,,', '6826n.BCO,nasdaq,,', '993n.BCO,nasdaq,,', '31n.BCO,nasdaq,,', '1117n.BCO,nasdaq,,', '968n.BCO,nasdaq,,', 'PEPb.BCO,brussels,,', 'CHTEXb.BCO,brussels,,', 'OCPETb.BCO,brussels,,'), and finally a date range (e.g., ',,,'). The 'BCO.csv' file is highlighted in blue in the file tree.

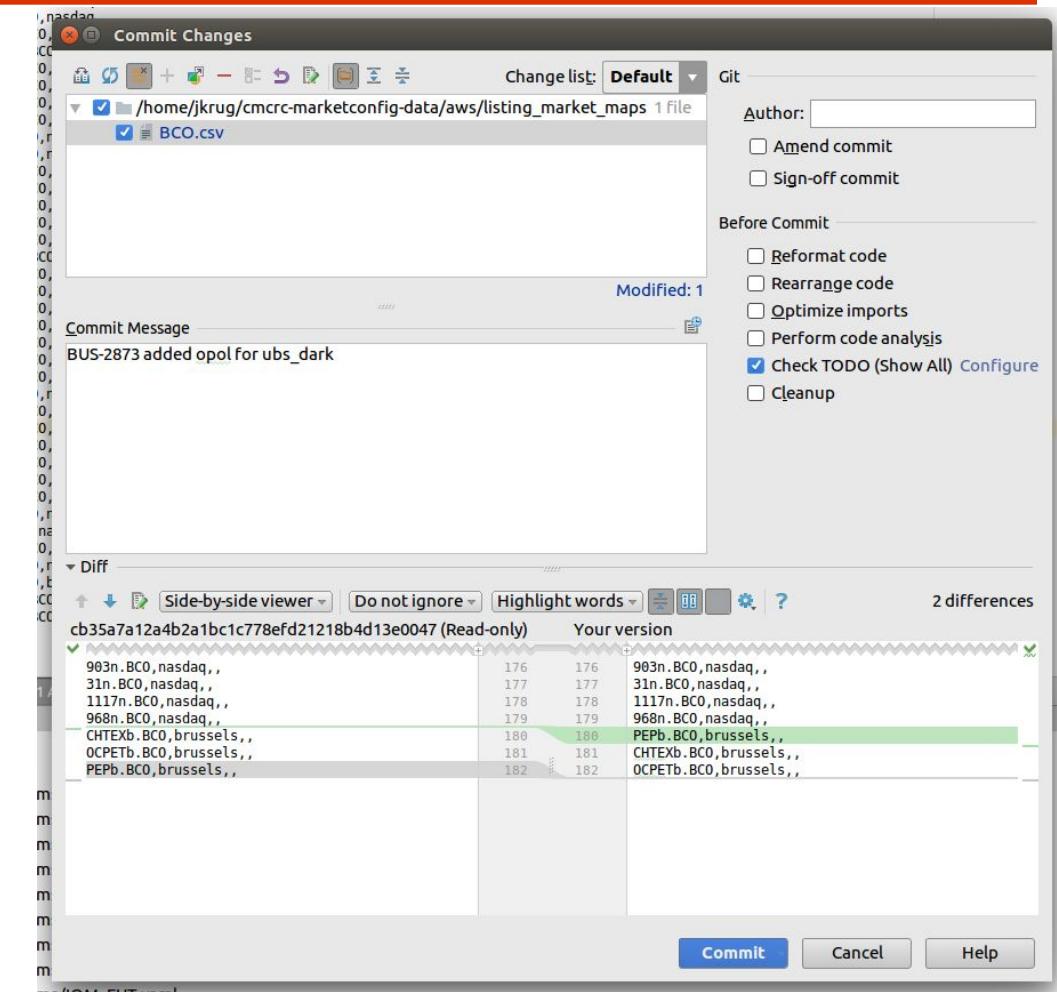
## Solving an error: Missing Opol: 20

- When all information are added we need to commit and push the changes.
- Click on VCS/Git/Commit file.



