



Nasdaq Calypso

FOW Integration Guide

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Approved

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Document History

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1.0	September 2015	First revision for version 1.0.1.
2.0	July 2016	Updates for version 1.1.3.
3.0	November 2018	Updates for version 2.4.0.
4.0	May 2019	Updates for version 2.2.12.
5.0	January 2020	Updates for version 2.4.2.
6.0	August 2020	Updates for version 2.4.3./
7.0	January 2021	Updates for version 2.2.13, 2.2.14, 2.4.4, 2.4.5, 2.4.6
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11.0	September 2021	Updates for version 3.1.0
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22.0	November 2022	Updates for version 4.8.0 Also, release notes are moved to their own document
23.0	January 2023	Updates for version 4.9.0
24.0	November 2023	Updates for version 4.14.0
25.0	January 2024	Updates for version 5.7.0 (compatibility with version 18)
26.0	April 2024	Updates for version 5.10.0 – Enhanced lock feature for contract fields
27.0	May 2024	Updates for version 5.10.0 - Lock feature for contract fields being getting overridden
28.0	July 2024	Updates for version 5.12.0 – Added CascadeFrom mapping
29.0	August 2024	Updates for version 5.13.0 – Added DefaultStaticValue mapping
30.0	April 2025	Updates for version 5.18.0- Added FOW/ProductTypeAttributes mapping.

This document describes the setup requirements to operate the Futures & Options World Interface.

[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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Overview

The FOW Interface allows importing Future and Future Option contract definitions from FOW using a scheduled task.

1.1 Supported JDK Versions

Please refer to the Calypso Hardware and Software Recommendations Guide.

1.2 Supported Calypso Versions

Please refer to the Calypso Cumulative Release Notes for modules compatibility information.

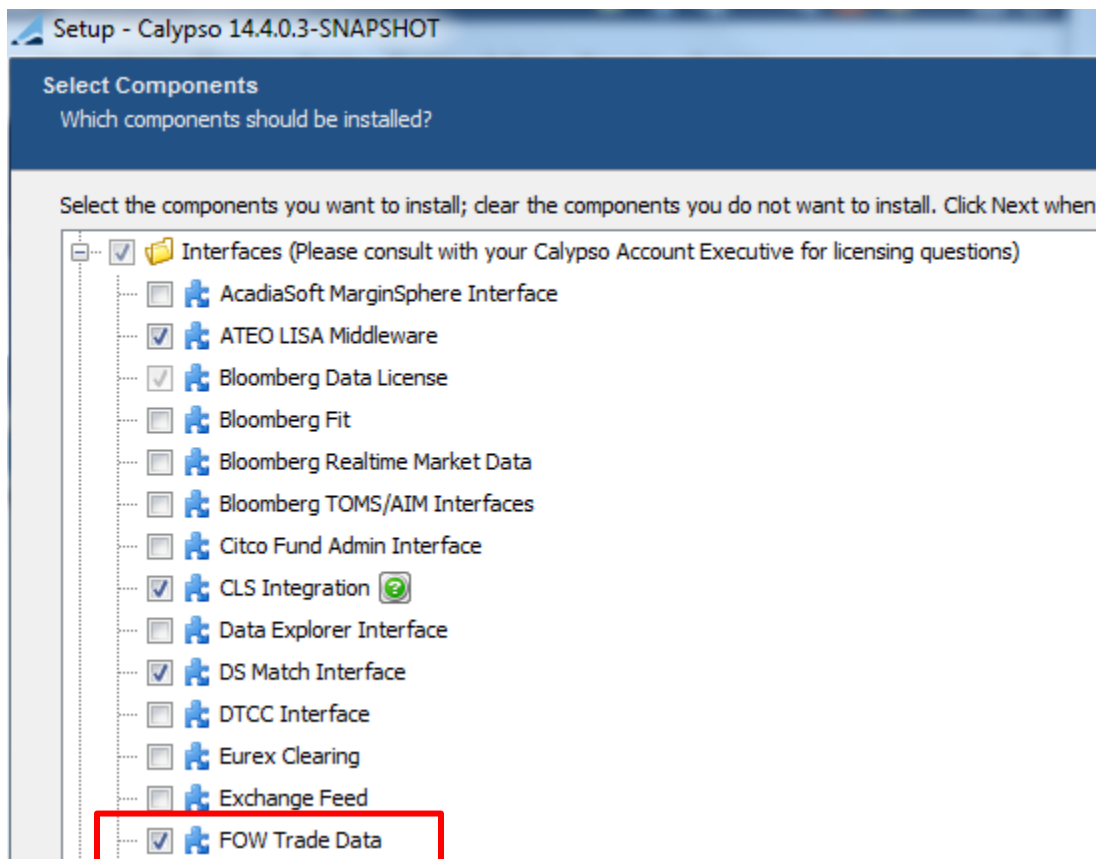
1.3 Libraries Required

The FOW interface is dependent on the Calypso Data Uploader.

Installation

2.1 Software Installation

The FOW interface is installed as part of the Calypso Installer when you select the “FOW Trade Data” interface:



Please refer to the Calypso Installation Guide for complete details on the Calypso Installer.

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

Database Upgrade

When you run Execute SQL as part of your installation, the FOW files will be already loaded. You just need to check “FOW” in addition to the checkboxes for your other modules and interfaces.

2.2 Property Files

If running the FOW Import process in the mode where you want the Scheduled Task to fetch the data files from an external source, as opposed to manually loading the file into a local file folder, the properties files below must be configured.

Add connectivity details in the file "`<calypso home>/client/resources/calypso_fow_config.properties`".

This file needs to be renamed from "`calypso_fow_config.properties.sample`" to "`calypso_fow_config.properties`".

```
FOW.URI=sftp://sftp.fowtradedata.com:22
FOW.username=calypso1
FOW.password=xyz
FOW.location=
```

Fow.location (optional): Location of the file on ftp server e.g. refdata so it will search in refdata directory for the file names specified in the schedule task.

Note that the values used for username and password are just examples and will be specific to your access details for the FTP site.

 **Note: The values used for username and password are just examples and will be specific to your access details for the FTP site.**

In addition, the file "`<calypso home>/client/resources/gatewayservices.properties.sample`" should be renamed "`<calypso home>/client/resources/gatewayservices.properties`".

Copy the property and configuration files to `<calypso home>/custom-extensions/custom-projects/custom-shared-lib/src/calypso/resources`.

You will then need to deploy the files to your applications servers.

Please refer to the Calypso Installation Guide for details.

Setup Requirements

3.1 Default Contract Underlyings

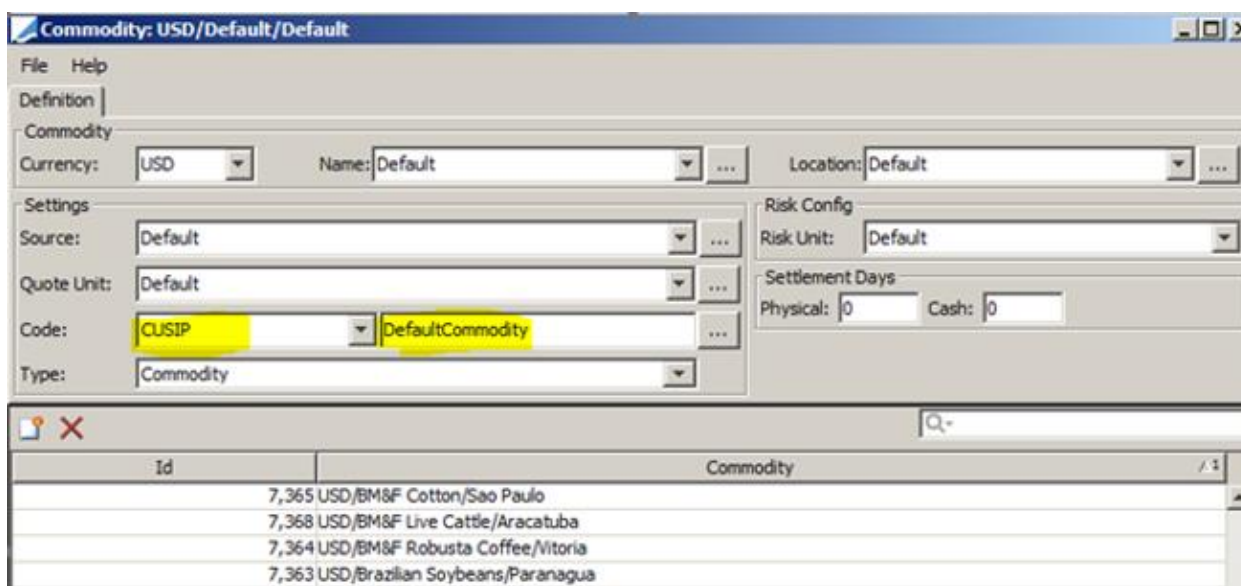
3.1.1 Default Contract Underlyings – Commodity, Equity, Equity Index

Calypso ETD products require a reference to an underlying asset in order to be successfully created in the database. This underlying is primarily used for physical delivery, so its specific details are not critical to Back Office processes such as IM/VM calculation, position management or reporting. As a backstop, the user should choose a given underlying product as their desired default, and add a definition and have that underlying selected as the underlying for the contract.

This logic applies to commodity, equity, and equity index products, and the 'CUSIP' Product Code is used to hold the expected value from the table below.

Asset Class	CUSIP Product Code Value
Commodity	DefaultCommodity
Equity	DefaultEquity
EquityIndex	DefaultEquityIndex

For example, the underlying below would be recognized as the default due to the value of "DefaultCommodity" in the CUSIP code field:

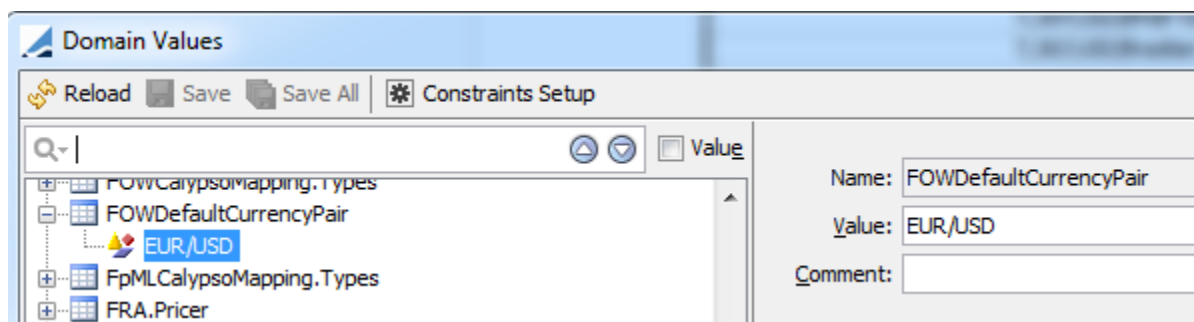


Id	Commodity
7,365	USD/BM&F Cotton/Sao Paulo
7,368	USD/BM&F Live Cattle/Aracatuba
7,364	USD/BM&F Robusta Coffee/Vitoria
7,363	USD/Brazilian Soybeans/Paranagua

3.1.2 Default Contract Underlyings – FX

FX products use a different logic to populate the underlying currency pair on an FX future or ETO, as described in the order below.

- If the “ContractName” field in the reference data file provides a currency pair value in the format of XXX/YYY (for example EUR/USD) then find that currency pair in Calypso and use it as the underlying, else
- If the “ClearingExchangeTicker” field in the reference data file provides a currency pair value in the format of XXX/YYY (for example EUR/USD) then find that currency pair in Calypso and use it as the underlying, else use the currency pair value stored in the FOWDefaultCurrencyPair domain value (example screenshot below) as the underlying.



3.1.3 Default Contract Underlyings – Bond

Bond products do not need to reference a specific underlying product in Calypso, so we use the settings show below by default as the placeholder information when no specific underlying is mapped.

Details Underlying	
Name	Value
General	
Type	Relative
Bond Type	UST
Bond Maturity	1D
Bond Coupon Rate	1

3.2 Mapping MIC Codes

Calypso Mapping supports Multiple MIC Codes in case of same Exchange Legal Entity.

Name = FOW/ExchangeMIC.

Interface Value = <Exchange legal entity>

Calypso Value = <Comma separated MIC codes>

Example:

Interface Value = EEX

Calypso Value = XEER,XPOT,XPSF,XEEO

3.3 Mapping Underlyings

Calypso Mapping can be used to identify the specific underlying products in Calypso based on the underlying information provided by the external system file, replacing the need for the defaulting behavior. For each asset class, the mapping process allows the user to identify 1) the header of the column from which to source the data in the reference data file and 2) the product code in Calypso used to match this value with.

For each asset class, a default underlying should be configured as per the preceding section to act as a placeholder in order to allow the system to successfully import the reference data, but if specific mappings are provided, the specific underlyings will be chosen.

Underlying Bonds

The Underlying_Column mapping defines the column used in the external system (FOW) to identify the Bond product.

Name:	FOW/Underlying_Column
Interface Value:	Bond
Calypso Value:	UNDL_ID_BB_UNIQUE
Reverse Default:	☐

The Underlying_Code mapping defines the security code used in Calypso to identify the Bond product.

Name:	FOW/Underlying_Code
Interface Value:	Bond
Calypso Value:	BB_ID_BB_UNIQUE
Reverse Default:	☐

In summary the value of the column UNDL_ID_BB_UNIQUE in the external system file is used to identify the bond with security code BB_ID_BB_UNIQUE in Calypso.

Underlying Commodities

Name = FOW/Underlying_Code

Interface Value = Commodity

Calypso Value = CUSIP

Name = FOW/Underlying_Column

Interface Value = Commodity

Calypso Value = CUSIP

If no mapping is specified, the default commodity underlying is used.

Underlying Rate Index for Future MM Contracts

Name = FOW/Underlying_FutureMM

Interface Value - <exchange>/<ISOMIC>/<ticker>

Calypso Value = <rate index>

Example:

Name = FOW/UnderlyingFutureMM

Interface Value – CBOT/XCBT/AXAXX

Calypso Value = USD/LIBOR1W

3.4 Mapping Contract Attributes

3.4.1 AttributeNames

Attributes mapping is used to identify what columns in the external system file would go as attributes of the Contract object in Calypso.

Name:	FOW/AttributeNames
Interface Value:	ClearingExchangeTicker
Calypso Value:	ClearingExchangeTicker
Reverse Default:	☐

The Value of the column ClearingExchangeTicker will be saved as Contract attribute with name ClearingExchangeTicker on the Future/Future Option Contracts in Calypso.

 **Note: The name of the Calypso attribute does not need to match the external column name.**

3.4.2 CascadeFrom

The following mapping allows setting the CascadeFrom attribute based on the contract name.

