Nasdaq Calypso

Reuters DSS Integration Guide

Version 3.11.0

Revision 19.0
September 2023
Approved

Document History

Revision	Published	Summary of Changes
1.0	**February 2017**	First edition for version Core Calypso Version 14 and 15 Suite.
2.0	**May 2017**	Second edition for version 1.7.0.
3.0	**September 2017**	Third edition for version 2.0.1.
4.0	**February 2018**	Fourth edition for version 2.0.2.
5.0	**March 2018**	Fifth edition for version 2.2.1.
6.0	**April 2018**	Sixth edition for version 2.3.0.
7.0	**June 2018**	Seventh edition for version 2.4.0.
8.0	**February 2019**	Eighth edition for version 2.6.0.
9.0	**June 2019**	Ninth edition for version 2.7.1.
10.0	**January 2020**	Tenth edition for version 2.7.3.
11.0	**April 2020**	Edition 11 for version 2.4.5 – Enable Reuters DSS property file.
12.0	**April 2020**	Edition 12 for version 2.7.5 – Enable Reuters DSS property file.
13.0	**June 2020**	Edition 13 for version 2.7.6.
14.0	**September 2020**	Edition 14 for version 2.8.0.
15.0	**November 2020**	Edition 15 for version 2.9.0.
16.0	**August 2021**	Edition 16 for version 2.13.0 – Added automated Feed Address Mapping.
17.0	**February 2022**	Edition 17 for version 3.0.2 - Technical release only – Version 17.0 compatibility.

Revision	Published	Summary of Changes
		Version 2.16.0, version 3.1.0 – Added USE_ENV_NAME_PREFIX and FILE_PREFIX.
18.0	**March 2023**	Edition 18 for version 3.7.0-Added support for ST process to automatically update the instrument template for Equity
19.0	**September 2023**	Edition 19 for version 3.11.0 – Added Tranche Factor History support

This document describes the configuration required to integrate Reuters DataScope Select (DSS) with Calypso to receive product definitions and quotes.

The request to, and reply from, Reuters is handled via a Web services/SFTP/FTP Transfer process. Currently, this integration version supports the SFTP/FTP protocol. Depending upon the specific information requested and the functions used, Calypso will use the requested information to create the following data within in the Calypso database:

- Quotes
- Bond Product Definition
- Equity and ADR Product Definition
- Bond Schedules (may include call schedule, coupon schedule, principal schedule)
- Equity Corporate Actions
- EquityIndex Product Definition
- Bond Factor Schedule (for Asset Backed Bonds)

NOTE: The Calypso License to use this Calypso Integration Module does not include a license for any third-party data services to which this module can interface. Clients are responsible for contracting with the appropriate third-party data service(s) prior to using this Calypso Integration Module]

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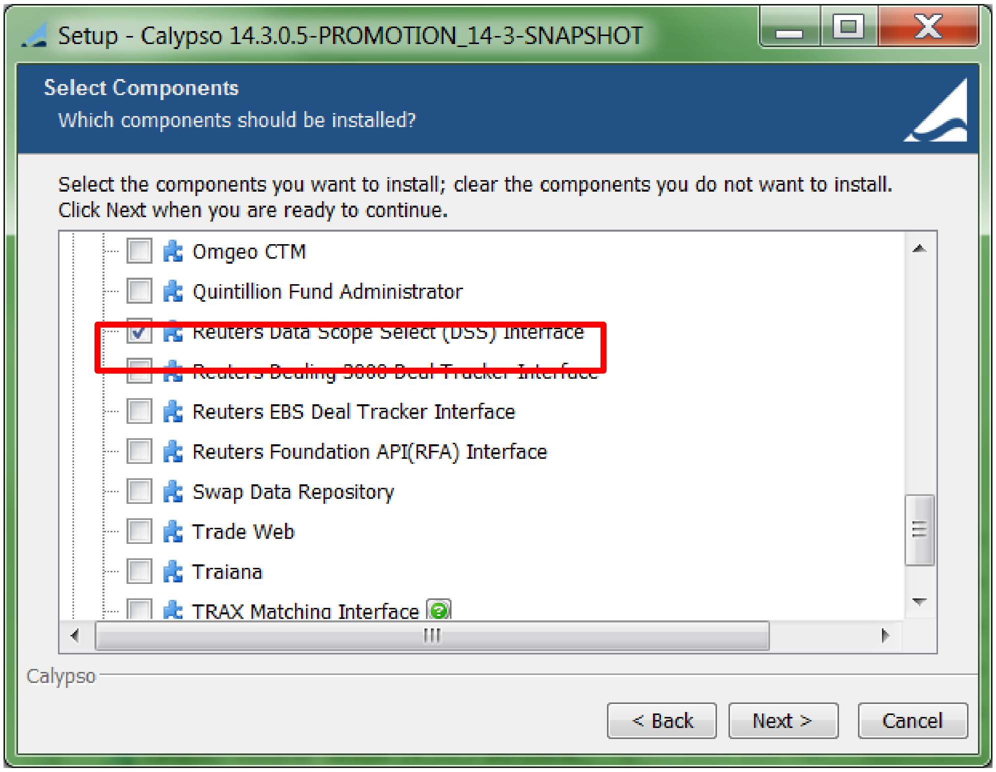
General Installation

1.1 Installation

Follow the Calypso Installation Guide “to install Calypso. Check the component Reuters Data Scope Select (DSS) Interface during the installation.



If you are installing a Calypso Upgrade Package instead, the instructions are also in the Calypso Installation Guide.

1.2 Data Synchronization

Run Execute SQL to synchronize your database with the Reuters DataScope schema, data, and mapping information.

Add the following files if they are not already present:

- `ReutersDssSchemaBase.xml`
- `ReutersDssSchemaData.xml`
- `ReutersDssSchemaMappingData.xml`

Setup Requirements

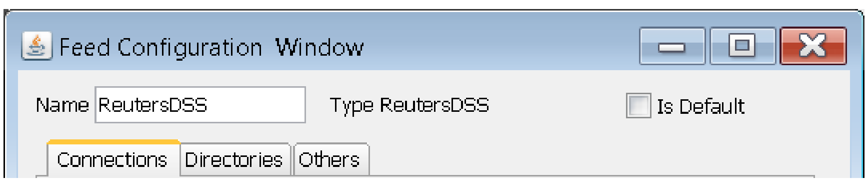
2.1 Add the Reuters DataScope Select Window to the Calypso Navigator

Create a menu item for menu action `reutersdss.ui.ReutersDSSServerWindow` using the Main Entry Customizer.

2.2 Feed Configuration for Reuters DSS

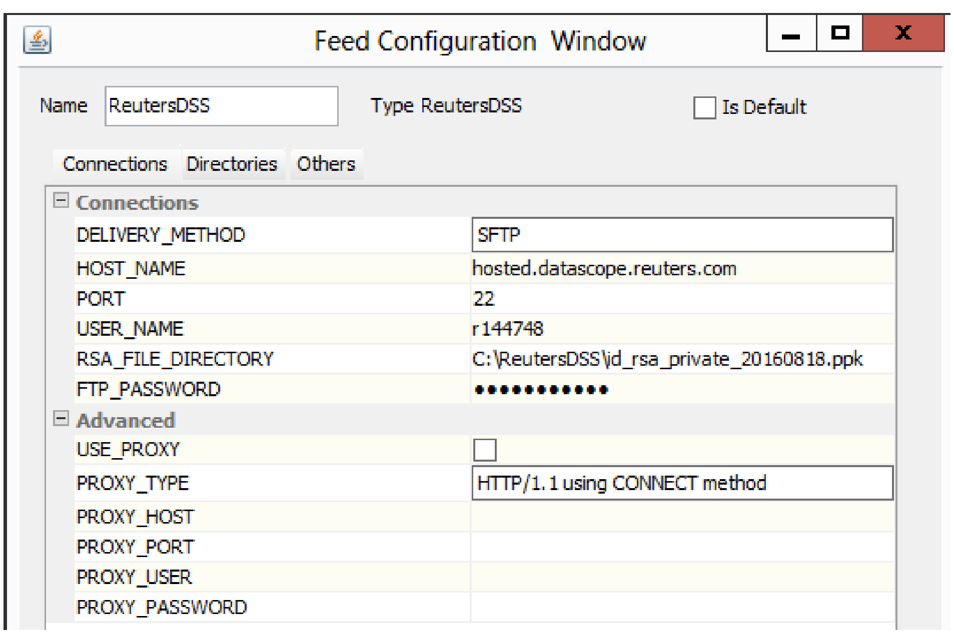
Prior to using the Calypso Reuters DSS Integration, you must perform feed configuration. This setup comprises connectivity information, directories, and program parameters required for the Reuters DSS import handlers.

Form the Reuters DSS Window, choose **Configuration > Feed**. You can use a property file instead if needed – See below.



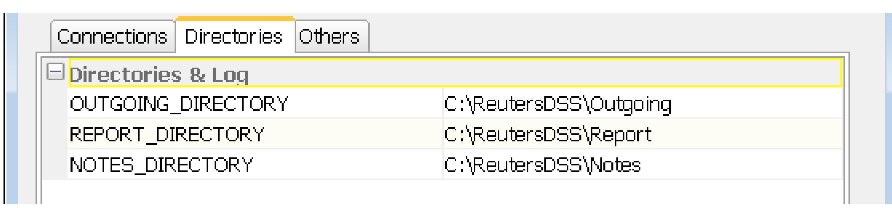
- Enter a name to identify the configuration throughout the system.
- Specify the parameters described below as needed. Then click **Save**.

Connections Tab



Feed Handler Parameters	Comments
DELIVERY_METHOD	SFTP and FTP modes are supported. SFTP is secure file transfer and FTP is the plain file transfer mode.
HOST_NAME	The host name of the FTP/SFTP server.
PORT	The port number of the FTP/SFTP server. Default is 22.
USER_NAME	The login user name associated with your Reuters DataScope account. This is provided by Reuters.
RSA_FILE_DIRECTORY	The directory where the RSA security file resides. The RSA security file is used to identify your account. It is mandatory for SFTP mode.
FTP_PASSWORD	The login user name associated with your Reuters DataScope account. It will be encrypted before storing in the Calypso database. It is mandatory for FTP mode.
USE_PROXY	Indicates whether the connection goes through a network proxy.
PROXY_TYPE	Type of the proxy server. Currently only HTTP proxy server, using Connect method, is supported.
PROXY_HOST	The host name of the proxy server.
PROXY_PORT	The port of the proxy server.
PROXY_USER	The login user of the proxy server (optional).
PROXY_PASSWORD	The login password of the proxy server (optional).

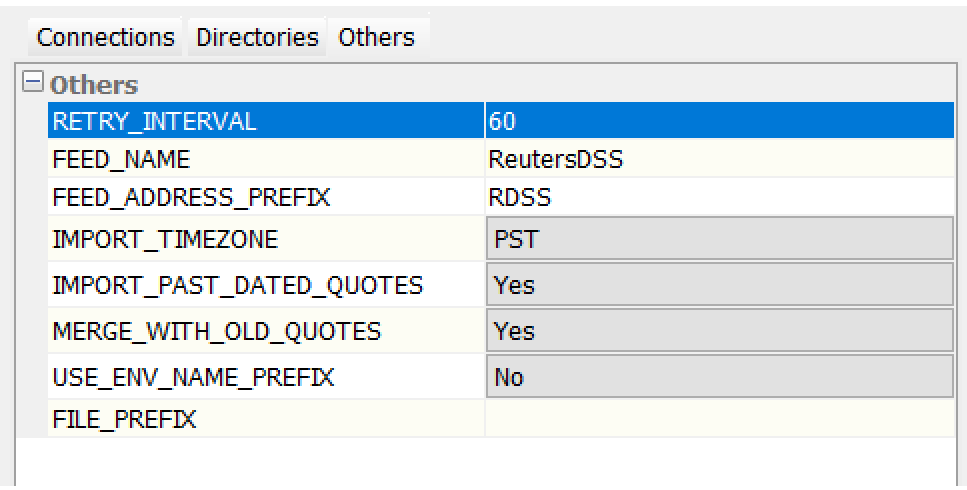
Directories Tab



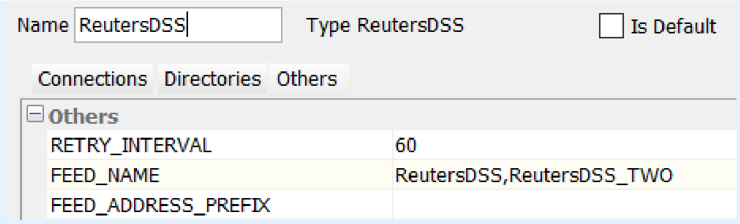
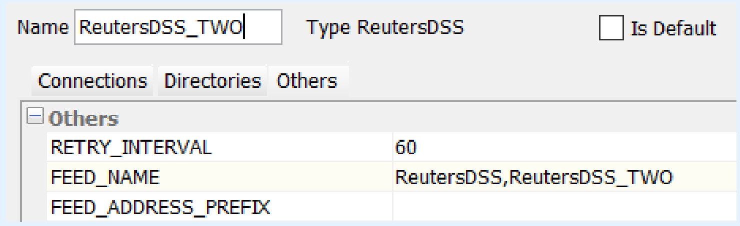
Feed Handler Parameters	Comments
OUTGOING_DIRECTORY	The directory where RDSS stores outgoing XML request messages.

Feed Handler Parameters	Comments
REPORT_DIRECTORY	The directory where RDSS places retrieved report files from Reuters before importing them into Calypso.
NOTES_DIRECTORY	After Reuters accepts the request XML file, RDSS uses this directory for holding the returned error/acknowledgment files.

Others Tab



Feed Handler Parameters	Comments
RETRY_INTERVAL	The wait interval (in seconds) between download retries. RDSS makes 10 retry attempts by default. Only applicable for downloading notes and report files.
FEED_NAME	The Calypso Feed Name through which the quotes are imported. **[NOTE: If you are using multiple Reuters DSS feed names, you need to add them all here.]** Example: If you have ReutersDSS and ReutersDSS_TWO, you need to set FEED_NAME=ReutersDSS,ReutersDSS_TWO for both feed configurations.

Feed Handler Parameters	Comments
	 
FEED_ADDRESS_PREFIX	This has to match the feed address prefix used in the Feed Address Mapping window (optional).
IMPORT_TIME_ZONE	The time zone of the Reuters DataScope user account
IMPORT_PAST_DATED_QUOTES	Indicate whether incoming data file before current date will be imported to the system. (Possible values: Yes or No)
MERGE_WITH_OLD_QUOTES	If this field is set to Yes, for fields carrying a null or empty value in the incoming data file, the system will keep the value of the existing fields in the database (if any), otherwise, the system will overwrite the existing fields with the empty value.
USE_ENV_NAME_PREFIX FILE_PREFIX	USE_ENV_NAME_PREFIX: Select Yes to add the Env name as a prefix to the file name, or No otherwise. Default is No. FILE_PREFIX: Enter a custom file prefix name as needed (optional). The file name is saved as “<FILE_PREFIX> + <Env name> + <file name>” based on the above parameters.

2.3 Feed Configuration using Property File

Instead of the Feed Configuration window, you can use the property file resources/ReutersDSSFeedConfiguration.properties to set the RDSS properties. These properties are saved to the database DB when the RDSS engine is started.

You need to set useFileConfiguration=TRUE to enable the property file.

When enabled, users can no longer modify RDSS properties from the Feed Config window.

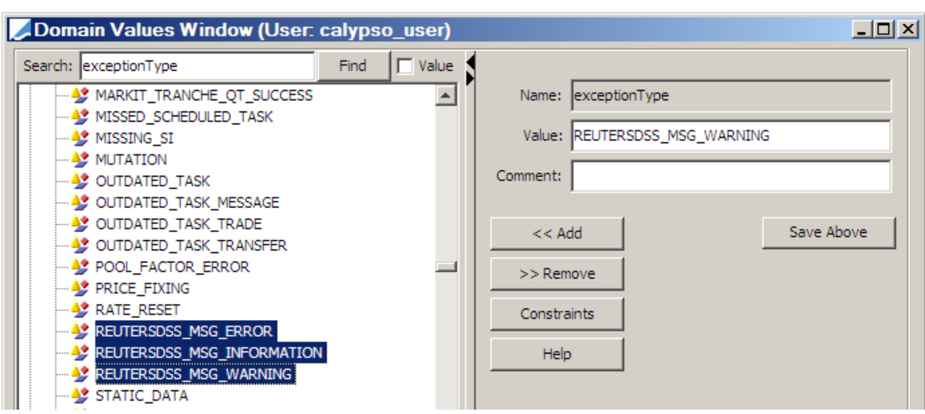
```
#Multiple feedNames to be specified in comma separated format e.g. RDSS1,RDSS2

feedNames=ReutersDSS
```

```
useFileConfiguration=TRUE


ReutersDSS.OUTGOING_DIRECTORY=C\:\\Work\\ReutersDSS\\Outgoing\\
ReutersDSS.RSA_FILE_DIRECTORY=C\:\\Work\\ReutersDSS\\Report\\id_rsa_private_20160818.ppk
ReutersDSS.USER_NAME=RDSS
ReutersDSS.FEED_NAME=ReutersDSS
ReutersDSS.MERGE_WITH_OLD_QUOTES=Yes
ReutersDSS.REPORT_DIRECTORY=C\:\\Work\\ReutersDSS\\Report\\
ReutersDSS.FEED_ADDRESS_PREFIX=RDSS|
ReutersDSS.FEED_TYPE=ReutersDSS
ReutersDSS.FTP_PASSWORD=
ReutersDSS.IMPORT_PAST_DATED_QUOTES=Yes
ReutersDSS.NOTES_DIRECTORY=C\:\\Work\\ReutersDSS\\Notes\\
ReutersDSS.RETRY_INTERVAL=10
ReutersDSS.USE_PROXY=false
ReutersDSS.HOST_NAME=hosted.datascope.reuters.com
ReutersDSS.PORT=22
ReutersDSS.DELIVERY_METHOD=FTP
ReutersDSS.IMPORT_TIMEZONE=PST
ReutersDSS.PROXY_TYPE=HTTP\\1.1 using CONNECT method
```

2.4 Configure the Task Station to Monitor RDSS Integration

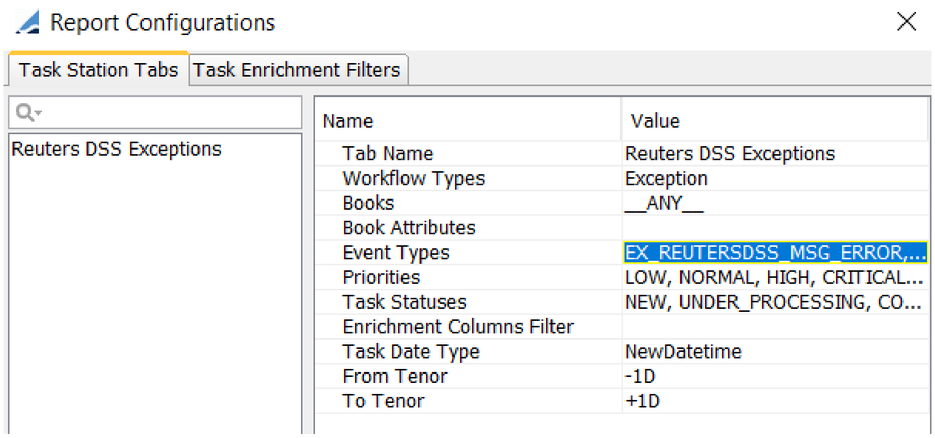
Specific exception types are available for Reuters DSS. Configure your Task Station to monitor all relevant details of the RDSS Integration module.

Ensure that REUTERSDSS_MSG_ERROR, REUTERSDSS_MSG_INFORMATION and REUTERSDSS_MSG_WARNING are defined in the domain "exceptionType".

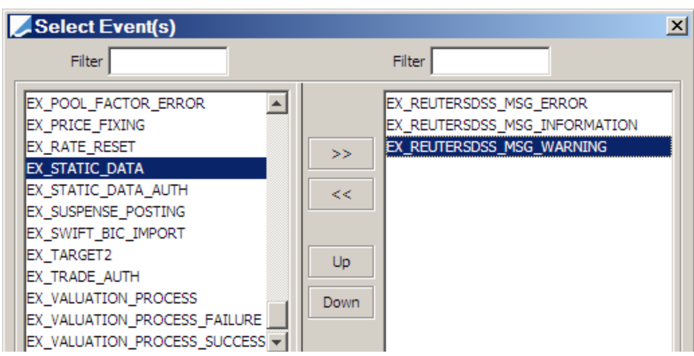


Open the Task Station (**Navigator > Processing > Task Station**).

New Task Station – Add a report to monitor Reuters DSS exceptions.



Old Task Station - Add a Reuters DSS Tab to the Task Station: select **Task Station > Configure > User Config** to open the User Task Station Defaults window, and create a tab for the following events:

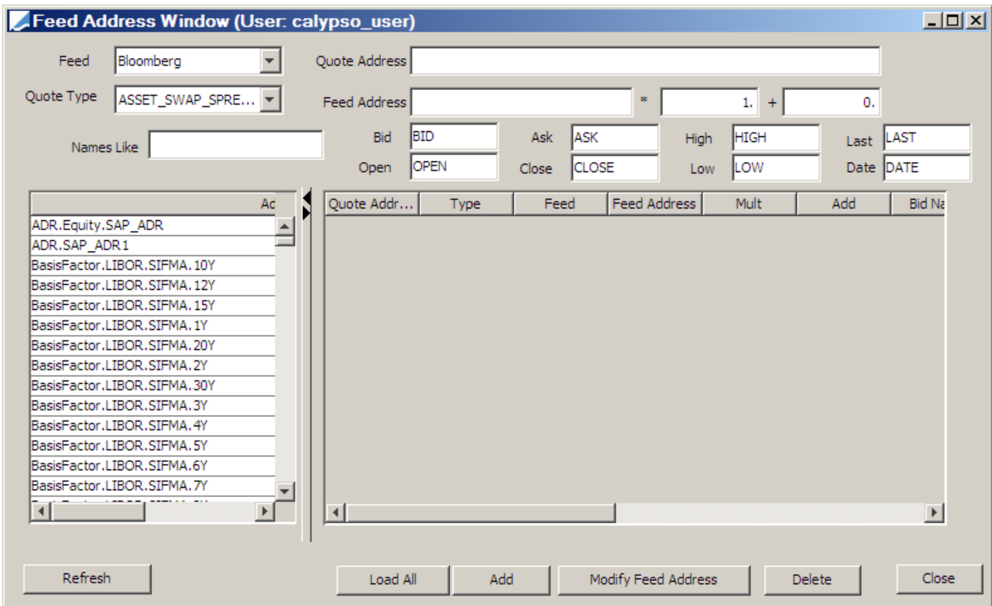


2.5 Configuring Feed Addresses for Reuters DSS

2.5.1 Manual Process

You must map each incoming RDDS Quote address to its Calypso counterpart.

Launch the Feed Address window (**Navigator > Configuration > Market Data > Feed Address Mapping**).

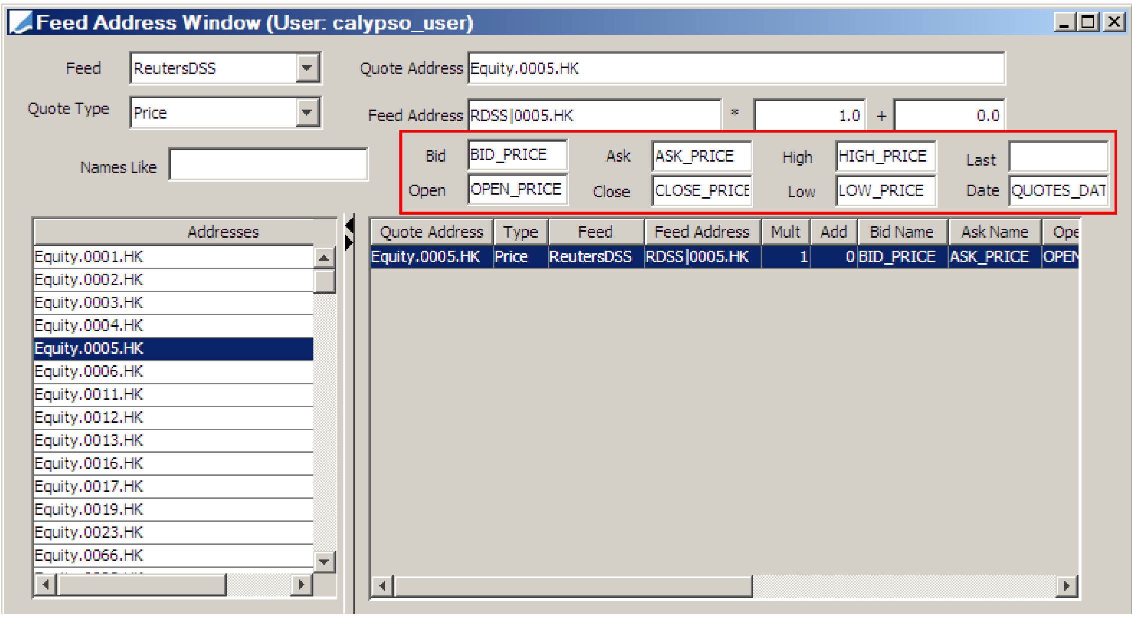


- From the **Feed** dropdown listbox, select the ReutersDSS feed that was created during Feed Configuration.
- (Optional) Click **Load All** to load any existing addresses configured for Reuters DSS.
- Select a predefined address.
- Enter the Reuters DSS feed address.