## Solving an error: Missing Opol: 21

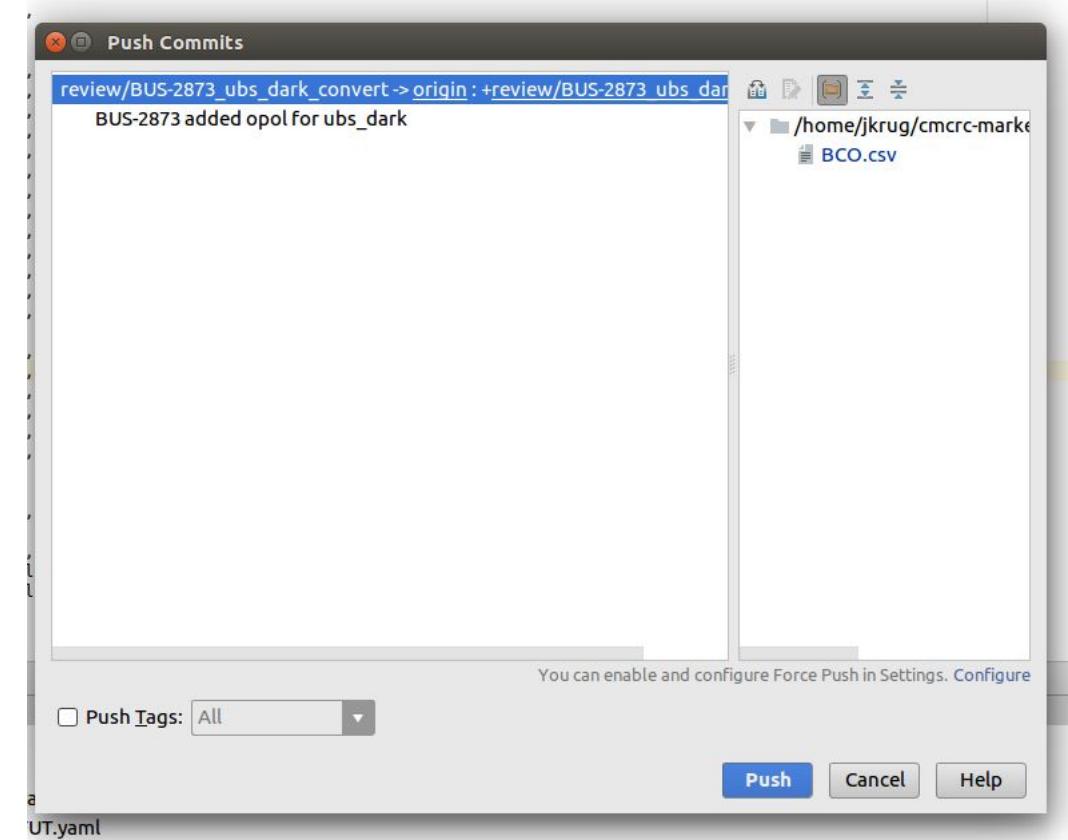
- A window regarding the committed changes will pop up.
- The upper part will show all the changed files, here it is just one
  - Please check if the selected files are the correct ones, unselect files with changes you do not want to commit.
- The middle part requires to add a Commit message.
- The Commit message is crucial and must be added like  
`< TICKET > < MESSAGE >`
- The TICKET is simply BUS-2873, hence the ticket number assigned to your issue.
- Careful: The TICKET is followed by a space.
- Then a message is added about the changes. The message can have spaces but not !?/ etc.
- Click on Commit, then Commit and Push.



## Solving an error: Missing Opol: 22

---

- Another window pops up.
- Double check the selected files.
- Click Push.



## Solving an error: Missing Opol: 23

---

- If the Push was successful you will see a comment as the following at the bottom of your screen.