Name = FOW/AttributeStaticValue

Interface Value = CascadeFrom/<contract name>

Calypso Value = <CascadeFrom value>

Example:

InterfaceValue = CascadeFrom/XEER-1NBQ-F

Calypso Value = XEER-1NBY-F

In contract XEER-1NBQ-F, CascadeFrom attribute is set to XEER-1NBY-F

3.5 Mapping Prompt Month Symbols for Future Instruments

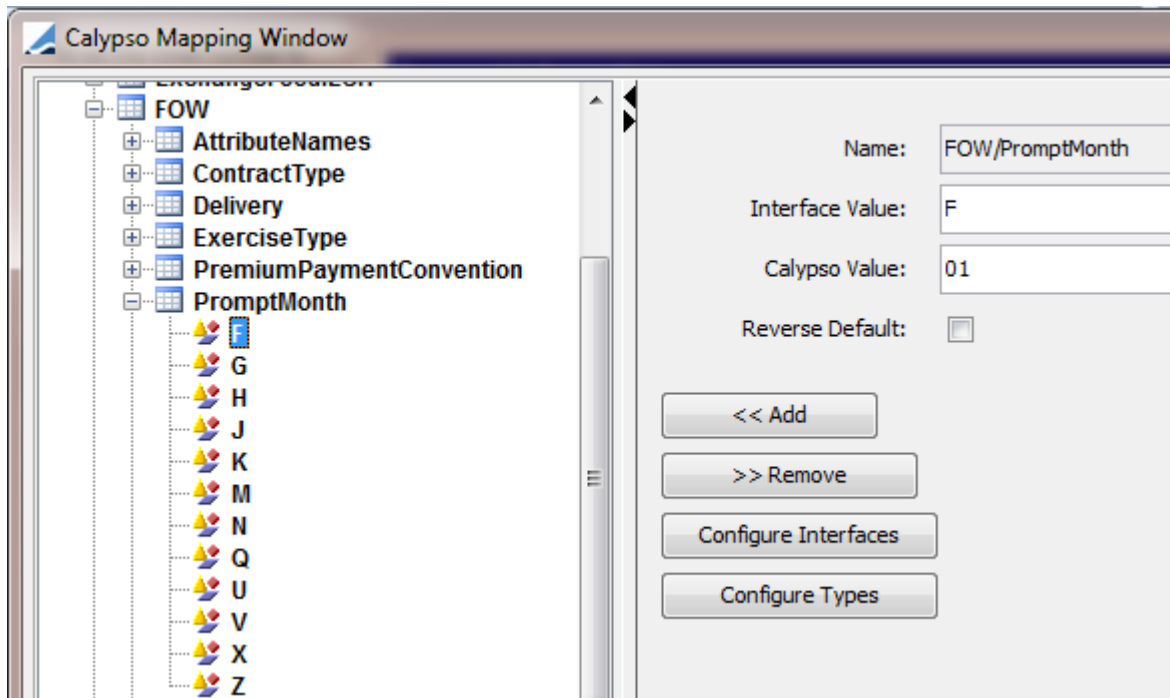
Prompt Month from PromptMonth Field (default)

The FOW Prompt Month information is imported and stored on the individual future instruments in order to ensure that the contract month is named accurately. The FOW Prompt Month is given as a one letter code and a 4 digit year, such as Z2015 which would represent December according to the market standard month symbol mapping codes shown below.

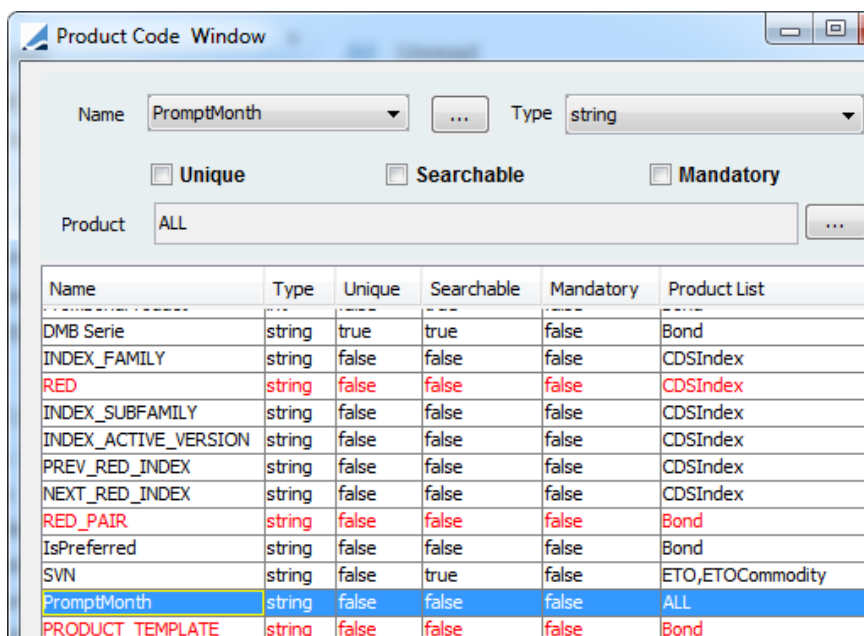
Month Codes

Month	Month Code
January	F
February	G
March	H
April	J
May	K
June	M
July	N
August	Q
September	U
October	V
November	X
December	Z

These codes must be added to the FOW Mapping configuration, using the numerical month as the Calypso Value as shown below, for the Prompt Month to be successfully imported.



In addition, the user must be sure to have a “Prompt Month” Product Code available on the contracts in which to store this data as shown below in the Navigator>Configuration>Product>Code window.



Prompt Month from EUREXcontractDate Field

You can use the EUREXContractDate field formatted as yyyyMMDD to populate the Prompt Month based on the following mapping:

Interface Name = FOW/PromptMonthColumn

Interface Value = <Exchange Code>/<ISOMIC>

Calypso Value = EUREXContractDate

If the mapping is not present, the Prompt Month is taken from the PromptMonth field.

Example:

Interface Name = FOW/PromptMonthColumn

Interface Value = EUREX/XEUR

Calypso Value = EUREXContractDate

In addition, the date format is updated based on the following mapping for futures:

Interface Name = FOW/DateFormatFuture

Interface Value = <Exchange Code>/<ISOMIC>/<Maturity Type> or simply <Maturity Type>

Calypso Value = Daily or Monthly

Example:

Interface Name = FOW/DateFormatFuture

Interface Value = EUREX/XEUR/B

Calypso Value = Daily

The date format is updated based on the following mapping for future options:

Interface Name = FOW/DateFormatOption

Interface Value = <Exchange Code>/<ISOMIC>/<Maturity Type> or simply <Maturity Type>

Calypso Value = Daily or Monthly

Example:

Interface Name = FOW/DateFormatOption

Interface Value = EUREX/XEUR/B

Calypso Value = Daily

PromptMonth Update

The following mapping enables the update of PromptMonth for existing products.

Name = FOW/Translator

Interface Value = UPDATE_EXISTING_PRODUCTS

Calypso Value = Yes

The update option only applies to the scheduled task FOW_REFERENCE_DATA_IMPORT.

Name Month = Expiry Date

Name = FOW/PromptMonthColumn

Interface Value = <product type>/<exchange>, <product> or <exchange>

Calypso Value = CONSTANT=Expiry Date

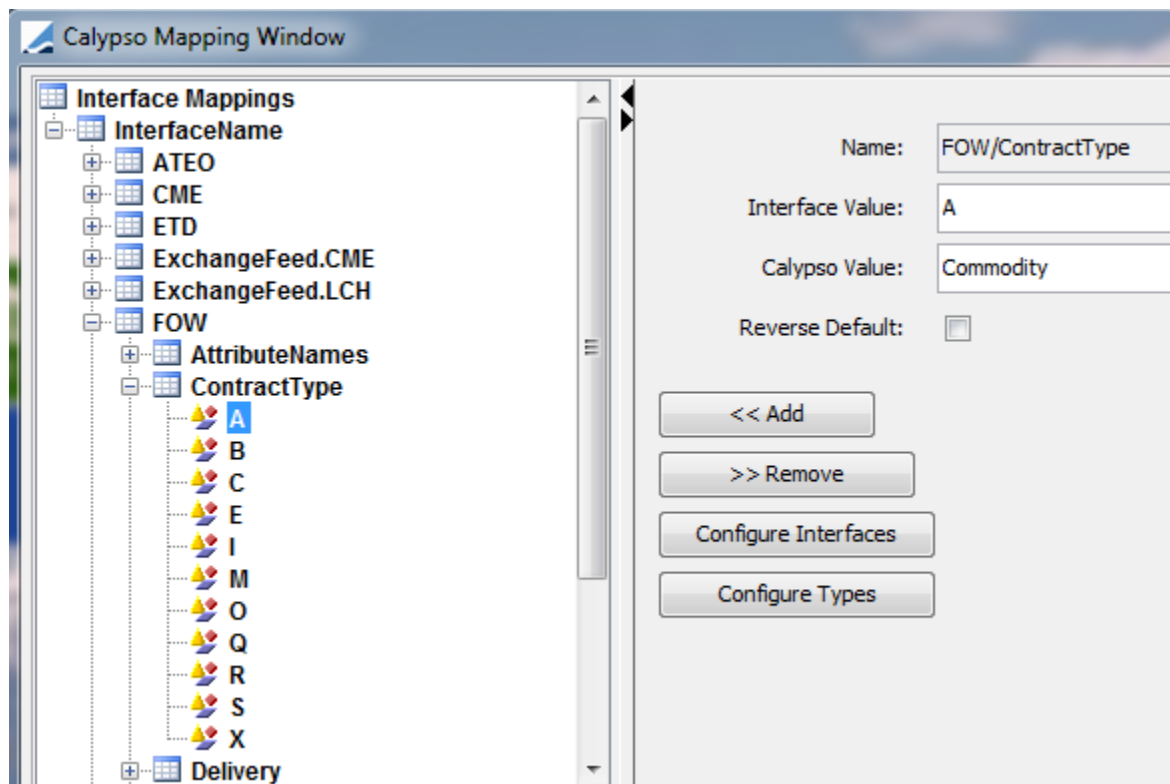
Example:

Interface Value = Future/EUREX/XEUR or Interface Value = Future or Interface Value = EUREX/XEUR

If the mapping is not present, Name Month is set to Prompt Month

3.6 Mapping Contract Types

Contract Types must also be mapped in order to associate a given contract to the correct product subtype in Calypso. The required configuration is shown in a table beneath the screenshot of the mapping window.



FOW Column	Column Value	Calypso Value
ContractType	A (Agricultural)	Commodity
ContractType	B (Bond Long Coupon)	Bond
ContractType	C (Currency)	FX
ContractType	E (Energy)	Commodity
ContractType	M (Metals)	Commodity
ContractType	Q (Equity)	Equity
ContractType	R (Bond Short Coupon)	MM
ContractType	S (Soft)	Commodity
ContractType	X	Equity Index
ContractType	O	Commodity

3.7 Mapping ProductType Attribute

You can map the ProductType attribute using the following mapping:

Name = FOW/ProductTypeAttributes

Interface Value = <ISOMIC>/<contract type>

Calypso Value = <ProductType attribute value>

Example:

Name = FOW/ProductTypeAttributes

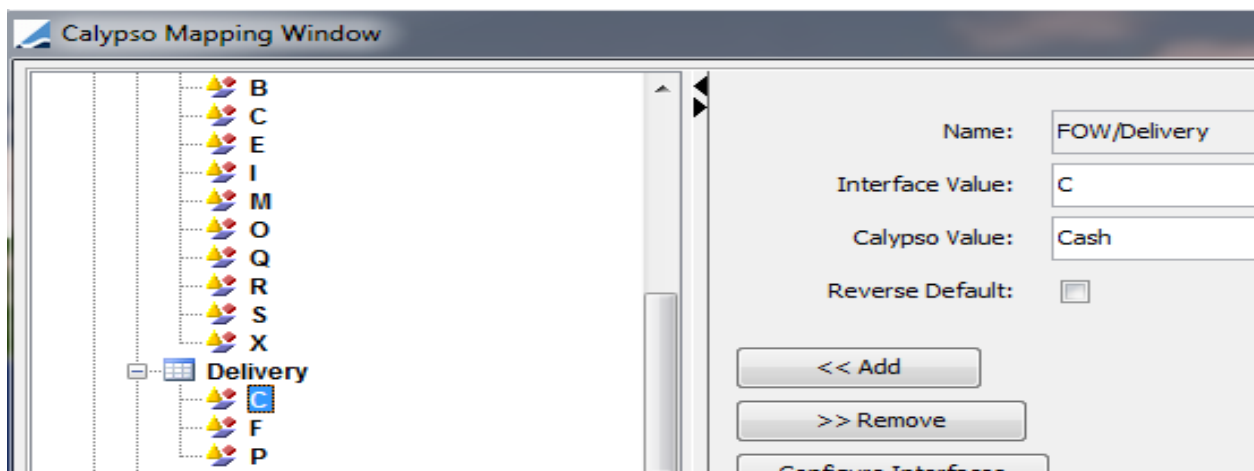
Interface Value = XEUR/Q

Calypso Value = OSTK

It defaults to the contract type otherwise.

3.8 Mapping Delivery Types

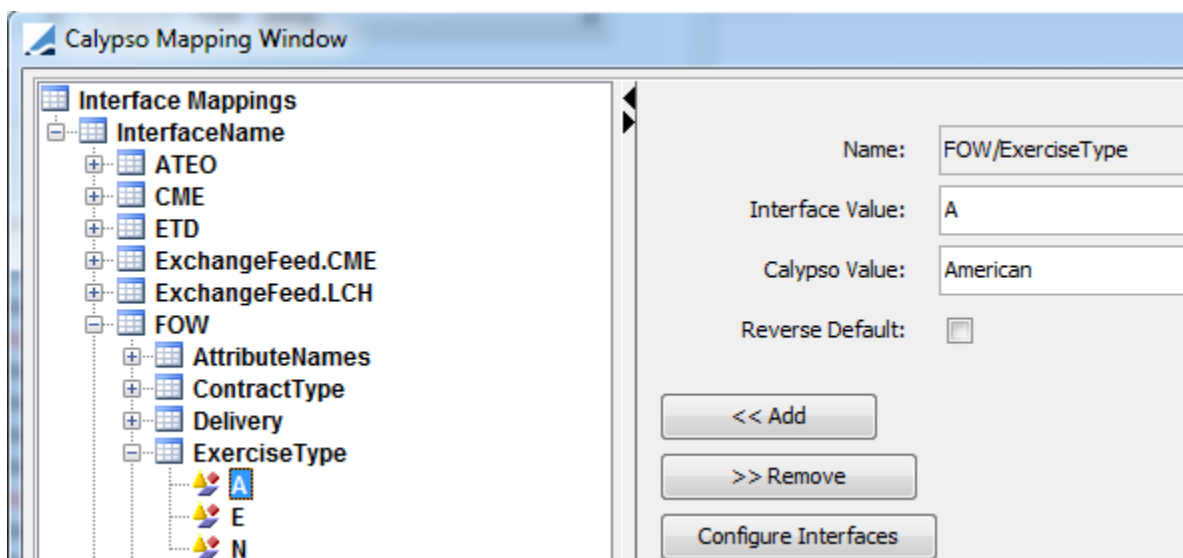
Cash or Physical delivery for futures and options is designated by the code in the FOW Delivery column. These codes need to be mapped under the FOW/Delivery node as shown below.