  If you are not using a prefix, enter the feed address, for example `0005.HK`.

  If you are using a prefix (RDSS for example), add the prefix in the feed address with a pipe character as separator, for example `RDSS|0005.HK`.

- Modify the listed data items for Reuters DSS:
  - Bid: BID_PRICE
  - Ask: ASK_PRICE
  - Open: OPEN_PRICE
  - Close: CLOSE_PRICE
  - High: HIGH_PRICE
  - Low: LOW_PRICE
  - Date: QUOTES_DATE
  - Last: Leave this entry blank.



» Save the feed mapping. Repeat as needed for all the quotes you want to retrieve from Reuters DSS.

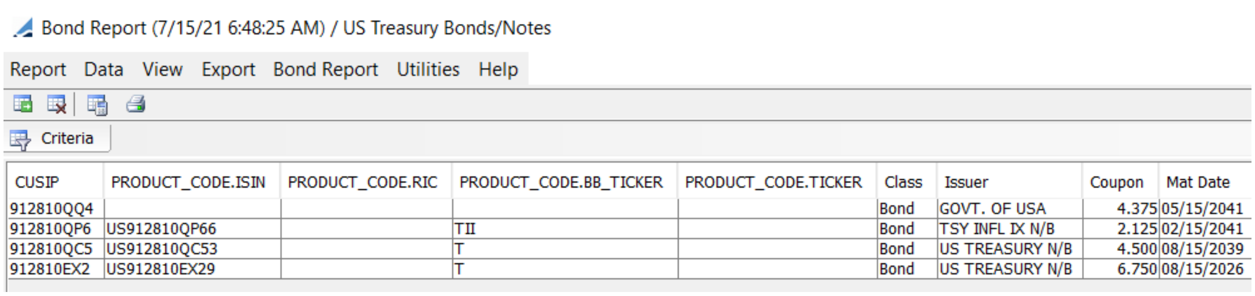
2.5.2 Automated Process

You can use the scheduled task RDSS_UPDATE_INSTRUMENTS to add Bond instruments to the Feed Address Mapping based on a Bond report template.The ST also supports automatic update of Equity instruments based on a Equity Report template.

Bond Report Template

You need to configure a Bond report template that contains the bonds to be added to the Feed Address Mapping.

Example:



CUSIP	PRODUCT_CODE.ISIN	PRODUCT_CODE.RIC	PRODUCT_CODE.BB_TICKER	PRODUCT_CODE.TICKER	Class	Issuer	Coupon	Mat Date
912810QQ4					Bond	GOVT. OF USA	4.375	05/15/2041
912810QP6	US912810QP66		TII		Bond	TSY INFL IX N/B	2.125	02/15/2041
912810QC5	US912810QC53		T		Bond	US TREASURY N/B	4.500	08/15/2039
912810EX2	US912810EX29		T		Bond	US TREASURY N/B	6.750	08/15/2026

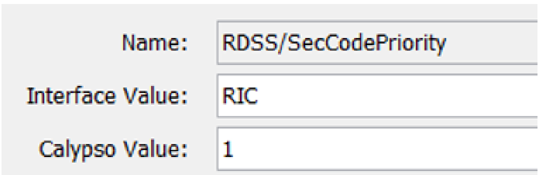
To support multiple Reuters Identifiers, (RIC, ISIN, SED etc.) for bonds, the Bond report template can be configured with multiple product codes (PRODUCT_CODE.RIC, PRODUCT_CODE.ISIN, PRODUCT_CODE.SEDOL etc.) and a priority can be defined using the SecCodePriority mapping:

Name = RDSS/SecCodePriority

Interface Value = <sec code>

Calypso Value = <priority> (1 is the highest priority)

Example:



The default priorities are as follows:

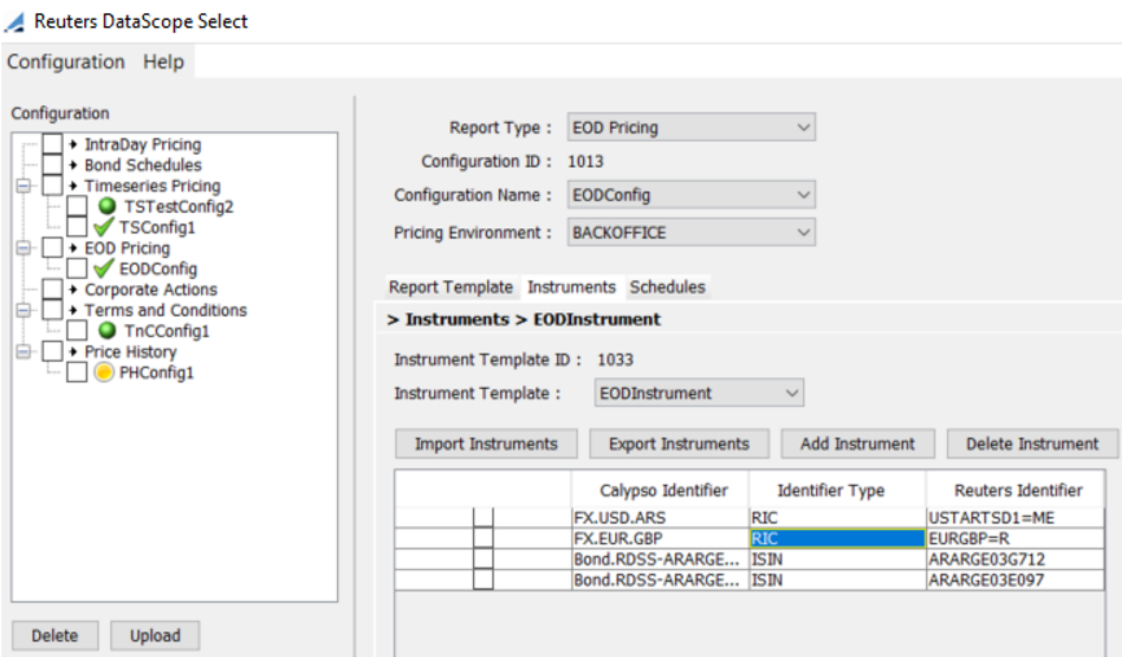
RIC = 1

ISIN =2

SEDOL = 3

TICKER = 4

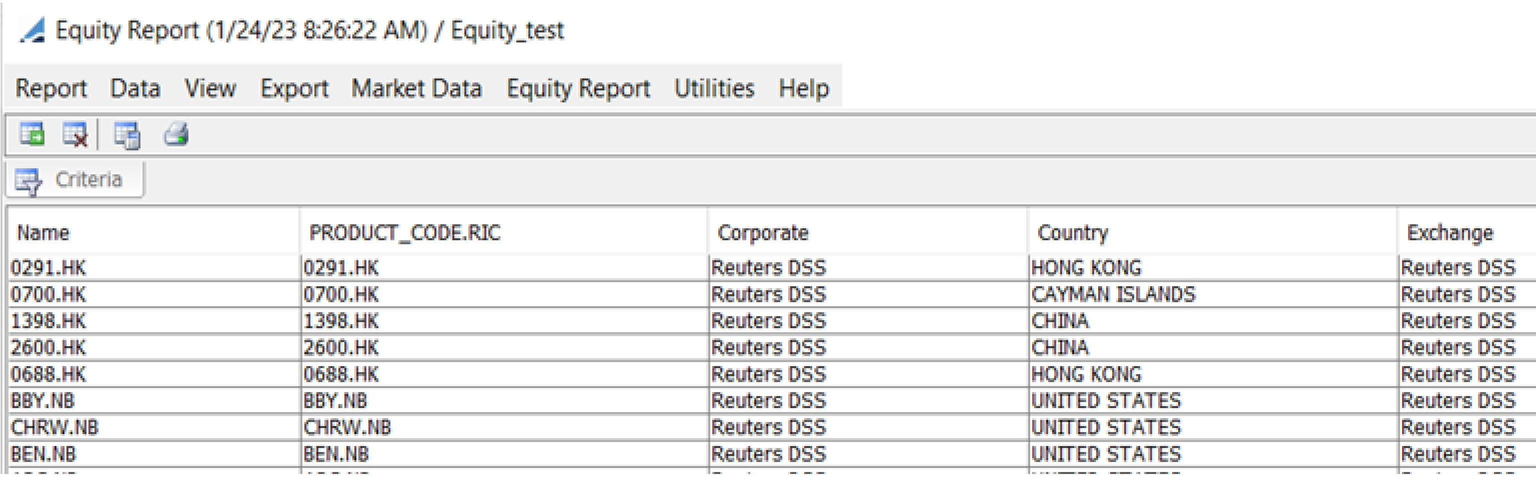
The Identifier Type field (sec code) is editable in Reuters DataScope Select. If modified, the updated configuration needs to be uploaded to the Reuters DSS engine.



Equity Report Template

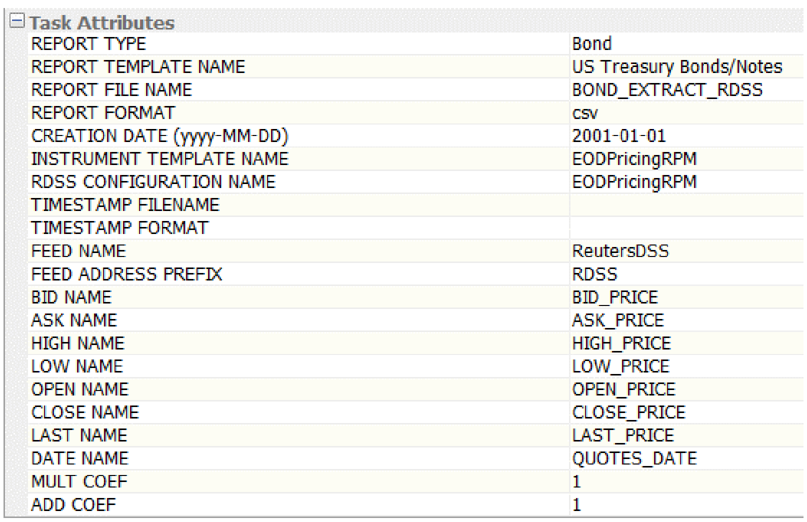
To automatically update Equity instruments based on an Equity Report template, create an Equity report template that contains the equities to be added to the Feed Address Mapping.

Example:



Name	PRODUCT_CODE.RIC	Corporate	Country	Exchange
0291.HK	0291.HK	Reuters DSS	HONG KONG	Reuters DSS
0700.HK	0700.HK	Reuters DSS	CAYMAN ISLANDS	Reuters DSS
1398.HK	1398.HK	Reuters DSS	CHINA	Reuters DSS
2600.HK	2600.HK	Reuters DSS	CHINA	Reuters DSS
0688.HK	0688.HK	Reuters DSS	HONG KONG	Reuters DSS
BBY.NB	BBY.NB	Reuters DSS	UNITED STATES	Reuters DSS
CHRW.NB	CHRW.NB	Reuters DSS	UNITED STATES	Reuters DSS
BEN.NB	BEN.NB	Reuters DSS	UNITED STATES	Reuters DSS

Scheduled Task RDSS_UPDATE_INSTRUMENTS



Task Attributes	
REPORT TYPE	Bond
REPORT TEMPLATE NAME	US Treasury Bonds/Notes
REPORT FILE NAME	BOND_EXTRACT_RDSS
REPORT FORMAT	csv
CREATION DATE (yyyy-MM-DD)	2001-01-01
INSTRUMENT TEMPLATE NAME	EODPricingRPM
RDSS CONFIGURATION NAME	EODPricingRPM
TIMESTAMP FILENAME	
TIMESTAMP FORMAT	
FEED NAME	ReutersDSS
FEED ADDRESS PREFIX	RDSS
BID NAME	BID_PRICE
ASK NAME	ASK_PRICE
HIGH NAME	HIGH_PRICE
LOW NAME	LOW_PRICE
OPEN NAME	OPEN_PRICE
CLOSE NAME	CLOSE_PRICE
LAST NAME	LAST_PRICE
DATE NAME	QUOTES_DATE
MULT COEF	1
ADD COEF	1

Task Attributes

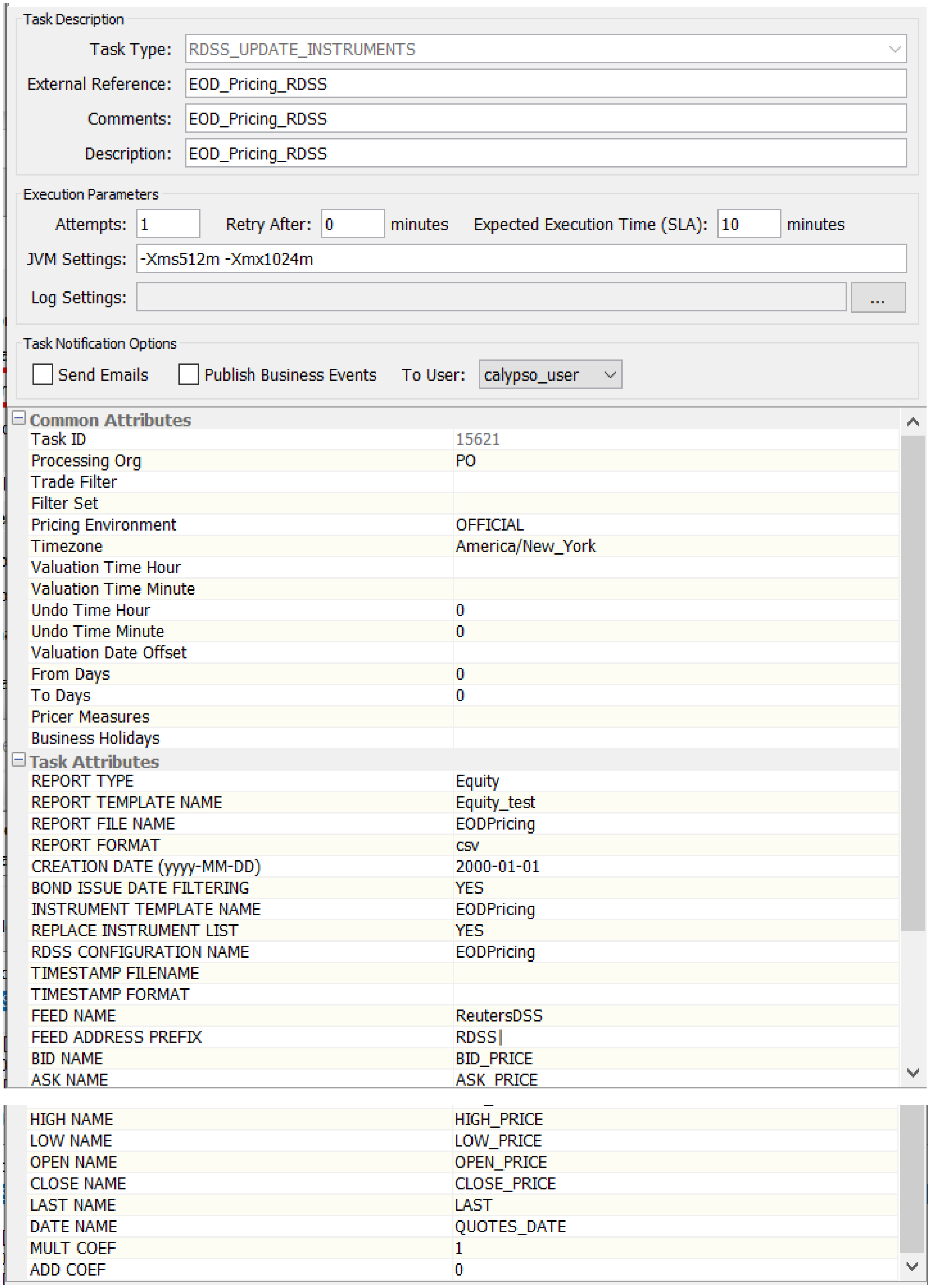
- REPORT TYPE – Set to Bond.
- REPORT TEMPLATE NAME – Select a Bond report template.
- REPORT FILE NAME - Full path of the report file to be created.
- REPORT FORMAT – Set to csv.
- CREATION DATE – Report creation date.
- INTSTRUMENT TEMPLATE NAME – Select the RDSS Instrument template
- RDSS CONFIGURATION NAME – Select the RDSS Configuration name to be updated. If left blank, then all the configurations using the given RDSS Instrument template will be updated.
- TIMESTAMP FILENAME – Non editable – Default to true.
- TIMESTAMP FORMAT – Non editable defaults to “yyyyMMddHHmmss”.

- FEED NAME – Select the RDSS feed name to be updated.
- FEED ADDRESS PREFIX – Enter the feed address prefix.
- BID NAME – Enter the mapping for bid name. Can be left blank.
- ASK NAME – Enter the mapping for ask name. Can be left blank.
- HIGH NAME – Enter the mapping for high name. Can be left blank.
- LOW NAME – Enter Mapping for low name. Can be left blank.
- OPEN NAME - Enter the mapping for open name. Can be left blank.
- CLOSE NAME – Enter the mapping for close name. Can be left blank.
- LAST NAME – Enter the mapping for last name. Can be left blank.
- DATE NAME – Enter the mapping for date name. Can be left blank.
- MULT COEF – Enter the multiplication coefficient for feed address window. Default is 1.
- ADD COEF – Enter the addition coefficient for feed address window. Default is 0.

The feed addresses are created for the bonds selected in the Bond report template.

Quote Address	Type	Feed	Feed Address	Mult	Add	Bid Name	Ask Name	Open Name
Bond. US TREASURY .05-15-2041.4.37500	CleanPrice	ReutersDSS	RDSS912810QQ4	1	1	BID_PRICE	ASK_PRICE	OPEN_PRICE
Bond.T 4 1/2 08/15/39.08-15-2039.4.50000	CleanPrice	ReutersDSS	RDSSUS912810QC53	1	1	BID_PRICE	ASK_PRICE	OPEN_PRICE
Bond.TII 2 1/8 02/15/41.02-15-2041.2.12500	CleanPrice	ReutersDSS	RDSSUS912810QP66	1	1	BID_PRICE	ASK_PRICE	OPEN_PRICE

To automatically add Equity to feed address mapping, create the ST as shown in example below. The task attribute REPLACE INSTRUMENT LIST can be set to YES if user wants to replace the instruments in the template . Set it to NO to add new instruments to the existing list. Default value for this attribute is No (i.e. Add new)

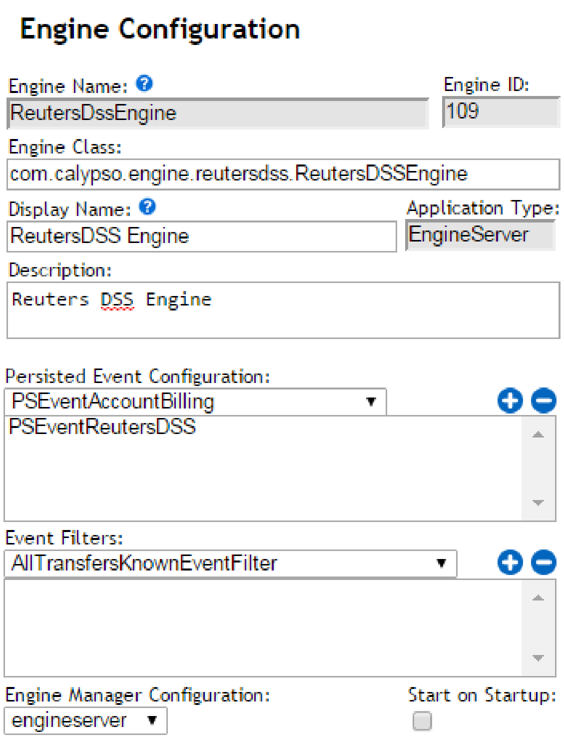

Task Description
Task Type: RDSS_UPDATE_INSTRUMENTS
External Reference: EOD_Pricing_RDSS
Comments: EOD_Pricing_RDSS
Description: EOD_Pricing_RDSS
Execution Parameters
Attempts: 1
Retry After: 0 minutes
Expected Execution Time (SLA): 10 minutes
JVM Settings: -Xms512m -Xmx1024m
Log Settings:
...
Task Notification Options
Send Emails
Publish Business Events
To User: calypso_user
Common Attributes
Task ID 15621
Processing Org PO
Trade Filter
Filter Set
Pricing Environment OFFICIAL
Timezone America/New_York
Valuation Time Hour
Valuation Time Minute
Undo Time Hour 0
Undo Time Minute 0
Valuation Date Offset
From Days 0
To Days 0
Pricer Measures
Business Holidays
Task Attributes
REPORT TYPE Equity
REPORT TEMPLATE NAME Equity_test
REPORT FILE NAME EODPricing
REPORT FORMAT csv
CREATION DATE (yyyy-MM-DD) 2000-01-01
BOND ISSUE DATE FILTERING YES
INSTRUMENT TEMPLATE NAME EODPricing
REPLACE INSTRUMENT LIST YES
RDSS CONFIGURATION NAME EODPricing
TIMESTAMP FILENAME
TIMESTAMP FORMAT
FEED NAME ReutersDSS
FEED ADDRESS PREFIX RDSS|
BID NAME BID_PRICE
ASK NAME ASK_PRICE
HIGH NAME HIGH_PRICE
LOW NAME LOW_PRICE
OPEN NAME OPEN_PRICE
CLOSE NAME CLOSE_PRICE
LAST NAME LAST
DATE NAME QUOTES_DATE
MULT COEF 1
ADD COEF 0

2.6 Engine Configuration

The Reuters DSS engine is configured in the Engine Manager of Web Admin: event subscription and engine parameters.

You may need to add this engine if it is not available for configuration: Create a new engine called ReutersDSSEngine with class name com.calypso.engine.reutersdss.ReutersDSSEngine.

It subscribes to the following events: PSEventReutersDSS.



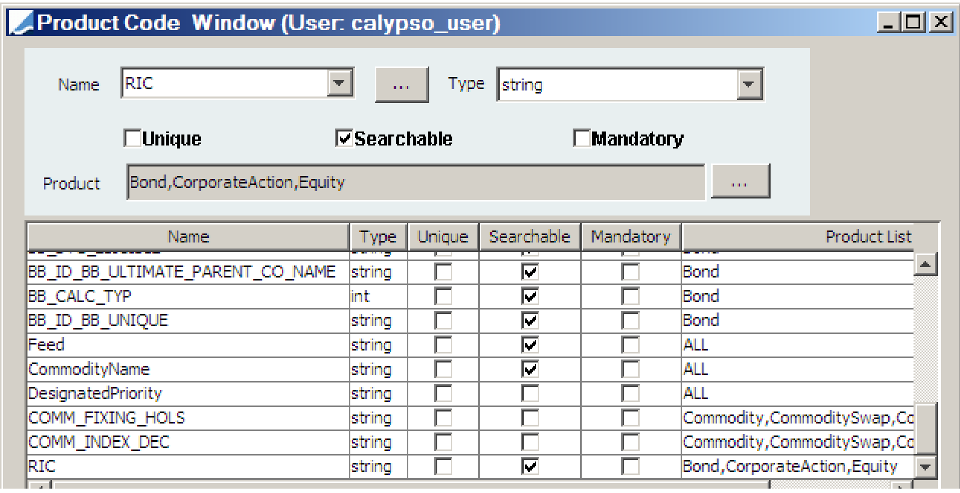
Please refer to Calypso Web Admin documentation for complete details.

