Nasdaq Calypso

Bloomberg FXGO Integration Guide

Version 1.5.0

Revision 5.0
March 2021
Approved

Document History

Revision	Published	Summary of Changes
1.0	May 2016	First edition for version 1.5.0.
2.0	March 2017	Second edition – Updated allocation support and requirements.
3.0	November 2018	Third edition – Updates for Core Calypso version 16.1.
4.0	May 2019	Fourth edition – Updates for Bloomberg-FIT version 2.6.6.
5.0	March 2021	Fifth edition – Updates for Bloomberg-FIT version 2.6.16.

This document describes how to integrate Calypso with BloombergFIT-FXGO Order Interface.

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

NOTE: Bloomberg-FXGO interface is distributed as part of the Bloomberg-FIT module, which may support other Bloomberg interfaces that must be licensed separately.

IMPORTANT NOTE: For Cloud deployments please contact your application management team as the deployment procedure for Cap Cloud is different.

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Introduction

The Bloomberg-FXGO interface allows an End User Firm (Buy-Side) to import trades which have been booked through the Bloomberg Terminal using Bloomberg's FXGO workflow.

The Calypso Bloomberg-FXGO integration connects to Bloomberg FXGO using a FIX interface. Once the connectivity is setup, a trader can book a trade through the Bloomberg Terminal, and Bloomberg will send that as a FIX message to the Calypso Bloomberg interface. The message will then flow through the configured Calypso workflows which route the message through the appropriate stages to create a Calypso trade. Additional clearing lifecycle messages will also be sent over the FIX connection, and the appropriate lifecycle actions will be applied to the Calypso trade.

This document describes the configuration required to setup the workflows, etc. for the Bloomberg-FXGO interface to run successfully.

1.1 Supported Features

FIX Sessions

Calypso's Bloomberg-SEF integration supports following fix sessions:

- Multi Asset Protocol (MAP)

Workflows

Calypso's Bloomberg-SEF Order integration supports trade messages for the following workflows:

- Pre-Allocation
- Bunched Order

Product Types

The Bloomberg FXGO interface supports the following Bloomberg trade types:

- FX Spot
- FX Forward
- FX Non-Deliverable Forward
- FX Swap
- FX Non-Deliverable Swap
- Structured Flows

FIX Messages

The interface supports the following Bloomberg messages for the FX GO workflow (i.e. these message types can be consumed by Calypso):

- Execution Report (Trade): Once the trade is executed within the Bloomberg Terminal and the Dealer accepts, Bloomberg will send a message over the FIX interface. A Bilateral trade will be created in Calypso to represent the trade between the two parties (Dealer vs. Buy-Side), with the Calypso user's party as the PO.
- Execution Report (Amend and Cancelled): When the trade is enriched or cancelled in Bloomberg platform. The Bilateral trade in Calypso will be amended or cancelled accordingly.
- Allocation Instruction (Allocation): If the trade is allocated, Bloomberg will send a FIX confirmation message. Within Calypso, the original block trade will be an allocated and its respective allocated fund trade will be created.

1.2 Not Supported

Workflows

- Clearing

Setup

For setup and configuration related information such as legal entities, and engine configuration, please refer to Calypso Bloomberg-FIT Integration Guide (Generic) for Bloomberg-FXGO related setup.

2.1 Book Mapping

Once the Bloomberg interface determines the appropriate Legal Entity to use as the PO, it must then choose a Calypso Book for the trade. The section below outlines the logic used by the Bloomberg interface.

If no Calypso Book is found using the rules below, an error will be raised.

[NOTE: When a Calypso Book is determined based on the lookup rules described below, the interface will verify that the Book's Legal Entity matches the Calypso Legal Entity found using the rules specified in the previous section. This is especially important to note when using a parent LE; the Book must belong to the parent LE, not the child.]

2.1.1 Book Mapping

When a trade is booked in the Bloomberg Terminal, the user is not required to set any Book or Account value. However, in Calypso we require the trade to be assigned to a Calypso Book for the PO. In addition, we realize that Calypso clients might want to assign trades to different books. These requirements have been addressed with two different solutions that can be used interchangeably.

2.1.2 Bloomberg Custom Field

Bloomberg provides users with the ability to create custom fields ('Custom Trade Note') where user can specify the book name. Users will have to create a Custom Trade Note named 'Book' within their Bloomberg login if they wish to use this feature. (See below for defaulting rules if such a field is not set up.)

On the Calypso side, the Custom Trade Note field 'Book' value will be identified in Calypso using the Book Attribute 'BloombergFITBook'. If no Book is found in Calypso with that attribute value, the fetching logic will look for a Book with the short name matching the Custom Field 'Book' value (case-sensitive).

2.1.3 Default Book Mapping

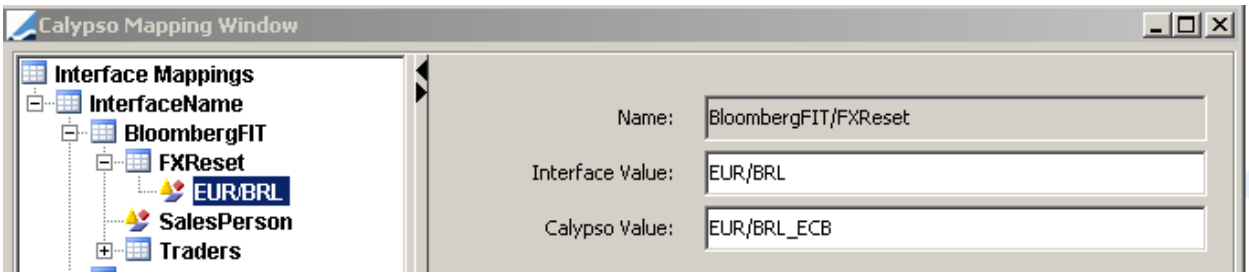
To select the book, when no Custom Trade Note field 'Book' is provided, the default book mapping logic will be used as mentioned in the Calypso Bloomberg-FIT Integration Guide (Generic).

2.2 Product Mapping

When importing product-based trade types into Calypso, mappings must be setup so that the Bloomberg interface can match the incoming product details to objects contained within the client's instance of Calypso. The sections below outline the various mappings required for the different trade types supported by the Bloomberg interface.

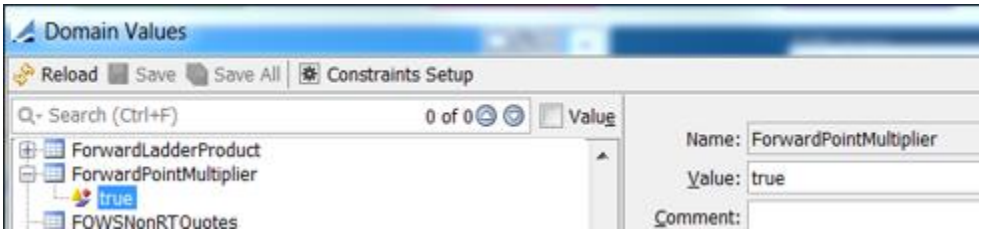
2.2.1 FX-Reset

For saving the non-deliverable FX trades in Calypso, FX-Reset is required. User can map the given reset with the Calypso FX-Reset using Calypso Mapping window.



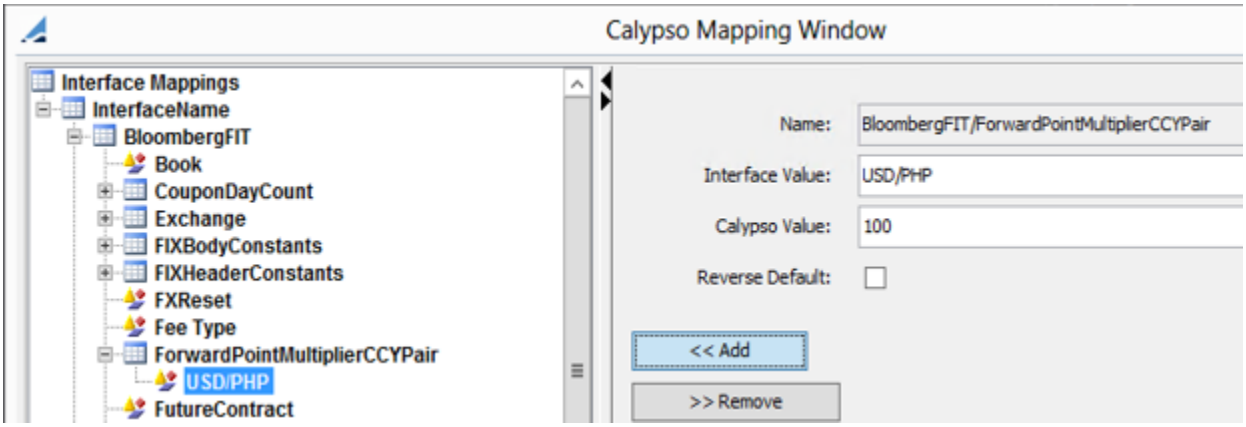
2.2.2 Forward Points

For FXSwap trades, the domain ForwardPointMultiplier allows specifying whether to look for the multiplier value in Mapping/Point Factor, or to use the default value of 10,000.



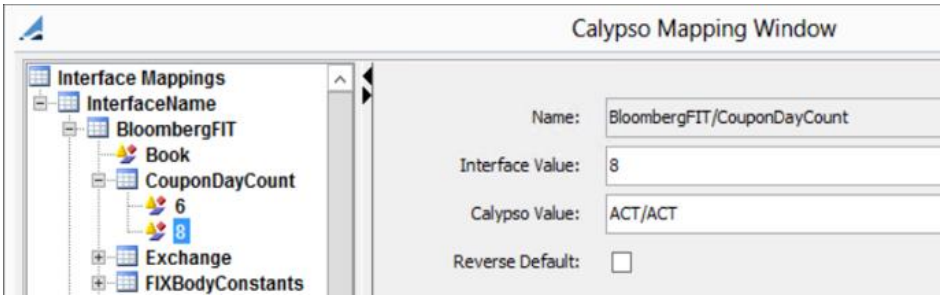
If ForwardPointMultiplier is set to false or not set, we use the default value of 10,000.

If ForwardPointMultiplier is set to true, we will look for the mapping table first for the unique currency pair multiplier value, as shown below. If data is not present in the mapping table then we will look for the currency pair point factor.



2.2.3 CouponDayCount Mapping

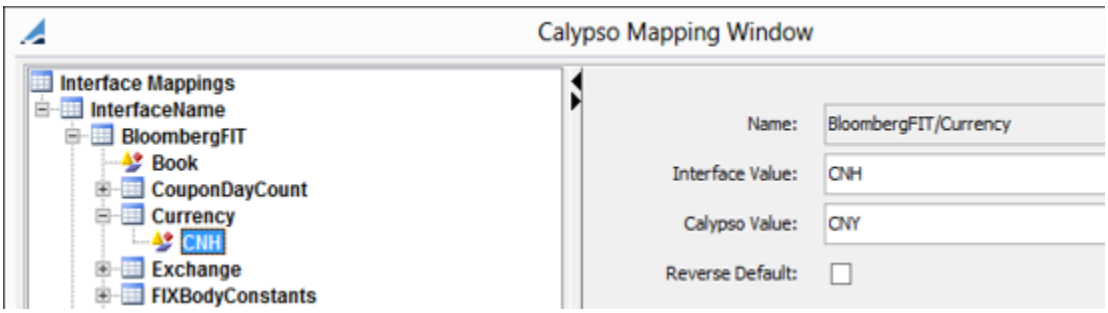
The day count convention to be used in interest calculations is mapped in the Calypso Mapping Window using “CouponDayCount”.



- Please refer to Bloomberg specifications for all of the supported values for tag 1950 CouponDayCount.

2.3 Currency Mapping

When Bloomberg sends a currency using a different currency code than what is used in Calypso, a "Currency" mapping must be defined.



2.4 Trade Workflow

This section describes the Bloomberg-FXGO interface trade workflow. It is important to understand these details so that the Calypso Trade Workflow can be customized accordingly. Please read and follow all setup instructions carefully to ensure a successful installation.

2.4.1 Calypso Trade Workflow Setup

To support all the transitions required by the Bloomberg workflow, the trade workflow setup for processing Bloomberg trades must support the following transitions:

- NEW (for creation of new trades)
- AMEND (for enrichment of trade)
- CANCEL (if a trade is rejected)
- ALLOCATE (for allocation of trade)

2.4.2 Allocation Requirements

This section describes how allocations are handled for Pre-Allocation and Bunched-Order supported by the Bloomberg module, and how each are handled.

In case of Pre-Allocation in Bloomberg, the allocation needs to be performed before submitting the deal to the dealer. The corresponding trade life cycle will be executed in Calypso for Pre-Allocation:

Bloomberg Business	Calypso Action
Book a block trade with allocations	Calypso receives two messages: MsgType '8': New trade is created MsgType 'J': Trade is allocated

Whereas in case of Bunched-Order in Bloomberg, the allocation can only be performed once the trade is submitted and accepted by the dealer. The corresponding trade life cycle will be executed in Calypso for Bunched-Order:

Bloomberg Business	Calypso Action
Book a block trade	Calypso receives a message with MsgType '8': New trade is created
Allocate a trade	Calypso receives a message with MsgType as 'J': Trade is allocated

Message Rule

By default, the Calypso Allocation API will keep the same external reference on the original trade and the generated new allocated fund trade. This will cause an issue if updates are received from Bloomberg for the trade. To avoid this, you **must** add the **UpdateAllocationChild** trade rule to **all** the ALLOCATE transition leading to Allocated status in your trade workflow for Bloomberg trades, so that the fund trade external reference gets updated.

2.4.3 Workflow Keywords

Throughout a trade's lifecycle, trade status keywords will be updated on the trade to reflect its approval state. These keywords can be used together with Static Data Filters to move the trade through any custom workflow / status you create in Calypso.

The pertinent keywords are described below:

- **PlatformStatus:** This keyword reflects the status of the trade from the Bloomberg platform's perspective.