FOW Column	Column Value	Calypso Value
Delivery	C	Cash
Delivery	F	Physical (Delivers into Future)
Delivery	P	Physical (Delivers into Underlying)

3.9 Mapping Exercise Types

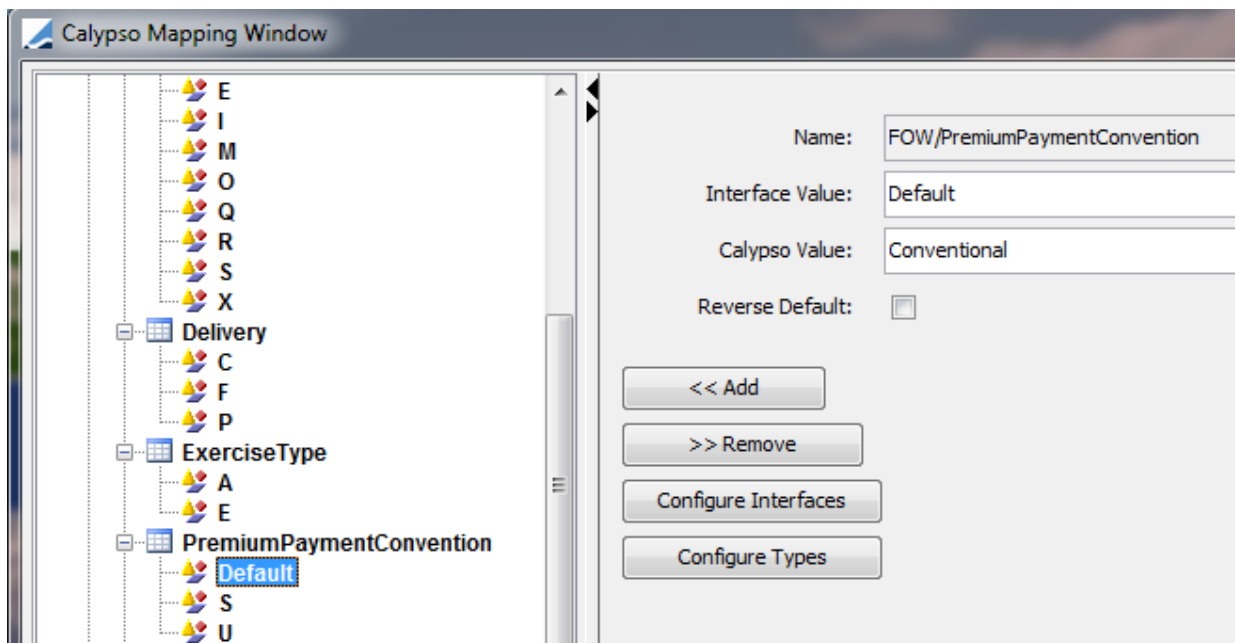
American or European exercise for options is designated by the code in the FOW ExerciseType column. These codes need to be mapped under the FOW/ExerciseType node as shown below.



FOW Column	Column Value	Calypso Value
ExerciseType	A	American
ExerciseType	E	European
ExerciseType	N	Asian

3.10 Mapping Premium Payment Types

Premium-paid or Premium-held options are identified by the FOW PremiumPayment column. To set these values correctly on the products, the following mapping is necessary under the FOW/PremiumPaymentConvention node.



FOW Column	Column Value	Calypso Value
PremiumPayment	Default	Conventional
PremiumPayment	S	VariationMargined
PremiumPayment	U	Conventional

3.11 Mapping Number of Contracts

You can configure the maximum number of contracts to be displayed using the following mapping:

Name = FOW/NumberOfContracts

Interface Value = <product type ETO, Future or FutureOption>

Calypso Value = <maximum number of contracts>

If the number of contracts in the file is below the maximum number of contracts, then the number of contracts in the file is used. Otherwise, the maximum number of contracts is used.

If there is no mapping, the number of contracts in the file is used.

3.12 Mapping Clearing Exchange Ticker

You can use the following mappings to determine the clearing exchange ticker.

Name = FOW/FutureSymbolTranslator and/or Name = FOW/OptionSymbolTranslator.

Interface Value = <MIC code>/<Ticker>

Calypso Value = <Ticker>

Examples:

Name:	FOW/FutureSymbolTranslator
Interface Value:	DGCX/DBPCL
Calypso Value:	DBPCL_F

Name:	FOW/OptionSymbolTranslator
Interface Value:	DGCX/DBPCL
Calypso Value:	DBPCL_FO

3.13 Additional Fields - No Mapping Required

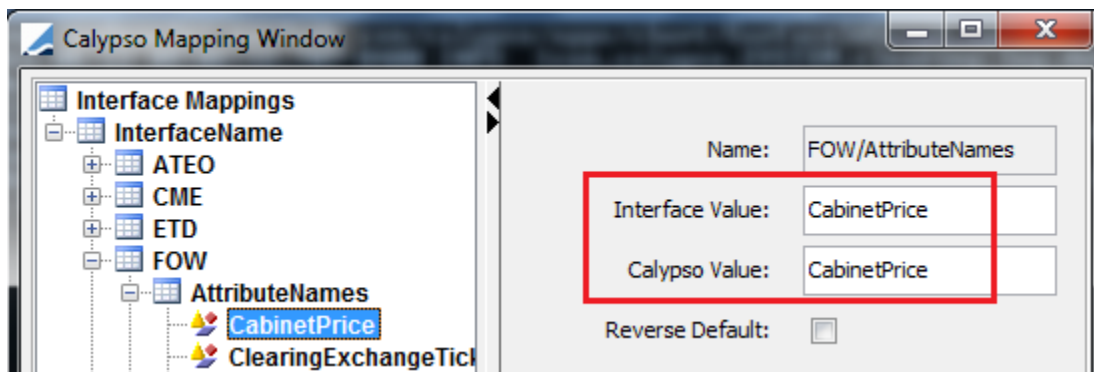
Other contract fields are populated through the design of the interface without the need for user mapping. These are described in this section.

Calypso Field	FOW Column	Population Logic
Tick Size	TickSize	Equal to the inverse of the value in the TickSize column
Contract Size	NumericContractSize	Equal to the value in the NumericContractSize column
Tick Value	TickValue	Equal to the value in the TickValue column
Minimum Move (Ticks)	TickSize	Equal to the value in the TickSize column

Calypso Field	FOW Column	Population Logic
Quote Decimals	TickSize	Equal to the number of significant digits in the TickSize value
Quote Type	MinorUnit	Y=PriceC N=Price Default is Price if not set.

3.14 Cabinet Options

Cabinet options are options that have fallen deep enough out of the money that the exchanges which support them allow for trading and settlement at prices below the standard minimum price fluctuation. Cabinet options are only used to close out open positions that have almost no chance of being exercised. In some cases, rather than providing the actual price of the option trade, an interface will send the price of an option trade as '99999' or something similar to designate that the trade was a 'cabinet trade'. In order to correctly capture the traded price in this scenario, we use the value stored in the Future Option or ETO attribute 'CabinetPrice' to determine the price. If an option settlement price is identified as a cabinet price, but the contract does not have a value in the Cabinet Price attribute, the logic should reference the contract's Minimum Move (Ticks) field, which is the minimum allowable price in standard trading, and use its value to populate the closing quote.



To populate this value when importing contracts through the FOW interface, we map this attribute to the CabinetPrice column in FOW and the value will be imported if populated.

FOW Stored Attribute:

Calypso Result:

When capturing a Cabinet Option trade, either manually or from an interface, we populate the CabinetType attribute of the trade with one of the values below.

Variable – When the cabinet price is given in terms of the total premium, rather than the price per lot

Zero – When the option price is given as zero, and the CabinetPrice attribute is used to populate the price field

3.15 Mapping for Corporate Actions

The following mappings apply to corporate actions.

You can configure the swift code specific column mapping as below. You can configure the column value to pick up value from the file or a constant value.

Name:	FOWCA/SPLF.ColumnMapping
Interface Value:	ANNOUNCEMENT_DATE
Calypso Value:	date10
Reverse Default:	☐

Name:	FOWCA/DVCA.ColumnMapping
Interface Value:	BY_TRADE_DATE_B
Calypso Value:	CONSTANT=TRUE
Reverse Default:	☐

Configure CA Attributes specific to Swift code as below.

Name:	FOWCA/SPLF.CAAttributes
Interface Value:	Adjustment Factor
Calypso Value:	RatioNew
Reverse Default:	☐

Name:	FOWCA/DVCA.CAAttributes
Interface Value:	Adjustment Factor
Calypso Value:	CONSTANT=1
Reverse Default:	☐

Configure DateFormat as below. It can be at set as <swift code>.<field>

Name:	FOWCA/DateFormat
Interface Value:	SPLF.ANNOUNCEMENT_DATE
Calypso Value:	yyyyMMdd
Reverse Default:	☐

Field level <field>

Name:	FOWCA/DateFormat
Interface Value:	EX_DATE
Calypso Value:	yyyyMMdd
Reverse Default:	☐

Generic level

Name:	FOWCA/DateFormat
Interface Value:	DATE_FORMAT
Calypso Value:	dd-MM-yyyy
Reverse Default:	☐

3.16 Locking Contract Fields using Calypso Mapping

The following mappings allow locking contract fields so that the information is not overwritten when uploading FOW files.

This can be applied to the following fields:

Future contract	Future Option contract	ETO contract
Type	Type	Strike Quote Type
Quote Decimals	Quote Decimals	Tick Value
Is Contract Size Variable	Exercise Type	Minimum move(ticks)
Contract Size	AutoExercise	Contract Size
Settle Type	Settle Type Option	Exercise Type
Last CCP Date lag	Is Contract Size Variable	AutoExercise
Long Name	Contract Size	Last Trading Time
Tick Size	Settle Type	Last Exercise Time
Minimum move(ticks)	Last CCP Date lag	Last Trade Rule
Tick Value	Long Name	Last Exercise Rule
Holidays	Premium Payment Convention	Expiration Rule
Last Trading Time	Tick Size	Holidays
Daylight Saving Time	Minimum move(ticks)	Prem pmt conv
Expiration Date Schedule	Tick Value	Quote Decimals
Last Trade Date Schedule	Holidays	Settle Type
First Delivery Date Schedule	Last Trading Time	

Future contract	Future Option contract	ETO contract
First Delivery Use Prev Date	Expiration Date Schedule	
Last Delivery Date Schedule	Last Trade Date Schedule	
Last Delivery Use Prev Date	First Delivery Date Schedule	
First Notification Date Schedule	First Delivery Use Prev Date	
First Notification Use Prev Date	Last Delivery Date Schedule	
Last Notification Date Schedule	Last Delivery Use Prev Date	

Locking Field Updates for all Exchanges

Name = FOW/LockOverrideDetailTab

Interface Value = <field>

Calypso Value = Yes

Note:

If there is no mapping under FOW/LockOverrideDetailTab, the field will be overwritten upon upload.

If there is a mapping under FOW/LockOverrideDetailTab and Calypso Value = Yes, the field will be locked and will not be overwritten upon upload

If there is a mapping under FOW/LockOverrideDetailTab and Calypso Value = No or not set, the field will be overwritten upon upload

Example:

Name:	FOW/LockOverrideDetailTab
Interface Value:	Is Contract Size Variable
Calypso Value:	Yes

Locking Field Updates by Exchange

Name = FOW/LockOverrideDetailTab

Interface Value = <exchange>/<ISOMIC>/<field>

Calypso Value = Yes

Example:

Name:	FOW/LockOverrideDetailTab
Interface Value:	EEX/XEER/Is Contract Size Variable
Calypso Value:	Yes

Locking Field Updates by Product and Exchange

Name = FOW/LockOverrideDetailTab

Interface Value = <product>/<exchange>/<ISOMIC>/<field>

Calypso Value = Yes

<product> can be Future or Option.

Example:

Name:	FOW/LockOverrideDetailTab
Interface Value:	Future/EEX/XEER/ATBM/Is Contract Size Variable
Calypso Value:	Yes

Notes:

- If there is no mapping provided in Calypso under "Calypso Mapping Window - FOW/LockOverrideDetailTab" then the current behavior should incorporate.
- Exchange specific mapping is applicable when user mentions Exchange/ ISOMIC codes in interface value. If these values are missing, then it will be treated as a generic mapping for the respective field.
- Product specific mapping is applicable when user mentions Future or Option/Exchange/ ISOMIC/ClearingExchangeTicker codes in interface value. If these values are missing, then it will be treated as a generic mapping for the respective field.
- If "Create/Update" field value is selected as "UPDATE" under "Task Attributes" while running schedule task to upload FOW file, then above-mentioned mappings need to be considered prior to update the field values.
- If "Create/Update" field value is selected as "CREATE" under "Task Attributes" while running schedule task to upload FOW file, then mappings will be applicable only while updating existing product details and it will not be applicable for new products.

- If Create/Update field value is selected as “MIGRATION_UPDATE” or “UPDATE_DATES” under “Task Attributes” while running schedule task to upload FOW file, then the system should behave as per current process.
- The above mappings also applicable when FOW file is uploaded through the Data Uploader GUI and through Clearing Dashboard.

3.17 Setting Default Values by Contract

You can use the following mapping to set default values based on the contract name:

Name = FOW/DefaultStaticValue

Interface Value = <field name>/<contract name>

Calypso Value = <default field value>

This can be used for the following fields.

Future Contracts: Type, Currency, Quote Type, Quote Decimals, Is Contract Size Variable, Contract Size, Settle Type, Negative Price Liquidation, Future Name Month, Last CCP Date Lag, Tick Type, Tick Size, Minimum move, Tick Value, Nominal Calculator, Holidays, Last Trading Time, Daylight Saving Time

Future Option Contracts: Type, Currency, Quote Type, Quote Decimals, Exercise Type, AutoExercise, Settle Type Option, Underlying Exchange, Underlying Name, Underlying Currency, Underlying Dates, Future Option Name Month, Premium Payment Convention, Tick Type, Tick Size, Minimum move, Tick Value, Date Format, Last Trading Time, Time Zone

ETO Contracts: Type, Currency, Quote Type, Strike Quote Type, Tick Value, Minimum move, Contract Size, Exercise Type, Last Trade Time, Last Exercise Time, Time Zone, Exercise Settlement Lag, Trade Settlement Lag, Holidays, Premium Payment Convention, Quote Decimals, Settle Type, Underlying, Name Month

Example:

Name = FOW/DefaultStaticValue

Interface Value = Type/XSFE-IR02-F

Calypso Value = MM

Upon import, the field “Type” will be set to MM for the XSFE-IR02-F contract.

Importing Contracts and Corporate Actions

4.1 Define Scheduled Task for Importing Contracts and Corporate Actions

Create a schedule task of type FOW_REFERENCE_DATA_IMPORT.

