# Nasdaq Calypso

## Corporate Actions

### Version 18

Revision 10.0

May 2025

Approved

## *Document History*

| Revision | Published | Summary of Changes |
|---|---|---|
| 1.0 | February 2024 | First revision for version 18. |
| 2.0 | March 2024 | Updates for version 18 monthly release. |
| 3.0 | April 2024 | Updates for version 18 monthly release. |
| 4.0 | June 2024 | Updates for version 18 monthly release - Added Withholding Tax on Bond and Equity Claim CAs - Added support of "By Open Trade" for manually liquidated positions. |
| 5.0 | September 2024 | Updates for version 18 monthly release - Added message attributes for SR 2024. |
| 6.0 | October 2024 | Updates for version 18 monthly release - Added domains in CA Trades on Margin Call Positions and added MsgAttributes: Election Start Date and Election End Date. |
| 7.0 | November 2024 | Updates for version 18 monthly release - Added message attributes for SR 2023. |
| 8.0 | February 2025 | Updates for version 18 monthly release - Added domain value "keywords2CopyUponCA" to copy Trade Keywords. |
| 9.0 | March 2025 | Updates for version 18 monthly release - Extended agent attribute CA_Cash_Rounding_Method to Redemption CAs. |
| 10.0 | May 2025 | Updates for version 18 monthly release - Added information to CA_TRANSFER_AGENT scheduled taks. |

**This document describes the corporate actions supported by Calypso, how to define corporate actions, and how to apply corporate actions to trades and positions.**

**Corporate Actions are defined and applied to trades and positions from Trade Lifecycle > Corporate Action > Corporate Action. They can also be applied using the scheduled task CORPORATE_ACTION.**

# Table of Contents

# 1. Corporate Actions Overview

- See Corporate Action Definition Window for complete details on the Create panel in the Corporate Action Window.
- Refer to Calypso Corporate Action Elections for details on the election process.

- See CA Apply Trade Simulation Report for information on simulating the application of corporate actions.

For information on applying corporate actions see the following topics:

- Corporate Actions for position-based products - Coupons and redemptions on bonds, corporate actions on equity positions / sec lending trades / repo trades.
- Corporate Action for Listed products - Splits, MDEs, and dividends on listed products.
- Corporate Actions for OTC products - Splits and dividends on OTC equity derivatives.
- Corporate Actions for CFD products
- Refer to the *Calypso Warrants User Guide* for information on creating and applying corporate actions to Warrants.

The following reports allow monitoring corporate actions:

- Corporate Actions
- Corporate Action Activity
- Corporate Action Audit

# 2. Corporate Actions Definition

Corporate actions are created from the Create panel of the Corporate Action window.

For bonds, coupons and redemptions can be automatically created in the Generate panel of the Corporate Action window.

▶ See Corporate Actions for position-based products for details.

CA events can be imported from external sources using the integration and processing of MT564-MT568 Swift CA events.

▶ For the integration of Swift CA events, see Integrating Swift Corporate Action Events for details.

▶ For the integration of Swift CA events from Indeval, please refer to Calypso CA Indeval Integration for details.

## 2.1 Supported Corporate Actions

The following corporate actions (CA events) are supported in Calypso. This table also provides the mapping between the CA Swift Code and the Calypso Model and Subtype to be used.

| SWIFT Code | CA Event Name | SWIFT Proc | Options | Outcome | MODEL | SUBTYPE |
|---|---|---|---|---|---|---|
| ACTV<br>SUSP | Trading Status active<br>Trading Status suspended | GENL | NOAC | No CA trades generated | REFERENTIAL | REFERENTIAL |
| BIDS | Repurchase offer/Issuer bids/Reverse Rights | REOR | CASH<br>SECU<br>NOAC | Closing position against security and/or cash movements | ACQUISITION<br>ACQUISITION<br>REFERENTIAL | CASH_OFFER<br>SECU_OFFER<br>REFERENTIAL |
| BMET | Bond holder meeting | | CONY<br>PROX<br>CONN<br>NOAC | | CASH<br>REFERENTIAL<br>REFERENTIAL<br>REFERENTIAL | CAPITALRETURN<br>REFERENTIAL<br>REFERENTIAL<br>REFERENTIAL |
| BONU | Bonus/capitalization issue | DISN | SECU | Additional securities @ 0 price | ACCRUAL<br>ACCRUAL | BONUS<br>STOCK_DIV |
| BPUT | Early redemption | | CASH<br>NOAC | | REDEMPTION<br>REFERENTIAL | REDEMPTION<br>REFERENTIAL |

| SWIFT Code | CA Event Name | SWIFT Proc | Options | Outcome | MODEL | SUBTYPE |
|---|---|---|---|---|---|---|
| BRUP | Bankruptcy | REOR | CASH<br>SECU<br>NOAC | No CA trades generated | REDEMPTION<br>REDEMPTION<br>REFERENTIAL | REDEMPTION<br>REDEMPTION<br>REFERENTIAL |
| CAPD<br>CAPG | Capital Distribution<br>Capital Gains distribution | DISN | CASH<br>SECU | Cash movement or security movement | CASH<br>ACCRUAL | ADJUSTMENT<br>REINVEST |
| CAPI | Capitalization | GENL | NOAC | No CA trades generated | REFERENTIAL | REFERENTIAL |
| CERT | Non-US TEFRA D Certification | GENL | NOAC | No CA trades generated | REFERENTIAL | REFERENTIAL |
| CHAN | Change - Referential | GENL | SECU<br>NOAC | Closing position + New position @ equivalent price | MERGER<br>REFERENTIAL | MERGER<br>REFERENTIAL |
| CLSA | Class action / Proposed settlement | REOR | NOAC | No CA trades generated | REFERENTIAL | REFERENTIAL |
| CMET<br>MEET<br>OMET<br>XMET | Court Meeting<br>Meetings<br>Ordinary General Meetings<br>Extraordinary / special meeting | GENL | NOAC | No CA trades generated | REFERENTIAL | REFERENTIAL |
| CONV | Conversion | DISN | SECU<br>NOAC | Change convertible bonds into underlying shares using a pre-stated conversion price/ratio | TRANSFORMATION<br>REFERENTIAL | CONVERTIBLE<br>REFERENTIAL |
| CONS | Consent | GENL | NOAC | No CA trades generated | REFERENTIAL | REFERENTIAL |
| COOP | Company option | REOR | SECU<br>SECU<br>SECU<br>CASH<br>NOAC | Opening Position against cash movement and/or closing position at price = specified price | MERGER<br>MERGER<br>REDEMPTION<br>REDEMPTION<br>REFERENTIAL | RIGHTS_CALL<br>MERGER<br>REDEMPTION<br>REDEMPTION<br>REFERENTIAL |

| SWIFT Code | CA Event Name | SWIFT Proc | Options | Outcome | MODEL | SUBTYPE |
|---|---|---|---|---|---|---|
| CREV | Credit event | GENL | NOAC | No CA trades generated | REFERENTIAL | REFERENTIAL |
| DECR | Decrease in value | DISN | CASH | Cash movement | CASH | ADJUSTMENT |
| DLST | Trading status delisted | REOR | CASH<br>SECU<br>CASH<br>SECU<br>NOAC | Closing position against cash<br>Closing position against security movement and/or cash movement<br>No CA trades generated | ACQUISITION<br>ACQUISITION<br>REDEMPTION<br>REDEMPTION<br>REFERENTIAL | CASH_OFFER<br>STOCK_OFFER<br>REDEMPTION<br>REDEMPTION<br>REFERENTIAL |
| DFLT | Bond default | GRNL | NOAC<br>CASH | Cash movement with 0 amount<br>Cash movement | CASH<br>CASH | DEFAULT<br>PREMIUM |
| DRCA | Cash Distribution From Non-Eligible Securities Sales | DISN | SECU<br>CASH<br>NOAC | Closing position | REDEMPTION<br>REDEMPTION<br>REFERENTIAL | REDEMPTION<br>REDEMPTION<br>REFERENTIAL |
| DRIP<br>DVOP | Dividend Reinvest<br>Dividend Option | DISN | CASH<br>SECU<br>NOAC<br>SECU<br>SECU<br>CASH<br>SECU<br>CASH<br>SECU | Cash movement<br>Additional securities @ adjusted cash price | CASH<br>ACCRUAL<br>REFERENTIAL<br>ACCRUAL<br>MERGER<br>ACQUISITION<br>REDEMPTION<br>REDEMPTION<br>ACCRUAL | DIVIDEND<br>REINVEST<br>REFERENTIAL<br>STOCK_DIV<br>RIGHTS_CALL<br>CASH_OFFER<br>REDEMPTION<br>REDEMPTION<br>EQUITYOFFERING |
| DSCL | Disclosure | GENL | NOAC | No CA trades generated | REFERENTIAL | REFERENTIAL |
| DTCH | Dutch auction | REOR | CASH<br>SECU<br>NOAC | Closing position against Cash movement | ACQUISITION<br>ACQUISITION<br>REFERENTIAL | CASH_OFFER<br>STOCK_OFFER<br>REFERENTIAL |

| SWIFT Code | CA Event Name | SWIFT Proc | Options | Outcome | MODEL | SUBTYPE |
|---|---|---|---|---|---|---|
| DVCA<br>SHPR | Cash Dividend<br>Share Premium Dividend | DISN | CASH | Cash movement | CASH | DIVIDEND |
| DVSE<br>DVSC | Stock Dividend<br>Script Dividend/ Payment | DISN | SECU<br>SECU | Additional securities @ 0 price | ACCRUAL<br>ACCRUAL | TAX<br>STOCK_DIV |
| EXOF<br>MRGR | Exchange Offer<br>Merger | REOR | CASH<br>SECU<br>CASE<br>NOAC | Closing position against cash<br>Closing position against security<br>Closing positions against cash and security<br>No CA trades generated<br>For equity swaps, the original trade is terminated | ACQUISITION<br>ACQUISITION<br>ACQUISITION<br>REFERENTIAL | CASH_OFFER<br>STOCK_OFFER<br>STOCK_OFFER<br>REFERENTIAL |
| EXRI | Call on intermediate securities | REOR | SECU<br>SECU<br>CASH<br>SECU<br>NOAC | Closing position + Reopening new position at price of rights | MERGER<br>REDEMPTION<br>REDEMPTION<br>ACCRUAL<br>REFERENTIAL | RIGHTS_CALL<br>REDEMPTION<br>REDEMPTION<br>OVER<br>REFERENTIAL |
| EXTM | Maturity extension | REOR | NOAC<br>SECU | No CA trades generated<br>Closing position + New position | REFERENTIAL<br>TRANSFORMATION | REFERENTIAL<br>ASSIMILATION |
| EXWA | Exercise Warrant | GENL | SECU<br>SECU | Closing position | ACCRUAL<br>EXIPRY | EXERCISE<br>EXPIRY |
| INCR | Increase in Value | REOR | CASH | Cash movement | CASH | DIVIDEND |
| INFO | Information Only | GENL | NOAC | No CA trades generated | REFERENTIAL | REFERENTIAL |

| SWIFT Code | CA Event Name | SWIFT Proc | Options | Outcome | MODEL | SUBTYPE |
|---|---|---|---|---|---|---|
| INTR | Coupon payments on Bonds | DISN | CASH | Corporate action trades for Cash payments and realized P&L | CASH | INTEREST<br>INTEREST_ SHORTFALL<br>INTEREST_ REIMBURSE<br>PRINCIPAL_ SHORTFALL<br>PRINCIPAL_ REIMBURSE |
| LIQU | Liquidation dividend/Payment | REOR | CASH<br>SECU<br>CASH<br>SECU<br>NOAC | Closing position at price = 0 or at a specified price | ACQUISITION<br>ACQUISITION<br>REDEMPTION<br>REDEMPTION<br>REFERENTIAL | CASH_OFFER<br>STOCK_OFFER<br>REDEMPTION<br>REDEMPTION<br>REFERENTIAL |
| MCAL | Full Call / Early Redemption | REOR | SECU<br>CASH | Corporate action trades for cash and security payments<br>Corporate action trades or buy/sell trades (if environment property BOND_ REDEMPTION_ TRADE is set to true) for closing original positions | REDEMPTION<br>REDEMPTION | CALL_ REDEMPTION<br>CALL_ REDEMPTION |
| NOOF | Non official offer to repur-chase securities | REOR | CASH<br>SECY<br>NOAC | Closing position against security and/or cash movements | ACQUISITION<br>ACQUISITION<br>REFERENTIAL | CASH_OFFER<br>STOCK_OFFER<br>REFERENTIAL |
| ODLT | Odd lot sale / purchase | REOR | CASH<br>NOAC | Cash movement<br>No CA trades generated | CASH<br>REFERENTIAL | ODD_LOT<br>REFERENTIAL |
| OTHR | Other | GENL | NOAC | No CA trades generated | REFERENTIAL<br>CASH | REFERENTIAL<br>DS_FEE |

| SWIFT Code | CA Event Name | SWIFT Proc | Options | Outcome | MODEL | SUBTYPE |
|---|---|---|---|---|---|---|
| PARI | Pari Passu | REOR | SECU | Closing position + New position @ equivalent price | TRANSFORMATION | ASSIMILATION |
| PCAL | PPRINCIPAL: This is a partial redemption of an Amortizing bond<br>CALL_REDEMPTION: Redemptions of callable bonds based on call schedules provided the “Exercised?” column is set to “Yes” | REOR | SECU<br>CASH<br>SECU<br>CASH<br>CASH | Corporate action trades for cash and security payments<br>Corporate action trades or buy/sell trades (if environment property BOND_ REDEMPTION_ TRADE is set to true) for closing original positions | REDEMPTION<br>REDEMPTION<br>REDEMPTION<br>REDEMPTION<br>AMORTIZATION | CALL_ REDEMPTION<br>CALL_ REDEMPTION<br>PRINCIPAL<br>PRINCIPAL<br>AMORTIZATION |
| PINK | Pay In Kind<br>PIK_INTEREST: Used for Brady bonds to reflect interest amortization (Regular Amortization + PIK Interest)<br>PINK: Used for Danish mortgage bonds to allow redemption of principal without a cash payment to offset the value of negative coupon payments | DISN | CASH | Corporate action trades for Cash payments<br>Corporate action trades security movement with no Cash payment | AMORTIZATION<br>REDEMPTION | PIK_INTEREST<br>PINK |
| PLAC | Place of Incorporation | GENL | N/A | No CA trades generated | REFERENTIAL | REFERENTIAL |
| PPMT | Installment Call | DISN | CASH<br>SECU<br>CASH | Closing position + reopening existing position reflective of increased avg cost | REDEMPTION<br>REDEMPTION<br>CASH | REDEMPTION<br>REDEMPTION<br>INSTALLMENT_ CALL |

| SWIFT Code | CA Event Name | SWIFT Proc | Options | Outcome | MODEL | SUBTYPE |
|---|---|---|---|---|---|---|
| PRED | AMORTIZATION: Used for sinking bonds to reflect notional amortization<br>PAYDOWN: Used for Asset Backed bonds to reflect pool factor changes | REOR | CASH<br>CASH | Corporate action trades for Cash payments<br>Corporate action trades for Cash payments and realized P&L | AMORTIZATION<br>PAYDOWN | AMORTIZATION<br>PAYDOWN |
| PRIO | Priority issue | REOR | SECU<br>SECU<br>SECU<br>CASH<br>NOAC | Opening Position against cash movement and/or closing position at price = specified price | MERGER<br>MERGER<br>REDEMPTION<br>REDEMPTION<br>REFERENTIAL<br>ACCRUAL<br>CASH | RIGHTS_CALL<br>MERGER<br>REDEMPTION<br>REDEMPTION<br>REFERENTIAL<br>EXERCISE<br>RIGHT_ISSUE |
| REDM | Final Maturity | REOR | SECU<br>CASH | Corporate action trades for cash and security payments<br>Corporate action trades or buy/sell trades (if environment property BOND_ REDEMPTION_ TRADE is set to true) for closing original positions | REDEMPTION<br>REDEMPTION | REDEMPTION<br>REDEMPTION |
| REDO | Redenomination | REOR | NOAC<br>SECU | No CA trades generated<br>Closing position + New position | REFERENTIAL<br>TRANSFORMATION | REFERENTIAL<br>ASSIMILATION |
| REMK | Remarking Agreement | DISN | NOAC | No CA trades generated | REFERENTIAL | REFERENTIAL |
| RHDI | Intermediate securities distribution | DISN | SECU | Additional securities @ 0 price | ACCRUAL | RIGHTS_CPN |

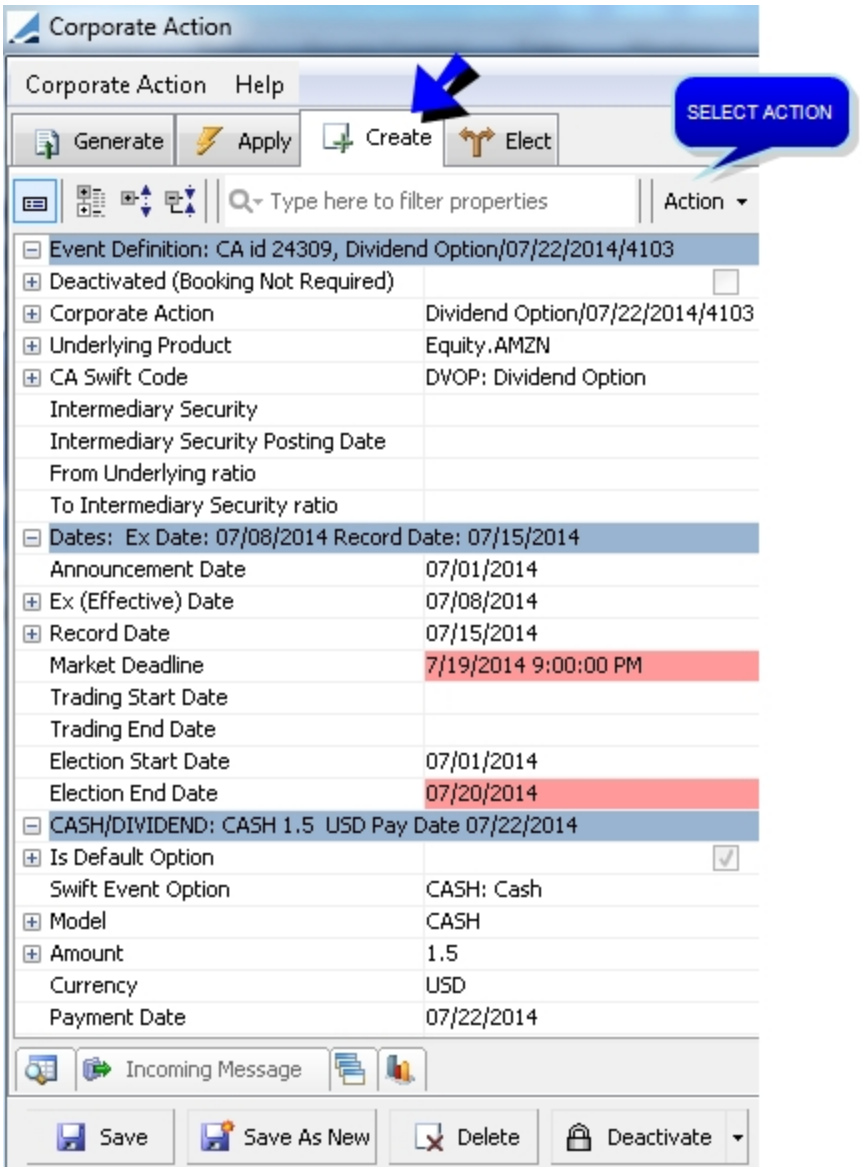
| SWIFT Code | CA Event Name | SWIFT Proc | Options | Outcome | MODEL | SUBTYPE |
|---|---|---|---|---|---|---|
| RHTS | Rights Issue / Subscription Rights / Rights Offer (as one event) | REOR | SECU<br>SECU<br>CASH<br>NOAC<br>SECU<br>SECU<br>SECU<br>CASH<br>SECU | Opening Position against cash movement and/or closing position at price = specified price | ACCRUAL<br>ACCRUAL<br>CASH<br>REFERENTIAL<br>ACCRUAL<br>MERGER<br>REDEMPTION<br>REDEMPTION<br>ACCRUAL | EXERCISE<br>OVER<br>RIGHT_ISSUE<br>REFERENTIAL<br>RIGHTS_CPN<br>RIGHTS_CALL<br>REDEMPTION<br>REDEMPTION<br>EQUITYOFFERING |
| SMAL | Smallest Negotiable Unit | GENL | NOAC | No CA trades generated | REFERENTIAL | REFERENTIAL |
| SOFF | Spin Off | DISN | CASH<br>SECU | Cash movement<br>New security position @ price 0, or using adjustment factor and cash movement | CASH<br>SPINOFF | ADJUSTMENT<br>SPINOFF |
| SPLF<br>SPLR | Stock Split<br>Reverse Stock Split | DISN<br>REOR | SECU | Closing position + New position @ equivalent price | TRANSFORMATION | SPLIT |
| TEND | Tender acquisition, Takeover, Purchase offer, Buyback | REOR | CASH<br>SECU<br>NOAC | Closing position against security and/or cash movements | ACQUISITION<br>ACQUISITION<br>REFERENTIAL | CASH_OFFER<br>STOCK_OFFER<br>REFERENTIAL |
| TREC | Tax Reclaim | DISN | NOAC<br>CASH | No CA trades generated<br>Cash movement | REFERENTIAL<br>REFERENTIAL | REFERENTIAL<br>CASH |
| WRTH | Worthless | REOR | CASH<br>SECU | Closing position at price = 0 or at a specified price | REDEMPTION<br>REDEMPTION | REDEMPTION<br>REDEMPTION |
| WTRC | Withholding Tax Relief Certification | GENL | NOAC | No CA trades generated | REFERENTIAL | REFERENTIAL |
| N/A | Market disruption events | N/A | N/A | Closing position + New position @ equivalent price | EXPIRY | MDE |

| SWIFT Code | CA Event Name | SWIFT Proc | Options | Outcome | MODEL | SUBTYPE |
|---|---|---|---|---|---|---|
| N/A | Used for the amortization of Danish Mortgage Bond | N/A | N/A | Corporate action trades for cash and security payments<br>Corporate action trades or buy/sell trades (if environment property BOND_ REDEMPTION_ TRADE is set to true) for closing original positions<br>For Sec Lending trades, the original Sec Lending trades are reduced with drawing amount (partial return) and cash claims are generated by the CA. | REDEMPTION | DRAWING |
| N/A | Asset impairment in the context of JGAAP and USGAAP accounting requirements | N/A | N/A | Buy / Sell trades for closing original positions | TRANSFORMATION | IMPAIRMENT |

### 2.1.1 Defining Corporate Actions

From the Calypso Navigator, navigate to **Trade Lifecycle > Corporate Action > Corporate Action**, and select the Create panel.

The definition of corporate actions (CA events) depends on the corporate action model and subtype. Combinations of supported models and subtypes are specified in the domain "corporateActionType" as "MODEL.SUBTYPE".




» You can click **Load** to load an existing corporate action, or click **New** to clear the screen to create a new corporate action.

Then fill in the fields described below, and click **Save** to save your changes. You can now apply the corporate action to trades and positions.

You can click **Apply** to bring up the Apply panel with pre-defined selections.

» You can click **Deactivate** to deactivate a corporate action.

The Deactivated checkbox will appear checked and the CA will not be processed.

Important Note: Deactivating a CA does not cancel existing trades on the CA. To cancel existing trades, you need to cancel the CA trades using **Deactivate > Revert**.

NOTE: To deactivate a CA adjustment created by the Transformation report, you need to delete it instead of deactivate it.

» You can choose **Deactivate > Reactivate** to reactivate a deactivated corporate action.

» You can choose **Deactivate > Revert** to cancel existing trades for a corporate action, and restore the original state before the corporate action was applied. This should be performed once you deactivate a corporate action.

» Following fields have been added to the Corporate Action Window:

New Face Value

Preview Face Value

CA Trade Attributes:

Notional New Face Value

Notional Previous Face Value

These criteria have been added to the CAMatchingConfig for MT564 and MT566 integrations.

These fields only apply to PCAL Corporate Actions.

**[NOTE: All functions are also available fAcom the Action menu]**

**[NOTE: When you select the CA Swift Code, it populates the model and subtype with default values, and drives the selection of the other fields- Some fields only appear for certain types of corporate actions]**

### *Fields Details - Event Definition*

The Event Definition is set by the system upon saving.

### *Fields Details - Deactivated*

| Fields | Description |
|---|---|
| Deactivated | The Deactivated checkbox appears checked when the corporate action has been deactivated using the **Deactivate** button.<br>The scheduled task CORPORATE_ACTION ignores deactivated corporate actions. |
| CA Status | Only appears if the CA Swift Code is not set.<br>Select the CA status as needed - The following status codes are defined out-of-the-box in domain "CA.Status".<br>• APPLICABLE - Indicates that the CA can be applied - The list of applicable status codes is defined in domain "CA.ApplicableStatus". CAs with applicable status codes will be applied by the CA process.<br>• NOT_APPLICABLE - Indicates that the CA cannot be applied by the CA process.<br>• CANCELED / REMOVED - The CA is canceled / removed - The list of canceled status |

| Fields | Description |
|---|---|
| | codes is defined in domain "CA.CanceledStatus". The CA process will cancel any trade generated on this corporate action.<br>If not set, it is APPLICABLE by default. |
| Function of the Message | **Only appears if the CA Swift Code is set.**<br>Displays the function of the SWIFT MT564 message as applicable. |
| Processing Status | **Only appears if the CA Swift Code is set.**<br>Displays the status of the SWIFT MT564 message as applicable. |
| Preparation Date/Time | **Only appears if the CA Swift Code is set.**<br>Displays the Date/Time at which the last update message was prepared. |

### *Fields Details - Corporate Action*

| Fields | Description |
|---|---|
| Corporate Action | The corporate action name is set by the system upon saving.<br>You can select an existing corporate action as needed. |
| CA Id | Unique Id given by the system to the corporate action upon saving. |
| CA Version | Version number given by the system upon saving if the corporate action is modified - "0" is the first version. |
| Sequence | You can enter the priority of generation when multiple CAs have the same date, as needed - "0" is the highest priority. |
| Update Related Issuance | Used for warrants and certificates.<br>▶ Refer to Calypso Warrants documentation for details. |
| Liquidation Config | This field is currently only enabled for the "TRANSFORMATION.IMPAIRMENT" corporate action. It allows defining corporate actions based on the liquidation config for asset impairment in the context of JGAAP and USGAAP accounting requirements.<br>▶ Refer to the *Calypso Weighted Average Cost Setup User Guide* - "Asset Impairment" for a full example. |
| Static Data Filter | You can select a static data filter to restrict the scope of the corporate action. |
| Product Codes | You can enter values for the user-defined product codes as needed.<br>You can create product codes using **Configuration > Product > Code**. |
| Parent Linked CA | Certain corporate actions can be linked to a parent corporate action. |
| Child Linked CA | Certain corporate actions can be linked to a child corporate action. |

### *Fields Details - Underlying Product*

| Fields | Description |
|---|---|
| Underlying Product | Select the product to which the CA applies.<br>If applicable, it displays additional information on the product:<br>• Exchange<br>• Exchange TimeZone<br>• Underlying currency<br>• Product codes<br>You can click to display the product definition window. |

### *Fields Details - CA Swift Code*

| Fields | Description |
|---|---|
| CA Swift Code | Select the CA Swift Code as needed - It populates the model and subtype with default values, and drives the selection of the other fields.<br>The mapping between Swift Codes and corporate action types can be defined using **Trade Lifecycle > Corporate Action > CA Swift Event Code**.<br>▶ See Corporate Action Swift Codes for details. |
| Event Choice | Select how the CA event being processed is mandatory, mandatory with options, or voluntary.<br>When the event choice of a CA is different from MAND (Mandatory), you can add multiple outcomes (options) to the CA.<br>▶ See Defining Multiple Outcomes for details. |
| Event Process | Select if the event is a reorganization event or a distribution event. |
| Type of Change | Select the type of change from the company. Available for CA Swift Code CHAN. |
| Renounceable | Select whether the issued rights can be renounced or not. Available for CA Swift Codes RHTS, RHDI, EXRI, PRIO, and COOP. |
| Is Taxable | Check to indicate that the event is deemed taxable by Tax authority.<br>Used to compute the new average price either using the current security average price (not checked) or the market price at ex date (checked).<br>Available for CA Swift Codes MRGR and EXOF. |
| Offeror | Enter the name of the company offering stock. Available for CA Swift Codes MRGR, TEND, and EXOF. |
| Odd lot quantity | Enter the odd lot quantity. Available for CA Swift code ODLT. |
| Event Condition Stage | Select the stage in the CA event lifecycle. Available for CA Swift Code TEND. |
| Redemption Rate | Enter the percentage of the principal that is being redeemed. Available for CA Swift Code |

| Fields | Description |
|---|---|
| | TEND. |
| Event Restriction | Check if any restrictions have been declared at the CA Event level. |
| Issuer Agent | MT564 - TAG95::ISAG |
| Paying Agent | MT564 - TAG95::PAYA |
| Issuer | MT564 - TAG95::ISSU |
| Transfer Agent | MT564 - TAG95::TAGT |

### *Fields Details - Dates*

| Fields | Description |
|---|---|
| Announcement Date | Enter the date the CA event is announced on the market as applicable. |
| Propagation Date | Enter the notification date as applicable. |
| Ex (Effective) Date | Enter the effective date of the corporate action.<br>***Is Ex-Date Inclusive***<br>The eligible position will be the position held at close of business "ex date - 1" if the ex date is non inclusive. If inclusive, it is the position held at close of business ex date (market practice is to be non inclusive).<br>It means that when the system loads the PL position at ex date, it will load any position that is open at ex date end of day (non inclusive).<br>***By Trade Date***<br>The ex date can be applicable to the trade date position or to the settlement date position otherwise.<br>"By Trade Date" should be checked for equities and portfolio swaps.<br>You also need to add the following values to the domain "generateCA.PortfolioSwap" with Comment = true to generate the corresponding CAs by trade date:<br>CASH.DIVIDEND.setIsByTradeDate<br>TRANSFORMATION.PRICE_CHANGE.setIsByTradeDate<br>***Portfolio Swaps***<br>You can add the following values to the domain "generateCA.PortfolioSwap" with Comment = true to generate the corresponding CAs with Ex Dividend Date inclusive:<br>CASH.DIVIDEND.setIsExDateInclusive<br>TRANSFORMATION.PRICE_CHANGE.setIsExDateInclusive<br>TRANSFORMATION.SPLIT.setIsExDateInclusive<br>SPINOFF.SPINOFF.setIsExDateInclusive |

| Fields | Description |
|---|---|
| | If the trades entered on payment end date are to be considered for reset, then on execution of Price Change CA - 'Ex-Date' Checkbox should be selected and domain 'exDateTradePreviousCF' should be set as 'True'. The default value of 'exDateTradePreviousCF' is 'False'. If the domain is kept as 'False' (or not Set) then on execution of Price Change CA - 'Ex-Date' Checkbox should not be selected.<br>***Callable Bonds***<br>The ex date for redemption CA will be set to the notification date if the issuer has the attribute Bond_Callable and the value is the issuer's name.<br>On a legal entity whose role is Issuer, you can add the Legal Entity Attribute "Bond_Callable" with the value as the issuer's name. Then, on the bond definition, if the issuer is set as the same issuer, the ex date on the CA will be equal to the notification date. If the attribute is not set on the legal entity, the ex date will be equal to the redemption date.<br>***CA Holidays***<br>By default, CA holidays are ignored and a CA trade can be booked on a non-business day if the ex-date falls on a non-business day.<br>To take CA holidays into account, you need to set environment property IGNORE_CA_HOLIDAYS to false. In that case, if the ex-date falls on a non business date, the CA trade date is set to the previous business day. |
| Record Date | Enter the date on which the holder of the security are recognized for entitlement. The record date is used by the system to determine whether a buyer or a seller is eligible for benefit, and hence requires a claim to be raised.<br>▶ See Entitlement Eligibility for details.<br>***Is Record Date Inclusive***<br>Check to make the record date inclusive. It is non inclusive otherwise. |
| Market Deadline | Enter the Date/Time issuer's deadline to respond, with an election instruction, to a secondary, to an outstanding offer or privilege. |
| Election to Counterparty Market Deadline | MT564 - TAG98C::ECPD |
| Election to Counterparty Response Deadline | MT546 - TAG98A::ECRD |
| Guaranteed Participation Date/Time | MT564 - TAG98C::GUPA |
| Shareholder Meeting Date | Enter the date at which the bondholders or shareholders meeting will take place. |
| Second Meeting | MT564 - TAG98C::MET2 |

| Fields | Description |
|---|---|
| Date/Time | |
| Third Meeting Date/Time | MT564 - TAG98C::MET3 |
| Period Start Date<br>Period End Date | Enter the dates on which an order starts and expires, or on which a privilege or offer starts and terminates. |
| Election Start Date<br>Election End Date | Enter the dates during which elections can be processed.<br>The Election Start Date is set to the Announcement Date by default, and the Election End Date is set to the Ex Date by default.<br>▶ Please refer to the Calypso Corporate Action Elections documentation for details on the election process. |
| Trading Start Date<br>Trading End Date | Enter the period during which intermediate or outturn securities are tradable in a secondary market. |
| Protect Date | Enter the last date a holder can request to defer delivery of securities pursuant to a notice of guaranteed delivery or other required documentation. |
| Court Meeting Date | Enter the date upon which the Court meeting will take place. |
| Active From | Enter the starting date of validity of the corporate action if applicable. |
| Active To | Enter the end date of validity of the corporate action if applicable. |

### *Fields Details - Corporate Action Type*

| Fields | Description |
|---|---|
| Is Default Option<br>Swift Event Option | This applies to multiple outcomes (options) CAs.<br>▶ See Defining Multiple Outcomes for details. |
| Model | Select the type of corporate action, it defines the processing rules attached to the corporate action.<br>All supported models are described above. |
| Subtype | Select the corporate action subtype. It depends on the corporate action model.<br>All supported combinations of models and subtypes are described above. |
| Div Reinvest Type | Attribute "Div Reinvest Type". |
| Div Reinvest Price | Only applies to DRIP CA events.<br>Dividend reinvestment price.<br>You can also specify the following:<br>• Cash Pay Date<br>• Payment Gross Rate |

| Fields | Description |
|---|---|
| | • Div Reinvest Currency<br>• Div Reinvest FX Rate |
| Success Percent (Scale Back Ratio) (%) | Enter the percentage of success. |
| By Open Trade | When checked, the Processing Org's PL position is computed using the FIFO method by TOQ instead of whole position on the price of open trades only. This does not impact the Inventory position.<br>This also applies to Redemption CAs for manually liquidated positions. You can check "By Open Trade" when domain "bondPartialRedemption" contains Value = true. |
| Amount | Enter the amount applicable for one unit of the corporate action.<br>***Total CA Amount Rounding***<br>You can define the number of decimals for the total CA amount using the domain “CorporateActionAmount”.<br>Value = MaxRoundingDecimals<br>Comment = <number of decimals> |
| Payment Gross Rate | Enter the Gross Dividend Rate Cash dividend amount per equity before deductions or allowances have been made. |
| Declared Rate | Amount declared by the issuer.<br>You can also specify the following:<br>• Declared Currency - Currency declared by the issuer.<br>• Use Declared Currency - Set to yes to use the declared rate / declared currency, or no to use the amount /currency. |
| Tax Free Amount | Enter the portion of the gross rate that is tax free. |
| Payment Net Rate | Enter the Net Dividend Rate Cash dividend amount per equity after deductions or allowances have been made. |
| Currency | Select the currency of the corporate action: by default, it is the currency of the selected product.<br>If the corporate action currency is different from the product currency, you can set the FX rate in the "Other Amount" field. |
| Rounding Method | The rounding method applies when a ratio / scale back ratio is specified.<br>Select one of the following rounding methods:<br>• Not Available (FR) - The number of shares/securities is rounded down – Any remaining share/security is stored in CAAdjustBook.<br>• Round Up (FR) - The number of shares/securities is rounded up – Any additional share/security is stored in CAAdjustBook. |

| Fields | Description |
|---|---|
| | • Round Down (Cash In Lieu) (FR) - The number of shares is rounded down. The number of securities is rounded down to a multiple of the minimum purchase amount. The remaining shares/securities are settled in cash.<br><br>You need to enter the unit price of the remaining shares/securities in "Cash In Lieu Rate (FR)". The cash amount is added to the CA trades as a fee. The fee type (for example CA_ADJ_AMOUNT) is taken from the domain “fractionalShareCashPartFeeType”. The value must be defined in the form “<product type>.<fee type>”. For example:<br><br>– Domain = fractionalShareCashPartFeeType<br><br>– Value = Bond.CA_ADJ_AMOUNT<br><br>If the domain is not defined, the fee type CA_FEE is used by default.<br><br>If the sum of the rounded amounts of the P&L CA trades is different from the rounded amount of the Agent CA trades, an adjustment P&L CA trade is created.<br><br>The adjustment trade is not created if the Agent account has the account attribute ThirdPartyAccount = True.<br>• Round Down (No Cash) (FR) - The number of shares/securities is rounded down – Any remaining share/security is stored in CAAdjustBook.<br>• Fractional Share - The number of shares/securities is not rounded. Fractional shares/securities are allowed.<br>• Natural Rounding (FR) - The number of shares/securities is rounded to the nearest unit – Any remaining/additional share/security is stored in CAAdjustBook.<br>• Nearest Half Share (FR) - The number of shares/securities is rounded to the nearest half-unit – Any remaining/additional share/security is stored in CAAdjustBook.<br><br>The other rounding methods are not supported.<br><br>Note that for Merger and Transformation, the system creates just one closing trade and a new trade at the average price of the position.<br><br>In the Trade Report, the following columns allow viewing fractions handling: New Quantity, Old Quantity, and Fractional Shares.<br><br>***CAAdjustBook***<br><br>On every book, you can set the attribute "CAAdjustBook" with the name of the book where the differences will be stored. The book set in "CAAdjustBook" must also have the attribute "CAAdjustBook" set to itself.<br><br>You can auto settle all the Agent CA transfers with a CAAdjustBook using the workflow transfer rule "UpdateCAAdjustBookLinkedXfer" on the SETTLE and CANCEL actions.<br><br>When you apply the SETTLE action on a CA transfer between the Agent and the CAAdjustBook, all the transfers between the Agent and the same CAAdjustBook will be settled as well. |

| Fields | Description |
|---|---|
| | ***Cash and Redemption CAs***<br>For CA trades with Agent:<br>When agent attribute CA_Cash_Rounding_Method is set, it is used to determine the rounding method for the CA events. Otherwise, the currency rounding method is used.<br>For CA trades with Counterparty:<br>- When PO is paying and PO agent attribute CA_Cash_Rounding_Method is set, it is used to determine the rounding method for PO transfers on the CA events.<br>- When Counterparty is paying and Counterparty agent attribute CA_Cash_Rounding_ Method is set, it is used to determine the rounding method for Counterparty transfers on the CA events.<br>- Otherwise, the currency rounding method is used. |
| To Security | Certain types of corporate actions result in the creation of trades on a different product after the corporate action is applied.<br>Select the resulting product of the corporate action as applicable.<br>You can click to display the product definition window. |
| Payment Date | Enter the payment date of the corporate action. |
| Response Deadline Date/Time | MT564 - TAG98A::RDDT |
| End of Securities Blocking Period | MT564 - TAG98B:BLOK.<br>The available codes are defined in domain “CAAttribute.blockingPeriod”. |
| Market Deadline Date/Time | MT564 - TAG98C::MKDT |
| Cover Expiration Deadline Date/Time | MT564 - TAG98C::CVPR |
| EARD: Early Response Deadline Date/Time | MT564 – TAG98C::EARD |
| Available Date/Time For Trading | Only available for equity related corporate actions.<br>Enter the available date for trading.<br>The trade keyword CASecurityAvailableDate is populated with that date on the equity CA trades.<br>The Available Date is populated with that date as well, when set, for the agent CA transfers.<br>The UPDATE action should be available in the transfer workflow to allow updating the Available Date as needed, without any other changes to the transfers, using the transition SETTLED – UPDATE – SETTLED. |
| From Ratio | Enter the ratio of the corporate action if applicable. |

| Fields | Description |
|---|---|
| To Ratio | For example From Ratio = 1 / To Ratio = 2 means that 1 unit of "Underlying Product" becomes 2 after the corporate action process (in case of SPLIT for example).<br>If the "To Security" is set (in case of MERGER for example), 1 unit of "Underlying Product" becomes 2 units of "To Security". |
| Cash In Lieu Rate (FR)<br>Cash In Lieu Currency<br>Cash In Lieu Pay Date | Used with rounding method "Round Down (Cash In Lieu) (FR)".<br>• Cash In Lieu Rate (FR) = Cash rate to apply to the remaining shares/securities to calculate the cash amount.<br>• Cash In Lieu Currency = Currency to settle the cash amount.<br>• Cash In Lieu Pay Date = Settle date of the cash amount. |
| Other Amount | Enter a fee amount as needed. |
| Payment Currency | Enter the fee payment currency. |
| Other Amount Pay Date | Enter the fee payment date. |
| Tax Rate | Enter the Withholding Tax Rate Percentage of a cash distribution that will be withheld by a tax authority (for SWIFT CA codes DVCA, SHPR) or tax Related Rate Percentage of the gross dividend rate on which tax must be paid (for SWIFT CA code DVOP and DRIP). |
| ADR Fee | Enter an ADR fee amount as needed (for SWIFT CA codes DVCA, SHPR). It can be populated from MT564 field :92F::CHAR.<br>This fee is deducted from the net entitlement calculation:<br>Net dividend amount = ((Gross Cash Rate * ((1-WHT)- ADR Fee)) when there is no tax free rate or<br>Net dividend amount = (Taxable Amount) x ((1-WHT%)-ADR fee) + (Entitled Position x Tax Free Amount) when there is a tax free rate |
| ADR Currency | Enter the ADR fee currency. |

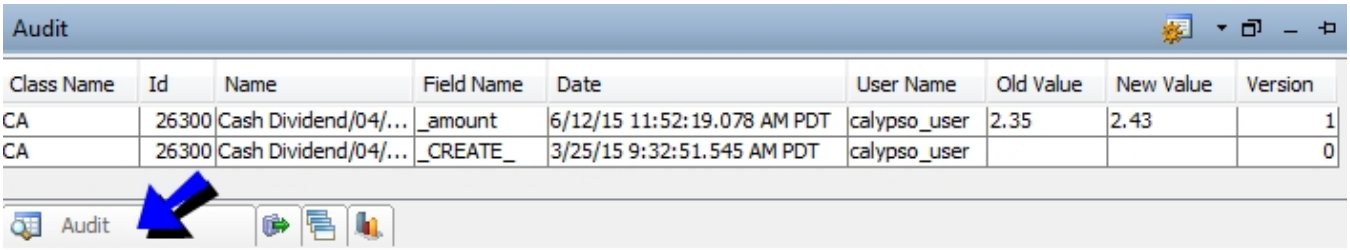
### *Fields Details - Additional Information*

| Fields | Description |
|---|---|
| Comment | Enter a free form comment. |
| Adjustment Factor | Enter the "manual" adjustment factor used by CA rules to adjust the products (strike, contract size, etc.).<br>▶ See Corporate Actions for Listed Products for examples. |
| Theoretical Dilution Factor | Enter the theoretical dilution factor used by CA rules to adjust the products (strike, contract size, etc.).<br>▶ See Corporate Actions for Listed Products for examples. |
| Special Dividend | Check for special cash dividend to indicate that the dividend is re-invested. |

| Fields | Description |
|---|---|
| | This is currently for information purposes only. |
| Dividend Type | Select the conditions in which a dividend is paid:<br>• SPEC: Special Dividend (default choice when "Special Dividend" is checked)<br>• REGU: Regular Dividend<br>• INTE: Interim Dividend<br>• FINL: Final Offer or Payment |
| Fully Franked Rate | Enter the percentage of dividend that can be reclaimed. Only applicable on Australian equities. |
| Arbitrage Book | Select the book when arbitrage trades are generated.<br>▶ Please refer to Calypso Corporate Action Elections documentation for details on the arbitrage process. |
| Meeting Place | MT564 - TAG94E::MEET |
| Meeting Place 2 | MT564 - TAG94E::MET2 |
| Meeting Place 3 | MT564 - TAG94E::MET3 |
| New Place of Incorporation | MT564 - TAG94E::NPLI |

### *Audit*

Click **Audit**, to view audit information for the CA event - It shows details about all the changes on the CA event.




» You can right-click and choose various functions from the popup menu to configure the display, and save the display as a template.

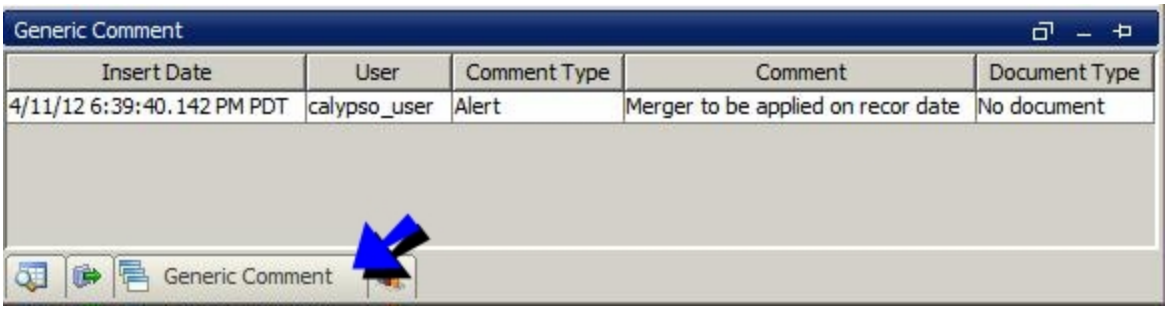
### *Incoming Messages*

Click **Incoming Message** to view incoming messages information if any.


» You can right-click and choose various functions from the popup menu to configure the display, and save the display as a template.

## Generic Comments

Click **Generic Comment** to associate / display generic comments for this corporate action.

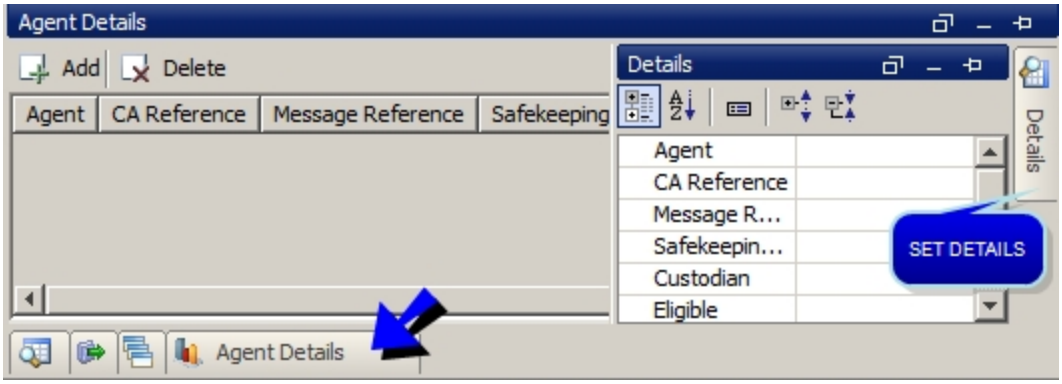



» You can double-click in the table to bring up the Add Generic Comment window to add generic comments.