The screenshot shows a software interface with a toolbar at the top containing icons for file operations like Open, Save, and Print, along with tabs for 'DEA.csv' and 'Version Control'. The 'Version Control' tab is active, showing a 'Log' section with the message 'Update Info: 19/03/18 7:21 AM'. Below the log is a tree view titled 'Update Project (14 items)'. Under this, there are two expanded sections: 'Updated from server (14 items)' and 'Updated (14 items)', both listing various YAML files under the path '/home/jkrug/cmcrc-marketconfig-data/aws/streams/'. A green tooltip at the bottom of the 'Updated (14 items)' section displays the message 'Push successful' above the command 'Pushed review/BUS-2873\_ubs\_dark\_convert to new branch origin/review/BUS-2873\_ubs\_dark\_convert'. At the bottom of the interface, a status bar shows the time '1:33', file encoding 'LF', character set 'UTF-8', and the current Git command 'Git: review/BUS-2873\_ubs\_dark\_convert'.

## Solving an error: Missing Opol: 24

- Return to your Jira.
- The Jira moved with the Push automatically into the Kanban board column “In Verification”.
- In the Jira the Status is **Need Verification**.
- At the same time under Development you will now find updated information
- Click on **pull request**.

The screenshot shows a Jira issue page for BUS-2873. The issue title is "convert\_taq/ubs\_dark fails due to missing opol for CHTEXb.BCO". The status is "NEED VERIFICATION" (View Workflow). Other details include Type: Bug, Priority: Normal, Resolution: Unresolved, and Fix Version/s: None. The Description section contains a background note about errors occurring in February 18 due to a missing opol for CHTEXb.BCO, followed by log entries from 2018-02-14 at 05:34:33. The Expectations section asks to find OPOL and add it to cmcrc-marketconfig-data/aws/listing\_market\_maps. The Development section shows 1 branch, 1 commit, and 1 pull request (OPEN). The Agile section has a "View on Board" link. The HipChat discussions section says "Confirm access to your HipChat account for more information."

## Solving an error: Missing Opol: 25

- Return to your Jira.
- The Jira moved with the Push automatically into the Kanban board column “In Verification”.
- In the Jira the Status is **Need Verification**.
- At the same time under Development you will now find updated information
- Click on **pull request**.

Business Team / BUS-2873  
convert\_taq/ubs\_dark fails due to missing opol for CHTEXb.BCO

[Edit](#) [Comment](#) [Assign](#) [More](#) [Abandon Issue](#) [Close Issue](#) [Just one more thing](#)

**Details**

Type:	Bug	Status:	NEED VERIFICATION
Priority:	Normal	Resolution:	Unresolved
Labels:	None	Fix Version/s:	None

**Description**

**Background**  
convert\_taq/ubs\_dark fails several times in February 18 due to a missing opol for CHTEXb.BCO.  
see:  
2018-02-14 05:34:33,251 - ERROR - [TribConverter] ERROR: No listing\_market\_override file for BCO \*\*\* No RefData can be found for stream: BCO, symbol: CHTEXb.BCO & OCPETb.BCO, date: 2018-02-06 and key: opol \*\*\* CHTEXb.BCO not found in the listing market map file (repeated 286 times)  
2018-02-14 05:34:33,251 - ERROR - [TribConverter] ERROR: No listing\_market\_override file for BCO \*\*\* No RefData can be found for stream: BCO, symbol: OCPETb.BCO, date: 2018-02-06 and key: opol \*\*\* OCPETb.BCO not found in the listing market map file (repeated 31 times)  
Link: <http://workflow.aws.cmrc.com/job/29923412>

**Expectations**  
Find OPOL and add it to cmrc-marketconfig-data/aws/listing\_market\_maps.

**Attachments**  
[Drop files to attach, or browse.](#)

**Development**

1 branch	Updated 1 hour ago
1 commit	Latest 1 hour ago
1 pull request <a href="#">OPEN</a>	Updated 1 hour ago

[Create branch](#)

**Agile**  
[View on Board](#)

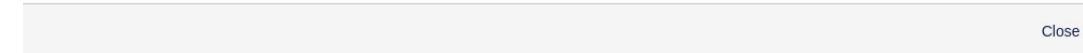
**HipChat discussions**  
Confirm access to your HipChat account for more information.