Task Description	
Task Type:	FOW_REFERENCE_DATA_IMPORT
External Reference:	Listed contracts import
Comments:	
Description:	
Execution Parameters	
Attempts:	1
Retry After:	0 minutes
Expected Execution Time (SLA):	
JVM Settings:	-Xms512m -Xmx1024m
Log Settings:	
Task Notification Options	
☐ Send Emails	☐ Publish Business Events
To User:	
Common Attributes	
Task ID	
Processing Org	CMF_1
Trade Filter	
Filter Set	
Pricing Environment	OFFICIAL
Timezone	America/Los_Angeles
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	
Source	FOW
Mode	Download & Import
File Name	calypso_20220731.zip
Import/Download Folder	C:\calypso\fow
Create/Update	UPDATE_DATES
Migration Update Options	PROMPT_MONTH_AND_UNDERLYING_ADD_MONTHS
CAEvents	

You should select a processing organization (clearing broker), a pricing environment to source the closing prices, and the time zone of the clearing broker.

The task attributes are described below.

Source

Select FOW to import contracts or FOWCA to import corporate actions.

Mode

You can select:

- **Download & Import:** In this mode, when the scheduled task is executed, it will connect to FOW, and download the file to the folder specified in Import/Download Folder. It will then import the content of the file using the Data Uploader.
- **Download:** When the scheduled task is executed with this mode, it will connect to FOW, and download the file to the folder specified in Import/Download Folder.
- **Import:** When the scheduled task is executed with this mode, it will import the content of the already downloaded file using the Data Uploader.

File Name

Valid file names which should be downloaded from FOW. Below actions are performed based on the mode selected.

File name is optional. Leaving this field blank will process (Download and Import) calypso_yyyyddmm file for the date on which the scheduled task is run. Otherwise, you can indicate a specific file's name to process.

Allowed formats are archives and csv. Only a single file can be processed per run, single value.

- **Download:** If File Name is specified, it will only download the specified files from the "FOW.location" parameter (Multiple Files can be specified with comma separator).
- **Import:** If File Name specified, it will upload specified file from Import/Download Folder (Multiple Files can be specified with comma separator).
- **Download & Import:** If this mode is selected then first files are downloaded and then imported into the Calypso.

Import/Download Folder

Import/Download folder is optional. If mode,

- **Download:** This attribute points to a destination folder (the file downloaded will be stored here.)
- **Import:** This attribute points to a source folder (the file containing the contracts to import must be located here).
- **Download & Import:** This folder will be used as both the destination of the downloaded file as well as the source for the data to import.
- If no input provided then it will use the default directory from user defaults, single value.

Create/Update

Create/update is mandatory. If value selected,

- CREATE: It will create missing contracts, update existing ones, including date schedules (and maturities, when applicable).
- MIGRATION_UPDATE: Either update contract attributes or expiration date schedules
- UPDATE: Skip missing contracts, update existing ones, including date schedules (and maturities when applicable).
- UPDATE_DATES: Skip missing contracts, update existing ones, including date schedules (and maturities when applicable).

Migration Update Options

Migration update option is optional. If value selected,

- This option is applicable only if create/update = MIGRATION_UPDATE.
- If migration update options is contract attributes, only empty attributes on contract will be updated without touching other fields on the contract.
- If migration update option is prompt month and underlying add months, comment section in the expiration date schedule will be updated along with future option name month and underlying dates.

CAEvents

Only applies if Source = FOWCA.

You can select specific CA events or ALL.

See [Corporate Actions](#) for complete details.

4.1.1 Scheduled Task Behavior

The scheduled task imports the files provided daily by FOW Trade Data. Running the task will result in the update of contracts where there is new information but will not impact contracts where there is no delta from the previous day's file.

The scheduled task will log all contract imports that fail, giving a short description of the reason for failure, so that the user can debug any issues. It also generates exception tasks upon failure.

The task can be run by importing a file that contains any number of individual exchanges. There is currently no filtering available to allow the import of a partial file.

4.1.2 Known Gaps

The FOW interface has not been implemented in a way that supports the proper definition of every product contained in the Trade Data file. Some gaps do remain, some of which can be overcome by manual enrichment of the Trade Data file, and some which require manual editing of the contract in Calypso. These include:

- Import of future option contracts where the underlying future contract does not have the same contract name as the option. For example, Eurodollar mid-curve options.
- Import of Variable Tick Size Electricity Contracts
- Import of Daily LME Forward Contracts
- Balance of the Month (BOM) Futures

4.2 Importing Contracts by Exchange

The scheduled task FOW_FILE_SPLITTER splits the EuroMoneyTradeDATA file into multiple files by exchange.

Task Description	
Task Type:	FOW_FILE_SPLITTER
External Reference:	FOW_FILE_SPLITTER
Comments:	FOW_FILE_SPLITTER
Description:	FOW_FILE_SPLITTER
Execution Parameters	
Attempts:	1
Retry After:	0 minutes
Expected Execution Time (SLA):	5 minutes
JVM Settings:	-Xms512m -Xmx10g
Log Settings:	
Task Notification Options	
☐ Send Emails	☐ Publish Business Events
To User:	
Common Attributes	
Task ID	89620
Processing Org	SETCLEAR
Trade Filter	
Filter Set	
Pricing Environment	ETD Pricing Evrmt
Timezone	IST
Valuation Time Hour	23
Valuation Time Minute	59
Undo Time Hour	0
Undo Time Minute	0
Valuation Date Offset	
From Days	0
To Days	0
Pricing Measures	
Business Holidays	
Task Attributes	
File Name	calypso_20221208.zip
Input Folder	C:\Users\PrathameshPathare\CD\Clearing\reference-data\FOW Input File
Output Folder	C:\Users\PrathameshPathare\CD\Clearing\reference-data\\${date}
Include Market	All

The task attributes are described below.

File Name

Enter source file name.

Input Folder

Enter Source file path.

Output Folder

Enter the Path from where the output files are saved. The default path is "<user home>\Calypso\clearing\reference-data\yyyyMMDD".

Include Market

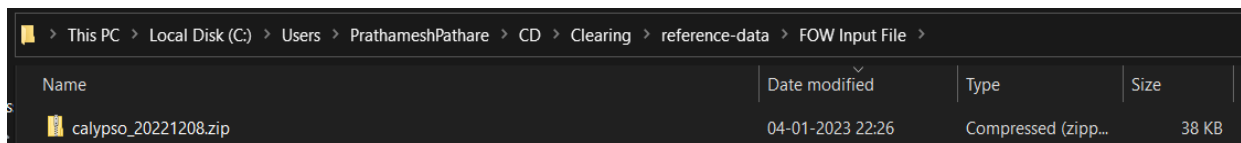
You can choose:

- All – All available market places in the EuroMoneyTradeDATA file are split into multiple files by exchange.
- Onboarded – The Legal Entity with role Marketplace is linked with MIC code and clearing house for those markets.

NOTE: In case of large files, you need to increase the memory of the scheduler – Recommended setting:

-calypso.scheduler.memory=15F

Sample EuroMoneyTradeDATA file



Name	Date modified	Type	Size
calypso_20221208.zip	04-01-2023 22:26	Compressed (zipp...	38 KB

Sample output files

File Explorer Path: This PC > Local Disk (C:) > Users > PrathameshPathare > CD > Clearing > reference-data > 20230104

Name	Date modified	Type	Size
exchange_DGCX_20230104.csv	04-01-2023 22:08	Microsoft Excel Co...	78 KB
exchange_DGCX_20230104.zip	04-01-2023 22:08	Compressed (zipp...	5 KB
exchange_IFLO_20230104.csv	04-01-2023 22:08	Microsoft Excel Co...	93 KB
exchange_IFLO_20230104.zip	04-01-2023 22:08	Compressed (zipp...	6 KB
exchange_XCBT_20230104.csv	04-01-2023 22:08	Microsoft Excel Co...	20 KB
exchange_XCBT_20230104.zip	04-01-2023 22:08	Compressed (zipp...	3 KB
exchange_XCME_20230104.csv	04-01-2023 22:08	Microsoft Excel Co...	59 KB
exchange_XCME_20230104.zip	04-01-2023 22:08	Compressed (zipp...	5 KB
exchange_XEER_20230104.csv	04-01-2023 22:08	Microsoft Excel Co...	72 KB
exchange_XEER_20230104.zip	04-01-2023 22:08	Compressed (zipp...	6 KB
exchange_XEUR_20230104.csv	04-01-2023 22:08	Microsoft Excel Co...	58 KB
exchange_XEUR_20230104.zip	04-01-2023 22:08	Compressed (zipp...	5 KB
exchange_XKAR_20230104.csv	04-01-2023 22:08	Microsoft Excel Co...	79 KB
exchange_XKAR_20230104.zip	04-01-2023 22:08	Compressed (zipp...	4 KB
exchange_XLME_20230104.csv	04-01-2023 22:08	Microsoft Excel Co...	109 KB
exchange_XLME_20230104.zip	04-01-2023 22:08	Compressed (zipp...	8 KB
exchange_XNSE_20230104.csv	04-01-2023 22:08	Microsoft Excel Co...	31 KB
exchange_XNSE_20230104.zip	04-01-2023 22:08	Compressed (zipp...	3 KB
exchange_XNYM_20230104.csv	04-01-2023 22:08	Microsoft Excel Co...	61 KB
exchange_XNYM_20230104.zip	04-01-2023 22:08	Compressed (zipp...	5 KB
exchange_XSFE_20230104.csv	04-01-2023 22:08	Microsoft Excel Co...	10 KB
exchange_XSFE_20230104.zip	04-01-2023 22:08	Compressed (zipp...	2 KB

You can then import the files as needed to create the contracts.

Corporate Actions

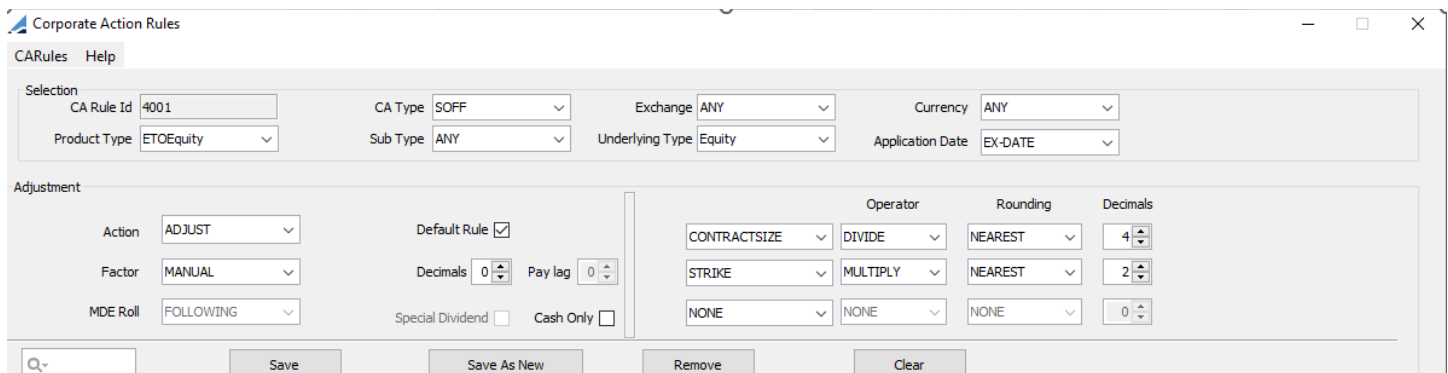
This section aims to describe Special Dividend, Share Split & Spinoff corporate action event creation on listed products (ETO) by utilizing the Euromoney data file, imported through Data Uploader and scheduled task.

All field mapping & combination of multiple fields and values Logic should be handled through Calypso Mapping.

5.1 Corporate Action Rule

Spinoff

In Corporate Action Rule window, you need to select the following details for Spinoff event and save it.



Selection	CA Type	Exchange	Currency	Sub Type	Underlying Type	Application Date
CA Rule Id: 4001 Product Type: ETOEquity	SOFF	ANY	ANY	ANY	Equity	EX-DATE

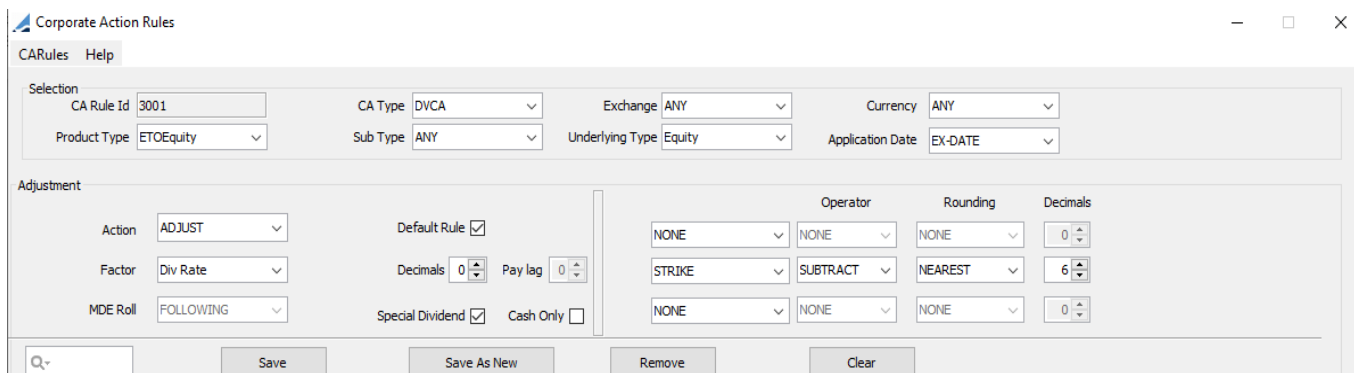
Adjustment		Operator				Rounding		Decimals	
Action: ADJUST	Default Rule: ☒	CONTRACTSIZE	DIVIDE	NEAREST	4				
Factor: MANUAL	Decimals: 0 Pay lag: 0	STRIKE	MULTIPLY	NEAREST	2				
MDE Roll: FOLLOWING	Special Dividend: ☐ Cash Only: ☐	NONE	NONE	NONE	0				

Buttons: Save, Save As New, Remove, Clear

- CA Type – SOFF
- Exchange – ANY
- Currency – ANY
- Product type – ETOEquity
- Sub Type – ANY
- Underlying Type – Equity
- Application date – EX-DATE
- Action – ADJUST
- Default Rule box checked.
- Factor – MANUAL
- Decimals – 0
- CONTRACTSIZE-DIVIDE-NEAREST-4
- STRIKE-MULTIPLY-NEAREST-2

Special Dividend

In Corporate Action Rule window, you need to select the following details for Special Dividend event and save it.