» You can right-click and choose various functions from the popup menu to configure the display, and save the display as a template.

## Agent Details

Click **Agent Details** to add / display agent information related to the CA event - This information is populated when the CA event is imported from MT56X messages.



- You can click **Add** to add an agent, and click **Details** to set information for that agent - The fields are described below.
- You can right-click and choose various functions from the popup menu to configure the display, and save the display as a template.

▶ See Integrating Swift Corporate Action Events for details.

| Fields | Description |
|---|---|
| Agent | Agent, SENDER of the message. |
| CA Reference | Swift MT564 field CORP – Corporate Action reference; Reference assigned by the account servicer to unambiguously identify a corporate action event. |
| Message Reference | Swift MT564 field SEME – Sender's message reference; Reference assigned by the Sender to unambiguously identify the message. |
| Safekeeping Account | Swift Safekeeping account (97A::SAFE). |
| Custodian | Swift MT564 Custodian (94F::SAFE//CUST-optional). |
| Cash Account | Swift MT564 Cash account (97A::CASH in the sub-sequence E2 CASHMOVE-optional). |
| Deadline | Displays the Agent's deadline date time. |
| Time zone | Displays the timezone related to the Agent's deadline. |
| Option 1 | Displays the option number in the Swift MT564. If the CA event has multiple options, the Option field is repeated for each option. |

### 2.1.2 Defining CA for Options

Applies to corporate actions on warrants.

Choose **Action > CA Option** to define more information related to the delivery of the underlying or the cash following the expiry/exercise of a Warrant.

▶ Refer to Calypso Warrants Documentation for complete details.

### 2.1.3 Defining CA Defaults

You can create corporate action (CA) defaults for stock splits. The CA defaults store default attributes for rounding: rounding conventions and decimal precision. The other fields are not used.

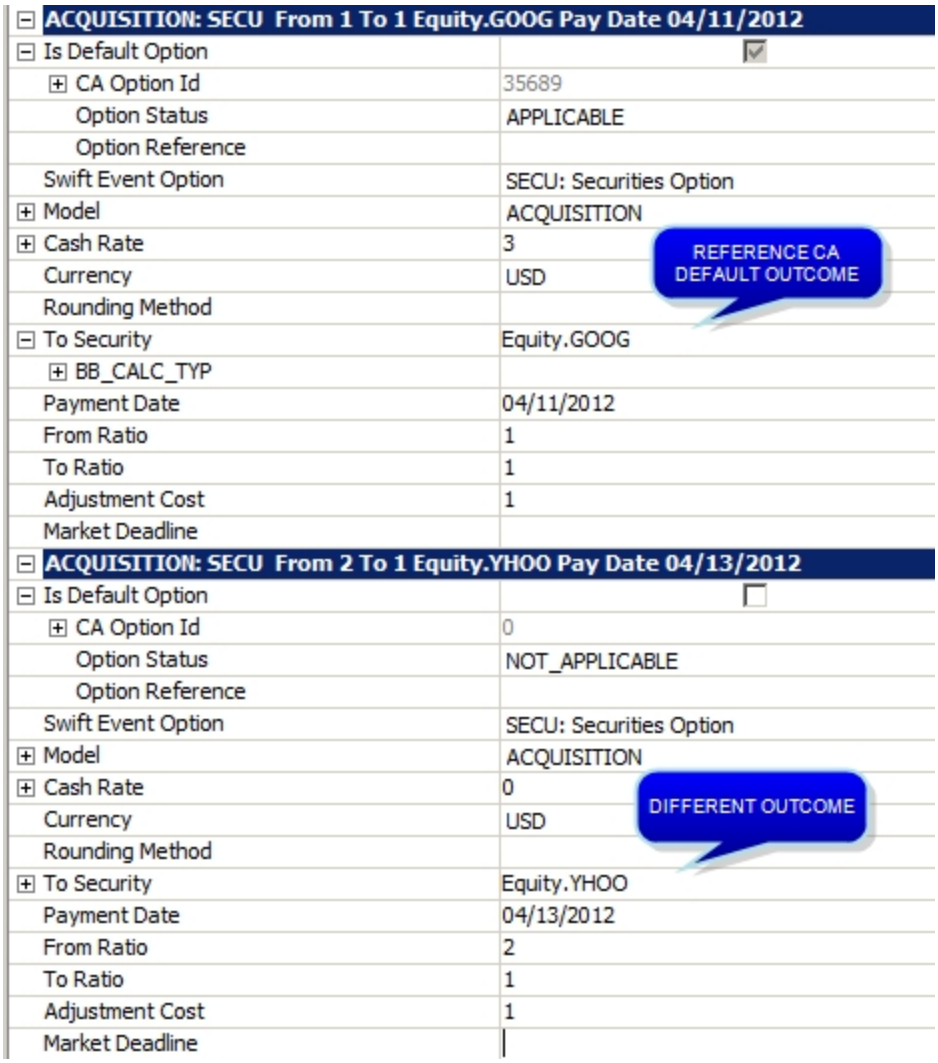
Choose **Action > CA Defaults** for defining CA defaults - They are only used when applying corporate actions to equity structured options.

### 2.1.4 Defining Multiple Outcomes

When the event choice of a CA is different from MAND (Mandatory), you can add multiple outcomes (options) to the CA.

Choose **Action > Multiple Outcome > Add Cash Outcome** to add a cash outcome, or **Action Multiple Outcome > Add Stock Outcome** to add a stock outcome.

It adds a new set of Corporate Action Type attributes to the CA event.




| ACQUISITION: SECU From 1 To 1 Equity.GOOG Pay Date 04/11/2012 | |
|---|---|
| Is Default Option | ☑ |
| CA Option Id | 35689 |
| Option Status | APPLICABLE |
| Option Reference | |
| Swift Event Option | SECU: Securities Option |
| Model | ACQUISITION |
| Cash Rate | 3 |
| Currency | USD |
| Rounding Method | |
| To Security | Equity.GOOG |
| BB_CALC_TYP | |
| Payment Date | 04/11/2012 |
| From Ratio | 1 |
| To Ratio | 1 |
| Adjustment Cost | 1 |
| Market Deadline | |
| **ACQUISITION: SECU From 2 To 1 Equity.YHOO Pay Date 04/13/2012** | |
| Is Default Option | ☐ |
| CA Option Id | 0 |
| Option Status | NOT_APPLICABLE |
| Option Reference | |
| Swift Event Option | SECU: Securities Option |
| Model | ACQUISITION |
| Cash Rate | 0 |
| Currency | USD |
| Rounding Method | |
| To Security | Equity.YHOO |
| Payment Date | 04/13/2012 |
| From Ratio | 2 |
| To Ratio | 1 |
| Adjustment Cost | 1 |
| Market Deadline | |

Only the reference CA will be processed but upon processing, all outcomes will be applied.

- Define the corporate action type of the additional outcome as needed.
- Identify the default outcome using the "Is Default Option" parameters - They are described below.

#### *Fields Details - Is Default Option*

This applies to multiple outcomes (options) CAs.

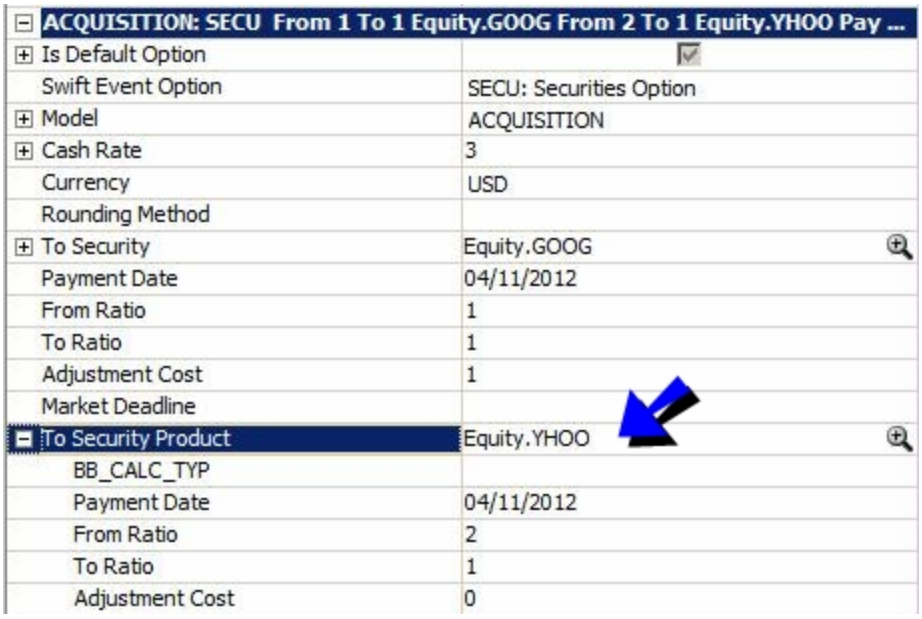
| Fields | Description |
|---|---|
| Is Default Option | This is checked for the corporate action type of the reference CA by default to identify the default outcome.<br>This is not checked for the other outcomes.<br>Check as needed to identify the default outcome. |
| CA Option Id | Displays the CA ID of the reference CA. |
| CA Option Version | Displays the version number of the reference CA. |
| Option Status | Displays the status of the outcome:<br>• APPLICABLE for the default outcome.<br>• NOT_APPLICABLE for the other outcomes.<br>When a default outcome is changed to non default, the status becomes CANCELED in order to let the system cancel any existing CA trades. |
| Option Reference | Enter a user-defined reference as needed. |
| Swift Event Option | Select the SWIFT code for the outcome:<br>• CASE: Cash & Securities – CA option includes a distribution of both cash (based on Cash Rate) and securities (based on To Security).<br>• CASH: Cash – Distribution of cash to holders.<br>• SECU: Securities Option – Distribution of securities to holders<br>• CONN: Consent Denied – Vote not to approve the event or proposal.<br>• CONY: Consent Granted – Vote to approve the event or proposal.<br>• NOAC: No Action – option for the account owner not to take part in the event. This would include opt-out for class actions and lodging of dissenters' rights.<br>• OTHR: Other – Generic CA option to be used in case that no other specific code is appropriate. |

### *Multiple Products*

You can also add products to a given outcome. Choose **Action > Add To Product**.

It adds a set of "To Security Product" parameters to the CA event.

Upon processing, CA trades will be created for all "to products".



| ACQUISITION: SECU From 1 To 1 Equity.GOOG From 2 To 1 Equity.YHOO Pay ... | |
|---|---|
| Is Default Option | ☑ |
| Swift Event Option | SECU: Securities Option |
| Model | ACQUISITION |
| Cash Rate | 3 |
| Currency | USD |
| Rounding Method | |
| To Security | Equity.GOOG |
| Payment Date | 04/11/2012 |
| From Ratio | 1 |
| To Ratio | 1 |
| Adjustment Cost | 1 |
| Market Deadline | |
| To Security Product | Equity.YHOO |
| BB_CALC_TYP | |
| Payment Date | 04/11/2012 |
| From Ratio | 2 |
| To Ratio | 1 |
| Adjustment Cost | 0 |

### 2.1.5 Adding Custom Fields

The fields that appear for swift codes are defined as CA Attributes in the XML file "CAAttributeDefinition.xml" located under `resources/com/calypso/tk/product/corporateaction`.

You can add more CA Attributes to this file as needed, or add a new file directly under `resources`, and set the name of the file in the environment property CA_ATTRIBUTE_DEFINITION.

**[NOTE: Changes to resources have to be re-deployed to your application servers. Please refer to the Calypso Installation Guide for details]**

For each attribute, you need to specify the following information:

- Name
- Type
- Domain name (optional) - Domain name that contains the list of possible values for this attribute
- Sequence number (optional) - Order of display on the screen
- Parent property name - Parent attribute under which you want to display the new attribute
- Display name
- Description (optional)
- CA swift events - Swift code for which this attribute should be displayed

Example:

```
<attribute name="PaymentGrossRateType" type="String" domainName="CAAttribute.rateType"
sequenceNumber="15" parentPropertyName="Amount">
   <displayName>Rate Type</displayName>
   <swiftEvent>DVCA</swiftEvent>
   <swiftEvent>DVOP</swiftEvent>
</attribute>
```

### 2.1.6 Entitlement Eligibility

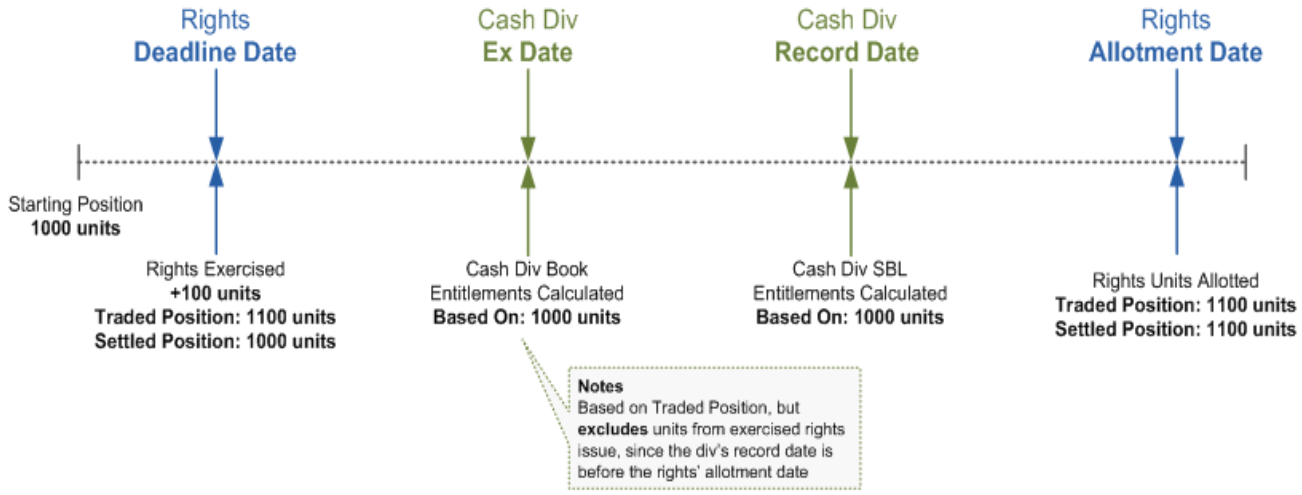
When stock / bond units are obtained through a corporate action and do not settle prior to the record date of a subsequent corporate action, those units will not be eligible to participate in the second corporate action.

The same rule applies if there are any long-dated settlement trades that are booked before ex date but do not settle until after record date The holdings resulting from these long-dated trades are not included in the ex date balance.

#### *Example 1*

A position holder exercises a rights issue. A cash dividend event quickly follows and the dividend's record date falls *before* the allotment date for the rights.

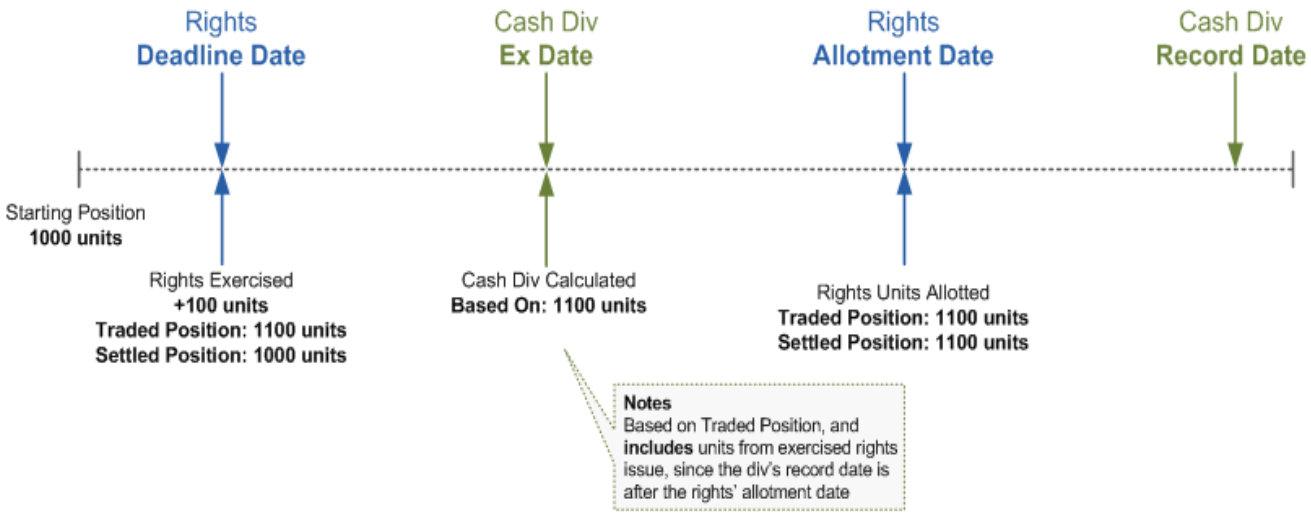
This means that the new units from the rights issue will not be settled by the dividend's record date and as a result, those units are not eligible to receive the cash dividend.




#### *Example 2*

Similar to Example 1, except the dividend's record date falls *after* the allotment date for the rights.

This means that the new units from the rights issue will be settled by the dividend's record date and are eligible to receive the cash dividend.

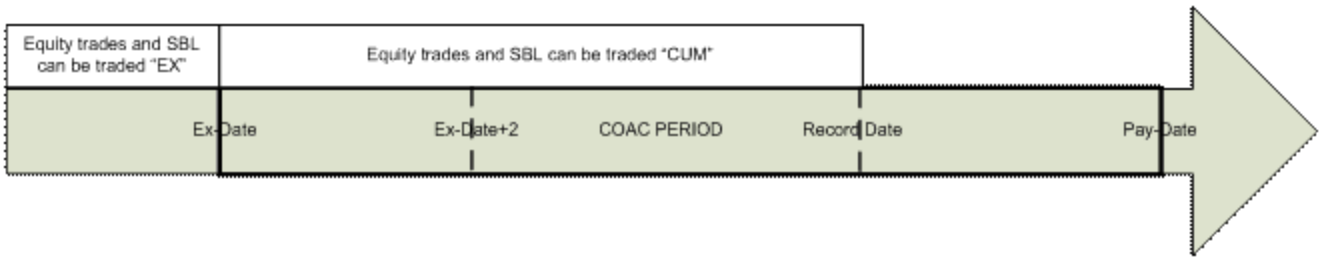



## *Ex/Cum Processing*

The Ex/Cum basis of quotation is the basis upon which a security is traded. Ex-dividend securities generally trade on a "cum" basis, indicating that the securities are entitled to upcoming CA events.

Generally on the ex date of a corporate action, the basis of quotation on the market is "ex" the particular corporate action event. However, in special circumstances, some markets allow shareholders the right to trade the security "cum-entitlement" between the ex date and the record date (inclusive). Trades can be executed with a "cum" basis of quotation after the ex date and are required to be captured in the corporate action entitlement process, as the entitlement has been transferred as part of the trade.

This entitlement eligibility period is also called the CA event active period between the "ex date - 1 EOD" and the "record date EOD".




You can override the default entitlement eligibility using the trade keyword CATradeBasis on the trades.

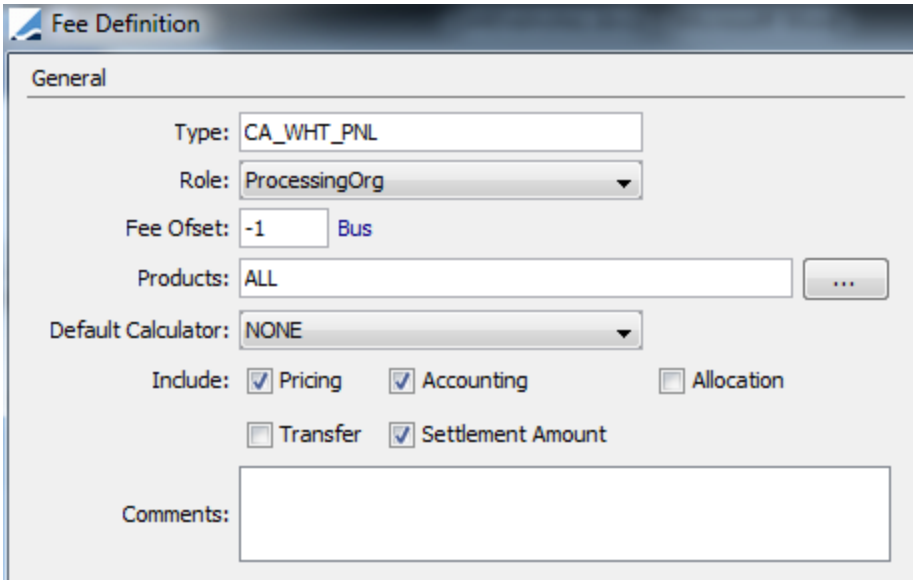
The available values for CATradeBasis are defined in domain "keyword.CATradeBasis". It contains the Swift ex/cum codes.

The domain name "XferAttributesforMatching" is used to propagate the trade keyword CATradeBasis as a transfer attribute. The transfer attribute CATradeBasis is used in the CA process to adjust the P&L and Agent position in order to include transactions that are traded "cum".

### 2.1.7 Withholding Tax on ACQUISITION/CASH_OFFER

A withholding tax fee of type CA_WHT_PNL can be computed for the CA types EXOF/ACQUISITION/CASH_OFFER, EXOF/ACQUISITION/CASH_OFFER, and SOFF/CASH/ADJUSTMENT, provided a withholding tax configuration exists.

Fee definition




The withholding tax configuration can be defined using **Configuration > Fees, Haircuts, & Margin Calls > WithHoldingTax Config**.

The system will generate the CA P&L trade with settlement amount = net amount and fee CA_WHT_PNL.

There is no fee generated on the Agent trade.

## 2.2 Viewing Corporate Action Definitions

You can display the corporate actions defined in the system using **Reports > Securities Reports > Corporate Action Report**.

▶ See Corporate Action Report for details.

## 2.3 XML Import Export

Choose **XML > XML Export** to export the CA event to an XML file.

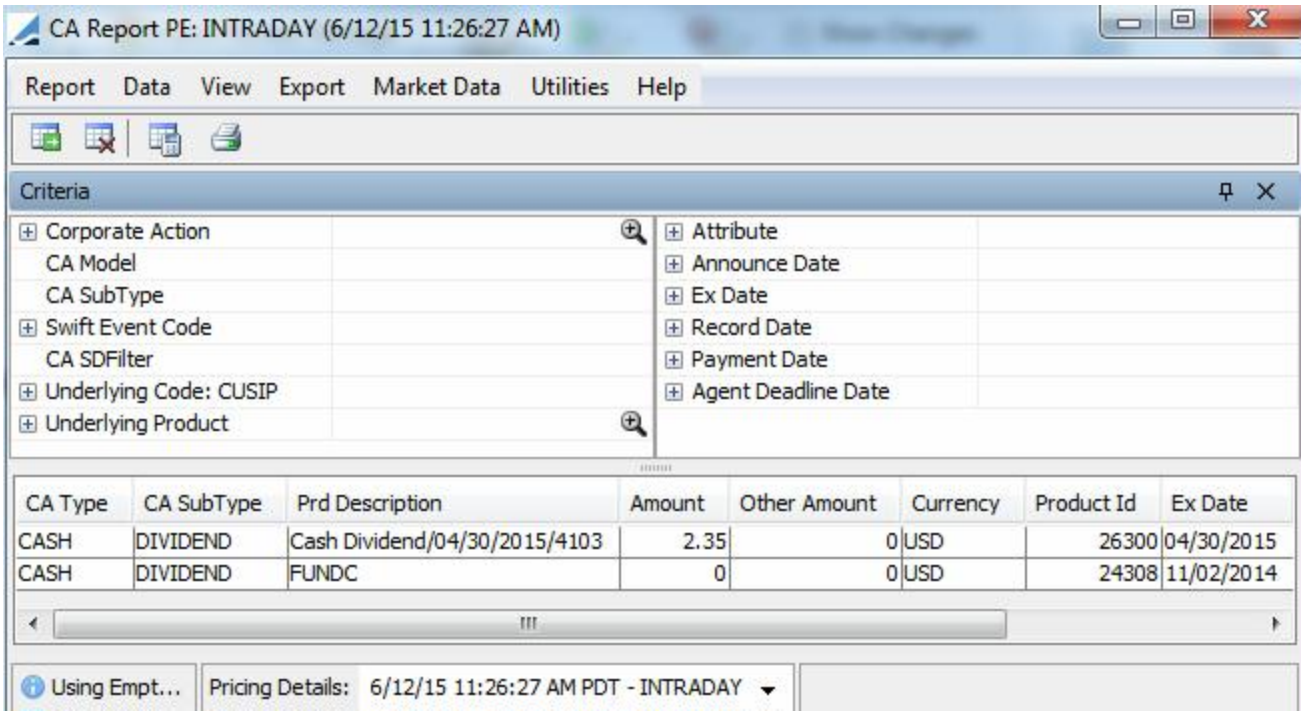
You can then choose **XML > XML Import** to import the XML file you have created into another environment, or use the format to import other CA events.

# 3. Corporate Action Report

The Corporate Action Report allows displaying the corporate actions defined in the system.

For reference, Corporate Actions are defined using **Trade Lifecycle > Corporate Action > Corporate Action**.

From the Calypso Navigator, navigate to **Reports > Securities Reports > Corporate Action Report** (menu action `reporting.ReportWindow$CA`) to bring up the report.




**[NOTE: You can configure the columns. Sort columns, subheadings and subtotals have to be explicitly specified. Choose Help > Menu Items for details]**

- You can change the pricing details at the bottom of the window - By default, the pricing environment comes from the User Defaults, and the valuation date is the current date and time.
- You can check / uncheck **View > Show Frame > Criteria** to display / hide the search criteria.
- Specify search criteria as applicable and click to load the corresponding corporate actions.
- You can select a template, and click to display the number of objects that will be loaded from the database, before loading the report.
- You can click to print the report results.

  Note that for the Pivot view and the Aggregation view, the print icon is disabled.

  You can use [Ctrl+P] or [Ctrl+L] to print the report, or you can export the report to Excel and print it from there.

# 4. Corporate Action Apply Trade Simulation Report

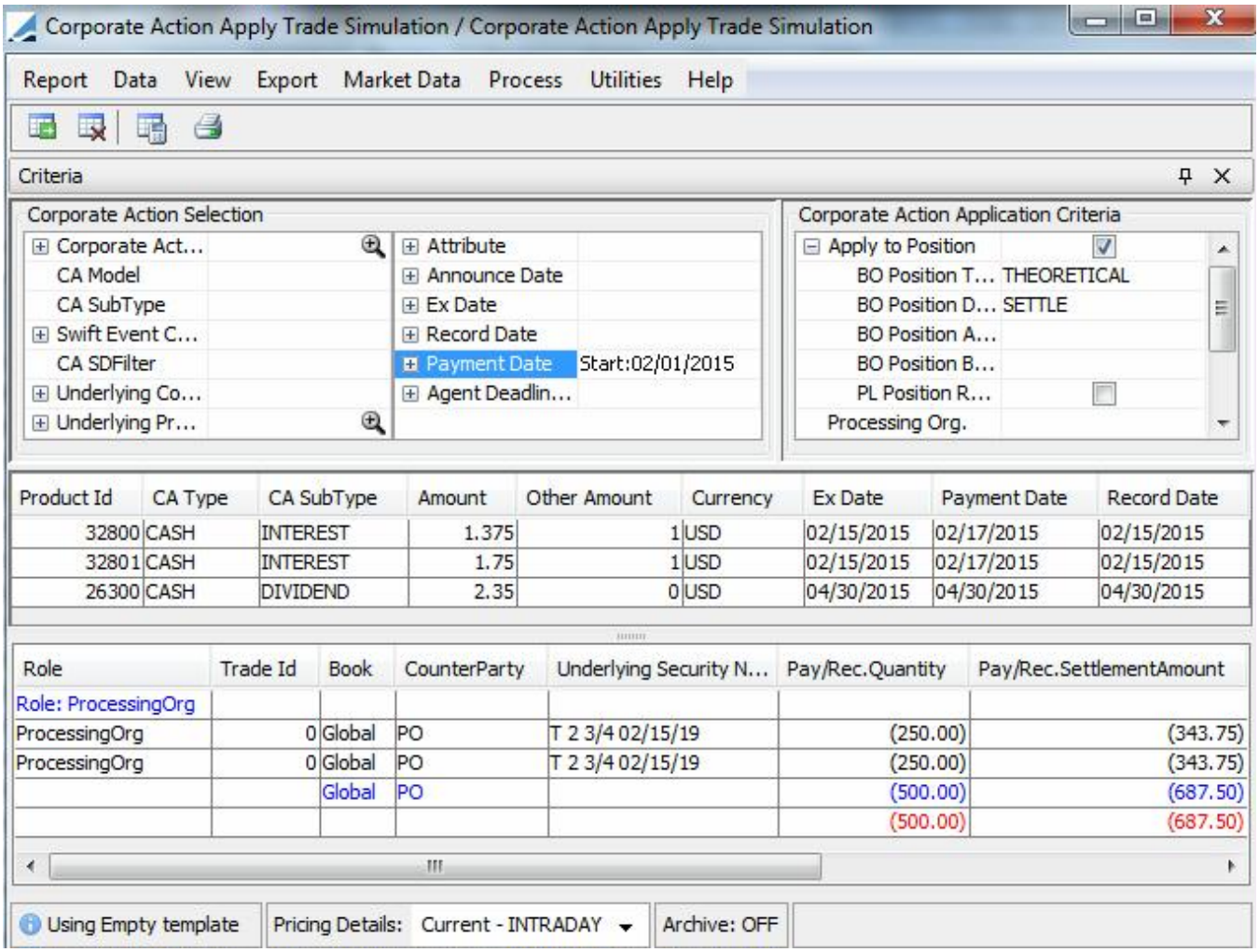
The CA Apply Trade Simulation report allows simulating the application of corporate actions.

It allows loading a set of corporate actions and the corresponding positions / trades, and it simulates the application of the corporate actions in the exact same way as the Apply panel of the Corporate Action window. The only difference is that it does not allow saving the trades.

For information on how the simulated trades and positions are generated, refer to the following topics:

- Corporate Actions for position-based products - Coupons and redemptions on bonds, corporate actions on equity positions / sec lending trades / repo trades.
- Corporate Action for Listed products - Splits, MDEs, and dividends on listed products.
- Corporate Actions for OTC products - Splits and dividends on OTC equity derivatives.

From the Calypso Navigator, navigate to **Reports > Cross-Asset Reports > CA Apply Trade Simulation** (menu action `reporting.ReportWindow$CAApplyTradeSimulation`).




**[NOTE: You can configure the columns. Sort columns, subheadings and subtotals have to be explicitly specified. Choose Help > Menu Items for details]**

- You can change the pricing details at the bottom of the window - By default, the pricing environment comes from the User Defaults, and the valuation date is the current date and time.
- You can check / uncheck **View > Show Frame > Criteria** to display / hide the search criteria.
- Specify search criteria to select corporate actions.

  Specify search criteria to select trades and positions, they are described below.

  Then click to load the corresponding corporate actions, trades and positions.
- You can select a template, and click to display the number of objects that will be loaded from the database, before loading the report.
- You can click to print the report results.

  Note that for the Pivot view and the Aggregation view, the print icon is disabled.

You can use [Ctrl+P] or [Ctrl+L] to print the report, or you can export the report to Excel and print it from there.

### *Search Criteria to Select Trades and Positions*

- Apply to Position - Check to apply the corporate action to positions. Then select the position criteria.
  - BO Position Type - Select the position type: ACTUAL (at record date) or THEORETICAL (at ex-dividend date).
  - BO Position Date Type - Select the position date: TRADE or SETTLE.
  - BO Position Aggregation - Select the position aggregation if any.
  - BO Position Balance Type - Select the position balance type.
  - PL Position Repoed - Check to trigger the dividend pass-through functionality.
- Processing Org - Select a processing organization as needed.
- Product Type - Select a list of product types as needed.
- Position Filter - Select a trade filter as needed (note that SQL generated Trade Filters are not supported).
- Apply to OTC - Check to apply the corporate action to OTC trades (repo trades, sec lending trades, equity derivatives trades). In that case, the corresponding product types must be selected in the trade filter.

  The "Process Baskets" checkbox is only used in the context of corporate actions on Equity Derivatives with baskets.
- Filter Display - Check to filter on CA position type and agent aggregation.
  - CA Position Type - Each CA trade is classified in a position type, agent, claim with counterparty, etc... Select as needed.
  - Agent Aggregation Only - To display only the CA agent trades against the CA Adjustment book
  - Show Log Progress - To show the log progress
- Generate Ca First - Check to simulate the CA products when they do not exist. In that case the simulated CA products have a negative Id and the CA trades have no Trade Ids.

  You need to select underlying bond products in order for the CA products to be simulated.

# 5. Position-Based Corporate Actions

This document describes how to apply corporate actions to position-based products.

***Quick Reference***

- Select the Generate panel to generate automatic corporate actions (bond coupons and redemptions), or select the Create panel to define other types of corporate actions.

  ▶ See Corporate Actions for the various types of corporate actions that can be defined, and details on the Create panel.

- Select the Apply panel to apply the corporate actions to the positions.

You can also use the CORPORATE_ACTION scheduled task.

## 5.1 Generating Automatic Corporate Actions

Select the Generate panel to generate corporate actions: this applies to coupons and redemptions, based on bond product definitions.


Corporate Action window (Generate panel)

**Step 1** - Click **Add** to select the product(s) for which you want to generate corporate actions.

**Step 2** - Select the range of dates for which you want to generate the corporate actions.

You can check “Use Ex Date” to select bond cashflows based on the ex date rather than the payment date.

Click **Generate CA**. The corporate actions related to the selected products and the range of dates is displayed.

You can define the number of decimals of the generated amount in the pricing parameter CA_BOND_ROUNDING.

When creating a CA for which the floating rate is unknown, the system creates a CA with NOT_APPLICABLE status. This applies to the CORPORATE_ACTION scheduled task as well.

If the domain “CAForMatching” contains Value = true, the CA Ex (Effective) date is set based on the Bond Ex-Dividend days.

The status must be defined in the domain “CA.Status” with a comment that starts with “Default”.

For example:

- Value = NOT_APPLICABLE
- Comments = **Default** not applicable status

**Step 3** - Click **Save** to save the corporate actions. You can now apply the corporate actions to the positions.

## 5.2 Applying Corporate Actions

Each outcome of a corporate action (CA) is applied to the following types of positions:

- The position computed by the Liquidation engine to update the book’s P&L - A CA trade between the book and the processing org to update the P&L.

  Note that for redemptions, you can elect to generate buy/sell trades rather than corporate action trades. To enable this feature, set the environment property BOND_REDEMPTION_TRADE to true. The system will create Buy/Sell trades with the Processing Org for closing out the original positions. The CA that has created the Buy/Sell trade is kept as a reference in the trade keyword CA_REFERENCE.

  For a coupon on an ex-dividend Bond, the "PO" CA INTEREST trade represents the real cash coupon amount receivable on Ex-Dividend Date (matching the Agent Trade). A second "PO" CA INTEREST trade is generated with keyword "CAExDivAdjustedDate" and liquidation type "Realized Ex-Div Adjustment", representing a P&L adjustment trade for the coupon amount receivable as of Coupon End Date (equivalent non-ex-dividend Bond). This second trade does not have any withholding tax adjustment.

- The inventory position computed by the Inventory engine to represent the actual cashflows - A CA trade between the book and the agent (nostro/custodian) for payment purposes.

  You can configure the system so that Agent trades are aggregated into a specific book. To do so, configure the specific book in the book attribute "CAAdjustBook" of the initial book.

  For example, all Agent trades of book "Global" can be stored in book "CABook". Book "Global" should be configured so that book attribute "CAAdjustBook = CABook". "CABook" should also have the book attribute "CAAdjustBook = CABook".

  Note that if the trades are not settled, or the settlement has failed, the CA trade is generated between the book and the counterparty, instead of the agent.

  You can settle CA claims in a currency different from the bond / equity currency.

  – For dividends, you need to set the settlement currency in the counterparty attribute CADefaultCurrencyDividend.

  - For coupons, you need to set the settlement currency in the counterparty attribute CADefaultCurrencyInterest.

  The system requires the FX rate between the settlement currency and the default currency on the settlement date.

- For repos, the actual corporate actions are repaid to the counterparty. So we have a CA trade between the book and the agent, and a CA trade between the book and the counterparty. You need to check “Load OTC Trades" to generate corporate actions on repo trades.

  Note that the "Repo" product type must be selected in the trade filter.

  You can settle the counterparty CA with a currency different from the CA currency. You need to set the settlement currency in the trade keyword CAClaimCurrency on the source repo trade, or on the repo legal agreement attribute CAClaimCurrency. The FX rate between the CAClaimCurrency and the CA currency is stored in the trade keyword CAClaimFXRate and is used to calculate the settlement amount.

- For sec lending trades, the corporate actions are repaid to the counterparty only if the initial trades are settled. We have a CA trade between the book and the counterparty. You need to check "Load OTC Trades" to see those trades.

  Note that the "SecLending" product type must be selected in the trade filter.

- For security margin calls, the actual corporate actions are repaid to the counterparty as well. So we have a CA trade between the book and the agent, and a CA trade between the book and the counterparty.

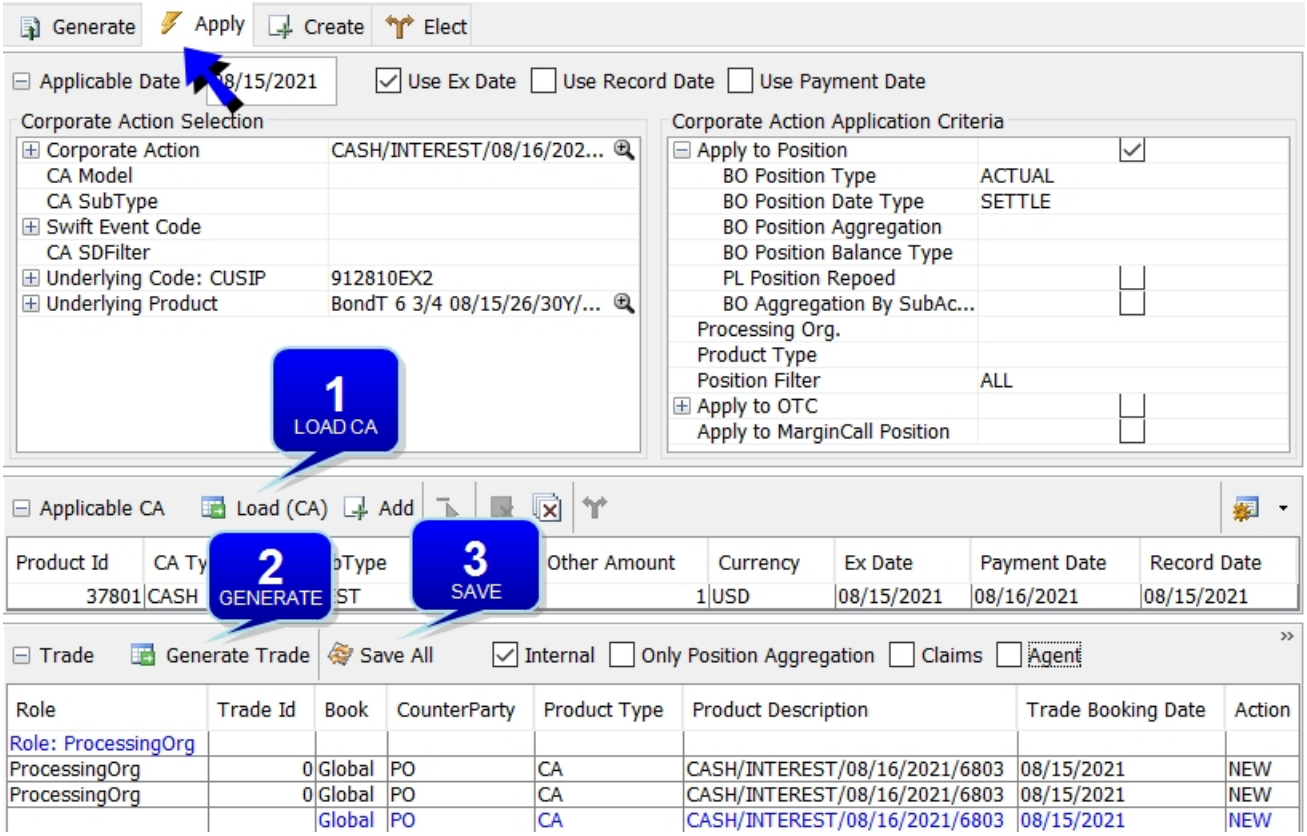
- For client positions, the client CAs are generated, and you can choose to generate the internal CAs (PO view of the client position) or not, based on the account attribute "CATradeDDAInternal" on the client account. If false (default), the internal CAs are not generated. If true, the internal CAs are generated.

  You can settle the client CAs in a currency different from the bond’s currency.

  You need to set the account attribute CADefaultCurrency to the settlement currency, for the Client account where the bond trades are settled.

  The system will set the settlement currency of the CA trade to the currency defined in the CADefaultCurrency and compute the settlement amount in settlement currency based on the FX rate on the settlement date.

Select the Apply panel.




Corporate Action Window (Apply panel)

**[NOTE: You can click , and choose Configure Columns to configure the display]**

If you add domain value CAApplyPanelDefaults, the pre-existing selection criteria will be cleared.

**Step 1** - Enter the Applicable Date - It refers by default to the Ex-Dividend date but you can choose the record date or the payment date instead.

Enter search criteria to select the corporate action, and click **Load (CA)**. You can also click **Add** to select individual corporate actions.

**Step 2** - Enter selection criteria to load the positions.

You can save a template from the Apply menu to save the criteria currently selected as a template. You can then load a template to populate the criteria as needed.

- Apply to Position - Check to apply the corporate action to positions. Then select the position criteria.
  - BO Position Type - Select the position type: ACTUAL (at record date) or THEORETICAL (at ex-dividend date).

  - BO Position Date Type - Select the position date: TRADE or SETTLE.
  - BO Position Aggregation - Select the position aggregation if any.
  - BO Position Balance Type - Select the position balance type: "Balance" is the full position, "Balance Trading" is the position without borrowed/lent securities (used in conjunction with "PL Position Repoed").
  - PL Position Repoed - Check to split the dividend pass-through between the trading position and the borrowed/lent position. In this case, you need to select the balance type "Balance Trading".

    ▶ See Dividend Pass-Through for details.
  - BO Aggregation By SubAccount - Check to apply CA on custody position by sub-account.

    ▶ Please refer to Calypso Security Custody documentation for information on custody positions.
- Processing Org - Select a processing organization as needed.
- Product Type - Select a list of product types as needed.
- Position Filter - Select a trade filter as needed (note that SQL generated Trade Filters are not supported).
- Apply to OTC - Check to apply the corporate action to OTC trades (repo trades, sec lending trades, equity derivatives trades). In that case, the corresponding product types must be selected in the trade filter.

  The "Process Baskets" checkbox is only used in the context of corporate actions on Equity Derivatives with baskets.

  ▶ See Corporate Actions for OTC Products for details.
- Apply to Margin Call Position - Check to generate CA claims on margin call positions as needed.

  ▶ See CA Trades on Margin Call Positions for details.

Then click **Generate Trade** to load the trades and positions impacted by the selected CA, and apply the corporate action.

### *Additional Selection Criteria*

You can also choose what types of trades you want to display:

- Internal (CA trades between the book and the processing org to update the P&L).

  Note that in this case, you can check “Only Position Aggregation” to only generate internal corporate actions for positions with aggregation criteria. It is highly recommended however to generate all CA trades.
- Claims (CA trades between the book and the counterparty for margin calls, repos, sec lending trades, and unsettled / failed transfers).

  If you do not want the aggregation ID (if any) to be set on trade keyword InventoryAggId for claim trades, you can add Value = true to the domain "CAExcludeAggIdTKWCpty".

  No aggregation is currently supported on CA Claims generated from repos, sec lending trades and unsettled / failed transfers.
- Agent (CA trades between the book and the agent for payment purposes).

Note that in this case, you can check "Agent Aggregation" to only generate corporate actions for the book that aggregates the Agent trades (book set in book attribute "CAAdjustBook" for the initial book where the trades were stored).

You can customize the roles to which Corporate Actions can be applied using the domain “CAFilterRoleCheckbox”.

It should contain roles for which you want to generate CA trades. In this case, a corresponding checkbox will be added to the CA Apply window.

For example, if you add Broker to that domain, a Broker checkbox is added to the CA Apply window. You can then choose to apply Corporate Actions to brokers.


You can right-click a position and choose the following menu options:

- **Show > Underlying Inventory Position** to display the corresponding inventory position computed by the inventory engine.
- **Show > Underlying PL Position** to display the corresponding position computed by the liquidation engine.
- **Show > Diffs with Existing** to show any difference in the case the corporate action were already applied.

**Step 3** - Click **Save All** to validate the application of the corporate action and save the CA trades.

Note than even if you do not display all the CA trades, the system will create ALL the necessary CA trades when you click **Save All** (except in the case of internal trades if “Only Position Aggregation” is checked, agent trades if "Agent Aggregation" is checked, and internal trades of client positions if the client account attribute "CATradeDDAInternal" is false).

From the Apply menu, you can save your preferences for the Apply panel to a template, load a template, and set a default template.

### *Note on Applicable Date*

The handling of the Applicable Date can be customized as follows.

If the domain “generateCA.Bond” exists with:

- Value = CASH.INTEREST.setIsRecordDateInclusive
- Comment = true

The corporate action CASH.INTEREST is generated with record date inclusive, and CA application will record position on record date End Of Day.

If the domain “generateCA.Bond” exists with:

- Value = AMORTIZATION.AMORTIZATION.setIsRecordDateInclusive
- Comment = true

The corporate action AMORTIZATION.AMORTIZATION is generated with record date inclusive.

The domain name can be one of the following:

- generateCA.productType.productSubtype
- generateCA.productType
- generateCA

The more detailed domain name takes precedence. For example, “generateCA.Bond.Generic” takes precedence over “generateCA.Bond”, which takes precedence over “generateCA”.

If the domain "generateCA.PortfolioSwap" exist with:

- Value = CASH.DIVIDEND.setIsByTradeDate / Comment = true
- Value = TRANSFORMATION.PRICE_CHANGE.setIsByTradeDate / Comment = true

The corresponding CAs are generated by trade date.