## Solving an error: Missing Opol: 26

---

- A new window pops up.
- All pull requests to the Jira will be listed incl. their status.
  - Many branches(=pull requests) to one Jira are possible
- The title will refer to the commit message you entered.
- The status refers to the current status of that specific pull request
  - Till the changes within the pull request are merged the status will be open.
  - The changes will be merged if 60% or the reviewers approve and the system build (system tests) are successful.
- Click on the title of the relevant pull request.

BUS-2873: 1 pull request					
ID	Title	Status	Author	Reviewer	Updated
#1889	BUS-2873 added opol for ubs_dark	OPEN	 	 4	1 hour ago



## Solving an error: Missing Opol: 27

The screenshot shows a Bitbucket pull request page for a repository named 'BUS-2873'. The pull request has been opened by 'Juliane Krug' and is currently 'OPEN'. The page includes sections for 'Overview', 'Diff', and 'Commits'. A sidebar on the left provides navigation options like 'Status', 'View all your changes/Comments by reviewers', and 'Reviewers'. The right side of the page displays SonarQube analysis results, including metrics for issues, code duplication, LOC, files, and functions. An 'Activity' section at the bottom shows a comment from Juliane Krug about adding automatic branch reviewers.

**Status**

**Reviewers**

**View all your changes/Comments by reviewers**

**Technical testing of the changes. Build is either successful or failing**

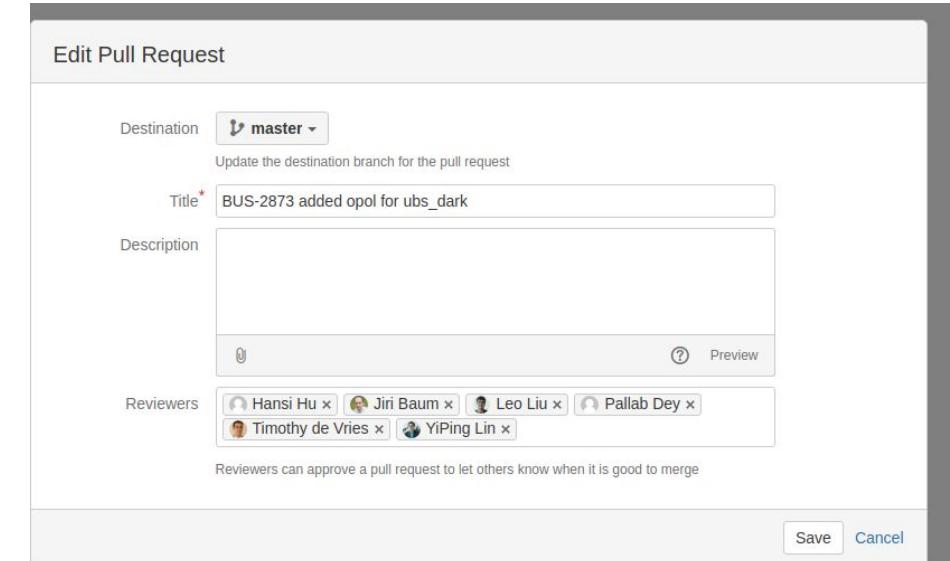
**You will be forwarded to bitbucket.**

**Monitor for eventual questions. Will be updated in case of approvals or concerns**

## Solving an error: Missing Opol: 28

---

- The aim is to merge the changes.
- The Jira will only be merged if all builds are successful
  - If a build fails, please click on it and see then the complete Log.
  - Search for Error.
  - You should be able to understand why the system does not agree with the changes.
  - Consult Business Team member.
  - Changes can be altered and recommitted/pushed in the same branch, as long as the previous changes weren't merged.
- The Jira will only be merged if 60% of the reviewers approve ad no one objects.
  - Monitor, if reviewers do not seem to react remind them (Please allow a few hours).
  - Reviewers might have concerns, address them.



## Solving an error: Missing Opol: 29

---



- System builds can run between 2 and 20 min.
- Reviewer approval time depends on the reviewers availability

The better you monitor and the faster you react to questions or errors, the faster your changes will be merged and deployed.

