Nasdaq Calypso

Allocation

Version 18

Revision 1.0

February 2024

Approved

Document History

Revision	Published	Summary of Changes
1.0	February 2024	First revision for version 18.

This document describes the allocation of block trades to books or legal entites.

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1. Allocation Overview

When you capture a block trade on the market on behalf of customers or internal entities, the allocation function allows allocating the block trade to multiple books or legal entities.

When allocating a block trade, child trades are created for each book, book/strategy, or legal entity to which the block trade is allocated. The allocation can be manual, or according to an allocation template. The allocation is performed based on a percentage of the notional amount / quantity of the block trade.

After allocation, all allocation information is available from the block trade, therefore allowing partial allocations and modifications.

The following products support allocation:

- Foreign Exchange: Cash
- Foreign Exchange Derivatives: Standard
- Money Market & Discount Papers: Standard
- Interest Rate Derivatives: Standard
- Credit Derivatives: Standard
- Fixed Income: Standard
- Fixed Income: Repurchase Agreements
- Commodity Precious Metals: Standard
- Commodity Derivatives: Standard
- Equity: Cash
- Equity Derivatives: Standard (except Equity Basket Swap, Correlation Swap and Exotic Note)
- Equity: CFD

For details on the product descriptions, please refer to the Calypso Catalog.

Allocation Quick Reference

- Workflow setup
- Fees setup
- Allocating trades

2. Fees Setup for Allocation

The allocation function supports the allocation of fees to the child trades. They are allocated in the same proportion as the notional.

You can also define automatic fees that are created on the child trades independently from the block trade, as for any new trade in the system.

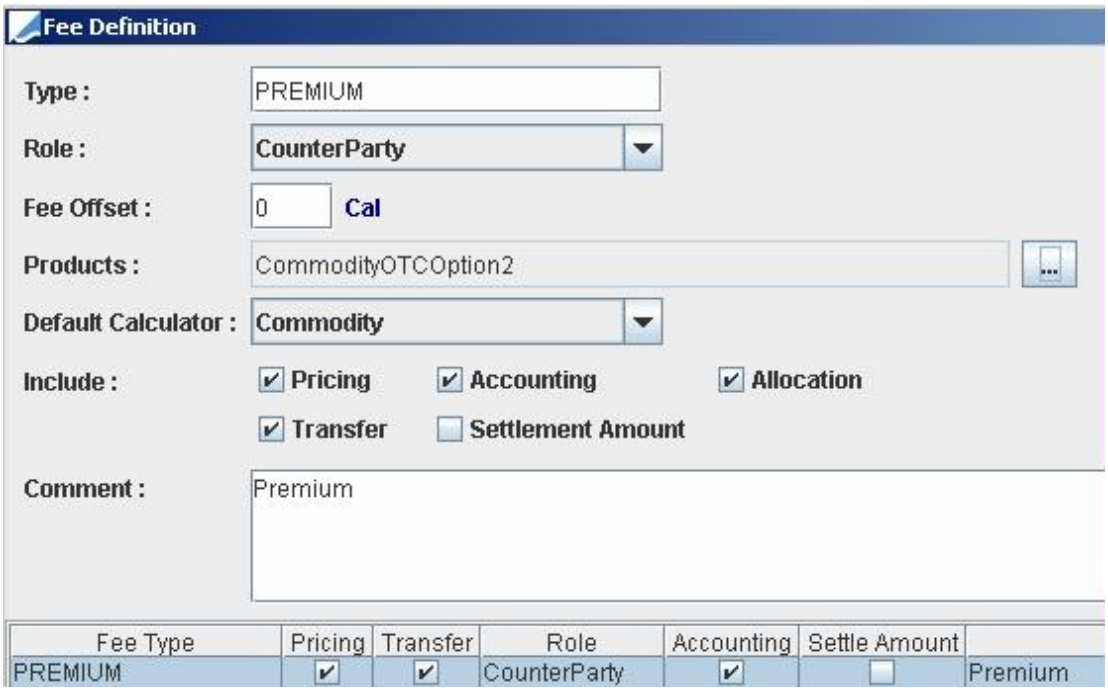
Contents

- Allocating Fees to Child Trades
- Setting Automatic Fees on Child Trades
- Example

2.1 Allocating Fees to Child Trades

In order for a fee to be allocated, the "Allocation" checkbox must be checked on the Fee Definition. Fees that are not marked for Allocation will remain on the block trade.

From the Calypso Navigator, navigate to **Configuration > Fees, Haircuts, & Margin Calls > Fee Definition** (menu action `trading.FeeDefinitionWindow`).



It is recommended to mark the following fees for allocation if you are using the allocation function: PREMIUM, SPOT_MARGIN, FAR_MARGIN, FXOPT_MARGIN, and UPFRONT_FEE.