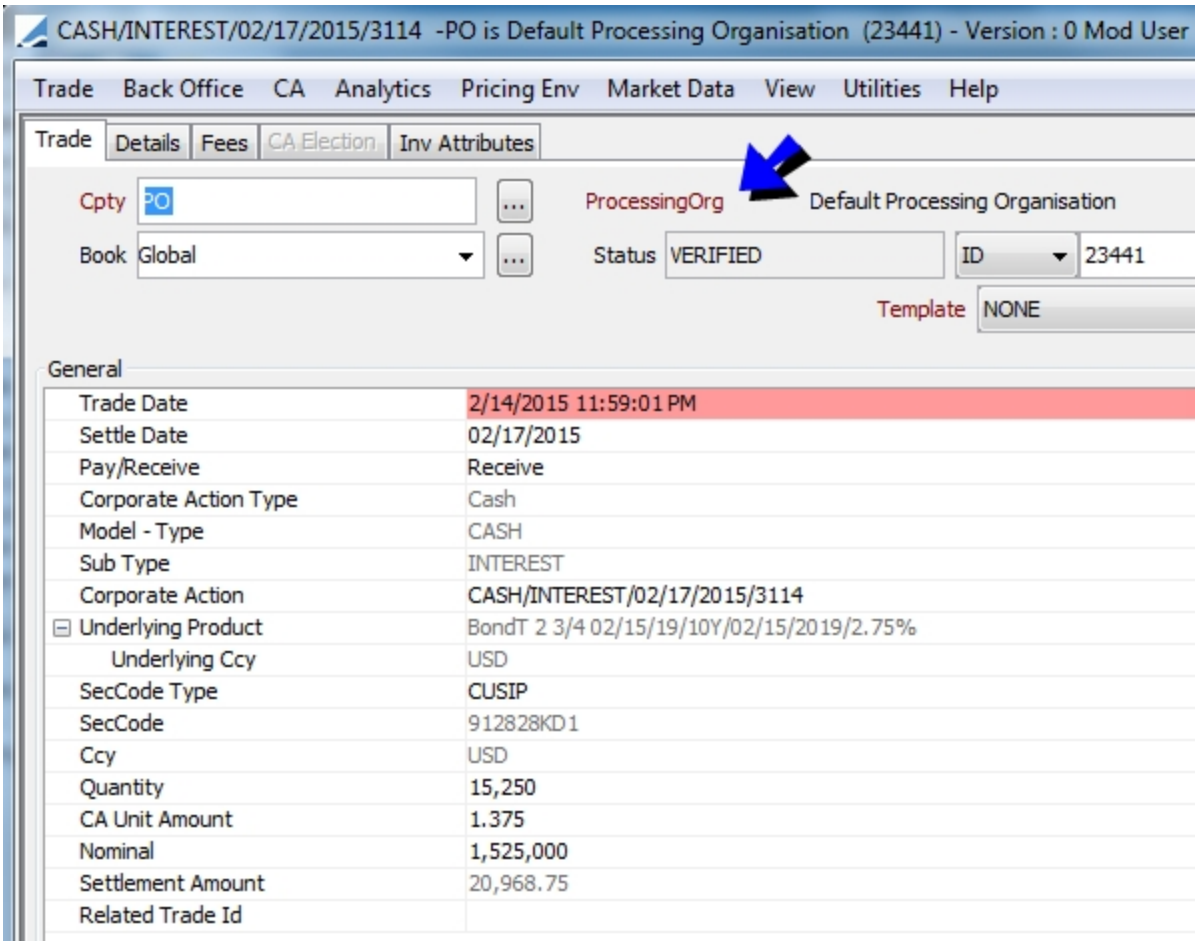
### *Note on Trade Settle Date*

If you want to apply the payment lag (as defined in the Bond Product Definition) to compute the Trade Settle Date on CA Redemption trades, you need to define the following value in domain “CAApply.Bond”.

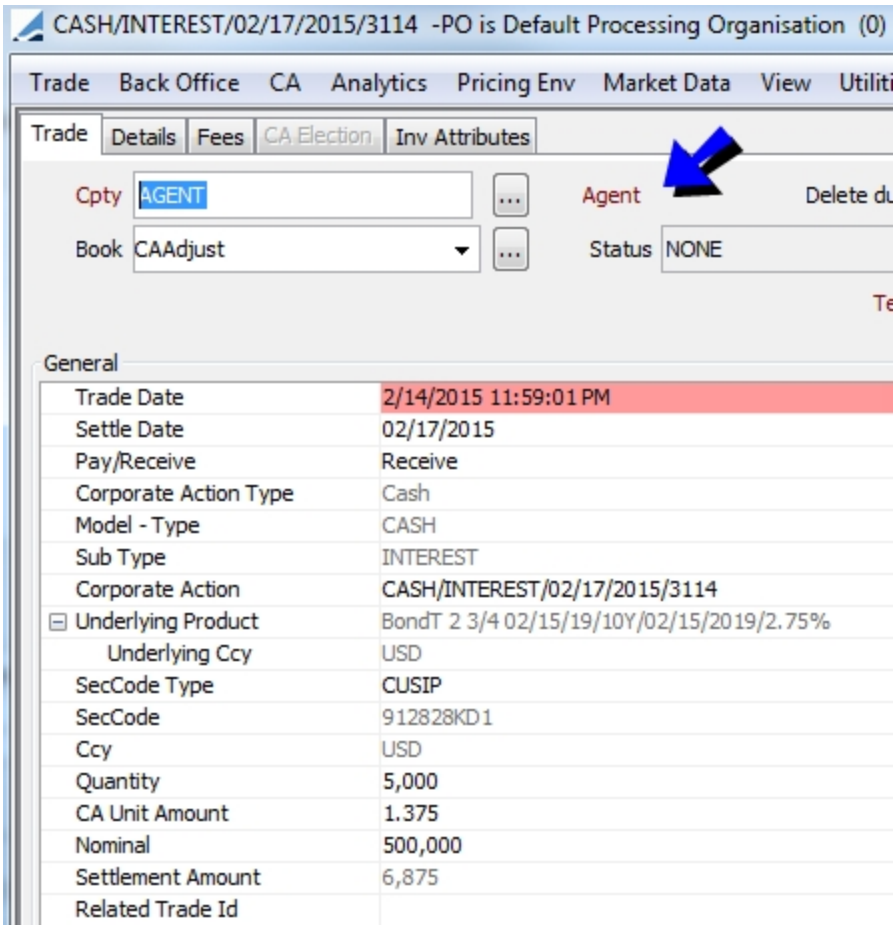
- Value = REDEMPTION.SettleDateIncludesCouponPayLag
- Comment = true

In this case, Trade Settle Date = Maturity Date + Payment lag (defined in Bond definition). If the comment is “false”, or the domain value is not set, Trade Settle Date = Maturity Date.

### *Sample "Internal" Trade for P&L*




## *Sample "Agent" Trade for Payment*




## *P&L Adjustments*

PL adjustments can be computed for the REDEMPTION, DRAWING and AMORTIZATION models in case of rounding issues.

The system checks that PO CAs settlement amount = Agent CAs settlement amount + Claim CAs settlement amount. If there is a difference, it is stored in the CAAdjustment book.

## *CA Stock Claims*

The outcomes of generating CA Stock Claims on security finance positions are the following.

### Bond CA Events

The bond CA events affecting the security finance positions are:

- REDEMPTION/PRINCIPAL: A partial return is applied to the underlying security repo trade at payment date.

- REDEMPTION/CALL_REDEMPTION: A partial or full return is applied to the underlying security repo trade at payment date.
- TRANSFORMATION/ASSIMILATION: A substitution is applied to the underlying security finance trade at payment date.
- REDEMPTION/REDEMPTION: The underlying security finance trade is closed.

In all those scenarios, we have both a CA cash claim materialized by a CA trade, and a CA stock claim materialized by an action on the original security finance trade at CA settlement date.

The CA cash claim represents the cash amount of the amortization, redemption and/or assimilation.

### Equity CA Events

For all equity CA events applied to security finance positions, equity synthetic trades are created on the lending positions to update the P&L once the stocks are returned, and on the borrowing positions, additional transfers are created (using transfer attributes ClaimId = CA productid and CAFailedXfer=transfer Id of the original Security borrowing transfer) to update the internal inventory position.

When there are no trading position and the position is only composed of security finance trades, no equity synthetic trade is created as well as no agent CA trade.

When there are trading positions and security finance positions, equity synthetic trades are created for the lending position and not for the borrowing position. Additional transfers are created on any additional sec borrowing.

The PNL position check is made at book level. All actions are triggered at payment date.

The Equity CA events affecting the security finance positions are:

- ACCRUAL - When applying the ACCRUAL model, we distribute additional securities. For the part of the position that is being collateralized, additional CA trades are created as Security Lendings or Repos to create the new loan exposure brought by the additional securities gained from the CA event.

  Example of DVOP where security lending position is on one book and trading position on another book:

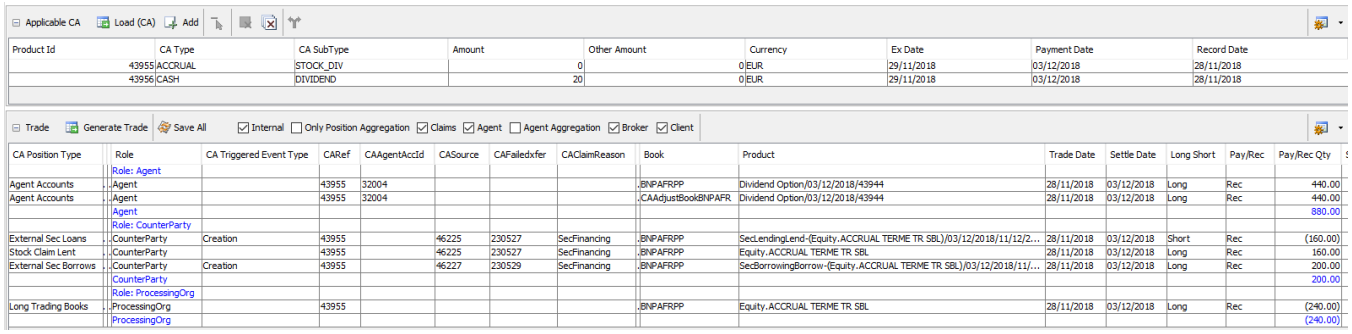
Applicable CA | Load (CA) | Add

| Product Id | CA Type | CA SubType | Amount | Other Amount | Currency | Ex Date | Payment Date | Record Date |
|---|---|---|---|---|---|---|---|---|
| 45108 | ACCRUAL | STOCK_DIV | 0 | 0 | EUR | 07/05/2019 | 09/05/2019 | 08/05/2019 |

Trade | Generate Trade | Save All | Internal | Only Position Aggregation | Claims | Agent | Agent Aggregation | Broker | Client

| CA Position Type | Role | CA Triggered Event Type | CARef | CAAgentAccId | CASource | CAFailedxfer | CAClaimReason | Book | Product | Trade Date | Settle Date | Long Short | Pay/Rec | Pay/Rec Qty |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Role: Agent | | | | | | | | | | | | | |
| Agent Accounts | Agent | | 45108 | 32004 | | | | .BNPAFRPP | Dividend Option/09/05/2019/45101 | 06/05/2019 | 09/05/2019 | Long | Rec | 2,000.00 |
| Agent Accounts | Agent | | 45108 | 32004 | | | | .CAAdjustBookBNPAFR | Dividend Option/09/05/2019/45101 | 06/05/2019 | 09/05/2019 | Long | Rec | 2,000.00 |
| | Agent | | | | | | | | | | | | | 4,000.00 |
| | Role: CounterParty | | | | | | | | | | | | | |
| External Sec Borrows | CounterParty | Creation | 45108 | | 47203 | 236502 | SecFinancing | .BNPAFRPPSBL | SecBorrowingBorrow-(Equity.ACCRUAL OPEN TR SBL MULTI BOOKS)/0... | 08/05/2019 | 09/05/2019 | Long | Rec | 1,000.00 |
| External Sec Loans | CounterParty | Creation | 45108 | | 47205 | 236505 | SecFinancing | .BNPAFRPPSBL | SecLendingLend-(Equity.ACCRUAL OPEN TR SBL MULTI BOOKS)/09/05/... | 08/05/2019 | 09/05/2019 | Short | Rec | (800.00) |
| | CounterParty | | | | | | | | | | | | | 200.00 |
| | Role: ProcessingOrg | | | | | | | | | | | | | |
| Long Trading Books | ProcessingOrg | | 45108 | | | | | .BNPAFRPP | Equity.ACCRUAL OPEN TR SBL MULTI BOOKS | 06/05/2019 | 09/05/2019 | Long | Rec | (2,000.00) |
| | ProcessingOrg | | | | | | | | | | | | | (2,000.00) |

  Example of a single book for trading and security lending & borrowing position:



Applicable CA | Load (CA) | Add

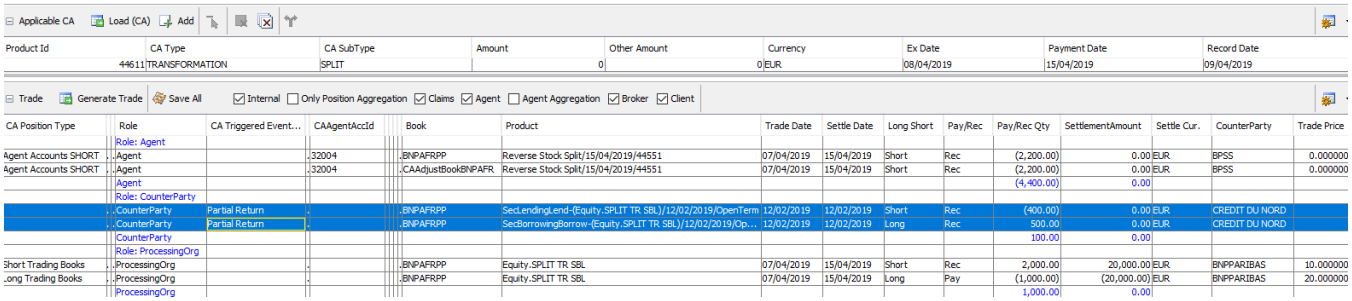
| Product Id | CA Type | CA SubType | Amount | Other Amount | Currency | Ex Date | Payment Date | Record Date |
|---|---|---|---|---|---|---|---|---|
| 43955 | ACCRUAL | STOCK_DIV | 0 | 0 | EUR | 29/11/2018 | 03/12/2018 | 28/11/2018 |
| 43956 | CASH | DIVIDEND | 20 | 0 | EUR | 29/11/2018 | 03/12/2018 | 28/11/2018 |

Trade | Generate Trade | Save All | Internal | Only Position Aggregation | Claims | Agent | Agent Aggregation | Broker | Client

| CA Position Type | Role | CA Triggered Event Type | CARef | CAAgentAccId | CASource | CAFailedxfer | CAClaimReason | Book | Product | Trade Date | Settle Date | Long Short | Pay/Rec | Pay/Rec Qty |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Role: Agent | | | | | | | | | | | | | |
| Agent Accounts | Agent | | 43955 | 32004 | | | | BNPAFRPP | Dividend Option/03/12/2018/43944 | 28/11/2018 | 03/12/2018 | Long | Rec | 440.00 |
| Agent Accounts | Agent | | 43955 | 32004 | | | | CAAdjustBookBNPAFR | Dividend Option/03/12/2018/43944 | 28/11/2018 | 03/12/2018 | Long | Rec | 440.00 |
| | Agent | | | | | | | | | | | | | 880.00 |
| | Role: CounterParty | | | | | | | | | | | | | |
| External Sec Loans | CounterParty | Creation | 43955 | | 46225 | 230527 | SecFinancing | BNPAFRPP | SecLendingLend-(Equity.ACCRUAL TERME TR SBL)/03/12/2018/11/12/2... | 28/11/2018 | 03/12/2018 | Short | Rec | (160.00) |
| Stock Claim Lent | CounterParty | | 43955 | | 46225 | 230527 | SecFinancing | BNPAFRPP | Equity.ACCRUAL TERME TR SBL | 28/11/2018 | 03/12/2018 | Long | Rec | 160.00 |
| External Sec Borrows | CounterParty | Creation | 43955 | | 46227 | 230529 | SecFinancing | BNPAFRPP | SecBorrowingBorrow-(Equity.ACCRUAL TERME TR SBL)/03/12/2018/11/... | 28/11/2018 | 03/12/2018 | Long | Rec | 200.00 |
| | CounterParty | | | | | | | | | | | | | 200.00 |
| | Role: ProcessingOrg | | | | | | | | | | | | | |
| Long Trading Books | ProcessingOrg | | 43955 | | | | | BNPAFRPP | Equity.ACCRUAL TERME TR SBL | 28/11/2018 | 03/12/2018 | Long | Rec | (240.00) |
| | ProcessingOrg | | | | | | | | | | | | | (240.00) |

- TRANSFORMATION/SPLIT - An action on the collateralized trade is triggered by the CA process to update the trade at settlement day, generating transfers to update the inventory.

  Example of Reverse Split where security lending position is on one book and trading position on another book:



Applicable CA | Load (CA) | Add

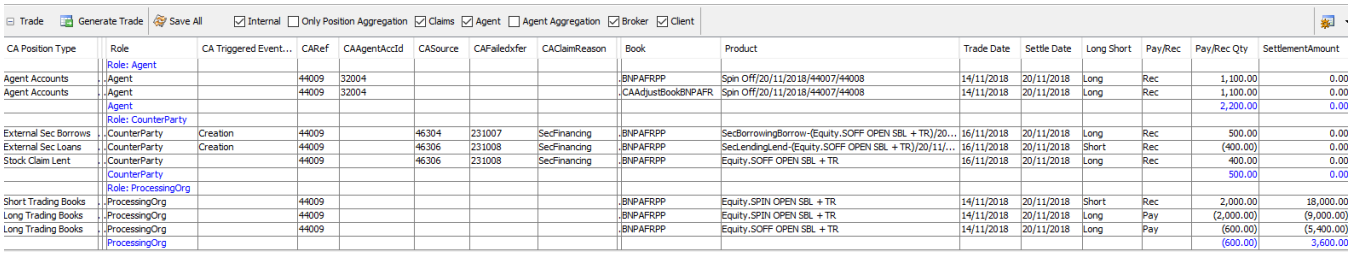
| Product Id | CA Type | CA SubType | Amount | Other Amount | Currency | Ex Date | Payment Date | Record Date |
|---|---|---|---|---|---|---|---|---|
| 44611 | TRANSFORMATION | SPLIT | 0 | 0 | EUR | 08/04/2019 | 15/04/2019 | 09/04/2019 |

Trade | Generate Trade | Save All | Internal | Only Position Aggregation | Claims | Agent | Agent Aggregation | Broker | Client

| CA Position Type | Role | CA Triggered Event... | CAAgentAccId | Book | Product | Trade Date | Settle Date | Long Short | Pay/Rec | Pay/Rec Qty | SettlementAmount | Settle Cur. | CounterParty | Trade Price |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Role: Agent | | | | | | | | | | | | | |
| Agent Accounts SHORT | Agent | | 32004 | BNPAFRPP | Reverse Stock Split/15/04/2019/44551 | 07/04/2019 | 15/04/2019 | Short | Rec | (2,200.00) | 0.00 | EUR | BPSS | 0.000000 |
| Agent Accounts SHORT | Agent | | 32004 | CAAdjustBookBNPAFR | Reverse Stock Split/15/04/2019/44551 | 07/04/2019 | 15/04/2019 | Short | Rec | (2,200.00) | 0.00 | EUR | BPSS | 0.000000 |
| | Agent | | | | | | | | | (4,400.00) | 0.00 | | | |
| | Role: CounterParty | | | | | | | | | | | | | |
| | CounterParty | Partial Return | | BNPAFRPP | SecLendingLend-(Equity.SPLIT TR SBL)/12/02/2019/OpenTerm | 12/02/2019 | 12/02/2019 | Short | Rec | (400.00) | 0.00 | EUR | CREDIT DU NORD | |
| | CounterParty | Partial Return | | BNPAFRPP | SecBorrowingBorrow-(Equity.SPLIT TR SBL)/12/02/2019/Op... | 12/02/2019 | 12/02/2019 | Long | Rec | 500.00 | 0.00 | EUR | CREDIT DU NORD | |
| | CounterParty | | | | | | | | | 100.00 | 0.00 | | | |
| | Role: ProcessingOrg | | | | | | | | | | | | | |
| Short Trading Books | ProcessingOrg | | | BNPAFRPP | Equity.SPLIT TR SBL | 07/04/2019 | 15/04/2019 | Short | Rec | 2,000.00 | 20,000.00 | EUR | BNPPARIBAS | 10.000000 |
| Long Trading Books | ProcessingOrg | | | BNPAFRPP | Equity.SPLIT TR SBL | 07/04/2019 | 15/04/2019 | Long | Pay | (1,000.00) | (20,000.00) | EUR | BNPPARIBAS | 20.000000 |
| | ProcessingOrg | | | | | | | | | 1,000.00 | 0.00 | | | |

- SPINOFF/SPINOFF - Additional CA trades are created for the new position introduced by the spinoff.

  Example of a spinoff using single book for trading and security lending & borrowing position:

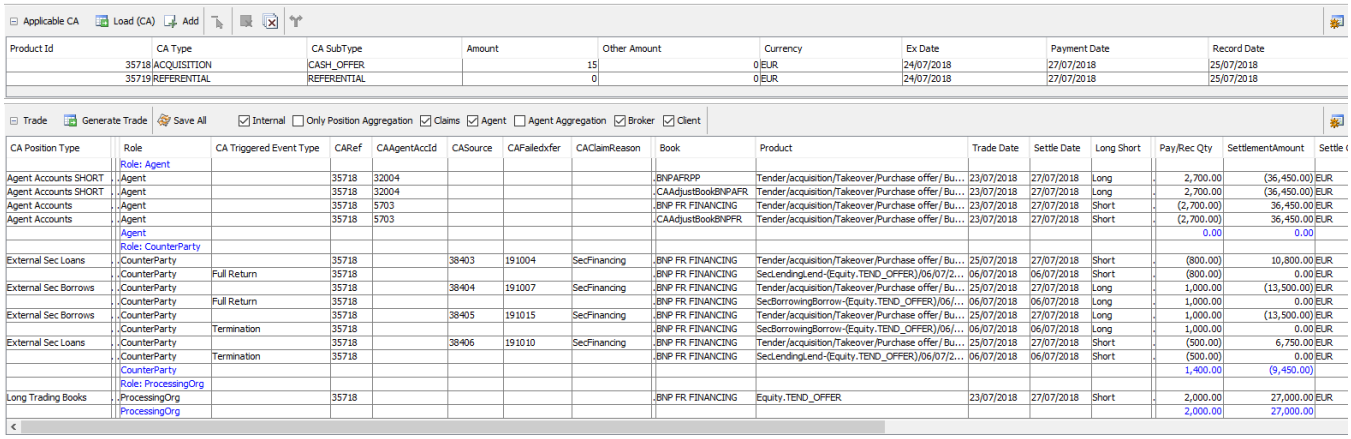


Trade | Generate Trade | Save All | Internal | Only Position Aggregation | Claims | Agent | Agent Aggregation | Broker | Client

| CA Position Type | Role | CA Triggered Event... | CARef | CAAgentAccId | CASource | CAFailedxfer | CAClaimReason | Book | Product | Trade Date | Settle Date | Long Short | Pay/Rec | Pay/Rec Qty | SettlementAmount |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Role: Agent | | | | | | | | | | | | | | |
| Agent Accounts | Agent | | 44009 | 32004 | | | | BNPAFRPP | Spin Off/20/11/2018/44007/44008 | 14/11/2018 | 20/11/2018 | Long | Rec | 1,100.00 | 0.00 |
| Agent Accounts | Agent | | 44009 | 32004 | | | | CAAdjustBookBNPAFR | Spin Off/20/11/2018/44007/44008 | 14/11/2018 | 20/11/2018 | Long | Rec | 1,100.00 | 0.00 |
| | Agent | | | | | | | | | | | | | 2,200.00 | 0.00 |
| | Role: CounterParty | | | | | | | | | | | | | | |
| External Sec Borrows | CounterParty | Creation | 44009 | | 46304 | 231007 | SecFinancing | BNPAFRPP | SecBorrowingBorrow-(Equity.SOFF OPEN SBL + TR)/20... | 16/11/2018 | 20/11/2018 | Long | Rec | 500.00 | 0.00 |
| External Sec Loans | CounterParty | Creation | 44009 | | 46306 | 231008 | SecFinancing | BNPAFRPP | SecLendingLend-(Equity.SOFF OPEN SBL + TR)/20/11/... | 16/11/2018 | 20/11/2018 | Short | Rec | (400.00) | 0.00 |
| Stock Claim Lent | CounterParty | | 44009 | | 46306 | 231008 | SecFinancing | BNPAFRPP | Equity.SOFF OPEN SBL + TR | 16/11/2018 | 20/11/2018 | Long | Rec | 400.00 | 0.00 |
| | CounterParty | | | | | | | | | | | | | 500.00 | 0.00 |
| | Role: ProcessingOrg | | | | | | | | | | | | | | |
| Short Trading Books | ProcessingOrg | | 44009 | | | | | BNPAFRPP | Equity.SPIN OPEN SBL + TR | 14/11/2018 | 20/11/2018 | Short | Rec | 2,000.00 | 18,000.00 |
| Long Trading Books | ProcessingOrg | | 44009 | | | | | BNPAFRPP | Equity.SPIN OPEN SBL + TR | 14/11/2018 | 20/11/2018 | Long | Pay | (2,000.00) | (9,000.00) |
| Long Trading Books | ProcessingOrg | | 44009 | | | | | BNPAFRPP | Equity.SOFF OPEN SBL + TR | 14/11/2018 | 20/11/2018 | Long | Pay | (600.00) | (5,400.00) |
| | ProcessingOrg | | | | | | | | | | | | | (600.00) | 3,600.00 |

- ACQUISITION/CASH_OFFER and STOCK_OFFER - The underlying security finance trade is closed and additional CA trades are created for the new position, if any introduced by the CA event.

  Example of a multi book tender offer against cash:



Applicable CA | Load (CA) | Add

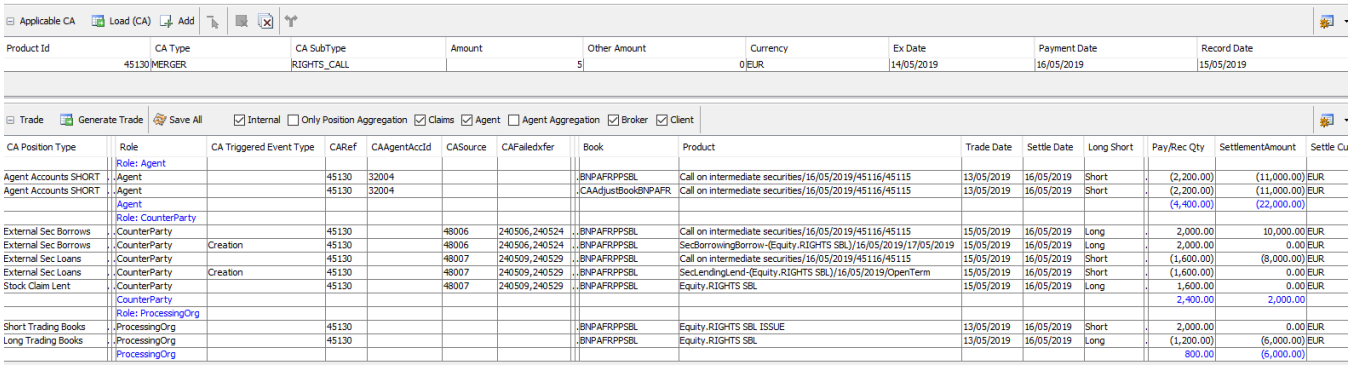
| Product Id | CA Type | CA SubType | Amount | Other Amount | Currency | Ex Date | Payment Date | Record Date |
|---|---|---|---|---|---|---|---|---|
| 35718 | ACQUISITION | CASH_OFFER | 15 | 0 | EUR | 24/07/2018 | 27/07/2018 | 25/07/2018 |
| 35719 | REFERENTIAL | REFERENTIAL | 0 | 0 | EUR | 24/07/2018 | 27/07/2018 | 25/07/2018 |

Trade | Generate Trade | Save All | Internal | Only Position Aggregation | Claims | Agent | Agent Aggregation | Broker | Client

| CA Position Type | Role | CA Triggered Event Type | CARef | CAAgentAccId | CASource | CAFailedxfer | CAClaimReason | Book | Product | Trade Date | Settle Date | Long Short | Pay/Rec Qty | SettlementAmount | Settle |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Role: Agent | | | | | | | | | | | | | | |
| Agent Accounts SHORT | Agent | | 35718 | 32004 | | | | BNPAFRPP | Tender/acquisition/Takeover/Purchase offer/ Bu... | 23/07/2018 | 27/07/2018 | Long | 2,700.00 | (36,450.00) | EUR |
| Agent Accounts SHORT | Agent | | 35718 | 32004 | | | | CAAdjustBookBNPAFR | Tender/acquisition/Takeover/Purchase offer/ Bu... | 23/07/2018 | 27/07/2018 | Long | 2,700.00 | (36,450.00) | EUR |
| Agent Accounts | Agent | | 35718 | 5703 | | | | BNP FR FINANCING | Tender/acquisition/Takeover/Purchase offer/ Bu... | 23/07/2018 | 27/07/2018 | Short | (2,700.00) | 36,450.00 | EUR |
| Agent Accounts | Agent | | 35718 | 5703 | | | | CAAdjustBookBNPFR | Tender/acquisition/Takeover/Purchase offer/ Bu... | 23/07/2018 | 27/07/2018 | Short | (2,700.00) | 36,450.00 | EUR |
| | Agent | | | | | | | | | | | | 0.00 | 0.00 | |
| | Role: CounterParty | | | | | | | | | | | | | | |
| External Sec Loans | CounterParty | | 35718 | | 38403 | 191004 | SecFinancing | BNP FR FINANCING | Tender/acquisition/Takeover/Purchase offer/ Bu... | 25/07/2018 | 27/07/2018 | Short | (800.00) | 10,800.00 | EUR |
| | CounterParty | Full Return | 35718 | | | | | BNP FR FINANCING | SecLendingLend-(Equity.TEND_OFFER)/06/07/2... | 06/07/2018 | 06/07/2018 | Short | (800.00) | 0.00 | EUR |
| External Sec Borrows | CounterParty | | 35718 | | 38404 | 191007 | SecFinancing | BNP FR FINANCING | Tender/acquisition/Takeover/Purchase offer/ Bu... | 25/07/2018 | 27/07/2018 | Long | 1,000.00 | (13,500.00) | EUR |
| | CounterParty | Full Return | 35718 | | | | | BNP FR FINANCING | SecBorrowingBorrow-(Equity.TEND_OFFER)/06/... | 06/07/2018 | 06/07/2018 | Long | 1,000.00 | 0.00 | EUR |
| External Sec Borrows | CounterParty | | 35718 | | 38405 | 191015 | SecFinancing | BNP FR FINANCING | Tender/acquisition/Takeover/Purchase offer/ Bu... | 25/07/2018 | 27/07/2018 | Long | 1,000.00 | (13,500.00) | EUR |
| | CounterParty | Termination | 35718 | | | | | BNP FR FINANCING | SecBorrowingBorrow-(Equity.TEND_OFFER)/06/... | 06/07/2018 | 06/07/2018 | Long | 1,000.00 | 0.00 | EUR |
| External Sec Loans | CounterParty | | 35718 | | 38406 | 191010 | SecFinancing | BNP FR FINANCING | Tender/acquisition/Takeover/Purchase offer/ Bu... | 25/07/2018 | 27/07/2018 | Short | (500.00) | 6,750.00 | EUR |
| | CounterParty | Termination | 35718 | | | | | BNP FR FINANCING | SecLendingLend-(Equity.TEND_OFFER)/06/07/2... | 06/07/2018 | 06/07/2018 | Short | (500.00) | 0.00 | EUR |
| | CounterParty | | | | | | | | | | | | 1,400.00 | (9,450.00) | |
| | Role: ProcessingOrg | | | | | | | | | | | | | | |
| Long Trading Books | ProcessingOrg | | 35718 | | | | | BNP FR FINANCING | Equity.TEND_OFFER | 23/07/2018 | 27/07/2018 | Short | 2,000.00 | 27,000.00 | EUR |
| | ProcessingOrg | | | | | | | | | | | | 2,000.00 | 27,000.00 | |

- MERGER/RIGHT_CALLS - The underlying security finance trade on intermediate NIL paid equities is closed and additional CA trades are created to add securities to the original equity position.

  Example of a single book exercising the rights:



Applicable CA | Load (CA) | Add

| Product Id | CA Type | CA SubType | Amount | Other Amount | Currency | Ex Date | Payment Date | Record Date |
|---|---|---|---|---|---|---|---|---|
| 45130 | MERGER | RIGHTS_CALL | 5 | 0 | EUR | 14/05/2019 | 16/05/2019 | 15/05/2019 |

Trade | Generate Trade | Save All | Internal | Only Position Aggregation | Claims | Agent | Agent Aggregation | Broker | Client

| CA Position Type | Role | CA Triggered Event Type | CARef | CAAgentAccId | CASource | CAFailedxfer | Book | Product | Trade Date | Settle Date | Long Short | Pay/Rec Qty | SettlementAmount | Settle Cu |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Role: Agent | | | | | | | | | | | | | |
| Agent Accounts SHORT | Agent | | 45130 | 32004 | | | BNPAFRPPSBL | Call on intermediate securities/16/05/2019/45116/45115 | 13/05/2019 | 16/05/2019 | Short | (2,200.00) | (11,000.00) | EUR |
| Agent Accounts SHORT | Agent | | 45130 | 32004 | | | CAAdjustBookBNPAFR | Call on intermediate securities/16/05/2019/45116/45115 | 13/05/2019 | 16/05/2019 | Short | (2,200.00) | (11,000.00) | EUR |
| | Agent | | | | | | | | | | | (4,400.00) | (22,000.00) | |
| | Role: CounterParty | | | | | | | | | | | | | |
| External Sec Borrows | CounterParty | | 45130 | | 48006 | 240506,240524 | BNPAFRPPSBL | Call on intermediate securities/16/05/2019/45116/45115 | 15/05/2019 | 16/05/2019 | Long | 2,000.00 | 10,000.00 | EUR |
| External Sec Borrows | CounterParty | Creation | 45130 | | 48006 | 240506,240524 | BNPAFRPPSBL | SecBorrowingBorrow-(Equity.RIGHTS SBL)/16/05/2019/17/05/2019 | 15/05/2019 | 16/05/2019 | Long | 2,000.00 | 0.00 | EUR |
| External Sec Loans | CounterParty | | 45130 | | 48007 | 240509,240529 | BNPAFRPPSBL | Call on intermediate securities/16/05/2019/45116/45115 | 15/05/2019 | 16/05/2019 | Short | (1,600.00) | (8,000.00) | EUR |
| External Sec Loans | CounterParty | Creation | 45130 | | 48007 | 240509,240529 | BNPAFRPPSBL | SecLendingLend-(Equity.RIGHTS SBL)/16/05/2019/OpenTerm | 15/05/2019 | 16/05/2019 | Short | (1,600.00) | 0.00 | EUR |
| Stock Claim Lent | CounterParty | | 45130 | | 48007 | 240509,240529 | BNPAFRPPSBL | Equity.RIGHTS SBL | 15/05/2019 | 16/05/2019 | Long | 1,600.00 | 0.00 | EUR |
| | CounterParty | | | | | | | | | | | 2,400.00 | 2,000.00 | |
| | Role: ProcessingOrg | | | | | | | | | | | | | |
| Short Trading Books | ProcessingOrg | | 45130 | | | | BNPAFRPPSBL | Equity.RIGHTS SBL ISSUE | 13/05/2019 | 16/05/2019 | Short | 2,000.00 | 0.00 | EUR |
| Long Trading Books | ProcessingOrg | | 45130 | | | | BNPAFRPPSBL | Equity.RIGHTS SBL | 13/05/2019 | 16/05/2019 | Long | (1,200.00) | (6,000.00) | EUR |
| | ProcessingOrg | | | | | | | | | | | 800.00 | (6,000.00) | |

### 5.2.1 Corporate Action Trades Modification

When processing the CA, the system loads any existing CA trades in order to see if any amendment or cancellation need to be applied because the position may have changed or the CA details may have been amended. These trades are then reversed, and new trades are generated with the proper information.

This is called the CA matching process.

In order to exclude a CA trade from the CA matching process, you can set the trade keyword CAManualAmend to true.

#### *Allowing Generating Corporate Actions by Balance Type*

When environment property CA_DIFFERENT_BALANCE_TYPE = true, the CABalanceType is stored on the trades. When the CA is applied to a different balance type, the existing CA trades are not canceled and new CA trades on the new balance type are created.

### 5.2.2 Withholding Tax on Bond Coupons

When you set the environment property SEC_WITHHOLDINGTAX to True, the withholding tax will be automatically withdrawn from the coupons, and reclaim fees will be automatically generated for bonds defined with "Apply Withholding Tax" selected in the Market panel of the Bond Definition window.

▶ Refer to Calypso Fixed Income documentation for details.

### 5.2.3 Withholding Tax on Bond and Equity Claim CAs

To apply the withholding tax to Bond and Equity Claim CAs, you need to set environment property SECURITY_TAX_HOLDER_ROLE = true.

The tax rate is selected from the Withholding Tax Configuration, the issuer country is the issuer of securities, but the holder country can be PO country, counterparty country or default.

You can set the holder using the following domains to determine which Tax Rate to use:

- Domain "Security.WHTPay" for short positions

  Value = CounterParty or ProcessingOrg

  Default is no Tax Rate applied if not set.
- Domain "Security.WHTReceive" for long positions

  Value = CounterParty or ProcessingOrg

  Default is ProcessingOrg if not set.

### 5.2.4 Withholding Tax on Sec Finance Claim CAs

To apply the withholding tax to Sec Finance Claim CAs, you need to set environment property TAX_HOLDER_ROLE = true.

The tax rate is selected from the Withholding Tax Configuration, the issuer country is the issuer of securities, but the holder country can be PO country, counterparty country or default.

You can set the holder using the following domains to determine which Tax Rate to use:

- Domain "SecFinance.WHTPay" for long positions

  Value = CounterParty or ProcessingOrg

  Default is no Tax Rate applied if not set.
- Domain "SecFinance.WHTReceive" for short positions

  Value = CounterParty or ProcessingOrg

  Default is ProcessingOrg if not set.

### 5.2.5 Dividend Pass-through

The dividend pass-through is the generation of the withholding tax on cash dividends (DVCA, SHPR, DVSC, DVSE, DRIP, DVOP).

CA trades on book positions are generated on ex date. When calculating these outcomes, a default pass-through rate is used as follows:

- Long positions are calculated minus the withholding tax rate that is applicable for the relevant processing org and country in which the security is listed, since we conservatively assume on ex date that the entire long position will be in Custody.
  - If there is no tax free amount:

    Entitled Position x Amount x (1 - WHT %)
  - If there is a tax free amount:

    Entitled Position x (Amount - Tax Free Amount) x (1-WHT%) + (Entitled Position x Tax Free Amount)
- Short positions are calculated at 100%, since we conservatively assume on ex date that we may be obligated to pay 100% of the entitlement amount.

  Entitlement dividend becomes: gross/net rate * P&L book position

By default, the position direction (long or short) is determined at book level. It is possible however to net a number of books, and determine the position direction based on the netted position. In this case, the position direction of the netted position will be applied to each individual book, regardless of their individual position direction.

For example, BOOKA is long and BOOKB is short - The netted position BOOKA + BOOKB is long - Then both BOOKA and BOOKB are considered long.

The netting is controlled at the Market Place level.

If the underlying equity country is not defined in domain “CANetDividendRule” and if underlying equity MarketPlace attribute CABookNetting = false (or not configured), and if underlying equity MarketPlace attribute CAApplyNetRate = true and book attribute CAApplyNetRate = true, then all the books falling under this book attribute will be applied the WHT Rate regardless of whether the book position is long/short.

If the underlying equity country is not defined in domain “CANetDividendRule” and if underlying equity MarketPlace attribute CABookNetting = false (or not configured), and if underlying equity MarketPlace attribute CAApplyNetRate = false (or not configured), then we apply default netting behavior which is:

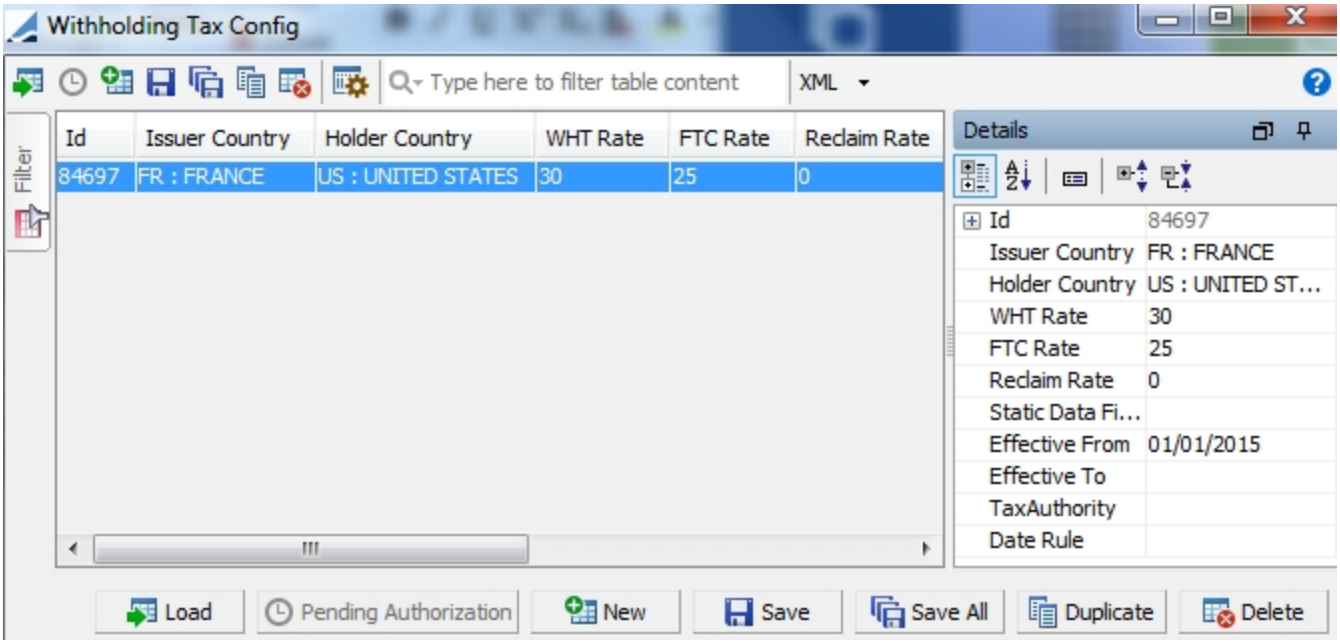
- If the position is long we apply the WHT rate to the CA event amount to have a net dividend.
- If the position is short, no WHT rate is applied and we calculate a gross dividend.

In order to determine which books you want to net together, set the book attribute CABookNetting to the same value for the books you want to net together.

For example BOOKA / CABookNetting = NET1 and BOOKB / CABookNetting = NET1 ensures that BOOKA and BOOKB will be netted together.

By default, the tax rate is taken from the CA event if set. Otherwise, it is taken from the Withholding Tax Configuration if any.

You can define withholding tax configurations using **Configuration > Fees, Haircuts, & Margin Calls > WithHoldingTax Config**.



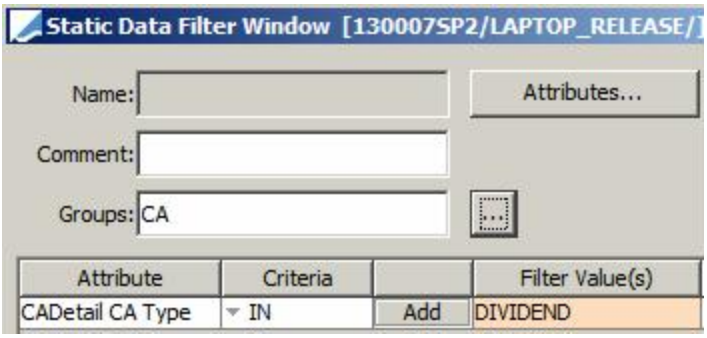

» Click **New** to add a new configuration, and enter the details in the Details area. The fields are described below.

» Then click **Save** to save your changes. You can specify multiple rates for the same issuing country using static data filters to determine the context of application of the rates.

## *Details*

| Fields | Description |
|---|---|
| Id | The ID is unique - It is given by the system upon saving. |
| Issuer Country | Select the country of the bond. |
| Holder Country | Select the country of residence of the processing org that purchased the bond. |
| WHT Rate | Enter the withholding tax rate.<br>The withholding tax amount will be withdrawn from the coupon amount when the corporate actions are generated. |
| FTC Rate | Enter the Foreign Tax Credit that exists between the issuer and Holder country if any.<br>When there is no valid RAS (Relief At Source) document, between the PO and the Tax Authority, you pay the full WHT rate, and may be eligible to reclaim part of the dividend amount. |

| Fields | Description |
|---|---|
| | When there is a valid RAS document between the PO and the Tax Authority, you are charged the FTC rate instead of the WHT rate, and therefore, there is no need for a reclaim.<br>When there is no FTC rate, you are charged the full WHT rate. There is no reclaim.<br>This is only used to generate accounting entries for the accounting events FTC and FTC_PROVISION:<br>• FTC = Entitled Position x (Amount – Tax Free Amount) x (FTC Rate) % x (FTC Recoverable %)<br>• FTC_PROVISION = [Entitled Position x (Amount – Tax Free Amount) x (FTC Rate) % x (FTC Recoverable %)] x -1<br>The book is CA P&L trade book Attribute FTCP_Book for accounting event FTC_PROVISION and Attribute FTC_Book for accounting event FTC. If these attributes are not configured in the book of the CA P&L trade, then the book is the CA P&L trade book.<br>FTC Recoverable is a percentage set on the PO attribute “FTCRecoverable”.<br>The Tax Authority is set on the PO attribute “TaxAuthority”.<br>You can associate RAS (Relief At Source) legal agreements between the PO and the Tax Authority, and take the RAS legal agreements into account in the withholding tax configuration through the use of static data filters.<br>• Valid RAS:<br>– Legal Agreement of type RAS<br>– Legal Agreement Status=VALID<br>• Invalid RAS:<br>– Legal Agreement of type RAS<br>– Legal Agreement Status=NOT VALID |
| Reclaim Rate | Enter the reclaim rate if applicable.<br>The reclaim fee will be generated on the internal coupon CA for P&L impact, and on the agent coupon CA for payment to the Tax Authority.<br>The Tax Reclaim Date is set by default to the Ex-Date. It can be configured using the domain “TaxReclaimDate”. You can set the value to RecordDate instead. The accounting event RECLAIM_TAX_RD allows recording the tax reclaim on the record date.<br>You can also generate a Tax Reclaim Provision with the accounting event RECLAIM_PROVISION.<br>It is generated when the legal entity attribute PROVISIONABLE is set to Yes on the Tax Authority.<br>RECLAIM_PROVISION = [Entitled Position x (Amount – Tax Free Amount) x (Reclaim Rate) %] x (-1) |

| Fields | Description |
|---|---|
| Static Data Filter | Select a static data filter if applicable. This is mostly needed if you have multiple rates for the same issuer country, or in the case of FTC rates.<br>You can also use the static data filter to restrict the corporate actions to which the withholding tax is applied.<br>The static data file must be defined with Groups = CA and must contain CA-related attributes, or settlement account attributes.<br>Example:<br>  |
| Effective From<br>Effective To | Select the start date and the end of the configuration.<br>This applies if the rates change at a certain date. |
| Tax Authority | Select the legal entity that will receive the reclaim fee if any - This is only used when a Reclaim Rate is set.<br>The Tax Authority is a legal entity of role TaxAuthority. |
| Date Rule | Select the date rule that determines the payment frequency of the reclaim fee if any - This is only used when a Reclaim Rate is set. |

You can split the dividend pass-through between the trading position and the borrowed/lent position.