The screenshot shows the 'Corporate Action Rules' window. The 'Selection' section includes: CA Rule Id (3001), CA Type (DVCA), Exchange (ANY), Currency (ANY), Product Type (ETOEquity), Sub Type (ANY), Underlying Type (Equity), and Application Date (EX-DATE). The 'Adjustment' section includes: Action (ADJUST), Factor (Div Rate), MDE Roll (FOLLOWING), Default Rule (checked), Decimals (0), Pay lag (0), Special Dividend (checked), and Cash Only (unchecked). The 'Operator', 'Rounding', and 'Decimals' table is as follows:

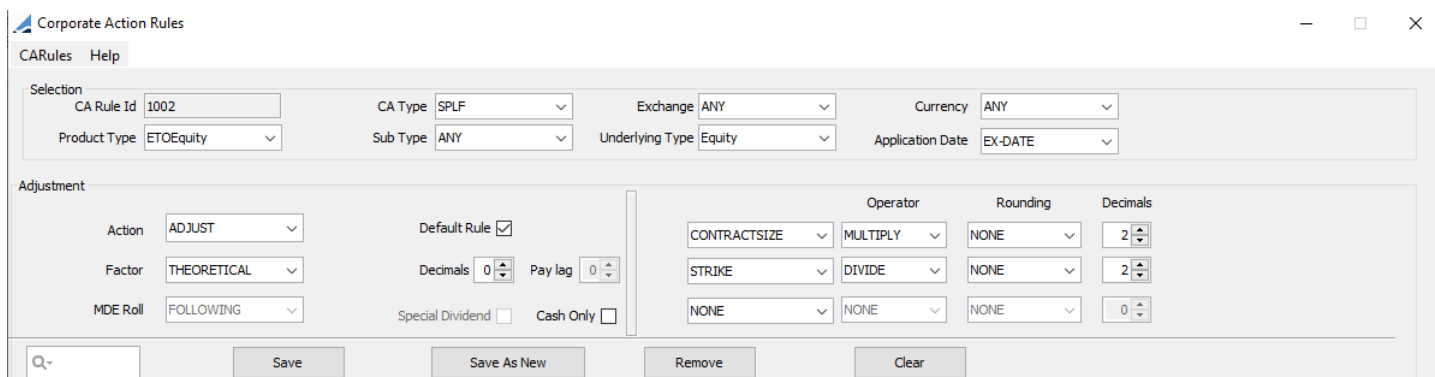
Operator	Rounding	Decimals
NONE	NONE	0
STRIKE	SUBTRACT	6
NONE	NONE	0

Buttons at the bottom: Save, Save As New, Remove, Clear.

- CA Type – DVCA
- Exchange – ANY
- Currency – ANY
- Product type – ETOEquity
- Sub Type – ANY
- Underlying Type – Equity
- Application date – EX-DATE
- Action – ADJUST
- Default Rule box checked.
- Special Dividend box checked.
- Factor – Div Rate
- Decimals – 0
- STRIKE-SUBTRACT-NEAREST-6

Share Split

In Corporate Action Rule window, user need to select the following details for Share Split event and save it.



The screenshot shows the 'Corporate Action Rules' window. The 'Selection' section includes: CA Rule Id (1002), CA Type (SPLF), Exchange (ANY), Currency (ANY), Product Type (ETOEquity), Sub Type (ANY), Underlying Type (Equity), and Application Date (EX-DATE). The 'Adjustment' section includes: Action (ADJUST), Factor (THEORETICAL), MDE Roll (FOLLOWING), Default Rule (checked), Decimals (0), Pay lag (0), Special Dividend (unchecked), and Cash Only (unchecked). The 'Operator', 'Rounding', and 'Decimals' table is as follows:

Operator	Rounding	Decimals
CONTRACTSIZE	MULTIPLY	2
STRIKE	DIVIDE	2
NONE	NONE	0

Buttons at the bottom: Save, Save As New, Remove, Clear.

- CA Type – SPLF

- Exchange – ANY
- Currency – ANY
- Product type – ETOEquity
- Sub Type – ANY
- Underlying Type – Equity
- Application date – EX-DATE
- Action – ADJUST
- Factor – Theoretical
- Default Rule box checked.
- Decimals – 0
- CONTRACTSIZE-MULTIPLY-NONE-2
- STRIKE-DIVIDE-NONE-2

5.2 Calypso Mapping for CA Events

Following is the calypso mapping, which is required to process the Special Dividend, Share Split & Spinoff.

Interface Name	Type Name	CA Event	Interface value	Calypso Value
FOWCA	CAAttributes	Common	Theoretical Dilution Factor	RatioNew
FOWCA	CAAttributes	DVCA	Theoretical Dilution Factor	CONSTANT=1
FOWCA	CAAttributes	DVCA	Adjustment Factor	CONSTANT=1
FOWCA	CAAttributes	DVCA	Declared Rate	CONSTANT=0
FOWCA	CAAttributes	DVCA	Dividend Type	CONSTANT=SPEC
FOWCA	CAAttributes	DVCA	Fully Franked Rate	CONSTANT=0
FOWCA	CAAttributes	DVCA	Rate Type#Payment Gross Rate	CONSTANT=ACTU
FOWCA	CAAttributes	DVCA	Rate Type#Payment Net Rate	CONSTANT=ACTU
FOWCA	ColumnMapping	Common	BY_TRADE_DATE_B	CONSTANT=TRUE
FOWCA	ColumnMapping	Common	CURRENCY	pvcurrency
FOWCA	ColumnMapping	Common	EVENT_CHOICE	CONSTANT=MAND
FOWCA	ColumnMapping	Common	EX_DATE	date1
FOWCA	ColumnMapping	SOFF	MODEL	CONSTANT=SPINOFF
FOWCA	ColumnMapping	SPLF	MODEL	CONSTANT=TRANSFORMATION

Interface Name	Type Name	CA Event	Interface value	Calypso Value
FOWCA	ColumnMapping	DVCA	MODEL	CONSTANT=CASH
FOWCA	ColumnMapping	DVCA	AMOUNT	rate1
FOWCA	ColumnMapping	DVCA	ANNOUNCEMENT_DATE	date10
FOWCA	ColumnMapping	DVCA	EX_DATE	EffectiveDate
FOWCA	ColumnMapping	DVCA	SUB_TYPE	CONSTANT=DIVIDEND
FOWCA	ColumnMapping	SPLF	SUB_TYPE	CONSTANT=SPLIT
FOWCA	ColumnMapping	DVCA	SWIFT_EVENT_OPTION	CONSTANT=CASH
FOWCA	ColumnMapping	Common	PAYMENT_DATE	date3
FOWCA	ColumnMapping	Common	NEW_RATIO	RatioNew
FOWCA	ColumnMapping	Common	PRODUCT_CODE_TYPE	CONSTANT=ISIN
FOWCA	ColumnMapping	Common	PRODUCT_CODE_VALUE	UnderlyingISIN
FOWCA	ColumnMapping	Common	RECORD_DATE	date2
FOWCA	ColumnMapping	SOFF	SUB_TYPE	CONSTANT=SPINOFF
FOWCA	ColumnMapping	SOFF	SECURITY_PRODUCT_CODE_VALUE	To ISIN
FOWCA	ColumnMapping	Common	SWIFT_EVENT_OPTION	CONSTANT=SECU
FOWCA	DateFormat	Common	SOFF.ANNOUNCEMENT_DATE	yyyyMMdd
FOWCA	CAAttributes	Common	Adjustment Factor	RatioNew
FOWCA	ColumnMapping	Common	ANNOUNCEMENT_DATE	EffectiveDate
FOWCA	ColumnMapping	Common	OLD_RATIO	RatioOld
FOWCA	ColumnMapping	Common	RECORD_DATE_INCLUSIVE_B	CONSTANT=TRUE
FOWCA	ColumnMapping	SOFF	SECURITY_PRODUCT_CODE_TYPE	CONSTANT=ISIN
FOWCA	ColumnMapping	Common	SWIFT_CODE	Subject
FOWCA	DateFormat	Common	DATE_FORMAT	dd/MM/yyyy
FOWCA	DateFormat	Common	EX_DATE	yyyyMMdd
FOWCA	DateFormat	SPLF	SPLF.ANNOUNCEMENT_DATE	yyyyMMdd
FOWCA	SWIFT_CODE	DVCA	Special Dividend	DVCA
FOWCA	SWIFT_CODE	SPLF	Share Split	SPLF

Interface Name	Type Name	CA Event	Interface value	Calypso Value
FOWCA	SOFF.ColumnMapping	SOFF	SECURITY_PRODUCT_CODE_TYPE	CONSTANT=ISIN
FOWCA	SOFF.ColumnMapping	SOFF	SECURITY_PRODUCT_CODE_VALUE	To ISIN
FOWCA	SWIFT_CODE	SOFF	Spin Off	SOFF

5.3 Processing CA Events through Data Uploader

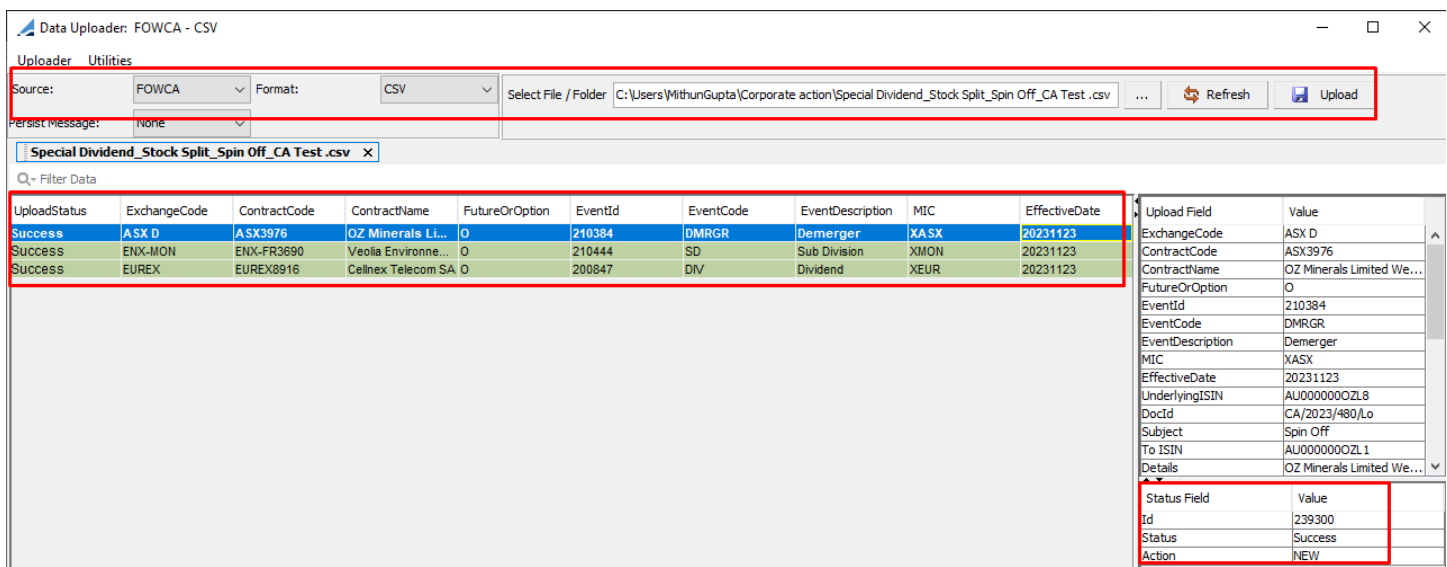
Euromoney trade data file

You should have FOW CA event file which is received from Euromoney trade data.

Data Uploader Details

Select the following details and upload the FOW csv file to create the Special Dividend, Share Split & Spinoff event.

- Source – FOWCA
- Format – CSV
- Select File/Folder – user define.



Data Uploader: FOWCA - CSV

Uploader Utilities

Source: FOWCA Format: CSV Select File / Folder: C:\Users\mithunGupta\Corporate action\Special Dividend_Stock Split_Spin Off_CA Test .csv Refresh Upload

Persist Message: None

Special Dividend_Stock Split_Spin Off_CA Test .csv

Filter Data

UploadStatus	ExchangeCode	ContractCode	ContractName	FutureOrOption	EventId	EventCode	EventDescription	MIC	EffectiveDate
Success	ASX D	ASX3976	OZ Minerals Li...	O	210384	DMRGR	Demerger	XASX	20231123
Success	ENX-MON	ENX-FR3690	Veolia Environne...	O	210444	SD	Sub Division	XMON	20231123
Success	EUREX	EUREX8916	Cellnex Telecom SA	O	200847	DIV	Dividend	XEUR	20231123

Upload Field Value

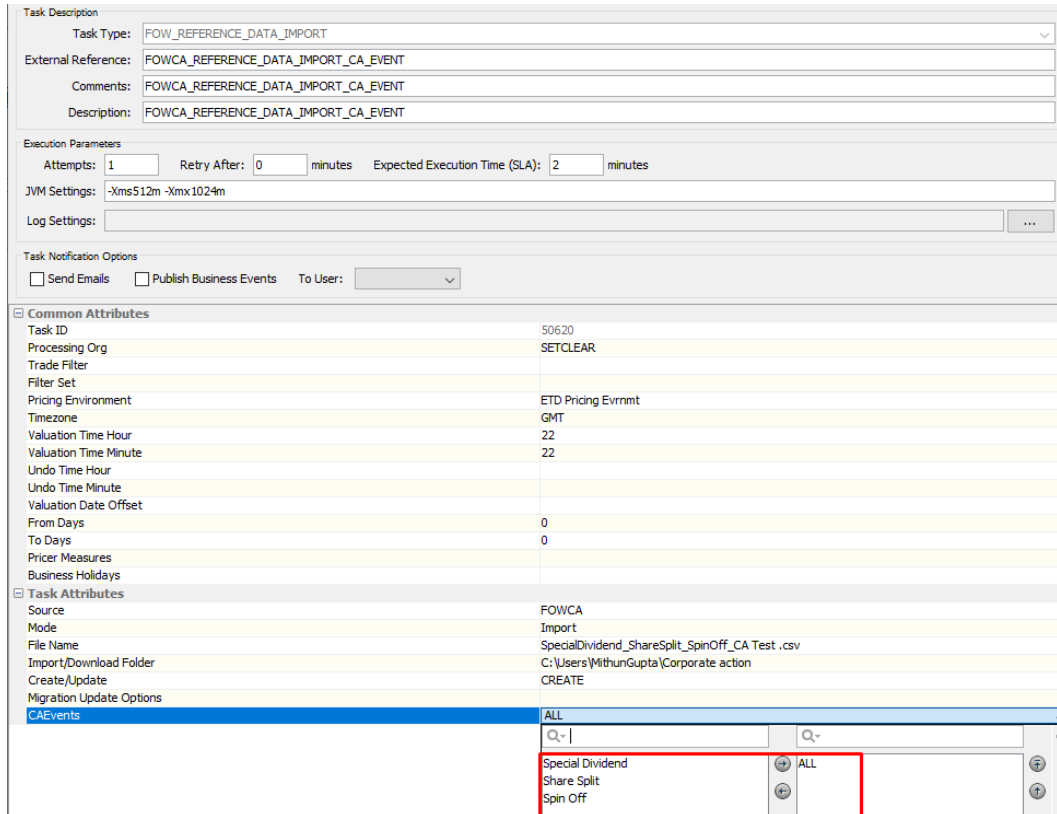
ExchangeCode	ASX D
ContractCode	ASX3976
ContractName	OZ Minerals Limited We...
FutureOrOption	O
EventId	210384
EventCode	DMRGR
EventDescription	Demerger
MIC	XASX
EffectiveDate	20231123
UnderlyingISIN	AU000000OZL8
DocId	CA/2023/480/Lo
Subject	Spin Off
To ISIN	AU000000OZL1
Details	OZ Minerals Limited We...
Status Field	Value
Id	239300
Status	Success
Action	NEW

After upload, you would see success status for new CA event IDs.