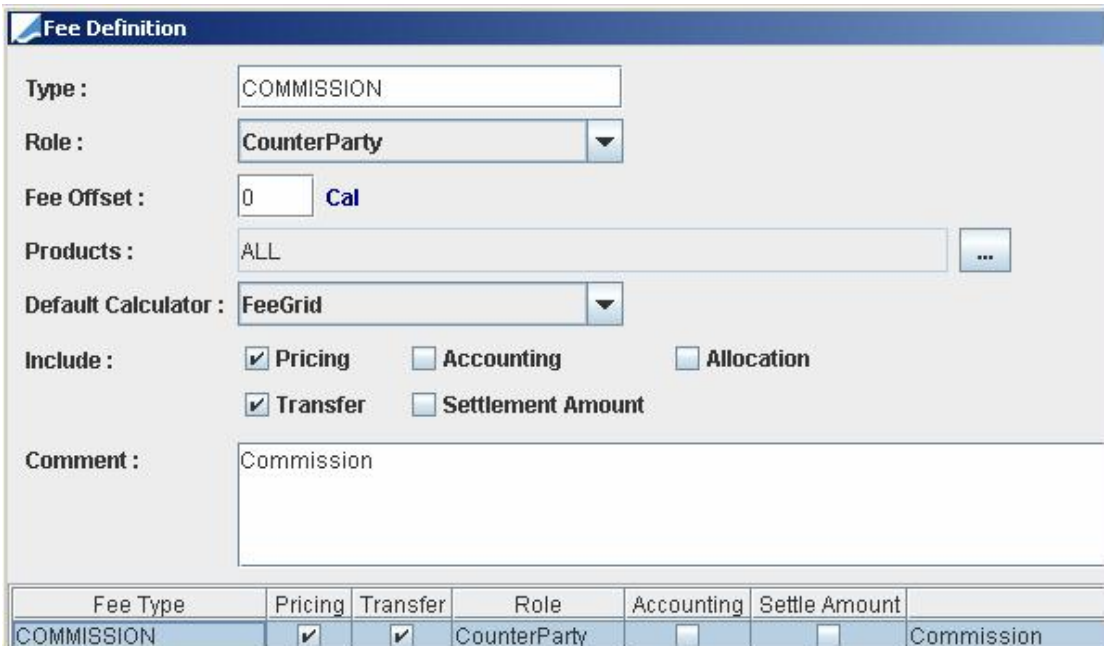
2.1.1 Modification of Allocated Fees

Even though a fee of the block trade has been allocated, the fee is still available for display on the block trade. This allows in particular editing the fees at the block trade level - Modified fees will be propagated to the child trades through the PROPAGATE action (see workflow setup for details).

2.2 Setting Automatic Fees on Child Trades

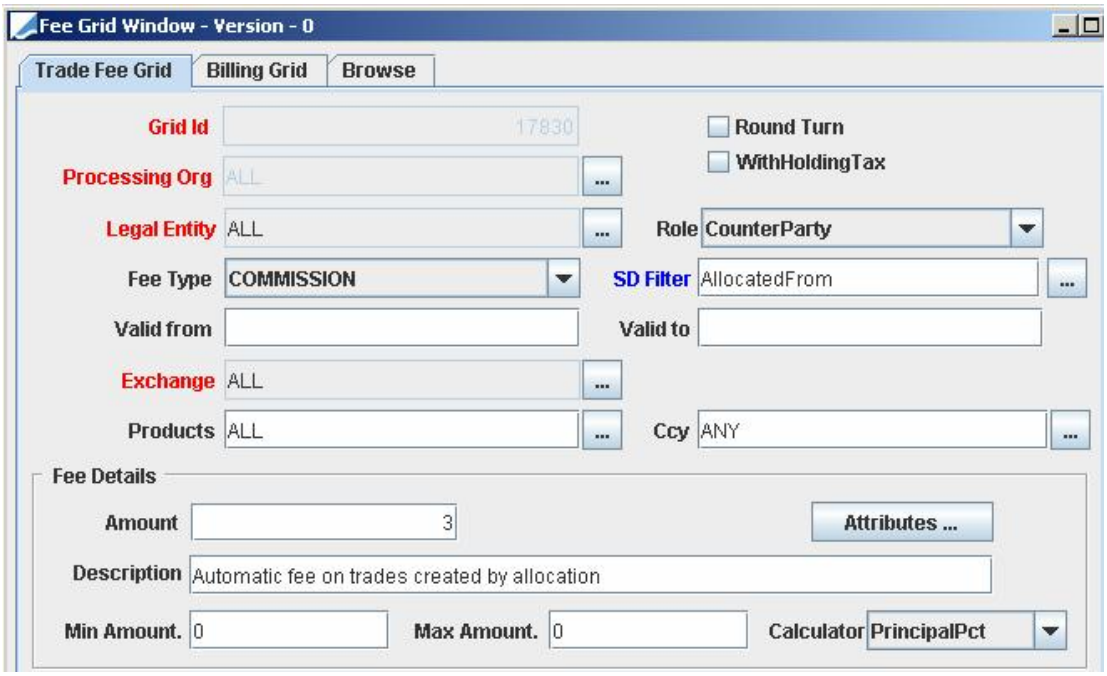
This is a sample setup - You can refer to the Fee documentation for complete details on setting up automatic fees.

From the Calypso Navigator, navigate to **Configuration > Fees, Haircuts, & Margin Calls > Fee Definition** (menu action `trading.FeeDefinitionWindow`), and define a fee not marked for Allocation.



Automatic fees are associated with a fee grid through the FeeGrid calculator - The fee grid defines the circumstances for computing the fee.

From the Calypso Navigator, navigate to **Configuration > Fees, Haircuts, & Margin Calls > Fee Grid** (menu action `refdata.FeeGridWindow`) to define the fee grid.



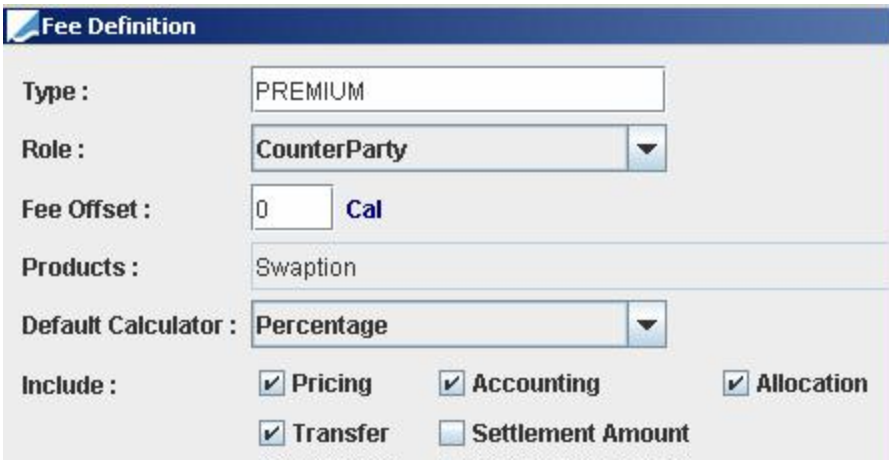
You can use a static data filter based on "KEYWORD.AllocatedFrom = IS_NOT_NULL" to apply the fee to child trades only.

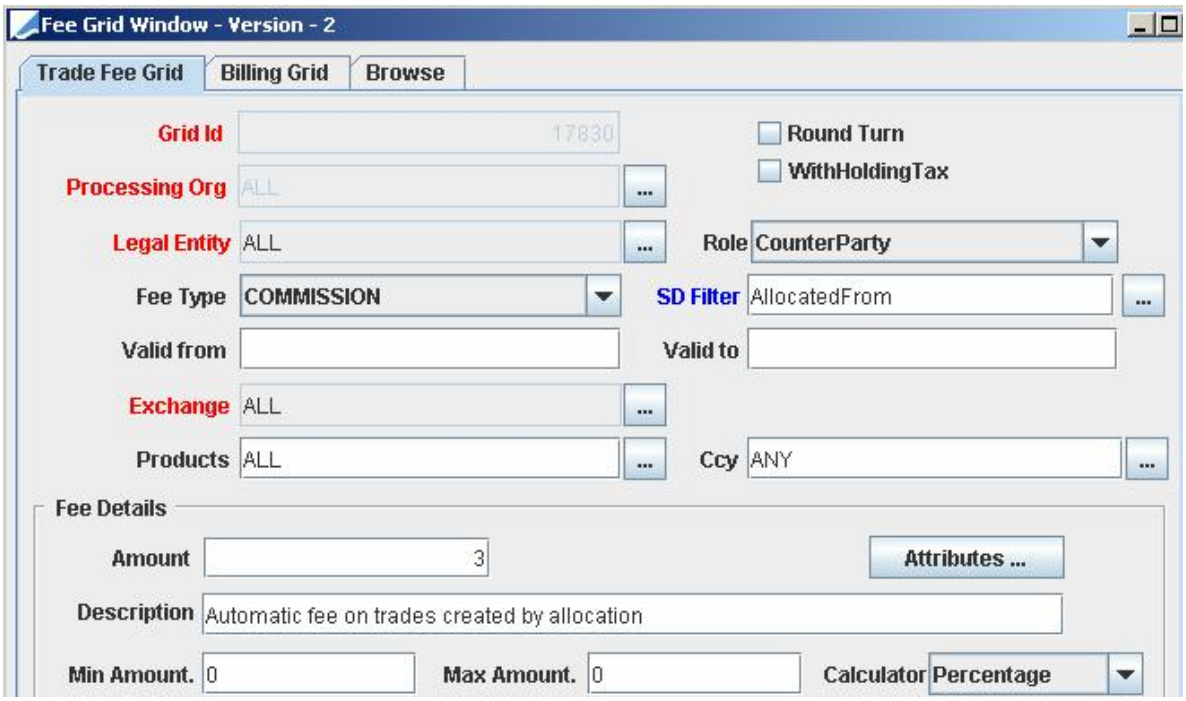
In the trade workflow, add the rule AutomaticFees to the workflow transition NONE - NEW - PRICING, so that the fees will be added to the child trades when they are created.

2.3 Example

In this example, we have a PREMIUM fee that is allocated to the child trades, and a commission that is automatically computed on the child trades.

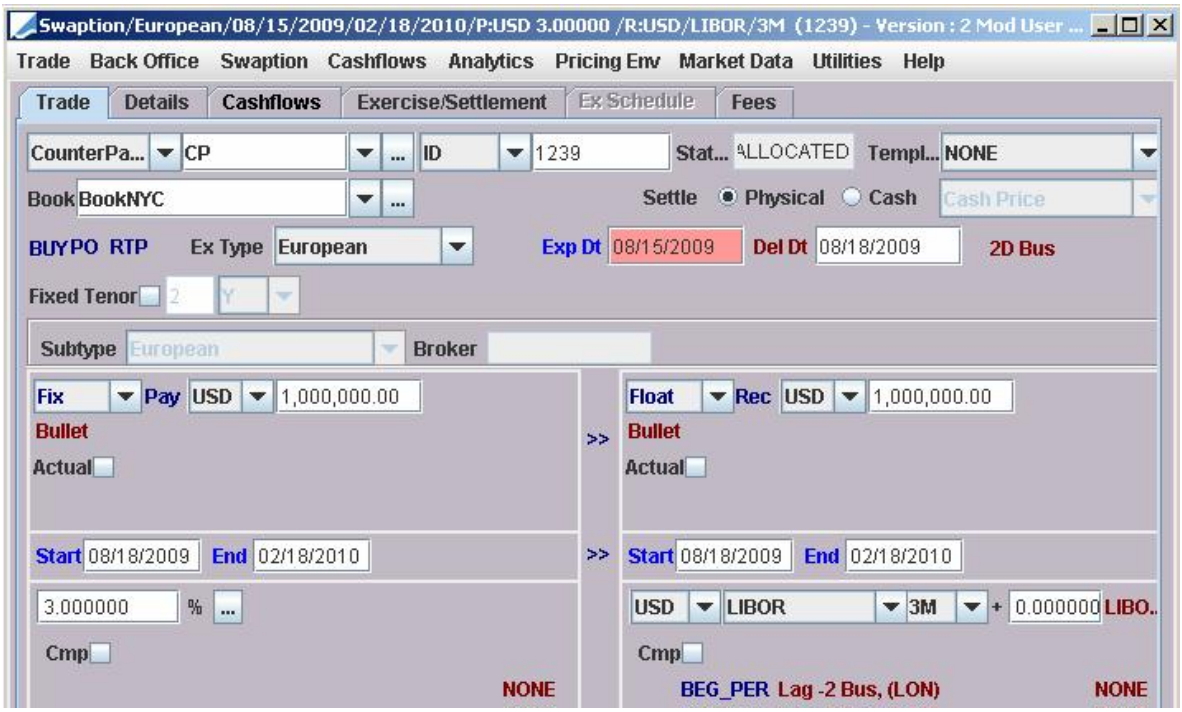
2.3.1 Fee Definition





2.3.2 Trade Capture and Allocation

Block trade:



Initial premium fees computed on the block trade: total premium fee =2,698.96. There is no commission on the block trade.

Type	Date	Start Date	End Date	Currency	Amount
PREMIUM	02/18/2010	02/18/2010	02/18/2010	USD	1,349.48
PREMIUM	11/18/2009	11/18/2009	11/18/2009	USD	1,349.48

Allocation: the block trade is allocated 30% to trade 1240 and 70% to trade 1241.

Trade Id	Block Size	Allocated Quantity	TradeStatus	AllocatedFrom	Fee.PREMIUM.Amount	Fee.COMMISSION.Amount
1239	1,000,000	1,000,000	ALLOCATED			
1240	300,000	0	VERIFIED	1239	(809.68)	9,000
1241	700,000	0	VERIFIED	1239	(1,889.28)	21,000

The premium fee is allocated for 30% on trade 1240: 30% of 2698.96 = 809.68

The premium fee is allocated for 70% on trade 1241: 70% of 2698.96 = 1,889.28

The commission fee computed on the child trades:

- Trade 1240: 3% of 300,000.00 = 9,000
- Trade 1241: 3% of 700,00 = 21,000

3. Allocation Workflow

The allocation workflow should take into account the following considerations:

- All actions should be performed on the block trade (trade that is being allocated by book, book/strategy, or legal entity) and should be propagated to all child trades.
- The workflow should prevent the modifications of individual child trades.
- The trade status should be the primary indication that a trade has been allocated.

[NOTE: Out-of-the-box, you can only allocate a trade in VERIFIED status, or PARTIALLY_ALLOCATED status]

Contents

- Recommended Workflow
- Modification of Child Trades
- Trade Lifecycle Actions
- Workflow Rules Description

3.1 Recommended Workflow

Original Status	Action	Rules	Resulting Status	Comments
VERIFIED	ALLOCATE	CheckFullAllocation CheckValidAllocation	ALLOCATED	Primary transition for fully allocating a trade. Mandatory for performing allocations.
ALLOCATED	AMEND	CheckFullAllocation	ALLOCATED	For making amendments to a block trade. The action is propagated to the child trades through the action specified in domain PropagateBlockTradeChangesAction - See PROPAGATE action below.

Original Status	Action	Rules	Resulting Status	Comments
ALLOCATED	ALLOCATE	CheckFullAllocation CheckValidAllocation	ALLOCATED	Transition for updating the block trade when child trades are directly modified. Optional if you do not allow direct child trade modification. ▶ See Modification of Child Trades for details.
PARTIAL_ALLOC	ALLOCATE	CheckFullAllocation CheckValidAllocation	ALLOCATED	Transition for completing the allocation of a partially allocated trade.
VERIFIED	ALLOCATE	CheckPartialAllocation CheckValidAllocation	PARTIAL_ALLOC	Primary transition for partially allocating a trade.
ALLOCATED	ALLOCATE	CheckPartialAllocation CheckValidAllocation	PARTIAL_ALLOC	Transition for taking a fully allocated trade to partially allocated by changing the children.
ALLOCATED	AMEND	CheckPartialAllocation	PARTIAL_ALLOC	Transition for taking a fully allocated trade to partially allocated by modifying the block trade. The action is propagated to the child trades through the action specified in domain "PropagateBlockTradeChangesAction" - See PROPAGATE action below.
ALLOCATED	UPDATE	CheckPartialAllocation CheckValidAllocation	PARTIAL_ALLOC	Transition for taking a fully allocated trade to partially allocated by updating the block trade - This action is applied on the block trade when the allocation is modified.
PARTIAL_ALLOC	ALLOCATE	CheckPartialAllocation CheckValidAllocation	PARTIAL_ALLOC	Transition for partially completing the allocation of a partially allocated trade.
VERIFIED	PROPAGATE		VERIFIED	Transition allowing block trade amendments to be applied to children. This action must be set in domain "PropagateBlockTradeChangesAction".
VERIFIED	AMEND	NotAllocationChild	VERIFIED	Transition for rejecting direct amendments to child trades. ▶ See Modification of Child Trades for details.

Original Status	Action	Rules	Resulting Status	Comments
VERIFIED	UPDATE	NotAllocationChild	VERIFIED	Transition for rejecting direct update of child trades. ▶ See Modification of Child Trades for details.
ALLOCATED	TERMINATE		TERMINATED	Transition for terminating a block trade and all its children.
ALLOCATED	NOVATION		TERMINATED	Transition for novating a block trade and all its children.
ALLOCATED	CANCEL		CANCELED	Transition for canceling a block trade and all its children. **[NOTE: The "canceled" status, if different from CANCELED, must be added to the domain "tradeCancelStatus"]**

3.2 Modification of Child Trades

As a general rule, it is not recommended to modify child trades directly, hence the rule NotAllocationChild on transitions VERIFIED - AMEND - VERIFIED and VERIFIED - UPDATE - VERIFIED to prevent the modification of child trades.

In particular, if you allow the modification of child trades, and the notional or quantity is modified, the child trade will be "disconnected" from the block trade, and any modification to the block trade will no longer be propagated to the "disconnected" child trade.

However, it might be necessary to modify attributes on the child trades that do not impact the allocation, like trade keywords, bundles, etc. In order to accommodate this requirement, you can remove the NotAllocationChild from the transitions VERIFIED - AMEND - VERIFIED and VERIFIED - UPDATE - VERIFIED.

If you only modify trade attributes that do not impact the allocation, the child trade will not be "disconnected" from the block trade, and those attributes modified on the block trade will not be propagated to the child trades. This requires the following setup:

- You can define trade keywords in domain "AllocationPreserveTradeKeywords" that will not be copied to the child trades.
- You can define trade fields in domain "AllocationPreserveTradeFields" that will not be copied to the child trades - This only applies to fields Comment, Bundle, EnteredUser, SalesPerson, and TraderName.

3.3 Trade Lifecycle Actions

Some trade lifecycle actions can be performed at the block trade level, while other actions have to be performed at the child trade level.

3.3.1 Lifecycle Actions at Block Trade Level

You can perform the following actions at the block trade level:

- Termination (including Novation and Notional Increase)
- Partial Termination (including Partial Novation)
- Book Transfer
- Repo Rerate
- Cancellation

3.3.2 Lifecycle Actions at Child Trade Level

The following actions have to be performed at the child trade level:

- Exercise
- Exercise of Cancelable Trades

3.4 Workflow Rules Description

Workflow Rule	Description
NotAllocationChild	This rule returns "true" for a trade which is a not a child of an allocation, otherwise it returns "false" - This rule should be placed on transitions that should not be applied to individual child trades (AMEND and CANCEL for example).
CheckFullAllocation	This rule returns "true" for a trade that has been fully allocated.
CheckPartialAllocation	This rule returns "true" for a trade that has been partially allocated, and can be allocated further.
CheckValidAllocation	This rule returns "true" if all conditions below are satisfied: • The trade is not the child trade of an allocation • The legal entity of the block trade does not have the attribute ALLOCATE_TO_CHILD_ONLY set to true, or the legal entity of the block trade has the attribute ALLOCATE_TO_CHILD_ONLY set to true and the legal entity of the child trade is a child entity of the legal entity of the block trade.
CheckAllocatedTrade	The usage of this rule is optional - It can be used on secondary market products to check

Workflow Rule	Description
	additional attributes prior to allowing allocation. This rule returns "true" as long as: • The block trade is not in CANCELED status • The price, settlement date, or underlying product (for secondary market products) of a child trade has not been changed • One of the key attributes of the block trade has not been changed when allocating the trade. These attributes include book, bundle, settle date, trade price, trade currency, product, settle currency, negotiated price, negotiated price type, and buy/sell direction.

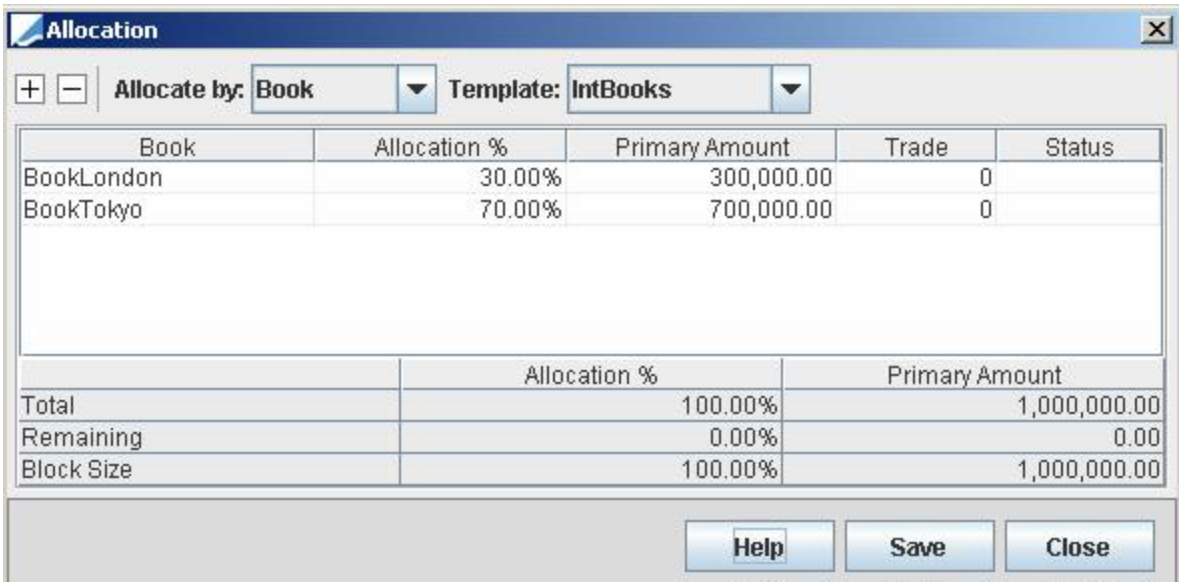
4. Allocating Trades

You can allocate trades from a trade worksheet by choosing **Back Office > Allocate**, or by applying the ALLOCATE action in a Trade Browser / Task Station. In FX Deal Station, select **Trade > Trade Allocation**.

The Allocation window allows allocating a trade to multiple books, book/strategies, or legal entities. When allocating a trade (referred to as a block trade), child trades are created for each book, book/strategy, or legal entity to which the block trade is allocated. The allocation can be manual, or according to an allocation template. The allocation is performed based on a percentage of the notional amount (or quantity) of the block trade.

You may choose to allocate the trade by creating child trades that are either buy or sell trades, and they do not have to be in the same direction of the parent or block trade. This feature, however, is available only with FX trades.

The default value for the "Allocate By" field of the Allocation window can be defined in the domain AllocateBy.



4.1 Legal Entity Setup

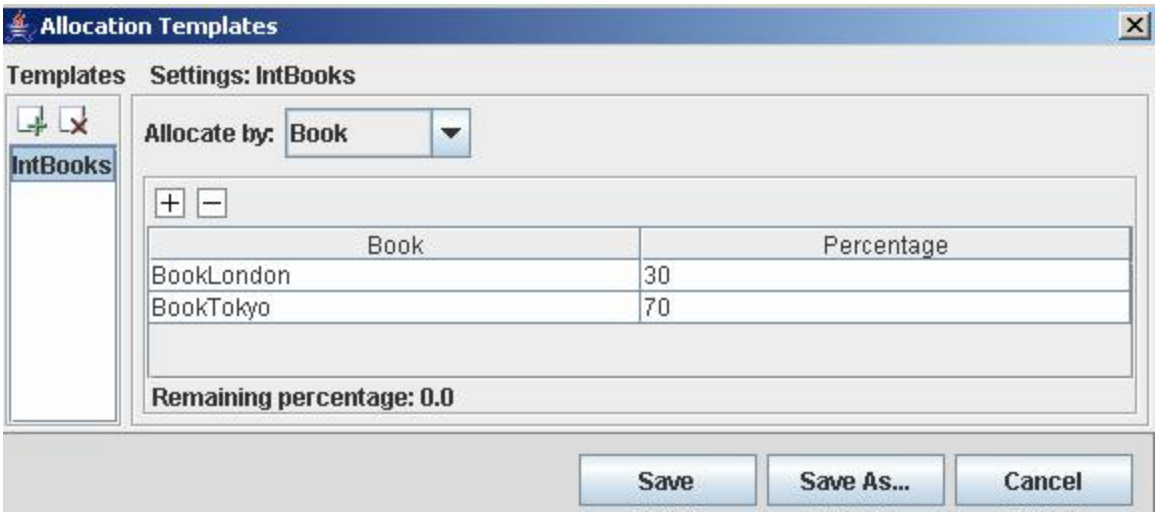
(Optional)

When performing allocation by legal entity, you can restrict allocation to child legal entities of the legal entity of the block trade.

To do so, set the legal entity attribute ALLOCATE_TO_CHILDREN_ONLY to true, on the legal entity of the block trade.

4.2 Defining Allocation Templates

Select "Add a template" from the Template field. The Allocation Templates window is displayed.



Existing allocation templates are displayed on the left-hand side.

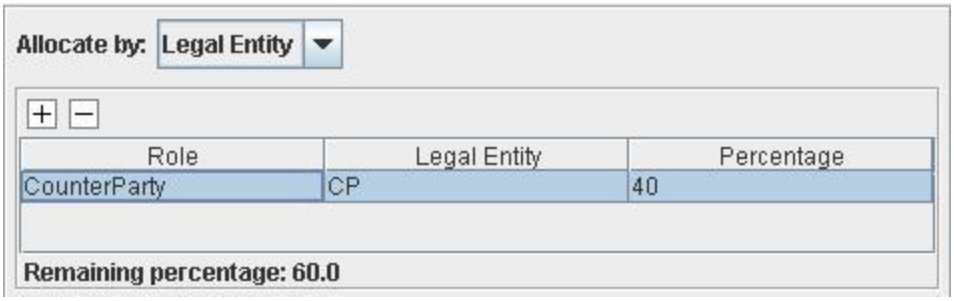
» Click to add a template.

» Select whether the template is by book, book/strategy. or legal entity.

– For a template by book, click ⊞ to add a book row - Select a book and enter an allocation percentage.

– For a template by book/strategy, click ⊞ to add a book/strategy row.

– For a template by legal entity, click ⊞ to add a legal entity row.

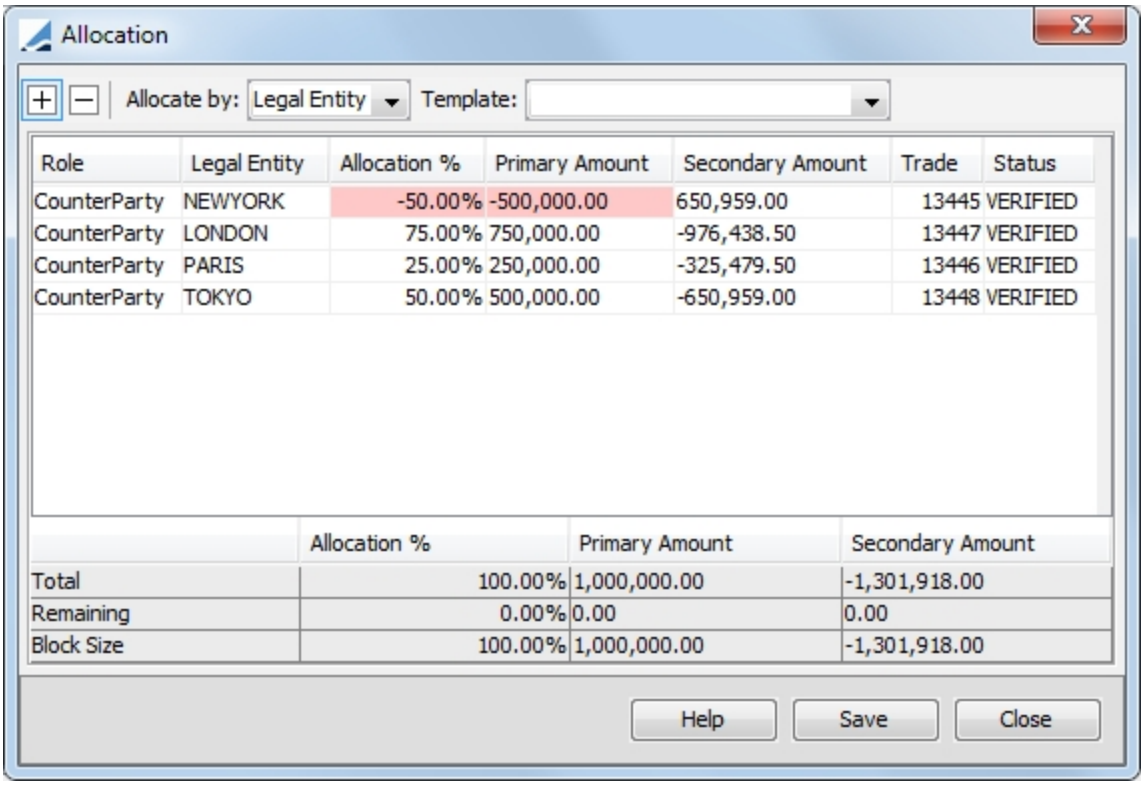


Select a legal entity role, a legal entity, and enter an allocation percentage. The legal entity considered here is the trade counterparty, keeping mind that the trade counterparty can have any role.

» Templates containing buys and sells is not currently supported. Allocation using trades in both directions must be done manually.

4.3 Allocating Trades

Open the Allocation window from a trade worksheet by choosing **Back Office > Allocate**. The trade must be in the VERIFIED status (out-of-the-box).

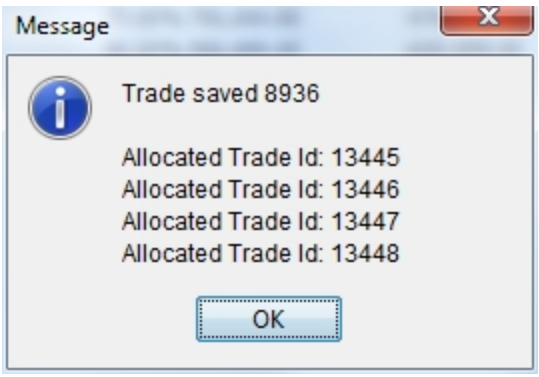


» Select whether the allocation is by book, book/strategy, or legal entity.

See below the various ways of performing allocations.

» Click **Save** to save the trades.

A message shows the trades that have been saved: the block trade and the child trades.



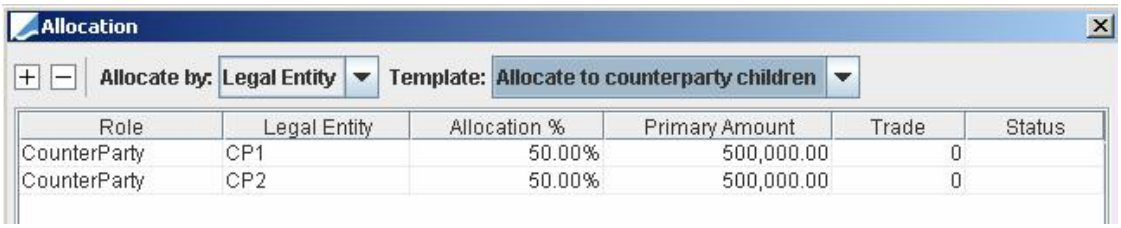
The allocation results are described in details below.

4.3.1 Performing Allocations using Templates

You can select an allocation template from the Template field, and the child trades will be automatically created according to the template.

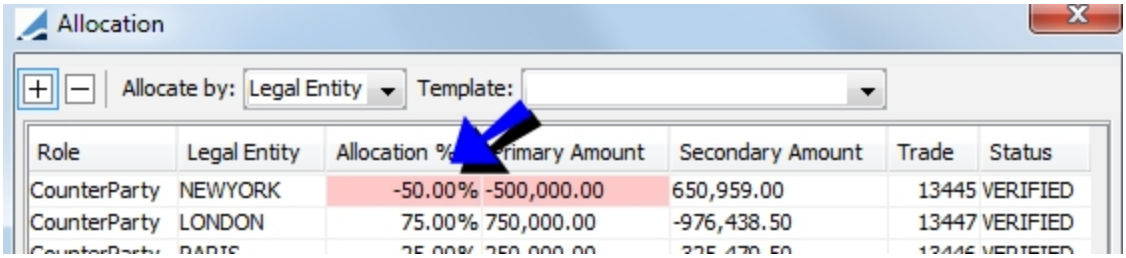
[NOTE: If you select allocation by book, only book allocation templates will be available for selection, and if you select allocation by legal entity, only legal entity allocation templates will be available for selection.]

If you select allocation by legal entity, you can also choose "Allocate to counterparty children" from the Template field to create rows for all children of the block trade's counterparty.



4.3.2 Performing Manual Allocations

You can click ⊞ to add a child trade manually. In this case, you need to select a book, book/strategy, or legal entity, and enter the allocation percentage or amount. To enter an allocation in the opposite direction of the block trade, input a negative sign in front of the percentage or amount.



[NOTE: Allocation of buys and sells (trades in both the direction of the parent trade and in the opposite direction) is only possible with FX trades. You are not able to perform this type of allocation with other product types.]

Trades with Secondary Amounts

Allocations that involve two currencies enable the Secondary Amount field in the window. For SwapCrossCurrency, SwapNonDeliverable, CappedSwap and CappedSwapND, you can manually edit the Secondary Amount field and corresponding changes will be reflected in Primary Amount and Allocation %.