When processing cash CA events such as Cash Dividend or Cash Option of a Merger, and the position has been financed by a security lending trade, the CA process creates CA cash claim trades for the settlement amount to be claimed.

When capturing the security finance trade, the "required dividend rate" is populated. This rate is then used to calculate the dividend claim amount by multiplying the settlement amount by the required dividend rate.

The WHT configuration is used to calculate the net dividend settlement amount using the WHT rate set in the Withholding Tax Configuration window.

The WHT rate is not used on the security lending claim settlement amounts.

When applying the CA event, check "PL Position Repoed", and select the balance type "Balance Trading" indicating that CA trades are applied on positions excluding borrowed/lent securities.

The system creates:

- PL CA trades on trading positions (excluding positions that are borrowed/lent), and applies the WHT rate to calculate the net dividend amount. Those CA trades are created between the trading books and the PO.
- PL CA trades on borrowed/lent positions, and applies the required dividend rate to calculate the net claim amount. Those trades are created between the security finance books and the PO.

Splitting the eligible position into what is held and what has been lent and/or borrowed allows to distribute correctly the PL to the right books.

### 5.2.6 Back Office Processing

The CA value should be available in the productType domain.

In order to generate the payment with the Agent (nostro/custodian), you need SDIs (settlement and delivery instructions) between the processing org and the Agent.

The CA payment trade will generate a posting provided an accounting rule is defined on the CST accounting event (triggered by any payment event), and the rule is linked to the book for the CA product.

The CA P&L trade does not generate any transfer, so it does not require any SDI. It will generate a posting provided an accounting rule is defined on the INTEREST accounting event (triggered by LIQUIDATED_POSITION and UNLIQUIDATED_POSITION events), and the rule is linked to the book for the original product (Equity, Bond, etc.). Note that the CA P&L trade is liquidated with the original trade, and that the posting will appear on the original trade.

### 5.2.7 Coupon Payments on Repo Collaterals

You can identify a coupon payment made on a repo collateral by using the transfer attribute "UnderlyingSec". The value is "true" if the transfer belongs to a collateral.

### 5.2.8 CA Trades on Margin Call Positions

In the CA Application criteria, you can select “Apply to Margin Call Position” to generate CA claims as needed.

#### *INTEREST CAs, PAYDOWN CAs and REDEMPTION CAs*

When "Reinvest Coupon" = true on margin call contract, an additional CA trade with role Counterparty is generated.

This new trade contains trade keyword CATradeMC = “Incoming Coupon” and generates a single cash transfer with Xfer Attribute MarginCall= MC Contract.

Direction of cash transfer of additional trade depends on the Collateral owner:

- Collateral is Received by CP (CP is collateral owner)

  Cash transfer direction = REC
- Collateral is Received by PO (PO is collateral owner)

Cash transfer direction = PAY

When "Reinvest Coupon" = false, there is no additional CA trade with role Counterparty.

The following domains may provide flexibility to the process in the future.

[NOTE: These domains cannot currently be modified as they do not support other values. They are described for information purposes only]

- CASubTypeWithoutSecurityFlow: CA subtypes for which no security cashflow is required:

Value = REDEMPTION

Value = DRAWING

- CASubTypeForTransferWithoutMarginCall: CA SubTypes that drive the management of the MarginCall Id transfer attribute:

Value = INTEREST, Comment = UseInventoryAmountSign

Value = REDEMPTION, Comment = UseSubType

Value = DRAWING, Comment = UseSubType

Value = PAYDOWN, Comment = UseSubType

- CACreateMarginCallAdditionalTrade: Conditions to generate a second counterparty trade. Margin call Reinvest Coupon, Reinvest Principal and Reinvest Paydown are the main parameters:

Value = Reinvest Paydown, Comment = isCash=PAYDOWN

Value = Reinvest Coupon, Comment = isCash!=PAYDOWN

Value = Reinvest Principal, Comment = isRedemption

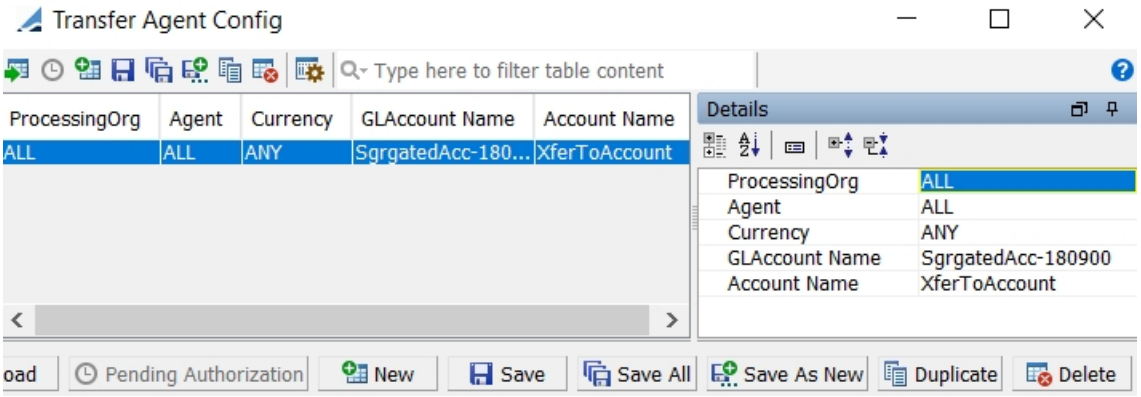
### *Corporate Actions on Segregated Margin Call Accounts*

You can transfer corporate actions generated on a segregated margin call account to another account using the scheduled task CA_TRANSFER_AGENT.

The segregated "from" account needs to have the following account attribute:

XferFromAccount = Yes

The "to" account is configured using the Transfer Agent Config window (menu action `refdata.TransferAgentConfigWindow`).




» Click **New** to create a new config and enter the fields in the Details panel. Then click **Save**.

Select a processing org or ALL.

Select an agent or ALL.

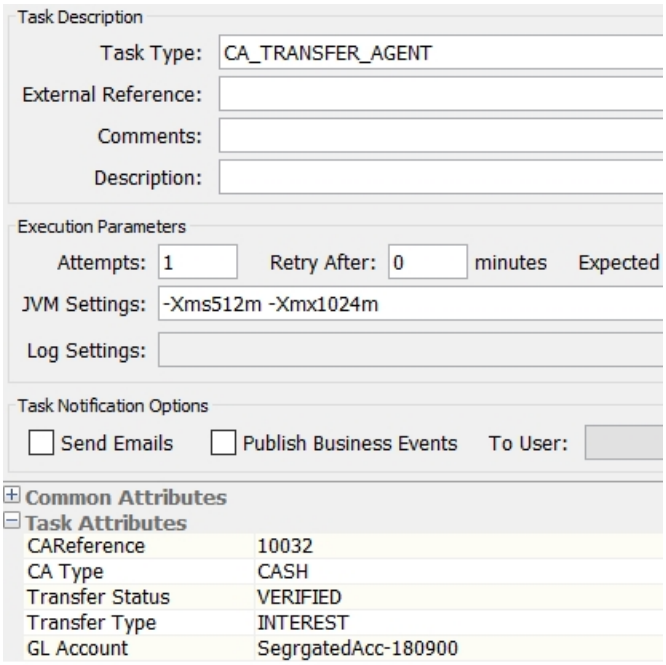
Select a currency or ANY.

Enter the "from" account in the GLAccount Name field.

Enter the "to" account in the Account Name field.

Then run the scheduled task CA_TRANSFER_AGENT to generate Transfer Agent trades between the "from" and "to" accounts.

It only applies to cash corporate actions for which transfer value date = valuation date.



Attributes:

- CAReference - Enter a CA product ID or all transfers linked to trades with a CAReference are selected.
- CA Type - Select CASH, PAYDOWN or REDEMPTION - Values defined in domain “TransferAgent.CAType”.
- Transfer Status - Select the transfer status as needed.
- Transfer Type - Select the transfer type as needed - Values defined in domain “TransferAgent.TransferType”.
- GL Account - Select the segregated account or all accounts with XferFromAccount = Yes are selected.

The trade keyword CASource and the fields in the "MCC_ADDINFO_CA" domain are propagated to the TransferAgent trades.

### *Saving Additional Attributes*

The Margin Call Contract attributes defined in the domain “MCC_ADDINFO_CA” are saved as trade keywords “MCC_<attribute>” on the CA trades on Margin Call positions.

For example, the Margin Call Contract attribute ACADIA_ID is added to the domain “MCC_ADDINFO_CA”. Upon CA generation, the trade keyword MCC_ACADIA_ID contains the value of MCC attribute ACADIA_ID.

## 5.3 Sample CASH / ADJUSTMENT

CASH with adjustment cost in the P&L.

Only the following CA events with the CASH option are concerned by the P&L adjustment cost:

- SOFF (Spinoff)
- CAPG (Capital Gain Distribution)
- DECR (Decrease in value)

There is no specific field to create an adjusted cost in the P&L. It is just an update of the P&L with the price of the cash rate in order to calculate a new average price.

*Business Example: Equity.ABC with a position holding = 100,000 shares bought at $2.50 for a settlement cost of $250,000.00.*

*The default option to process is a cash receipt using a rate of $1 per share.*

*At ex-date, the Open position should be updated with the cash rate in order to calculate a new average price of $ 1.50:*

*= (original average price [$2.50] - cash rate [$1.00]) = $1.50*

*At record date, the CA agent trade between the book and the agent is generated and creates the physical settlement of the cash receipt of $100,000 (no change at this stage).*

Defining CA event CAPG on the underlying equity ACCOR.

| | |
|---|---|
| Capital Gains distribution/26/08/2011/Equity.ACCOR | |
| Equity.ACCOR | |
| CAPG: Capital Gains distribution | |
| | |
| 01/08/2011 | |
| 12/08/2011 | |
| 24/08/2011 | |
| | |
| | ☑ |
| CASH: Cash | |
| CASH | |
| ADJUSTMENT | |
| 5 | |
| 26/08/2011 | |

Position before applying the CA on equity ACCOR, having a position of 500 shares on book BNP GROUP and 1000 shares on book BNP PARIS.

Applying a CA event CAPG at cash rate = 5 gives us the following CA trades where each original position is sold at the original average price and bought back at the new average price (original average price - cash rate).

| Product Id | Under Product Desc | CA Status | Event Status | CA Type | CA SubType | Amount | Other Amount | Currency | Ex Date |
|---|---|---|---|---|---|---|---|---|---|
| 35080 | Equity.ACCOR | APPLICABLE | | CASH | ADJUSTMENT | 5 | 0 | EUR | 12/08/201 |

Trade | Load (Position) | Apply All | ☑ Internal | ☐ Only Position Aggregation | ☑ Claims | ☑ Agent | ☑ Age

| Role | Product Description | Trade Short Date | Trade Settle Date | Pay/Rec | Pay/Rec Qty |
|---|---|---|---|---|---|
| Role: Agent | | | | | |
| Agent | Capital Gains distribution/26/08/2011/Equity.... | 11/08/2011 | 26/08/2011 | Rec | 1,500.00 |
| Agent | | | | | 1,500.00 |
| Role: ProcessingOrg | | | | | |
| ProcessingOrg | Equity.ACCOR | 12/08/2011 | 26/08/2011 | Pay | (1,000.00) |
| ProcessingOrg | Equity.ACCOR | 12/08/2011 | 26/08/2011 | Pay | (500.00) |
| ProcessingOrg | Equity.ACCOR | 12/08/2011 | 26/08/2011 | Rec | 500.00 |
| ProcessingOrg | Equity.ACCOR | 12/08/2011 | 26/08/2011 | Rec | 1,000.00 |
| ProcessingOrg | | | | | 0.00 |

The settlement amount is made by the agent on the total position:

Back Office Window for Trade 565537 (User: )

SDI | Transfers | Messages | Postings | CREs | Tasks | General

☑ Known Only  Exclude CANCELED ...

Transfers

| Transfer_id | EventType | Transfer Status | Trade Id | Transfer Type | Transfer Amount | SettleCurrency | Value Date | Payer.Co |
|---|---|---|---|---|---|---|---|---|
| 41293 | RECEIPT | VERIFIED | 565537 | ADJUSTMENT | 7,500.00 | EUR | 26/08/2011 | EUROCLE |

Settlements

| Xfer_SecCode.RIC | Book | Trade Id | Transfer_id | Transfer Status | Transfer Type | Transfer Amount | Money Amount |
|---|---|---|---|---|---|---|---|
| AC.PA | CAAdjustBook | 565537 | 41293 | VERIFIED | ADJUSTMENT | 7,500.00 | 7,500.00 |

## 5.4 Sample ACCRUAL / TAX and STOCK_DIV

ACCRUAL with cash movement to represent the tax amount to be paid on the stock dividend.

This model is used for CA events DVSE and DVSC and calculates the tax amount using a tax rate, taken from the CA event if set, or from the Withholding Tax Config otherwise.

The tax amount is represented as a CA_WHT_PNL fee in the P&L CA trade and a CA_WHT_AGENT fee in the Agent CA trade to generate the payment transfer to the Agent.

The tax amount is calculated as follows:

Stock dividend * Par Value * Tax rate (before SR 2024)

Stock dividend * Div Reinvest Price * Tax rate (as of SR 2024)

## 5.5 Sample SPINOFF / SPINOFF

SPINOFF with cost adjustment to apply to the securities price.

The field "Adjustment Cost" applies to the "To Security Product".

Only the CA event SOFF (Spinoff) with the options SECU and CASE applies to this model.

*Spinoff with a SECU option and several "To Products".*

*Parent security equity.ABC with a position of 100,000 shares at original cost of $2.50 (settlement cost $250,000).*

*Option: SECU.*

*Security component 1 details: spinoff to security equity.XYZ from 1 to 1 with an adjustment cost = 5%.*

*Security component 2 details: spinoff to security equity.DEF from 2 to 1 with an adjustment cost = 15%.*

*In this case, when the Corporate Action is applied to the position, the following CA trades are generated:*

- *Sell original holding (100,000 equity.ABC) at the original cost price of $2.50 (settlement amount $250,000.00)*
- *Buy back original holding at ((cost price) * (1- " Sum of Adjustment costs defined in the option) or ((100%-5%-15%) * $2.50) = $2.00, (Settlement amount $200,000.00) updating the new P&L with a cost of $2*
- *Buy the spinoff security equity.XYZ of 100,000 shares (using the ratio 1 to 1) at an adjusted cost of $0.125 ((= adjustment cost % - * original cost -)/ ratio) or ($2.50 * 5%) / 1/1, 00 (Settlement amount $12,500.00), updating the P&L of the new security of $0.125*
- *Buy the spinoff security equity.DEF of 50,000 shares (using the ratio 1 to 2) at an adjusted cost of $0.75 ((= adjustment cost % - * original cost -)/2/1 ratio)), or ((15%*2.50) / (1/2), 00 (Settlement amount $37,500.00) updating the P&L of the new security of $0.75*

*P&L effects at ex-date:*

- *Creation of an additional position of equity.XYZ at average price of $0.125*
- *Creation of an additional position of equity.DEF at average price of $0.75*

- *Update the existing equity.ABC with new average price of $2*

*Inventory effects at settlement date:*

- *+ 100,000 shares of equity.XYZ*
- *+ 50,000 shares of equity.DEF*

Defining the CA event


Applying the CA on a position of 100,000 shares gives us the following CA trades:

| Role | Product Description | Trade Short Date | Trade Settle Date | Pay/Rec | Pay/Rec Qty | Old Quantity (CA) | New Quantity (CA) | Trade Price |
|---|---|---|---|---|---|---|---|---|
| Role: Agent | | | | | | | | |
| Agent | Spin Off/13/04/2011/E... | 05/04/2011 | 13/04/2011 | Rec | 100,000.00 | | 100,000.00 | 0.0000000 |
| Agent | | | | | 100,000.00 | | | |
| Role: ProcessingOrg | | | | | | | | |
| ProcessingOrg | Equity.ABC | 06/04/2011 | 13/04/2011 | Pay | (100,000.00) | | -100,000.00 | 2.0000000 |
| ProcessingOrg | Equity.XYZ | 06/04/2011 | 13/04/2011 | Pay | (100,000.00) | | -100,000.00 | 0.1250000 |
| ProcessingOrg | Equity.DEF | 06/04/2011 | 13/04/2011 | Pay | (50,000.00) | | -50,000.00 | 0.7500000 |
| ProcessingOrg | Equity.ABC | 06/04/2011 | 13/04/2011 | Rec | 100,000.00 | 100,000.00 | | 2.5000000 |
| ProcessingOrg | | | | | (150,000.00) | | | |

## 5.6 Sample CASH / DIVIDEND on Security Lending Trade

Applying a corporate action event with a Cash outcome against an open Security Lending trade will generate a Cash claim. The claim is generated as a separate trade under the Counterparty of the Security Lending trade, against the Corporate Action product, with a transfer attached for the cash settlement.

By default, the CA process identifies the Security Lending trades based on their Trade open quantity and select all the Security Lending trades where the settlement date (or trade start date) is on or before record date and where the end date is after ex-date (in order to exclude all the matured trades).

Then the CA process checks every Security Lending trade transfers to determine the cash claim eligibility based on the transfer value date and the record date and selects as eligible every transfers settled on or before record date.

### 5.6.1 Trading Country Setup

On the Equity Definition window, you can set the trading country to indicate where the registry/depository is located.

You can set the following attributes on the Country Definition for the selected trading country to apply different eligibility rules:

- AutoCompensation = true or false
- ReverseMarketClaim = true or false
- CATradeBasis - true or false

The eligibility rules are described below.

### 5.6.2 Eligibility Rules

Several rules based on market practices apply for generating a cash claim.

#### *Default Eligibility Rule*

By default, any Security Lending contract that is settled or unsettled on or before the Record date of a CA event and has an open quantity on Record date is eligible for the CA entitlement. This generates a CA cash claim trade in the CA process.

When the Inventory Position type is ACTUAL, only the SETTLED transfers are eligible to a claim.

When the Inventory Position type is THEORETICAL, all transfers except the CANCELED ones are eligible to a claim.

| Book | Role | Product Description | Trade Short Date | Trade Settle Date | Pay/Rec | Pay/Rec Qty | CounterParty |
|---|---|---|---|---|---|---|---|
| | Role: Agent | | | | | | |
| BNP PARIS | Agent | Cash Dividend/25/04/2011/Equity.CDIV SBL | 14/04/2011 | 25/04/2011 | Rec | 50,000.00 | EUROCLEAR |
| CAAdjustBookEURO | Agent | Cash Dividend/25/04/2011/Equity.CDIV SBL | 13/04/2011 | 25/04/2011 | Rec | 50,000.00 | EUROCLEAR |
| | Agent | | | | | 100,000.00 | |
| | Role: CounterParty | | | | | | |
| CAAdjustBookEURO | CounterParty | Cash Dividend/25/04/2011/Equity.CDIV SBL | 19/04/2011 | 25/04/2011 | Pay | (20,000.00) | RABOBANK NEDERLAND |
| CAAdjustBookEURO | CounterParty | Cash Dividend/25/04/2011/Equity.CDIV SBL | 19/04/2011 | 25/04/2011 | Rec | 20,000.00 | DEUTSCHE BANK HAMBURG |
| CAAdjustBookEURO | CounterParty | Cash Dividend/25/04/2011/Equity.CDIV SBL | 19/04/2011 | 25/04/2011 | Rec | 50,000.00 | DRESDNER BK FKT |
| | CounterParty | | | | | 50,000.00 | |
| | Role: ProcessingOrg | | | | | | |
| BNP PARIS | ProcessingOrg | Cash Dividend/25/04/2011/Equity.CDIV SBL | 14/04/2011 | 25/04/2011 | Pay | (100,000.00) | BNP FI |
| | ProcessingOrg | | | | | (100,000.00) | |

The counterparty claims are generated from Security Lending trades. The column "Trade_keyword.CAFailedTransfer" identifies the transfer ID of the Security Lending leg that created the claim.

#### *Ex/Cum Rule*

All Security Lending trades and transfers tagged with the trade keyword CATradeBasis indicate whether the trades are traded on a Cum/Ex basis - The trade keyword CATradeBasis is set using the SWIFT ex/cum codification populated into the MT540-MT543 messages, under the Trade Transaction Condition Indicator (field :22F::TTCO//4!c).

The values for the trade keyword CATradeBasis should be defined in the domain "keyword.CATradeBasis".

- CBNS - Cum Bonus - Trade was executed cum bonus.
- CDIV - Cum Dividend - Trade was executed cum dividend.
- CRTS - Cum Rights - Trade was executed cum rights.
- XBNS - Ex Bonus - Trade was executed ex bonus.
- XDIV - Ex Dividend - Trade was executed ex dividend.
- XRTS - Ex Rights - Trade was executed ex rights.
- SPCU - Special Cum - Trade was executed with a special cum condition.
- SPEX - Special Ex - Trade was executed with a special ex condition.

For trades captured after CA event ex date and settled before record date:

- If trade keyword CATradeBasis = XDIV, the ACTUAL/SETTLE position on record date excludes these trades from the agent position (calculating a cum position).
- If trade keyword CATradeBasis = <empty>, the ACTUAL/SETTLE position on record date creates claims with counterparty because the agent includes these trades in its position.

  However, if country attribute.CATradeBasis = true, then ACTUAL/SETTLE position on record date should exclude these trades from the agent position (calculating a cum position), behaving as if trade keyword CATradeBasis = XDIV.

  The country attribute is derived from the equity country of trading.

These trades, when they are flagged as cum or ex need to be either included (cum values) or excluded (ex values) in the corporate action outcomes as counterparty claims.

The claims are created directly with the counterparty against the adjustment book set for the book used in the Security Lending trade. If no adjustment book is set, the book used to create the counterparty claims will be the Security Lending book.

For open Security Lending trades where some partial returns have been made, the system will calculate a claim of the cumulative remaining amount.

When the Inventory Position type is ACTUAL, only the SETTLED transfers are eligible to a claim.

When the Inventory Position type is THEORETICAL, all transfers except the CANCELED ones are eligible to a claim.

| Book | Role | Product Description | Trade Short Date | Trade Settle Date | Pay/Rec | Pay/Rec Qty | CounterParty |
|---|---|---|---|---|---|---|---|
| | Role: Agent | | | | | | |
| BNP SBL | Agent | Cash Dividend/19/12/2011/Equity.AUSY | 11/12/2011 | 19/12/2011 | Pay | (4,500.00) | CHESS |
| BNP SYDNEY | Agent | Cash Dividend/19/12/2011/Equity.AUSY | 11/12/2011 | 19/12/2011 | Rec | 10,000.00 | CHESS |
| CAAdjustBookAUSY | Agent | Cash Dividend/19/12/2011/Equity.AUSY | 11/12/2011 | 19/12/2011 | Rec | 5,500.00 | CHESS |
| | Agent | | | | | 11,000.00 | |
| | Role: CounterParty | | | | | | |
| CAAdjustBookAUSY | CounterParty | Cash Dividend/19/12/2011/Equity.AUSY | 16/12/2011 | 19/12/2011 | Pay | (500.00) | RABOBANK AUSTRALIA |
| CAAdjustBookAUSY | CounterParty | Cash Dividend/19/12/2011/Equity.AUSY | 16/12/2011 | 19/12/2011 | Rec | 5,000.00 | RABOBANK AUSTRALIA |
| | CounterParty | | | | | 4,500.00 | |
| | Role: ProcessingOrg | | | | | | |
| BNP SYDNEY | ProcessingOrg | Cash Dividend/19/12/2011/Equity.AUSY | 11/12/2011 | 19/12/2011 | Pay | (10,000.00) | BNP FI SYDNEY |
| | ProcessingOrg | | | | | (10,000.00) | |

You can use the transfer workflow action UPDATE_XFER_ATTR to update CATradeBasis information using the CATradeBasisOverride attribute.

When you apply this action, it brings up the Update Transfer Attributes window, which allows modifying transfer attributes.

Editable attributes have to be defined in domain "XferAttributes.UPDATE_XFER_ATTR.Editable" (CATradeBasisOverride). Non Editable attributes that you want to display have to be defined in domain "XferAttributes.UPDATE_XFER_ATTR.Visible" (CATradeBasis).

### *Auto-Compensation Rule*

This rule applies to certain countries - It is based on country attribute AutoCompensation = true.

The auto compensation process is driven by the fact that the trade was executed prior to the ex-date of the CA event and that the delayed settlement after record date appears like a "fail". So the market attempts to correct itself.

The sequence of events is as follows for a Security Lending trade:

- Trade executed prior to ex date i.e. 'cum' with a settlement date after record date
- At record date the PO agent position still holds the stock so the Register credits the agent, and the agent credits the PO account (entitlement part of Agent CA trade)
- At Settlement date, the stock is transferred to the borrower. The Register recognizes that the trade deal was 'cum' so corrects the dividend payments by debiting the PO agent account to pay the counterparty
- CA claim with the PO Agent to PAY the dividend payment to offset the standard Agent trade on record date
- CA claim with the counterparty to RECEIVE the value of the dividend it received by the Register


| ook | Role | Product Description | Trade Short Date | Trade Settle Date | Pay/Rec | Pay/Rec Qty | CounterParty |
|---|---|---|---|---|---|---|---|
| | Role: Agent | | | | | | |
| BNP PARIS | Agent | Cash Dividend/19/12/2011/Equity.DEUTCH | 15/12/2011 | 19/12/2011 | Rec | 10,000.00 | EUROCLEAR |
| BNP SBL | Agent | Cash Dividend/19/12/2011/Equity.DEUTCH | 16/12/2011 | 19/12/2011 | Pay | (5,000.00) | EUROCLEAR |
| CAAdjustBookEURO | Agent | Cash Dividend/19/12/2011/Equity.DEUTCH | 14/12/2011 | 19/12/2011 | Rec | 10,000.00 | EUROCLEAR |
| | Agent | | | | | 15,000.00 | |
| | Role: CounterParty | | | | | | |
| CAAdjustBook | CounterParty | Cash Dividend/19/12/2011/Equity.DEUTCH | 16/12/2011 | 19/12/2011 | Rec | 5,000.00 | RABOBANK NEDERLAND |
| | CounterParty | | | | | 5,000.00 | |
| | | | | 2011 | Pay | (10,000.00) | BNP FI |
| | | | | | | (10,000.00) | |

### *Reverse Market Rule*

This rule applies to certain countries - It is based on country attribute ReverseMarketClaim = true.

The reverse market process is driven by the fact that the trade was executed after ex-date of the CA event and the settlement before record date. The market is attempting to 'correct' the dividend flow and in the context of a Security Lending trade this results in the beneficial owner actually receiving the dividend through the Agent rather than needing to get it back from the counterparty.

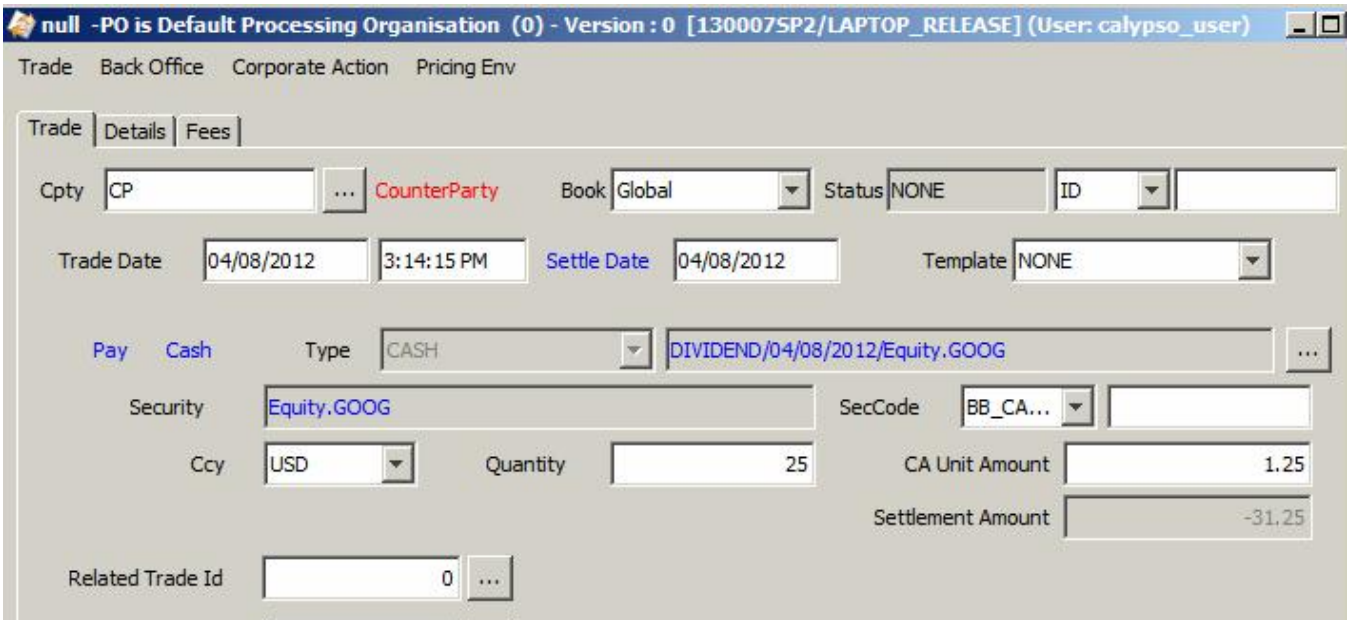
The sequence of events is as follows for a Security Lending trade:

- Trade executed after ex date i.e. 'ex' with a settlement date before record date (trade is SETTLED)
- At record date the counterparty holds the stock so the Register credits their agent (Counterparty claim generated part of the default claim generation)
- The register recognizes that the trade deal was 'ex' so corrects the dividend payments by debiting the counterparty account to pay the PO agent - CA Claim with the counterparty to PAY the dividend entitlement in order to offset the entitlement amount included in the standard claim
- The PO agent credits PO account with the dividend - CA Claim with the Agent to RECEIVE the value of the dividend


| Bo | Role | Product Description | Trade Short Date | Trade Settle Date | Pay/Rec | Pay/Rec Qty | CounterParty |
|---|---|---|---|---|---|---|---|
| | Role: Agent | | | | | | |
| BNP PARIS | Agent | Cash Dividend/30/12/2011/Equity.FRENCH | 23/12/2011 | 30/12/2011 | Rec | 2,000.00 | EUROCLEAR |
| BNP PARIS | Agent | Cash Dividend/30/12/2011/Equity.FRENCH | 20/12/2011 | 30/12/2011 | Rec | 8,000.00 | EUROCLEAR |
| CAAdjustBookEURO | Agent | Cash Dividend/30/12/2011/Equity.FRENCH | 19/12/2011 | 30/12/2011 | Rec | 8,000.00 | EUROCLEAR |
| | Agent | | | | | 18,000.00 | |
| | Role: CounterParty | | | | | | |
| CAAdjustBookEURO | CounterParty | Cash Dividend/30/12/2011/Equity.FRENCH | 23/12/2011 | 30/12/2011 | Pay | (2,000.00) | RABOBANK NEDERLAND |
| CAAdjustBo RO | CounterParty | Cash Dividend/30/12/2011/Equity.FRENCH | 23/12/2011 | 30/12/2011 | Rec | 2,000.00 | RABOBANK NEDERLAND |
| | CounterParty | | | | | 0.00 | |
| | ProcessingOrg | | | | | (10,000.00) | |

## 5.7 Sample Cash Claim

From the Calypso Navigator, navigate to **Processing > Accounting Operations > Corporate Action Trade** to enter cash claims by linking the trade to an existing CA product.




Enter the following fields:

- Cpty
- Book
- Trade date
- Settle date
- Direction of the claim (Pay/rec)
- Type - Select the CA product to which you want to attach a claim
- Quantity and CA Unit Amount

Only cash claims can be captured. To capture stock claims, you should enter equity trades.

Saving the trade automatically populates the following trade keywords:

- CAReference = CA product Id
- CAManualAmend = Yes in order to let the CA process know that this is a manual CA trade and that it should not be amended during the CA Apply process

## 5.8 Failed Claims Eligibility Rules

### *Default Rule*

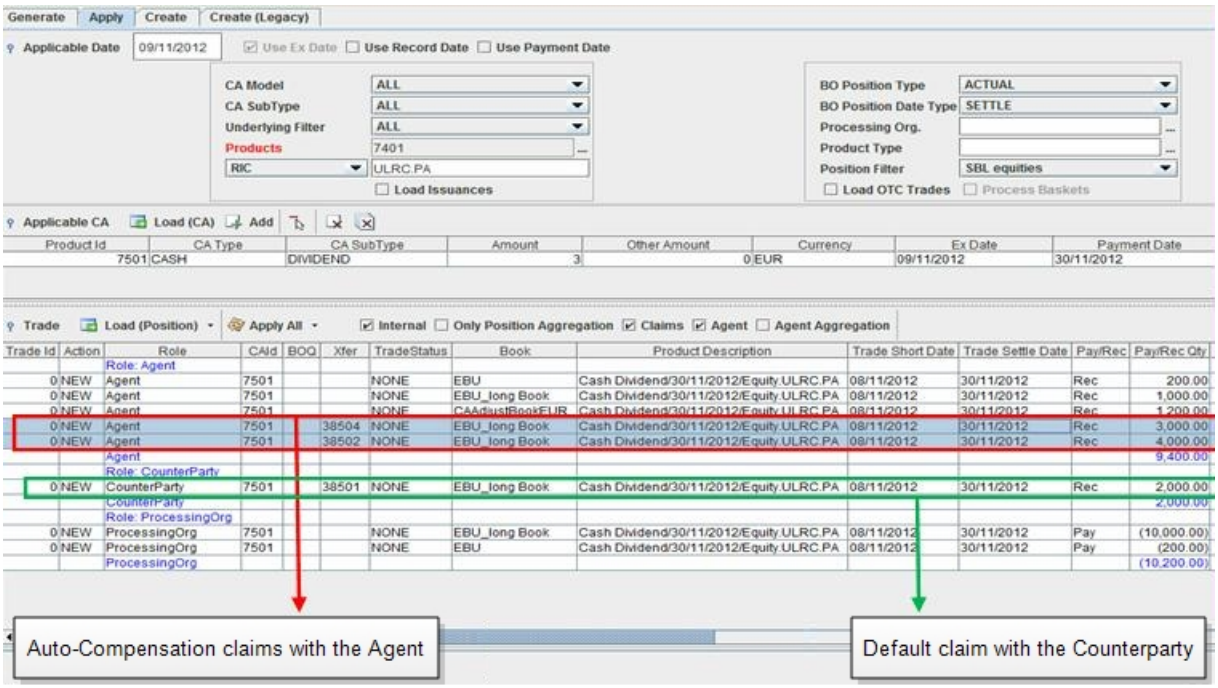
The default rule of claim generation applies to all equity trades whose transfers Trade date < Ex date and transfer settle date < Record date but are still considered unsettled at Record date (transfer status not SETTLED).

In that case, a claim is generated with the counterparty.

Example: Equity ULRC.PA (ULRIC DE VARENS) - Country of Trading FRANCE - Auto-Compensation = true

| Trade Id | Transfer Id | Book | Trade Date | Settle Date | Quantity | Price | CA Ex Date | CA Record Date | Transfer Status |
|---|---|---|---|---|---|---|---|---|---|
| 8501 | 38001 | EBU | 24/10/201-2 | 29/10/201-2 | 100 | 48,00€ | 9/11/201-2 | 13/11/201-2 | SETTLED |
| 8503 | 38002 | EBU | 24/10/201-2 | 29/10/201-2 | 100 | 48,70€ | 9/11/201-2 | 13/11/201-2 | SETTLED |
| 8601 | 38501 | EBU_ LongBoo-k | 5/11/2012 | 12/11/2012 | 2,000 | 44,00€ | 9/11/201-2 | 13/11/201-2 | VERIFIED |
| 8603 | 38502 | EBU_ LongBoo-k | 2/11/2012 | 16/11/2012 | 4,000 | 39,00€ | 9/11/201-2 | 13/11/201-2 | VERIFIED |
| 8604 | 38503 | EBU_ LongBoo-k | 5/11/2012 | 12/11/2012 | 1,000 | 47,00€ | 9/11/201-2 | 13/11/201-2 | SETTLED |
| 8605 | 38504 | EBU_ LongBoo-k | 5/11/2012 | 16/11/2012 | 3,000 | 45,00€ | 9/11/201-2 | 13/11/201-2 | VERIFIED |

When applying a Cash Dividend (3€) on the position, you obtain the following failed claims:



### *Auto-Compensation Rule by Country*

The Failed Claims generation reflects market practices, applying the Auto-Compensation rule.

Where a market equity trade is traded before Ex Date but is scheduled to settle after Record Date, in an Auto Compensation market, the corporate action entitlement is automatically paid by the Agent on the date that the market trade settles.

While these trades are not technically market failed claims, because they are traded 'cum' and have not settled by Record Date they do need to create CA Claim trades.

This rule applies to certain countries - It is based on country attribute AutoCompensation = true.

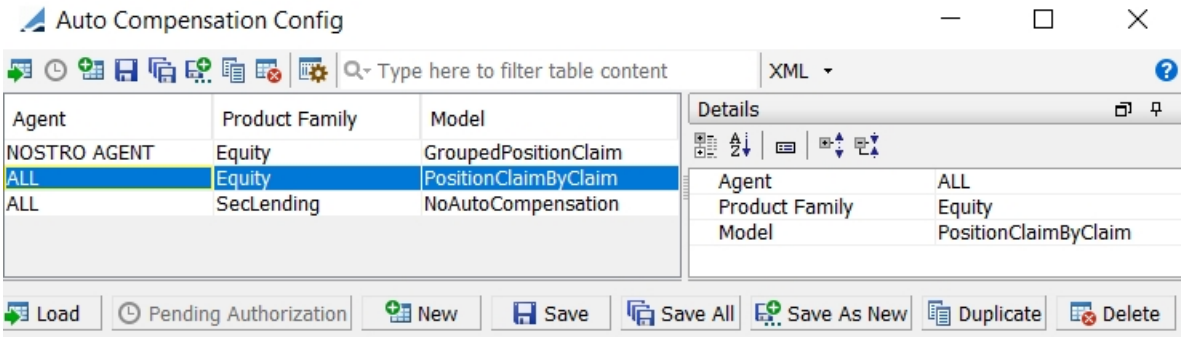
This eligibility market rule applies to all equity trades whose transfers Trade date < Ex date and transfer settle date > Record date. Any CA entitlement is then auto-compensated by the registry/depository once the trade settles. Settlement date of the Claim is the underlying trade settlement date.

In the above markets, for equity trades where transfer trade date < Ex date, even if the transfer Settlement date > Record date, a cash claim needs to be generated with the agent only, since the corporate action entitlement is automatically paid by the Agent on the date that the market trade settles.

### *Auto-Compensation Rule by Agent and Product Type*

This feature can be activated using the environment property AUTO_COMPENSATION_MODEL = CSDBased.

In this case, auto-compensation is defined based on auto-compensation rules defined in the Auto Compensation Config window (menu item `refdata.AutoCompensationConfigWindow`).

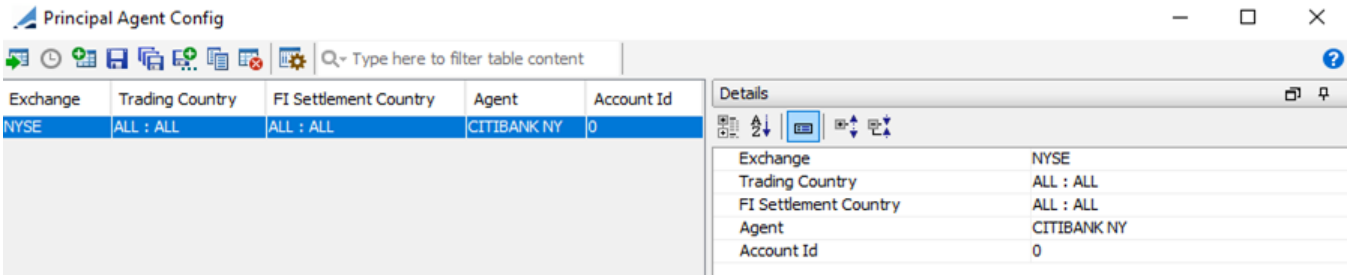



For each agent and product type, you can select the auto-compensation rule:

- NoAutoCompensation - There is no auto compensation.
- GroupedPositionClaim - All the eligible positions for an account are grouped into a single CAAdjustBook trade if claim settle date <= CA pay date, or a CAAdjustBook trade per settle date if claim settle date > CA pay date.
- PositionClaimByClaim - The eligible positions for an account are not grouped - Each eligible position generates a CAAdjust book trade.

- GroupedAtPrincipalAgent - All the eligible positions are grouped by principal agent. When selected, the principal agent must be defined in the Principal Agent Config window (menu item refdata.PrincipalAgentConfigWindow). See below.

GroupedAtPrincipalAgent



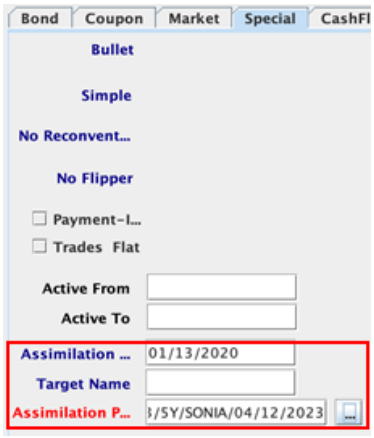

When the Sender is a Principal Agent, it is used to index the incoming MT566 messages.

## 5.9 Sample Bond Assimilation

To transfer the position of a bond to a new bond, you can use the Assimilation corporate action.

Follow the steps below.

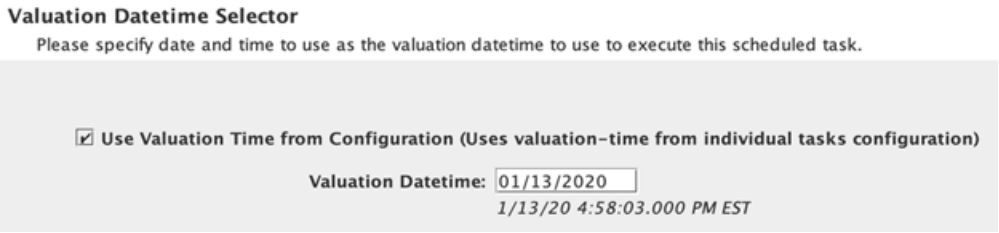
**Step 1** - In the original bond, select the Special panel and specify the assimilation information: Enter the assimilation date and select the new bond.




**Step 2** - Run the scheduled task CORPORATE_ACTION to create the ASSIMILATION corporate action and apply it to the original bond.

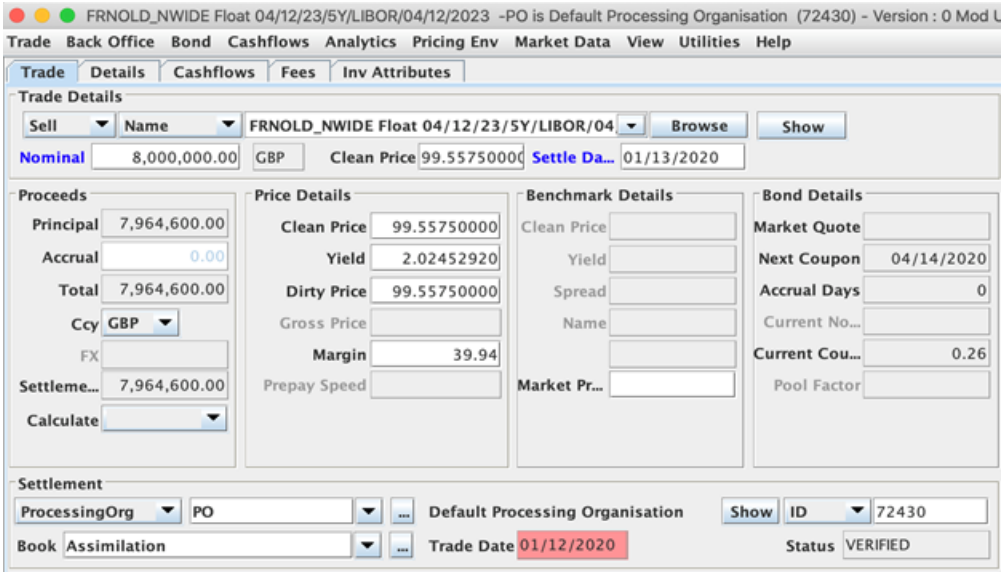
| | |
|---|---|
| MODEL | TRANSFORMATION |
| CATYPE | ASSIMILATION |
| CA SD FILTER | |
| PRODUCT_ID | 78802 |
| CA PROCESS DATE | |
| Non-Business Day Process | |
| Optimize Product Load | |
| Only CA Product Process | |
| Only CA Trades Process | |
| Trades Per Batch | |
| Deactivate CA | |
| Default ROUNDING METHOD | |
| Include Swift Information | |
| CAID | |
| POSITION_PROCESS | |
| BO_POSITION | THEORETICAL |
| BO_POSITION_DATE | SETTLE |
| BO_POSITION_AGGREGATION_TYPE | |
| BO_POSITION_BALANCE_TYPE | |
| POSITION Trade Filter | TF Assimilation |
| PL_POSITION_REPOED | |
| OTC_PROCESS | |
| OTC Trade Filter | |
| STRUCTURED_PROCESS | |
| Apply to basket | |
| Apply to MarginCall | |
| Save Internal Trades | |
| BACK VALUE PROCESS | |
| BACKVALUE_CADAYS | |
| TRADE PAGE SIZE | |
| THREAD COUNT | |
| Create Generic Comment Log | |

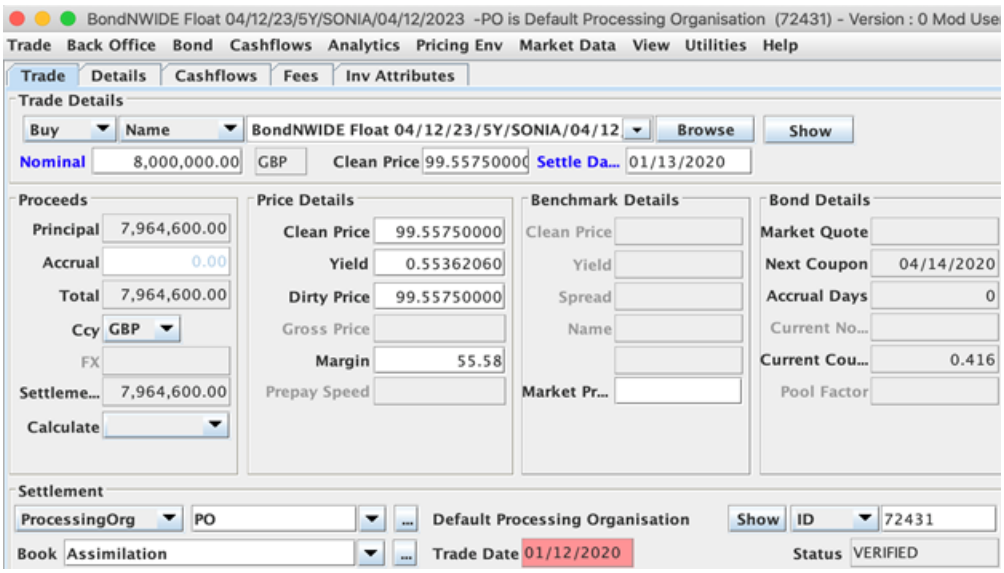
Execute the scheduled task on the assimilation date.