2.7 Configure Calypso Product Codes

Calypso Product codes are product attributes. In the Reuters DSS Integration, Calypso obtains three product codes from Reuters DataScope Select (https://customers.reuters.com/a/productsupport/Datascope/GCODES/ds_subtype_cds.html):

- RIC
- Reuters_CCME_ID
- Reuters_DIVME_ID

Launch the Product codes window (**Navigator > Configuration > Product > Code**)

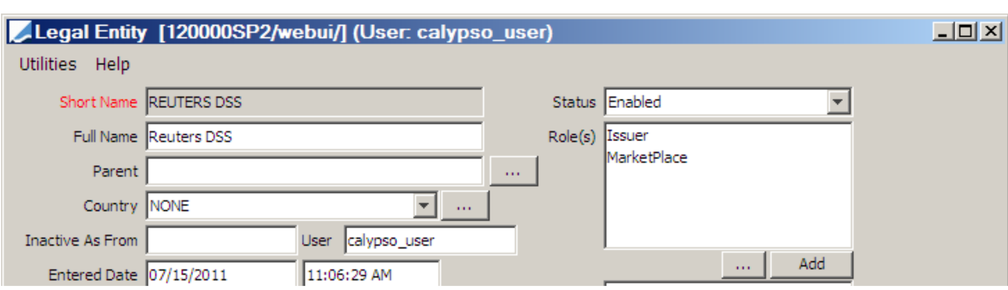


- From the **Name** dropdown, select RIC. If RIC is not found on the list, click **...** next to the **Name** dropdown to manually add the RIC product code using the Add Domain Window.
- Set the **Type** to String.
- Check **Searchable**.
- Click **...** next to the **Product** field, then use the Select Product(s) window to add Equity, Bond, EquityIndex and CorporateAction to the RIC Product code.
- Click **Save** to store your changes to the database.
- Repeat for **Reuters_CCME_ID** and save – The Product field should contain only CorporateAction.
- Repeat for **Reuters_DIVME_ID** and save – The Product field should contain only CorporateAction.

2.8 Add a Dummy Legal Entity for Reuters DSS

If a lookup for an Issuer or Marketplace Legal Entity fails, then to show that the instrument was created using data obtained via Reuters DSS, Calypso can assign a default (or dummy) Legal Entity to the respective static data.

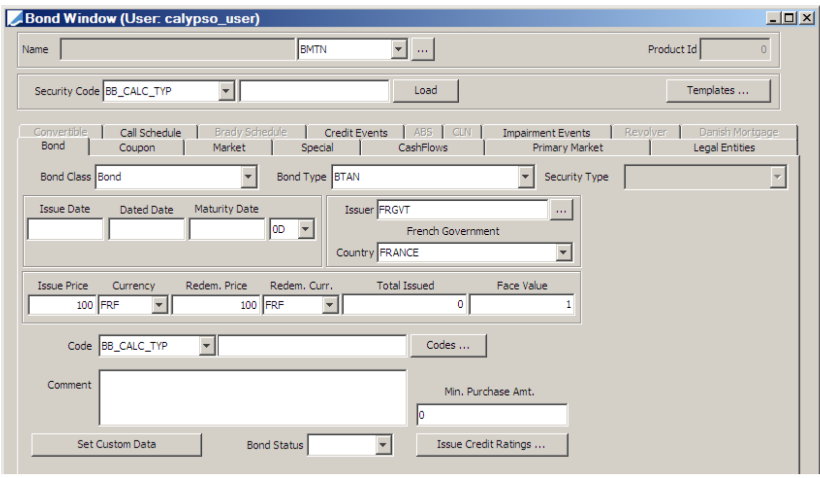
Add a dummy Legal Entity named "Reuters DSS," having the Issuer and Marketplace roles (**Navigator > Configuration > Legal Data > Entities**):



2.9 Configuring Calypso Bond Templates for Reuters DSS

Bond templates are used for the Reuters DSS terms and conditions report type, where Bonds have various permutations of criteria to determine which bond type to save into the Calypso database. The bond templates are used as fallback defaults when a value from Reuters DataScope is missing, insufficient, or when a combination of data from the import file is used to derive the data for a special or specific bond within Calypso.

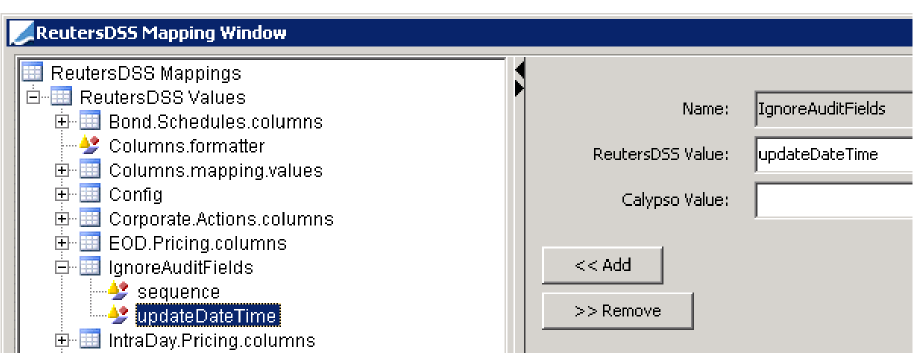
You can define specific templates to map the bond's definition to the incoming Reuters DataScope bond data (https://customers.reuters.com/a/productsupport/Datascope/GCODES/holiday_cal_cds.html). Please refer the - **Defining Bond Products** topic in the Calypso Documentation Portal Help System. for the procedure the procedure to create a Bond Template.



2.10 Audit

Audit records are saved for changes to the following components, provided they are added to the domain "classAuditMode": ReutersDSSConfiguration, ReutersDSSReportTemplates, ReutersDSSReportColumns, ReutersDSSInstruments, ReutersDSSSchedules and ReutersDSSProductMapping.

You can use IgnoreAuditFields in the ReutersDSSMapping window to provide a list of fields for which audit is not required.



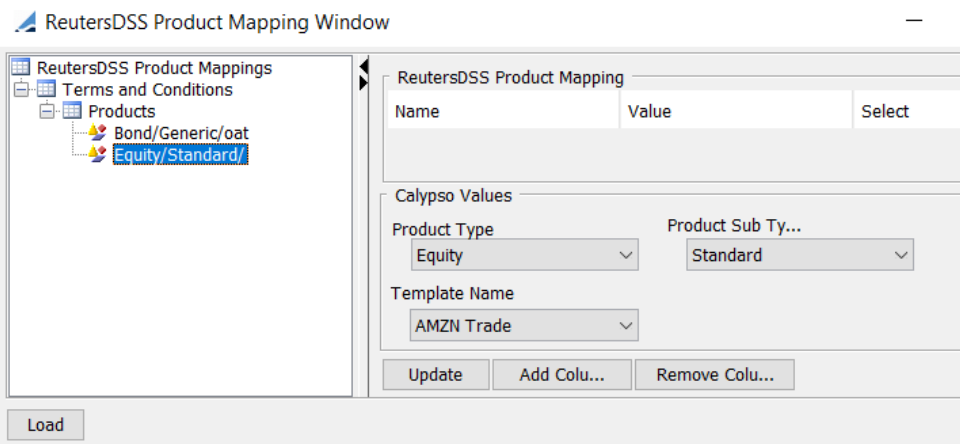
Reuters DSS Data Mapping

3.1 Product Mapping

The Reuters DataScope Product Mapping Window is where you will configure and manipulate various permutations of the incoming Bond, Equity, Equity Index and ADR instruments to filter the incoming data from Reuters into the correct instruments in Calypso.

Release 1.0 supports the Terms and Conditions Report Type.

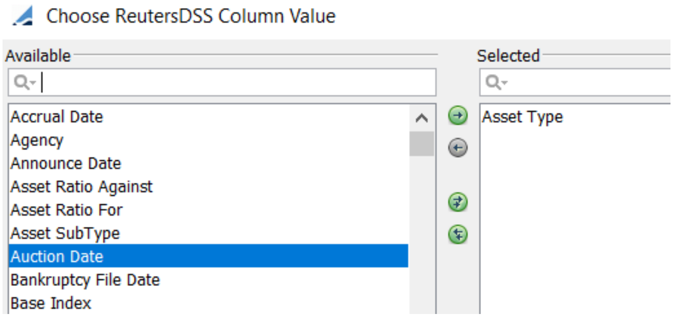
From the Reuters DataScope Select Window (menu action `reutersdss.ui.ReutersDSSServerWindow`), launch the RDSS Product Mapping window using **Configuration > Configure Product Mapping**:



- Select Bond from the **Product Type** as drop down list box. This example depicts a Bond setup. Choose the **Product Type** that matches the data from Reuters DataScope.
- Select Generic from the **Product Sub Type** drop down listbox.
- Select oat from the **Template Name** drop down listbox.
- Click **Update** to save record into database.

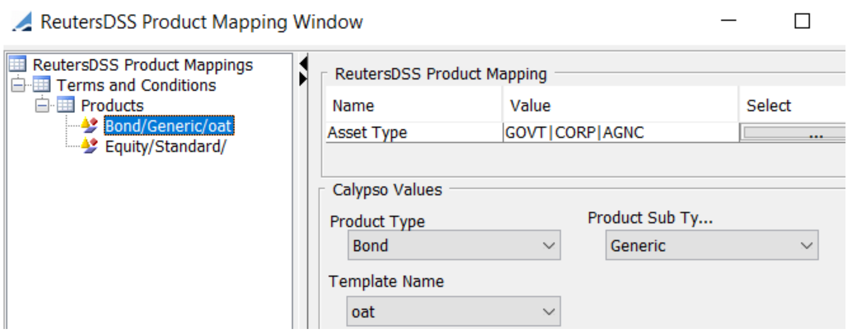
  Saved values appear in the product mapping tree in the left-hand panel.

  When adding a new record, always highlight the Product key to avoid modifying an existing record.
- Next, you must create rules to filter the data. With a record selected, click **Add Columns** to launch the Reuters DSS Choose Column Value window.



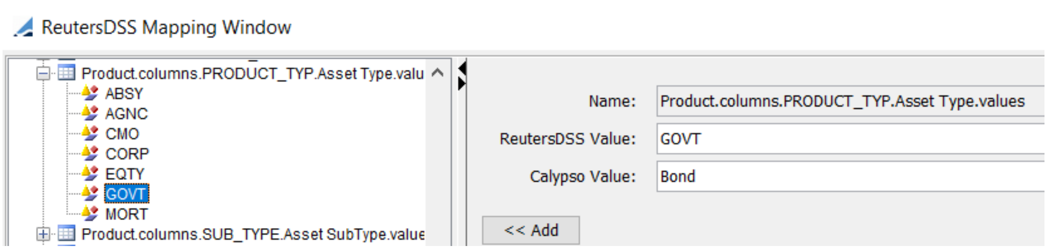
Select columns as needed then click POK. The selected columns will appear in the **Reuters DSS Product Mapping** table.

» For each row in the **ReutersDSS Product Mapping** table, click **...** and select one or more values. These fields and the selected values become import rules for incoming data and work with field mappings. For the example below, **Asset Type**, the selected values are GOVT, CORP, and AGNC:



To make new values available for creating rulesets, add them using the Reuters DSS Mapping Window. Navigate to the desired key and add new entries as necessary. The naming convention to locate the key in the Product Mapping Window is:

Product.columns.<Calypso Column Name>.<Reuters Column>.values



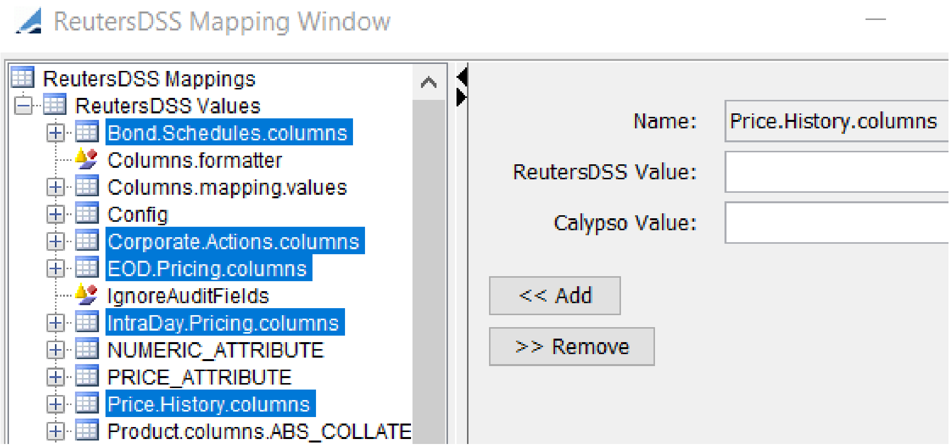
3.2 Report Types and Mapping Values

Each report type within the RDSS Integration module has at least three lists of mapping values:

- Request Mapping List
- Mandatory Mapping List
- Integration Mapping List

3.2.1 Request Mapping List

The Request Mapping List consists of all data fields (and their respective data types) that can be requested from the Reuters DataScope server.

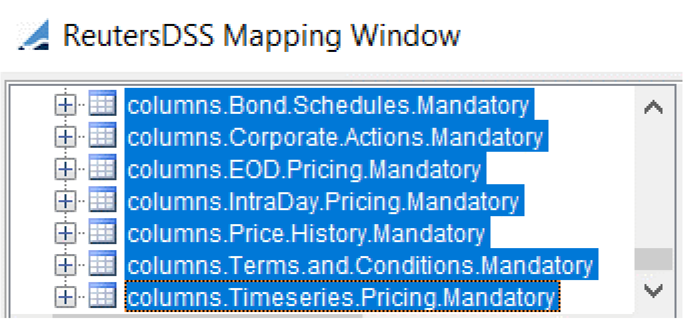


Available Request Mappings

- TimeSeries.Pricing.columns
- Price.History.columns
- EOD.Pricing.columns
- IntraDay.Pricing.columns
- Terms.and.Conditions.columns
- Bond.Schedules.columns
- Corporate.Actions.columns
- Tranche.Factor.History.columns

3.2.2 Mandatory Mapping List

The Mandatory Mapping List is used in the **Report Columns** collapsible pane to validate fields prior to saving records into database. This mapping function assists users in determining which fields must be requested from the from Reuters Datascope Select server to obtain the required data:

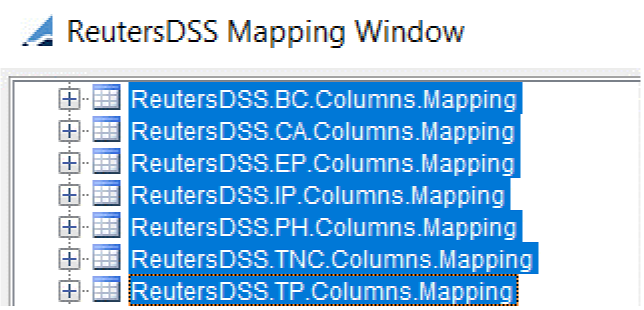


Available Mandatory Mappings

- columns.Timeseries.Pricing.Mandatory
- columns.Price.History.Mandatory
- columns.EOD.Pricing.Mandatory
- columns.IntraDay.Pricing.Mandatory
- columns.Terms.and.Conditions.Mandatory
- columns.Bond.Schedules.Mandatory
- columns.Corporate.Actions.Mandatory
- columns.Tranche.Factor.History.Mandatory

3.2.3 Integration Mapping List

The Integration Mapping List is only used with an import Scheduled Task to determine which Reuters field(s) map to which Calypso column(s). The import handler maps each imported field to its Calypso counterpart prior to invoking the save process on each record in the Reuters DataScope Select report file:



Available Integration Mappings

- ReutersDSS.TP.Columns.Mapping
- ReutersDSS.PH.Columns.Mapping
- ReutersDSS.EP.Columns.Mapping
- ReutersDSS.IP.Columns.Mapping
- ReutersDSS.TNC.Columns.Mapping
- ReutersDSS.BC.Columns.Mapping
- ReutersDSS.Corporate.Actions.Columns.Mapping
- ReutersDSS.TFH.Columns.Mapping

Keywords

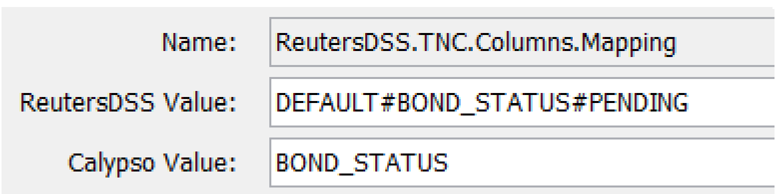
Users can add hardcoded values to the data stored in Calypso by making use of the Integration Mappings. Three keywords determine how the predefined values are applied during the mapping process:

- DEFAULT
- TYPE
- FIELDS

Default Keyword

The **Default** keyword makes use of predefined values that are hardcoded for specific imported data. The format for this mapping is:

DEFAULT#FIELD_NAME#VALUE_TO_USE



For example:

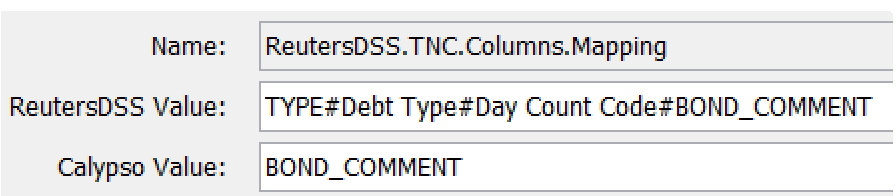
DEFAULT#STATUS#PENDING

The value of the Status field of records imported using the above mapping would be PENDING.

Type Keyword

The **Type** keyword maps multiple RDSS fields to a single Calypso field. The format for this mapping is:

TYPE#FIELD_NAME1#...FIELD_NAME*n*#CALYPSO_FIELD_NAME



For example:

TYPE#Debt Type#Day Count Code#BOND_COMMENT

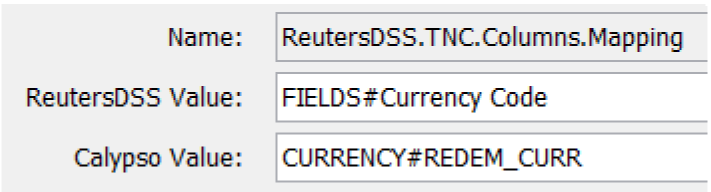
The value stored in the Calypso Bond Comment Field would contain the RDSS values for Debt Type and Day Count Code.

Fields Keyword

The **Fields** keyword maps a single RDSS field to multiple Calypso fields. The format for this mapping is:

Reuters Value: FIELDS#RDSS_FIELD_NAME

Calypso Value: CALYPSO_FIELD1#CALYPSO_FIELD2...



For example:

Reuters Value: FIELDS#Currency Code

Calypso Value: CURRENCY#REDEM_CURR

The above example maps the RDSS Currency code to the Calypso fields, Currency and Redemption Currency.

3.2.4 Product Mapping Keys

Bond ABS Collateral Mapping

Asset-Backed Bond Collateral is mapped to Reuters DataScope's Asset Subtype field.

The Product.columns.ABS_COLLATERAL.AssetSubType.values mapping key contains the mapping values.

For further information and descriptions of the Reuters values, please refer to the Reuters Customer website:

https://customers.reuters.com/a/productsupport/Datascope/GCODES/ds_subtype_cds.html

Day Count Mapping

DayCount is mapped to the RDSS Day Count Code subtype field.

The Product.columns.ACC_DAYCOUNT.Day Count Code.values mapping key contains the mapping values.

For further information and descriptions of the Reuters values, please refer to the Reuters Customer website:

https://customers.reuters.com/a/productsupport/Datascope/GCODES/day_cnt_cds.html

Agency Mapping

DayCount is mapped to the RDSS Day Count Code subtype field.

The Product.columns.AGENCY.agency.values mapping key contains the mapping values.

For further information and descriptions of the Reuters values, please refer to the Reuters Customer website:

https://customers.reuters.com/a/productsupport/Datascope/GCODES/mort_agency_cds.html

Bond Holiday Mapping

Bond Holidays are mapped to the RDSS Holiday Convention Code.

The Product.columns.BOND_HOLIDAYS.Coupon Payment Holiday Convention Code.values mapping key contains the mapping values.

For further information and descriptions of the Reuters values, please refer to the Reuters Customer website:

https://customers.reuters.com/a/productsupport/Datascope/GCODES/holiday_cal_cds.html

Bond Schedule Exercise Type Mapping

Bond Schedule Exercise Type is mapped to the RDSS Option field.

The Product.columns.BS_EXCER_TYP.Option.values mapping key contains the mapping values.

For further information and descriptions of the Reuters values, please refer to the Reuters Customer website:

https://customers.reuters.com/a/productsupport/Datascope/GCODES/call_opt_cds.html

CLN Seniority Mapping

CLN Seniority is mapped to the RDSS Seniority Code field.

The Product.columns.CLN_SENIORITY.Seniority Code.values contains the mapping values.

For further information and descriptions of the Reuters values, please refer to the Reuters Customer website:

https://customers.reuters.com/a/productsupport/Datascope/GCODES/seniority_type_cds.html

Date Roll Mapping

Date Roll is mapped to the RDSS Payment Rule Code field.

The Product.columns.DATE_ROLL.Payment Rule Code.values mapping key contains the values.

For further information and descriptions of the Reuters values, please refer to the Reuters Customer website:

https://customers.reuters.com/a/productsupport/Datascope/GCODES/holiday_rule_cds.html

Frequency Mapping

Frequency is mapped to the RDSS Frequency field.

The Product.columns.FREQUENCY.Frequency.values mapping key contains the values.

For further information and descriptions of the Reuters values, please refer to the Reuters Customer website:

https://customers.reuters.com/a/productsupport/Datascope/GCODES/freq_cds.html

Payment Rule Mapping

Payment Rule is mapped to the RDSS Payment Rule Code field.

The Product.columns.PAYMENT_RULE.Coupon Payment Rule Code.values mapping key contains the values.

For further information and descriptions of the Reuters values, please refer to the Reuters Customer website:

https://customers.reuters.com/a/productsupport/Datascope/GCODES/holiday_rule_cds.html

Price Decimal Mapping

Price Decimal is mapped to the RDSS Price Quote Rounding field.

The Product.columns.PRICE_DEC.Price Quote Rounding.values mapping key contains the values.

For further information and descriptions of the Reuters values, please refer to the Reuters Customer website:

https://customers.reuters.com/a/productsupport/Datascope/GCODES/rounding_cds.html

Product Type Mapping

Product Type is mapped to the RDSS Asset Type field.

The Product.columns.PRODUCT_TYP.Asset Type.values mapping key contains the values.

For further information and descriptions of the Reuters values, please refer to the Reuters Customer website:

https://customers.reuters.com/a/productsupport/Datascope/GCODES/ds_type_cds.html

Sub-type Mapping

Product Sub Type is mapped to the RDSS Asset Subtype field.

The Product.columns.SUB_TYPE.Asset SubType.values mapping key contains the values.

For further information and descriptions of the Reuters values, please refer to the Reuters Customer website:

https://customers.reuters.com/a/productsupport/Datascope/GCODES/ds_subtype_cds.html

Tick Size Mapping

Tick Size is mapped to the RDSS Price Quote Convention field.

The Product.columns.TICK_SIZE.Price Quote Convention.values mapping key contains the values.

For further information and descriptions of the Reuters values, please refer to the Reuters Customer website:

https://customers.reuters.com/a/productsupport/Datascope/GCODES/quote_convention_cds.html

Yield Method Mapping

Yield Method is mapped to the RDSS Yield Type field.

The Product.columns.YIELD_METHOD.Yield Type.values mapping key contains the values.

For further information and descriptions of the Reuters values, please refer to the Reuters Customer website:

https://customers.reuters.com/a/productsupport/Datascope/GCODES/yld_type_cds.html

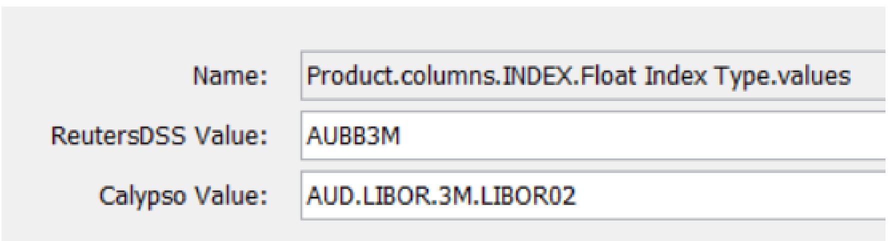
Bond Index Mapping

Index is mapped to the RDSS Float Index Type field.