⬆ +0	⬇ +0	
⬇ +0	⬆ +0	
Dupl. lines	0%	+0%
LOC	38941	+0
Files	6	+0
Functions	58	+0

⌚ 1 build ✅

✗ BUS-2873

## Solving an error: Missing Opol: 30

- The status will automatically switch to merged when
  - 60% of the reviewers approved.
  - No reviewer objects.
  - The system build successful was.
- To determine when the changes are merged check the time of merge

The screenshot shows a Bitbucket pull request page for a repository named 'BUS-2873'. The pull request has been merged into the 'master' branch. The 'Activity' section shows the following events:

- A bot automated User merged the pull request 3 mins ago.
- Juliane Krug updated the reviewers 3 mins ago, adding predefined branch reviewers.
- Juliane Krug opened the pull request 1 hour ago.

A red arrow points from the text 'Click here for time of merge' to the timestamp '3 mins ago' in the activity log.

Click here for time of merge

## Solving an error: Missing Opol: 31

- Every merge triggers a complete system update.
- Merged changes do not mean that the changes are available/visible for everybody.
- The failed job would still fail since the changes are not yet in the newest workflow image.
- The system will run several tests till the final workflow image is updated.
- Once that has happened, the job can be restarted.

The screenshot shows a Bitbucket repository page for the file `BCO.csv`. The commit history lists a merge commit by Juliane Krug at 1 hour ago, with the commit message "BUS-2873 added opol for ubs\_dark". A red box highlights this merge commit, and a red arrow points to it from the text "Exact time of merge" located below the commit message. The commit details show the addition of PEPB, CHTEB, and OCPETB entries to the BCO.csv file. The commit hash is `7c4107fc21e801b56a1848e89c6fdeb454370af3`.

```
170 170 1347n.BCO,nasdaq,,  
171 171 1579n.BCO,nasdaq,,  
172 172 1982n.BCO,nasdaq,,  
173 173 2200n.BCO,nasdaq,,  
174 174 3636n.BCO,nasdaq,,  
175 175 6826n.BCO,nasdaq,,  
176 176 901n.BCO,nasdaq,,  
177 177 31n.BCO,nasdaq,,  
178 178 1117n.BCO,nasdaq,,  
179 179 968n.BCO,nasdaq,,  
180 + PEPB.BCO,brussels,,  
181 - CHTEB.BCO,brussels,,  
181 - OCPETB.BCO,brussels,,  
182 + OCPETB.BCO,brussels,,
```

## Solving an error: Missing Opol: 32

---

- If the time of deployment is > time of merge of changes the relevant failed job/s can be restarted
- Deployment time varies from 5-60 min!
- If no deployment update after 2 hrs and your pull request is merged, please send pull request a senior Business-Team member

Home

Summary of job submissions by image version

Showing successful and failed job submissions that were modified in the previous 5 days, sorted by image version in descending order.

Currently running job submissions are also included, and these may be older than 5 days.

Note that jobs can be flagged as modified for a number of different reasons, not only when they complete.

Current pinned version: None

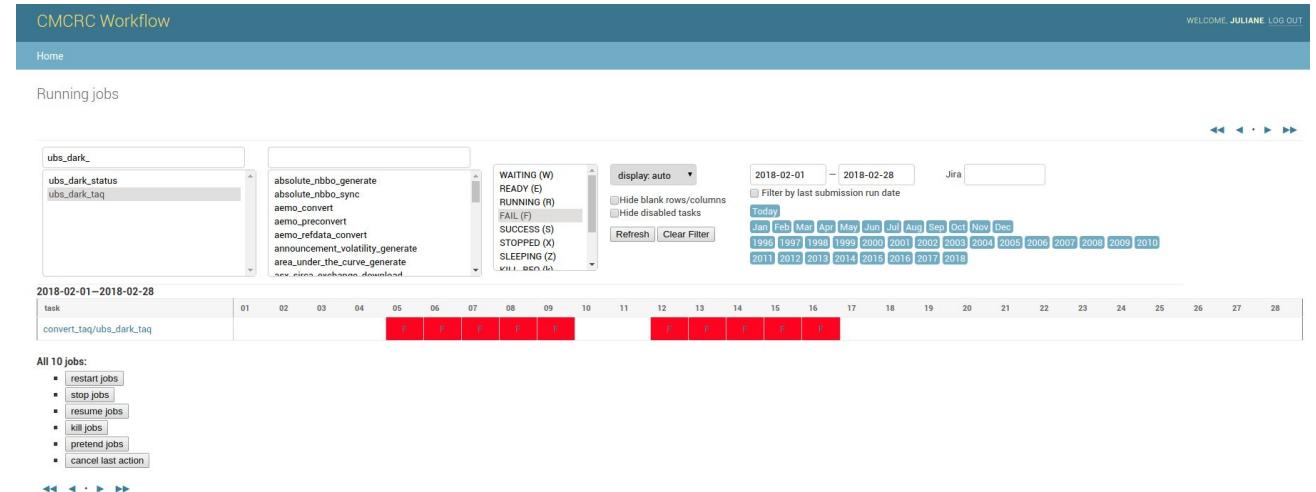
Image version	Successful	Failures	Success Rate (%)	Currently Running	Pin a version
20180319085247	313	852	26	140	<input type="button" value="Pin"/>
20180317161119	21308	30480	38	888	<input type="button" value="Pin"/>