A TRANSFORMATION / ASSIMILATION corporate action is created and applied to the original bond.

Two trades are generated: one to close out the position on the original bond, and one to create the position on the new bond.


FRNOLD_NWIDE Float 04/12/23/5Y/LIBOR/04/12/2023 -PO is Default Processing Organisation (72430) - Version : 0 Mod U
Trade Back Office Bond Cashflows Analytics Pricing Env Market Data View Utilities Help
Trade Details Fees Inv Attributes
Trade Details
Sell Name FRNOLD_NWIDE Float 04/12/23/5Y/LIBOR/04 Browse Show
Nominal 8,000,000.00 GBP Clean Price 99.55750000 Settle Da... 01/13/2020
Proceeds
Principal 7,964,600.00
Accrual 0.00
Total 7,964,600.00
Ccy GBP
FX
Settleme... 7,964,600.00
Calculate
Price Details
Clean Price 99.55750000
Yield 2.02452920
Dirty Price 99.55750000
Gross Price
Margin 39.94
Prepay Speed
Benchmark Details
Clean Price
Yield
Spread
Name
Market Pr...
Bond Details
Market Quote
Next Coupon 04/14/2020
Accrual Days 0
Current No...
Current Cou... 0.26
Pool Factor
Settlement
ProcessingOrg PO Default Processing Organisation Show ID 72430
Book Assimilation Trade Date 01/12/2020 Status VERIFIED


BondNWIDE Float 04/12/23/5Y/SONIA/04/12/2023 -PO is Default Processing Organisation (72431) - Version : 0 Mod Use
Trade Back Office Bond Cashflows Analytics Pricing Env Market Data View Utilities Help
Trade Details Fees Inv Attributes
Trade Details
Buy Name BondNWIDE Float 04/12/23/5Y/SONIA/04/12 Browse Show
Nominal 8,000,000.00 GBP Clean Price 99.55750000 Settle Da... 01/13/2020
Proceeds
Principal 7,964,600.00
Accrual 0.00
Total 7,964,600.00
Ccy GBP
FX
Settleme... 7,964,600.00
Calculate
Price Details
Clean Price 99.55750000
Yield 0.55362060
Dirty Price 99.55750000
Gross Price
Margin 55.58
Prepay Speed
Benchmark Details
Clean Price
Yield
Spread
Name
Market Pr...
Bond Details
Market Quote
Next Coupon 04/14/2020
Accrual Days 0
Current No...
Current Cou... 0.416
Pool Factor
Settlement
ProcessingOrg PO Default Processing Organisation Show ID 72431
Book Assimilation Trade Date 01/12/2020 Status VERIFIED

# 6. Listed Corporate Actions

The process for applying corporate actions to listed products is the following:

- You first create / import the corporate action definition on the underlying equity / equity index.
- Then you adjust the contract using CA rules and the CA Adjustment report - This adjusts the contract, and creates an adjustment corporate action (ASSIMILATION) to be applied to the listed trades.
- Finally, you apply the ASSIMILATION corporate action to the listed trades.

This process is the same for ETO trades (listed equity options), Future Equity trades, Future / Future Option Equity Index trades, and Warrants, and applies to the following types of corporate actions:

- DIVIDEND
- MDE (Market Disruption Events)
- SPLIT
- MERGER
- SPINOFF

By default, the new contract is created with Contract Name = "#<source contract name>".

There is also the option of renaming the old contract instead of the new contract using the domain “ETDClearing.RenameOldETONonSVNContract”.

If “ETDClearing.RenameOldETONonSVNContract” contains Value = true:

- Add a prefix '#' on the Contract Name of Source Contract.
- Add CAClearingExchangeTicker attribute on Source Contract.
- Remove ClearingExchangeTicker, GMIProduct attributes from Source Contract.
- Set Source Contract Name attribute on New Contract.

If “ETDClearing.RenameOldETONonSVNContract” contains Value = false:

- Add a prefix '#' on the Contract Name of New Contract.

Average price is used by default. You can use the domain CAByOpenTrade to use the original price instead of the average price:

Value = <CA model.CA subtype.product type>

Comment = true

Example:

Value = TRANSFORMATION.ASSIMILATION.ETOEquity

Comment = true

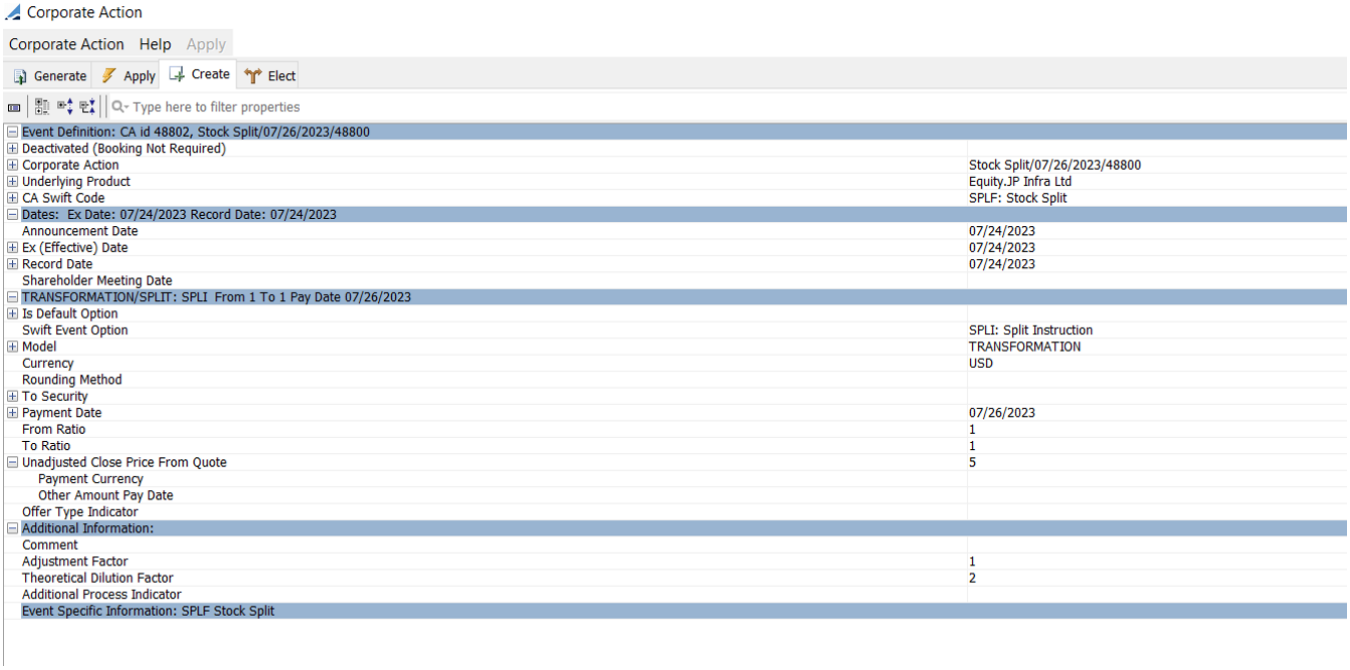
For these CAs, the price of the new trade is the original price, not the average price.

## 6.1 Listed Equity Options (ETOs) - SPLIT Example

In the case of ETOs, the SPLIT corporate action is applied to the ETO contract through a contract adjustment. The contract adjustment creates an ASSIMILATION corporate action that is then applied to the actual ETO trades.

### 6.1.1 Creating the SPLIT Corporate Action

Create the corporate action in the Create panel.

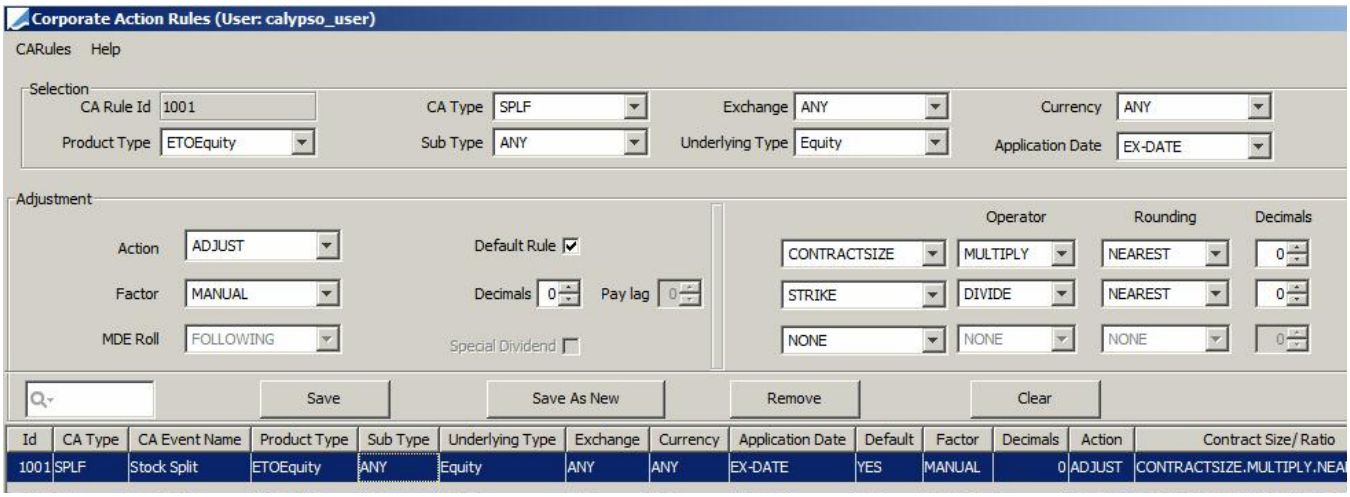



- Select the underlying equity to which the split applies.
- Select the swift code SPLF or SPLR - The corporate action type is set as follows:

  Model = TRANSFORMATION and Subtype = SPLIT.
- Enter the split ratio using From Ratio (old shares) / To Ratio (new shares).
- Enter the “Unadjusted Close Price From Quote” to set the underlying equity price on EX Date, when EX Date quotes are not available. This is only used when the FROM QUOTE operator is selected in Corporate Action Rules window.
- Enter the adjustment factor (manual factor) / theoretical dilution factor as needed.

### 6.1.2 Adjusting the ETO Contract

You need to create an adjustment rule for the corporate action using **Trade Lifecycle > Corporate Action > CA Rules** (menu action `reporting.CARulesWindow`).



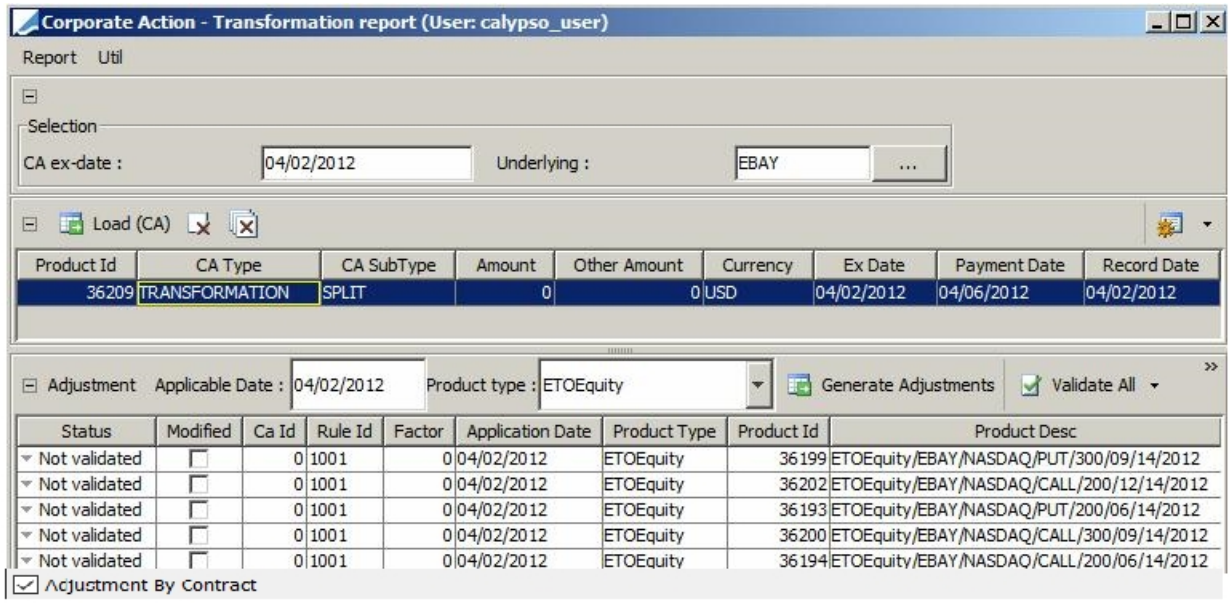

Set the following details for the target adjustments.

- Action to be applied.
- Factor: NONE, MANUAL (takes the adjustment factor set in the CA), or THEORETICAL (takes the theoretical dilution factor set in the CA).
- Check "Default Rule".
- Adjustment type - Select one of the following:
  - CONTRACTSIZE - To adjust the contract size.
  - QUANTITY - To adjust the quantity (position).
  - RATIO - In an even split ratio (for example, 1:2, 1:4), the quantity is adjusted. In an odd split ratio (for example, 2:3), the contract size is adjusted.
  - STRIKE - To adjust the strike.
  - PRICE - To adjust the price.
  - BARRIER - To adjust the barrier.
- Operator - Select whether to MULTIPLY, DIVIDE, ADD, FROM QUOTE or SUBTRACT the adjustment factor. When FROM QUOTE is selected, the price is calculated using the Korean Exchange formula which adjusts the contract size with the adjustment factor and requires the underlying equity quote on “EX Date -1” and “EX Date”. If the quote is not available on EX Date, it is taken from “Unadjusted Close Price From Quote”.
- Rounding - Select the rounding method (NEAREST, UP, DOWN) that will be used for the new contract size or quantity.

  Rounding method NEAR8TH is used in US markets and only applies to strike adjustment. It rounds the strike to the nearest 1/8.

- Decimals - Set the number of decimal places to use on the new contract size or quantity.

Then you run the CA Adjustment report to adjust the ETO contracts using **Trade Lifecycle > Corporate Action > CA Adjustment Report** (menu action `reporting.CATransformationReportFrame`).




» Enter the CA date and select the underlying.

» Click **Load (CA)** to load the applicable corporate actions.

» Select the corporate action you want to apply, and click **Generate Adjustments** to generate the adjustments.

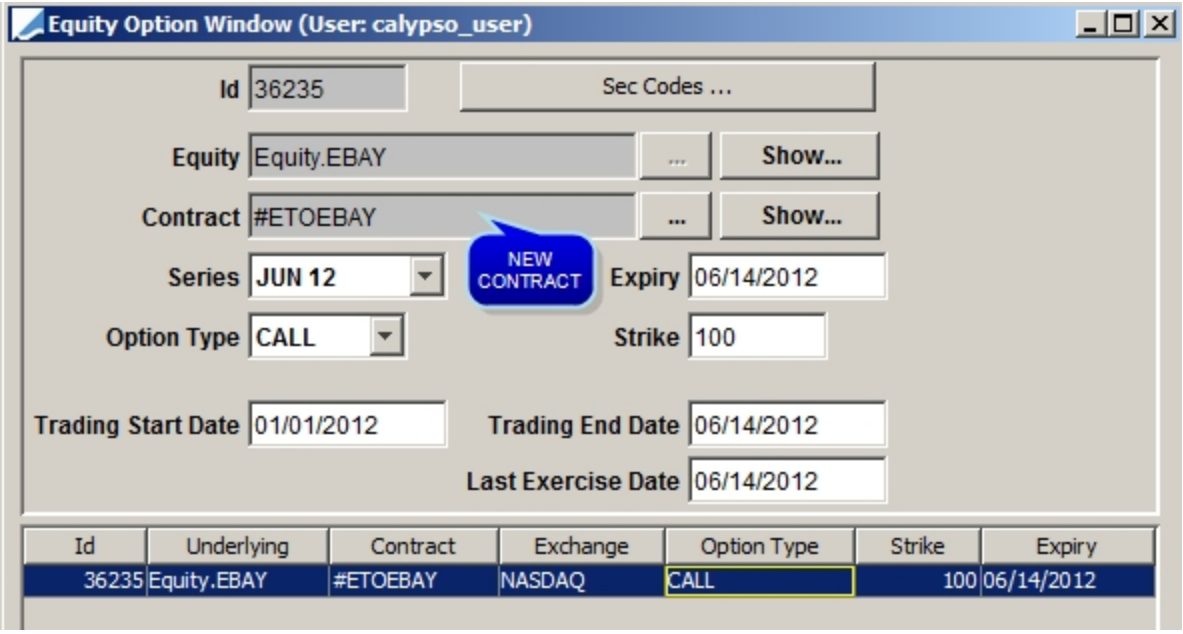
» Set / adjust the strike / contract size / To Exch clrg ticker / etc. as needed and click **Validate All** to validate the adjustments.

You can also select a few rows and choose **Validate selected CA Adjustment** to validate only the selected adjustments. If "Adjustment By Contract" is checked (default value), you will be prompted to validate all adjustments. Otherwise, only the selected adjustments are validated.

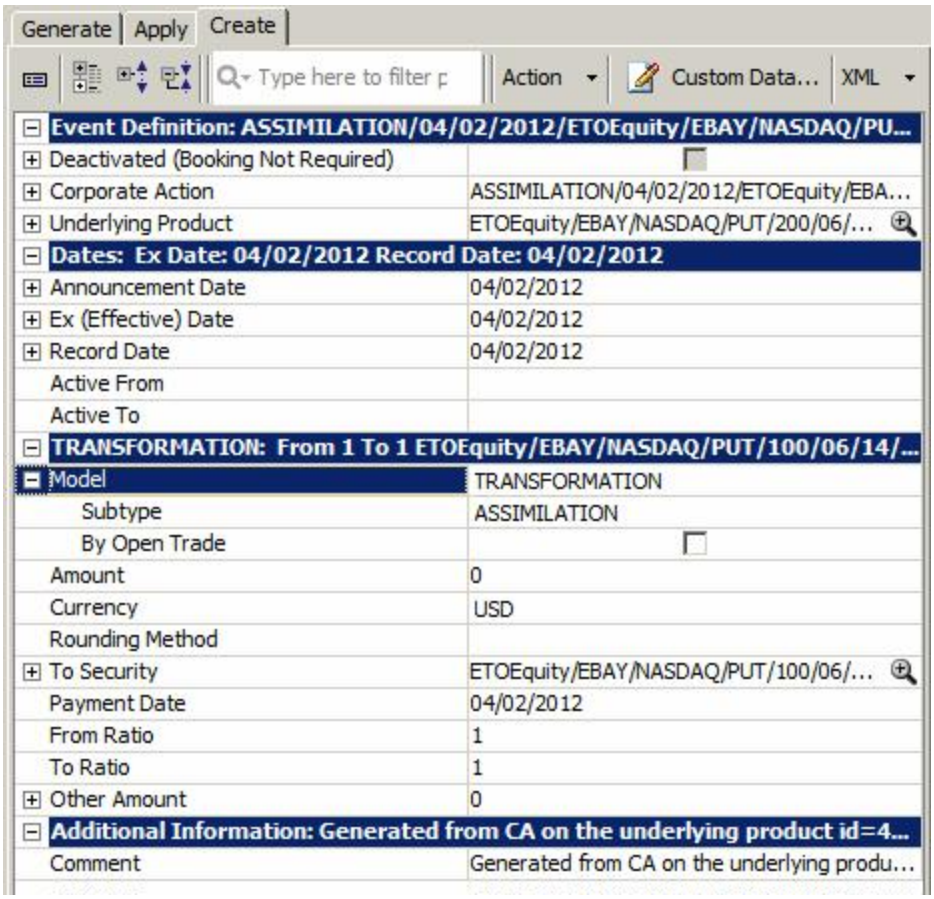
» Finally, click **Save All** to save the adjustments.

New adjusted contracts and options are created, and the corporate actions to be applied to the actual ETO trades are created.

New option on new contract, with adjusted strike:



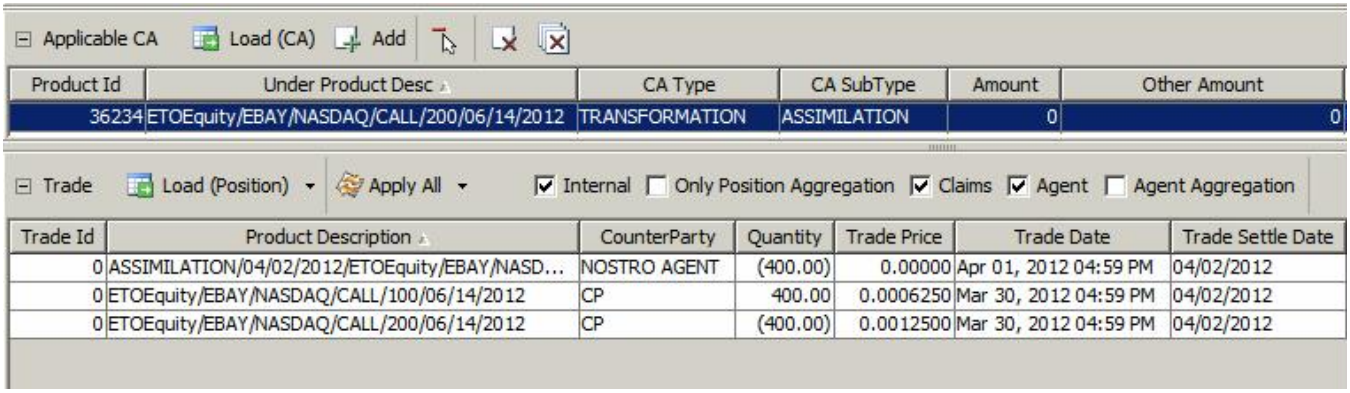

Assimilation corporate action:




If you check "By Open Trade", the close out trade uses the original trade price to close the position.

### 6.1.3 Applying the ASSIMILATION Corporate Action

Select the Apply panel of the Corporate Action window to apply the corporate action to the ETO trades.




» Enter search criteria to select the corporate action, and click **Load (CA)**.

You can save a template from the Apply menu to save the criteria currently selected as a template. You can then load a template to populate the criteria as needed.

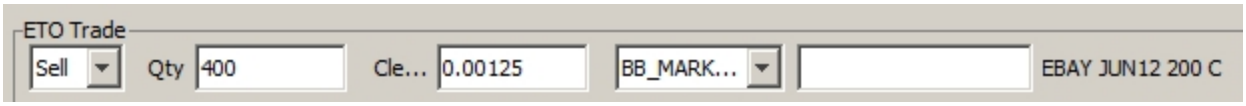
» Click **Load (Position)** to load the trades / positions impacted by the selected CA and apply the corporate action.

The system creates a trade that will close out the original trade, and a new trade with the new contract.

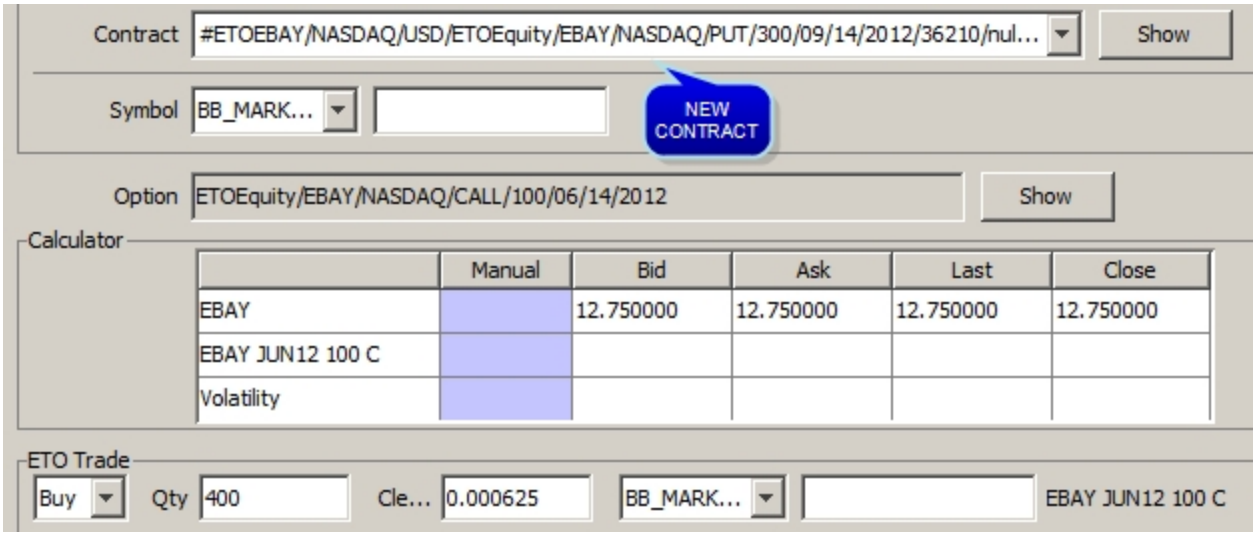
It also creates a CA trade for the agent position.

» Click **Apply All** to validate the application of the corporate action and save the trades.

Close out trade:



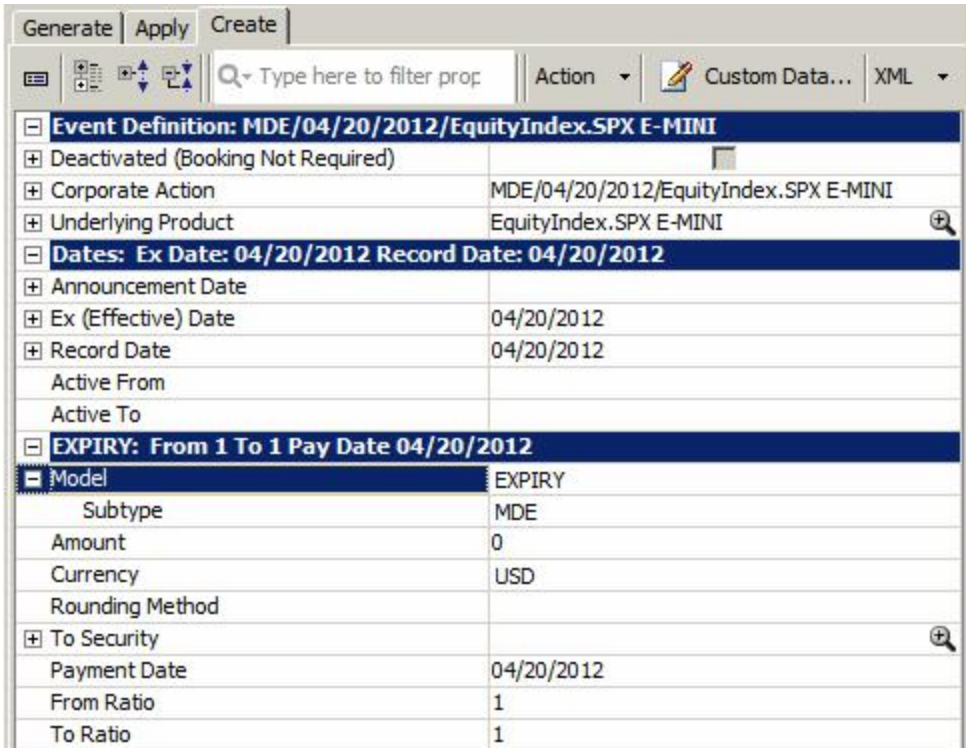

New trade:




The original trade date is saved in trade keyword CAOriginalTradeDate.

## 6.2 Future Option Equity Index - MDE Example

### 6.2.1 Creating the MDE Corporate Action

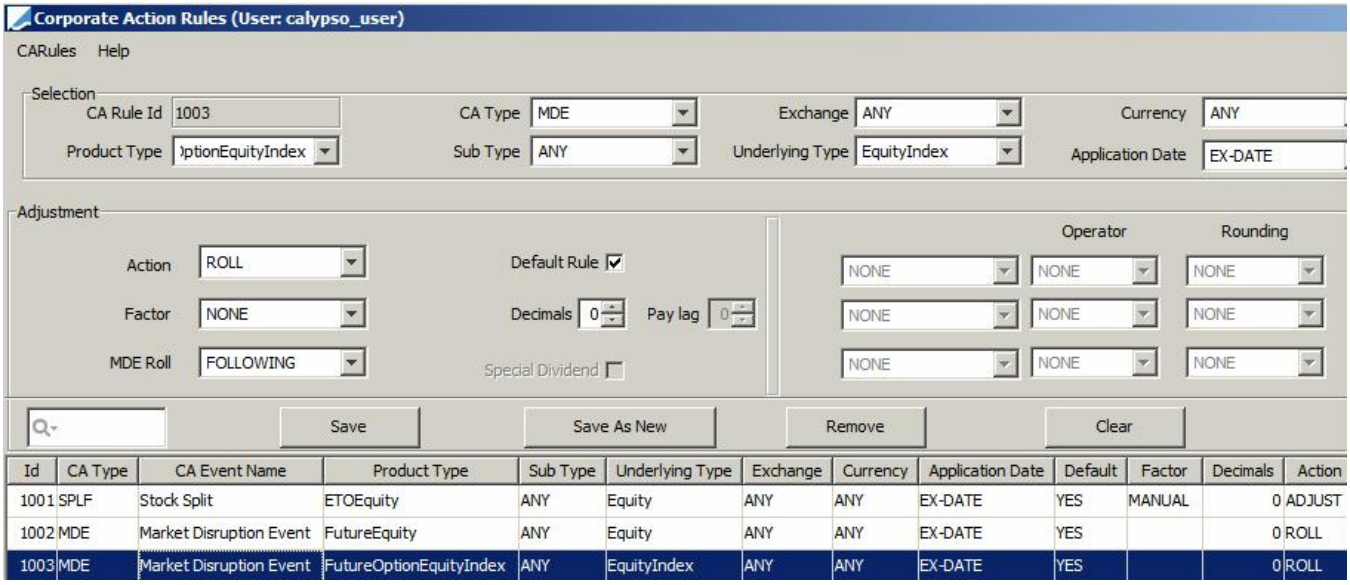



MODEL = EXPIRY

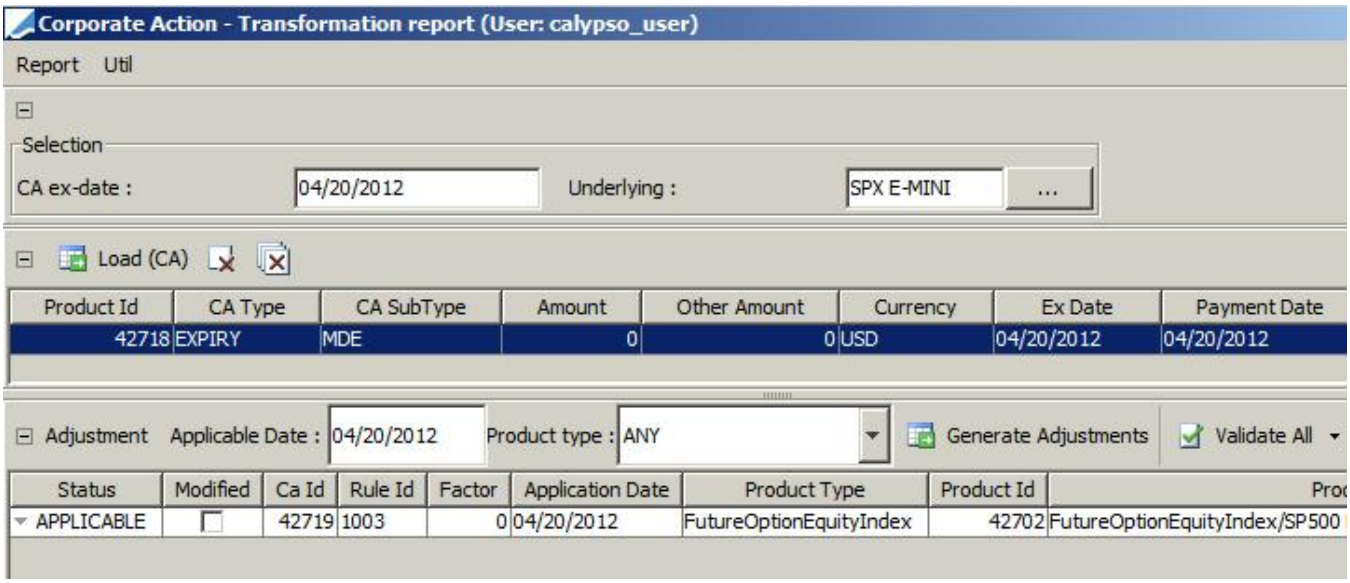
Subtype = MDE

### 6.2.2 Adjusting the Future Option

CA Rule

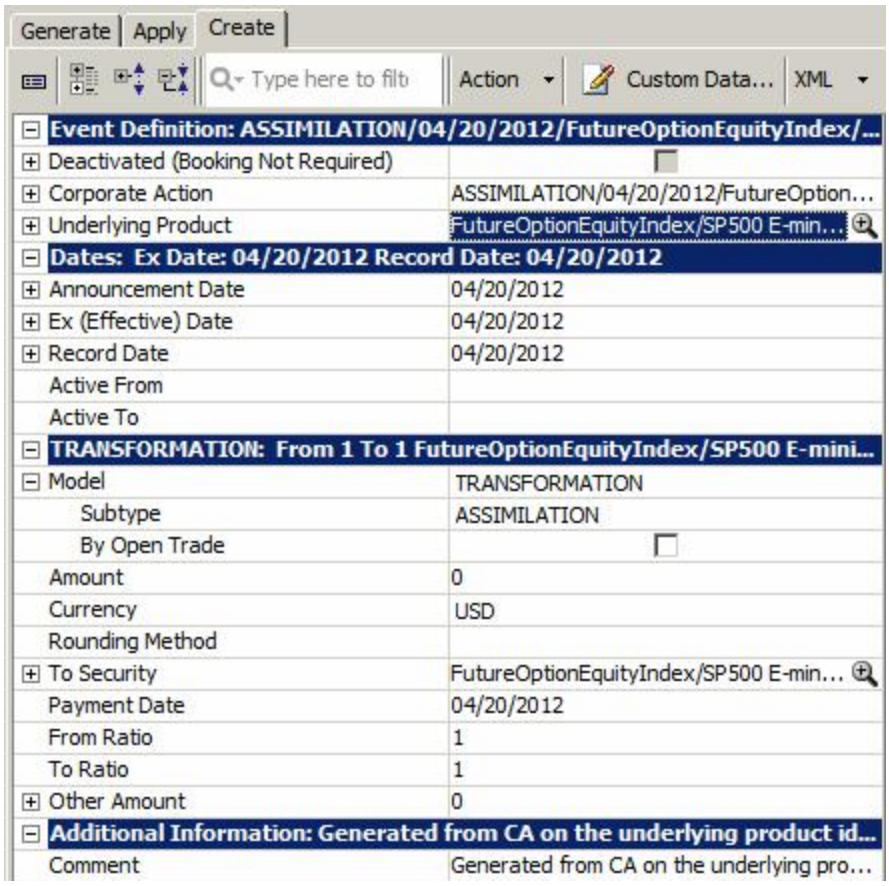



CA Adjustment

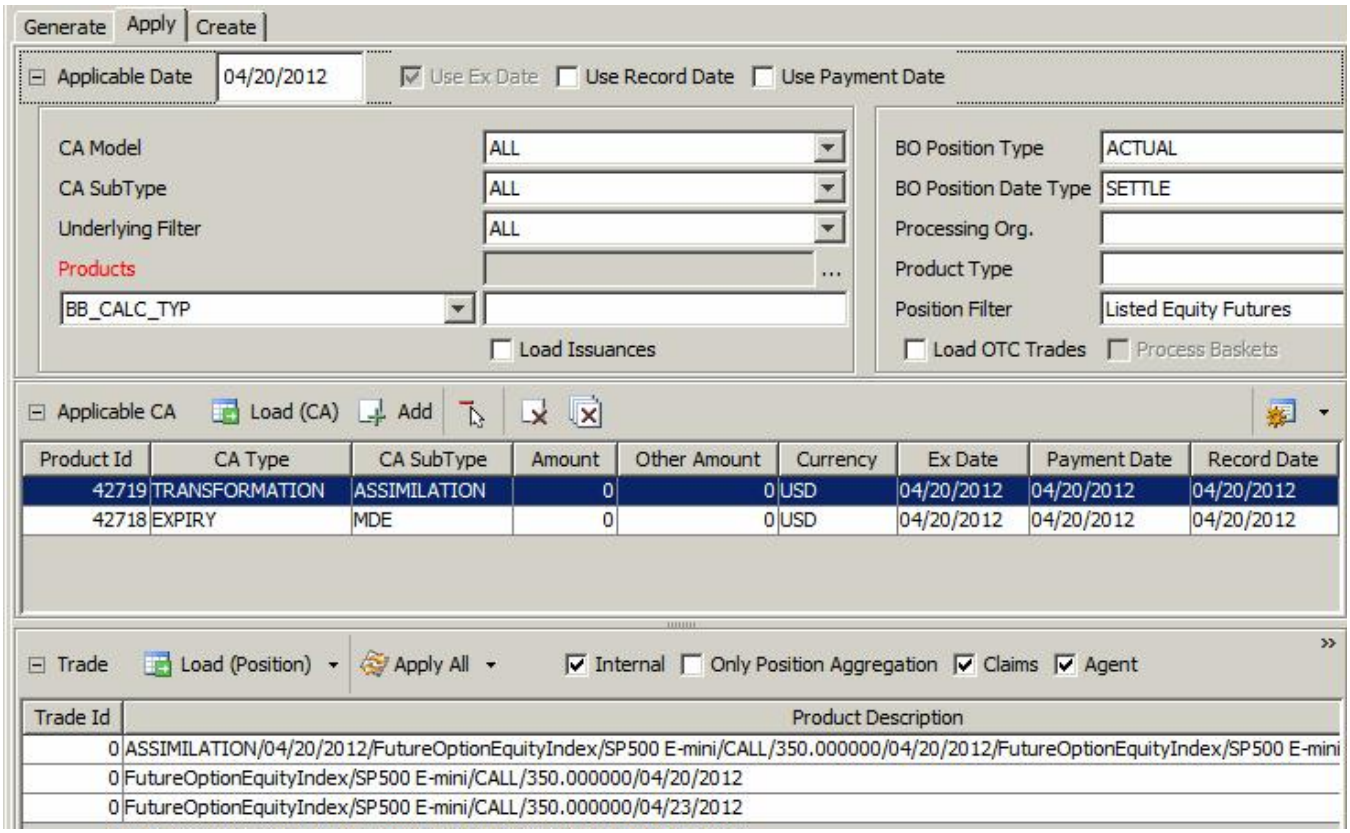



- Load the CA you want to apply.
- Click **Generate Adjustments**.
- Check that the information is correct, and click **Validate All**.

  It creates the ASSIMILATION corporate action.


Generate
Apply
Create
Type here to filt
Action
Custom Data...
XML
Event Definition: ASSIMILATION/04/20/2012/FutureOptionEquityIndex/...
Deactivated (Booking Not Required)
Corporate Action
ASSIMILATION/04/20/2012/FutureOption...
Underlying Product
FutureOptionEquityIndex/SP500 E-min...
Dates: Ex Date: 04/20/2012 Record Date: 04/20/2012
Announcement Date
04/20/2012
Ex (Effective) Date
04/20/2012
Record Date
04/20/2012
Active From
Active To
TRANSFORMATION: From 1 To 1 FutureOptionEquityIndex/SP500 E-mini...
Model
TRANSFORMATION
Subtype
ASSIMILATION
By Open Trade
Amount
0
Currency
USD
Rounding Method
To Security
FutureOptionEquityIndex/SP500 E-min...
Payment Date
04/20/2012
From Ratio
1
To Ratio
1
Other Amount
0
Additional Information: Generated from CA on the underlying product id...
Comment
Generated from CA on the underlying pro...

### 6.2.3 Applying the ASSIMILATION Corporate Action



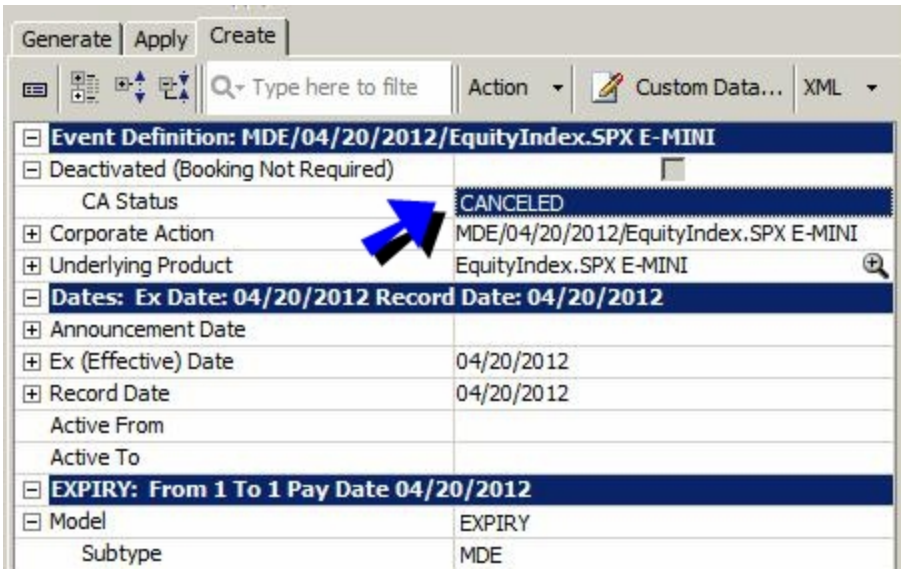

## 6.3 Modification and Cancellation Process

If you modify / cancel a "parent" corporate action (DIVIDEND, MDE, SPLIT), it does not automatically modify / cancel the adjustment corporate actions. You need to run the scheduled task PROCESS_ADJUSTMENTS to modify / cancel the adjustment corporate actions.

The steps are the following:

- Modify or cancel a "parent" corporate action as applicable, by changing its status.
- Run the scheduled task PROCESS_ADJUSTMENTS to cancel / modify the related adjustment corporate actions.
- Apply the cancellation / modification to the actual CA trades using the Apply panel of the Corporate Action window.

### 6.3.1 Modify / Cancel a "Parent" Corporate Action

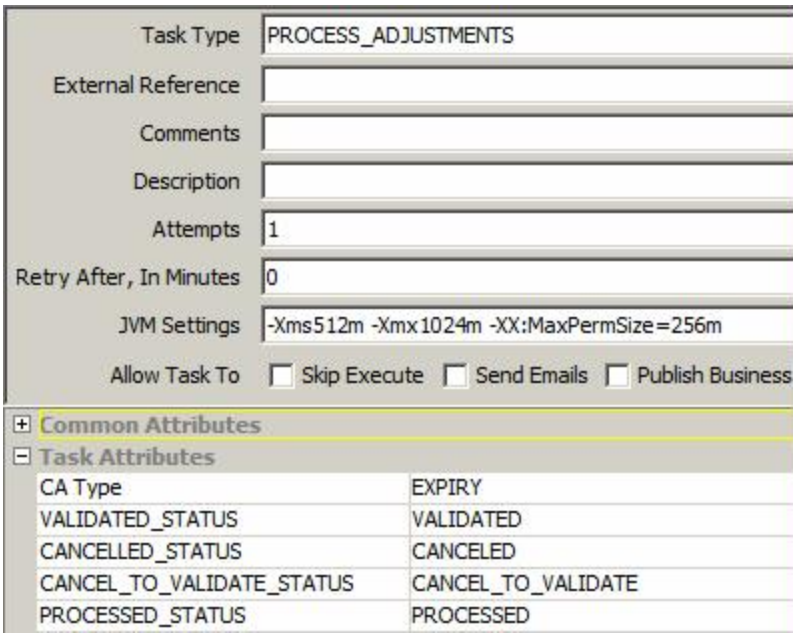



- Modify the corporate action, and change its status as needed - For example:
  - Status = CANCELED - To cancel the corporate action.
  - Status = VALIDATED - To reflect the modification of the corporate action.
- Save your changes.

### 6.3.2 Run the Scheduled Task PROCESS_ADJUSTMENTS

The corporate action's ex-date must be within the range of the "valuation date - from days", and "valuation date + to days".

The scheduled task loads modified / canceled "parent" corporate actions, and modifies / cancels related adjustment corporate actions. It only modifies / cancels the corporate action definitions, not the actual corporate action trades.

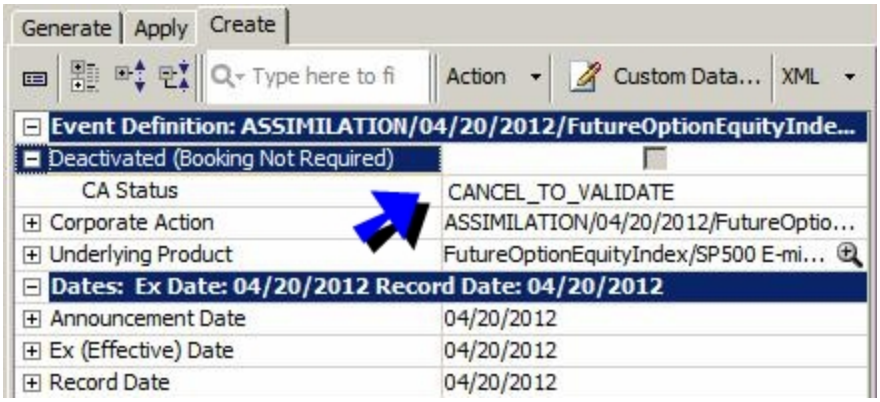



» Select the CA type, and select the status codes as follows:

- VALIDATED_STATUS - Status of "parent" modified CAs to be selected - The selected CAs will trigger the modification of the adjustment CAs.
- CANCELLED_STATUS - Status of "parent" canceled CAs to be selected - The selected CAs will trigger the cancellation of the adjustment CAs.
- CANCEL_TO_VALIDATE_STATUS - Resulting status of "canceled" adjustment CA.
- PROCESSED_STATUS - Resulting status of "modified" adjustment CA.