The “Product.columns.INDEX.Float Index Type.values” mapping key contains the values.

Calypso Value format is “<currency>.<index name>.<tenor>.<index source>”.

Example:



Bond Inflation Index Mapping

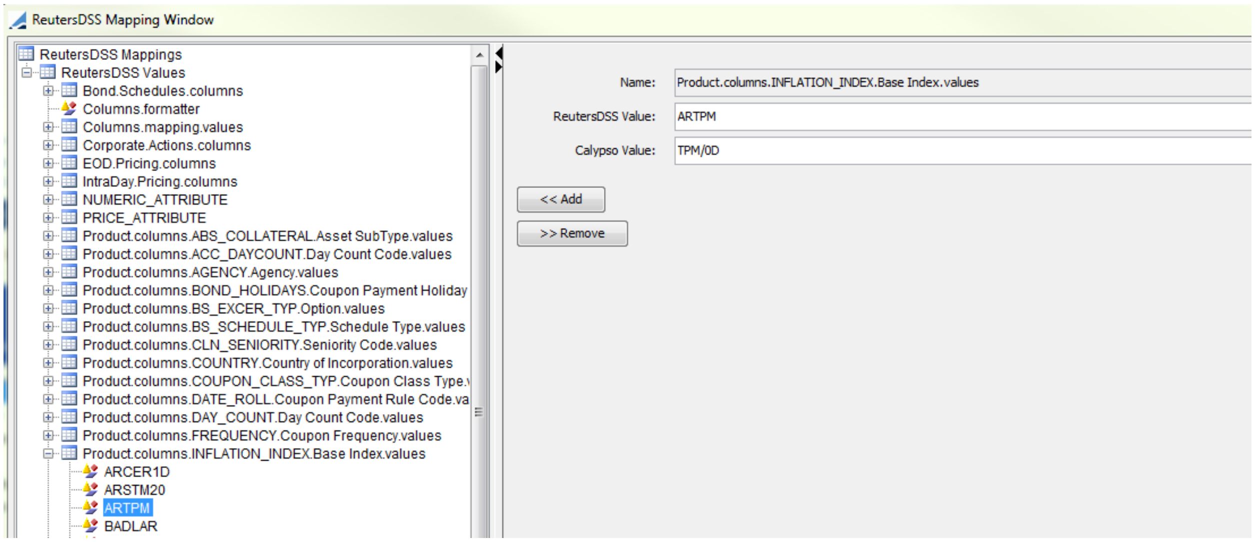
Inflation Index is mapped to the RDSS Base Index field.

The “Product.columns.INFLATION_INDEX.Base Index.values” mapping key contains the values.

Calypso value format for the field is Index Name and Tenor separated by ‘/’. E.g Calypso Value for BADLAR7DAV is BADLAR/7D

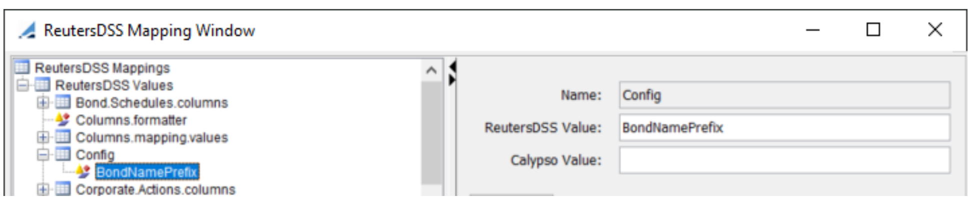
For further information and descriptions of the Reuters values, please refer to the Reuters Customer website:

https://customers.reuters.com/a/productsupport/datascope/gcodes/base_index_cds.html



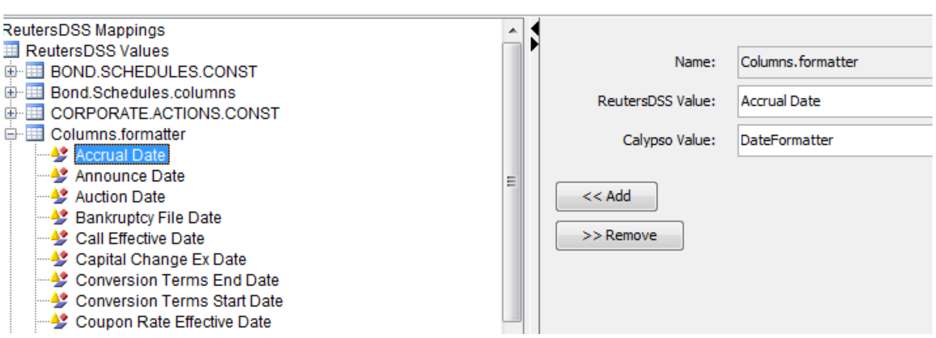
Bond Name Prefix

The prefix "RDSS-" is added to the Bond name if the following entry is present.



3.2.5 Using a Formatter or Changing a Data Type for a Specific Field

This feature allows the RDSS module to format the data for an individual field prior to saving the record to the database. The RDSS value is the Reuters field name and the Calypso value is the name of the custom formatter class name that RDSS should invoke during the import process. If the class is found within the application classpath, then RDSS will use the formatter to modify the data.



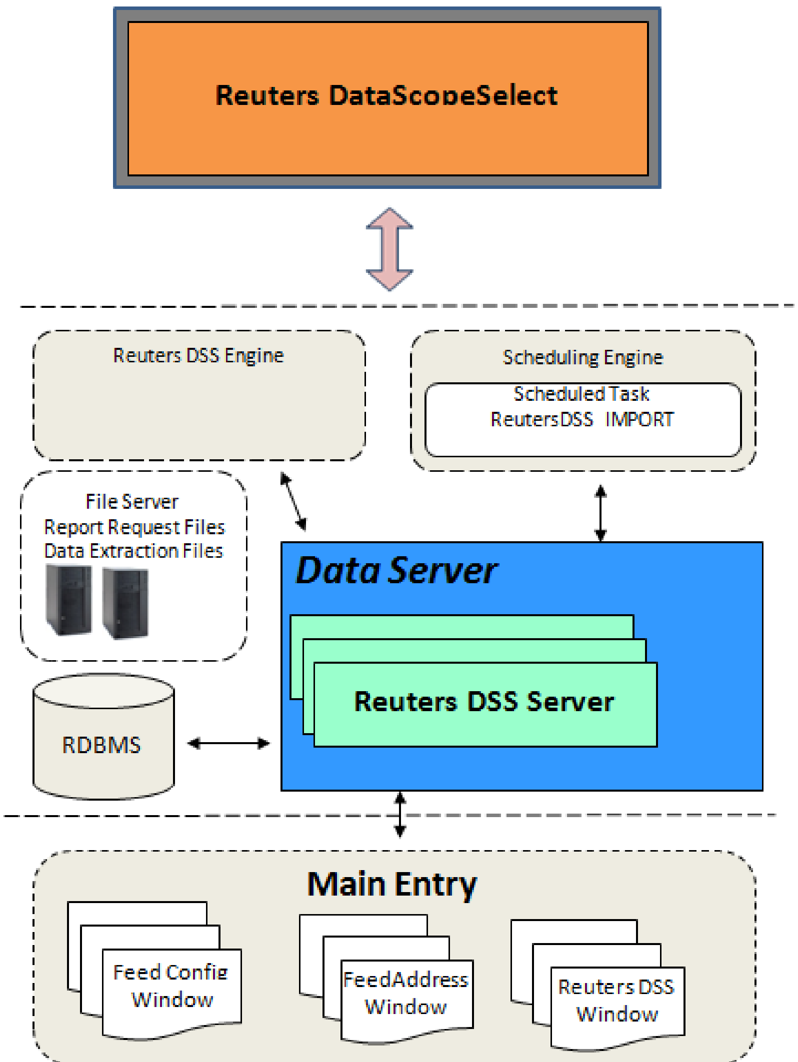
The class method signature must adhere to the format provided in the sample code shown below. The class name of the sample presented here is DateFormatter. Your classname can, of course, vary according to your implementation:

```
package com.calypso.tk.reutersdss.formatter;


public class DateFormatter implements Serializable, IFormatter{

               Public String format(String inValue,

                       String reportType,

                       String columnName)

               {

       return value;

       }

}
```

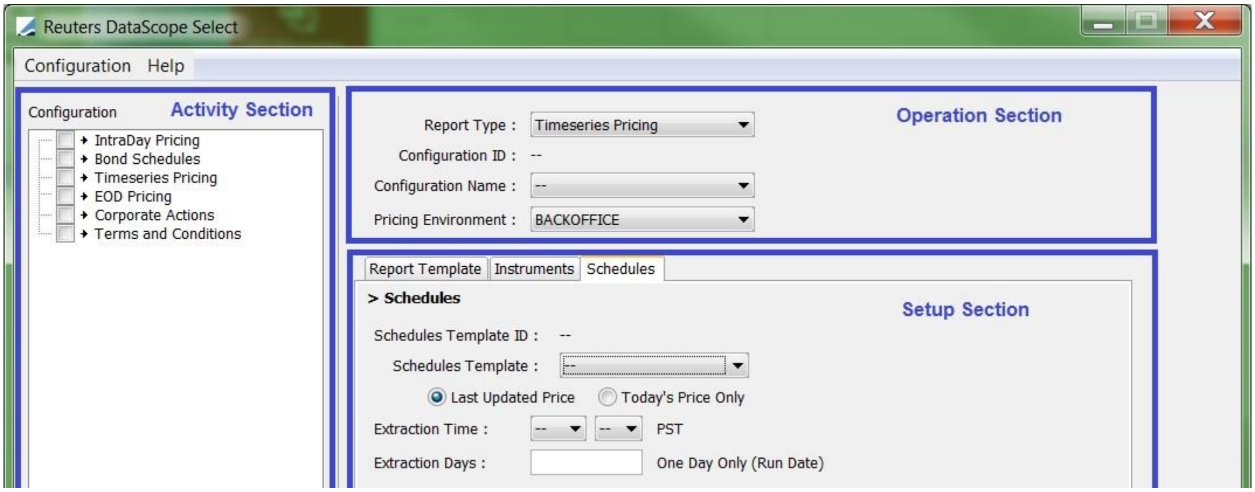
Requesting Data

4.1 Overview

This illustration provides a diagram of the RDSS Integration module:



You can request data using the Reuters DataScope Select window (menu action `reutersdss.ui.ReutersDSSServerWindow`). It provides information on Reuters DSS Engine events, access to configurations, and allows scheduling tasks.



The **Activity** section displays Engine and RDSS-related event information and displays status indicators for various operations. The **Operation** section lets the user select the items available in the **Setup** section. The **Setup** section is dynamically configured according to selections made in the **Operation** section. The **Setup** section is where users create the various templates that are used for data extraction requests sent to Reuters DataScope Select.

In addition, the Configuration Menu provides access to:

- **Configure Mapping** — Launches the Reuters DSS Mapping Window
- **Configure Product Mapping** — Launches the Reuters DSS Product Mapping window
- **Feed Configuration** — Launches the Calypso Feed Configuration Window with Reuters DSS preselected.
- **Check Connectivity** — Tests the RDSS Module's network connectivity to the Reuters DataScope Select Server.
- **Load All Report Columns**

4.2 Starting the ReutersDSSEngine

The Reuters DSS engine can be started from the Engine Manager in Web Admin.

Please refer to Calypso Web Admin documentation for complete details.

4.3 Requesting Quotes

Using Calypso's Reuters DataScope Select window, clients can obtain the following types of quotes:

- TimeSeries
- Price History
- End-of-Day
- IntraDay Pricing

Clients can obtain most data from Reuters DSS using any of three scheduling types. Those being one shot, weekly, and monthly.

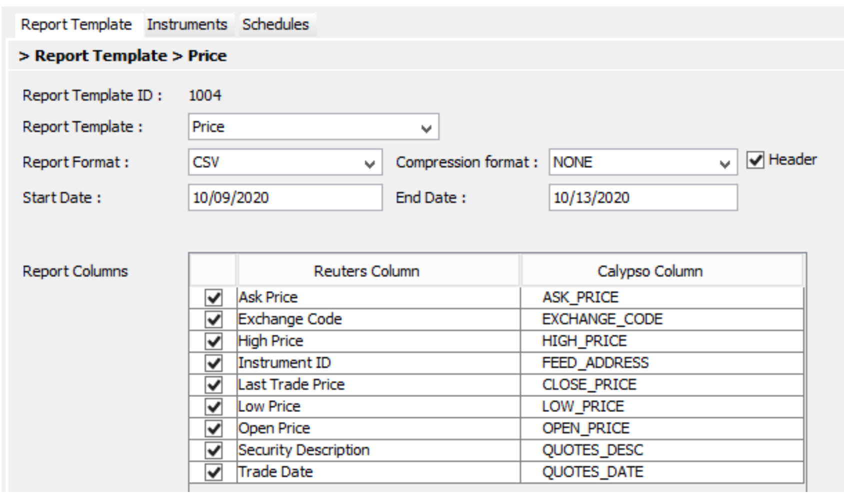
To prepare for Data Extraction, you must create a Report Template, an Instrument Template and a Schedule Template.

- The Report Template sets the details of the data you wish to request: report format and columns.
- The Instrument Template lists the instruments whose data you request.
- The Schedule Template defines the scheduling of the request and data import operation.

4.3.1 Report Templates

Data Extractions are created from Templates. To create a Report Template, follow the procedure below.

From the Reuters DataScope Select Window, select a report type from the Report Type dropdown listbox. The collapsible panels on the Reuters DSS window automatically change according to the selected Report Type.



» Select the desired pricing environment from the Pricing Environment dropdown listbox. The RDSS data will be imported to the specified pricing environment.

» Select a style from the Report Format dropdown listbox (e.g., CSV)

» Select a Compression Format from the dropdown listbox. (Typically, NONE).

» If desired, select (check) the Header box to retrieve data with column headings.

» Enter any additional information that is specific to the desired Report Type, such as dates, etc.

» In the Report Columns sections, select the columns you want to import.

The Reuters columns must be mapped to suitable Calypso columns.

See Data Mapping Reference for details.

» Click **Save**. You will be prompted to enter a template name.

To modify a Report Template, select it from the **Report Template** dropdown list box, make the desired changes, then click **Save**.

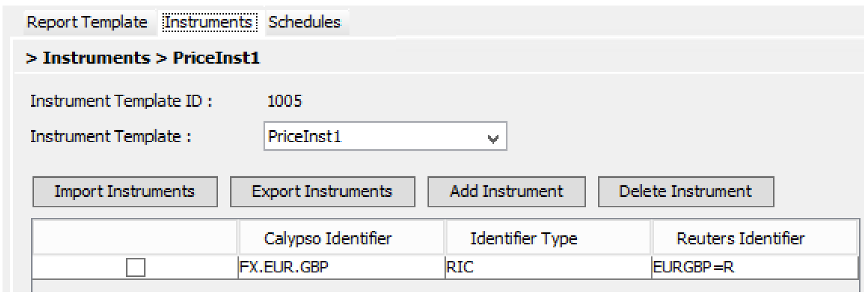
4.3.2 Instrument Templates

Data extractions contain the values for the instruments selected in the Instrument Template. From the Instruments Pane, you can interactively select instruments using the Select Instruments/Feed Address application or you can import a CSV file of instruments.

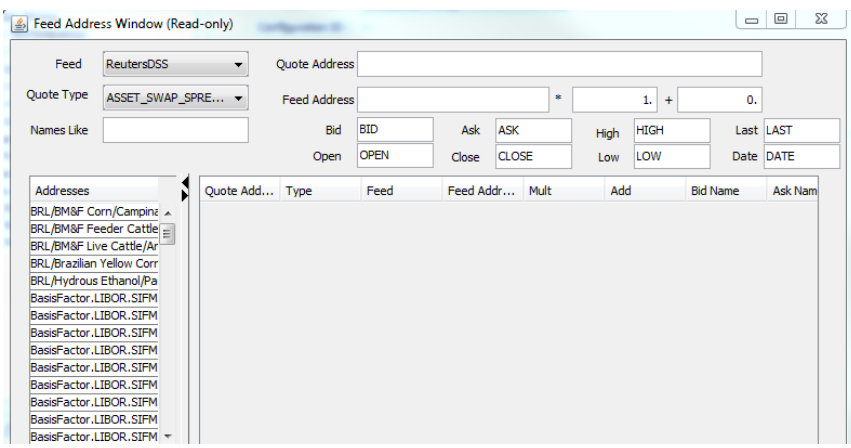
Interactive Selection

Use the following procedure to interactively create an Instrument Template:

» Navigate to Instruments collapsible pane.



» Click **Add Instrument**. The Select Instruments/Feed Address window application opens.



Select ReutersDSS (or the name corresponding to your Reuters DataScope Select Feed) from the Feed dropdown listbox.

Add required text for filtering criteria in Names Like textbox.

Click **Load for Filter** to load filtered instruments mapped for ReutersDSS into the table.

Click **Load All** to load all instruments mapped for ReutersDSS into the table.

Check (highlight) the desired instruments.

» Click **Save**. You will be prompted to enter a template name.

To modify an Instrument Template, select it from the **Instrument Template** dropdown list box, make the desired changes, then click **Save**.

Import Selection

Use the following procedure to import a CSV file:

Prepare a comma-separated value (CSV) file of instruments having the following format:

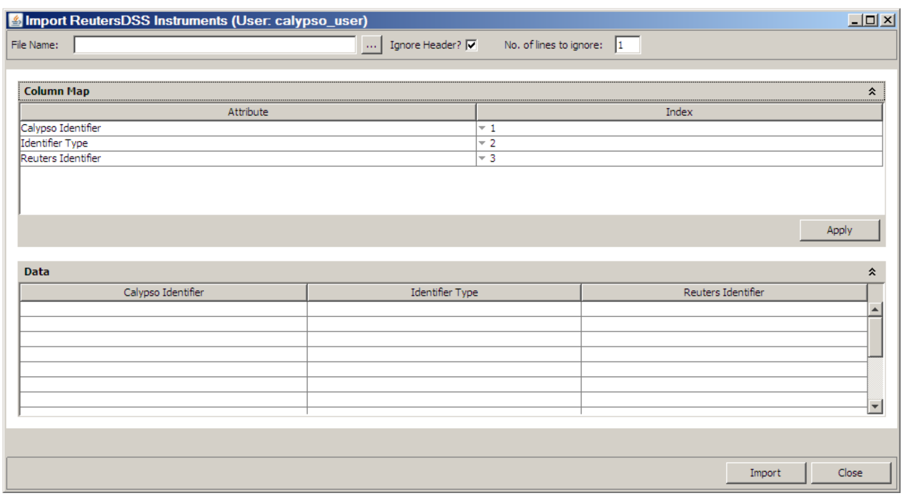
```
Identifier,Identifier Type,Description
Equity.0005.HK,Price,0005.HK
```

» To create a new Instrument Template, select the "--" item from the Instrument Template dropdown list box.

» To add instruments to an existing Instrument Template, select it from the Instrument Template dropdown listbox.

[NOTE: When importing data to an existing Instrument Template, the application will create duplicate rows for instruments that already exist in the template. To delete duplicate rows, select them, then click Delete Instrument]

» Click **Import Instruments** to open the Import ReutersDSS Instruments window:



Click **...** to open the file browser and select the CSV file.

– If the file uses column headings, check Ignore Header and enter a value in "No. of lines to ignore". The application will not process the specified number of lines.

– If the file has a layout different from the suggested layout, use the Index column to re-order the columns. Click **Apply** to check the new layout.

– Review the Data rows. If necessary, make modifications.

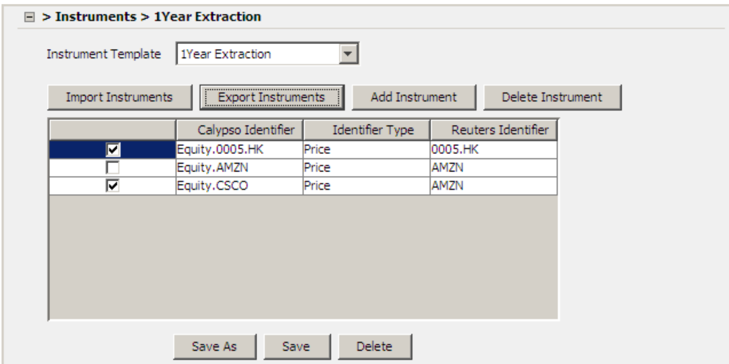
When you are satisfied with the data presented in the Data section, click **Import** to store the new template in the database.

» Click **Save**. You will be prompted to enter a template name.

4.3.3 Exporting Instruments

To export instruments:

- Select the Instrument Template that contains the desired instruments from the Instrument Template dropdown listbox.
- Check the desired instruments:



Click **Export Instruments**. You will be prompted to enter a file name.

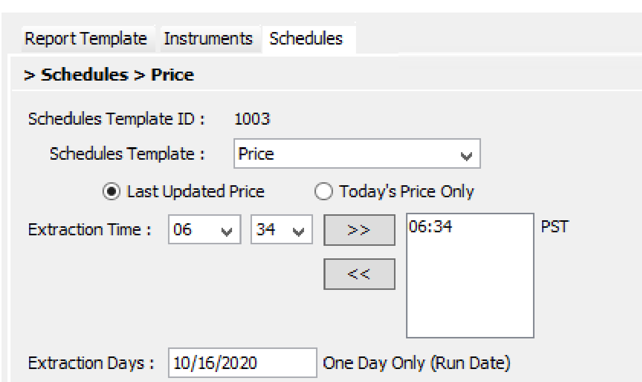
4.3.4 Schedule Templates

Schedule Templates control sending requests to Reuters DataScope Select and generate Scheduled Tasks in Calypso to process the data extracted from Reuters DataScope Select.

Like the other collapsible section, the Schedules pane is also dynamic, though it has two forms: The first for TimeSeries Pricing / Price History Reports, and the second for all other reports. Both are covered below.

Schedule Templates for Price History Report

Navigate to the Schedules collapsible pane:

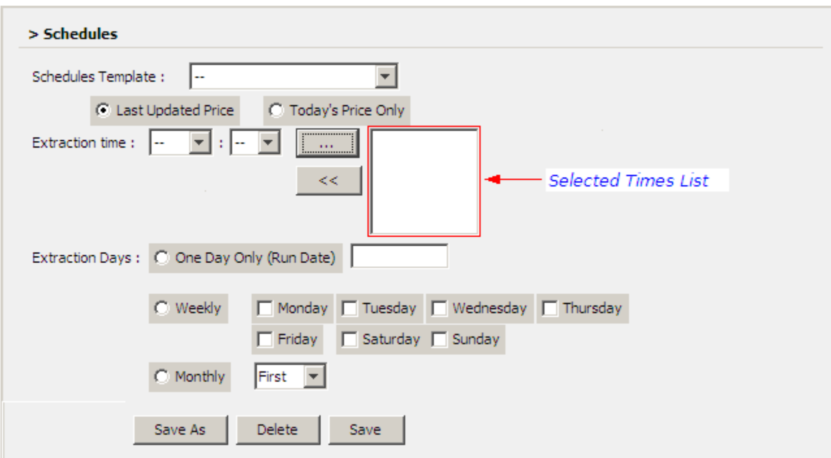


- Select Last Updated Price, then schedule an execution time and date by choosing an Extraction Time and entering a date in Extraction Days.
- Click **Save**. You will be prompted to enter a template name.

Schedule Templates for Recurring Data Extractions

Users can create recurring data extractions for the following reports:

- IntraDay Pricing
- Bond Schedules
- EOD Pricing
- Corporate Actions
- Terms and Conditions
- Tranche Factor History

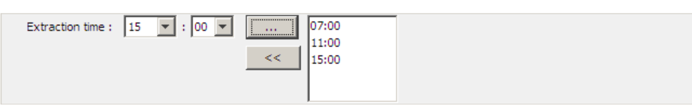


One-shot and recurring reports can be scheduled from the Recurring version of the Schedule Template. Recurring reports can occur daily, weekly, monthly, and each can occur several times per day. Data Extraction(s) and supporting Scheduled Task(s) occur at the time(s) in the Selected Time List.