4.3.3 Importing Allocations from Excel

You can paste a table from an Excel spreadsheet.

- For allocation by book, create a table with header rows Book and Amount, then right-click anywhere in the allocation table, and choose Paste.

  Excel table:

Book	Amount
BookNYC	400000
BookLond	600000

  Note that the books must exist in the system.

  Calypso allocation table:

Book	Allocation %	Primary Amount
BookNYC	40.00%	400,000.00
BookLondon	60.00%	600,000.00

- For allocation by legal entity, create a table with header rows Role, Legal Entity and Amount, then right-click anywhere in the allocation table, and choose Paste.

  Excel table:

Role	Legal Entity	Amount
CounterParty	CP1	400000
CounterParty	CP2	600000

  Note that the roles and legal entities must exist in the system.

  Calypso allocation table:

Role	Legal Entity	Allocation %	Primary Amount
CounterParty	CP1	40.00%	400,000.00
CounterParty	CP2	60.00%	600,000.00

[NOTE: You cannot import allocations that contain both buys and sells.]

4.4 Allocation Results

The following trade attributes are split among the child trades based on the allocation percentage:

- Notional (including amortizing notionals) / Quantity / Primary Amount (for FX) / Quoting Amount (for FX)
- Fees marked for Allocation / Sales Margins

All other trade attributes are copied over to the child trades (except for fees not marked for Allocation).

The following rounding conventions are applied:

- Currency amounts - Rounded to the default currency decimal precision

- Secondary market products (Futures, Equities, etc) – Rounded to the nearest integer amount
- Commodity products – Rounded to increments of future contract size
- Bond notional – Rounded to increments of face value

[NOTE: If the block trade is either under or over allocated, the block trade amount is replaced with the allocated amount]

4.4.1 Block Trade

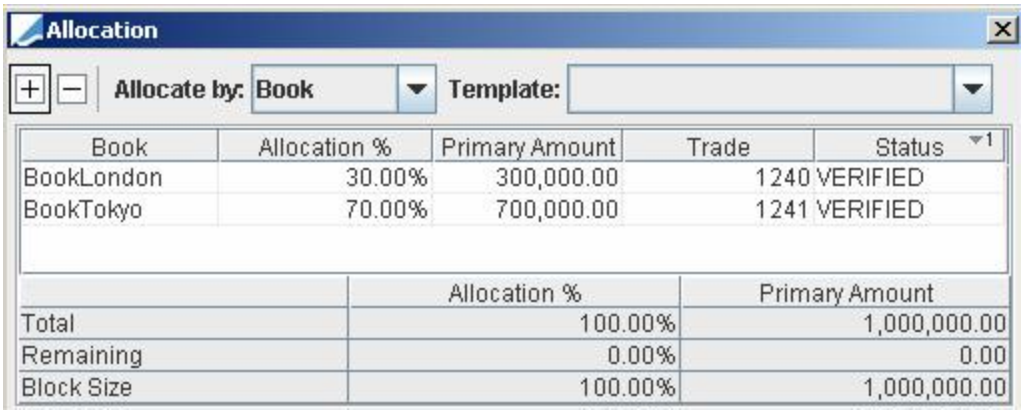
After allocation, even though the block trade has been allocated, all allocation information is available from the block trade, therefore allowing partial allocations and modifications.

The total amount of the allocation is rolled up into the notional / quantity - Trade status = ALLOCATED.

If the block trades had fees marked for allocation, the allocated fees can be viewed in the Fees panel, and modified.

Type	Date	Start Date	End Date	Currency	Amount
PREMIUM	02/18/2010	02/18/2010	02/18/2010	USD	1,349.48
PREMIUM	11/18/2009	11/18/2009	11/18/2009	USD	1,349.48

You can bring up the Allocation window to view the child trades, and modify the allocation as needed.



4.4.2 Child Trade

The AllocatedFrom trade keyword is set to the Trade ID of the block trade.

4.4.3 Trade Browser

The allocation details can be viewed in the Trade Browser for the block trade and for the child trades.

From the Calypso Navigator, navigate to **Deal Management > Trade Browser** (menu action `reporting.ReportWindow$Trade`).

Trade Id	Block Size	Allocated Quantity	Remaining Quantity	TradeStatus	TRADE_KEYWORD.AllocatedFrom	
1239	1,000,000	1,000,000	0	ALLOCATED		Swaption
1240	300,000	0	300,000	VERIFIED	1239	Swaption
1241	700,000	0	700,000	VERIFIED	1239	Swaption

- Choose **Data > Configure Columns** to configure the report. You can add the following columns to view allocation details: "TRADE_KEYWORD.AllocatedFrom", Block Size, Allocated Quantity, Remaining Quantity, and fee information if applicable.
- Click **Load** to view the trades.

4.5 Example of Block Trade Modification

Initial block trade of 1,000,000 has been allocated for 30% and 70%.

Trade Id	Block Size	Allocated Quantity	Remaining Quantity	TradeStatus	TRADE_KEYWORD.AllocatedFrom
1242	1,000,000	1,000,000	0	ALLOCATED	
1243	300,000	0	300,000	VERIFIED	1242
1244	700,000	0	700,000	VERIFIED	1242

The notional of the block trade is modified to 1,200,000, and the block trade is moved to status PARTIAL_ALLOC so that the remaining notional can be further allocated - You can just bring up the Allocation window to perform further allocations.

Trade Id	Block Size	Allocated Quantity	Remaining Quantity	TradeStatus	TRADE_KEYWORD.AllocatedFrom
1242	1,200,000	1,000,000	200,000	PARTIAL_ALLOC	
1243	300,000	0	300,000	VERIFIED	1242
1244	700,000	0	700,000	VERIFIED	1242