Time of last update/deployment

## Solving an error: Missing Opol: 33

---

- Restart the failed jobs.
- Please try to address all errors in one go to safe time



## Solving an error: Missing Opol: 34

---

### The previously failed job succeeds now, what to do?

- Verify the changes and the results
  - For changes in the convert step, run till an appropriate metric\_sync job.
    - For instance to verify the set up of the market-config-data file, run till daily\_stats\_sync for QA
  - The changes are correct
    - Close the Jira
  - The changes are incorrect
    - Adapt your changes: Do not create a new Jira, but a new branch, hence go back to step 'Checkout to Master branch'

### The previously failed jobs fails again, what to do?

- The error message is the same (you might have missed a security)
  - Adapt your changes: Do not create a new Jira, but a new branch, hence go back to step 'Checkout to Master branch'
- The error message is different. It is a new problem.
  - Close the Jira.
  - Create a new Jira addressing the new issue

## Monitoring the workflow

---

### Does my market make progress?

- Can you observe a reasonable number of running jobs?
- Are new jobs triggered horizontally and vertically?
- Are all failed jobs addressed?
- Do you observe jobs in waiting status for a while?
  - Click in the background information of the job
    - Is it waiting for a (failed) parent job?
    - Is it waiting for a previous job?
      - For instance, dailystats\_generate runs in a subsequent order and will wait for previous jobs

### Did I create all necessary metrics?

### When the metric\_sync jobs have succeeded, do you see the results on MQD-QA?

- Verify and QA the results in MQD-QA
  - Address spikes and structure breaks
    - In Form of Raw data research/ warnings
    - Potentially alter the marketconfig-data setup and rerun jobs
  - Add events

# Monitor WorkFlow Progress and Fix WorkFlow Errors

Juliane Krug

jkrug@cmcrc.com

The screenshot shows the CMCRC Workflow monitoring interface. At the top, there are several tabs and filters: 'CMCRC Workflow' (selected), 'Home', 'Running jobs', 'SUCCESS (S)', 'STOPPED (X)', 'SLEEPING (Z)', 'KILL, REQ (K)', 'display auto', 'Hide blank rows/columns', 'Hide disabled tasks', 'Filter by last submission/run date', 'Jira', and a date range from '2018-02-01' to '2018-02-28'. Below these are date filters for 'Today', 'Jan', 'Feb', 'Mar', 'Apr', 'May', 'Jun', 'Jul', 'Aug', 'Sep', 'Oct', 'Nov', 'Dec', and years from '1966' to '2017'. A 'Refresh' button is also present.

The main area is a grid titled '2018-02-01 - 2018-02-28 task'. The columns represent dates from 01 to 28. The rows list various workflow tasks, many of which are currently stopped (indicated by a red 'X'). Some tasks have specific error codes like 'E' or 'W' next to them. The grid has a light green background with darker green highlights for certain cells.

At the bottom left, it says 'All 1120 jobs' and has a 'restart jobs' button. On the right side of the grid, there are navigation arrows for the month and year.