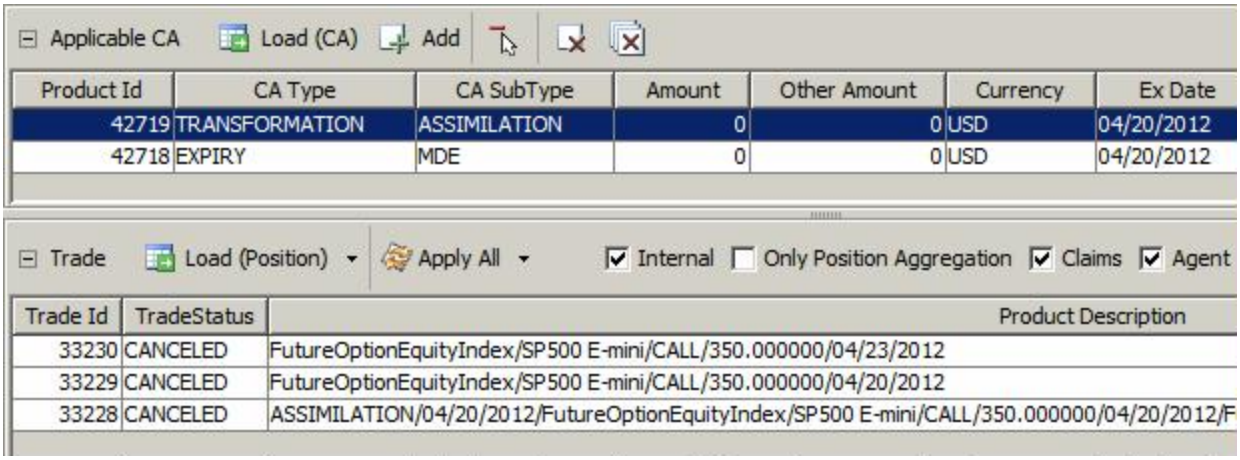
### 6.3.3 Apply the Modified / Canceled Adjustment Corporate Actions

Depending on the resulting status that you have selected on the adjustment CAs, you may have to confirm the cancellation / modification.




» In this example, change the status to CANCELED to confirm the cancellation.

Select the Apply panel, and apply the cancellation to the actual corporate actions trades.



# 7. OTC Corporate Actions

This document shows examples of corporate actions applied to OTC Equity Derivatives trades.

**[NOTE: Only splits and dividends are supported for OTC Equity Derivatives trades. In addition, accruals and mergers are supported for equity swaps]**

## 7.1 Equity Structured Options - SPLIT Examples

The guiding principle of adjustment performed on product and trades due to corporate action is that trades are adjusted so that the holder is not affected financially by the corporate action: the market value of the trade or position will not change.

Depending on whether the trade is on a single underlying or a basket, and whether it is defined in quantity or in notional (performance based), different methodologies are used to modify equity derivatives trades after a corporate action is applied.

### 7.1.1 Methodology Overview

#### *Single Underlying - Trade Characteristics Adjustment*

For single asset options defined in terms of quantity, the number of shares in the option, as well as trade levels will be adjusted in order to reflect the new quotation of the stock in the market after the corporate action has occurred.

By trade levels, we mean all trade information that is defined referring to the price of the underlying stock:

- Strike
- Barrier Level

In addition to the quantity itself, the amounts computed using the quantity will need to be adjusted to avoid unexpected jumps:

- Digital amount
- Barrier rebate

For Corporate Actions inducing a change in the list of the underlying (spin-off, mergers, name change) manual adjustment are performed for single underlying options on the relevant stock through the cancellation and recapture of the trades.

#### *Basket Underlying - Basket Modification*

For basket options, the payoff is defined using the basket level when the basket is defined in quantity, in which case the option trade is also defined in quantity.

In this case, a corporate action will result in a modification of the definition of the underlying basket : quantity associated with each component may be modified so that the basket level can be properly calculated by taking the corporate action into account.

#### *Payout Depending on Historical Quotes - Quotes Adjustment*

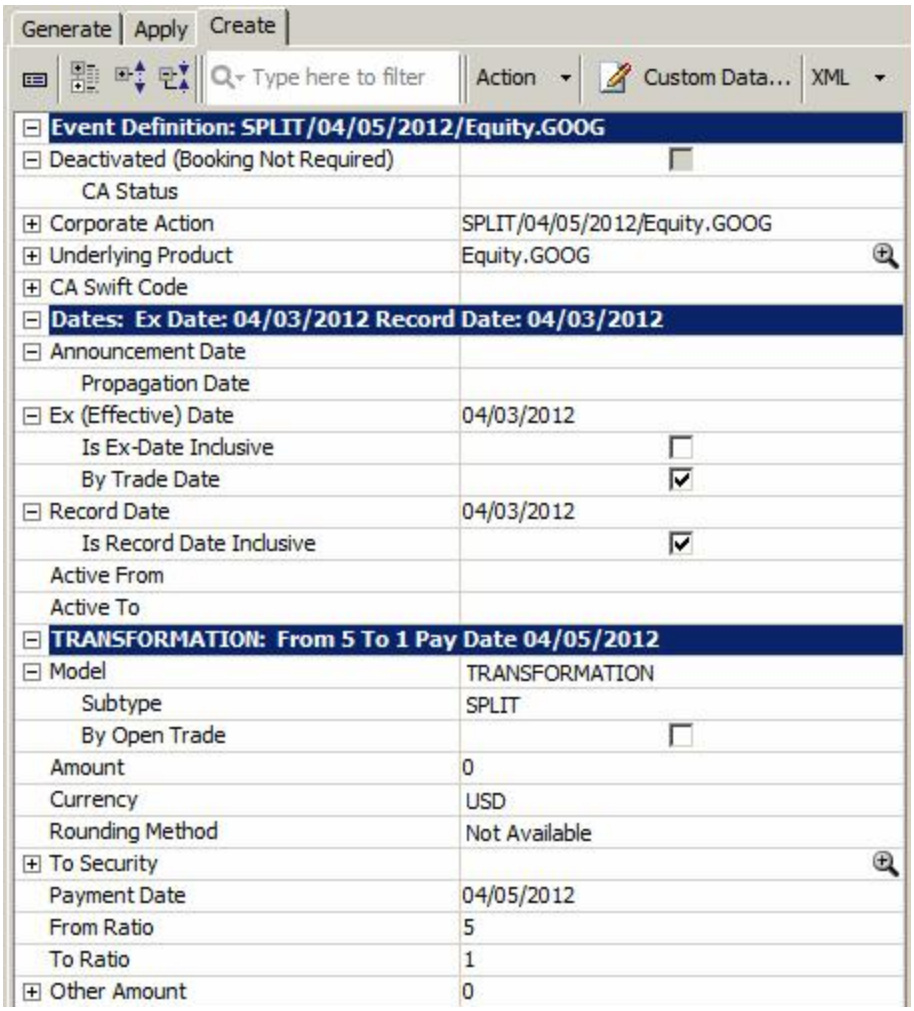
For all types of options where the final payout is defined based on historical quotes, the historical quotes are adjusted so that the payout can be computed appropriately. The rationale behind the adjustment is to correctly revert the drop of the stock price observed on the market when the corporate action becomes effective, in order to calculate the performance of the stock.

This methodology is used in particular for:

- Asian and Lookback options.
- Performance based trades, such as Cliquets, Rainbows and generally speaking structures defined using eXSP.

### 7.1.2 Stock Split Definition

The corporate action is defined in the Create panel.



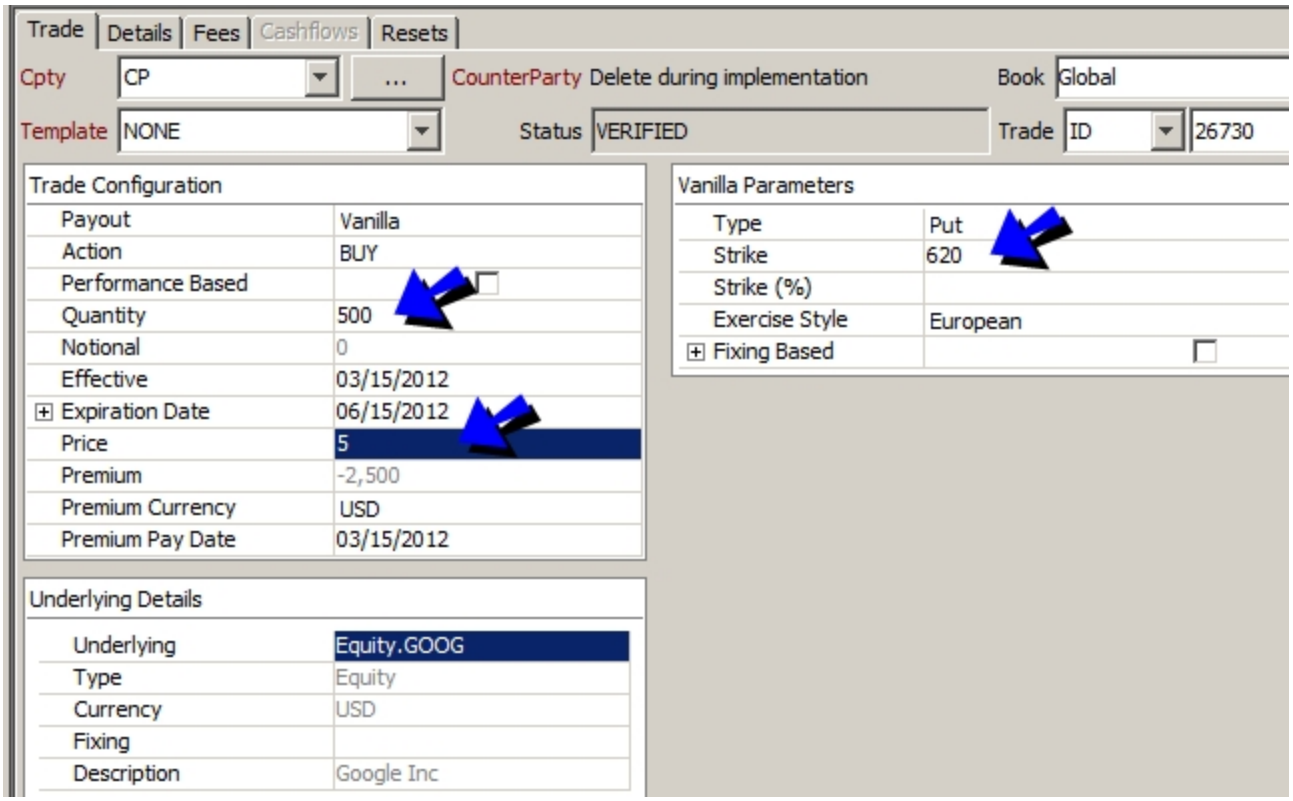

- Select the underlying equity to which the split applies.
- Select the swift code SPLF or SPLR - The corporate action type is set as follows:

  Model = TRANSFORMATION and Subtype = SPLIT.
- Enter the split ratio using From Ratio (old shares) / To Ratio (new shares).

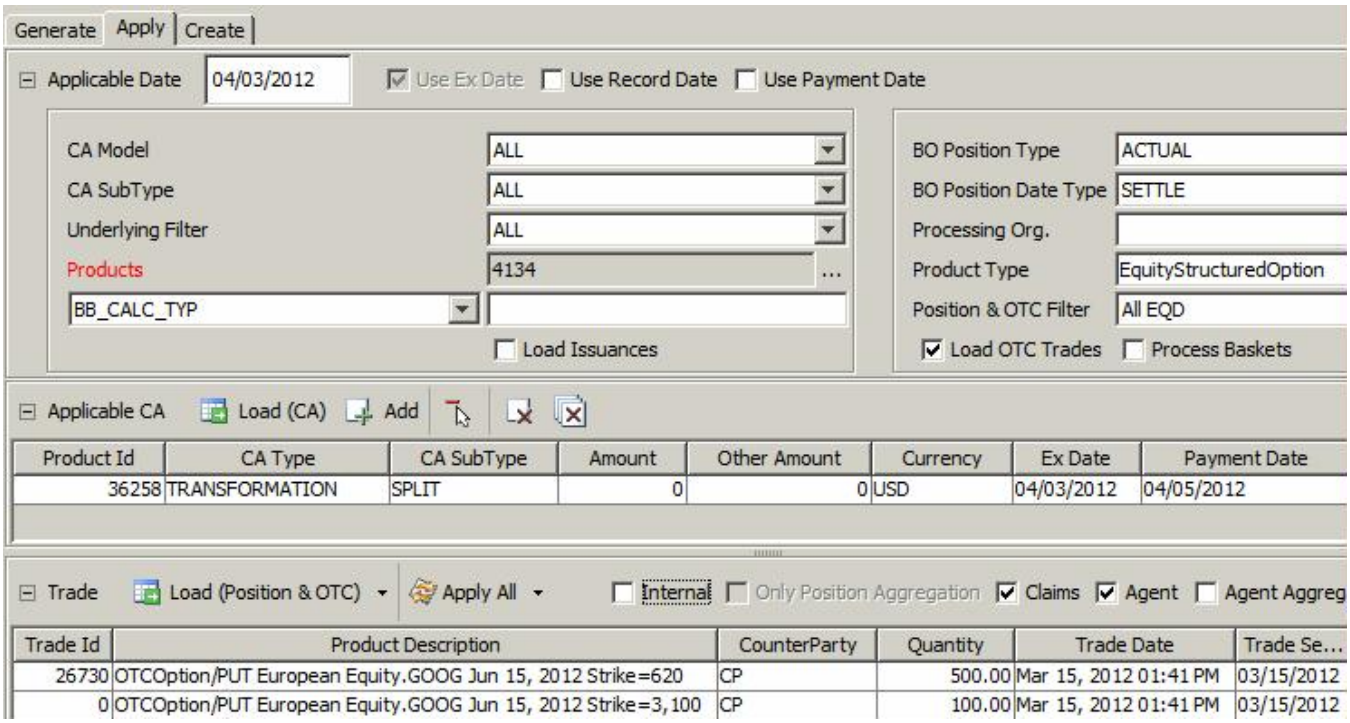
The corporate action can be applied from the Apply panel, or using the CORPORATE_ACTION scheduled task.

### 7.1.3 Applying to a Vanilla OTC Option - Single Underlying

Sample vanilla OTC option trade:




Select the Apply panel to apply the corporate action:



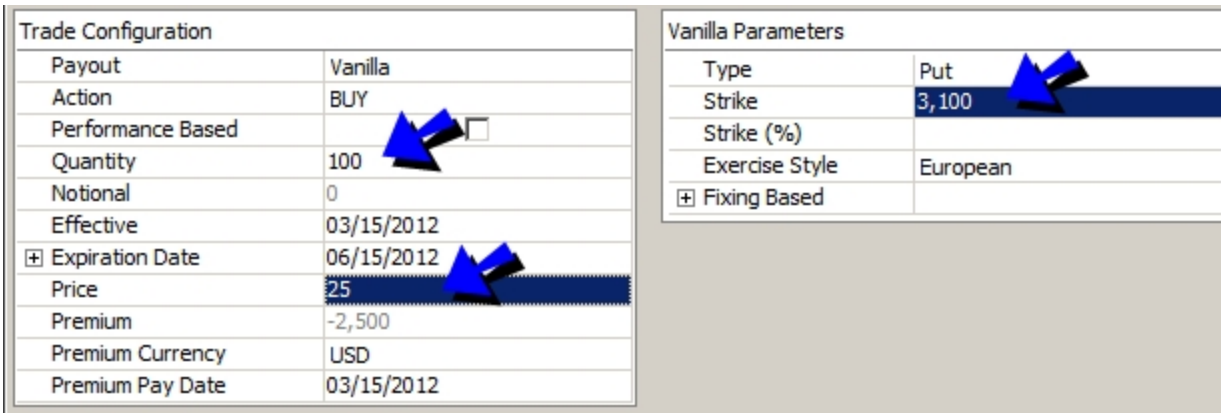

**[NOTE: For OTC trades, the Position & OTC Filter must contain the product type of the OTC trades]**

- Enter search criteria to select the corporate action, and click **Load (CA)**.

  You can save a template from the Apply menu to save the criteria currently selected as a template. You can then load a template to populate the criteria as needed.
- Check "Load OTC Trades" and click **Load (Position & OTC)** to load the trades impacted by the selected CA and apply the corporate action.

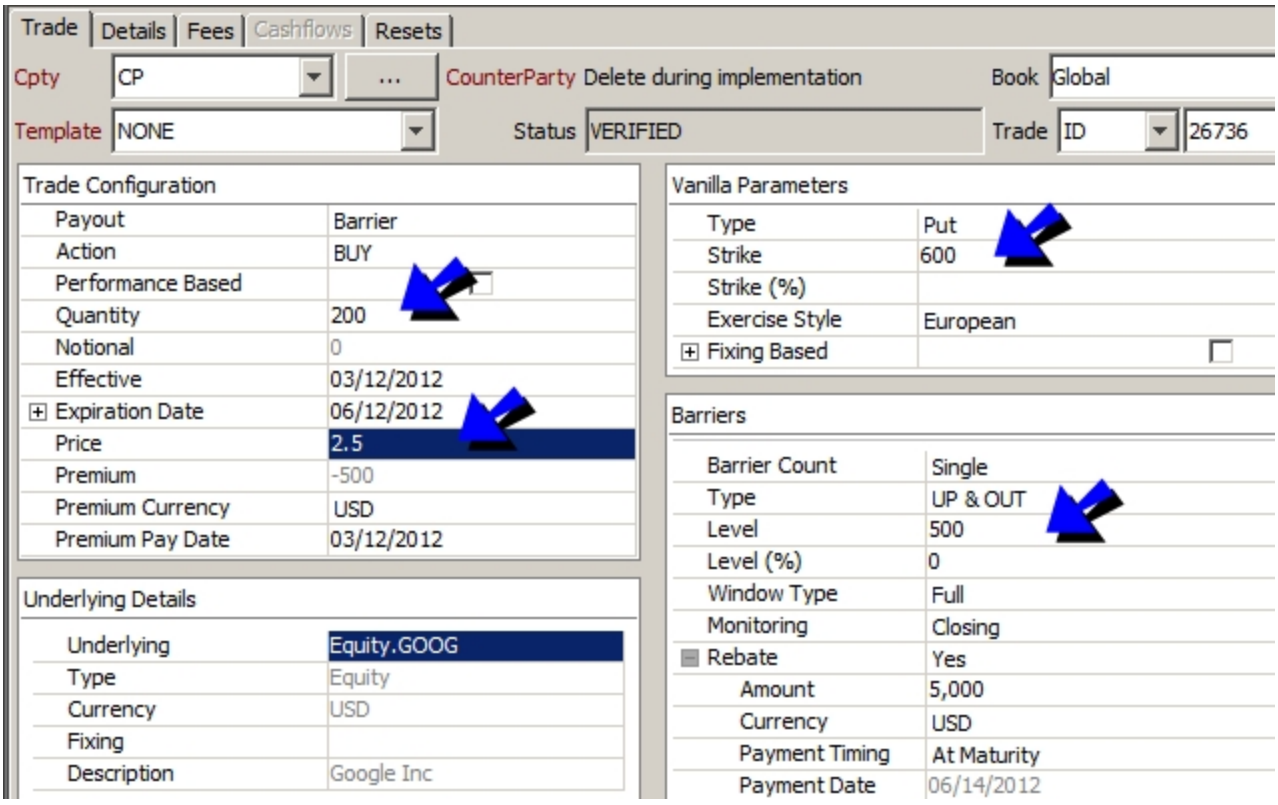
  The original trade is terminated and a new trade is created with adjusted characteristics.
- Click **Apply All** to validate the application of the corporate action, and save the trades.

New Trade: The quantity, premium / price and strike are adjusted according to the split ratio.




### 7.1.4 Applying to a Barrier Option - Single Underlying

Sample barrier option trade:

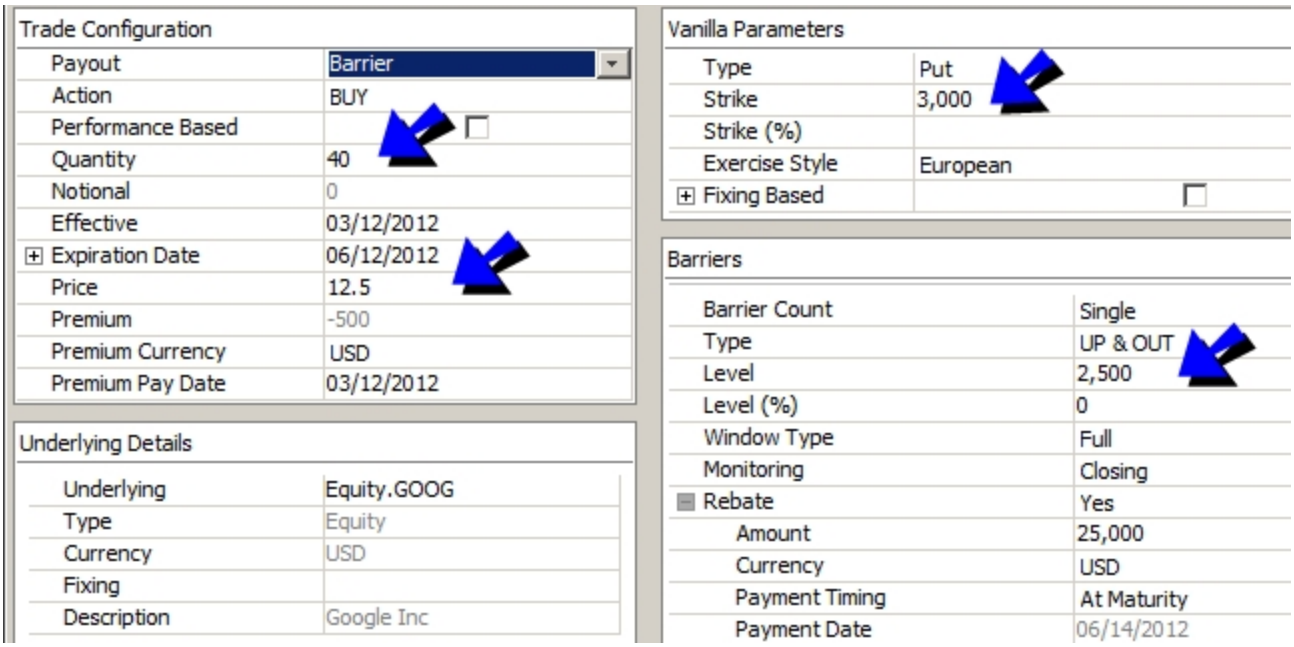



Select the Apply panel to apply the corporate action:

Trade | Load (Position & OTC) | Apply All | Internal | Only Position Aggregation | Claims | Agent

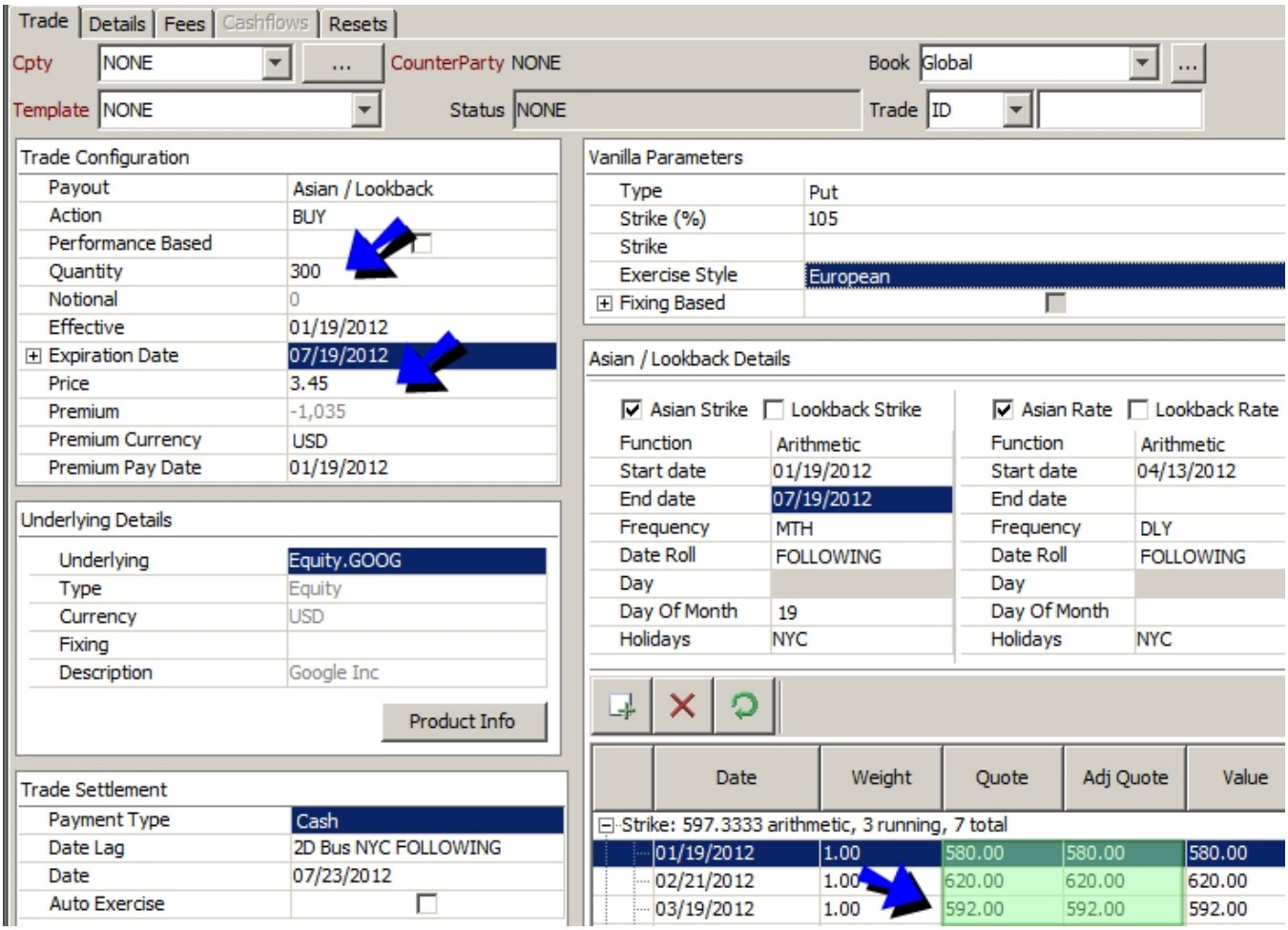
| Trade Id | Product Description | CounterParty | Quantity | Trade Date |
|---|---|---|---|---|
| 26736 | OTCOption/PUT BARRIER Equity.GOOG Jun 12, 2012 Strike=600 | CP | 200.00 | Mar 12, 2012 02:04 PM |
| 0 | OTCOption/PUT BARRIER Equity.GOOG Jun 12, 2012 Strike=3,000 | CP | 40.00 | Mar 12, 2012 02:04 PM |

New Trade: The quantity, premium / price, strike, and barrier characteristics are adjusted according to the split ratio.



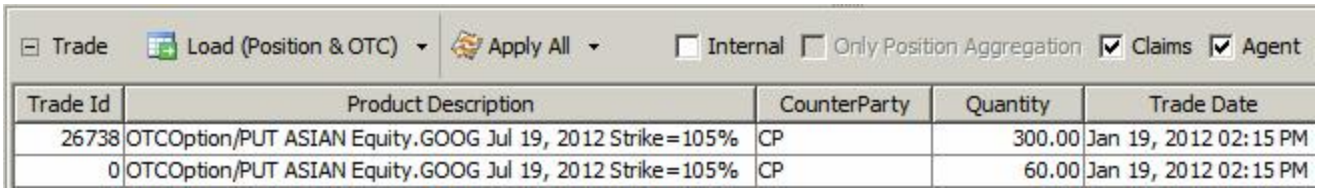

### 7.1.5 Applying to an Asian Option - Single Underlying

Sample Asian option trade:



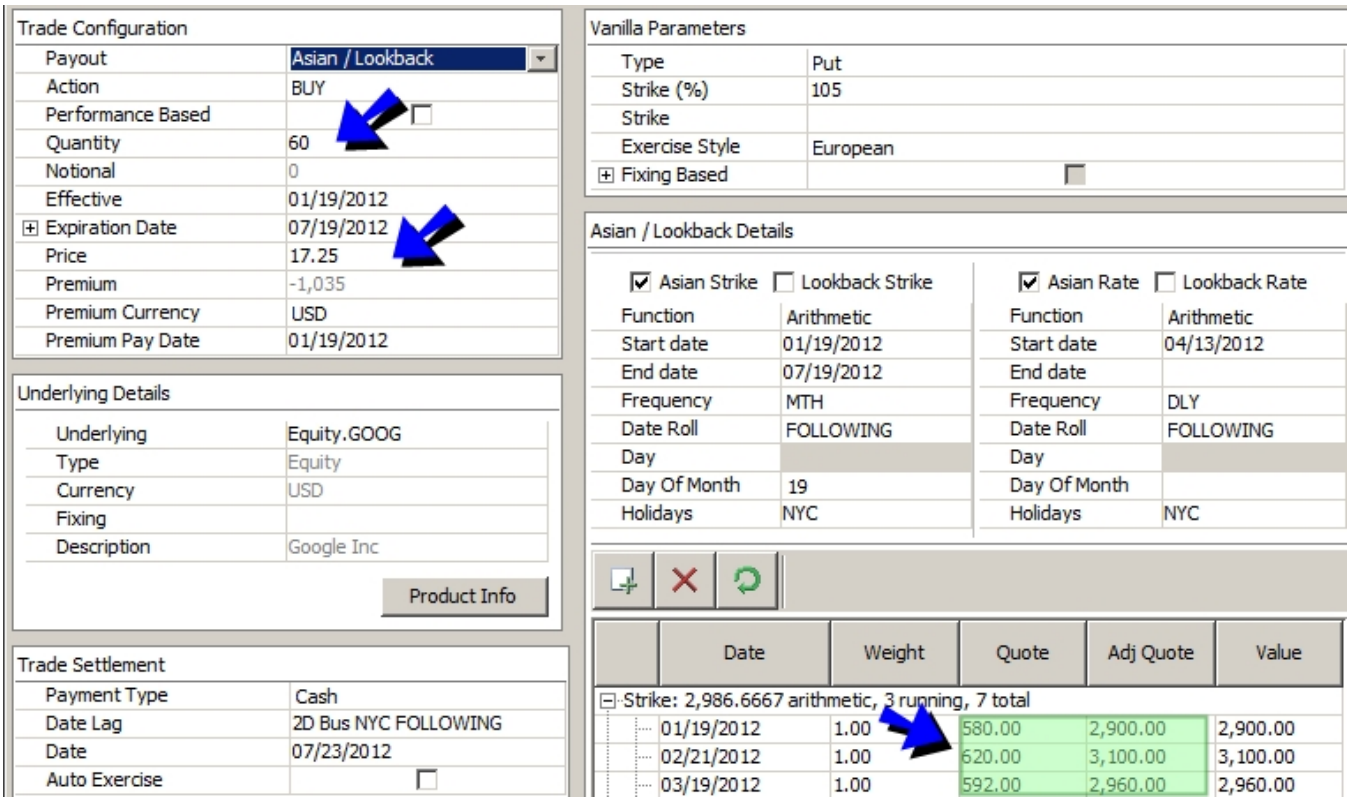

Asian schedule: The quotes and adjusted quotes are the same since no split has been applied yet to the corporate action:

Select the Apply panel to apply the corporate action:




**[NOTE: For OTC trades, the Position & OTC Filter must contain the product type of the OTC trades]**

New Trade: The quantity, premium, and strike are adjusted according to the split ratio.




The Asian schedule shows the adjusted quotes.

### 7.1.6 Applying to a Vanilla Option - Quantity Basket Underlying

When a corporate action is applied to a trade with a "quantity" basket underlying, it is first applied to the basket, then to the actual trade.

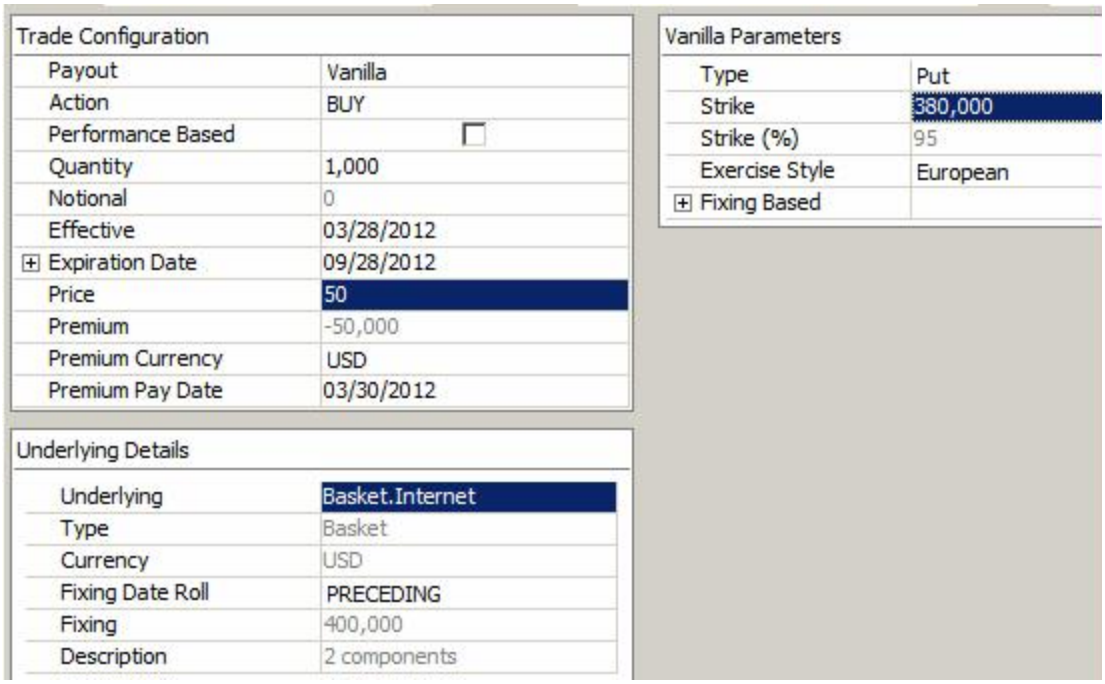
Applying the corporate action to the basket is done using the CA Basket Generation window.

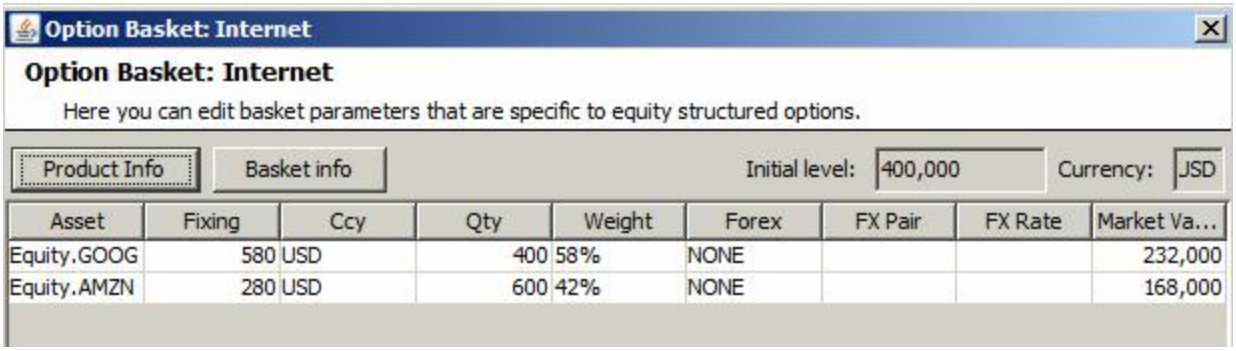
Then the corporate action is applied to the trades using the Corporate Action window, or the scheduled task CORPORATE_ACTION.

When applying the corporate action to the trades using the scheduled task CORPORATE_ACTION, you must set the attribute "Apply to basket" to True.

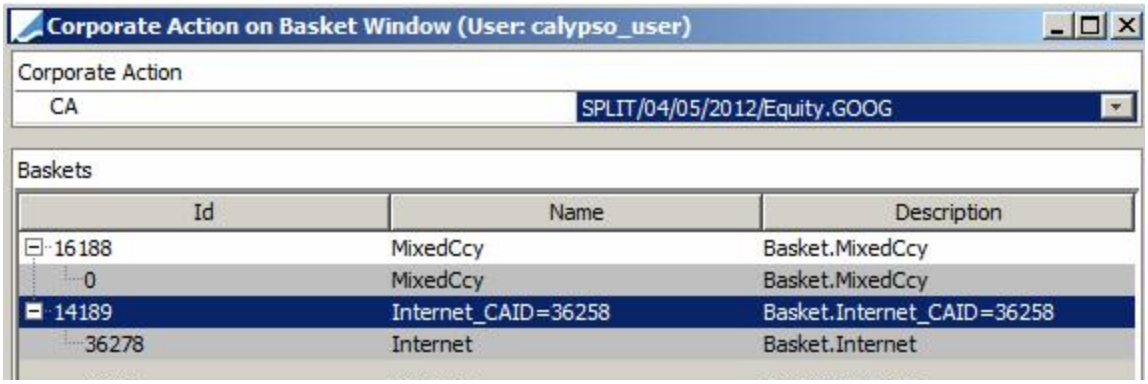
Sample basket:


Sample vanilla option trade:



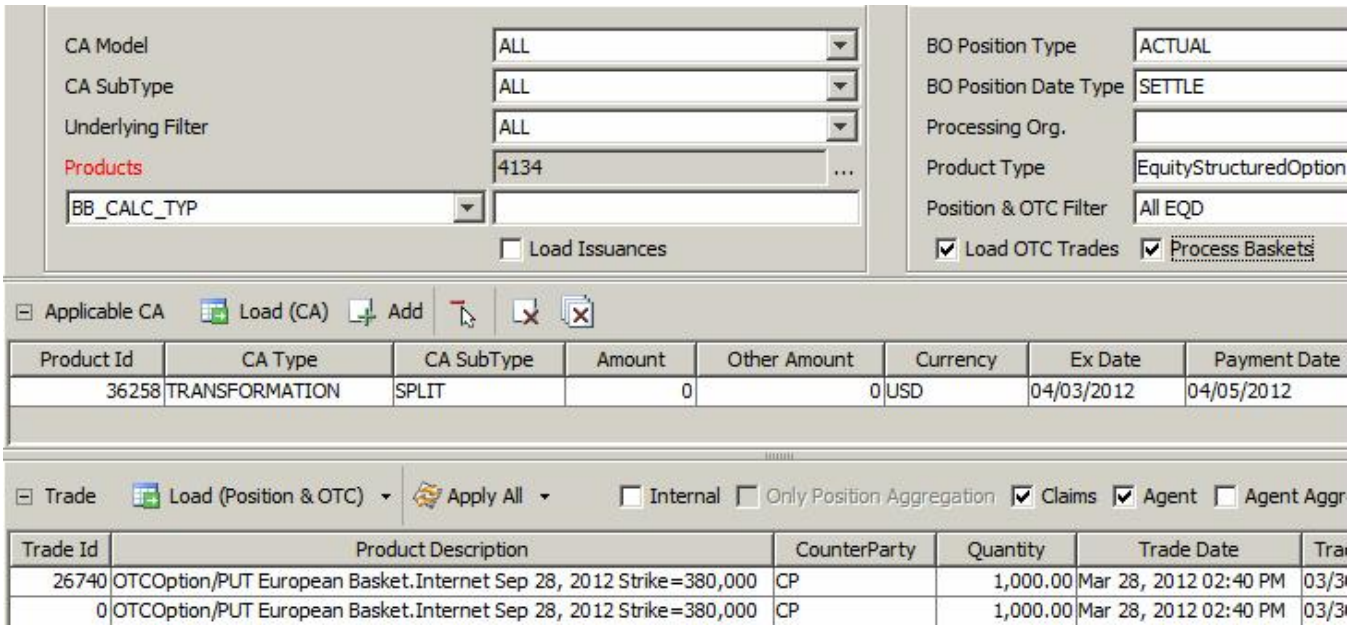

From the Calypso Navigator, navigate to **Trade Lifecycle > Corporate Action > CA Basket Generation** to apply the corporate action to the basket.




» Select the corporate action at the top of the window.

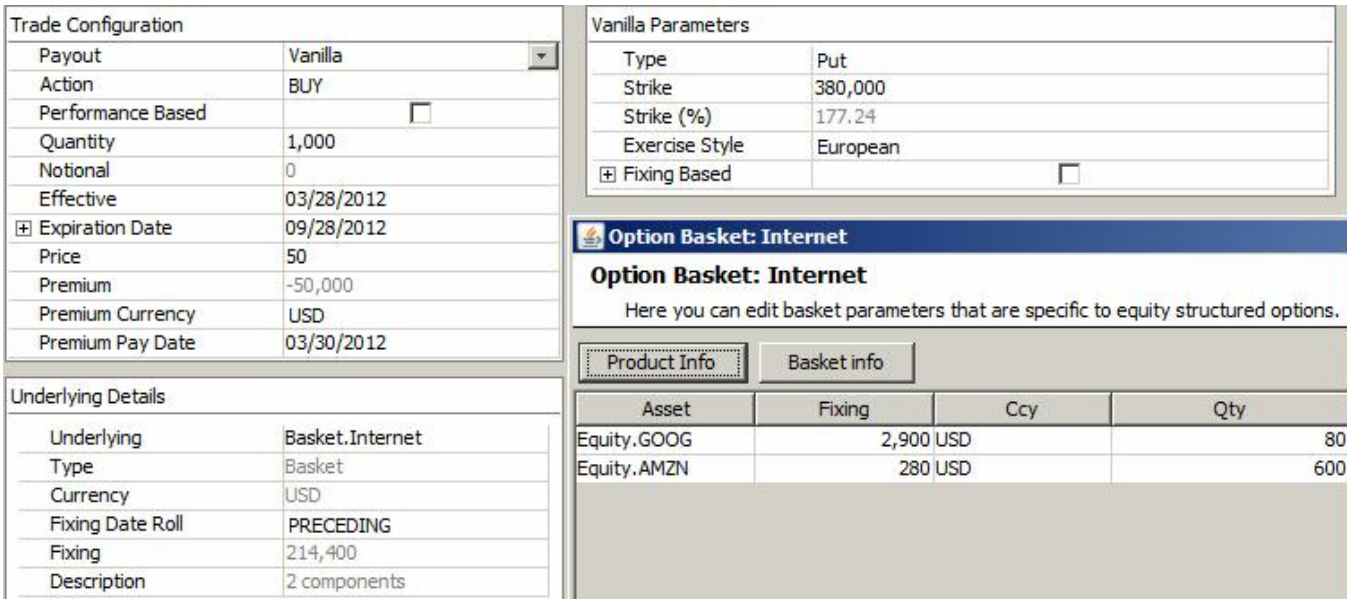
» Click **Load Baskets** to load the baskets on which the corporate action can be applied. Then select a basket and click **Apply Selected** to adjust the quantities of the basket.

Now, the corporate action must be applied to the trade itself. Select the Apply panel in the Corporate Action window.




» Check the Process Baskets checkbox.

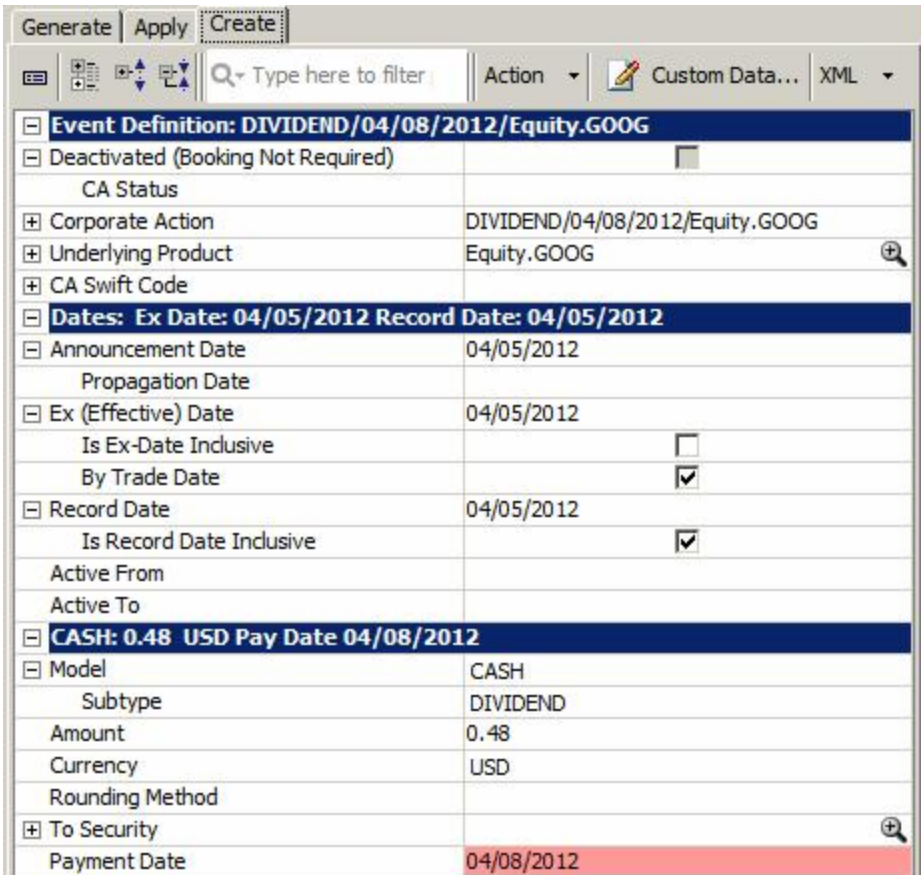
The new trade is based on the updated basket.