Multiple Reports per Day

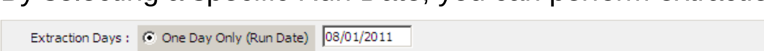
To generate multiple extractions in one day:

Select an Extraction time and add it to the Selected Times List:



One-Day

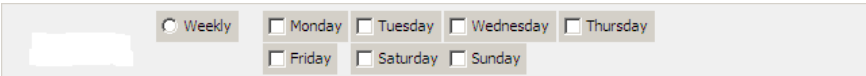
By selecting a specific Run Date, you can perform extractions on single date:



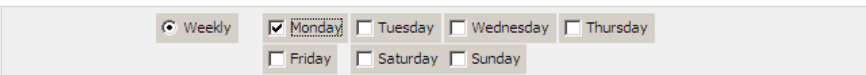
The extraction(s) and supporting Scheduled Task(s) will occur at the time(s) chosen in **Extraction Time**.

Daily/Weekly

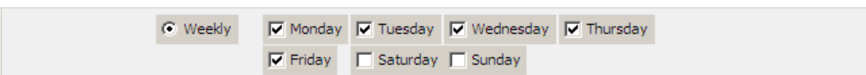
Using the Weekly settings, you can schedule a data extraction on a daily basis by selecting all days, or create a weekly data extraction by selecting a single day of the week.



The following image shows a weekly schedule that generates a data extraction every week on Monday:

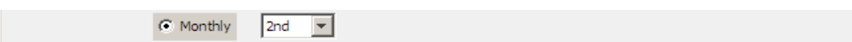


The following image shows a daily schedule that generates a data extraction on weekdays:



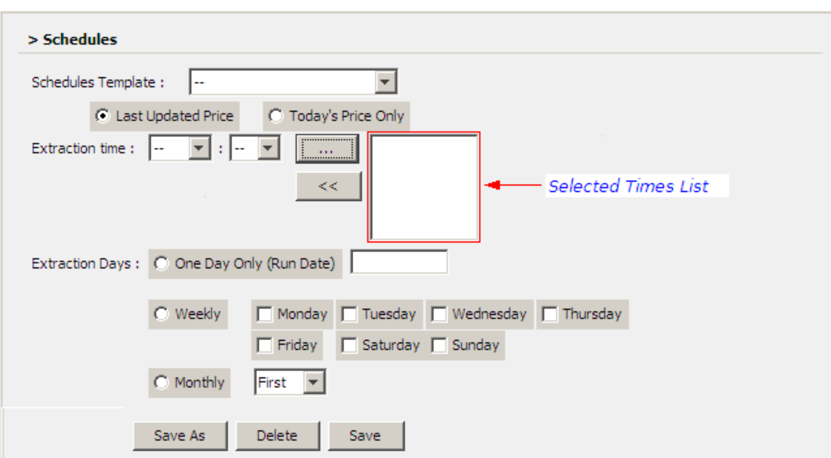
Monthly

You can generate a data extraction on a specific day of the month using the Monthly schedule. Select the First, Last, or other day of the month (2nd through the 28th) from the dropdown listbox:



Creating a Schedule Template using the Recurring Schedules Pane

Navigate to the Schedules collapsible pane:



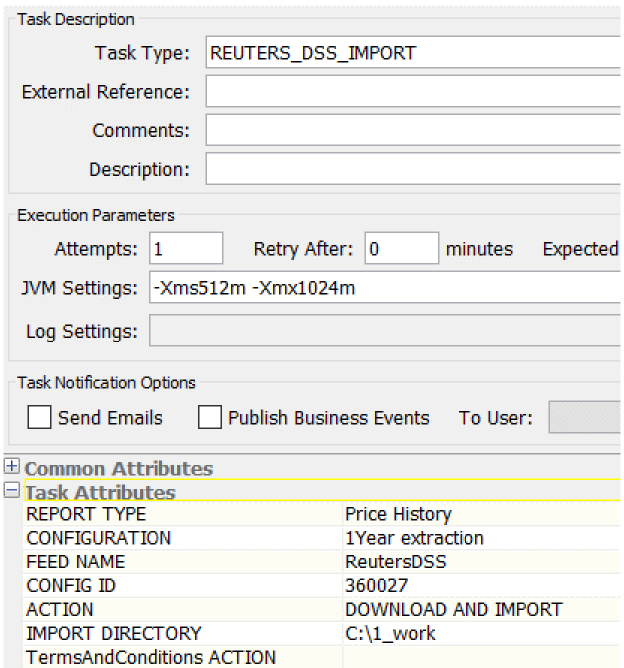
- Select Last Updated Price or Today's Price Only, then schedule Execution time(s) and days. Enter one or more Extraction Times and select One Day Only for a single day, Weekly to configure a daily or weekly data extraction, or Monthly to schedule a monthly data extraction.
- Click **Save**. You will be prompted to enter a template name.

4.4 Creating Data Extraction Configurations

The following sections provide the procedures to create configurations and retrieve specific data extraction report types. Differences in panes between types are also explained.

4.4.1 Scheduled Task REUTERS_DSS_IMPORT

When triggering a request, the scheduled task REUTERS_DSS_IMPORT is created to actually import the data.



The Report Type, Configuration, Feed Name, and Report Directory attributes are populated based on the extraction configuration.

By default, the REUTERS_DSS_IMPORT scheduled task downloads the data file and processes the data file, and then creates/updates objects as necessary.

You can separate the download and import data processes by changing the scheduled task's ACTION from the default, DOWNLOAD AND IMPORT, to DOWNLOAD ONLY or IMPORT ONLY.

Users can also change the TermsAndConditions ACTION attribute to Create, which causes the scheduled task to only create new objects, and not modify existing objects.

4.4.2 TimeSeries Pricing

TimeSeries Pricing is deprecated. Please use Price History report instead as the TimeSeries report will be removed in an upcoming release.

TimeSeries pricing provides historical prices for a specified date range or date from Reuters DataScope. **TimeSeries Pricing only supports one-shot scheduling**. Follow the procedure below to create a one-shot request.

From the Reuters DataScope Select Window:

- Select TimeSeries Pricing from the Report Type dropdown listbox.
- Select the desired pricing environment from the Pricing Environment dropdown listbox. Calypso will import the results of the data extraction into the specified pricing environment.
- Select a Report Template or create a new template as described above.

  You can modify the template as needed.

- Navigate to the Instruments collapsible pane.

  Select an existing Instrument Template or create a new template.

  You can modify the template as needed.

- Navigate to the Schedules collapsible pane.

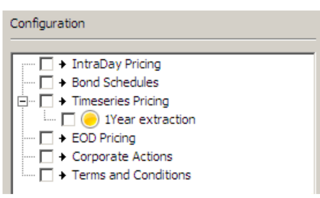
  Select an existing Schedule Template or create a new template.

  You can modify the template as needed.

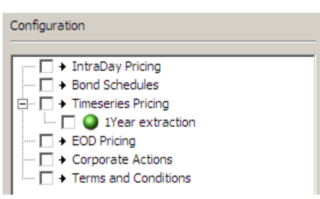
- On the Reuters DataScope Select Integration window, click **Save** to save the configuration. You will be prompted to enter a configuration name,

[NOTE: If you modify and save a template associated with a saved configuration, the application displays an alert reminding you to upload the associated configuration. The application *does not automatically upload changes* to the Reuters DataScope Select Server]

- Check that the configuration name is now present in the Configuration tree. Select the desired configuration and click **Upload** to trigger an event to send the configuration to the Reuters DataScope Server, and to also create a REUTERS_DSS_IMPORT scheduled task to perform the import operation.



If no errors occur during processing by the Reuters DataScope Select Server, when the request is ready, the configuration name icon changes to green, indicating that there is data awaiting import into Calypso.



When the configured Execution time is reached, the Scheduling Engine executes the Reuters DataScope Import job to import data from the downloaded CSV file associated with this task.

A successfully completed scheduled task is indicated by the green check icon beside the configuration name on the Reuters DataScope Select window.

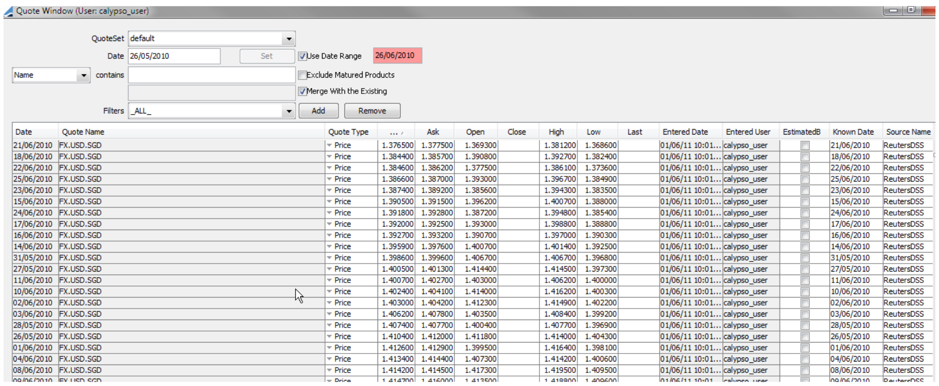
You can navigate to the Quotes Window to verify the data imported from the Reuters DataScope report file. (**Navigator > Market Data > Market Quotes > Quotes**).

For TimeSeries quote extractions:

» Select (check) Use Date Range.

» Enter a date range (Start Date and End Date)

» Click **Load**.

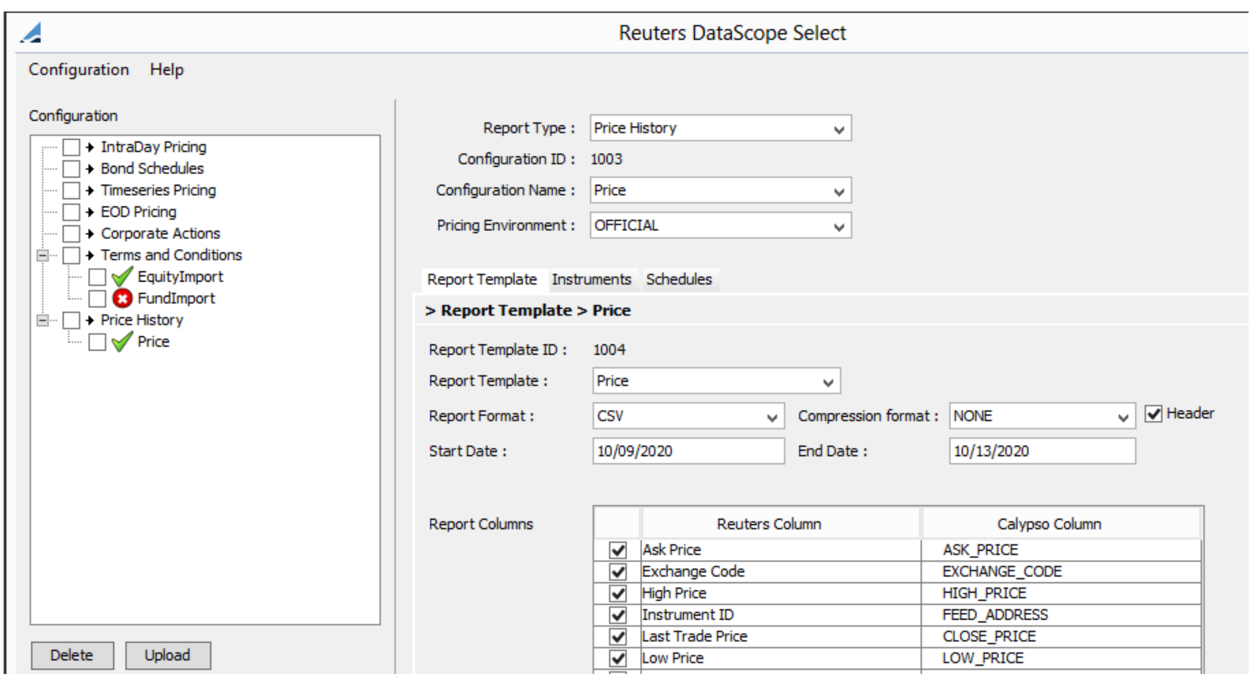


4.4.3 Price History Report

Price History provides historical prices for a specified date range or date from Reuters DataScope.

Follow the procedure below to create a request.

From the Reuters DataScope Select Window:



- Select Price History from the Report Type dropdown listbox.
- Select the desired pricing environment from the Pricing Environment dropdown listbox. Calypso will import the results of the data extraction into the specified pricing environment.
- Select a Report Template or create a new template as described above.

  You can modify the template as needed.

- Navigate to the Instruments collapsible pane.

  Select an existing Instrument Template or create a new template.

  You can modify the template as needed.

- Navigate to the Schedules collapsible pane.

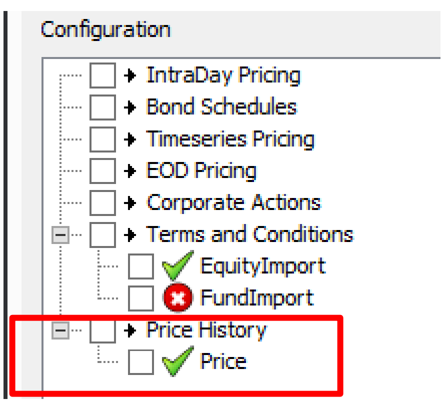
  Select an existing Schedule Template or create a new template.

  You can modify the template as needed.

- On the Reuters DataScope Select Integration window, click **Save** to save the configuration. You will be prompted to enter a configuration name,

[NOTE: If you modify and save a template associated with a saved configuration, the application displays an alert reminding you to upload the associated configuration. The application *does not automatically upload changes* to the Reuters DataScope Select Server]

- Check that the configuration name is now present in the Configuration tree. Select the desired configuration and click **Upload** to trigger an event to send the configuration to the Reuters DataScope Server, and to also create a REUTERS_DSS_IMPORT scheduled task to perform the import operation.



  If no errors occur during processing by the Reuters DataScope Select Server, when the request is ready, the configuration name icon changes to green, indicating that there is data awaiting import into Calypso.

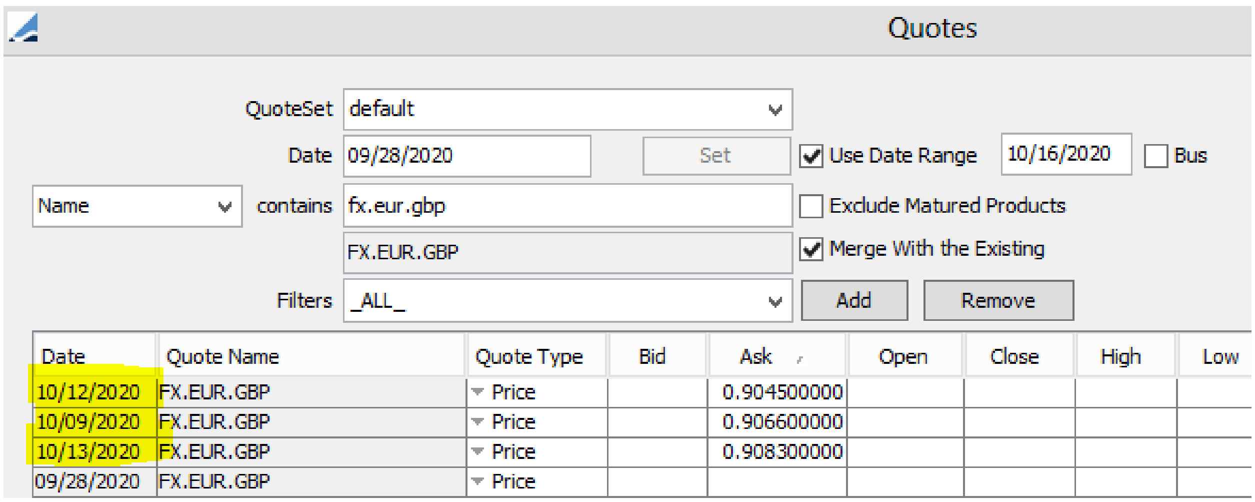
  When the configured Execution time is reached, the Scheduling Engine executes the Reuters DataScope Import job to import data from the downloaded CSV file associated with this task.

  A successfully completed scheduled task is indicated by the green check icon beside the configuration name on the Reuters DataScope Select window.

You can navigate to the Quotes Window to verify the data imported from the Reuters DataScope report file. (**Navigator > Market Data > Market Quotes > Quotes**).

For Price History quote extractions:

» Select (check) Use Date Range.
» Enter a date range (Start Date and End Date)
» Click **Load**.



4.4.4 IntraDay Pricing

The following procedure explains the process to retrieve IntraDay Pricing from Thomson Reuters real-time network, as well as from Reuters various contributors.

From the Reuters DataScope Select Window:

» Select IntraDay Pricing from the Report Type dropdown listbox.
» Select the desired pricing environment from the Pricing Environment dropdown listbox. Calypso will import the results of the data extraction in to the specified pricing environment.
» Select a Report Template or create a new template as described above.

You can modify the template as needed.

» Navigate to the Instruments collapsible pane.

Select an existing Instrument Template or create a new template.

You can modify the template as needed.

» Navigate to the Schedules collapsible pane.

Select an existing Schedule Template or create a new template.

You can modify the template as needed.

- On the Reuters DataScope Select Integration window, click **Save** to save the configuration. You will be prompted to enter a configuration name.
- Check that the configuration name is now present in the Configuration tree. Select the desired configuration and click **Upload** to trigger an event to send the configuration to the Reuters DataScope Server, and to also create a REUTERS_DSS_IMPORT scheduled task to perform the import operation.

  If no errors occur during processing by the Reuters DataScope Server, when the request is ready, the configuration name icon will change to green indicating that there is data awaiting import into Calypso.

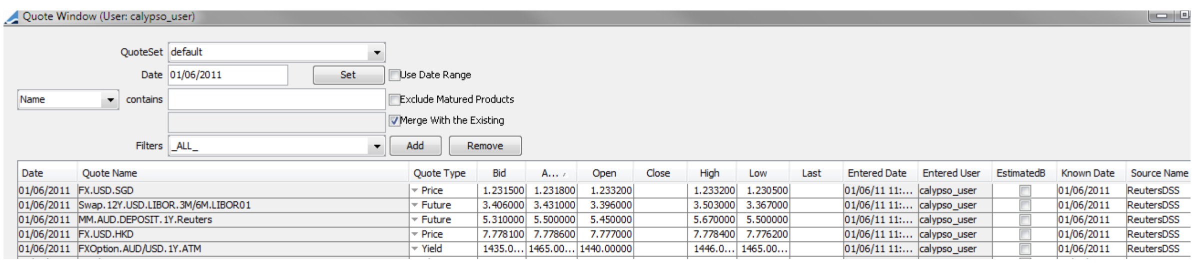
  When the configured Execution time is reached, the Scheduling Engine executes the Reuters DataScope Import job to import data from the downloaded CSV file associated with this task.

  A successfully completed scheduled task is indicated by the green check icon beside the configuration name on the Reuters DataScope Select window.

You can navigate to the Quotes Window to verify the imported data from Reuters DataScope report file (**Navigator > Market Data > Market Quotes > Quotes**).

For IntraDay quote extractions:

- Enter today's date.
- Click **Load**.



4.4.5 EOD Pricing

Retrieve End-of-Day prices for all exchange-traded instruments from the Reuters real-time network. Non-exchange–traded instruments are sourced from Reuters various contributors.

From the Reuters DataScope Select Window:

- Select EOD Pricing from the Report Type dropdown listbox.
- Select the desired pricing environment from the Pricing Environment dropdown listbox. Calypso will import the results of the data extraction in to the specified pricing environment.
- Select a Report Template or create a new template.

  You can modify the template as needed.

- Navigate to the Instruments collapsible pane.

  Select an existing Instrument Template or create a new template.

  You can modify the template as needed.

» Navigate to the Schedules collapsible pane.

Select an existing Schedule Template or create a new template.

You can modify the template as needed.

» On the Reuters DataScope Select Integration window, click **Save** to **save** the configuration. You will be prompted to enter a configuration name,

» Check that the configuration name is now present in the Configuration tree. Select the desired configuration and click **Upload** to trigger an event to send the configuration to the Reuters DataScope Server, and to also create a REUTERS_DSS_IMPORT scheduled task to perform the import operation.

If no errors occur during processing by the Reuters DataScope Select Server, when the request is ready, the configuration name icon will change to green indicating that there is data awaiting import into Calypso.

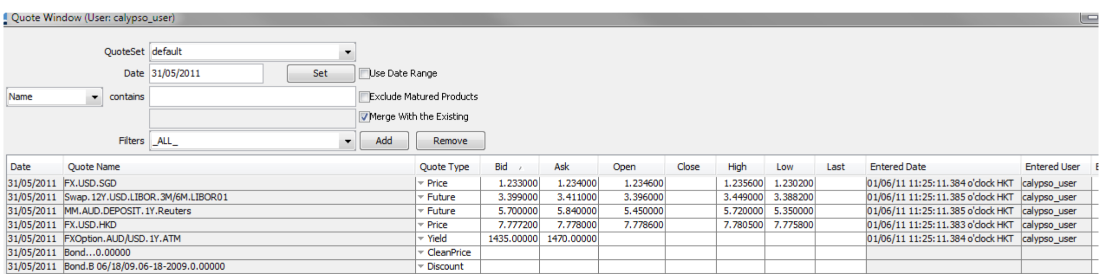
When the configured Execution time is reached, the Scheduling Engine executes the Reuters DataScope Import job to import data from the downloaded CSV file associated with this task.

A successfully completed scheduled task is indicated by the green check icon beside the configuration name on the Reuters DataScope Select window:

You can navigate to Quotes Window to verify the imported data from Reuters DataScope report file. (**Navigator > Market Data > Market Quotes > Quotes**).

For IntraDay quote extractions:

- For Date, enter Today's date minus 1 day.
- Click **Load**.



4.4.6 Terms and Conditions

Terms and Conditions product data is retrieved from Thomson Reuters DataScope via the Term and Conditions report type for Equity, Bond, EquityIndex and ADR products.

From the Reuters DataScope Select Window:

» Select Terms and Conditions from the Report Type dropdown listbox.

» Select a Report Template or create a new template.

You can modify the template as needed.

» Navigate to the Instruments collapsible pane.

Select an existing Instrument Template or create a new template.

You can modify the template as needed.

The Identifier Type for Equity products is RIC.

The Identifier Type for Bond Products is ISIN.

The Identifier Type for EquityIndex products is RIC.

The Identifier Type for ADR products is RIC.

» Navigate to the Schedules collapsible pane.

Select an existing Schedule Template or create a new template.

You can modify the template as needed.

» On the Reuters DataScope Select Integration window, click **Save** to save the configuration. You will be prompted to enter a configuration name.

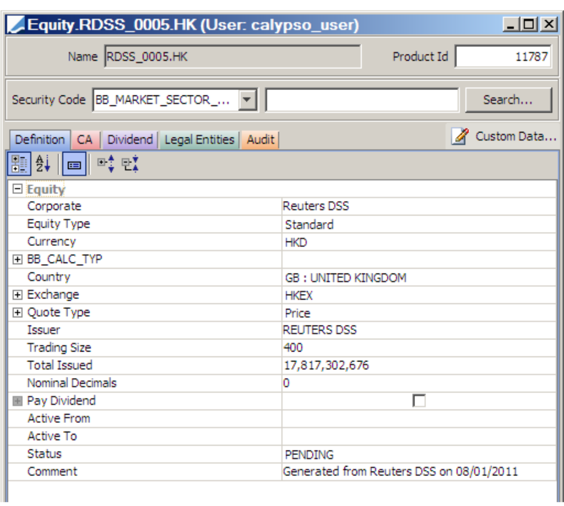
» Check that the configuration name is now present in the Configuration tree. Select the desired configuration and click **Upload** to trigger an event to send the configuration to the Reuters DataScope Server, and to also create a REUTERS_DSS_IMPORT scheduled task to perform the import operation.

If no errors occur during processing by the Reuters DataScope Select Server, when the request is ready, the configuration name icon will change to green () indicating that there is data awaiting import into Calypso.

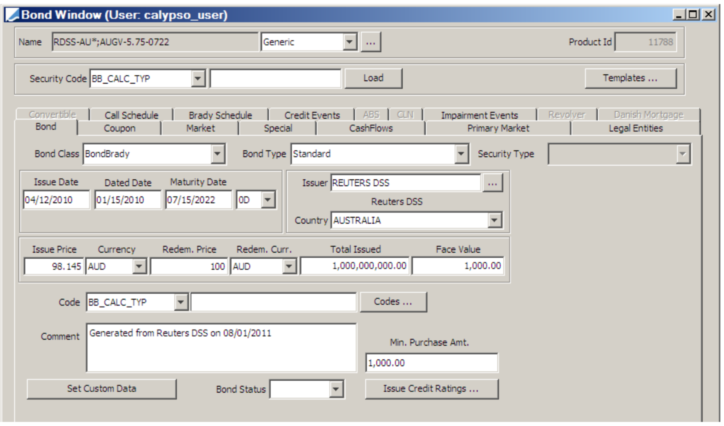
When the configured Execution time is reached, the Scheduling Engine executes the Reuters DataScope Import job to import data from the downloaded CSV file associated with this task.