5.4 Processing CA Events through Scheduled Task

Configure the FOW_REFERENCE_DATA_IMPORT scheduled task as per screenshot details and run the schedule task to create CA events

You can create all events by selecting ALL under CAEvents.



Task Description

Task Type: FOW_REFERENCE_DATA_IMPORT

External Reference: FOWCA_REFERENCE_DATA_IMPORT_CA_EVENT

Comments: FOWCA_REFERENCE_DATA_IMPORT_CA_EVENT

Description: FOWCA_REFERENCE_DATA_IMPORT_CA_EVENT

Execution Parameters

Attempts: 1 Retry After: 0 minutes Expected Execution Time (SLA): 2 minutes

JVM Settings: -Xms512m -Xmx1024m

Log Settings: ...

Task Notification Options

☐ Send Emails ☐ Publish Business Events To User: ...

Common Attributes

Task ID	50620
Processing Org	SETCLEAR
Trade Filter	
Filter Set	
Pricing Environment	ETD Pricing Evrmt
Timezone	GMT
Valuation Time Hour	22
Valuation Time Minute	22
Undo Time Hour	
Undo Time Minute	
Valuation Date Offset	
From Days	0
To Days	0
Pricer Measures	
Business Holidays	

Task Attributes

Source	FOWCA
Mode	Import
File Name	SpecialDividend_ShareSplit_SpinOff_CA Test .csv
Import/Download Folder	C:\Users\WithunGupta\Corporate action
Create/Update	CREATE
Migration Update Options	

CAEvents

ALL	
Special Dividend	
Share Split	
Spin Off	

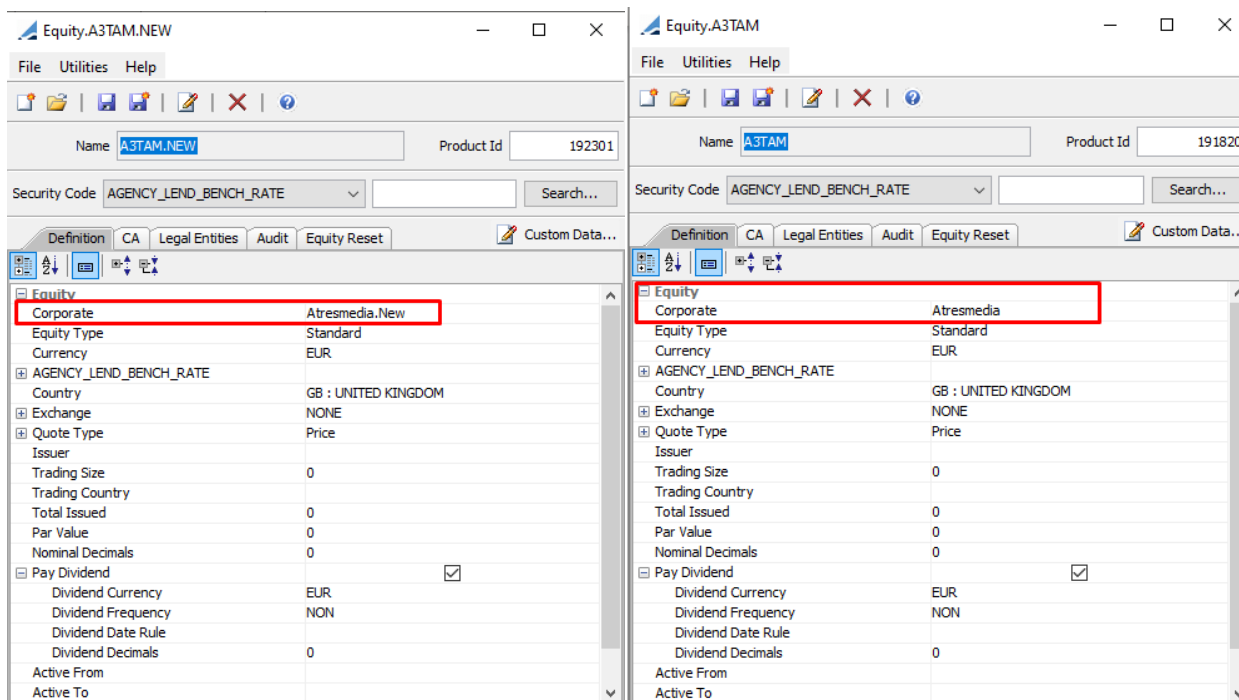
5.5 Manual Corporate Actions Processing

1. Create new underlying equity and contract should have positions.
2. Attach the underlying equity to the contract.
3. Create CA rule as per event.
4. Create corporate action as per details mentioned in FOW csv file.
5. Transform the CA event through CA adjustment window.
6. Verify contract adjustment and validate.
7. Post validation apply the CA event and save it, make sure new trades should create to close out the old position.

Note: If contract details SVN box checked then post CA event new contract will have SVN 1 and If contract details SVN box unchecked then post CA event old contract will have # in front of name.

5.5.1 Spinoff Process

New underlying Equity A3TAM.NEW / Old underlying Equity A3TAM



The image displays two side-by-side screenshots of the Nasdaq Calypso application, showing the 'Definition' tab for two different equity contracts.

Left Screenshot (Equity.A3TAM.NEW):

- Name:** A3TAM.NEW
- Product Id:** 192301
- Security Code:** AGENCY_LEND_BENCH_RATE
- Definition Tab:** Shows a list of fields for the new contract. The 'Corporate' field is highlighted with a red box and contains the value 'Atresmedia.New'.
- Other Fields:** Equity Type: Standard, Currency: EUR, AGENCY_LEND_BENCH_RATE: GB : UNITED KINGDOM, Exchange: NONE, Quote Type: Price, Issuer: (blank), Trading Size: 0, Trading Country: 0, Total Issued: 0, Par Value: 0, Nominal Decimals: 0, Pay Dividend: ☒, Dividend Currency: EUR, Dividend Frequency: NON, Dividend Date Rule: 0, Active From: (blank), Active To: (blank).

Right Screenshot (Equity.A3TAM):

- Name:** A3TAM
- Product Id:** 191820
- Security Code:** AGENCY_LEND_BENCH_RATE
- Definition Tab:** Shows a list of fields for the old contract. The 'Corporate' field is highlighted with a red box and contains the value 'Atresmedia'.
- Other Fields:** Equity Type: Standard, Currency: EUR, AGENCY_LEND_BENCH_RATE: GB : UNITED KINGDOM, Exchange: NONE, Quote Type: Price, Issuer: (blank), Trading Size: 0, Trading Country: 0, Total Issued: 0, Par Value: 0, Nominal Decimals: 0, Pay Dividend: ☒, Dividend Currency: EUR, Dividend Frequency: NON, Dividend Date Rule: 0, Active From: (blank), Active To: (blank).

Position details / Contract details XMRV-A3TAM-O

Strategy Name	Option
Price	Price
Save	Save
Solve	Don't Solve
Book	CIBC
Trade Date	01/06/2023
Trade Time	12:03:59.000 PM
Cleared Date	02/06/2023
@ClearedTradeDate	2023-06-01
Client Account	SB0001 (203259)
Counterparty	MERRILL LYNCH
Counterparty Account	Merrill Lynch Client ...
Product ID	
Exchange	MEFF
Settle Ccy	EUR
Contract	XMRV-A3TAM-O
Contract Date	Jun 23
Expiry Date	16/06/2023
Strike	40
Put/Call	Call
Buy/Sell	Buy
Quantity	50
Price	35.0000000
Price Convention	Price
Internal Reference	
Status	VERIFIED
Action	AMEND
External Reference	
Order Taker	
Executing Broker	
CCP	
Account Type	CLIENT
Reg Code	03 - Secured
Execution Type	
TradeSource	Manually Entered
Service Level	Full Service
Trade Type	
OIC	
Liquidated With	
Termination Type	
Client Id	SECURITY BANK
Trade Id	253944
@CCP	DUMMY_CCP
@AVG Price Future	
Average Price	
Notional	5.000

Exchange Traded Option: XMRV-A3TAM-O/MEFF/Equity/EUR

File

Exchange: MEFF Type: Equity Id: 208257

Name: XMRV-A3TAM-O Currency: EUR

Definition Options

Quote Type: Price No. Contracts: 57 Rate Modifier: 1 Is SVN: ☒

ExerciseType: American SettleType: Phys... Strike Quote Type: Price SVN: 0

Tick Value: 1 Min Move (Ticks): 0.01 CA Id: 192304 Active From: 02/06/2023

Contract size: 100 ☒ Auto Exercise Adj. Del: 0 To:

Underlying: Equity.A3TAM

Last Trade Time: 17:35 Last Trade Rule: MEFF3038_O_MEFF_EUR_XD

Last Exercise Time: 23:59 Last Exercise Rule: MEFF3038_O_MEFF_EUR_XD

Europe/Madrid Expiration Rule: MEFF3038_O_MEFF_EUR_XD

Exercise Settlement Lag: 0 Trade Settlement Lag: 0 Cal Holidays: MAD

Special Quote: No Day Count: NONE

Asian Fixings: ☐ Avg Period Start Rule:

DateFormat: Monthly Avg Period End Rule:

Name Month: Prompt Month Commodity Reset:

Future Contract:

Attribute: ElectronicExchangeTicker=A3TA...

Long Name: Atresmedia Prem pmt conv: Conventional

Exch drg ticker: A3TAM Quote decimals: 0

Id	Name	Long Name	Exchange	Type	Currency	Underlying	Settlement Type	SVN	Contract size	Active From	Active

CA Rule window for Spinoff

Corporate Action Rules

CARules Help

Selection

CA Rule Id: 4001 CA Type: SOFF Exchange: ANY Currency: ANY

Product Type: ETOEquity Sub Type: ANY Underlying Type: Equity Application Date: EX-DATE

Adjustment

Action: ADJUST Default Rule: ☒

Factor: MANUAL Decimals: 0 Pay lag: 0

MDE Roll: FOLLOWING Special Dividend: ☐ Cash Only: ☐

Operator: CONTRACTSIZE DIVIDE NEAREST 4

STRIKE MULTIPLY NEAREST 2

NONE NONE NONE 0

Save Save As New Remove Clear

Corporate action details for Spinoff

Corporate Action

Corporate Action Help Apply

Generate Apply Create Elect

Q Type here to filter properties

Corporate Action Spin Off 05/06/2023/191820/192301

CA Id 192303

Sequence 0

AU_OTC_ELIGIBLE_COLLATERAL_TYP

Parent Linked CA

Child Linked CA

Official CA Id

Underlying Product Equity.A3TAM

Exchange NONE

Exchange TimeZone America/New_York

Underlying Currency EUR

AGENCY_LEND_BENCH_RATE

CA Swift Code SOFF: Spin Off

Event Choice MAND: Mandatory no Option

Event Process Distribution

Event Restriction

Dates: Ex Date: 02/06/2023 Record Date: 02/06/2023

Announcement Date 01/06/2023

Ex (Effective) Date 02/06/2023

Record Date 02/06/2023

Election to Counterparty Market Deadline

Election to Counterparty Response Deadline

Shareholder Meeting Date

SPINOFF: SECU From 2 To 1 Equity.A3TAM.NEW Pay Date 05/06/2023

Is Default Option

CA Option Id 192303

Option Status

Option Reference

Swift Event Option SECU: Securities Option

Model SPINOFF

Subtype SPINOFF

Success Percent (Scale Back Ratio) (%) 100

Cash Rate 0

Currency EUR

Rounding Method

To Security Equity.A3TAM.NEW

Payment Date 05/06/2023

From Ratio 2

To Ratio 1

Adjustment Cost 0.2

Cash In Lieu Payment Rate 0

Response Deadline Date/Time

Market Deadline Date/Time

EARD: Early Response Deadline Date/Time

Offer Type Indicator

Withholding Tax Rate (%)

Second Level Tax (%)

Fractional Part for Cash

Withholding Tax Rate

Additional Information:

Comment

Adjustment Factor 7

Theoretical Dilution Factor 0

Additional Process Indicator

CA adjustment window and the adjustment of Strike, contract size & Underlying

Corporate Action - Transformation report

Report Util

Selection
CA ex-date : 02/06/2023 Underlying : A3TAM

Load (CA)

Product Id	CA Type	CA SubType	Amount	Other Amount	Currency	Ex Date	Payment Date	Record Date
192303 SPNCOFF		SPNCOFF	0		0 EUR	02/06/2023	05/06/2023	02/06/2023

Adjustment Applicable Date : 02/06/2023 Product type : ANY Generate Adjustments Validate All Unvalidated All Save All Save Report Remove

Status	Modified	Ca Id	Rule Id	Factor	Application Date	Product Type	Product Id	Product Desc	From Strike	To Strike	From Contract Size	To Contract Size	From Barrier Level	To Barrier Level	From Underlying	To Underlying	From Parity Numerator	To Parity Numerator	From Parity Denominator	To Parity Denominator
Not validated	☐		03501		7/02/06/2023	ETOEQU	192302	XMRV-A3TAM-O/CALL/40/SWN1/JUN23	40	47	100	14			A3TAM	A3TAM-NEW				

Transformation window to apply the assimilation

Corporate Action

Corporate Action Help Apply

Generate Apply Create Elect

Q- Type here to filter properties

Action Custom Data... XML

Event Definition: CA Id 192306, TRANSFORMATION/ASSIMILATION/02/06/2023/192302/192307

Deactivated (Booking Not Required)

Corporate Action TRANSFORMATION/ASSIMILATION/02/06/2023/192302/192307

Underlying Product XMRV-A3TAM-O/CALL/40/SWN1/JUN23

Effective Date: 02/06/2023 Record Date: 01/06/2023

Announcement Date 02/06/2023

Ex (Effective) Date 02/06/2023

Record Date 01/06/2023

Active From

Active To

TRANSFORMATION/ASSIMILATION: From 1 To 1 XMRV-A3TAM-O/CALL/47/SWN1/JUN23 Pay Date 02/06/2023

Model TRANSFORMATION

Amount 0

Currency EUR

Rounding Method

To Security XMRV-A3TAM-O/CALL/47/SWN1/JUN23

Payment Date 02/06/2023

From Ratio 1

To Ratio 1

Other Amount 0

Additional Information: Generated from CA on the underlying product id=191820 (CA Id = 1...

Comment Generated from CA on the underlying product id=191820 (CA Id = 192303)

Post apply the Assimilation user need to generate and save the new trades.

Corporate Action
Corporate Action Help Apply

Generate Apply Create Elect

Applicable Date 02/06/2023 Use Ex Date Use Record Date Use Payment Date

Corporate Action Selection

Corporate Action TRANSFORMATION/ASSIMILATION/02/06/2023/192307
CA Model
CA SubType
Swift Event Code
CA SDFilter
Underlying Code: AU_OTC_ELIGIBLE_COLLATERAL_TYP
Underlying Product XMRV-A3TAM-O/CALL/40/SVN0/JUN23

Corporate Action Application Criteria

Apply to Position
BO Position Type THEORETICAL
BO Position Date Type TRADE
BO Position Aggregation
BO Position Balance Type
PL Position Reopened
BO Aggregation By SubAccount
Processing Org.
Product Type ETD
Position Filter
Apply to OTC
Apply to MarginCall Position

Applicable CA Load (CA) Add

Trade Generate Trade Save All Internal Only Position Aggregation Claims Agent Agent Aggregation

Post Corporate action Trade browser details with new positions

Trade Browser / Trade Browser
Report Data View Export Market Data Process Utilities Help

Criteria

Client Account	CounterParty Account	Trade Id	ExecutionType	External Reference	Product Type	Trade Date	Product Description (F)	Buy/Sell	Quantity	Trade Price	Trade Currency	TradeStatus	Entered Date	Entered User	Book	CounterParty	Trader	Settle Cur.
Client Account: SB0001																		
SB0001	Merrill Lynch Client	253944			ETOEquity	Jun 01, 2023 12:03 PM	XMRV-A3TAM-O/CALL/40/SVN0/JUN23	Buy	50.00	35.0000000	EUR	VERIFIED	Jun 07, 2023 12:05 PM	calypso_user	CIBC	MERRILL LYNCH	NONE	EUR
SB0001	Merrill Lynch Client	253948	CORPORATE ACTION		ETOEquity	Jun 02, 2023 12:00 AM	XMRV-A3TAM-O/CALL/40/SVN0/JUN23	Sell	(50.00)	35.0000000	EUR	VERIFIED	Jun 07, 2023 12:22 PM	calypso_user	CIBC	MERRILL LYNCH	NONE	EUR
SB0001	Merrill Lynch Client	253949	CORPORATE ACTION		ETOEquity	Jun 02, 2023 12:00 AM	XMRV-A3TAM-O/CALL/47/SVN1/JUN23	Buy	50.00	250.0000000	EUR	VERIFIED	Jun 07, 2023 12:22 PM	calypso_user	CIBC	MERRILL LYNCH	NONE	EUR

Post corporate action new contract details with new contract size, Underlying, CA Id, is SVN 1 and Activate from.

Exchange Traded Option: XMRV-A3TAM-O/MEFF/Equity/EUR

File

Exchange: MEFF Type: Equity Id: 208258
Name: XMRV-A3TAM-O Currency: EUR

Definition Options

Quote Type: Price No. Contracts: 57 Rate Modifier: 1 Is SVN: ☒
ExerciseType: American SettleType: Phys... Strike Quote Type: Price SVN: 1
Tick Value: 0.14 Min Move (Ticks): 0.01 CA Id: 192304 Active From: 02/06/2023
Contract size: 14 ☒ Auto Exercise Adj. Del: 0 To:
Underlying: Equity.A3TAM.NEW ...

Last Trade Time: 17 : 35 Last Trade Rule: MEFF3038_O_MEFF_EUR_XD ...
Last Exercise Time: 23 : 59 Last Exercise Rule: MEFF3038_O_MEFF_EUR_XD ...
Europe/Madrid Expiration Rule: MEFF3038_O_MEFF_EUR_XD ...
Exercise Settlement Lag: 0 Trade Settlement Lag: 0 Cal Holidays: MAD ...
Special Quote: No Day Count: Date Generator: NONE ...
☐ Asian Fixings Avg Period Start Rule: ...
DateFormat: Monthly Avg Period End Rule: ...
Name Month: Prompt Month Commodity Reset: ...
Future Contract: ...
Attribute: ElectronicExchangeTicker=A3TA... ...
Long Name: Atresmedia Prem pmt conv: Conventional ...
Exch drg ticker: A3TAM Quote decimals: 0

5.5.2 Special Dividend Process

Underlying details Equity AIF / Contract details XMOD-AIF-O

Equity.AIF

File Utilities Help

Name AIF

Product Id 239323

Security Code ISIN

CA0221SR1073

Search...

Definition CA Legal Entities Audit Equity Reset Custom Data...

Equity

Corporate Altus Group Limited

Equity Type Standard

Currency CAD

AGENCY_LEND_BENCH_RATE

Country CA : CANADA

Exchange NONE

Quote Type Price

Issuer

Trading Size 0

Trading Country

Total Issued 0

Par Value 0

Nominal Decimals 0

Pay Dividend ☒

Dividend Currency CAD

Dividend Frequency NON

Dividend Date Rule

Dividend Decimals 0

Active From

Active To

Exchange Traded Option: XMOD-AIF-O/ME/Equity/CAD

File

Exchange ME

Type Equity

Id 238759

Name XMOD-AIF-O

Currency CAD

Definition Options

Quote Type Price

No. Contracts 5

Rate Modifier 1

Is SYN ☒

ExerciseType American

SettleType Phys...

Strike Quote Type Price

SVN 0

Tick Value 1

Min Move (Ticks) 0.01

CA Id 239333

Active From 24/11/2023

Contract size 100

☒ Auto Exercise

Adj. Del 0

To

Underlying Equity.AIF

Last Trade Time 16 : 00

Last Trade Rule ME4212_O_ME_CAD_XD

Last Exercise Time 23 : 59

Last Exercise Rule ME4212_O_ME_CAD_XD

Europe/London

Expiration Rule ME4212_O_ME_CAD_XD

Exercise Settlement Lag 0

Trade Settlement Lag 0

Cal Holidays NYC

Special Quote No

Date Generator NONE

Asian Fixings

Avg Period Start Rule

DateFormat Daily

Avg Period End Rule

Name Month Prompt Month

Commodity Reset

Future Contract

Attribute ElectronicExchangeTicker=AIF

Long Name Altus Group Limited

Prem pmt conv Conventional

Exch chg ticker AIF

Quote decimals 3

Position details

Strategy Name	Option
Price	Price
Save	Save
Solve	Don't Solve
Book	EUREX (LSE)
Trade Date	22/11/2023
Trade Time	10:40:23.000 AM
Cleared Date	23/11/2023
@ClearedTradeDate	2023-11-22
Client Account	RQ0001 (175827)
Counterparty	NEWEDGE
Counterparty Account	Newedge Client (70...
Product ID	ME
Exchange	CAD
Settle Ccy	XMOD-AIF-O
Contract	01 Dec 23
Expiry Date	15/12/2023
Strike	300
Put/Call	Call
Buy/Sell	Buy
Quantity	35
Price	12.00000000
Price Convention	Price
Internal Reference	
Status	VERIFIED
Action	AMEND
External Reference	
Order Taker	
Executing Broker	
CCP	
Account Type	CLIENT
Reg Code	01 - Regulated
Execution Type	
TradeSource	Manually Entered
Service Level	Full Service
Trade Type	
O/C	
Liquidated With	
Termination Type	
Client Id	BANK ALFA REGC...
Trade Id	295566
@CCP	DUMINY_CCP
@AVG Price Future	
Average Price	
Notional	3.500

CA Rule window for Special Dividend details

Corporate Action Rules

CA Rules Help

Selection

CA Rule Id: 3001 CA Type: DVCA Exchange: ANY Currency: ANY

Product Type: ETOEquity Sub Type: ANY Underlying Type: Equity Application Date: EX-DATE

Adjustment

Action: ADJUST Default Rule: ☒ Factor: Div Rate Decimals: 0 Pay lag: 0 MDE Roll: FOLLOWING Special Dividend: ☒ Cash Only: ☐

Operator Rounding Decimals

NONE NONE NONE 0

STRIKE SUBTRACT NEAREST 6

NONE NONE NONE 0

Corporate action details for Special Dividend

Corporate Action

Corporate Action Help Apply

Generate Apply Create Elect

Q: Type here to filter properties

Action Custom Data... XML

Deactivated (Booking Not Required)

Corporate Action: Special Cash Dividend/27/11/2023/239323

CA Id: 239332

Sequence: 0

AU_OTC_ELIGIBLE_COLLATERAL_TYP

Parent Linked CA

Child Linked CA

Official CA Id

Underlying Product: Equity-AIF

Exchange: NONE

Exchange TimeZone: America/New_York

Underlying Currency: CAD

AGENCY_LEND_BENCH_RATE

CA Swift Code: DVCA: Cash Dividend

Event Choice: MAND: Mandatory no Option

Event Process: Distribution

Event Restriction

Dates: Ex Date: 24/11/2023 Record Date: 24/11/2023

Announcement Date: 23/11/2023

Ex (Effective) Date: 24/11/2023

Record Date: 24/11/2023

Election to Counterparty Market Deadline

Election to Counterparty Response Deadline

CASH/DIVIDEND: CASH 3 CAD Pay Date 27/11/2023

Is Default Option: ☒

CA Option Id: 239332

Option Status

Option Reference

Swift Event Option: CASH: Cash

Model: CASH

Subtype: DIVIDEND

Amount: 3

Currency: CAD

Payment Date: 27/11/2023

Tax Rate: 0

Other Amount: 0

Response Deadline Date/Time

Market Deadline Date/Time

EARD: Early Response Deadline Date/Time

Offer Type Indicator

Withholding Tax Rate (%)

Second Level Tax (%)

Fractional Part for Cash

Withholding Tax Rate

ADR Fee

Additional Information:

Comment

Adjustment Factor: 1

Theoretical Dilution Factor: 1

Additional Process Indicator

Event Specific Information: DVCA Cash Dividend

Special Dividend: ☒

Dividend Type: SPEC: Special Dividend

Fully Franked Rate

CA adjustment window and the adjustment of Strike

Corporate Action - Transformation report

Report Util

Selection
CA ex-date : 24/11/2023 Underlying : AIF

Load (CA)

Product Id	CA Type	CA SubType	Amount	Other Amount	Currency	Ex Date	Payment Date	Record Date
239332 CASH	DIVIDEND		3		0 CAD	24/11/2023	27/11/2023	24/11/2023

Adjustment Applicable Date : 24/11/2023 Product type : ANY Generate Adjustments Validate All Unvalidated All Save All Save Report Remove

Status	Modified	Ca Id	Rule Id	Factor	Application Date	Product Type	Product Id	Product Desc	From Strike	To Strike	From Contract Size	To Contract Size	From Barrier Level	To Barrier Level	From Underlying	To Underlying	From Parity Numerator	To Parity Numerator	From Parity Denominator	To Parity Denominator
Not validated		0 300.1		1	24/11/2023	ETOEquity	239324 XMOD-AIF-O/CALL/300/SVN0/IDEC23		300	297	100	100			AIF					

Transformation window to apply the assimilation

Corporate Action

Corporate Action Help Apply

Generate Apply Create Elect

CL- Type here to filter properties

Event Definition: CA id 239333, TRANSFORMATION/ASSIMILATION/24/11/2023/239324/239334	
Deactivated (Booking Not Required)	
Corporate Action	TRANSFORMATION/ASSIMILATION/24/11/2023/239324/239334
Underlying Product	XMOD-AIF-O/CALL/300/SVN0/IDEC23
Dates: Ex Date: 24/11/2023 Record Date: 23/11/2023	
Announcement Date	24/11/2023
Ex (Effective) Date	24/11/2023
Record Date	23/11/2023
Active From	
Active To	
TRANSFORMATION/ASSIMILATION: From 1 To 1 XMOD-AIF-O/CALL/297/SVN1/IDEC23 Pay Date 24/11/2023	
Model	TRANSFORMATION
Amount	0
Currency	CAD
Rounding Method	
To Security	XMOD-AIF-O/CALL/297/SVN1/IDEC23
Payment Date	24/11/2023
From Ratio	1
To Ratio	1
Unadjusted Close Price From Quote	0
Additional Information: Generated from CA on the underlying product id=239323 (CA Id = 2...	
Comment	Generated from CA on the underlying product id=239323 (CA Id = 239332)

Post apply the Assimilation user need to generate and save the new trades.

Corporate Action

Corporate Action Help Apply

Generate Apply Create Elect

Applicable Date: 24/11/2023 Use Ex Date Use Record Date Use Payment Date

Corporate Action Selection

Corporate Action: TRANSFORMATION/ASSIMILATION/24/11/2023/239324/239334

CA Model: TRANSFORMATION

CA SubType: ASSIMILATION

Swift Event Code: TRANSFORMATION

CA SDFilter: TRANSFORMATION

Underlying Code: AU_OTC_ELIGIBLE_COLLATERAL_TYP

Underlying Product: XMOD-ASF-O/CALL/300/SVN1/IDEC23

Corporate Action Application Criteria

Apply to Position: ☒

BO Position Type: THEORETICAL

BO Position Date Type: TRADE

BO Position Aggregation: ☐

BO Position Balance Type: ☐

PL Position Reported: ☐

BO Aggregation By SubAccount: ☐

Processing Org: ☐

Product Type: ETD

Position Filter: ☐

Apply to OTC: ☐

Apply to MarginCall Position: ☐

Applicable CA Load CA Add T1 T2 T3 T4 T5 T6 T7 T8 T9 T10

Product Id	CA Type	CA SubType	Amount	Other Amount	Currency	Ex Date	Payment Date	Record Date
239324	TRANSFORMATION	ASSIMILATION	0	0	CAD	24/11/2023	24/11/2023	24/11/2023

Trade Generate Trade Save All Internal Only Position Aggregation Claims Agent Agent Aggregation

Role	Trade Id	Book	CounterParty	Product Type	Product Description	Trade Booking Date	Action	Pay/Rec: Quantity	Pay/Rec: SettlementAmount	Settle Cur.	Diff: With Existing	Pay/Rec: WithholdingTax: Gross Amount	Pay/Rec: WithholdingTax: Amount
CounterParty	295578	EUR/USD (LSE)	NEWEDGE	ETOEquity	XMOD-ASF-O/CALL/300/SVN1/IDEC23	24/11/2023	NONE	(35.00)	42,000.00	CAD			
CounterParty	295579	EUR/USD (LSE)	NEWEDGE	ETOEquity	XMOD-ASF-O/CALL/297/SVN1/IDEC23	24/11/2023	NONE	35.00	(42,000.00)	CAD			
								0.00	0.00	CAD			

Post Corporate action Trade browser details with new positions

Trade Browser / Trade Browser

Report Data View Export Market Data Process Utilities Help

Criteria

Client Account	CounterParty Account	Trade Id	ExecutionType	External Reference	Product Type	Trade Date	Product Description (P)	Buy/Sell	Quantity	Trade Price	Trade Currency	TradeStatus	Entered Date	Entered User	Book	CounterParty	Trader	Settle Cur.
Client Account: RG0001																		
RG0001	Newedge Client	295566			ETOEquity	Nov 22, 2023 10:40 AM	XMOD-ASF-O/CALL/300/SVN1/IDEC23	Buy	35.00	12.00000000	CAD	VERIFIED	Dec 04, 2023 10:41 AM	calypso_user	EUR/USD (LSE)	NEWEDGE	NONE	CAD
RG0001	Newedge Client	295578	CORPORATE ACTION		ETOEquity	Nov 24, 2023 12:00 AM	XMOD-ASF-O/CALL/300/SVN1/IDEC23	Sell	(35.00)	12.00000000	CAD	VERIFIED	Dec 04, 2023 10:50 AM	calypso_user	EUR/USD (LSE)	NEWEDGE	NONE	CAD
RG0001	Newedge Client	295579	CORPORATE ACTION		ETOEquity	Nov 24, 2023 12:00 AM	XMOD-ASF-O/CALL/297/SVN1/IDEC23	Buy	35.00	12.00000000	CAD	VERIFIED	Dec 04, 2023 10:50 AM	calypso_user	EUR/USD (LSE)	NEWEDGE	NONE	CAD

Post corporate action new contract details with new Strike, CA Id, is SVN 1 and Activate from.

Exchange Traded Option: XMOD-AIF-O/ME/Equity/CAD

File

Exchange ME Type Equity Id 238760
Name XMOD-AIF-O Currency CAD

Definition Options

Quote Type Price No. Contracts 5 Rate Modifier 1 Is SVN ☒
ExerciseType American SettleType Phys... Strike Quote Type Price SVN 1
Tick Value 1 Min Move (Ticks) 0.01 CA Id 239333 Active From 24/11/2023
Contract size 100 ☒ Auto Exercise Adj. Del 0 To

Underlying Equity.AIF

Last Trade Time 16 : 00 Last Trade Rule ME4212_O_ME_CAD_XD
Last Exercise Time 23 : 59 Last Exercise Rule ME4212_O_ME_CAD_XD
Europe/London Expiration Rule ME4212_O_ME_CAD_XD
Exercise Settlement Lag 0 Trade Settlement Lag 0 Cal Holidays NYC
Special Quote No Day Count Date Generator NONE
Asian Fixings Avg Period Start Rule
DateFormat Daily Avg Period End Rule
Name Month Prompt Month Commodity Reset
Future Contract
Attribute ElectronicExchangeTicker=AIF
Long Name Altus Group Limited Prem pmt conv Conventional
Exch clrg ticker AIF
Quote decimals 3

Exchange Traded Option: XMOD-AIF-O/ME/Equity/CAD

File

Exchange ME Type Equity Id 238760
Name XMOD-AIF-O Currency CAD

Definition Options

Start Date 05/12/2023 PUT ?
Strike: From To Increment
Underlying Equity.AIF Generate Options

Id	Underlying	Exp.	Expiry	Put/Call	Strike	Trade Start	Trade End	Last Exercise	First Delivery	Last
239334	Equity.AIF	DEC 23	15/12/2023	CALL	297	24/11/2023	15/12/2023	15/12/2023		

5.5.3 Share Split Process

Underlying details Equity BLX / Contract details XMOD-BLX-O

Equity.BLX

File Utilities Help

Name BLX

Product Id 239304

Security Code ISIN

CA09950M3003

Search...

Definition

CA

Legal Entities

Audit

Equity Reset

Custom Data...

Equity

Corporate Boralex Incorporated

Equity Type Standard

Currency CAD

AGENCY_LEND_BENCH_RATE

Country CA : CANADA

Exchange NONE

Quote Type Price

Issuer

Trading Size 0

Trading Country

Total Issued 0

Par Value 0

Nominal Decimals 0

Pay Dividend

Dividend Currency CAD

Dividend Frequency NON

Dividend Date Rule

Dividend Decimals 0

Active From

Active To

Exchange Traded Option: #XMOD-BLX-O/ME/Equity/CAD

File

Exchange ME

Type Equity

Id 220178

Name XMOD-BLX-O

Currency CAD

Definition

Options

Quote Type Price

No. Contracts 5

Rate Modifier 1

Is SVN

ExerciseType American

SettleType Phys...

Strike Quote Type Price

Tick Value 1

Min Move (Ticks) 0.01

CA Id 0

Contract size 100

Auto Exercise

Adj, Del 0

Underlying Equity.BLX

Last Trade Time 16 : 00

Last Trade Rule ME4081_O_ME_CAD_XD

Last Exercise Time 23 : 59

Last Exercise Rule ME4081_O_ME_CAD_XD

Europe/London

Expiration Rule ME4081_O_ME_CAD_XD

Exercise Settlement Lag 0

Trade Settlement Lag 0

Cal Holidays NYC

Special Quote No

Date Generator NONE

Asian Fixings

Avg Period Start Rule

DateFormat Daily

Avg Period End Rule

Name Month Prompt Month

Commodity Reset

Future Contract

Attribute ElectronicExchangeTicker-BLX

Long Name Boralex Incorporated Class A

Prem pmt conv Conventional

Exch drg ticker

Quote decimals 3

Position details

Strategy Name	Option
Price	Price
Save	Save
Solve	Don't Solve
Book	EUROX (LSE)
Trade Date	22/1/2023
Cleared Date	10:12:32.000 AM
@ClearedTradeDate	23/1/2023
Client Account	2023-11-22
Counterparty	RG0001 (175827)
Counterparty Account	NEWEDGE
Product ID	Newedge Client (70...
Exchange	ME
Settle Ccy	CAD
Contract	#XMOD-BLX-O
Contract Date	01 Jan 24
Expiry Date	19/01/2024
Strike	200
Put/Call	Call
Buy/Sell	Buy
Quantity	20
Price	8.00000000
Price Convention	Price
Internal Reference	
Status	VERIFIED
Action	AMEND
External Reference	
Order Taker	
Executing Broker	
CCP	CLIENT
Account Type	01 - Regulated
Reg Code	
Execution Type	Manually Entered
TradeSource	Full Service
Service Level	
Trade Type	
O/C	
Liquidated w/ith	
Termination Type	
Client Id	BANK ALFA REGC...
Trade Id	295430
@CCP	DUMINY_CCP
@AVG Price Future	
Average Price	
Notional	2.000

CA Rule window for Share Split details

Corporate Action Rules

CA Rules Help

Selection
CA Rule Id: 1002 CA Type: SPLF Exchange: ANY Currency: ANY
Product Type: ETOEquity Sub Type: ANY Underlying Type: Equity Application Date: EX-DATE

Adjustment
Action: ADJUST Default Rule: ☒ Factor: THEORETICAL Decimals: 0 Pay lag: 0 MDE Roll: FOLLOWING Special Dividend: ☐ Cash Only: ☐

Operator Rounding Decimals
CONTRACTSIZE MULTIPLY NONE 2
STRIKE DIVIDE NONE 2
NONE NONE NONE 0

Corporate action details for Share split

Corporate Action

Corporate Action Help Apply

Generate Apply Create Elect

Event Definition: CA id 239313, Stock Split/27/11/2023/239304
(Deactivated (Booking Not Required))

Corporate Action
CA Id: 239313
Sequence: 0
AU_OTC_ELIGIBLE_COLLATERAL_TYP
Parent Linked CA
Child Linked CA
Official CA Id
Underlying Product: Equity.BLX
Exchange: NONE
Exchange TimeZone: America/New_York
Underlying Currency: CAD
AGENCY_LEND_BENCH_RATE
ISIN: CA09950M3003
CA Swift Code: SPLF: Stock Split
Event Choice: MAND: Mandatory no Option
Event Process: Distribution
Event Restriction

Dates: Ex Date: 24/11/2023 Record Date: 24/11/2023
Announcement Date: 23/11/2023
Ex (Effective) Date: 24/11/2023
Record Date: 24/11/2023
Shareholder Meeting Date

TRANSFORMATION/SPLIT: SECU From 1 To 5 Pay Date: 27/11/2023

Is Default Option: ☒
CA Option Id: 239313
Option Status
Option Reference
Swift Event Option: SECU: Securities Option
Model: TRANSFORMATION
Subtype: SPLIT
By Open Trade: ☐
Currency: CAD
Rounding Method
To Security
Payment Date: 27/11/2023
From Ratio: 1
To Ratio: 5
Unadjusted Close Price From Quote: 0
Offer Type Indicator
Withholding Tax Rate (%)
Second Level Tax (%)
Fractional Part for Cash
Withholding Tax Rate

Additional Information:
Comment:
Adjustment Factor: 0
Theoretical Dilution Factor: 5
Additional Process Indicator
Event Specific Information: SPLF Stock Split

CA adjustment window and the adjustment of Contract size

Corporate Action - Transformation report

Report: Util

Selection
CA ex-date: 24/11/2023 Underlying: BLX

Load (CA)

Product Id	CA Type	CA SubType	Amount	Other Amount	Currency	Ex Date	Payment Date	Record Date
239313	TRANSFORMATION	SPLIT		0	0 CAD	24/11/2023	27/11/2023	24/11/2023

Adjustment: Applicable Date: 24/11/2023 Product type: ANY Generate Adjustments Validate All Unvalidated All Save All Save Report Remove

Status	Modified	Ca Id	Rule Id	Factor	Application Date	Product Type	Product Id	Product Desc	From Strike	To Strike	From Contract Size	To Contract Size	From Barrier Level	To Barrier Level	From Underlying	To Underlying	From Parity Numerator	To Parity Numerator	From Parity Denominator	To Parity Denominator
Not validated		0.1002			24/11/2023	ETOEquity	239305	XMOD-BLX-O/CALL/200/1JAN24	200	40	100	500			BLX					

Transformation window to apply the assimilation

Corporate Action

Corporate Action Help Apply

Generate Apply Create Elect

Q- Type here to filter properties

Event Definition: CA id 239314, TRANSFORMATION/ASSIMILATION/24/11/2023/239305/239315	
Deactivated (Booking Not Required)	
Corporate Action	TRANSFORMATION/ASSIMILATION/24/11/2023/239305/239315
Underlying Product	XMOD-BLX-O/CALL/200/1JAN24
Dates: Ex Date: 24/11/2023 Record Date: 23/11/2023	
Announcement Date	24/11/2023
Ex (Effective) Date	24/11/2023
Record Date	23/11/2023
Active From	
Active To	
TRANSFORMATION/ASSIMILATION: From 1 To 1 XMOD-BLX-O/CALL/40/1JAN24 Pay Date 24/11/2023	
Model	TRANSFORMATION
Amount	0
Currency	CAD
Rounding Method	
To Security	XMOD-BLX-O/CALL/40/1JAN24
Payment Date	24/11/2023
From Ratio	1
To Ratio	1
Unadjusted Close Price From Quote	0
Additional Information: Generated from CA on the underlying product id=239304 (CA Id = 2...	
Comment	Generated from CA on the underlying product id=239304 (CA Id = 239313)

Post apply the Assimilation user need to generate and save the new trades.

Corporate Action

Corporate Action Selection

Applicable Date: 24/11/2023

Use Ex Date: ☒ Use Record Date: ☐ Use Payment Date: ☐

Corporate Action Application Criteria

Apply to Position: ☒ THEORETICAL

Apply to OTC: ☐ TRADE

Apply to Margin Call Position: ☐ ETD

Product Id: 239314 TRANSFORMATION

CA Type: TRANSFORMATION

CA SubType: ASSIMILATION

Amount: 0

Other Amount: 0

Currency: CAD

Ex Date: 24/11/2023

Payment Date: 24/11/2023

Record Date: 23/11/2023

Trade

Generate Trade: ☒ Save All: ☒ Internal: ☐ Only Position Aggregation: ☐ Claims: ☒ Agent: ☐ Agent Aggregation: ☐

Role	Trade Id	Book	CounterParty	Product Type	Product Description	Trade Booking Date	Action	Pay/Rec. Quantity	Pay/Rec. Settlement Amount	Settle Cur.	Diff With Existing	Pay/Rec. Withholding Tax Gross Amount	Pay/Rec. Withholding Tax Amount
CounterParty	295556	BLUREX (LSE)	NEWEDGE	ETOEquity	INMOD-BLX-O/CALL/200/1JAN24	24/11/2023	NONE	(20.00)	35,000.00	CAD			
CounterParty	295557	BLUREX (LSE)	NEWEDGE	ETOEquity	INMOD-BLX-O/CALL/H0/1JAN24	24/11/2023	NONE	20.00	(16,000.00)	CAD			
								0.00	0.00	CAD			
								0.00	0.00				

Post Corporate action Trade browser details with new positions

Trade Browser / Trade Browser

Report Data View Export Market Data Process Utilities Help

Criteria

Client Account	CounterParty Account	Trade Id	ExecutionType	External Reference	Product Type	Trade Date	Product Description (P)	Buy/Sell	Quantity	Trade Price	Trade Currency	TradeStatus	Entered Date	Entered User	Book	CounterParty	Trader	Settle Cur.
Client Account: RG0001																		
RG0001	Nevedge Client	295430			ETOEQuity	Nov 22, 2023 10:12 AM	INMOD-BLX-O/CALL/200/1JAN24	Buy	20.00	8.0000000	CAD	VERIFIED	Dec 04, 2023 10:13 AM	calypso_user	BLUREX (LSE)	NEWEDGE	NONE	CAD
RG0001	Nevedge Client	295556	CORPORATE ACTION		ETOEQuity	Nov 24, 2023 12:00 AM	INMOD-BLX-O/CALL/200/1JAN24	Sell	(20.00)	8.0000000	CAD	VERIFIED	Dec 04, 2023 10:23 AM	calypso_user	BLUREX (LSE)	NEWEDGE	NONE	CAD
RG0001	Nevedge Client	295557	CORPORATE ACTION		ETOEQuity	Nov 24, 2023 12:00 AM	INMOD-BLX-O/CALL/H0/1JAN24	Buy	20.00	1.6000000	CAD	VERIFIED	Dec 04, 2023 10:23 AM	calypso_user	BLUREX (LSE)	NEWEDGE	NONE	CAD

Post corporate action new contract details with new Strike, Contract size, CA Id and Activate from.

Exchange Traded Option: XMOD-BLX-O/ME/Equity/CAD

File

Exchange: ME Type: Equity Id: 238758
Name: XMOD-BLX-O Currency: CAD

Definition Options

Quote Type: Price No. Contracts: 5 Rate Modifier: 1 Is SVN: ☐
ExerciseType: American SettleType: Phys... Strike Quote Type: Price
Tick Value: 5 Min Move (Ticks): 0.01 CA Id: 239314
Contract size: 500 ☒ Auto Exercise Adj. Del: 0

Underlying: Equity.BLX

Last Trade Time: 16 : 00 Last Trade Rule: ME4081_O_ME_CAD_XD
Last Exercise Time: 23 : 59 Last Exercise Rule: ME4081_O_ME_CAD_XD
Europe/London Expiration Rule: ME4081_O_ME_CAD_XD
Exercise Settlement Lag: 0 Trade Settlement Lag: 0 Cal Holidays: NYC
Special Quote Day Count: No Date Generator: NONE
☐ Asian Fixings Avg Period Start Rule: Avg Period End Rule:
DateFormat: Daily Commodity Reset: Future Contract:
Name Month: Prompt Month Attribute: ElectronicExchangeTicker=BLX
Long Name: Boralex Incorporated Class A!
Exch drg ticker: BLX Prem pmt conv: Conventional
Quote decimals: 3

Exchange Traded Option: XMOD-BLX-O/ME/Equity/CAD

File

Exchange: ME Type: Equity Id: 238758
Name: XMOD-BLX-O Currency: CAD

Definition Options

Start Date: 05/12/2023 PUT ?
Strike: From To Increment
Underlying: Equity.BLX Generate Options

Id	Underlying	Exp.	Expiry	Put/Call	Strike	Trade Start	Trade End	Last Exercise	First Delivery	Last
239315	Equity.BLX	JAN 24	19/01/2024	CALL	40	24/11/2023	19/01/2024	19/01/2024		