## 7.2 Equity Swap - DIVIDEND Example

### 7.2.1 Defining a Dividend

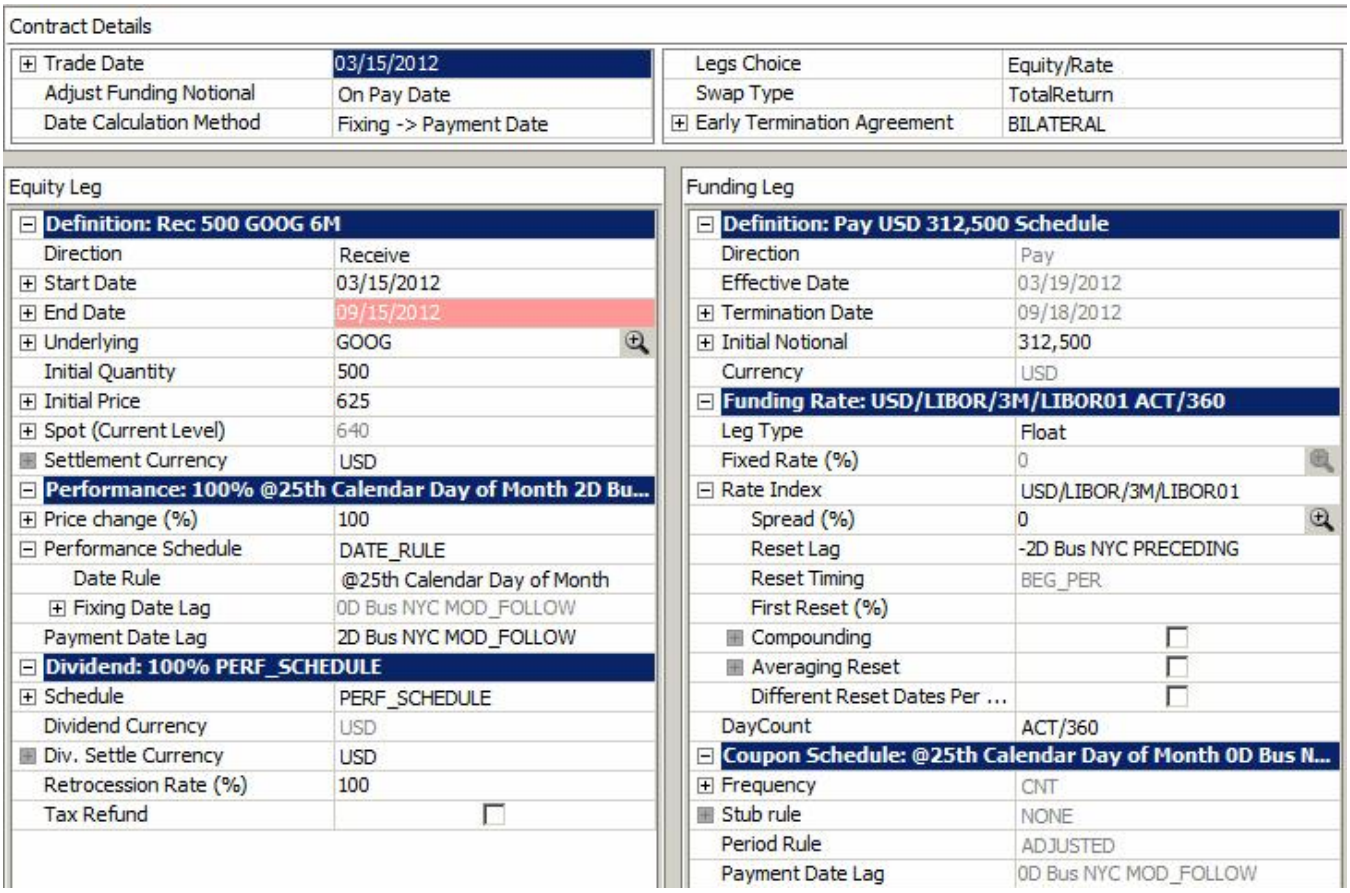
Define the dividend CA in the Create panel of the Corporate Action window: CASH.DIVIDEND.




Depending on the Dividend's payment schedule, the newly created dividend corporate action will impact the cashflows of the equity swap.

### 7.2.2 Applying to an Equity Swap

Sample Equity Swap:



Contract Details

| | | | |
|---|---|---|---|
| Trade Date | 03/15/2012 | Legs Choice | Equity/Rate |
| Adjust Funding Notional | On Pay Date | Swap Type | TotalReturn |
| Date Calculation Method | Fixing -> Payment Date | Early Termination Agreement | BILATERAL |

Equity Leg

| | |
|---|---|
| **Definition: Rec 500 GOOG 6M** | |
| Direction | Receive |
| Start Date | 03/15/2012 |
| End Date | 09/15/2012 |
| Underlying | GOOG |
| Initial Quantity | 500 |
| Initial Price | 625 |
| Spot (Current Level) | 640 |
| Settlement Currency | USD |
| **Performance: 100% @25th Calendar Day of Month 2D Bu...** | |
| Price change (%) | 100 |
| Performance Schedule | DATE_RULE |
| Date Rule | @25th Calendar Day of Month |
| Fixing Date Lag | 0D Bus NYC MOD_FOLLOW |
| Payment Date Lag | 2D Bus NYC MOD_FOLLOW |
| **Dividend: 100% PERF_SCHEDULE** | |
| Schedule | PERF_SCHEDULE |
| Dividend Currency | USD |
| Div. Settle Currency | USD |
| Retrocession Rate (%) | 100 |
| Tax Refund | |

Funding Leg

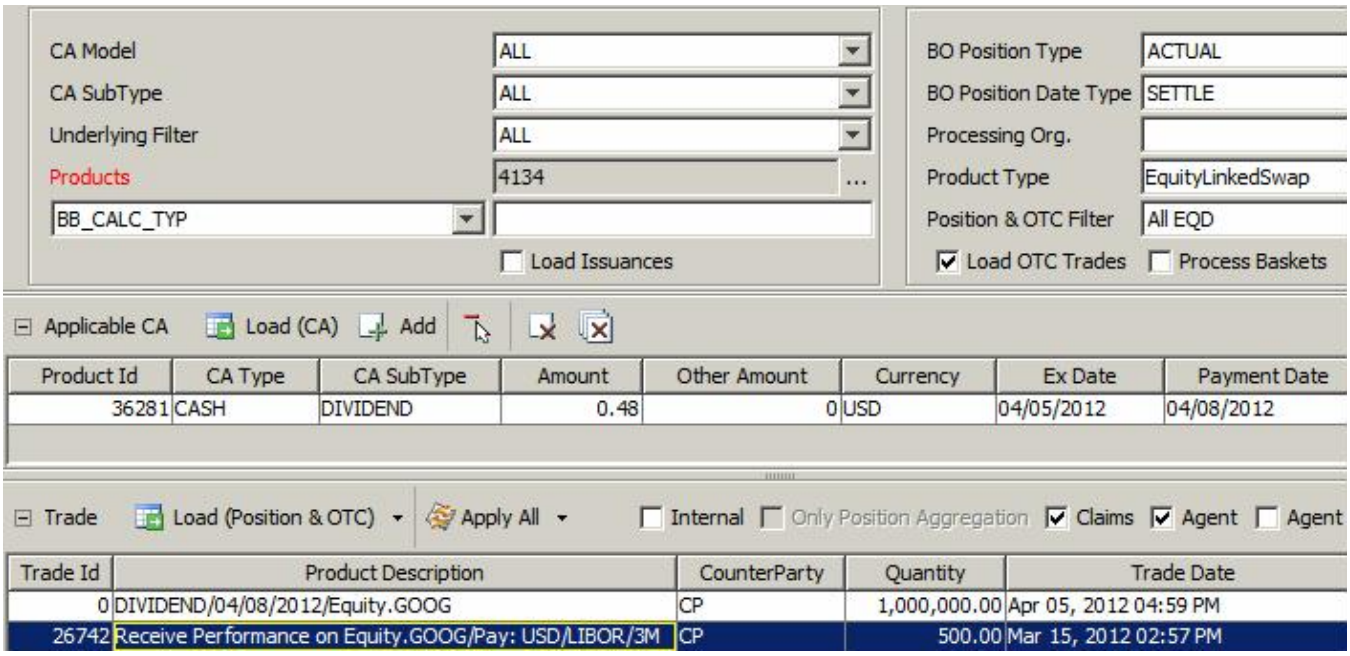
| | |
|---|---|
| **Definition: Pay USD 312,500 Schedule** | |
| Direction | Pay |
| Effective Date | 03/19/2012 |
| Termination Date | 09/18/2012 |
| Initial Notional | 312,500 |
| Currency | USD |
| **Funding Rate: USD/LIBOR/3M/LIBOR01 ACT/360** | |
| Leg Type | Float |
| Fixed Rate (%) | 0 |
| Rate Index | USD/LIBOR/3M/LIBOR01 |
| Spread (%) | 0 |
| Reset Lag | -2D Bus NYC PRECEDING |
| Reset Timing | BEG_PER |
| First Reset (%) | |
| Compounding | |
| Averaging Reset | |
| Different Reset Dates Per ... | |
| DayCount | ACT/360 |
| **Coupon Schedule: @25th Calendar Day of Month 0D Bus N...** | |
| Frequency | CNT |
| Stub rule | NONE |
| Period Rule | ADJUSTED |
| Payment Date Lag | 0D Bus NYC MOD_FOLLOW |

Trade | Details | Fees | Cashflows | Resets

Customized

| Type | Start Quantity | End Quantity | Sample Begin | Pmt Begin | Pmt End | Proj Amt | PV Disc | Pmt Dt | Pmt Amt |
|---|---|---|---|---|---|---|---|---|---|
| PRICE_CHANGE | 500.00 | 500.00 | | 03/15/2012 | 03/25/2012 | -7,500.00 | 0.00 | 03/28/2012 | -7,500.00 |
| PRICE_CHANGE | 500.00 | 500.00 | | 03/25/2012 | 04/25/2012 | 15,034.28 | 15,032.21 | 04/27/2012 | 0.00 |
| DIVIDEND | 0.00 | 0.00 | | 03/25/2012 | 04/25/2012 | 240.00 | 239.97 | 04/27/2012 | 240.00 |
| PRICE_CHANGE | 500.00 | 500.00 | | 04/25/2012 | 05/25/2012 | 102.85 | 102.79 | 05/30/2012 | 0.00 |

Select the Apply panel in the Corporate Action window.




**[NOTE: For OTC trades, the Position & OTC Filter must contain the product type of the OTC trades]**

- Enter search criteria to select the corporate action, and click **Load (CA)**. You can also click to load individual corporate actions.
- Check "Load OTC Trades" and click **Load (Position & OTC)** to load the trades impacted by the selected CA and apply the corporate action.

  The original trade is modified with the dividend information.
- Click **Apply All** to validate the application of the corporate action, and save the trades.

# 8. CFD Corporate Actions

In case the liquidation method is different from “CFD”, and the CFD contract is defined with “No Perf” (and therefore follows the margin call process), the corporate actions are generated using the standard Corporate Action process:

- Corporate Action window to define the corporate actions.
- Corporate Action window or CORPORATE_ACTION scheduled task to apply the corporate actions to CFD positions.
- For corporate actions with cash transfers, you use the scheduled task CFD_RESET to generate the cash transfers on reset date (payment of execution fees, funding cost, and CA fees).

Otherwise, corporate actions are generated using the CFD Corporate Action process:

- Corporate Action window to define the corporate actions.
- CFD_CA scheduled task to apply the corporate actions to CFD positions.
- For corporate actions with cash transfers, you use the scheduled task CFD_RESET to generate the cash transfers on reset date (payment of execution fees, funding cost, and CA fees).

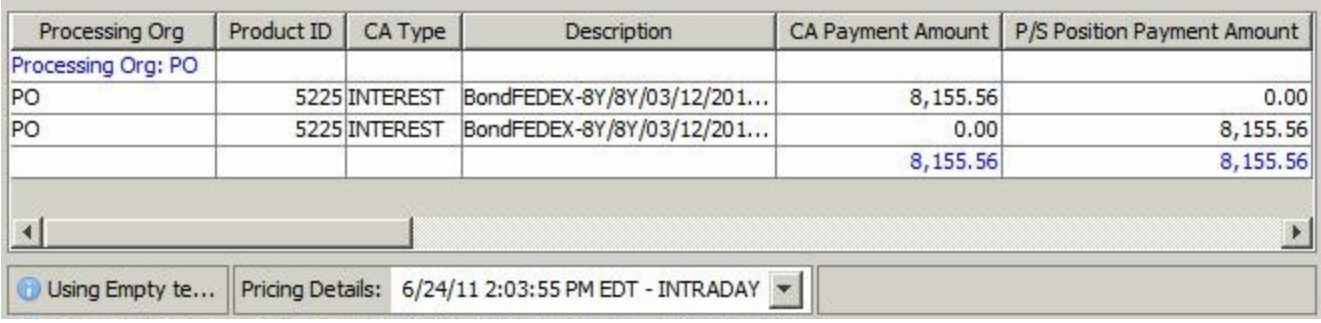
▶ The various types of corporate actions that can be defined are described in Corporate Actions.

# 9. Corporate Action Activity Report

This document describes how to use the Corporate Action Activity report.

The Corporate Action Activity report allows reconciling CA payments (CA Agent trades, CA Fail trades, Collateral pass-thru cashflows, etc.) created by the Corporate Action process for open positions and OTC trades.

From the Calypso Navigator, navigate to **Reports > Cross-Asset Reports > Corporate Action Activity Report**.



| Processing Org | Product ID | CA Type | Description | CA Payment Amount | P/S Position Payment Amount |
|---|---|---|---|---|---|
| Processing Org: PO | | | | | |
| PO | 5225 | INTEREST | BondFEDEX-8Y/8Y/03/12/201... | 8,155.56 | 0.00 |
| PO | 5225 | INTEREST | BondFEDEX-8Y/8Y/03/12/201... | 0.00 | 8,155.56 |
| | | | | 8,155.56 | 8,155.56 |

Using Empty te... | Pricing Details: 6/24/11 2:03:55 PM EDT - INTRADAY

**[NOTE: The columns of this picture have been configured. Sort columns, subheadings and subtotals have to be explicitly specified. See Help > Menu Items for details]**

- You can change the pricing details at the bottom of the window - By default, the pricing environment comes from the User Defaults, and the valuation date is the current date and time.
- You can check / uncheck **View > Show Frame > Criteria** to display / hide the search criteria.
- Specify search criteria as applicable and click to load the corresponding transfers and positions that are subject to corporate actions.
- Click to print the report results.

  Note that for the Pivot view and the Aggregation view, the print icon is disabled.

  You can use [Ctrl+P] or [Ctrl+L] to print the report, or you can export the report to Excel [Ctrl+O] and print it from there.

You need to sort the report by processing org, effective date, and CUSIP for example, and setup subtotals for “CA Payment Amount” and “P/S Position Payment Amount” in order to compare those two amounts.

# 10. Integrating Swift Corporate Action Events

This document describes how to integrate MT564-MT568 and seev.031, seev.035, seev.036, seev.039 Swift corporate action events.

- A MT564 / seev.031 / seev.035 / seev.039 message is sent by an account servicer to the account holder. This message is used to provide account holder the detail of the corporate action event. It can be several MT564 / seev.031 / seev.035 / seev.039 notifications. The account holder can receive an incomplete corporate action notification replaced by another MT564 / seev.031 / seev.035 / seev.039 with complete information.
- A MT566 / seev.036 message is sent by an account servicer to the account holder. This message is used to confirm the account holder that security or/and cash has been credited/debited to an account as a result of a corporate action event.
- A MT568 corporate action narrative is a bi-directional swift message between an account servicer and account holder. This message is used to provide additional information about a corporate action event.

After a Swift format pre-check to integrate the Swift CA events into the system, the integration process generates a message, the swift message being stored as an advice document in the message.

Depending on the MT564 / seev.031 / seev.035 / seev.039 content and processing status, the integration can either create a new CA event or update an existing one with additional information.

MT566 / seev.036 and MT568 are integrated as additional information and linked to a corporate action event when the system is matching them to the existing ones. If they match any corporate action the system just creates a message.

There are two ways of integrating Swift CA events into the system:

- Using the MESSAGE_MATCHING scheduled task: Swift CA events are saved as "TXT" files in a specific directory and processed by the scheduled task.
- Using the Import Message engine: Swift CA events are processed in real time when they arrive in MQ series.

This document shows examples using the scheduled task.

## 10.1 Before you Begin

### 10.1.1 Incoming Message Validation Setup

The environment property VALIDATE_SWIFT_FORMAT should be set to true so that the format of the incoming message can be validated.

If the incoming message is not SWIFT compliant, the message is saved with the message attribute "Format Issue" containing the format exception. In this case the incoming message is not processed (no corporate action create / update).

When processing the incoming message in order to create or update the CA event, an issue can also occur because of missing reference data. In this case, the message attribute "Process Issue" is set on the message with a description of the issue.

Add the following values to domain "MsgAttributes" so that you can see those attributes:

- CAReference: ID of the corporate action product
- Process Issue: Attribute used to store the reason why the MT56X processing has failed
- Process_Status: Content of TAG 25D::PROC//
- Format Issue: Attribute used to store the reason why message is not swift compliant
- Message_Function: Content of TAG 23G
- ISIN: Content of TAG 35B
- Swift_Event_Code: Content of TAG 22F::CAEV//
- Payment_Date: Content of TAG 98A::PAYD// (else 98A::EFFD//)
- Ex_Date: Content of TAG 98A::XDTE// (else 98A::MATU//)
- Record_Date: Content of TAG 98A::RDTE//
- AgentRef: Content of TAG 20C::SEME//
- CA_Agent_Ref: Content of TAG 20C::CORP//
- Period_Rate: Content of TAG 92A::INTP//
- Fixed_Rate: Content of TAG 92A::INTR//
- Quantity Type: Used to identify the sub-sequence CASHMOVE/SECMOVE
- Del Type: Used to identify the direction of the movement (DEBIT/CREDIT)
- Nominal Amount: Content of TAG 19B::PSTA//
- Ccy: Settlement currency
- Settle Date: Content of TAG 98A::POST//
- Settle Date Time: Content of TAG 98C::POST//

  /Document/CorpActnMvmntConf/CorpActnConfDtls/SctiesMvmntDtls/DtDtls/PstngDt or
  /Document/CorpActnMvmntConf/CorpActnConfDtls/CshMvmntDtls/DtDtls/PstngDt or
  /Document/CorpActnMvmntRvslAdvc/CorpActnConfDtls/SctiesMvmntDtls/OrgnlPstngDt or
  /Document/CorpActnMvmntRvslAdvc/CorpActnConfDtls/CshMvmntDtls/OrgnlPstngD
- Div Reinvest Type: When Tag 22F::OPTF contains RNET, the message attribute 'Div Reinvest Type' is set to NET and the CA product is created as ACCRUAL/STOCK_DIV. When Tag 22F:OPTF contains RGRS, the message attribute 'Div Reinvest Type' is set to Gross and the CA product is created as ACCRUAL/TAX with CA_WHT_AGENT fees

Same logic applies for seev.31 / seev.36 messages for TAG /Document/CorpActnNtfctn/CorpActnOptnDtls/OptnFeatrs/Cd

- ALTERNATE_AMOUNT (field Div Reinvest Price): Content of TAG 90B::PRPP//ACTU (/Document/CorpActnNtfctn/CorpActnOptnDtls/SctiesMvmntDtls/PricDtls/GncCshPricPdPerPdct/AmtPric/AmtPricTp or /Document/CorpActnNtfctn/CorpActnOptnDtls/CshMvmntDtls/PricDtls/GncCshPricPdPerPdct/AmtPric/AmtPricTp)
- Buy Up Amount: Content of TAG 19B::BUYU// (/Document/CorpActnMvmntConf/CorpActnConfDtls/CshMvmntDtls/AmtDtls/BuyUpAmt)
- Amort_Rate: Content of TAG 92A:RATE//
- Pool_Factor: Content of TAG 92A:NWFC//
- Redm_Price: Content of TAG 90A:OFFR//
- ReversalReasonCode: Content of tag 24B::REVR for reversal payment messages
- ReversalReasonNarrative: Content of tag 70D::REVR for reversal payment messages
- TAXR: Content of TAG 92::TAXR for cash movement
- TAXRSecurity: Content of TAG 92::TAXR for security movement
- WITL: Content of TAG 92A:WITL for cash movement
- WITLSecurity: Content of TAG 92A::WITL for security movement
- TAXRAmount: Content of TAG 19B::TAXR for cash movement
- TAXRAmountSecurity: Content of TAG 19B::TAXR for security movement
- WITLAmount: Content of TAG 19B::WITL for cash movement
- WITLAmountSecurity: Content of TAG 19B::WITL for security movement
- Resulting Amount – Content of field 19B::RESU
- Capital Gain Amount – Content of field 19B::CAPG
- CINL Amount – Content of field 19B::CINL
- Interest Amount – Content of field 19B::INTR
- Market Claim Amount – Content of field 19B::MKTC
- Net Cash Amount – Content of field 19B::NETT
- Reinvestment Amount – Content of field 19B::REIN
- Stamp Duty Amount – Content of field 19B::STAM
- CashInLieuPercentageType – Content of field 90A::CINL - DISC, PRCT, PREM or YIEL (Allows checking if Cash In Lieu Payment Rate field is correctly calculated)
- CashInLieuAmountType – Content of field 90B::CINL – ACTU, PRCT, PREM or PLOT (Allows checking if Cash In Lieu Payment Rate field is correctly calculated)
- CashInLieuPrice: Content of TAG 90A::CINL

- Fractional Part for Cash: Content of TAG 90B:CINL
- Election Start Date: Content of TAG 69A PWAL
- Election End Date: Content of TAG 69A PWAL

### 10.1.2 Verification of Cash In Lieu Payment Rate field

- For 90A::CINL//DISC, Face Value – [Face Value*(DISC Value/100)]
- For 90A:: CINL//PRCT, Face Value * (PRCT Value/100)
- For 90A:: CINL//PREM, Face Value + [(Face Value*PREM Value/100)]
- For 90A:: CINL//PREM, YIEL Value
- For 90B::CINL//ACTU, ACTU Value
- For 90B::CINL//PRCT, Face Value – DISC Value
- For 90B::CINL//PREM, Face Value + PREM Value
- For 90B::CINL//PLOT, PLOT Value

### 10.1.3 Trade Keywords

The following trade keywords must be added in the domain "tradeKeyword":

- CAAgentAccountId: ID of the custodian settle account
- CAAgentCashAccountId: ID of the cash settle account
- CAReference: ID of the CA product
- CAFailedTransfer: ID of the failed transfer for which a CA claim is needed
- CAClaimReason: Reason why a CA claim trade is needed
- CASource

The trade keywords impacted by a Corporate Action event can be copied from initial to new trade after a price change, by setting a domain value "keywords2CopyUponCA". The trade keywords listed in this domain value are copied to the new trades generated by the CA process only when the CA is applied by Open Trade.

The Following CA MODEL and SUBTYPES are impacted:

CA MODEL: TRANSFORMATION

SUBTYPES: ASSIMILATION, SPLIT, PRICE_CHANGE

The new trades that are linked to original trade via the trade keywords are:

- Same CAReference

- CASource
- Or LiquidableWith

This support is only provided to the Portfolio Swap product.

### 10.1.4 Domain Values Setup

Add the message type "INC_CA" to the domain "messageType".

Add the following values to the domain "incomingType":

- Value = MT564 - Comment = INC_CA
- Value = seev.031 - Comment = INC_CA
- Value = seev.035 - Comment = INC_CA
- Value = seev.039 - Comment = INC_CA
- Value = MT566 - Comment = INC_CA
- Value = seev.036 - Comment = INC_CA
- Value = MT568 - Comment = INC_CA

You can add the following values to the domain "TradeMessageRef":

- Value = MT566_AMOUNT_CONVERTED
- Value = MT566_RATE
- Value = MT566_AMOUNT
- Value = MT566_CURRENCY

They are set as message attributes and trade keywords by the message workflow rule SetTradeMessageRef.

You can use the following values in domain “CAMatching” to specify the number of decimal places:

- Name = CAMatching
- Value = BondRoundingUnit
- Comment = Number of decimal places after dividing by 100

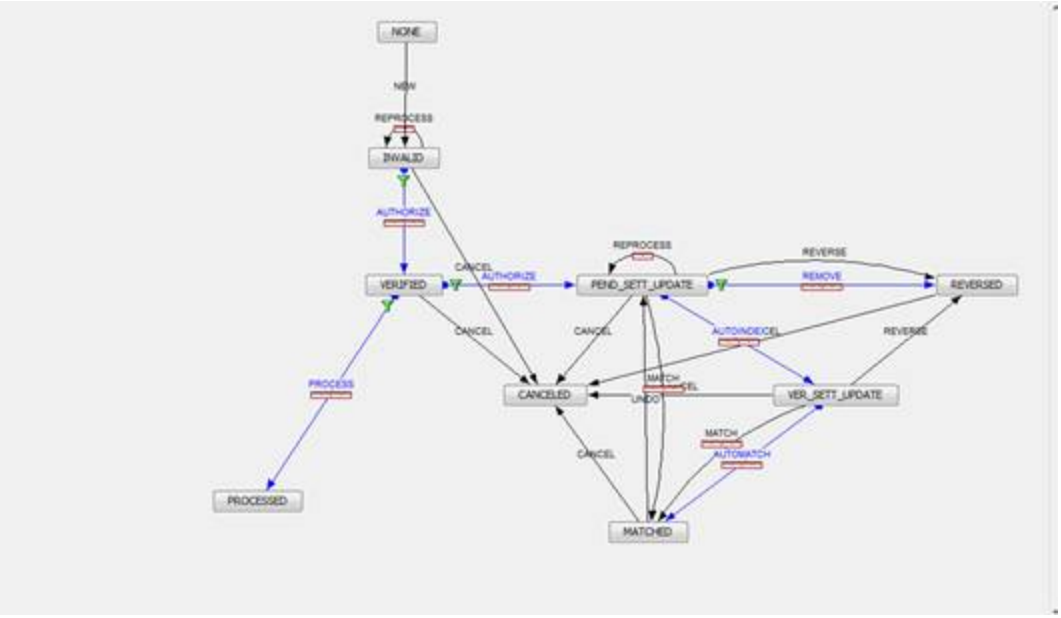
Example:

If Comment = 4, Bond Rate = 33.45% and Swift Rate= 33.4521%, then after dividing by 100, Bond Rate = Swift Rate = 0.3345.

### 10.1.5 Workflow Setup

#### *Message Workflow*

Create the message workflow for the message subtype INC_CA.




| Orig Status | Action | Resulting Status | Use STP | Rules | Filter |
|---|---|---|---|---|---|
| INVALID | AUTHORIZE | VERIFIED | true | CheckIncomingFormat | MT566 |
| INVALID | CANCEL | CANCELED | false | | |
| INVALID | REPROCESS | INVALID | false | ReprocessIncoming | |
| MATCHED | UNDO | PEND_SETT_ UPDATE | false | | |
| NONE | NEW | INVALID | false | | |
| PEND_SETT_ UPDATE | AUTOINDEX | VER_SETT_ UPDATE | true | SetXferMessageRef | |
| PEND_SETT_ UPDATE | MATCH | MATCHED | false | MatchIncomingSecurity | |
| PEND_SETT_ UPDATE | REMOVE | REVERSED | true | ReverseLinkedMessage | REVR Messages |
| PEND_SETT_ UPDATE | REPROCESS | PEND_SETT_ UPDATE | false | ReprocessIncoming | |

| Orig Status | Action | Resulting Status | Use STP | Rules | Filter |
|---|---|---|---|---|---|
| PEND_SETT_ UPDATE | REVERSE | REVERSED | false | | |
| PEND_SETT_ UPDATE | RETRY | CANCELED | false | RegenerateIncoming | |
| VERIFIED | AUTHORIZE | PEND_SETT_ UPDATE | true | CheckIncomingProcess | MT566 |
| VERIFIED | CANCEL | CANCELED | false | | |
| VERIFIED | UPDATE | PROCESSED | true | SetTradeMessageRef | MT566 |
| VERIFIED | PROCESS | PROCESSED | true | CheckIncomingProcess | MT564 |
| VERIFIED | RETRY | CANCELED | false | RegenerateIncoming | |
| VER_SETT_ UPDATE | AUTOMATCH | MATCHED | true | MatchIncomingSecurity | |
| VER_SETT_ UPDATE | MATCH<br>Applied from the Security Matching window | MATCHED | false | MatchIncomingSecurity | |
| VER_SETT_ UPDATE | REVERSE | REVERSED | false | | |

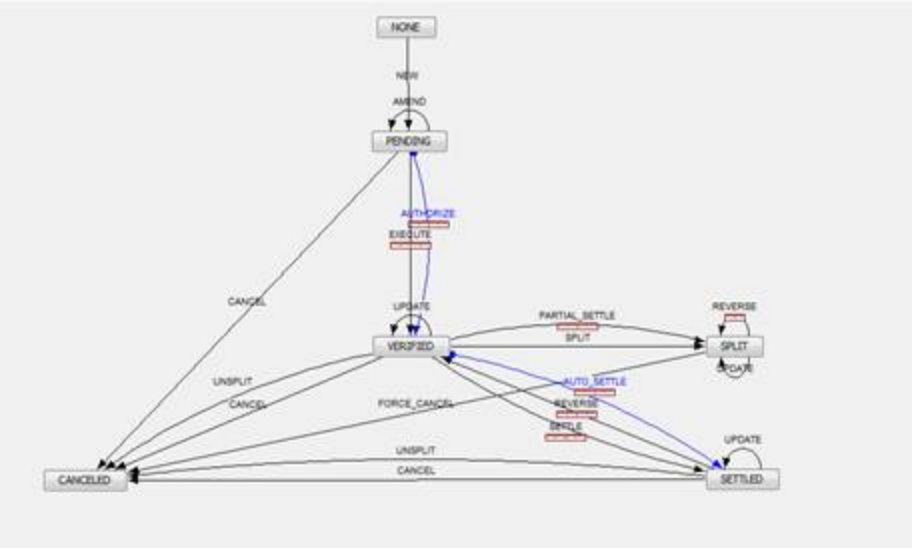
Rules description - They may need to be added to the domain "workflowRuleMessage":

- CheckIncomingFormat - Only applies if environment property VALIDATE_SWIFT_FORMAT is true - During the MT56x integration process, the attribute "Format Issue" is set on the message with invalid format. This workflow rule returns true if the attribute "Format Issue" is empty, or false otherwise.
- CheckIncomingProcess - Only applies if environment property VALIDATE_SWIFT_FORMAT is true - During the integration, the attribute "Process Issue" is set on the message if the incoming message cannot be processed (cannot generate/update a corporate action). This workflow rule returns true if the attribute "Process Issue" is empty, or false otherwise.
- ReprocessIncoming - Rule to reprocess a message. Let suppose a reference data is missing in the system. The MT56x will stay in "INVALID" status. After fixing the missing reference data you can use the REPROCESS action to execute the ReprocessIncoming rule and reprocess the message.
- ReverseLinkedMessage rule is used to apply the action REVERSE on the linked message in case MT566 REVR is matched.
- SetXferMessageRef rule is used to store the message id as transfer attribute when incoming MT566 is successfully indexed. Action UPDATE must be available.
- RegenerateIncoming - Rule to produce an event PSEventReProcessMessage that is consumed by the Import Message engine to regenerate the incoming message.

You need to add PSEventReProcessMessage to the domain eventClass. It needs to be consumed by the Import Message engine. If the Import Message engine is only used to process those types of events, you can run it with the engine parameter “config = noconfig”.

- SetTradeMessageRef - Sets the message keywords defined in domain "TradeMessageRef" as trade keywords on CA trades.

### *Transfer Workflow*




| Orig Status | Action | Resulting Status | Use STP | Rules |
|---|---|---|---|---|
| NONE | NEW | PENDING | false | |
| PENDING | AMEND | PENDING | false | |
| PENDING | AUTHORIZE | VERIFIED | true | CheckNetting |
| PENDING | CANCEL | CANCELED | false | |
| PENDING | EXECUTE | VERIFIED | false | SetKnownFlag |
| SETTLED | REVERSE | VERIFIED | false | UpdateCAAdjustBookLinkedXfer, UpdateCASecurityLinkedXfer |
| SETTLED | UNSPLIT | CANCELED | false | |
| SETTLED | UPDATE | SETTLED | false | |
| SPLIT | REVERSE | SPLIT | false | UpdateCAAdjustBookLinkedXfer, UpdateCASecurityLinkedXfer, UnSplitXfer |
| SPLIT | UPDATE | SPLIT | false | |
| VERIFIED | AUTO_ | SETTLED | true | CheckToBeSettled, UpdateCAAdjustBookLinkedXfer, |

| Orig Status | Action | Resulting Status | Use STP | Rules |
|---|---|---|---|---|
| | SETTLE | | | UpdateCASecurityLinkedXfer |
| VERIFIED | CAMCEL | CANCELED | false | |
| VERIFIED | PARTIAL_ SETTLE | SPLIT | false | UpdateCAAdjustBookLinkedXfer, UpdateCASecurityLinkedXfer |
| VERIFIED | SETTLE | SETTLED | false | UpdateCAAdjustBookLinkedXfer, UpdateCASecurityLinkedXfer, CheckToBeSettled, UpdateINDEVALLinkedXfer |
| VERIFIED | SPLIT | SPLIT | false | |
| VERIFIED | UNSPLIT | CANCELED | false | |
| VERIFIED | UPDATE | VERIFIED | false | |

Rules description - They may need to be added to the domain "workflowRuleTransfer":

- UpdateCAAdjustBookLinkedXfer - Used to apply the same action (SETTLE or REVERSE in this transfer workflow) on transfers attached to the trading books trades.
- UpdateCASecurityLinkedXfer- Used to apply the same action on security transfer of the CAAdjustBook. Thus the security transfer is automatically SETTLED (or CANCELED in case of REVR) once a MT566 is matched with the cash CA transfer.
- UnSplitXfer - Used to REVERSE the transfers coming from a PARTIAL_SETTLE in case REVR MT566 is matched.
- UpdateINDEVALLinkedXfer - Used to apply the SETTLE action on transfers coming from CA trades with Agent INDEVAL.

### 10.1.6 Product Code

The MT56x SWIFT documentation advises to use the product code ISIN as security code.

But in certain case you can find MT56x message using different security codes, for example:

```
:35B:/HK/SR000305
DRAGON HILL WULING
OPEN OFFER
```

We support ISIN, HK, and US. You can add product codes using**Configuration > Product > Code**, and set its value in the Equity Definition.

The logic for retrieving the product ID depends on field 94B.

#### *Field 94B is not provided*

1. Get the ISIN (field 35B code Word ISIN).

- If there is only one product id in Calypso for this ISIN return the product id for the matching
- If there is no product id return an error: “No security found for ISIN <ISIN>”

2. If there is more than one product id for this ISIN then get the Place of Safekeeping (field 94a code word SAFE) to return the country of deposit (to compare to the trading Country).

- If only one record exists return the product id
- Otherwise add the DENO to the matching key list:
  - If only one record exists return the product Id
  - Otherwise, select the product with product code specified in domain “mt564CustomCode”

#### *Field 94B is provided*

1. Get the trading Country (field 94B code word PLIS). This Place of listing is a MIC (standard code of 4 char in ISO15022 identifying an exchange). From the MIC (stored under the Legal Entity attribute MIC) return the country of the MarketPlace and compare it to the Trading Exchange of the product Id matching the ISIN.

- If only one record (product Id) remains, use this product id for matching

2. Otherwise, get the denomination currency (field 11A code word DENO) and compare it to the product currency.

- For all product id matched per ISIN + Trading Country, if with the currency only one record remains, return the product id
- Otherwise, select the product with product code specified in domain “mt564CustomCode”

### 10.1.7 Additional Setup for Bonds

#### *Nostro Accounts*

On the Nostro accounts, you need to set the account attribute "XferAgentAccount" to the safekeeping account number (TAG :97A::SAFE// of the MT56X) so that the proper Nostro account and corresponding SDIs can be retrieved.

If several accounts have the same reference (case of AUTO accounts), we also parse the tag 94F to retrieve the country of the custodian to be mapped with the account attribute "SubcustodianISO".

The safekeeping account number is stored in the CA Agent Details upon integration, and in the CA trade keyword "CAAgentAccountId".

#### *Cash Accounts*

On the Cash accounts, you need to set the account attribute "XferAgentAccount" to the cash account number (97A::CASH in the sub-sequence E2 CASHMOVE-optional) so that the proper Cash account and corresponding SDIs can be retrieved.

The cash account number is stored in the CA Agent Details upon integration, and in the CA trade keyword "CAAgentCashAccountId".

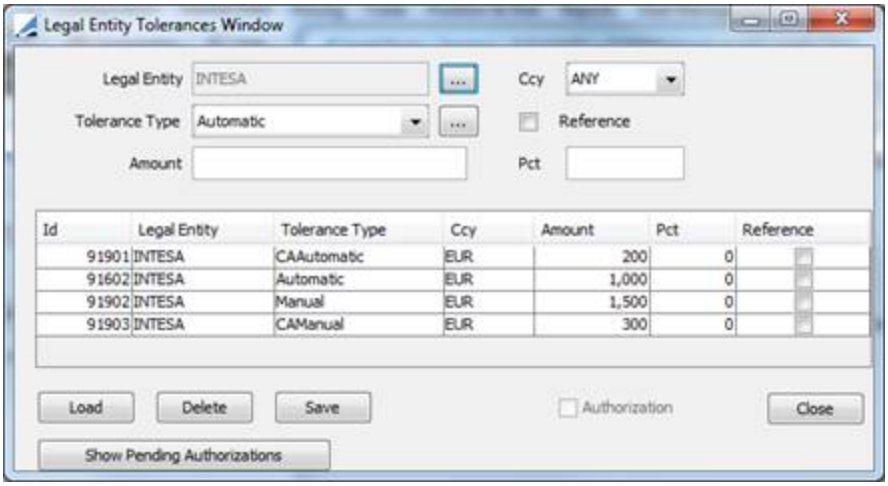
### CAAdjustBook Definition

MT566 must be matched with a global transfer that represents the amount settled with the agent. To do so, the system generates an additional CA trade on a CAAdjustBook.

Define the adjustment book, and set the adjustment book in the book attribute "CAAdjustBook" of all trading books.

### Legal Entity Tolerance

Tolerance can be defined at sub-custodian, Agent or PO level (to be retrieved in this order). It can be an absolute (ccy is mandatory in that case) or relative amount. The Legal Entity Tolerance Window can be reached from the Legal Entity window.




Two types of tolerance are necessary:

- CAAutomatic: case where the amount difference is acceptable and transfer should be matched automatically when processing the incoming MT566.
- CAManual: case where the amount difference is not acceptable for automatic matching but acceptable for Manual matching (from the Security Matching window).

In both cases, the system will apply the action PARTIAL_SETTLE on the transfer. The action SETTLE is applied on transfers attached to all "trading book" CA trades but settle amount is not updated. Settle date should still reflect the real settle date on these underlying transfers. The action MATCH is applied on the MT566.

### Matching Criteria for MT564 and MT566

Matching criteria for those messages are defined in the CA Matcher window (menu action `refdata.CAMatcherConfigWindow`).


CA Matcher Config

Type here to filter table content

| Id | Swift Code | Priority | CAMatch.MT564 | CAMatch.MT566 |
|---|---|---|---|---|
| 1 | INTR: Interest Payment | 0 | Ex_Date; Fixed_Rate; Payment_Date; Period_Rate; Record_Date | Ex_Date; Fixed_Rate; Payment_Date; Period_Rate; Record_Date |
| 2 | MCAL: Full Call/ Early Redemption | 0 | Ex_Date; Payment_Date | Ex_Date; Payment_Date |
| 4 | PINK: Pay In Kind | 0 | Ex_Date; Payment_Date; Record_Date | Ex_Date; Payment_Date; Record_Date |
| 5 | PRED: Partial Redemption Without Reduction of Nomin... | 0 | Ex_Date; New_Pool_Factor; Payment_Date; Previous_Pool_Factor... | Ex_Date; New_Pool_Factor; Payment_Date; Previous_Pool_Factor; Record_Date |
| 6 | REDM: Final Maturity | 0 | Ex_Date; Payment_Date; Redemption_Price | Ex_Date; Payment_Date; Redemption_Price |
| 7 | CONV: Conversion | 0 | Ex_Date; Record_Date; Payment_Date; Redemption_Price | Ex_Date; Record_Date; Payment_Date; Redemption_Price |
| 1,001 | PCAL: Partial Redemption With Reduction of Nominal V... | 0 | Record_Date; Payment_Date; New Face Value; Previous Face Value | Previous Face Value; New Face Value; Record_Date; Payment_Date |

It is mandatory to define at least the default date for each Swift Code.

## 10.2 Integration Process

The scheduled task MESSAGE_MATCHING is used to integrate MT56x messages into the system, process them and create CA events.

### *Attributes*

- Swift Message Delimiter - Message delimiter: {:5}.
- Swift File Name - Name of the ."TXT" file to process.
- InputDir - Location of the file - Example: C:\calypso\swiftmessages\
- File Rename - True or false - If true the file is renamed after processing, or not renamed otherwise.
- Gateway - Not used.
- ExternalMessageType - Not used.

seev.031 messages are integrated based on main tag <CorpActnNtfctn>

seev.035 messages are integrated based on main tag <CorpActnMvmntPrlimryAdvc>

seev.039 messages are integrated based on main tag <CorpActnCxlAdvc>

### *Record Date and Ex-Dividend Date*

If the record date is missing (:98A::RDTE//), the date contained in the field :98C::RDDT// in Sequence E Corporate Action Options (:16R:CAOPTN) is used to set the record date.

If there is no ex-dividend date (:98A::XDTE//), then the record date (:98A::RDTE//) is used to populate the ex-dividend date.

If both:98C::RDDT// and :98A::RDTE// are missing, the user will add the record date manually in the CA product making the CA option status = MANUAL.

### 10.2.1 Integration of Equity Corporate Actions

### *MT564 Notification Workflow*

The system receives a MT564 and checks if there is an existing CA event with a "CAReference" equal to the MT564 Reference (tag 20C::CORP).

The CAReference already exists:

If the message is complete (tag 25D::PROC = COMP):

- A new message is saved with the SWIFT message as advice document
- The existing CA event is updated with Swift MT564 information
- Agent information is populated into the Corporate Action - Agent tab
- The message is linked to the existing CA event

If the message is not complete (tag 25D::PROC <> COMP)

- A new message is saved with the SWIFT message as advice document
- The existing CA event is NOT updated
- The message is linked to the existing CA event

The CAReference does not exist:

The system checks if there is an existing CA event with:

- An agent reference equal to the Swift message agent reference (tag 20C::SEM)
- A CA Swift Code equal to the swift message event code (tag CAEV)
- A CA ex date equal to the Swift message ex date (tag 98A::XDTE)

If so, it is the same process as when the CAReference already exists.

If not:

- A new message is saved with the Swift message as advice document
- A new CA event is saved using the Swift message information
- Agent information is populated into the Corporate Action - Agent tab
- The message is linked to the new CA event

When receiving the MT564 with field :23G:NEWM/COPY, the system updates the CA product with “Function of the Message”.

### *MT566 Confirmation and MT568 Narrative Workflow*

The system receives a MT566 / MT568 and checks if there is a CA event with a "CAReference" equal to the MT566-MT568 Reference (tag 20C::CORP).

The CAReference already exists:

- A new message is saved with the Swift message as advice document
- The message is linked to the existing CA event

The CAReference does not exist:

The system checks if there is an existing CA event with:

- An agent reference equal to the Swift message agent reference (tag 20C::SEM)
- A CA Swift Code equal to the Swift message event code (tag CAEV)
- A CA ex date equal to the Swift message ex date (tag 98A::XDTE)

If so, it is the same process as when the CAReference already exists.

If not:

- A new message is saved with the Swift message as advice document
- An exception task is generated to mention that the message is not linked to any CA event.

If field :20C::MITI// exists, it is saved in message attribute T2S_Ref.

### 10.2.2 Sample DVCA MT564 Notification

#### *Swift Message*

*{1:F01HKMAHKHHAXXX6354508519}{2:O5641555101208CITIHKHXBXXX599545359910120723 55N}{4:*

*:16R:GENL*

*:20C::CORP//39034104131*

*:20C::SEME//HK1034104133*

*:23G:NEWM*

*:22F::CAEV//DVCA*

*:22F::CAMV//MAND*

*:98C::PREP//20101207222107*

*:25D::PROC//COMP*

*:16S:GENL*

*:16R:USECU*

*:35B:ISIN BMG6873Y1176*

*PAK FAH YEOW INTL*

*HKD0.05*

*:16R:FIA*

*:94B::PLIS//EXCH/XHKG*

*:16S:FIA*

*:16R:ACCTINFO*

*:97A::SAFE//12345*

*:93B::TRAD//UNIT/1,*

*:16S:ACCTINFO*

*:16S:USECU*

*:16R:CADETL*

*:98A::RDTE//20110103*

*:98A::XDTE//20101230*

*:22F::DIVI//INTE*

*:16S:CADETL*

*:16R:CAOPTN*

*:13A::CAON//001*

*:22F::CAOP//CASH*

*:17B::DFLT//Y*

*:92F::GRSS//HKD0,019*

*:16R:CASHMOVE*

*:22H::CRDB//CRED*

*:98A::PAYD//20110201*

*:16S:CASHMOVE*

*:16S:CAOPTN*

*:16R:ADDINFO*

*:95P::MEOR//CITIHKHX*

*:16S:ADDINFO*

*-}{:5}*

After processing the above MT564, a message is generated and the incoming message is attached to the message.

Swift Message Window (User: )

Sender CITIHKHXBXXX Receiver HKMAHKHHAXXX Type MT564

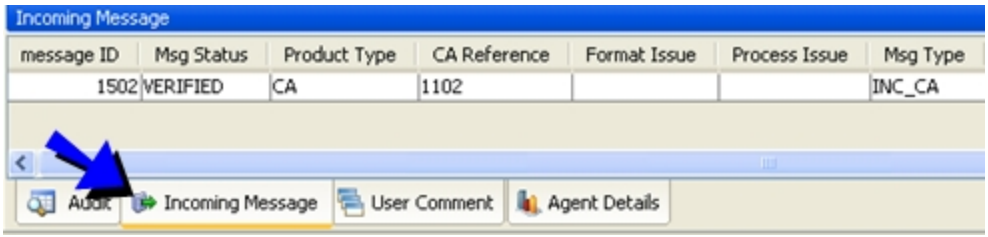
| Field Name | Field TAG | Field Value |
|---|---|---|
| Start Of General Information | :16R: | GENL |
| Corporate Action Reference | :20C: | :CORP//39034104131 |
| Sender's Message Reference | :20C: | :SEME//HK1034104133 |
| Function of the Message | :23G: | NEWM |
| Corporate Action Event Indicator | :22F: | :CAEV//DVCA |
| Mandatory/Voluntary Indicator | :22F: | :CAMV//MAND |
| Preparation Date/Time | :98C: | :PREP//20101207222107 |
| Status Code | :25D: | :PROC//COMP |
| End Of General Information | :16S: | GENL |
| Start Of Underlying Securities | :16R: | USECU |
| Identification Instrument | :35B: | ISIN BMG6873Y1176PAK FAH YEOW INTLHKD0.05 |

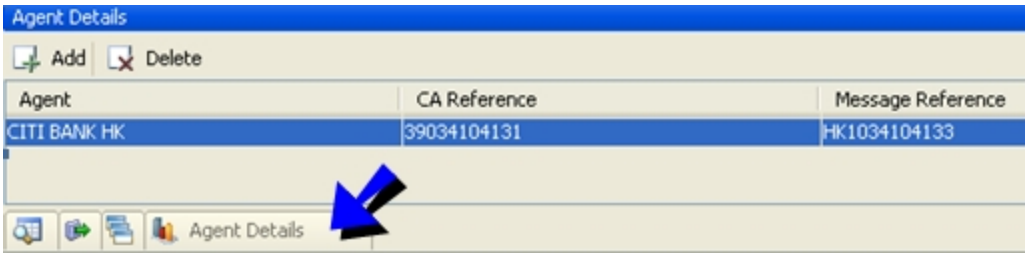
## *DVCA Corporate Action*

Following the integration of the MT564, the following CA event is created and saved.

| Event Definition: Cash Dividend/02/01/2011/Equity.Pak Fah Yeow International Aktie | |
|---|---|
| Deactivated (Booking Not Required) | ☐ |
| Function of the Message | NEWM: New Message |
| Processing Status | COMP: Complete |
| Preparation Date/Time | 12/7/2010 11:21:07 PM |
| Corporate Action | Cash Dividend/02/01/2011/Equity.Pak Fah Yeow International Aktie |
| Underlying Product | Equity.Pak Fah Yeow International Aktie |
| Exchange | NONE |
| Underlying Currency | HKD |
| ISIN | BMG6873Y1176 |
| CA Swift Code | DVCA: Cash Dividend |
| Event Choice | MAND: Mandatory no Option |
| Event Process | Distribution |
| Event Restriction | ☐ |
| **Dates: Ex Date: 12/30/2010 Record Date: 01/03/2011** | |
| Announcement Date | |
| Ex (Effective) Date | 12/30/2010 |
| Is Ex-Date Inclusive | ☐ |
| By Trade Date | ☑ |
| Record Date | 01/03/2011 |
| Is Record Date Inclusive | ☑ |
| Market Deadline | |
| **CASH: CASH 0.019 HKD Pay Date 02/01/2011** | |
| Is Default Option | ☑ |
| CA Option Id | 1102 |
| Option Status | APPLICABLE |
| Option Reference | 001 |
| Swift Event Option | CASH: Cash |
| Model | CASH |
| Subtype | DIVIDEND |
| Amount | 0.019 |
| Currency | HKD |
| Payment Gross Rate | 0.019 |
| Payment Net Rate | |
| Payment Date | 02/01/2011 |

Details on the incoming message can be seen in the Incoming Message panel and Agent panel.