A successfully completed scheduled task is indicated by green check icon () beside the configuration name on the Reuters DataScope Select window.

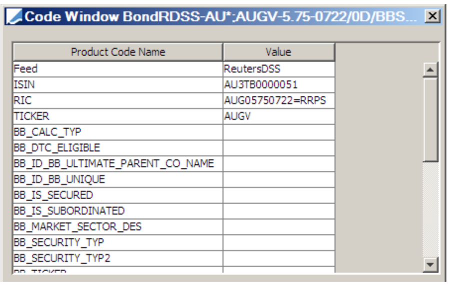
You can launch the Equity Window to verify an imported equity product (**Navigator > Configuration > Equity > Equity**).



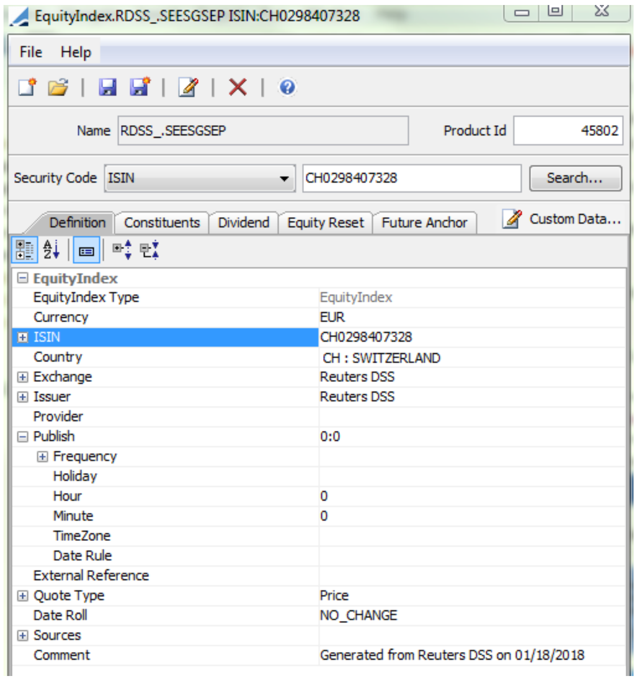
You can launch the Bond Window to verify an imported bond product (**Navigator > Configuration > Fixed Income > Bond Product Definition**).



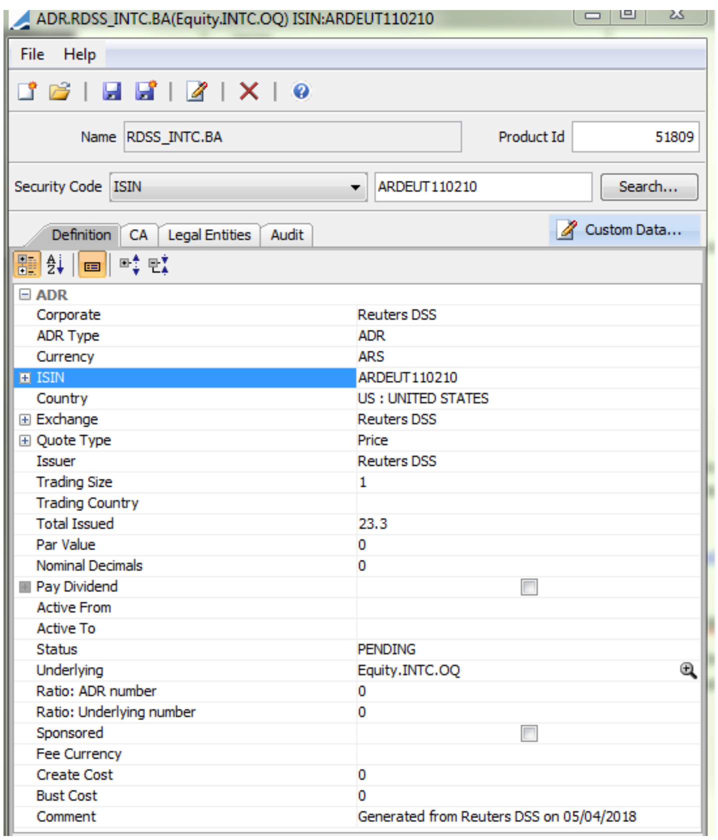
You can click **Codes** to verify the security codes.



You can launch the Equity Index Window to verify an imported equity index product (**Navigator > Configuration > Equity > Equity Indexes**).



You can launch the ADR Window to verify an imported ADR product (**Navigator > Configuration > Equity > ADR**).

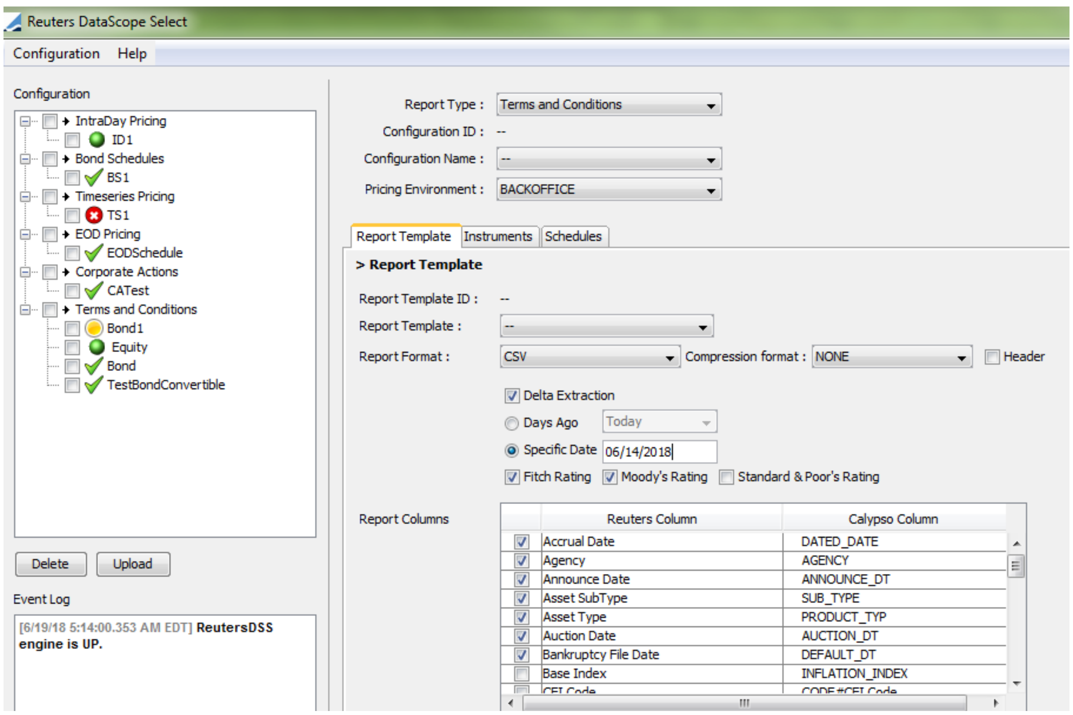


4.4.7 Delta Extraction

An optional functionality of Delta Extraction is added to Terms and Condition report template to provide the extraction of Bonds that suffered a change or amend in their conditions for a given period based on content ratings provider.

In Terms and Conditions report template,

- Select Delta Extraction checkbox.
- Select either Days Ago option and specify number of calendar days to go back for the last extraction date and maximum days can be up to 31 days.
- Or select Specific Date option and specify last extraction date which should be less than current date.
- Select at least one ratings content provider from the given checkboxes. Supported values are Fitch Rating, Moody's Rating and Standard & Poor's Rating.



4.4.8 Bond Schedules

The following procedure explains the process to retrieve schedule data for global Government/Corporate and US Municipal bonds over one or more schedule types from Thomson Reuters DataScope Select.

From the Reuters DataScope Select Window:

- Select **Bond Schedules** from the Report Type dropdown listbox.
- Select a Report Template or create a new template.

  You can modify the template as needed.
- Navigate to the Instruments collapsible pane.

Select an existing Instrument Template or create a new template.

You can modify the template as needed.

The Identifier Type for Bonds is ISIN.

» Navigate to the Schedules collapsible pane.

Select an existing Schedule Template or create a new template.

You can modify the template as needed.

» On the Reuters DataScope Select Integration window, click Save to save the configuration. You will be prompted to enter a configuration name.

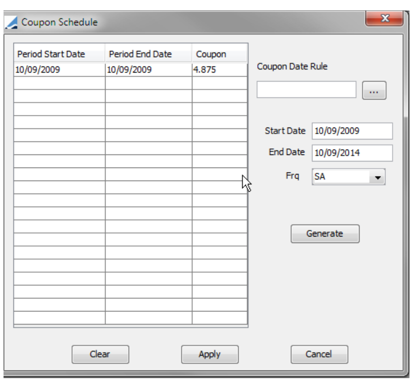
» Check that the configuration name is now present in the Configuration tree. Select the desired configuration and click **Upload** to trigger an event to send the configuration to the Reuters DataScope Server, and to also create a REUTERS_DSS_IMPORT scheduled task to perform the import operation.

If no errors occur during processing by the Reuters DataScope Select Server, when the request is ready, the configuration name icon will change to green () indicating that there is data awaiting import into Calypso.

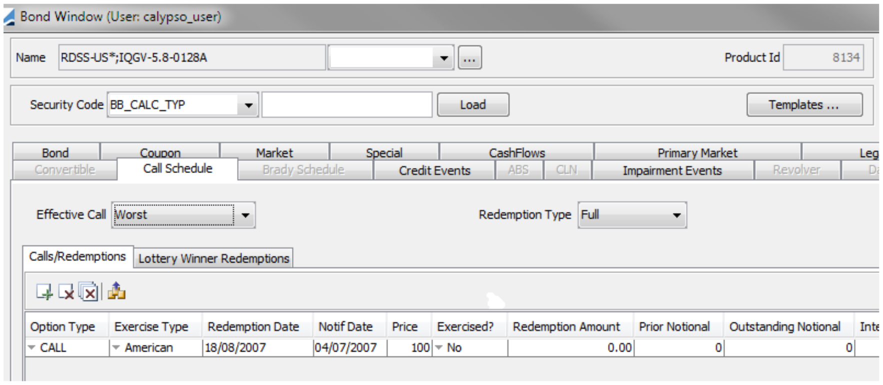
When the configured Execution time is reached, the Scheduling Engine executes the Reuters DataScope Import job to import data from the downloaded CSV file associated with this task.

A successfully completed scheduled task is indicated by the green check icon beside the configuration name on the Reuters DataScope Select window.

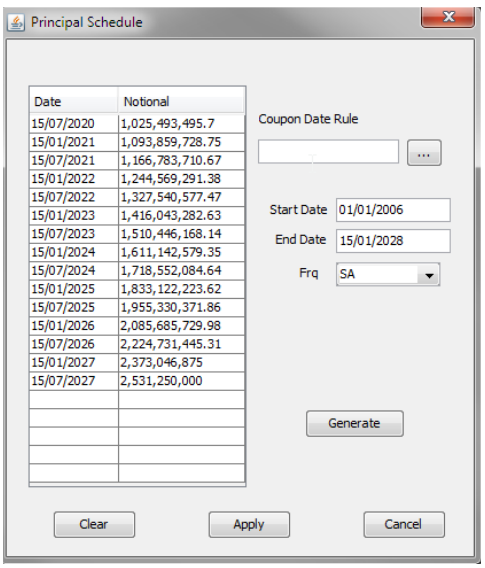
Sample imported Coupon Schedule:



The call schedule for callable bonds and perpetual bonds is used by the Corporate Action process to perform early redemption, as applicable:

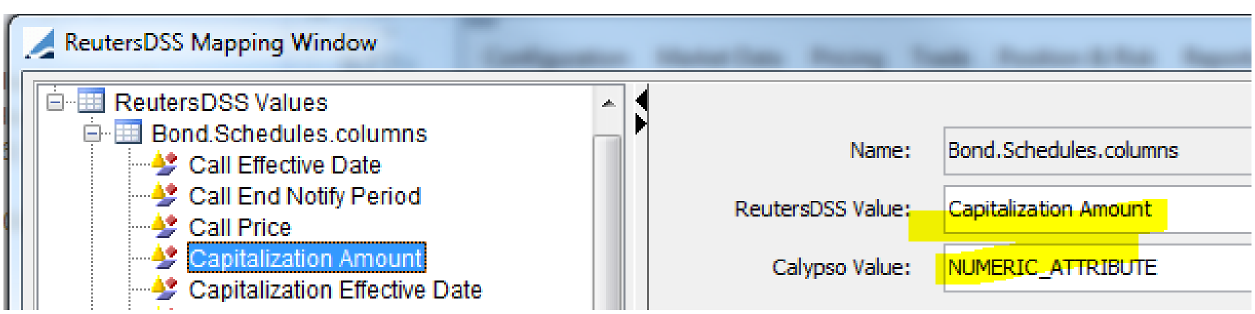


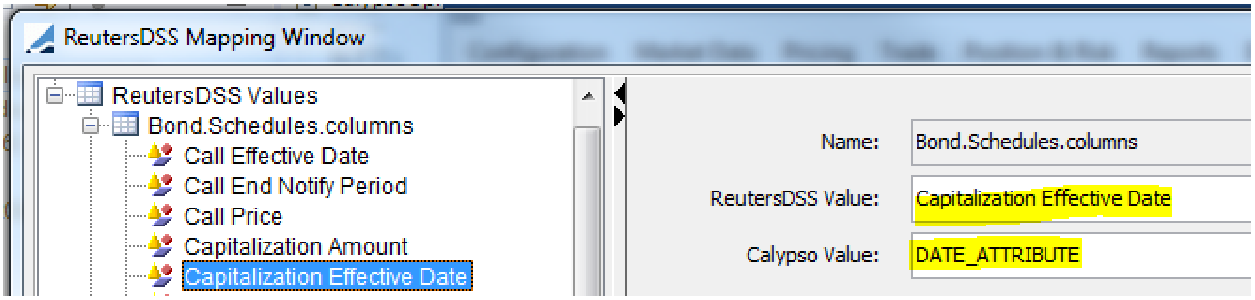
Imported Sinking Schedules are shown in the Principal Schedule window:

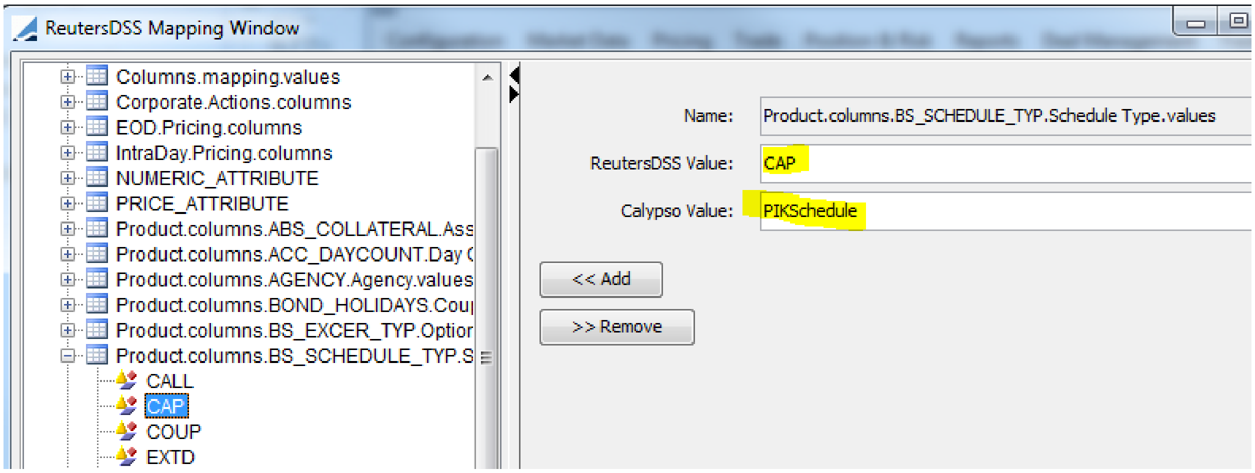


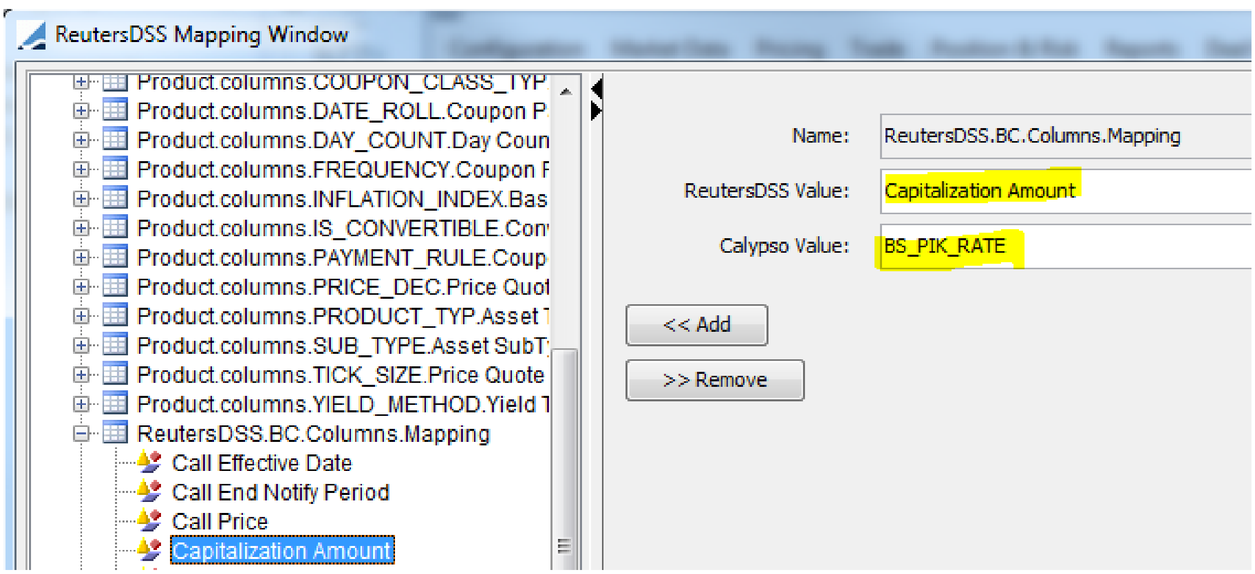
PIK/Capitalizaiton Schedule Support

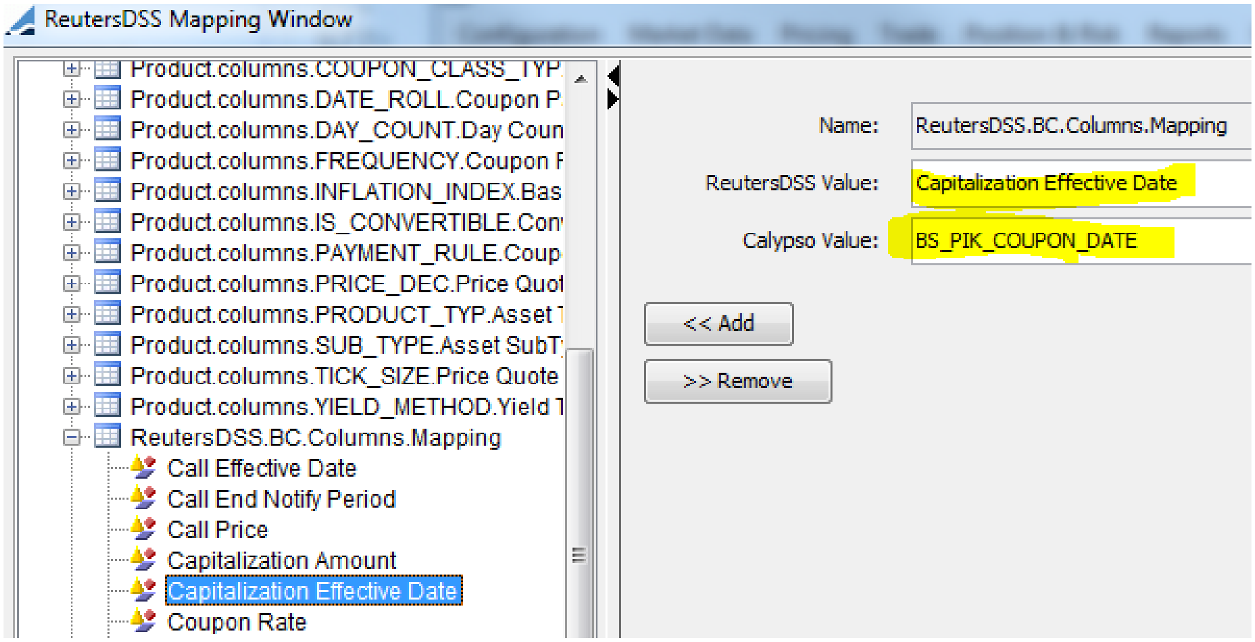
Support for Payment-In-Kind bonds was added in Calypso v15.1 onwards and PIK/capitalization schedules are now supported by RDSS module. Following mappings should exist for supporting PIK schedules:



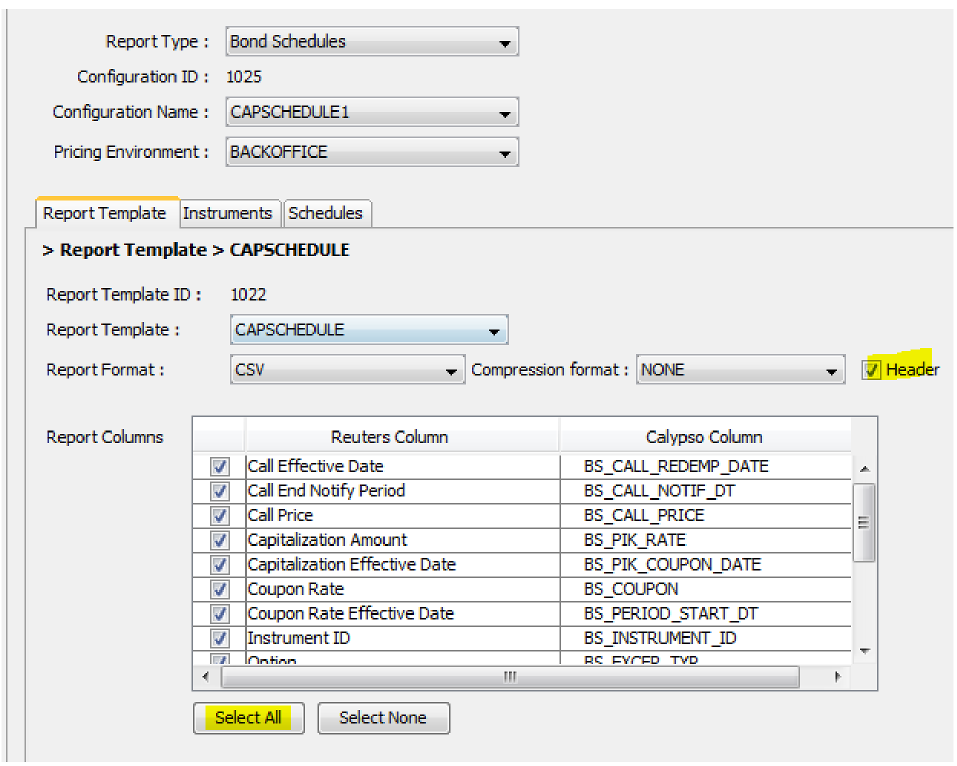

ReutersDSS Mapping Window
ReutersDSS Values
Bond.Schedules.columns
Call Effective Date
Call End Notify Period
Call Price
Capitalization Amount
Capitalization Effective Date
Name:
Bond.Schedules.columns
ReutersDSS Value:
Capitalization Effective Date
Calypso Value:
DATE_ATTRIBUTE


ReutersDSS Mapping Window
Columns.mapping.values
Corporate.Actions.columns
EOD.Pricing.columns
IntraDay.Pricing.columns
NUMERIC_ATTRIBUTE
PRICE_ATTRIBUTE
Product.columns.ABS_COLLATERAL.Ass
Product.columns.ACC_DAYCOUNT.Day C
Product.columns.AGENCY.Agency.values
Product.columns.BOND_HOLIDAYS.Cou
Product.columns.BS_EXCER_TYP.Optior
Product.columns.BS_SCHEDULE_TYP.S
CALL
CAP
COUP
EXTD
Name:
Product.columns.BS_SCHEDULE_TYP.Schedule Type.values
ReutersDSS Value:
CAP
Calypso Value:
PIKSchedule
<< Add
>> Remove

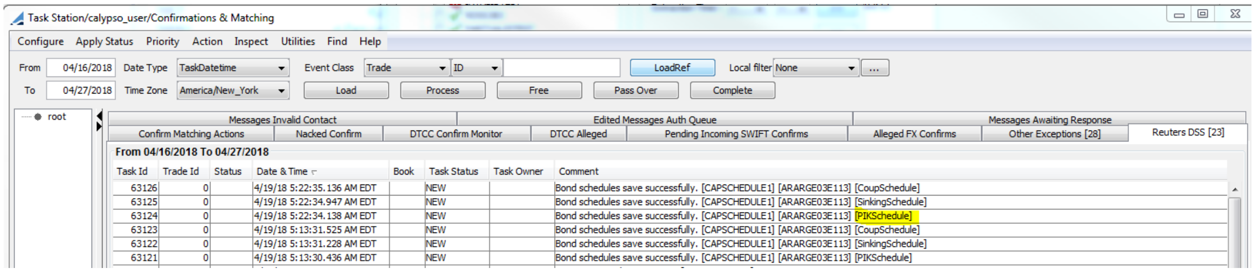

ReutersDSS Mapping Window
Product.columns.COUPON_CLASS_TYP
Product.columns.DATE_ROLL.Coupon P
Product.columns.DAY_COUNT.Day Coun
Product.columns.FREQUENCY.Coupon F
Product.columns.INFLATION_INDEX.Bas
Product.columns.IS_CONVERTIBLE.Con
Product.columns.PAYMENT_RULE.Coup
Product.columns.PRICE_DEC.Price Quot
Product.columns.PRODUCT_TYP.Asset T
Product.columns.SUB_TYPE.Asset SubT
Product.columns.TICK_SIZE.Price Quote
Product.columns.YIELD_METHOD.Yield T
ReutersDSS.BC.Columns.Mapping
Call Effective Date
Call End Notify Period
Call Price
Capitalization Amount
Name:
ReutersDSS.BC.Columns.Mapping
ReutersDSS Value:
Capitalization Amount
Calypso Value:
BS_PIK_RATE
<< Add
>> Remove



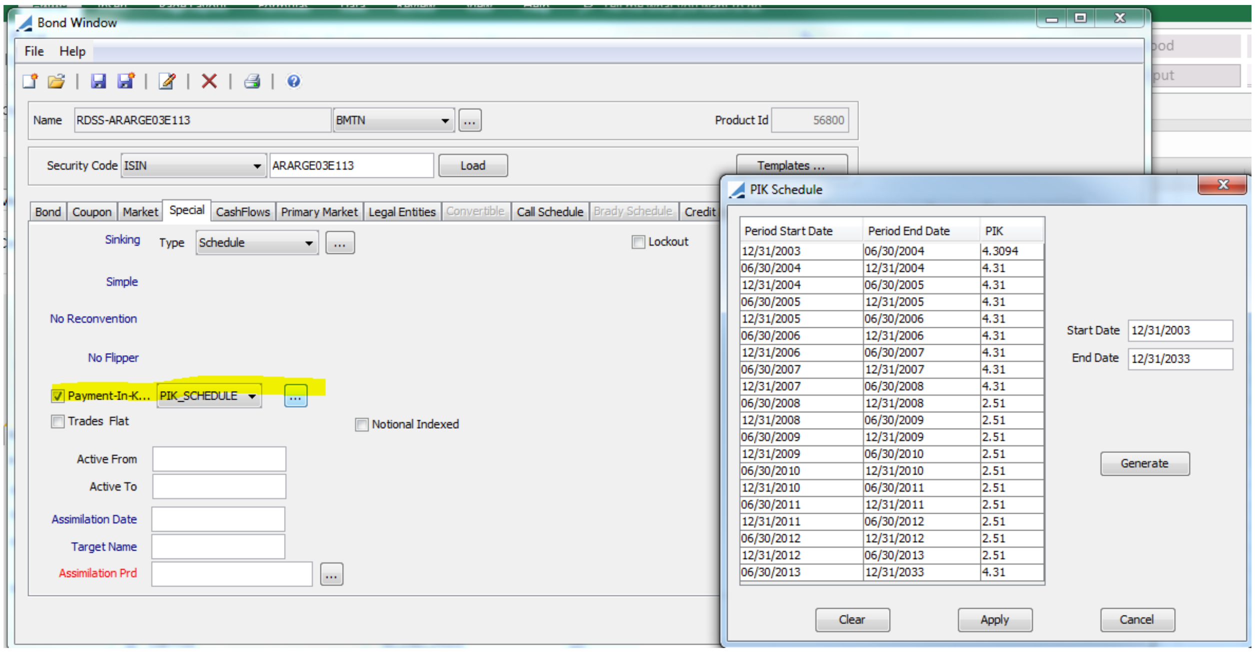
For creating the report template, “Capitalization Amount” and “Capitalization Effective Date” columns should be selected.



After successful import, Task Station will show the following logs



In the Bond Window, under “Special” tab, PIK Schedule will be set as follows:



Note: The schedule imported will be as sent by Reuters.

4.4.9 Corporate Actions

The following procedure explains the process to retrieve Corporate Actions data for equity products from Thomson Reuters DataScope Select.

Range retrieval is not supported.

From the Reuters DataScope Select Window:

- Select **Corporate Actions** from the Report Type dropdown listbox.
- Select a Report Template or create a new template.

  You can modify the template as needed.

- Navigate to the Instruments collapsible pane.

  Select an existing Instrument Template or create a new template.

  You can modify the template as needed.

The Identifier Type for Equity is RIC.

» Navigate to the Schedules collapsible pane.

Select an existing Schedule Template or create a new template.

You can modify the template as needed.

» On the Reuters DataScope Select Integration window, click **Save** to save the configuration. You will be prompted to enter a configuration name.

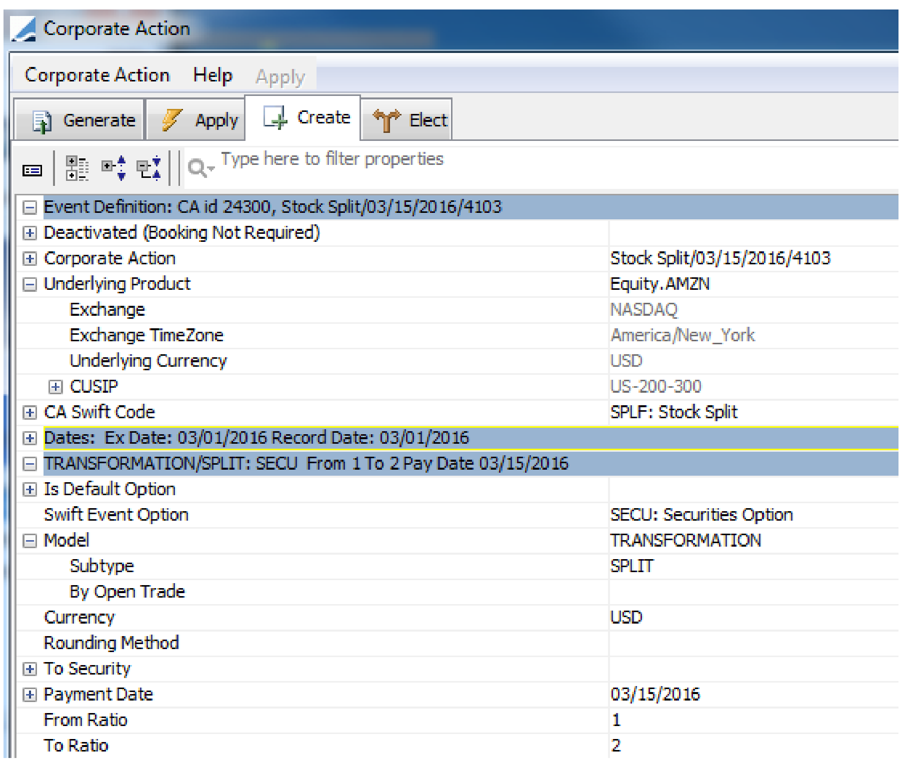
» Check that the configuration name is now present in the Configuration tree. Select the desired configuration and click **Upload** to trigger an event to send the configuration to the Reuters DataScope Server, and to also create a REUTERS_DSS_IMPORT scheduled task to perform the import operation.

If no errors occur during processing by the Reuters DataScope Select Server, when the request is ready, the configuration name icon will change to green indicating that there is data awaiting import into Calypso.

When the configured Execution time is reached, the Scheduling Engine executes the Reuters DataScope Import job to import data from the downloaded CSV file associated with this task.

A successfully completed scheduled task is indicated by the green check icon beside the configuration name on the Reuters DataScope Select window.

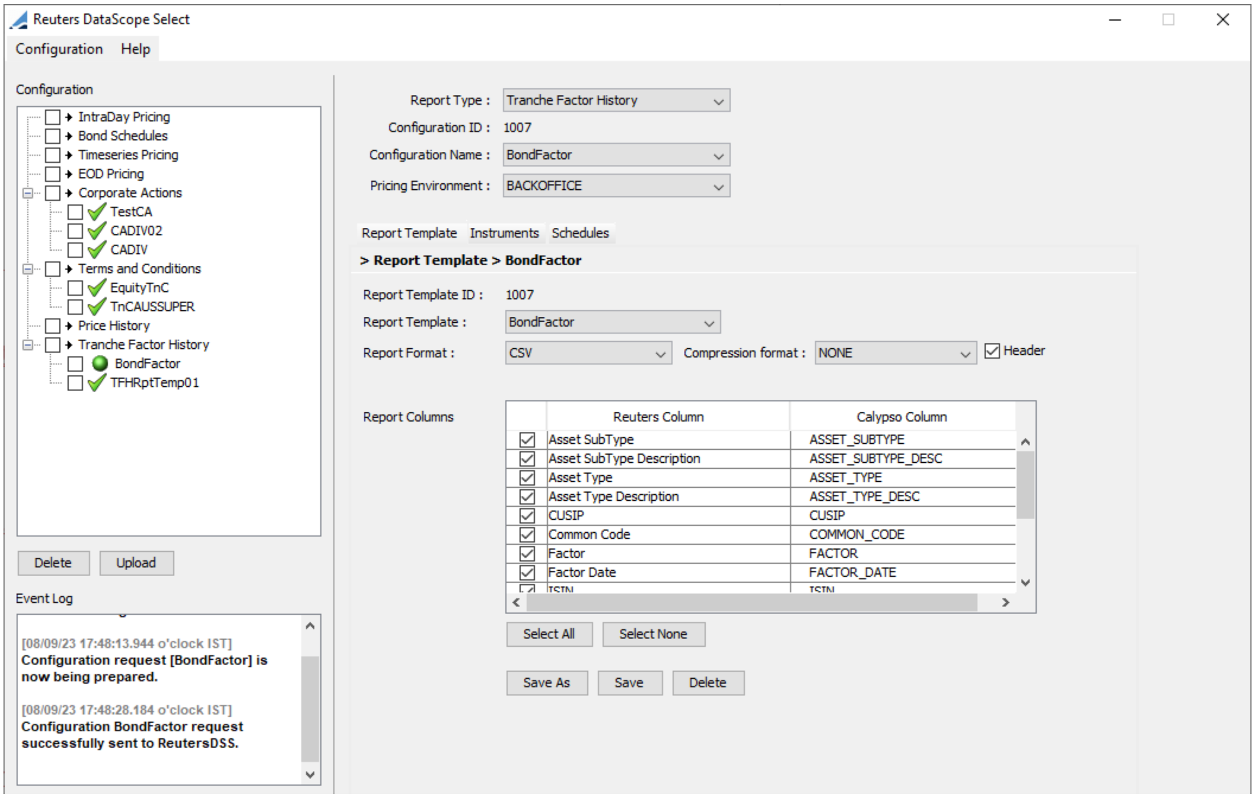
To verify the imported corporate action, launch the Corporate Action window (**Navigator > Trade Lifecycle > Corporate Action > Corporate Action**), and search the corporate action in the Create panel.



4.4.10 Tranche Factor History

The following procedure explains the process to retrieve bond factor schedule for Asset Backed bonds from Refinitiv DataScope Select.

From the Reuters DataScope Select Window:



- » Select **Trache Factor History** from the ReportType dropdown listbox.
- » Select a Report Template or create a new template.

  You can modify the template as needed.
- » Navigate to the Instruments collapsible pane.

  Select an existing Instrument Template or create a new template.

  You can modify the template as needed.

  The Identifier Type for Bonds is ISIN.
- » Navigate to the Schedules collapsible pane.

  Select an existing Schedule Template or create a new template.

  You can modify the template as needed.
- » On the Reuters DataScope select Integration window, click **Save** to save the configuration. You will be prompted to enter a configuration name.

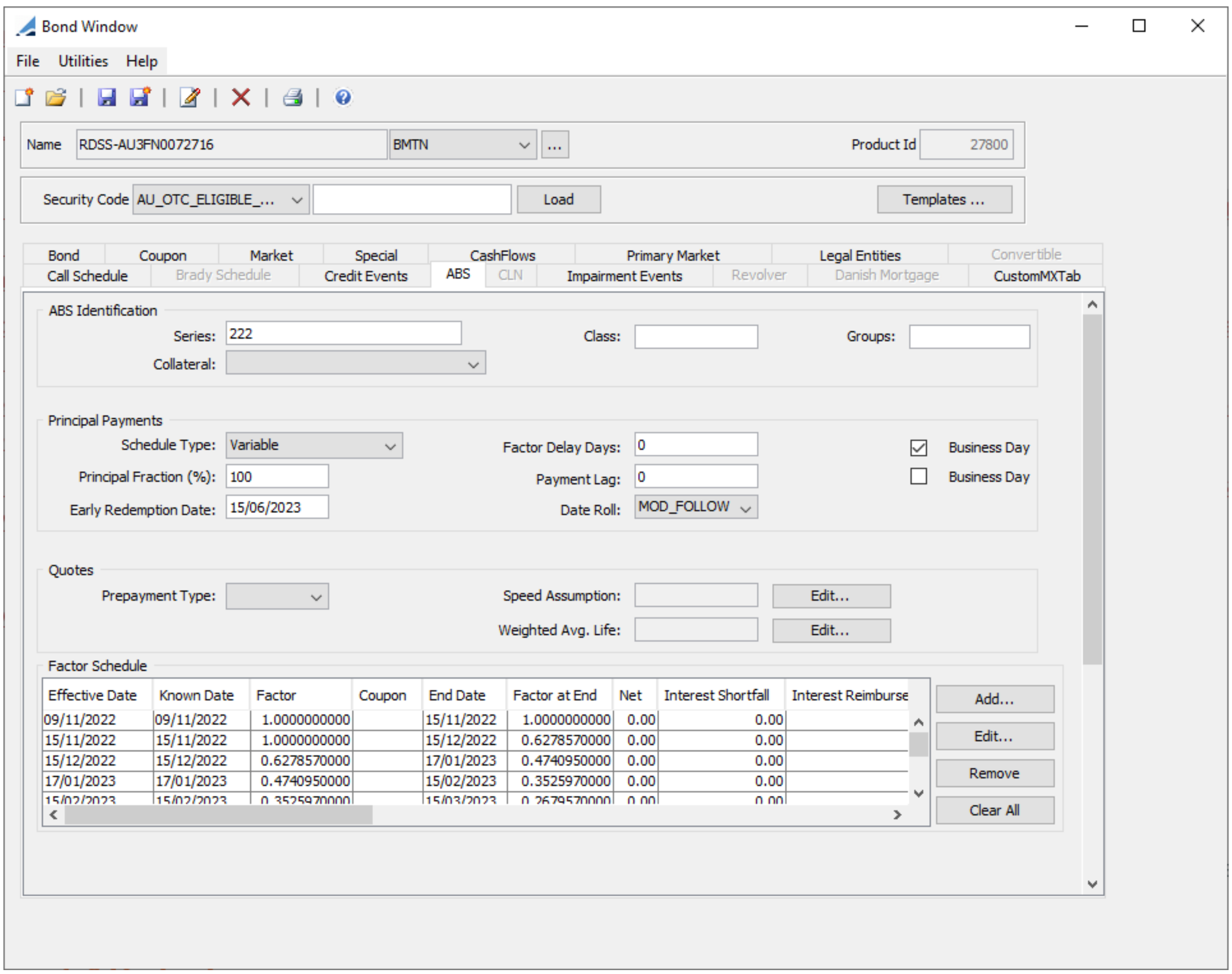
» Check that the configuration name is now present in the Configuration tree. Select the desired configuration and click **Upload** to trigger an event to send the configuration to the Reuters DataScope Server, and to also create a REUTERS_DSS_IMPORT scheduled task to perform the import operation.

If no errors occur during processing by the Reuters DataScope Select Server, when the request is ready, the configuration name icon will change to green indicating that there is data awaiting import into Calypso.

When the configured Execution time is reached, the Scheduling Engine executes the Reuters DataScope Import job to import data from the downloaded CSV file associated with this task.

A successfully completed scheduled task is indicated by the green check icon beside the configuration name on the Reuters DataScope Select window.

You can launch the Bond Window to verify an imported bond factor schedule (**Navigator > Configuration > Fixed Income > Bond Product Definition**).



Data Mapping Reference

The Reuters DSS Integration module requests data using predefined attributes that comply with the Reuters DataScope Select request specifications.

5.1 RDSS Data Types and Attributes

The Reuters DSS Integration module currently supports the following Reuters data types.

PRICE_ATTRIBUTE

- Capitalization: None
- Data field type: Numeric
- Decimal places: 5
- Decimal separator: . (period)
- Integer places: 12
- Justification: Left
- Leading zeroes: No
- Negative position: Before
- Thousand separator: No
- Trailing zeroes equals: No

DATE_ATTRIBUTE

- Capitalization: none
- Data field type: Date
- Date format: MM/dd/yyyy
- Justification: Left

NUMERIC_ATTRIBUTE

- Capitalization: None
- Data field type: Numeric
- Decimal places: 6
- Decimal separator: . (period)
- Integer places: 12
- Justification: Left
- Leading zeroes: No
- Negative position: Before
- Thousand character: , (comma)
- Thousand separator: Yes

- Trailing zeroes: No

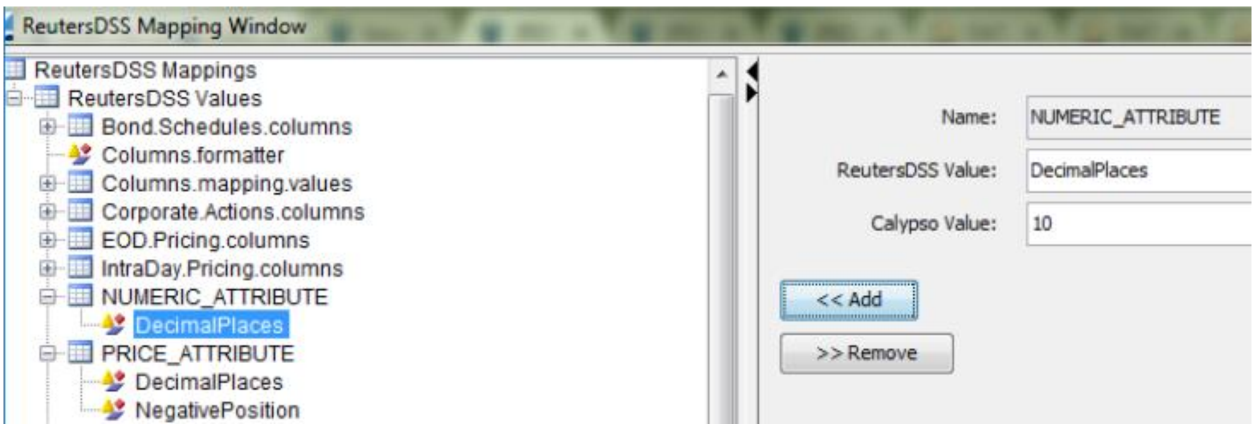
TEXT_ATTRIBUTE

- Capitalization: None
- Data field type: Text
- Justification: Left

The values shown above are the default values. They can be edited using the following mechanism.

1. Add the field you want to edit to the domain “<attribute>”. For example, add DecimalPlaces to the domain “NUMERIC_ATTRIBUTE”.

2. The field will appear in the Mapping Window where you can set its value.



5.2 Mapping Fields Reference

EOD Pricing

Calypso UI Field	Reuters Field	Calypso Reuters Interface Field	Reuters Data Type
BID_PRICE	Bid Price	BID_PRICE	PRICE_ATTRIBUTE
ASK_PRICE	Ask Price	ASK_PRICE	PRICE_ATTRIBUTE
OPEN_PRICE	Open Price	OPEN_PRICE	PRICE_ATTRIBUTE
CLOSE_PRICE	Close Price	CLOSE_PRICE	PRICE_ATTRIBUTE
HIGH_PRICE	High Price	HIGH_PRICE	PRICE_ATTRIBUTE
LOW_PRICE	Low Price	LOW_PRICE	PRICE_ATTRIBUTE
QUOTES_DATE	Trade Date	QUOTES_DATE	DATE_ATTRIBUTE
FEED_ADDRESS	Instrument ID	FEED_ADDRESS	TEXT_ATTRIBUTE
QUOTES_DESC	Security Description	QUOTES_DESC	TEXT_ATTRIBUTE
EXCHANGE_CODE	Exchange code	EXCHANGE_CODE	TEXT_ATTRIBUTE

IntraDay Pricing

IntraDay Pricing have CLOSE_PRICE from Reuters.

Calypso UI Field	Reuters Field	Calypso Reuters Interface Field	Reuters Data Type
BID_PRICE	Bid Price	BID_PRICE	PRICE_ATTRIBUTE
ASK_PRICE	Ask Price	ASK_PRICE	PRICE_ATTRIBUTE
OPEN_PRICE	Open Price	OPEN_PRICE	PRICE_ATTRIBUTE
HIGH_PRICE	High Price	HIGH_PRICE	PRICE_ATTRIBUTE
LOW_PRICE	Low Price	LOW_PRICE	PRICE_ATTRIBUTE
QUOTES_DATE	Trade Date	QUOTES_DATE	DATE_ATTRIBUTE
FEED_ADDRESS	Instrument ID	FEED_ADDRESS	TEXT_ATTRIBUTE
QUOTES_DESC	Security Description	QUOTES_DESC	TEXT_ATTRIBUTE
EXCHANGE_CODE	Exchange code	EXCHANGE_CODE	TEXT_ATTRIBUTE

TimeSeries Pricing

Calypso UI Field	Reuters Field	Calypso Reuters Interface Field	Reuters Data Type
BID_PRICE	Bid Price	BID_PRICE	PRICE_ATTRIBUTE
ASK_PRICE	Ask Price	ASK_PRICE	PRICE_ATTRIBUTE
OPEN_PRICE	Open Price	OPEN_PRICE	PRICE_ATTRIBUTE
CLOSE_PRICE	Close Price	CLOSE_PRICE	PRICE_ATTRIBUTE
HIGH_PRICE	High Price	HIGH_PRICE	PRICE_ATTRIBUTE
LOW_PRICE	Low Price	LOW_PRICE	PRICE_ATTRIBUTE
QUOTES_DATE	Trade Date	QUOTES_DATE	DATE_ATTRIBUTE
FEED_ADDRESS	Instrument ID	FEED_ADDRESS	TEXT_ATTRIBUTE
QUOTES_DESC	Security Description	QUOTES_DESC	TEXT_ATTRIBUTE
EXCHANGE_CODE	Exchange code	EXCHANGE_CODE	TEXT_ATTRIBUTE

Price History

Calypso UI Field	Reuters Field	Calypso Reuters Interface Field	Reuters Data Type
BID_PRICE	Bid Price	BID_PRICE	PRICE_ATTRIBUTE

Calypso UI Field	Reuters Field	Calypso Reuters Interface Field	Reuters Data Type
ASK_PRICE	Ask Price	ASK_PRICE	PRICE_ATTRIBUTE
OPEN_PRICE	Open Price	OPEN_PRICE	PRICE_ATTRIBUTE
CLOSE_PRICE	Last Trade Price	CLOSE_PRICE	PRICE_ATTRIBUTE
HIGH_PRICE	High Price	HIGH_PRICE	PRICE_ATTRIBUTE
LOW_PRICE	Low Price	LOW_PRICE	PRICE_ATTRIBUTE
QUOTES_DATE	Trade Date	QUOTES_DATE	DATE_ATTRIBUTE
FEED_ADDRESS	Instrument ID	FEED_ADDRESS	TEXT_ATTRIBUTE
QUOTES_DESC	Security Description	QUOTES_DESC	TEXT_ATTRIBUTE
EXCHANGE_CODE	Exchange code	EXCHANGE_CODE	TEXT_ATTRIBUTE

Terms and Conditions - Common Fields

Calypso UI Field	Reuters Field	Calypso Reuters Interface Field	Reuters Data Type
	Asset Type	PRODUCT_TYP	TEXT_ATTRIBUTE
	Agency	AGENCY	NUMERIC_ATTRIBUTE
	Bridge Symbol	BRIDGE_SYMBOL	TEXT_ATTRIBUTE
	DEFAULT#QUOTE_TYPE#Price	QUOTE_TYPE	
	Debt Type	DEBT_TYP	TEXT_ATTRIBUTE
	Ex-dividend Value	EX_DIV	NUMERIC_ATTRIBUTE

Terms and Conditions – Equity Fields

Calypso UI Field	Reuters Field	Calypso Reuters Interface Field	Reuters Data Type
Name	Company Name	NAME	TEXT_ATTRIBUTE
Corporate	Issuer Name	LEGAL_ENTITY	TEXT_ATTRIBUTE
Country	Country of Incorporation	COUNTRY	TEXT_ATTRIBUTE
Currency	Currency Code	CURRENCY	TEXT_ATTRIBUTE
Exchange	Exchange Code	EXCHANGE	TEXT_ATTRIBUTE
Total Issued	Shares Amount	TOTAL_ISSUED	NUMERIC_ATTRIBUTE
Trading Size	Round Lot Size	TRADING_SIZE	NUMERIC_ATTRIBUTE
SubType		Default#Standard /SUB_TYPE	

Calypso UI Field	Reuters Field	Calypso Reuters Interface Field	Reuters Data Type
Quote Type		Default#Price	
Nominal Decimals		Default#0	
Comment			
CODE#CUSIP	CUSIP	CODE#CUSIP	TEXT_ATTRIBUTE
CODE#ISIN	ISIN	CODE#ISIN	TEXT_ATTRIBUTE
CODE#TICKER	TICKER	CODE#TICKER	TEXT_ATTRIBUTE
CODE#RICS	RIC	CODE#RICS	TEXT_ATTRIBUTE
CODE#Feed		Default#Reuters DSS	
Pay Dividend		Default#false	
Equity Status		Default#PENDING	
Legal Entities	Issuer Name	LEGAL_ENTITY	TEXT_ATTRIBUTE
Product Type	Usage Instrument Type	USG_INS_TYP	TEXT_ATTRIBUTE

Terms and Conditions – Bond – Bond Tab

Calypso UI Field	Reuters Field	Calypso Reuters Interface Field	Reuters Data Type
Bond Type		PROD_TYPE	
Bond Subtype		SUB_TYPE	
Issue Date	Accrual Date	ISSUE_DATE	DATE_ATTRIBUTE
Dated Date	Accrual Date	DATED_DATE	DATE_ATTRIBUTE
Maturity Date	Maturity Date	MATURITY_DATE	DATE_ATTRIBUTE
Issuer	Issuer Short Name	BOND_ISSUER	TEXT_ATTRIBUTE
Country	Country of Issuance	COUNTRY_ISSUE	TEXT_ATTRIBUTE
Issue Price	Issue Price	ISSUE_PRICE	NUMERIC_ATTRIBUTE
Currency	Currency Code	CURRENCY	TEXT_ATTRIBUTE
Redem. Price	Redemption Value	REDEM_PRICE	NUMERIC_ATTRIBUTE
Redem. Curr.	Currency Code	REDEM_CURR	TEXT_ATTRIBUTE
Total Issued	Original Issue Amount	BOND_TOTAL_ISSUED	NUMERIC_ATTRIBUTE
Face Value	Denomination Increment	FACE_VALUE	NUMERIC_ATTRIBUTE
CODE#ISIN	ISIN		TEXT_ATTRIBUTE
CODE#TICKER	TICKER		TEXT_ATTRIBUTE
CODE#RICS	RIC		TEXT_ATTRIBUTE

Calypso UI Field	Reuters Field	Calypso Reuters Interface Field	Reuters Data Type
CODE#CUSIP	CUSIP		TEXT_ATTRIBUTE
CODE#Feed	Default#Reuters DSS		
Comment	Type#<Reuters Col>;<Reuters Col>	BOND_COMMENT	
Min. Purchase Amt	Minimum Denomination	MIN_PURCHASE_AMT	TEXT_ATTRIBUTE
Bond Status		Default#PENDING / BOND_STATUS	

Terms and Conditions – Bond – Coupon Tab

Calypso UI Field	Reuters Field	Calypso Reuters Interface Field	Reuters Data Type
Fixed Rate	Net Coupon	FIXED_RATE	NUMERIC_ATTRIBUTE
Ccy	Coupon Currency	COUPON_CCY	TEXT_ATTRIBUTE
Quoting Ccy		QUOTING_CCY	TEXT_ATTRIBUTE
Daycount	DayCount Code	DAY_COUNT	NUMERIC_ATTRIBUTE
Spread	Float Offset	SPREAD	NUMERIC_ATTRIBUTE
Index	Float Index type	INDEX	TEXT_ATTRIBUTE
Reset Days			
Rate Index Factor	Float Multiplier		
Reset Bus Lag			
Reset In Arrear			
Reset Holidays			
Reset Dec.		BOND_RESET_DEC	
Holidays	Coupon Payment Holiday Convention Code	HOLIDAYS	TEXT_ATTRIBUTE
Roll Day		ROLL_DAY	
Payment Lag		PAYMENT_LAG	
Business Day Flag		BUS_DAY_FLAG	
Payment Rule	Coupon Payment Rule Code	PAYMENT_RULE	TEXT_ATTRIBUTE
Date Roll	Coupon Payment Rule Code	DATE_ROLL	TEXT_ATTRIBUTE
Frequency	Coupon Frequency	FREQUENCY	NUMERIC_ATTRIBUTE
Pre-Paid		PRE_PAID	

Calypso UI Field	Reuters Field	Calypso Reuters Interface Field	Reuters Data Type
Compound Frequency		COMPOUND_FREQ	
Method		METHOD	
Acc Daycount	Day Count Code	ACC_DAYCOUNT	NUMERIC_ATTRIBUTE
Use In Stubs		USE_IN_STUB	
Use Date Rule		USE_DATE_RULE	
Stub Start	First Coupon Date	STUB_START	DATE_ATTRIBUTE
Stub End	Last Coupon Date	STUB_END	DATE_ATTRIBUTE
	Coupon Type	COUPON_TYP	TEXT_ATTRIBUTE

Terms and Conditions – Bond – Market Tab

Calypso UI Field	Reuters Field	Calypso Reuters Interface Field	Reuters Data Type
Settle Days	Days to Settle	SETTLE_DAYS	NUMERIC_ATTRIBUTE
Accruals Days	Days to Settle	ACCURAL_DAYS	NUMERIC_ATTRIBUTE
Ex-Dividend		EX_DIV	
Ex-Dividend BUS		EX_DIV_BUS	
Record Days		RECORD_DAYS	
Accrual Digits		ACCRUAL_DIGITS	
Price Dec.	Price Quote Rounding	PRICE_DEC	TEXT_ATTRIBUTE
Yield Dec.		YIELD_DEC	
Nominal Dec.		NOMINAL_DEC	
Coupon Rate Dec.		COUPON_RATE_DEC	
Capitalization Dec.		CAPITALIZATION_DEC	
Reset Dec.		BOND_MARKET_RESET_DEC	
Announce Date	Announce Date	ANNOUNCE_DT	DATE_ATTRIBUTE
Auction Date	Auction Date	AUCTION_DT	DATE_ATTRIBUTE
Default Date	Bankruptcy File Date	DEFAULT_DT	DATE_ATTRIBUTE
Withholding Tax	Withholding Tax	WITHHOLD_TAX	NUMERIC_ATTRIBUTE
Apply Withholding Tax			

Calypso UI Field	Reuters Field	Calypso Reuters Interface Field	Reuters Data Type
When Issue Bond		WHN_BOND_ISSUE	
Tick Size	Price Quote Convention	TICK_SIZE	TEXT_ATTRIBUTE
Yield Method	Yield Type	YIELD_METHOD	TEXT_ATTRIBUTE
Quote Type		QUOTE_TYPE	
Issue Paying Agent		ISSUE_PAY_AGENT	
Calculator Agent		CALC_AGENT	
Trustee		TRUSTEE	
Commission Paid		COMMISSION_PAID	
Benchmark Name		BENCHMARK_NAME	
Future Contract		FUTURE_CONTRACT	

Terms and Conditions – Bond – Special Tab

Calypso UI Field	Reuters Field	Calypso Reuters Interface Field	Reuters Data Type
Bullet/ Amortizing/ Sinking		BULLET_TYP	
Amortizing Type		AMORTIZING_TYP	
Sinking Type		SINKING_TYP	
Simple/ Floater	Floater Flag	FLOATER_FLAG	TEXT_ATTRIBUTE
Floater Type	Float Life Cap/ Float Life Floor	FLOATER_CAP	
Cap	Float Life Cap	CAP_VAL	NUMERIC_ATTRIBUTE
Floor	Float Life Floor	FLOAT_VAL	NUMERIC_ATTRIBUTE
No Reconvention/ Reconventioned		RECONVENTION_FLAG	
Reconventioned Date		RECONVENTION_DATE	
Reconventioned DayCount		RECONVENTION_DAYCNT	
No Flipper/ Flipper		FLIPPER_FLAG	
Flipper Date		FLIPPER_DATE	
Flipper Details			

Calypso UI Field	Reuters Field	Calypso Reuters Interface Field	Reuters Data Type
Trades Flat		TRADE_FLAT_VAL	
Distress Date			
Inflation Indexed	Inflation Protected Flag	INFLATION_INDEX_FLAG	TEXT_ATTRIBUTE
Inflation Index	Base Index	INFLATION_INDEX	TEXT_ATTRIBUTE
Guaranteed Notional		GURANTEE_NOTIONAL_FLAG	
Idx Value	Index Linked Bond Base CPI	INDEX_VALUE	NUMERIC_ATTRIBUTE
Rounding		ROUNDING	
Rounding Method		ROUNDING_METHOD	
Active From		ACTIVE_FROM	
Active To		ACTIVE_TO	
Assimilation Date		ASSIM_DATE	
Target Name		TARGET_NAME	
Assimilation Product		ASSIM_PODUCT	
Link to Basket		LINK_TO_BASKET	
Basket Name		BASKET_NAME	

Terms and Conditions – Bond – CLN Tab

Calypso UI Field	Reuters Field	Calypso Reuters Interface Field	Reuters Data Type
Reference Entity Type	<Default>#Single Name	REFERENCE_ENTITY_TYP	
Protection Type	<Default>#None	PROTECTION_TYP	
Issuer	Security Description	CLN_ISSUER	TEXT_ATTRIBUTE
Seniority	Seniority Code	CLN_SENIORITY	TEXT_ATTRIBUTE
Rating		CLN_RATING	

Terms and Conditions – Bond – ABS Tab

Calypso UI Field	Reuters Field	Calypso Reuters Interface Field	Reuters Data Type
Series	Series	ABS_SERIES	TEXT_ATTRIBUTE
Class		ABS_CLASS	
Group		ABS_GROUP	

Calypso UI Field	Reuters Field	Calypso Reuters Interface Field	Reuters Data Type
Collateral	Asset Subtype	ABS_COLLATERAL	TEXT_ATTRIBUTE
Schedule Type		ABS_SCHEDULE_TYP	
Factor Delay Days		FACTOR_DELAY_DAYS	
Factor Delay Days Business Day Flag		FDD_BUS_DAY_FLAG	
Principal Fraction		PRINCIPAL_FRACTION	
Payment Lag		ABS_PAYMENT_LAG	
Variable Type Business Day Flag		PL_BUS_DAY_FLAG	
Early Redemption Date		ABS_EALY_REDEMP_DT	
Date Roll		ABS_DATE_ROLL	
Prepayment Type		ABS_PREPAYEMENT_TYP	
Speed Assumption		ABS_SPEED_ASSUMP	
Weight Avg. Life	Worst Average Life	ABS_WEIGHT_AVG_LIFE	NUMERIC_ATTRIBUTE
Effective Date	Factor Date	ABS_EFFECTIVE_DT	DATE_ATTRIBUTE
Known Date	Factor Date	ABS_KNOWN_DT	DATE_ATTRIBUTE
Factor	Factor	ABS_FACTOR	NUMERIC_ATTRIBUTE
Coupon		ABS_COUPON	
WAC		ABS_WAC	
WAM		ABS_WAM	
Interest Shortfall		ABS_INTEREST_SHORTFALL	
Interest Reim		ABS_INTEREST_REIM	
Principal Shortfall		ABS_PRINCIPAL_SHORTFALL	
Principal Reim		ABS_PRINCIPAL_REIM	
Writedown		ABS_WRITEDOWN	
Writedown Reim		ABS_WRITEDOWN_REIM	

Terms and Conditions – Bond – Convertible Tab

Calypso UI Field	Reuters Field	Calypso Reuters Interface Field	Reuters Data Type
Target Product	Conversion RIC	CONV_TARGET_PRD	TEXT_ATTRIBUTE
Target Code	Conversion RIC	CONV_TARGET_CODE	TEXT_ATTRIBUTE

Calypso UI Field	Reuters Field	Calypso Reuters Interface Field	Reuters Data Type
Issue Strike	Conversion Price	CONV_ISSUE_STRIKE	NUMERIC_ATTRIBUTE
Start	Conversion Terms Start Date	CONV_START_DT	DATE_ATTRIBUTE
End	Conversion Terms Start Date	CONV_END_DT	DATE_ATTRIBUTE
Type		CONV_TYPE	
Date		CONV_DATE	
Cap		CONV_CAP	
Floor		CONV_FLOOR	
Multiplier		CONV_MULTIPLIER	
Price Set		CONV_PRICE_SET	
Historical Price		CONV_HISTORICAL_PRICE	
	Convertible Flag	IS_CONVERTIBLE	TEXT_ATTRIBUTE

Bond Schedules – Bond – Coupon Schedule

Calypso UI Field	Reuters Field	Calypso Reuters Interface Field	Reuters Data Type
Coupon Class Type	Default#Variable	Default#Variable	
Coupon	Coupon Rate	BS_COUPON	NUMERIC_ATTRIBUTE
Period End Date	Coupon Rate Effective Date	BS_PERIOD_END_DT	DATE_ATTRIBUTE

Bond Schedules – Bond – Principal Schedule Tab

Calypso UI Field	Reuters Field	Calypso Reuters Interface Field	Reuters Data Type
Bullet/ Amortizing/ Sinking	Default#Sinking	Default#Sinking	
Sinking Type	Default#Schedule	Default#Schedule	
Notional	Sink Amount Unit and Sink Amount	BS_NOTIONAL and BS_NOTIONAL_UNIT	NUMERIC_ATTRIBUTE and TEXT_ATTRIBUTE
Date	Sink Date	BS_SINK_DATE	DATE_ATTRIBUTE

Bond Schedules – Bond – Conversion/Call Schedule Tab

Calypso UI Field	Reuters Field	Calypso Reuters Interface Field	Reuters Data Type
Effective Call			
Redemption Type			
Redemption Date	Call Effective Date/Put Effective Date	BS_CALL_REDEMP_DATE/ BS_PUT_REDEMP_DATE	DATE_ATTRIBUTE
Option Type	Schedule Type	BS_SCHEDULE_TYP	TEXT_ATTRIBUTE
Exercise Type	Option	BS_EXCER_TYP	TEXT_ATTRIBUTE
Notification Date	Call/Put End Notify period	BS_CALL_NOTIF_DT /BS_PUT_NOTIF_DT	NUMERIC_ATTRIBUTE
Price	Call Price/Put Price	BS_CALL_PRICE/ BS_PUT_PRICE	NUMERIC_ATTRIBUTE
Exercised?			
Redemption Amount			
Prior Notional			
Outstanding Amount			
Interest Clean Up			
Lottery Winner Redemptions			
Date			

Terms and Conditions – EquityIndex Fields

Calypso UI Field	Reuters Field	Calypso Reuters Interface Field	Reuters Data Type
Name	Company Name	NAME	TEXT_ATTRIBUTE
Country	Country of Incorporation	COUNTRY	TEXT_ATTRIBUTE
Currency	Currency Code	CURRENCY	TEXT_ATTRIBUTE
Exchange	Exchange Code	EXCHANGE	TEXT_ATTRIBUTE
Quote Type		Default#Price	
Nominal Decimals		Default#0	
Comment			
CODE#CUSIP	CUSIP	CODE#CUSIP	TEXT_ATTRIBUTE
CODE#ISIN	ISIN	CODE#ISIN	TEXT_ATTRIBUTE
CODE#TICKER	TICKER	CODE#TICKER	TEXT_ATTRIBUTE
CODE#RICS	RIC	CODE#RICS	TEXT_ATTRIBUTE
CODE#Feed		Default#Reuters DSS	

Terms and Conditions – ADR Fields

Calypso UI Field	Reuters Field	Calypso Reuters Interface Field	Reuters Data Type
Name	Company Name	NAME	TEXT_ATTRIBUTE
Country	Country of Incorporation	COUNTRY	TEXT_ATTRIBUTE
Currency	Currency Code	CURRENCY	TEXT_ATTRIBUTE
Exchange	Exchange Code	EXCHANGE	TEXT_ATTRIBUTE
Quote Type		Default#Price	
Nominal Decimals		Default#0	
Comment			
CODE#CUSIP	CUSIP	CODE#CUSIP	TEXT_ATTRIBUTE
CODE#ISIN	ISIN	CODE#ISIN	TEXT_ATTRIBUTE
CODE#TICKER	TICKER	CODE#TICKER	TEXT_ATTRIBUTE
Underlying	Underlying RIC	UNDERLYING_RIC	TEXT_ATTRIBUTE
CODE#RICS	RIC	CODE#RICS	TEXT_ATTRIBUTE
CODE#Feed		Default#Reuters DSS	

Tranche Factor History

Calypso UI Field	Reuters Field	Calypso Reuters Interface Field	Reuters Data Type
	Asset Type	ASSET TYPE	TEXT_ATTRIBUTE
	Asset Type Description	ASSET TYPE_DESC	TEXT_ATTRIBUTE
	Asset SubType	ASSET SUBTYPE	TEXT_ATTRIBUTE
	Asset SubType Description	ASSET SUBTYPE_DESC	TEXT_ATTRIBUTE
	CUSIP	CUSIP	TEXT_ATTRIBUTE
	Common Code	COMMON_CODE	TEXT_ATTRIBUTE
Factor	Factor	FACTOR	NUMERIC_ATTRIBUTE
Effective Date	Factor Date	FACTOR_DATE	DATE_ATTRIBUTE
	ISIN	ISIN	TEXT_ATTRIBUTE
	Instrument ID	INSTRUMENT_ID	TEXT_ATTRIBUTE
	Instrument ID Type	INSTRUMENT_ID_TYPE	TEXT_ATTRIBUTE
	Security Description	SECURITY_DESC	TEXT_ATTRIBUTE
	Ex-dividend Value	EX_DIV	NUMERIC_ATTRIBUTE

Troubleshooting

Check the ReutersDssEngine Log. Look for exceptions or warning messages.

Check the Calypso Task Station for errors or information on every request or import.

Check the Navigator Log. Look for exceptions or warning messages.

Check the SQL Monitor tab on the Admin Monitor Window to verify that insert, update, and select statements are executed correctly by Reuters DataScope Integration Module within Calypso.

Check the Scheduled Task report for the status of the Reuters import task.

Use the Admin Monitor window to check for unconsumed events on ReutersDSSengine.

MiFID keywords

Following MiFID keywords are supported for **Terms and Conditions – Bond** Task:

These keywords will be saved in the Product Code window of Calypso Bond Window UI.

MiFID Field Name	Description
MiFID Bond Seniority	Identifies the type of bond: senior debt, mezzanine, subordinated or junior
MiFID Bond Seniority Description	Description of the MiFID Bond Seniority
MiFID Bond Type	Bond type as per ESMA definitions
MiFID Bond Type Description	Description of the MiFID Bond Type
MiFID COFIA Liquidity Flag	MiFID liquidity indicator for new bond issues
MiFID Complex Instrument Flag	Flag indicating whether the instrument is complex
MiFID Complex Instrument Reason	Explains why the complex marker has been assigned
MiFID Index Identifier	Identifier of the index/benchmark of a floating rate bond
MiFID Index Name	Where no identifier exists, name of the index. Field to provide ESMA specific name of the index
MiFID Index Term	Term of the index/benchmark of a floating rate bond
MiFID Trading Admission Approval Date	Date and time the issuer has approved admission to trading or trading in its financial instruments on a trading venue
MiFID Trading Admission Request Date	Date and time of the request for admission to trading on the trading venue
MiFID Post Trade LIS Threshold Floor	Threshold floor to be applied for the calculation of post-trade LIS thresholds for the sub-classes determined to have a liquid market
MiFID Post Trade LIS Threshold Value	Post-trade LIS thresholds for the sub-classes determined not to have a liquid market
MiFID Post Trade LIS Trade Percentile	Trade percentile to be applied for the calculation of post-trade LIS thresholds for the sub-classes determined to have a liquid market
MiFID Post Trade LIS Volume Percentile	Volume percentile to be applied for the calculation of post-trade LIS thresholds for the sub-classes determined to have a liquid market
MiFID Pre Trade LIS Threshold Floor	Threshold floor to be applied for the calculation of pre-trade LIS thresholds for the sub-classes determined to have a liquid market
MiFID Pre Trade LIS Threshold Value	Pre-trade LIS thresholds for the sub-classes determined not to have a liquid market

MiFID Field Name	Description
MiFID Pre Trade LIS Trade Percentile	Trade percentile to be applied for the calculation of pre-trade LIS thresholds for the sub-classes determined to have a liquid market
MiFID Post Trade SSTI Threshold Floor	Threshold floor to be applied for the calculation of post-trade SSTI thresholds for the sub-classes determined to have a liquid market
MiFID Post Trade SSTI Threshold Value	Post-trade SSTI thresholds for the sub-classes determined not to have a liquid market
MiFID Post Trade SSTI Volume Percentile	Volume percentile to be applied for the calculation of post-trade SSTI thresholds for the sub-classes determined to have a liquid market
MiFID Post Trade SSTI Trade Percentile	Trade percentile to be applied for the calculation of post-trade SSTI thresholds for the sub-classes determined to have a liquid market
MiFID Pre Trade SSTI Threshold Floor	Threshold floor to be applied for the calculation of pre-trade SSTI thresholds for the sub-classes determined to have a liquid market
MiFID Pre Trade SSTI Threshold Value	Pre-trade SSTI thresholds for the sub-classes determined not to have a liquid market
MiFID Post Trade SSTI Volume Percentile	Volume percentile to be applied for the calculation of post-trade SSTI thresholds for the sub-classes determined to have a liquid market
MiFID Post Trade SSTI Trade Percentile	Trade percentile to be applied for the calculation of post-trade SSTI thresholds for the sub-classes determined to have a liquid market
MiFID Pre Trade SSTI Threshold Floor	Threshold floor to be applied for the calculation of pre-trade SSTI thresholds for the sub-classes determined to have a liquid market
MiFID Pre Trade SSTI Threshold Value	Pre-trade SSTI thresholds for the sub-classes determined not to have a liquid market
MiFID Pre Trade SSTI Trade Percentile	Trade percentile to be applied for the calculation of pre-trade SSTI thresholds for the sub-classes determined to have a liquid market
MiFID Issuance Date - ESMA	Date of issue for ETNs and ETCs
MiFID Index Name - ESMA	Value provided by ESMA. Term of the index/benchmark of a floating rate bond. The term shall be expressed in days, weeks, months or years
CFI Code	Code indicating the ISO10962 standard for the security classification