### 10.2.3 Sample Incomplete MT564 Notification

.

#### *Swift Message*

Assume you receive firstly an incomplete MT564 from your agent. In this example the payment date is OPEN

*{1:F01HKMAHKHHAXXX6354508519}{2:O5641555101208CITIHKHXBXXX599545359910120723555N}{4:*

*:16R:GENL*

*:20C::CORP//39034104131*

*:20C::SEME//HK1034104133*

*:23G:NEWM*

*:22F::CAEV//DVCA*

*:22F::CAMV//MAND*

*:98C::PREP//20101207222107*

*:25D::PROC//PREC*

*:16S:GENL*

*:16R:USECU*

*:35B:ISIN BMG6873Y1176*

*PAK FAH YEOW INTL*

*HKD0.05*

*:16R:FIA*

*:94B::PLIS//EXCH/XHKG*

*:16S:FIA*

*:16R:ACCTINFO*

*:97A::SAFE//12345*

*:93B::TRAD//UNIT/1,*

*:16S:ACCTINFO*

*:16S:USECU*

*:16R:CADETL*

*:98A::RDTE//20110103*

*:98A::XDTE//20101230*

*:22F::DIVI//INTE*

*:16S:CADETL*

*:16R:CAOPTN*

*:13A::CAON//001*

*:22F::CAOP//CASH*

*:17B::DFLT//Y*

*:92F::GRSS//HKD0,019*

*:16R:CASHMOVE*

*:22H::CRDB//CRED*

*:98B::PAYD//OPEN*

*:16S:CASHMOVE*

*:16S:CAOPTN*

*:16R:ADDINFO*

*:95P::MEOR//CITIHKHX*

*:16S:ADDINFO*

*-}{:5}*

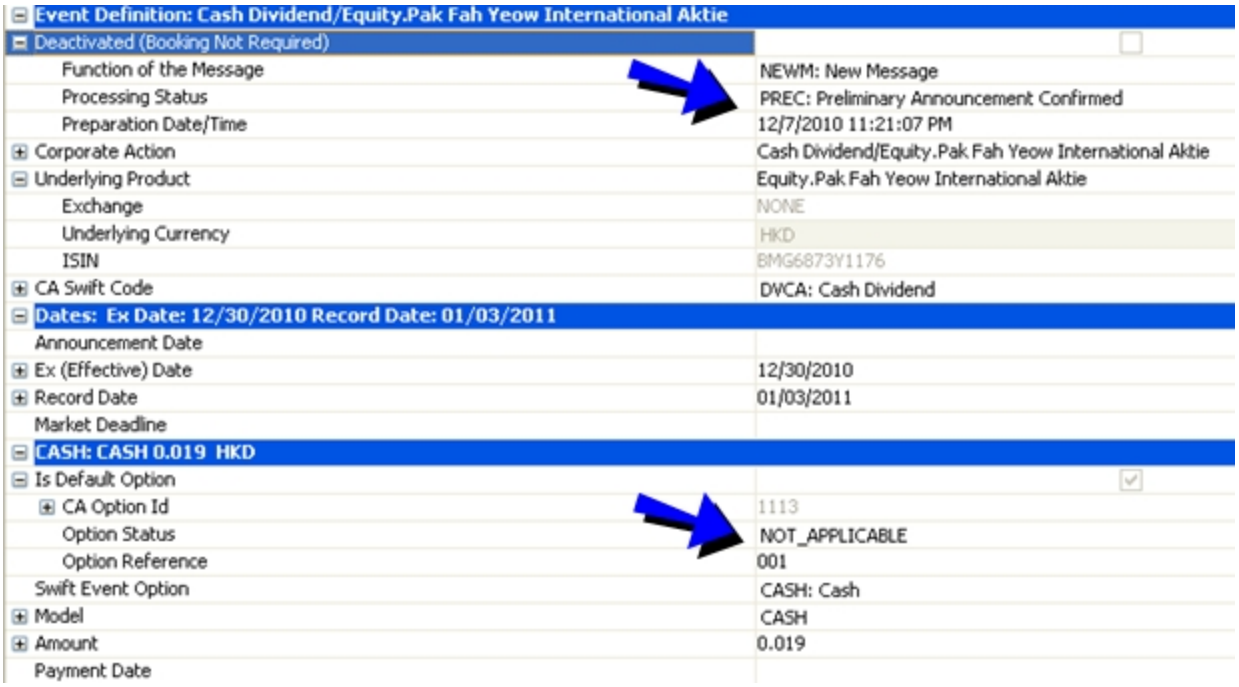
After importing and processing the MT564, a new message is generated and the incoming message is attached to the message.

### *Corporate Action*

A corporate action is created using the incoming message information.

The corporate action's Processing Status is PREC.

The Option Status is NOT_APPLICABLE because the payment date is missing.



| Event Definition: Cash Dividend/Equity.Pak Fah Yeow International Aktie | |
|---|---|
| Deactivated (Booking Not Required) | |
| Function of the Message | NEWM: New Message |
| Processing Status | PREC: Preliminary Announcement Confirmed |
| Preparation Date/Time | 12/7/2010 11:21:07 PM |
| Corporate Action | Cash Dividend/Equity.Pak Fah Yeow International Aktie |
| Underlying Product | Equity.Pak Fah Yeow International Aktie |
| Exchange | NONE |
| Underlying Currency | HKD |
| ISIN | BMG6873Y1176 |
| CA Swift Code | DVCA: Cash Dividend |
| Dates: Ex Date: 12/30/2010 Record Date: 01/03/2011 | |
| Announcement Date | |
| Ex (Effective) Date | 12/30/2010 |
| Record Date | 01/03/2011 |
| Market Deadline | |
| CASH: CASH 0.019 HKD | |
| Is Default Option | |
| CA Option Id | 1113 |
| Option Status | NOT_APPLICABLE |
| Option Reference | 001 |
| Swift Event Option | CASH: Cash |
| Model | CASH |
| Amount | 0.019 |
| Payment Date | |

A new Swift MT564 is received from the agent, and processed to update the information. A new message is generated and is linked to the existing CA event.

The Processing Status of the CA event moves from PREC to COMP.

The CA event is updated with the payment date.

The Option Status moves from NOT_APPLICABLE to APPLICABLE.

| Event Definition: Cash Dividend/02/01/2011/Equity.Pak Fah Yeow International Aktie | |
|---|---|
| Deactivated (Booking Not Required) | |
| Function of the Message | NEWM: New Message |
| Processing Status | COMP: Complete |
| Preparation Date/Time | 12/7/2010 11:21:07 PM |
| Corporate Action | Cash Dividend/02/01/2011/Equity.Pak Fah Yeow International Aktie |
| Underlying Product | Equity.Pak Fah Yeow International Aktie |
| Exchange | NONE |
| Underlying Currency | HKD |
| ISIN | BMG6873Y1176 |
| CA Swift Code | DVCA: Cash Dividend |
| Dates: Ex Date: 12/30/2010 Record Date: 01/03/2011 | |
| Announcement Date | |
| Ex (Effective) Date | 12/30/2010 |
| Record Date | 01/03/2011 |
| Market Deadline | |
| CASH: CASH 0.019 HKD Pay Date 02/01/2011 | |
| Is Default Option | |
| CA Option Id | 1113 |
| Option Status | APPLICABLE |
| Option Reference | 001 |
| Swift Event Option | CASH: Cash |
| Model | CASH |
| Amount | 0.019 |
| Payment Date | 02/01/2011 |

### 10.2.4 Sample MT566 Confirmation

#### *Swift Message*

The system receives a MT566 confirmation.

*{1:F01HKMAHKHHAXXX6354508519}{2:O5661555101208CITIHKHXBXXX599545359910120723 55N}{4:*

*:16R:GENL*

*:20C::CORP//DIV3437592*

*:20C::SEME//253147817*

*:20C::COAF// BI01593212345*

*:23G:NEWM*

*:22F::CAEV//DVCA*

*:16R:LINK*

*:13A::LINK//564*

*:20C::PREV//253147815*

*:16S:LINK*

*:16S:GENL*

*:16R:USECU*

*:97A::SAFE//98-0112441-05*

*:35B:ISIN JP3356500003 SHIMA SEIKI MANUFACTURING ORD*

*:93B::ELIG//UNIT/4600,*

*:93B::CONB//UNIT/4600,*

*:16S:USECU*

*:16R:CADETL*

*:98A::XDTE//20100925*

*:98A::RDTE//20101002*

*:98A::PAYD//20101004*

*:16S:CADETL*

*:16R:CACONF*

*:13A::CAON//001*

*:22F::CAOP//CASH*

*:92A::TAXR//15,*

*:16R:CASHMOVE*

*:22H::CRDB//CRED*

*:19B::GRSS//JPY69000,*

*:19B::TAXR//JPY10360,*

*:19B::NETT//JPY58640,*

*:19B::PSTA//JPY58640,*

*:98A::POST//20101004*

*:98A::VALU//20101004*

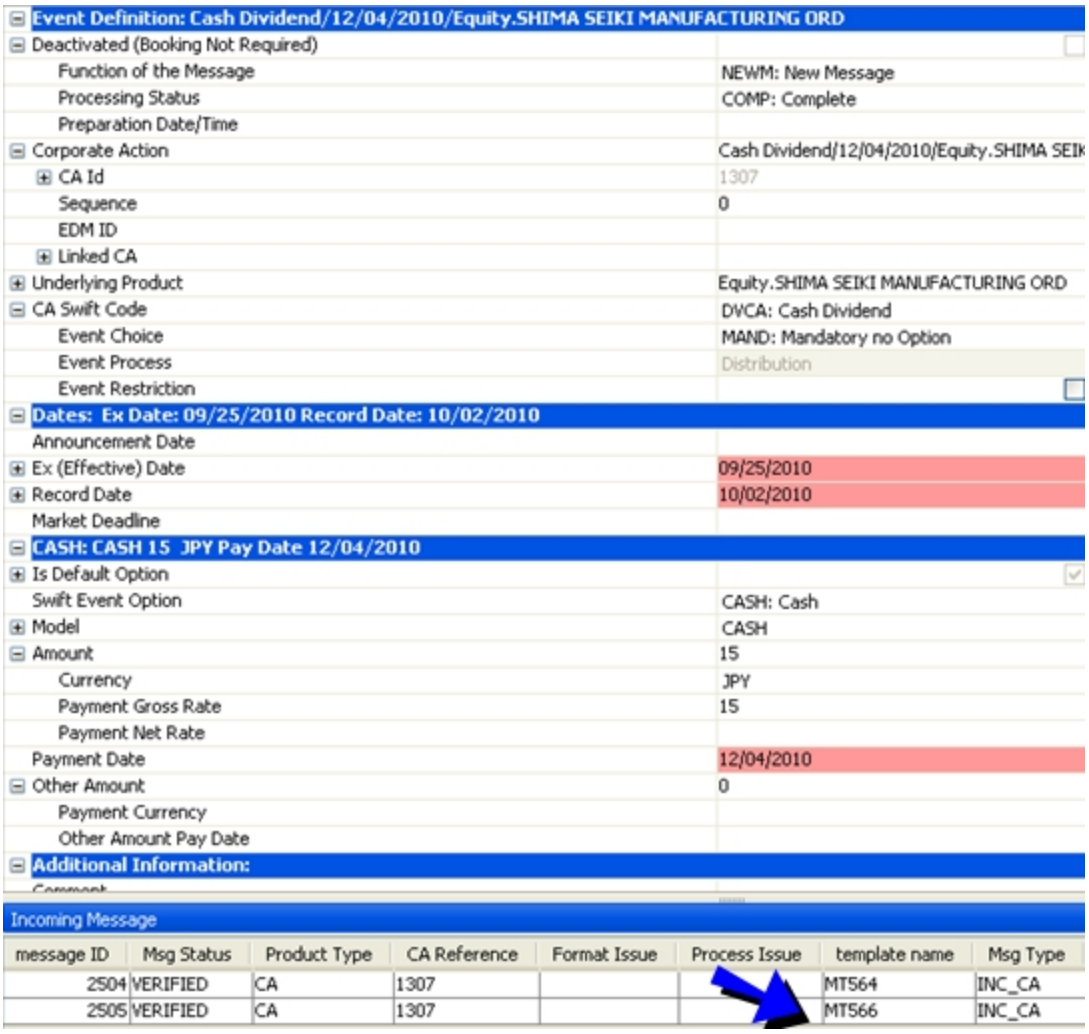
*:16S:CASHMOVE*

*:16S:CACONF*

*-}{:5}*

A new message is created and linked to the existing corporate action event. The tag :20C::CORP//DIV3437592 is used to retrieve the proper corporate action.

### *Corporate Action*



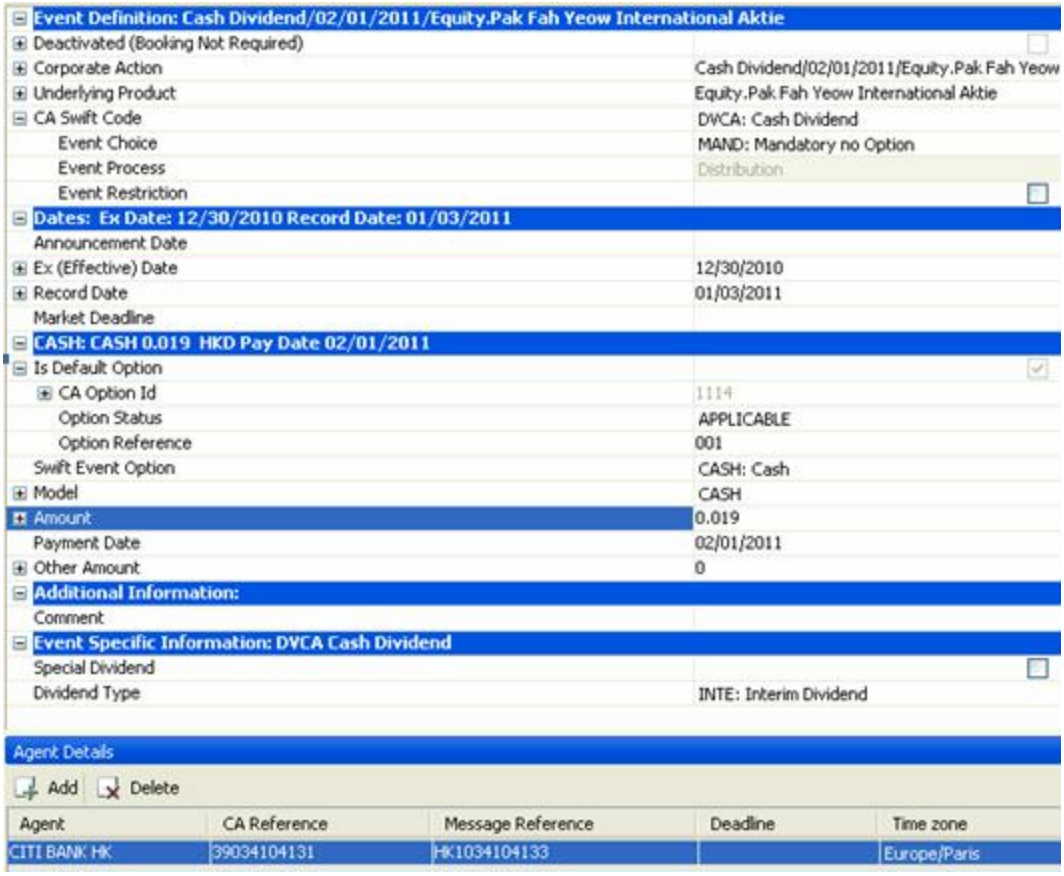
| Event Definition: Cash Dividend/12/04/2010/Equity.SHIMA SEIKI MANUFACTURING ORD | |
|---|---|
| Deactivated (Booking Not Required) | |
| Function of the Message | NEWM: New Message |
| Processing Status | COMP: Complete |
| Preparation Date/Time | |
| Corporate Action | Cash Dividend/12/04/2010/Equity.SHIMA SEIK |
| CA Id | 1307 |
| Sequence | 0 |
| EDM ID | |
| Linked CA | |
| Underlying Product | Equity.SHIMA SEIKI MANUFACTURING ORD |
| CA Swift Code | DVCA: Cash Dividend |
| Event Choice | MAND: Mandatory no Option |
| Event Process | Distribution |
| Event Restriction | |
| **Dates: Ex Date: 09/25/2010 Record Date: 10/02/2010** | |
| Announcement Date | |
| Ex (Effective) Date | 09/25/2010 |
| Record Date | 10/02/2010 |
| Market Deadline | |
| **CASH: CASH 15 JPY Pay Date 12/04/2010** | |
| Is Default Option | |
| Swift Event Option | CASH: Cash |
| Model | CASH |
| Amount | 15 |
| Currency | JPY |
| Payment Gross Rate | 15 |
| Payment Net Rate | |
| Payment Date | 12/04/2010 |
| Other Amount | 0 |
| Payment Currency | |
| Other Amount Pay Date | |
| **Additional Information:** | |

Incoming Message

| message ID | Msg Status | Product Type | CA Reference | Format Issue | Process Issue | template name | Msg Type |
|---|---|---|---|---|---|---|---|
| 2504 | VERIFIED | CA | 1307 | | | MT564 | INC_CA |
| 2505 | VERIFIED | CA | 1307 | | | MT566 | INC_CA |

### 10.2.5 Sample MT568 Narrative

Assume you have the below corporate action event:




Agent CA reference is 39034104131.

## *Swift Message*

The system receives a MT568:

*{1:F01HKMAHKHHAXXX6330508501}{2:O5681400110228CITIHKHXBXXX599045350111022821 00N}{4:*

*:16R:GENL*

*:20C::CORP//39034104131*

*:20C::SEME//HK1034104148*

*:23G:NEWM*

*:22F::CAEV//DVCA*

*:98C::PREP//20101207222107*

*:16R:LINK*

*:22F::LINK//WITH*

*:13A::LINK//564*

*:20C::PREV//HK1034104133*

*:16S:LINK*

*:16S:GENL*

*:16R:USECU*

*:97A::SAFE//12345*

*:35B:ISIN BMG6873Y1176*

*PAK FAH YEOW INTL*

*HKD0.05*

*:16S:USECU*

*:16R:ADDINFO*

*:70F::ADTX//*

*---------- EVENT DETAILS ----------*

*A CASH DIVIDEND HAS BEEN ANNOUNCED FOR THE ABOVE-MENTIONED SECURITY. .*

*INFORMATION PROVIDED IS BASED ON INFORMATION AVAILABLE TO THE CUSTODIAN/CLEARING AGENT. THE CUSTODIAN/CLEARING AGENT DOES NOT WARRANT THAT THE INFORMATION IT HAS RECEIVED IS ACCURATE*

*OR COMPLETE.*

*---------- ACTION TO BE TAKEN ----------*

*FOR INFORMATION ONLY NMSG/END*

*:16S:ADDINFO*

*-}{:5}*

A new message is generated and is automatically linked to the corporate action having an agent CA reference equal to 39034104131.

### *Corporate Action*

Incoming Message

| message ID | Msg Status | Product Type | CA Reference | Format Issue | Process Issue | Msg Type |
|---|---|---|---|---|---|---|
| 1521 | VERIFIED | CA | 1114 | | | INC_CA |
| 1522 | VERIFIED | CA | 1114 | | | INC_CA |

## 10.2.6 Integration of Bond Corporate Actions

### *MT564, MT566 and seev Messages Integration*

The corporate action (CA) process for bonds works in two steps in the system: first the system creates the CA product from the bond cashflows, then the system applies this CA product to the positions (inventory and P&L positions) and creates the CA trades.

The system offers the possibility to:

- Import MT564 messages that are indexed and reconciled to existing CA products
- Import MT566 (NEWM and REVR) messages that are indexed and reconciled to existing CA transfers

When MT56X messages are imported, the system tries to index the incoming messages to existing CAs, using the following logic:

If a MT56X has already been imported for this CA:

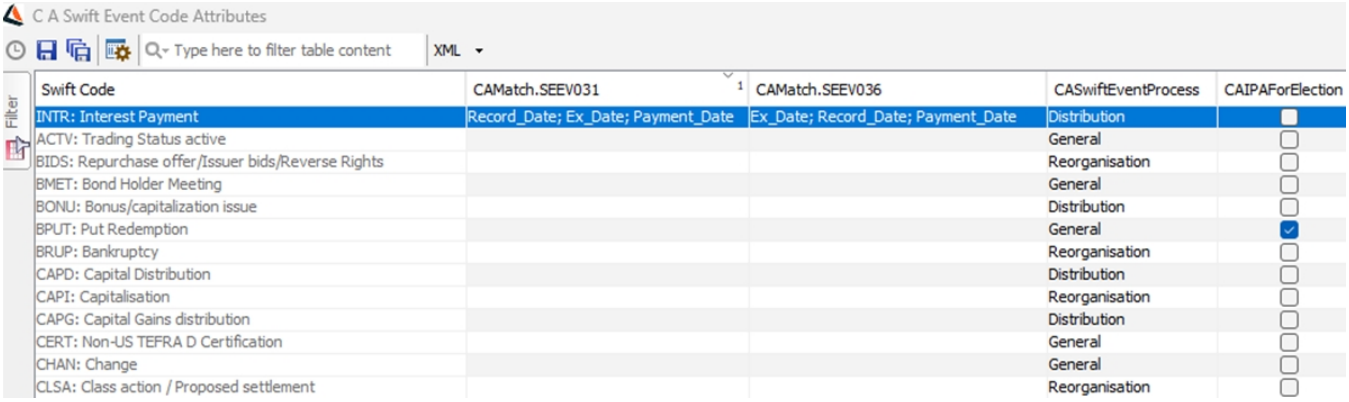
- When a MT56X message is imported, the system stores the CA Id (calypso reference) as a message attribute (CAReference) of the MT56X message. It means that if a MT56X is imported and TAG 20C::RELA is present, the system will retrieve the CA Id from the previously sent MT56X.
- If TAG 20C::RELA is not present, the system can use the CA Agent Reference to link MT56X to a CA Id. The CA AGENT REFERENCE is provided in TAG 20C::CORP of the MT56X. The value of this TAG can be matched with the CA AGENT REFERENCE coming from the Agent details, the agent details being linked to the CA product in calypso.

If a MT56X has not already been imported:

- If the system wasn't able to retrieve the CA product using TAG 20C::RELA or TAG 20C::CORP, then the system will look if a CA exists using several criteria:
  - The ex date (stored on CA product): Content of the field:98A::XDTE// (or 98A::MATU//)
  - CA Bond Model and subtype (stored on CA product): Content of the field 22F::CAEV//
  - ISIN (stored on Bond definition): Content of the field:35B:ISIN

Consistency checks are implemented to make sure the CA is in synch with the MT56X. If a check fails, the MT56X is still indexed to the CA but the MT56X is blocked in the workflow and ab exception is raised. The action REPROCESS with rule ReprocessIncoming can be used once the matching issue is fixed.

The fields to be matched when importing seev messages can be configured in the CASwiftEventCodeAttributes window under **Trade Lifecycle > Corporate Action > CA Swift Event Code** (menu action `product.CASwiftEventCodeAttributesWindow`).


C A Swift Event Code Attributes

Type here to filter table content | XML

| Swift Code | CAMatch.SEEV031 | CAMatch.SEEV036 | CASwiftEventProcess | CAIPAForElection |
|---|---|---|---|---|
| INTR: Interest Payment | Record_Date; Ex_Date; Payment_Date | Ex_Date; Record_Date; Payment_Date | Distribution | ☐ |
| ACTV: Trading Status active | | | General | ☐ |
| BIDS: Repurchase offer/Issuer bids/Reverse Rights | | | Reorganisation | ☐ |
| BMET: Bond Holder Meeting | | | General | ☐ |
| BONU: Bonus/capitalization issue | | | Distribution | ☐ |
| BPUT: Put Redemption | | | General | ☑ |
| BRUP: Bankruptcy | | | Reorganisation | ☐ |
| CAPD: Capital Distribution | | | Distribution | ☐ |
| CAPI: Capitalisation | | | Reorganisation | ☐ |
| CAPG: Capital Gains distribution | | | Distribution | ☐ |
| CERT: Non-US TEFRA D Certification | | | General | ☐ |
| CHAN: Change | | | General | ☐ |
| CLSA: Class action / Proposed settlement | | | Reorganisation | ☐ |

## *MT566 NEWM Indexation to CA Trade/Transfer*

The incoming MT566 is linked to an existing CA trade. The system retrieves a CA trade with the following conditions:

- trade counterparty = SENDER of the message
- trade counterparty role = Agent
- trade status NOT CANCELED
- trading book = CAAdjustBook (NB: the CAAdjustBook book attribute is mandatory and must be unique by PO)
- same CAReference (ie same CA ID)
- same custodian account. Agent account reference is provided in TAG 97A of the MT566 and can be used to retrieve the correspondent Settle Account in the system.

If a unique CA trade is found, the system will index the MT566 to a CA transfer, and apply the action SETTLE or PARTIAL_SETTLE if the amount is within the tolerance amount. The real settle date of the SETTLED transfer is updated with the content of TAG 98a::POST.

If no (or multiple) CA trade is found, the incoming message is indexed to the CA id, but not to the trade id. The user will have to manually match a transfer with the message using the Security Matching window.

## *MT566 REVR Processing*

In case of reversal MT566 (23G = REVR), the system retrieves the previous message reference from TAG 20C::PREV (mandatory as per conditional rule C2 of swift doc) in order to link the reversal with the new MT566 (see field Msg Linked Id).

In case of reverse of perfect match, the system (MatchIncomingSecurity rule) applies the action REVERSE on the SETTLED transfer to move it back to VERIFIED.

In case of reverse of partial settlement (mismatch), the system applies the action REVERSE (rule UnSplitXfer) on the SPLIT transfer. As a consequence the SETTLED/FAILED child transfers are all CANCELED and the system creates a new transfer for the full amount.

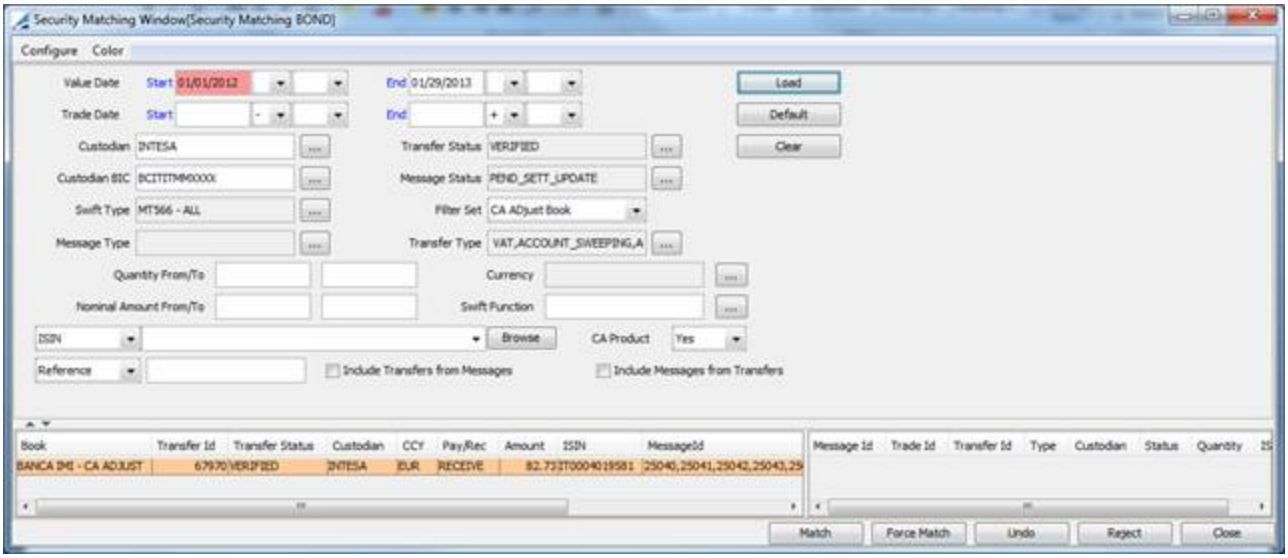
In case previous NEWM MT566 is not indexed to a transfer, the system (rule ReverseLinkedMessage) applies the action REVERSE on the MT566 to move both NEWM and REVR in REVERSED status.

### *Security Matching Window and Manual Match*

In case no eligible trade/transfer was found, the user will have to manually match incoming MT566 with CA transfers.

FilterSet with book = CAAdustBook must be defined to only load relevant transfers.

From the Calypso Navigator, navigate to **Processing > Matching > Security Matching** (menu action `reporting.SecurityMatchingWindow`) to bring up the Security Matching window.




- MATCH button - Within CAManual tolerance: It is possible to define a CAManual tolerance type for manual matching. Manual tolerance can be defined at sub-custodian, Agent or PO level (to be retrieved in this order).
- FORCE MATCH button: The user also has the possibility to force the match of incoming MT566. In that case, the system does not perform any consistency check. The system will apply the action MATCH on the message and SETTLE the selected transfer. The access permission Manual Match must be granted to the user.

### *CONV and PARI MT564 Processing*

MT56x indexation and matching logic with CA product (for CONV and PARI) follows the current process of CA for Bonds.

When the MT564 is received,, if the CA does not exist, the incoming message is stopped by the workflow waiting for the CA to be created.

#### CONV

The conversion is handled on the Bond definition window.

The Convertible Panel must be used to define what would be the eligible target Equity.

Please refer to "Specifying Convertible Bonds" of the Calypso documentation Defining Bond Products to set up the convertible option and generate the related CA.

Notes:

- On the Conversion Schedule panel, the Redemption Date will be the payment date and the Notification Date will be the Ex and the Record dates.
- The field “Exercised?” must be set to Yes
- The Bond Unit and Target Unit define the From and To Ratio

#### PARI

The assimilation is handled on the Bond definition window in the Special Panel.

The Assimilation Prd and the Assimilation Date must be filled in by the user

By default the Assimilation Date is the EX, the record and the payment date. They can be modified in the CA window after initial saving.

### *TEND, BIDS, EXOF and NOOF MT564 Processing*

MT564 indexation to CA product for TEND, BIDS, EXOF and NOOF is a special process.

For these corporate actions, if no previous CA exists for the same event/ex-date/ISIN, the processing of a correct MT564 will issue a creation of a CA product as if it was manually created by an end user.

When MT564 messages are imported, the system tries to index the incoming messages to existing CAs, using the following criteria:

- CA event type
- ISIN
- Ex-Date

If no CA is found then the system creates the CA product and the message is PROCESSED

### *MT566 NEWM Processing*

MT566 are handle by the system depending on the constituent of the message.

### CASHMOV processing

When the MT566 is composed of both Security and Cash or Cash only, the behavior is the same as the one for the standard CA for Bonds (INTEREST, REDEMPTION...).

Only one incoming message is saved, then the system tries to match the cash part (SETTLE or PARTIAL SETTLE) and then applies the same action the SECURITY Xfer of the related CA trade. The Security Matching window can be used to manually match these Xfers.

### SECMOVE processing

When the MT566 is only composed of Security, the system split the MT566 in as many part as SECMOVE part. Several incoming messages are saved, one per ISIN.

The system then tries to perfectly match the number of securities and then apply the SETTLE action on the related Xfer of the CA trade.

### MT566 REVR processing

The processing of the Revert MT566 which includes CASHMOV follows the same principle as standard MT566 for Bonds. For MT566 including SECMOVE the process is manual.

## 10.3 Integration Process for Sub-Accounts

Integration by sub-account is triggered if the sender LE attribute "UseSubBalance" is set to true.

Pre-Requisite configuration: CAAdjustment book per PO, attached to each trading book respectively, using the book attribute CAAdjustBook.

When processing the CA trades on the inventory position, the system creates a CA trade on the aggregated position per proprietary account, representing the sum of the CA trades entitlement per sub-account belonging to this proprietary account.

The incoming MT566 is indexed against the aggregated position per proprietary account.

- Each CA trade against the CAAdjustment book and proprietary account generate transfer (s) to impact inventory position of Agent/Proprietary account/CAAdjustment book
- Each CA trade against the trading book and the sub-accounts generate:
  - Transfers to impact inventory position of Agent/Sub-account/Trading book
  - Transfers in opposite direction to impact inventory position of Agent/Proprietary account/CAAdjustment book

At payment date of each CA, the inventory position of Agent/Proprietary account/CAAdjustment book is null.

The rule CAAdjustBookLinkedXfer applies the same action on the CA trade against the CAAdjustment book to the linked CA trades/transfers against the trading book.

## 10.4 Reconciling Eligible Positions with MT564

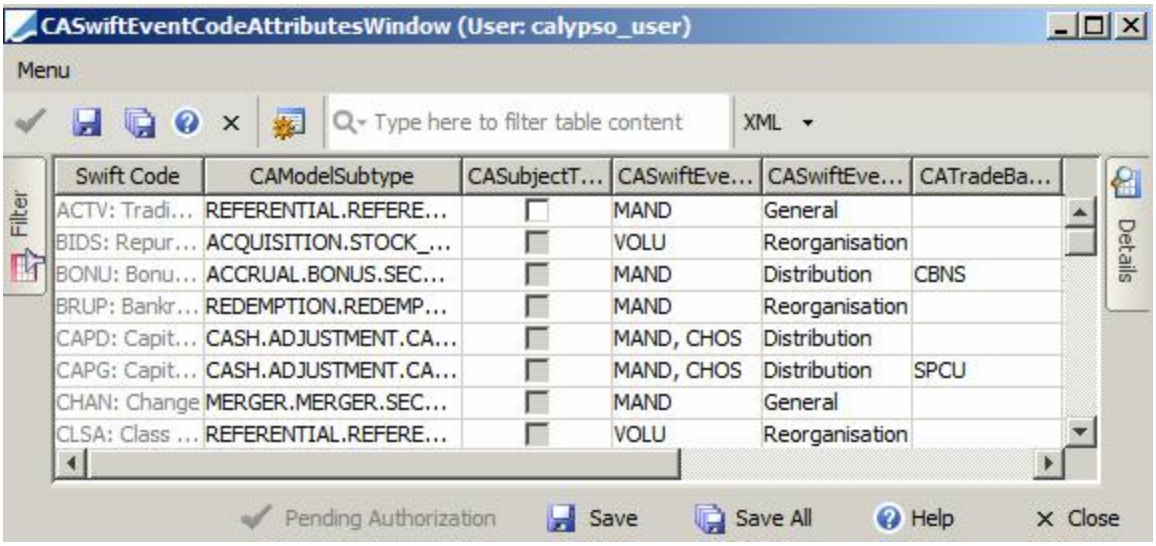
The rule PropagateMT564EligibleQuantity propagates quantity from the message attribute "Eligible", quantity type from the message attribute "EligibleQuantityType" and the incoming message ID. The below list of attributes is required to identify the corresponding CA trade and link them with the incoming MT564 message:

- EligibleQuantityType
- PO_BIC
- Agent_BIC
- SafekeepingPlace
- RelatedMessageReference
- Indicator

This will allow to identify (before Payment Date) any potential discrepancy between the balance provided in the incoming MT564 and the balance recorded, available in the CA Trade Keyword “CAEligibleQuantity” retrieved from Inventory Position, which will reduce the risk of failed settlements when receiving the MT566 on Payment Date.

# 11. Corporate Action Swift Codes

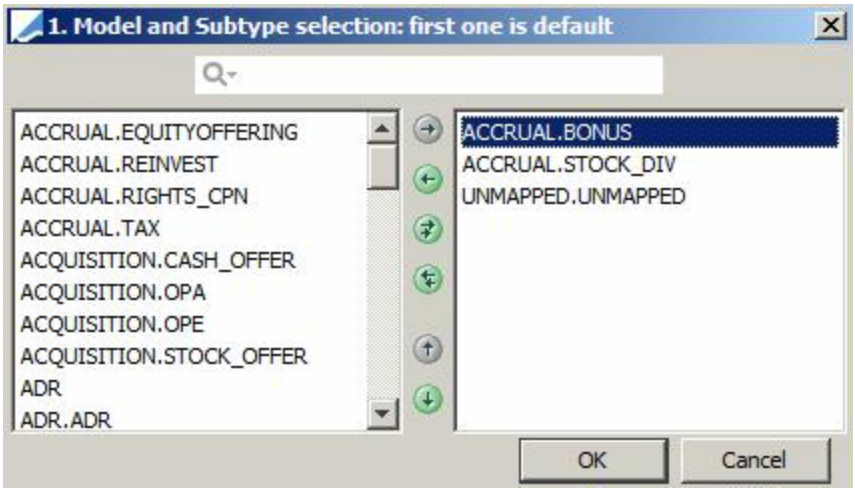
The mapping between Swift Codes and corporate action types can be defined using **Trade Lifecycle > Corporate Action > CA Swift Event Code**.




This table summarizes the CA models/subtypes mapping done per CA SWIFT event code.

It also allows you to add your own mapping as applicable.

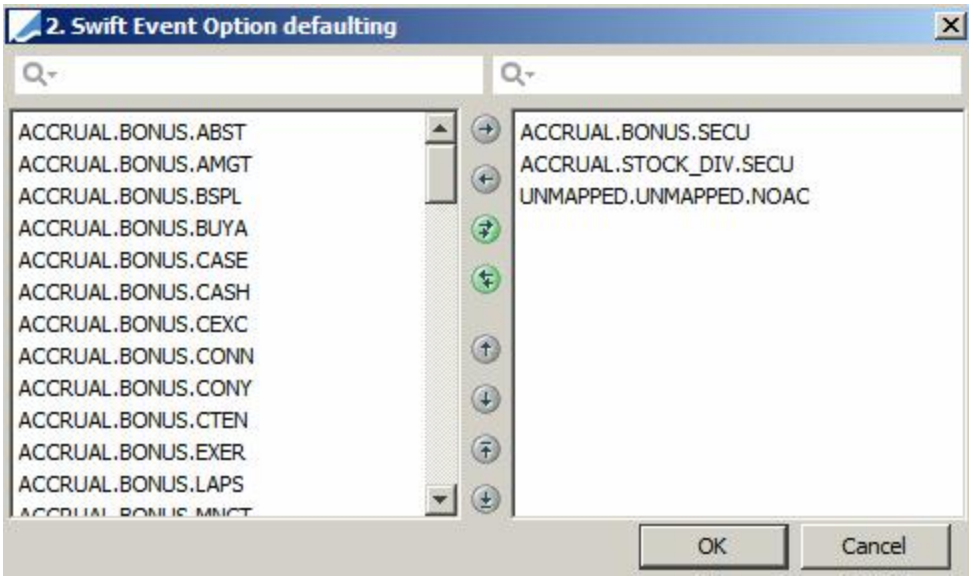
You can double-click the CAModelSubtype field to bring up the model / subtype selection window:




The first model / subtype will be selected by default when the corresponding swift code is selected in the Corporate Action window.

You can move selected model / subtypes up and down, add model / subtypes, and remove model / subtypes.

When you click **OK**, you can then select the Swift Event Option (outcome).

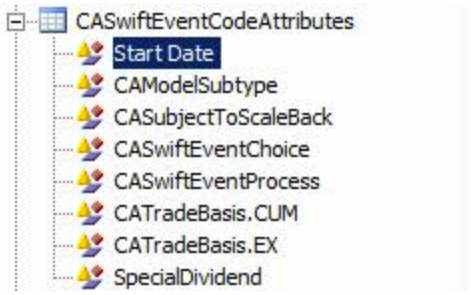



Click **Save** to save your changes, if any.

Note that if the Authorization mode is enabled, an authorized user must approve your entry.

You can click to configure the display.

You can also set default values for the other fields. You can add fields for which you want to set default values by adding them to the domain "CASwiftEventCodeAttributes", and they will appear in this table.




For example, if you add Start Date to the domain "CASwiftEventCodeAttributes", it will appear in this table so that you can give it a default value.

| CASwiftEventProcess | CATradeBasis.CUM | CATradeBasis.EX | SpecialDividend | Start Date |
|---|---|---|---|---|
| General | | | ☐ | |
| Reorganisation | | | ☐ | |
| Distribution | CBNS | XBNS | ☐ | |
| Reorganisation | | | ☐ | |
| Distribution | | | ☐ | |
| Distribution | SPCU | SPEX | ☐ | |

The list of attributes available for customization are defined in the file "CAAttributeDefinition.xsd" located under `<calypso home>/client/resources/com/calypso/tk/product/corporateaction`.

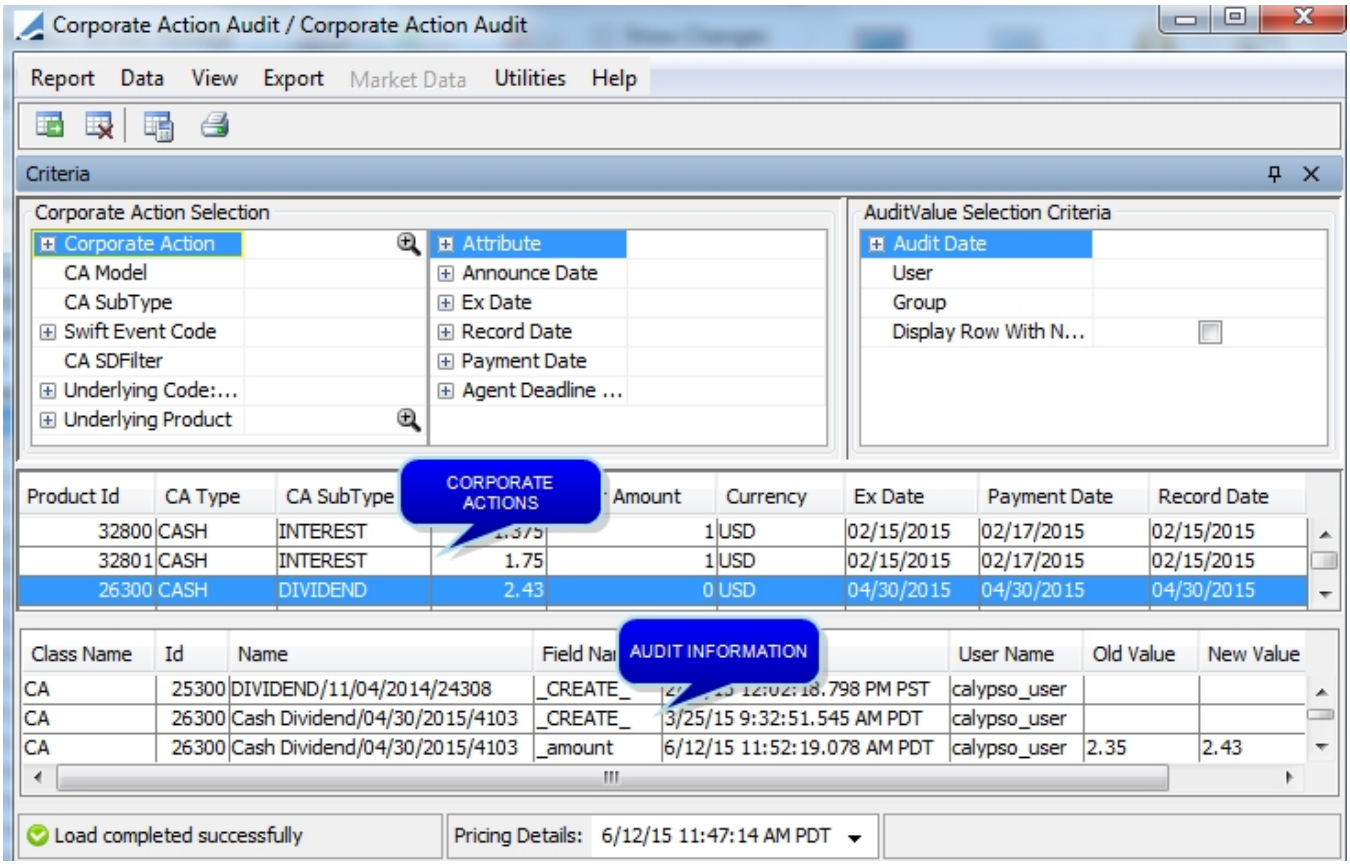
**[NOTE: Changes to resources have to be re-deployed to your application servers. Please refer to the Calypso Installation Guide for details]**

# 12. Corporate Action Audit Report

The Corporate Action Audit report allows viewing audit information for corporate action definitions. It shows the list of selected corporate actions and the corresponding audit information.

For reference, Corporate Actions are defined using **Trade Lifecycle > Corporate Action > Corporate Action**.

From the Calypso Navigator, navigate to **Reports > Audit > CA Audit** (menu action `reporting.ReportWindow$CAAudit`) to bring up the report.




**[NOTE: You can configure the columns. Sort columns, subheadings and subtotals have to be explicitly specified. Choose Help > Menu Items for details]**

- You can change the pricing details at the bottom of the window - By default, the pricing environment comes from the User Defaults, and the valuation date is the current date and time.
- You can check / uncheck **View > Show Frame > Criteria** to display / hide the search criteria.
- Specify search criteria as applicable and click to load the corresponding corporate actions.

  You can specify search criteria to load corporate actions in the "Corporate Action Selection" area.

  You can specify search criteria for audit information in the "AuditValue Selection Criteria" area.

- You can select a template, and click to display the number of objects that will be loaded from the database, before loading the report.
- You can click to print the report results.

  Note that for the Pivot view and the Aggregation view, the print icon is disabled.

  You can use [Ctrl+P] or [Ctrl+L] to print the report, or you can export the report to Excel and print it from there.

The first report shows the selected corporate actions, and the second report shows the corresponding audit information.

You can customize the display of the "Field Name" column in the domain "CAAuditReportField". The value should be the field name (as it appears by default), and the comment should be the display name.

Example: