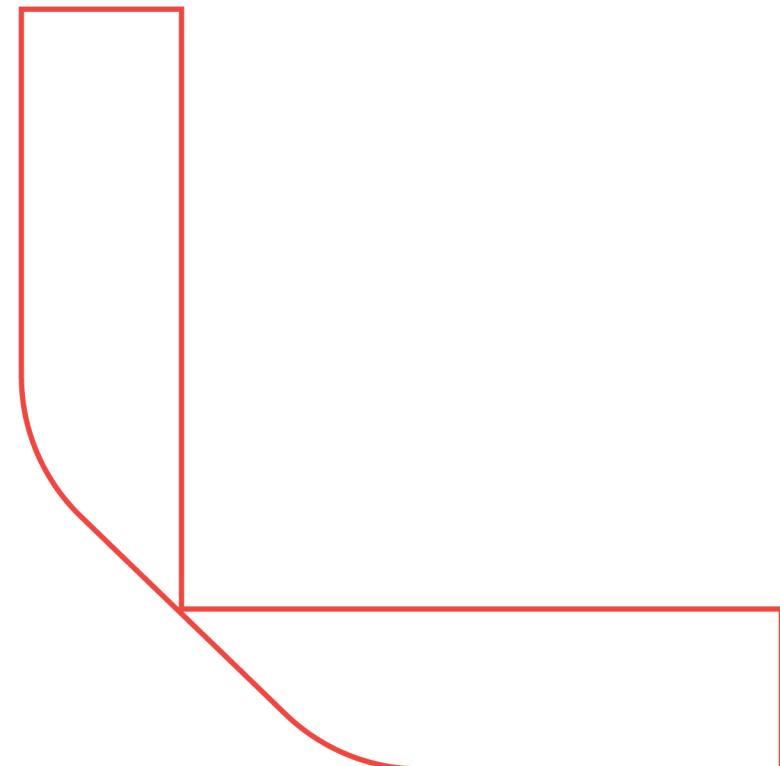


# Integral Admin Portal User Guide



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Wednesday, May 24, 2023 (7.1.37v1)

**Integral**

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# Foreword

## About this document

This document describes the features provided by the Admin Portal, a web app that offers the tools you need to administer your relationships with your counterparties.

This guide is organized into the following chapters, which are also links in the Admin Portal screen:

<a href="#">The user interface</a> on page 446	Using the Admin Portal interface
<a href="#">Your organization</a> on page 13	Managing details of your organization and organization-wide configuration
<a href="#">Counterparties</a> on page 82	Managing the pricing, liquidity, and trading details of your counterparty relationships
<a href="#">Credit</a> on page 208	Managing your exposures
<a href="#">Integral Analytics reports</a> on page 280	Generating reports and charts, and analyzing your trading activity
<a href="#">Manual intervention (amendments)</a> on page 421	Working with trades that require user intervention, such as pending trades, unconfirmed trades, and trades that need to be entered manually into the system
<a href="#">Preferences</a> on page 442	Set your display preferences and managing your password
<a href="#">Glossary</a> on page 459	Domain- and app-specific terms
<a href="#">Changes</a> on page 463	Significant changes in the product by release

## Audience for this document

This guide contains information for users who administer their own organization's business data and the details of their relationships with their counterparties and customers.

## System requirements

The Admin Portal supports Microsoft Internet Explorer versions 7, 8, and 9. If you access the Admin Portal with a version of Internet Explorer later than 9, you must enable Compatibility View. Please consult Internet Explorer documentation for information about enabling Compatibility View.

## Typographic conventions

This document uses various formats to make its usage simple and easy. The following table lists the conventions used in this document:

<i>Italic</i>	<ul style="list-style-type: none"> <li>Emphasize a term or concept</li> <li>Introduce new terms For example, <i>system monitoring</i>.</li> </ul>
<b>Bold</b>	User-interface elements For example, <b>File</b> menu.
Monospace	<ul style="list-style-type: none"> <li>Names of classes, instances, messages, and examples of code For example, Counterparty.</li> <li>Filenames, pathnames, commands, and other operating-system constructs For example, /cust/usr.</li> </ul>
<i>Italic monospace</i>	Variable elements for which you must substitute a value. For example, <i>filename.py</i> .
Blue color	URLs and cross-references that you can click when viewing the document online. For example, <a href="#">"Typographic conventions" on page 7</a> .
<i>ItalicNameRoot/bin/util/</i>	<p>Root path references For example, <i>ProductRoot</i> (to refer to the root path /cust/usr/App)</p> <p>In file names, a directory name that ends with "Root" is a variable that represents a root path. To clarify that it is a variable and not an actual path name, the name appears in italics.</p>
/root/xmlStructure/example@data='test'	<p>References to elements in an XML doc are made using XPath conventions. The example reads: "The example element with a data attribute value of 'test' in the xmlStructure in the root element."</p> <p>The XML equivalent would be:</p> <pre>&lt;root&gt; &lt;xmlStructure&gt; &lt;example data="test"/&gt; &lt;/xmlStructure&gt; &lt;/root&gt;</pre>

## Contact support

Please refer to the Business Support contact information in your trading app.

## CHAPTER 1

# Your organization

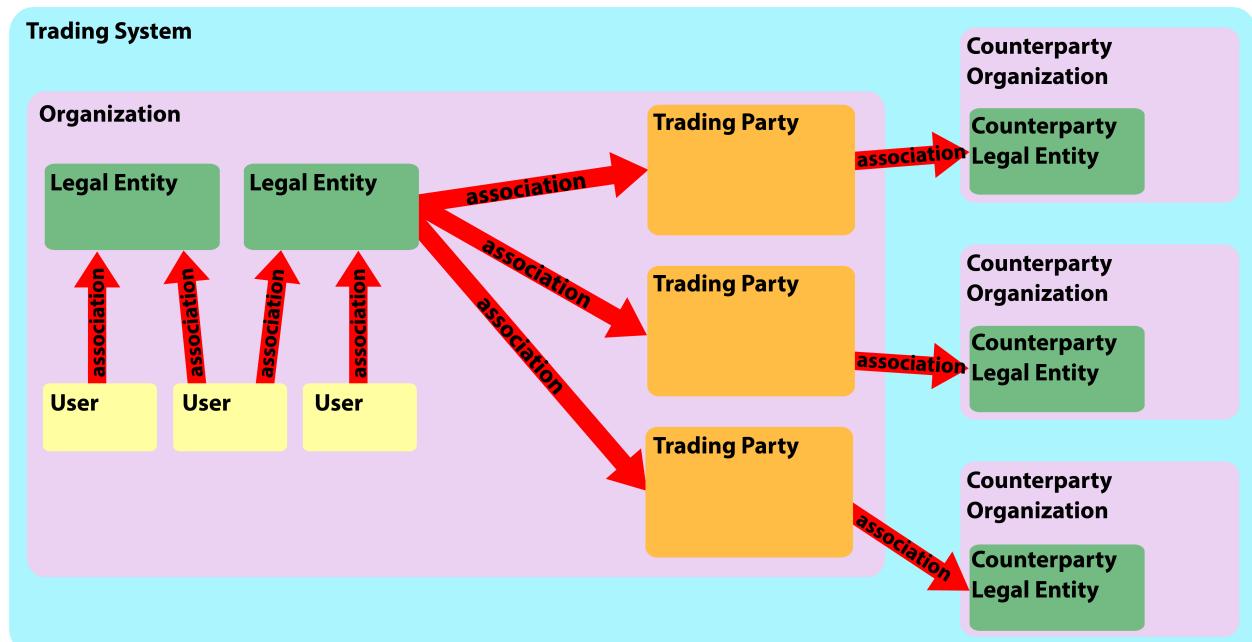
### 1.1 Introduction

You manage the details of your organization and organization-wide configuration with the Organization screen of the Admin Portal.

The entities and relationships that you configure are fundamental to trading in the system:

- Organizations: Your organization and those of your counterparties as defined in the system
- Legal entities: An entity within an organization that is authorized to enter into trades. An organization can have multiple legal entities, but in practice, an organization rarely has more than one.
- Users: Trading users are associated with your organization's legal entities, authorizing them to enter into trades on behalf of the legal entity. You can send messages to both customer and internal trading users ([Broadcast messages](#) on page 14).
- Trading parties: Trading parties are counterparty legal entities with which you can establish a trading relationship. If you deal with liquidity providers directly and need to specify a prime broker to participate in transaction, you assign prime brokers to the providers' respective trading parties. See [Prime brokers: direct market access](#) on page 79 for details.

The following image illustrates the relationships between these entities in the system:



**Figure 1-1 Entity relationships**

- [Broadcast messages](#) on page 14

- [Organization details](#) on page 14
- [Users](#) on page 19
- [Trading parties](#) on page 82
- [Legal entities](#) on page 51
- [Organization contacts](#) on page 55
- [STP configuration](#) on page 56
- [Liquidity rules](#) on page 68
- [Price streams](#) on page 73
- [Click-through agreements](#) on page 74
- [Sales dealer groups](#) on page 75
- [Currency pair groups](#) on page 77
- [Set up a prime broker](#) on page 79

## 1.2 Broadcast messages

The Broadcast Message screen ([Organization > Broadcast Message](#)) allows you to send a message to customers and internal users on the trading app.

1. Navigate to the Broadcast Message screen ([Organization > Broadcast Message](#)).
2. Click one of the following radio buttons to choose who sees your message:
  - Customers & Internal Users**
  - Internal Users**
3. Select the **High** checkbox to display your message with high importance to users.
4. Enter your message in the **Message** field.
5. Click **Send**.

The screen displays confirmation that your message was sent.

## 1.3 Organization details

You can edit the following details of your organization from the Organization Detail Edit screen ([Organization > Organization List > organization short name](#)):

- [Edit organization details](#) on page 15
- [Edit regulatory information](#) on page 15
- **Trading Allowed:** The **Trading Allowed** checkbox has been deprecated and its functionality has been replaced with tools in the Liquidity Rules screen ([Organization > Liquidity Rules > Liquidity Rules](#)). A shortcut link is provided. See [Liquidity provisioning](#) on page 68.
- [Designate a default dealing user and legal entity](#) on page 15
- [Choose the price stream channels to support \(ESP/RFS\)](#) on page 15
- [Choose the trading app client channel](#) on page 16
- [Enable batch trades and pre-trade allocation](#) on page 16
- [Configure netting](#) on page 16
- [Static password expiration and account locking](#) on page 17
- [Choose an authentication type for your organization](#) on page 18
- [Cancel orders on user inactivation](#) on page 18

- [Allow users to cancel settled trades](#) on page 18
- [Organization contacts](#) on page 55

### 1.3.1 Edit organization details

1. Navigate to the Organization Details screen ([Organization > Organization List](#)).
2. Click your organization's ID (short name).
3. In the **Main Details** panel, edit the information in the fields. The **Organization Group** and **Region** fields are used for reporting.

**NOTE:** Fields marked with an asterisk (\*) are required.

4. Click **Save**.

### 1.3.2 Edit regulatory information

If your organization trades within a regulatory framework, you can use the Regulatory Details panel to record necessary information and identifiers.

1. Navigate to the Organization Details screen ([Organization > Organization List > organization ID](#)).
2. In the **Regulatory Details** panel, enter your organization's assigned Legal Entity Identifier in the **Legal Entity Identifier (LEI)** field.
3. If applicable, enter your Maker Identifier Code in the **MIC Code** field.
4. If applicable, enter your MiFID II short code in the **ShortCode** field.
5. Click **Save**.

### 1.3.3 Designate a default dealing user and legal entity

The default dealing user and legal entity are used when creating new users and establishing trading relationships.

1. Navigate to the Organization Details screen ([Organization > Organization List](#)).
2. Click your organization's ID (short name).
3. In the **Default Dealing User** panel, choose a user ID from the **Default Dealing User** drop-down list.
4. In the **Default Legal Entity** panel, choose a user ID from the **Default Legal Entity** drop-down list.
5. Click **Save**.

### 1.3.4 Choose the price stream channels to support (ESP/RFS)

You can deliver prices to your counterparties by two methodologies: Executable Streaming Prices (ESP) and Request for Stream (RFS).

Your organization must support ESP spot, but you can choose whether or not to support ESP and RFS in specific trade types.

For more information about price streaming methodologies, see [Price streaming methodologies \(ESP/RFS\)](#) on page 92.

1. Navigate to the Organization List screen ([Organization > Organization List](#)).
2. Click your organization's ID.
3. In the **Trade Channels** panel, select the ESP and RFS trade types that you want to support. Your counterparties can only request prices from you in the trade types that you select.
  - ESP Outright**
  - ESP Swap**
  - RFS Spot**
  - RFS Outright**
  - RFS Swap**
  - RFS NDF**
  - RFS FSR** (see [Fixed spot roll \(FSR\) pricing](#) on page 97)
  - RFS SSP** (see [Single spot portfolio \(SSP\) pricing](#) on page 99)
  - NDF Swap**
4. Click **Save**.

### 1.3.5 Choose the trading app client channel

You configure the default channel for trading activity in your organization.

1. Navigate to the Organization List screen ([Organization > Organization List](#)).
2. Click your organization's ID.
3. In the **Client Channel** panel, select the trading app channel from the **Client Channel** drop-down list.
4. Click **Save**.

### 1.3.6 Enable batch trades and pre-trade allocation

The **Pre Trade Allocation** checkbox in the **Pre Trade Allocation** panel determines whether the batch trades workflow is enabled or not. If the checkbox is cleared, your organization does not accept batch trade requests.

1. Navigate to the Organization List screen ([Organization > Organization List](#)).
2. Click your organization's ID.
3. In the Pre Trade Allocation panel, select the **Pre Trade Allocation** checkbox to allow batch trades or clear the checkbox to disable batch trades.
4. Click **Save**.

### 1.3.7 Configure netting

You can configure the Admin Portal to group trades to net across your organization's legal entities (LEs), your trading parties (TPs), both, or none. By default, trades are grouped for netting across both LE and TP.

When you configure netting, you need to consider settings for both your organization and customer organizations. Remember that your organization's legal entities correspond to a customer's trading

parties. A customer's legal entities correspond to trading parties in your organization. If you want your organization to net trades across trading parties, then you need to ensure that netting across legal entities is enabled in the customer organization.

**Table 1-1 Netted trade grouping**

Group By	Group by Legal Entity checkbox	Group by Trading Party checkbox	Effect	Netting Screen Shows
LE and TP	Selected	Selected	Trades are netted across both legal entities and trading parties. Trades can be netted across TPs only for TPs in the same customer organization and only if that customer organization also has <b>Group by Legal Entity</b> selected.	Account, Cpty Account
LE only	Selected	Cleared	Trades are netted across legal entities but not trading parties.	Account, Counterparty
TP only	Cleared	Selected	Trades are netted across trading parties but not legal entities. Trades can be netted across TPs only for TPs in the same customer organization and only if that customer organization also has <b>Group by Legal Entity</b> selected.	Organization, Cpty Account
None	Cleared	Cleared	Trades are netted across both TPs and LEs. Trades can be netted across TPs only if the customer organization allows netting across LEs. Trades can be netted across TPs only for TPs in the same customer organization and only if that customer organization also has <b>Group by Legal Entity</b> selected.	Organization, Counterparty

For more information about netting, see [Net your positions](#) on page 430.

#### To configure how trades are grouped for netting:

1. Navigate to the Organization List screen ([Organization > Organization List](#)).
2. In the Netting Preferences panel, select the checkboxes of the grouping that you want to use:
  - Group by TP and LE: **Group by Trading Party** and **Group by Legal Entity** both SELECTED
  - Group by TP only: **Group by Trading Party** SELECTED and **Group by Legal Entity** CLEARED
  - Group by LE only: **Group by Trading Party** CLEARED and **Group by Legal Entity** SELECTED
  - Do not group: **Group by Trading Party** and **Group by Legal Entity** both CLEARED
3. Click **Save**.

### 1.3.8 Static password expiration and account locking

By default, users must change their static password every 30 days. See [Static password maintenance](#) on page 443 for more details about static password policies.

Also, when a user enters a password incorrectly several times in succession (usually five times), their account is locked, not accessible, and their password must be reset by an administrative user.

You can choose to exempt your users from one or both of these rules.

1. Navigate to the Organization List screen ([Organization > Organization List](#)).

2. Click your organization's ID.
3. For password expiry, do one of the following:
  - Select the **Exempt from Password Expiry** checkbox so that your users' passwords do not expire.
  - Clear the **Exempt from Password Expiry** checkbox to enforce password expiry.
4. For account locking, do one of the following:
  - Select the **Exempt from Password Locking** checkbox so that your users' accounts are not locked if they enter an incorrect password too many times.
  - Clear the **Exempt from Password Locking** checkbox to enforce account locking.
5. Click **Save**.

### 1.3.9 Choose an authentication type for your organization

The Admin Portal supports three authentication schemes:

- Static password: Users are issued a single password that is valid for multiple sessions until the password expires.
  - One-time password (OTP): Users must enter a new password for each and every session.
  - Two-factor authentication (2FA): Users must enter both a static password and a one-time password.
1. Navigate to the Organization List screen ([Organization > Organization List](#)).
  2. Click your organization's ID.
  3. In the **External Authentication Server** panel, choose the scheme that your organization supports from the **External Authentication Type** drop-down list:
    - Static Password
    - One Time Password
    - 2FA
  4. Click **Save**.

### 1.3.10 Cancel orders on user inactivation

For security or business reasons, you can configure the Admin Portal to cancel all active orders submitted by a user when the user is inactivated.

1. Navigate to the Organization List screen ([Organization > Organization List](#)).
2. In the **Orders** panel, do one of the following:
  - Select the **Cancel User's Active Orders on Inactivation** checkbox ensure that orders are cancelled when a user in the organization is inactivated.
  - Clear the checkbox to leave orders active when a user is inactivated.
3. Click **Save**.

### 1.3.11 Allow users to cancel settled trades

By default, a user with the correct permissions can cancel unsettled trades. See [User permission groups](#) on page 28 for more information about user permissions.

If you want users to be able to cancel unsettled trades, you need to configure your organization.

1. Navigate to the Organization List screen ([Organization > Organization List](#)).
2. Click your organization's ID.
3. Do one of the following in the Settled Trade Cancellation panel:
  - Select the **Allow Settled Trade Cancellation** checkbox to allow users to cancel both settled and unsettled trades.
  - Clear the checkbox to allow users to cancel only unsettled trades.
4. Click **Save**.

## 1.4 Users

You can use the Admin Portal to manage the trading users in the system.

To reset a user's password, see [Reset a user's static password and password policy](#) on page 25.

You control a user's experience of the trading interface and the actions they can perform by assigning user roles and permission groups. See [User roles](#) on page 27 and [User permission groups](#) on page 28 for more details.

- [Add new users](#) on page 19
- [Copy an existing user](#) on page 20
- [Edit a user's details](#) on page 21
- [Enable trading emails for a user](#) on page 22
- [Edit a user's security details](#) on page 25
- [Associate a user with sales dealer groups](#) on page 50
- Inactivate and reactivate users (see [Active and inactive items](#) on page 446)
- [Remove user information](#) on page 49
- [Audit user activity](#) on page 50

### 1.4.1 Add new users

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**NOTE:** You can add a user to the system by copying an existing user. The new user is created with all the same permission groups as the original user.

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The procedure for adding users differs slightly from one user role to the other, but the overall process includes specifying the following information:

- User ID: The user enters this ID to log in.
- Security information: The user's initial password and password recovery information, if any
- User role: The user's function in the system. The role determines the permissions that can be assigned to the user that determine the apps and functionality they can access. For information about user roles, see [User roles](#) on page 27.
- Permission groups: The permissions that control what a user sees and what actions they can perform. See [User permission groups](#) on page 28.
- Display settings: Any default settings that you want to apply to determine how data is displayed to the user

- Additional associations: Legal entities and groups that affect how a user can trade and with whom

**To add a new user to the system:**

1. Navigate to the User List screen (**Organization > User > User List**).
2. Click the **Add User** link.
3. Enter information for the new user in the User Creation - Data Entry screen.

---

**NOTE:** Fields marked with an asterisk (\*) are required.
4. Enter the user's security information. See [Static password maintenance](#) on page 443 for details about password policies.
5. Enter the user's contact information.
6. Choose a user role from the **User Role** drop-down list. For information about user roles, see [User roles](#) on page 27.
  - MARKETMAKER: Trading user (can be granted Admin access with permissions)
  - SALESDEALER: Trading supervisor (cannot trade, no Admin access)
  - FIADMINMakerChecker: Admin user (cannot trade except through manual trades in the Admin Portal)
7. Choose the permission groups for the user. You can use the **Filter** field to focus your view of items in the list. Click the question mark (?) link or see [Filter lists of data](#) on page 449. For information about permission groups, see [User permission groups](#) on page 28.
8. Click **Next**.
9. Choose the user groups and sales dealer groups for the new user.
10. Click **Next**.
11. Enter the user's display settings.
12. Click **Next**.
13. For a trading user, select the checkboxes of the legal entities (accounts) for which you want the new user to be able to trade.
14. Click **Finish** to save the new user.

If at any time you click the **Cancel** button, the Admin Portal opens the User Creation Wizard Cancellation Confirmation screen and asks you to confirm your cancellation.

## 1.4.2 Copy an existing user

If you need to add a new user to the system with the same basic details and permission groups as an existing user, you can simply copy the existing user.

1. Navigate to your organization's User List screen (**Organization > User > User List**).
2. Use the tools in the User List panel to find the existing user that you want to copy.
3. Click the  **Copy** button of the user that you want to copy.

The Copy User popup window opens. The title of the window indicates both the user and the organization to which the user belongs.

4. Enter the ID, name, and password for the new user in the appropriate fields.

5. Click **OK**.

The new user is created and the User Detail Edit screen opens so that you can further edit the new user as necessary.

### 1.4.3 Edit a user's details

You can edit the following information about an existing user:

- [Edit a user's contact information on page 21](#)
- [Enable trading emails for a user on page 22](#)
- [Edit a user's display settings on page 21](#)
- [Edit a user's security details on page 25](#)
  - [Reset a user's static password and password policy on page 25](#)
  - [Change a user's secret question and answer on page 25](#)
  - [Edit a user's permissions on page 26](#)
  - [Force a user to reconfirm the legal agreement on page 27](#)
- [Associate a user with legal entities on page 21](#)
- [Associate a user with sales dealer groups on page 50 \(Sales Dealer users only\)](#)

#### Edit a user's contact information

1. Navigate to the User List screen ([Organization > User > User List](#)).
2. Click the ID of the user that you want to edit.
3. Edit the user contact information in the Main Details panel of the User Detail Edit screen.

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**NOTE:** Fields marked with an asterisk (\*) are required.

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**NOTE:** Separate multiple email addresses with a semicolon or a comma.

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4. Click **Save**.

#### Edit a user's display settings

1. Navigate to the User List screen ([Organization > User > User List](#)).
2. Click the ID of the user that you want to edit.
3. Click the **Display** link.
4. Edit the display setting in the Display Preferences screen.
5. Click **Save**.

#### Associate a user with legal entities

You can configure the legal entities with which a user is able to trade. A user can be enabled for more than one [legal entity](#).

The Admin Portal gives you several different approaches for configuring legal entities for users:

***Configure legal entities for an individual user:***

1. Navigate to the User List screen (**Organization > User > User List**).
2. Click the ID of the user that you want to edit.
3. Click the **User/Legal Entity** link.
4. Select the checkboxes of the legal entities that you want to enable for the user.
5. Click **Save**.

***Enable all legal entities for an individual user:***

1. Navigate to the User List screen (**Organization > User > User List**).
2. Click the ID of the user that you want to edit.
3. Click the **Activate All** button.

The system activates all legal entities for the user, showing confirmation message that indicates the number of legal entities that were enabled.

***Manage legal entities for all users using a matrix:***

1. Navigate to the User List screen (**Organization > User > User List**).

At the bottom of the screen, a matrix displays all users across the top and all legal entities on the left side. A checkbox at the intersection of each user and legal entity indicates whether or not the user is enabled for the legal entity. As you edit the values, the cells in the matrix change color so that you can keep track of your changes. You can filter the matrix by user and legal entity by using the filter fields at the top of the matrix. For information about using filter expressions, see [Filter lists of data](#) on page 449.

2. You can do any of the following to configure the matrix:
  - Select or clear the checkboxes of the individual user/legal entity combinations.
  - To configure all users for a legal entity, select or clear the leftmost checkbox in a legal entity row.
  - To configure all legal entities for a user, select or clear the topmost checkbox in a user column. A **Save** button appears at the top of the column allowing you to save changes for an individual user.
3. To save all of your changes, click the **Save** button in the top left corner of the matrix. To save changes for individual users, click the **Save** button at the top of the user's column. You can collapse the matrix to show only the items that have changed by selecting the **Show changes only** checkbox.

#### 1.4.4 Enable trading emails for a user

You can configure a user to receive an email for each event on orders and trades. The user receives one email for every event on every order or trade. To limit the volume of email, you can restrict ESP trading emails to resting orders only.

---

**NOTE:** The emails are sent to the addresses in the **Email Address** field of the **Main Details** panel.

1. Navigate to the User List screen (**Organization > User > User List**).

2. Click the ID of the user that you want to edit.
3. In the **Trading Emails** panel, select the **Enable emails** checkbox.
4. Select the checkboxes of the ESP trading events that trigger emails in the **ESP Emails** panel:
  - Acceptance: Request to trade is accepted
  - Verification: Trade verified
  - Rejection: Request to trade is rejected
5. To restrict ESP trading emails to resting orders only, select the **Resting Order Only** checkbox in the **ESP Emails** panel. Resting orders are currently GTC orders or day orders. Selecting this checkbox reduces email volume by restricting emails to the order types that are mostly likely to require email notification.
6. Select the checkboxes of the RFS trading events that trigger emails in the **RFS Emails** panel:
  - Request: Request for stream accepted
  - Request reject: Request for stream rejected
  - Acceptance: Request to trade accepted
  - Verification: Trade verified
  - Rejection: Request to trade is rejected
7. Click **Save**.

#### Trade event email: request to trade

The following email is sent to enabled users when their request to trade is received by Integral:

You have requested to execute the following trade:

Order ID : 343047536  
Organization : YourOrg  
Legal Entity : YourOrgLEI  
User : traderUser  
Trade date : May 25,2016  
Value date : May 27,2016  
Trade type : FXSPOT  
Currency pair : EUR/USD  
Buy currency : EUR  
Sell currency : USD  
Dealt amount : 500,000.00  
Rate : 136369  
Counterparty : BNKO

This email will be followed by a trade verification or trade rejection email.

If you do not receive a follow up email within short period of time, please contact the support number below.

If you have any questions regarding this email, please contact your system administrator.

#### Trade event email: trade verification

**The following email is sent to enabled users when their trade is verified by the price provider:**

You have executed the following trade:

Order ID	:	343047536
Trade ID	:	FXI384482604
Organization	:	YourOrg
Legal Entity	:	YourOrgLEI
User	:	traderUser
Trade date	:	May 28,2014
Value date	:	May 30,2014
Execution date/time	:	May 27,2014 23:11:02 GMT
Trade type	:	FXSPOT
Currency pair	:	EUR/USD
Buy	:	EUR 500,000.00
Sell	:	USD 681,845.00
Rate	:	136369
Counterparty	:	BNKO
Counterparty Account	:	BNKOle
Order Notes	:	Notes on the order only visible to submitting user and submitting user's org

If you have any questions regarding this email, please contact your system administrator.

### Trade event email: trade declined

**The following email is sent to enabled users when their request to trade is declined by the price provider:**

Your trade attempt has been declined by the provider: FXLP27

Reason: Price no longer valid

Order ID	:	343047536
Trade ID	:	FXI384482602
Organization	:	YourOrg
Legal Entity	:	YourOrgLEI
User	:	traderUser
Trade date	:	May 28,2014
Value date	:	May 30,2014
Trade type	:	FXSPOT
Currency pair	:	EUR/USD
Buy currency	:	EUR
Sell currency	:	USD
Dealt amount	:	500,000.00

Rate : 136367

Counterparty : FXLP27

If you have any questions regarding this email, please contact your system administrator.

#### 1.4.5 Edit a user's security details

A user's security details control how the user accesses the system and how they experience the user interface.

- [Reset a user's static password and password policy](#) on page 25
- [Change a user's secret question and answer](#) on page 25
- [Set a user's authentication details](#) on page 26
- [Edit a user's permissions](#) on page 26
- [Force a user to reconfirm the legal agreement](#) on page 27
- [Review a log of legal agreements for a user](#) on page 27

Reset a user's static password and password policy

See [Static password maintenance](#) on page 443 for details about password policies.

1. Navigate to the User List screen (**Organization > User > User List**).
2. Click the ID of the user that you want to edit.
3. Click the **Security** link.
4. Type a new password in the **Confirm Password** field.
5. Retype the new password in the **Password** field.
6. *(Optional)* For greater security, select the **Change Password At Next Login** checkbox to force the user to enter their own password when they next log in.
7. *(Optional)* When trading is suspended for maintenance, user accounts are inactivated and inaccessible by default. To enable the user to log in and access non-trading functionality, select the **Exempt From Inactivation** checkbox.
8. *(Optional)* By default, a user's password expires and must be changed periodically, typically every 90 days. The user cannot log in until they change their expired password. To exempt the user from this policy and allow a password to remain valid indefinitely, select the **Exempt From Password Expiry** checkbox.
9. *(Optional)* By default, a user's account is inactivated after four (4) unsuccessful attempts to log in. To exempt the user from this policy and allow an unlimited number of log-in attempts, select the **Exempt From Password Locking** checkbox.
10. *(Optional)* If the user has specified a question and answer for password recovery, enter them into the **Secret Question** and **Secret Answer** fields. The maximum length for each field is 50 characters.
11. Click **Save**.

Change a user's secret question and answer

If a user forgets their password, the Admin Portal allows the user to request a new password after successfully answering a challenge question.

The answer to the secret question should be something that is known only to the user and that cannot be worked out or inferred from the question.

The Admin Portal sends the new password to the email address specified in the user's contact information. See [Edit a user's contact information](#) on page 21.

1. Navigate to the User List screen (**Organization > User > User List**).
2. Click the ID of the user that you want to edit.
3. Click the **Security** link.
4. Enter a question in the **Secret Question** field.
5. Enter the answer to the secret question in the **Secret Answer** field. This is the answer that the user must submit to obtain a new password.
6. Click **Submit**.

#### Set a user's authentication details

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**NOTE:** You must choose an authentication type other than "Static Password" for your organization to activate the user's authentication tools. See [Choose an authentication type for your organization](#) on page 18 for details.

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1. Navigate to the User List screen (**Organization > User > User List**).
2. Click the ID of the user that you want to edit.
3. Click the **Security** link.
4. Click the **External Authentication Type** checkbox to enable the organization's authentication for the user.
5. For two-factor authentication (2FA), enter the user's serial number in the **Serial No.** field.
6. If using 2FA or One Time Password and the user requires a new token, click the **Reset Token** button.
7. Click **Save**.

#### Set a user's single sign on (SSO) ID

An SSO ID is a globally unique ID assigned to a user for SSO access to Integral apps from your organization's apps and websites. Contact your Solution Manager for more information about SSO.

1. Navigate to the User List screen (**Organization > User > User List**).
2. Click the ID of the user that you want to edit.
3. Click the **Security** link.
4. Enter the user's SSO ID in the **External SSO ID** checkbox to enable the organization's authentication for the user.
5. Click **Save**.

#### Edit a user's permissions

The permission groups assigned to a user determine what they can see in their user interface and what actions they can take.

See [User permission groups](#) on page 28 for a list of permission groups.

1. Navigate to the User List screen ([Organization > User > User List](#)).
2. Click the ID of the user that you want to edit.
3. Click the **Security** link.
4. Add permission groups by clicking listings in the Available list on the left and clicking the **Add>>** button.
5. Remove permission groups by selecting listings in the Included list on the right and clicking the **<<Remove** button.

---

**NOTE:** A user must have at least one permission group assigned to it.

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6. Click **Save**.

#### Force a user to reconfirm the legal agreement

1. Navigate to the User List screen ([Organization > User > User List](#)).
2. Click the ID of the user that you want to edit.
3. Click the **Security** link.
4. Select the **Reconfirm Legal Agreement** checkbox.
5. Click **Save**.

The user must reconfirm the legal agreement on their next log in so that they can access the system.

#### Review a log of legal agreements for a user

1. Navigate to the User List screen ([Organization > User > User List](#)).
2. Click the ID of the user you want to review.
3. Click the **Security** link.
4. Click the **View Legal Agreement Audit Log** link.

A pop-up window opens with the user's Agreement Audit Log Report with a list of legal agreement activity.

5. When you have finished reviewing the user's activity, click **Close** to close the window and return to the Admin Portal.

#### User roles

User roles define a user's experience of an app at the most basic level.

You assign a user role when you add a user to the system. See [Add new users](#) on page 19 for more information. For a list of permission groups available by user role, see [User permission groups](#) on page 28.

You can create users with the following user roles:

- Market Maker
- Sales Dealer
- Sales Administrator
- FI Admin Maker/Checker

The following table describes the basic functionality of each user role in each app:

**Table 1-2 User roles per app**

App: .NET Client	
User Role	Description
Market Maker	<ul style="list-style-type: none"> <li>• .NET Client trading user</li> <li>• All menus, toolbars, and panels are available. What the user sees depends on their permissions.</li> <li>• Trading is enabled.</li> </ul>
Sales Dealer	<ul style="list-style-type: none"> <li>• Supervisory user in the .NET Client app</li> <li>• All menus, toolbars, and panels are available. What the user sees depends on their permissions.</li> <li>• Trading is disabled. When the user attempts to take a price, an error message "Trading credentials disabled" is displayed in the status bar.</li> </ul>
Sales Administrator	<ul style="list-style-type: none"> <li>• Supervisory user in the .NET Client app</li> <li>• Only the Prices panel is available.</li> <li>• Only the Prices button is available in the toolbar.</li> <li>• No menus are available.</li> <li>• Trading is disabled. When the user attempts to take a price, an error message "Trading credentials disabled" is displayed in the status bar.</li> </ul>
FI Admin Maker/Checker	<ul style="list-style-type: none"> <li>• Supervisory user in the .NET Client app</li> <li>• All menus, toolbars, and panels are available, except the menu item to access the Admin Portal. It is assumed that the user would access the Admin Portal directly rather than through the .NET Client app.</li> <li>• Trading is disabled. When the user attempts to take a price, an error message "Trading credentials disabled" is displayed in the status bar.</li> </ul>
App: Admin Portal	
User Role	Description
Market Maker	Full access to the Admin Portal depending on user permissions
Sales Dealer	Full access to the Admin Portal depending on user permissions
Sales Administrator	No access to the Admin Portal
FI Admin Maker/Checker	Full access to the Admin Portal depending on user permissions

## User permission groups

Permission groups define the screens and functionality that the user can access. When you create a new user, you assign a user role to the user and then further refine the user's experience of the app by assigning permission groups.

- [User permission groups for all users](#) on page 29

- [User permission groups for new customer users](#) on page 49

For more information about user roles, see [User roles](#) on page 27.

### User permission groups for all users

Permissions define the screens and functionality that the user can access in various trading apps. When you create a new user, you assign a user role to the user and then further refine the user's experience of the app by assigning permissions.

**Table 1-3** Permission groups for all users

Permission Group	App	Description
Account Balances View	—	—
Account Deposit	—	—
Account Withdraw	—	—
Admin Accounts View Edit	Admin	—
Admin Administrative Privileges	—	—
Admin Audit User	Admin	Access to the Organization > User > Audit screen and for users with Customer Portal permissions, access to the Counterparty > Customers > Audit > User Audit screen.
Admin Broker Customer Management	Admin	Access to Counterparty > Customers screens for broker organization's configured to manage their customers' data.
Admin Business Center View Edit	Admin	Edit access to the Organization > Business Center page
Admin Business Center View Read Only	Admin	Read-only access to the Organization > Business Center page
Admin Cancel Maker Trade	Admin	Amendments tab: Trade Cancellation
Admin Credit Limit View Read Only	Admin	Read-only access to the Counterparty > Credit page
Admin Credit Methodology and Margining	Admin	Edit access to the Credit Methodology, Margin-related and Maximum and Minimum Tenor fields in the Counterparty > Credit > Setup page
Admin Credit Methodology and Margining for Traiana	Admin	—
Admin Currency Pair Groups View Edit	Admin	Edit access to: <ul style="list-style-type: none"> <li>• Counterparty &gt; Currency Pairs</li> <li>• Organization &gt; Currency Pair Groups</li> </ul>
Admin Currency Pair Groups View Read Only	Admin	Read only access to: <ul style="list-style-type: none"> <li>• Counterparty &gt; Currency Pairs</li> <li>• Organization &gt; Currency Pair Groups</li> </ul>

**Table 1-3** Permission groups for all users (continued)

Permission Group	App	Description
Admin Customer Trading Restrictions View Edit	Admin	OBsolete. Do not assign to users.
Admin Customer Trading Restrictions View Read Only	Admin	OBsolete. Do not assign to users.
Admin Display Preferences LP View Edit	Admin	
Admin Display Preferences View Edit	Admin	Access to Preferences > Display Preferences
Admin Exception Trades Status View Edit	Admin	Access to the Amendments > Exceptions page
Admin Legal Entity Identifier Edit	Admin	Allows users to edit LEI data. If not assigned, the LEI data is read-only.
Admin Legal Entity View Edit	Admin	Edit access to the Organization > Legal Entities page
Admin Legal Entity View Read Only	Admin	Read-only access to the Organization > Legal Entities page
Admin Liquidity Provisioning View Edit	Admin	User must also have the Admin Liquidity Rules View Edit permission to access the Liquidity Rules screen. Edit access to the Liquidity Provisioning panel in the Liquidity Rules screen: Organization > Liquidity Rules > Liquidity Rules
Admin Liquidity Rules Master Control	Admin	User must also have the Admin Liquidity Rules View Edit permission to access the Liquidity Rules screen. Access to the Master Control panel in the Liquidity Rules screen: Organization > Liquidity Rules > Liquidity Rules
Admin Liquidity Rules Price Making View Edit	Admin	Edit access to the Liquidity Rules screen (Organization > Liquidity Rules > Liquidity Rules) and the Liquidity Providers panel.
Admin Liquidity Rules View Edit	Admin	Edit access to the Aggregation screen (Organization > Liquidity Rules > Price Making).
Admin Manual RFQ	Admin	Access to the Counterparty > Price Making > Manual RFQ screen and trading alerts configuration in Preferences > Display Preferences ( <b>Show Trading Alert</b> checkbox, <b>Enable Sound Alerts</b> checkbox, <b>Select Sound Alert</b> drop-down list)
Admin Manual Trade Creation	Admin	Access to the Amendments > Manual Trades page and the ability to create trades and upload a CSV trade file
Admin Manual Trade View Read Only	Admin	Read-only access to the Amendments > Manual Trades page. Restricted to viewing any manual trades created

**Table 1-3** Permission groups for all users (continued)

Permission Group	App	Description
Admin Market Data View Edit	Admin	Access to the Counterparty > Price Making > Market Data page
Admin Matrix Customer Wizard Edit	Admin	
Admin Matrix Provider Streams Edit	Admin	
Admin Matrix Stream Management Edit	Admin	Access to the Stream Management screen (Organization > Stream Management).
Admin Netting Positions	Admin	Access to the Amendments > Netting page, which allows users to cancel multiple trades and rebook as one trade
Admin Org Details View Edit	Admin	Edit Access to the Organization > org ID > Organization Details page and access to the Organization > Liquidity Rules > Liquidity Rules page
Admin Org Details View Read Only	Admin	Read only access to the Organization > org ID > Organization Details page
Admin Password LP View Edit	Admin	
Admin Password View Edit	Admin	Access to Preferences > Password Maintenance
Admin Pending Trades Status View Edit	Admin	Access to the Amendments > Pending Trades page
Admin Position Management	Admin	Edit Access to the Position tab and the Position Service functionality
Admin Price Making Audit	Admin	Access to the Counterparty > Price Making > Audit page
Admin Price Making Emergency View Edit	Admin	Edit access to the Emergency System Switches page with global control of pricing ON/OFF, trading ON/OFF, and open orders CANCEL ALL.
Admin Price Making Master Control Read Only	Admin	Grants read-only access to Price Making Status screen ( <b>Counterparty &gt; Price Making &gt; Status</b> ) and the tools in the Emergency System Switches screen ( <b>Emergency</b> ) in the Admin app. Users with the permission can access the screens but all buttons in all sections are disabled (Master Control, Liquidity Providers, Status).
Admin Price Making View Edit	Admin	Edit access to the Counterparty > Price Making pages
Admin Price Making View Read Only	Admin	Read-only access to the Counterparty > Price Making pages

**Table 1-3** Permission groups for all users (continued)

Permission Group	App	Description
Admin Price Provision All Customer View Edit	Admin	<p>For manager users:</p> <ul style="list-style-type: none"> <li>See all customer organizations in the price provisioning Counterparties screen (<b>Counterparty &gt; Price Provisioning &gt; Counterparties</b>). Overrides counterparty visibility restrictions set for salesperson users.</li> <li>Access spread upload tools in the Spread Profiles screen (<b>Counterparty &gt; Price Provisioning &gt; Spread Profiles</b>). Salesperson users do not see CSV upload tools in the screen.</li> </ul>
Admin Price Provision View Edit	Admin	Edit access to the Counterparty > Price Provisioning page to configure customer trading limits, set spreads on ESP spot rates, and permission RFS trade types
Admin Price Provision View Read Only	Admin	Read-only access to the Counterparty > Price Provisioning page to view customer trading limits, spreads on ESP spot rates, and permissioned RFS trade types
Admin Price Regen View Edit	Admin	Edit access to the Counterparty > Liquidity Regeneration page to configure trading suppressions such as price removal for a period of time after an execution
Admin Prime Brokerage View Edit	Admin	Edit access to items in list in Counterparty > Trading Parties page
Admin Prime Brokerage View Read Only	Admin	Read-only access to items in list in Counterparty > Trading Parties page
Admin Reports	Admin	Access to the Summary, Statistics, Volume, Trends, Positions, Settlements, Trades, and Archives pages under Reports as well as a Read Only view of the Amendments > Manual Trades page
Admin Reports Done Trades	Admin	<p>Access to the following reports:</p> <ul style="list-style-type: none"> <li>Trades <ul style="list-style-type: none"> <li>Trade Details</li> <li>Trade Reconciliation</li> </ul> </li> </ul>
Admin Reports EOD Rates	Admin	Access to Reports > EOD Rates
Admin Reports Provider Rank	Admin	Reports > Analysis > Provider Rank
Admin Reports Rejected Trades	Admin	Reports tab: Rejected Trades
Admin Sales Dealer Group View Edit	Admin	Access to Organization > Sales Dealer Groups screens.
Admin Sales Dealer Group View Read Only	Admin	Read-only access to Organization > Sales Dealer Groups screens.

**Table 1-3** Permission groups for all users (continued)

Permission Group	App	Description
Admin Self Org Users Hide	Admin	The user cannot view or access other users in their own organization.
Admin Self Org Users View Read Only	Admin	The user has read-only access to other users in their own organization.
Admin STP Download View Edit	Admin	Edit access to the Organization > STP Download Configuration page
Admin STP Download View Read Only	Admin	Read-only access to the Organization > STP Download Configuration page
Admin Trading Party View Edit	Admin	Edit access to the Counterparty > Trading Parties page
Admin Trading Party View Read Only	Admin	Read-only access to the Organization > Trading Parties page
Admin Trading Relationship View Edit	Admin	Edit access to the Counterparty > Relationships page
Admin Trading Relationship View Read Only	Admin	Read-only access to the Counterparty tab > Relationships page
Admin Unconfirmed Trades Status View Edit	Admin	Amendments tab: Unconfirmed
Admin Update Traded LE for All Users	Admin	
Admin Update Traded LE for My Trades	Admin	
Admin Users Erase PII Data	Admin	Erase PII data instead of just inactivating database entities, required for regulatory conformance.
Admin Users View Edit	Admin	Edit access to the Organization > User > User List page and all associated user pages. With additional permissions, edit access to the Counterparty > Users list screen and associated user pages. Required for access to the Stream Management Portal.
Admin Users View Read Only	Admin	Read-only access to the Organization > User > User List page and all associated user pages. With additional permissions, read-only access to the Counterparty > Users list screen and associated user pages.
Chief Dealer View Only	—	—
Customer Billing View Report User Group	—	—
Disable Mobile Trade History Query	—	—
EDW	—	—

**Table 1-3** Permission groups for all users (continued)

Permission Group	App	Description
FXI Pro Receive FX Grid MidRate Group	FXI	DEPRECATED. DO NOT ASSIGN TO USERS.
FXI7 Add Currency	FXI7	—
FXI7 Enable Forward Strip	FXI7	—
FXI7 Enable Notification Permission	FXI7	Controls access to notification settings and functionality.
FXI7 Enable Pre TradeAllocation	FXI7	—
FXI7 Enable RFS Spreads	FXI7	—
FXI7 Hide Ccy Pair Configuration	FXI7	—
FXI7 Hide Setting	FXI7	Controls access to the settings panel.
FXI7 Hide Stop Order Trigger	FXI7	—
FXI7 Hide Volatile Market Button	FXI7	—
FXI7 Mobile Enable FullBook	FXI7	—
FXI7 Mobile Enable Stream Outright	FXI7	—
FXI7 Single Currency Board	FXI7	—
FXI7 Windows Forward	FXI7	—
FXI7 Window Forward	FXI7	Controls access to RFS Window Forward trading panel. Your liquidity provider must support window forward pricing to successfully request prices and trade.
FXIDirect Disable FMA Trading	FXI	Disables FMA price buttons in the Relationship Trading panel. FMA prices are still shown, but the buttons are disabled for trading.
FXIHTM Advanced Orders Panel	HTML	DEPRECATED (Orders/New Order panels available by default. Use "FXIHTM Hide Order Panel" to hide Orders panel.) Controls access to the new Orders panel in the HTML Client (order entry tools are contained in the pop-up New Order panel and the existing Orders panel contains only submitted order status).
FXIHTM Algo Orders Pegged	HTML	Controls submission of pegged algo orders and access to related UI tools.
FXIHTM Algo Orders Switch Dark	HTML	Controls submission of Dark Switch algo orders and access to related UI tools.

**Table 1-3** Permission groups for all users (continued)

Permission Group	App	Description
FXIHTM Algo Orders Switch Dark Hide NWTP	HTML	—
FXIHTM Algo Orders TWAP	HTML	Controls submission of TWAP algo orders and access to related UI tools.
FXIHTM Detach Panels	HTML	DEPRECATED. Enable detachable panels.
FXIHTM Direct View	HTML	
FXIHTM Disable ESP	HTML	Gives the user a non-trading view of the HTML Client. The user can interact with the interface and see prices, but cannot trade.
FXIHTM Disable Range	HTML	<ul style="list-style-type: none"> <li>Orders placed from the FX Board, FX Ladder, and FX Full Book panels and the <b>FILL@Mkt</b> button on the Orders status panel are LIMIT orders with market range 0 (zero).</li> <li>The <b>Range</b> and <b>Fill @ Mkt Range</b> fields are hidden in the Trading settings window (<b>Settings &gt; Trading</b>).</li> </ul>
FXIHTM Enable Close Panels	HTML	Enable closable panels.
FXIHTM Enable Fill At Market	HTML	Hide the GTC time-in-force from all panels and settings.
FXIHTM Enable Full Fill	HTML	Do not assign to users. Obsolete.
FXIHTM Enable RFS	HTML	Enables RFS trading.
FXIHTM Enable Themes	HTML	Enables UI themes.
FXIHTM Enable Trigger	HTML	Enables the Stop Trigger drop-down list in the Order Entry panel.
FXIHTM Enable Zoom	HTML	If system is configured, user can export orders, positions, and done trades from the Blotter panel to a file.  <b>NOTE:</b> Please contact your Technical Account Manager if you need access to this functionality.
FXIHTM Export Blotter	HTML	Adds a button to that enables exporting blotter data to CSV and PDF files.
FXIHTM Hide Blotter	HTML	Hides blotters.
FXIHTM Hide Charts All	HTML	Hides all charts from the user.
FXIHTM Hide Charts Tick	HTML	Hides only the tick chart from the user.
FXIHTM Hide ESP Prices	HTML	
FXIHTM Hide FX Board Panel	HTML	Hides the FX Board panel in the FX Inside HTML trading app.
FXIHTM Hide Ladder Panel	HTML	Hides the Ladder module in the FX Inside HTML trading app.

**Table 1-3** Permission groups for all users (continued)

Permission Group	App	Description
FXIHTM Hide Order Panel	HTML	
FXIHTM Hide Position Blotter	HTML	
FXIHTM Hide Time in Force GTC	HTML	Controls access to the GTC time in force
FXIHTM If Done Orders	HTML	User can submit If Done orders. Adds the <b>If Done</b> checkbox the Orders panel.
FXIHTM Order Amend	HTML	Controls access to order size/amount amend tools in Orders panel.
FXIHTM Order Submit TP/SL	HTML	Controls access to TP/SL order tools in New Order panel.
FXIHTM Orders Allow Day Only	HTML	User can only submit day orders. User must have permission to submit day orders with the "FXIPro Submit Order Day" permission group.
FXIHTM Organization View	HTML	Adds <b>Trader View/Organization View</b> drop-down list to Done Trades blotter so that the user can choose to show only their own trades (Trader View) or their own trades and trades done by other users in their organization (Organization View). The user must also have the "FXIPro Blotter Done Trades Chief Dealer" permission group to see other users' trades.
FXIHTM RFS Full Book	HTML	Control access to the RFS Full Book panel.
FXIHTM RiskNet FIX	HTML	
FXIHTM RiskNet N-FIX	HTML	Enables midbook RiskNet trading.
FXIHTM Show Admin Link	HTML	Shows a link to the Admin Portal in the HTML Client. The user can access admin functionality according to the admin permissions assigned to the user ID.
FXIHTM Show Reports Link	HTML	Shows a link to Integral Analytics in the HTML Client. The user can access reporting functionality according to the permissions assigned to the user ID.
FXIHTM Show Spreads	HTML	Displays bid/offer spread in trading panels in HTML Client
FXIHTM SingleLP UI	HTML	Gives the user access to the single-LP interface (no LP names shown, no access to FX Full Book panel)
FXIHTM Staging Panel	HTML	Controls access to the Staging Area.
FXIHTM Swap Ladder	HTML	—
FXIHTM Switch Orders	HTML	Controls access to Switch orders.
FXIHTM Trade Ticker	HTML	Shows the trade ticker.

**Table 1-3** Permission groups for all users (continued)

Permission Group	App	Description
FXIHTM Web Application Access	HTML	Allows the user to log in to the HTML Client
FXIPro Account Details Module	FXI5	The user can access the Account Details module and review balance, P/L, and margin information.
	FXI6	
FXIPro Admin Portal Access	FXI5	Base permission group to access the Admin Portal from FX Inside
	FXI6	
FXIPro Advanced Orders Panel Access	FXI	<p>DEPRECATED. The functionality of the Advanced Orders panel has been moved to the Orders module and control over the ability to submit the order types previously only available from the Advanced Orders module are now controlled by the individual permission groups:</p> <ul style="list-style-type: none"> <li>• FXIPro Submit Order TP/SL</li> <li>• FXIPro Submit Order If Done</li> </ul> <p>User can access the Advanced Orders module to submit linked orders.</p>
FXIPro Algo Orders Edit	FXI	DEPRECATED. .NET client users can submit algo orders and add user-defined strategies.
FXIPro Algo Orders Pegged	FXI5	DEPRECATED. .NET client users can access the peg tools in the Orders module, submit pegged orders, and add user-defined pegged strategies.
FXIPro Algo Orders Read Only	FXI	DEPRECATED. .NET client users can submit algo orders, but prevents a user from adding user-defined strategies.
FXIPro Algo Orders TWAP	FXI5	DEPRECATED. .NET client users can access the TWAP tools in the Orders panel, submit TWAP orders, and add user-defined TWAP strategies.
FXIPro Allow Batch SSP	FXI	
FXIPro Amend Working Orders	FXI	User can amend working orders in the orders list of the Orders module.
FXIPro API Exec Tags	FXI	DEPRECATED. Allow FIX APIs to send special tags on order messages.
FXIPro Auto Correct Position	FXI	DEPRECATED.
FXIPro Blotter Done Trades	FXI	The Done Trades panel is available to the user in the Blotter panel.

**Table 1-3** Permission groups for all users (continued)

Permission Group	App	Description
FXIPro Blotter Done Trades Chief Dealer	FXI5 FXI6 HTML	FXI5/FXI6: The <b>View</b> drop-down list in the Monitors panel is enabled. The user can view all trades by all the users in the organization in the Done Trades blotter.  FXI Clear/HTML Client: The user must have this permission as well as the "HTML Organization View" permission group to see other users' trades.
FXIPro Blotter Expired Withdrawn Requests	FXI	DEPRECATED. The user can access the Expired blotter
FXIPro Blotter Messages Chief Dealer	FXI5	DEPRECATED. The <b>View</b> drop-down list in the Monitors panel is enabled. The user can view all messages for the trades done by all the users in the organization in the Message panel.
FXIPro Book Trade	FXI5	Controls access to Manual Trade panel in .NET trading app. Adds Manual Trade toggle button to RFS or Sales Dealer panel. To book manual trades, the user must also have one of the following permissions: <ul style="list-style-type: none"><li>• FXIPro Sales Dealer Trading</li><li>• FXIPro RFS Request Two Way</li><li>• FXIPro RFS Request One Way</li></ul>
FXIPro Charts	FXI5	DEPRECATED. Enables charts.
FXIPro Chief Dealer Amend Org Orders	FXI5	DEPRECATED. The user can amend orders submitted by all users in the organization. The <b>OFF ALL ORG</b> button is also visible to the user in the toolbar and the blotter module allowing the user to cancel all active orders in the organization.
FXIPro Chief Dealer Batch Processing	FXI5	DEPRECATED. Processes Chief Dealer messages as batches.
FXIPro Chief Dealer Blotter Filter by LE	FXI5	DEPRECATED. Filter the Blotter for Chief Dealer users to show only trades and messages for specific legal entities when showing organization messages and trades initiated by other users.
FXIPro Direct View	FXI	DEPRECATED. Enables FXI Direct Mode.
FXIPro Disable Term Currency Trading	FXI5	DEPRECATED. Controls visibility of buttons in the panels that allow users to switch between the base and term currency as the dealt currency.
FXIPro Enable RFS Trading	FXI5 FXI6	The user can access the RFS trading modules, see RFS information in the monitors and reports, and submit RFS requests.
FXIPro Enable Stop Order Trigger	FXI	Enables the Trigger drop-down list in .NET client orders modules so that users can choose the side of the stop order trigger.

**Table 1-3** Permission groups for all users (continued)

Permission Group	App	Description
FXIPro ESP Spot Trading	FXI HTML	The user can execute ESP spot trades in the trading modules, submit all order types, and access reports.
FXIPro Excel Integration	FXI5	DEPRECATED. User has access to a button in the FX Board module and settings that stream prices from the FX Board module to an Excel file.
FXIPro Hide Done Trades Blotter	FXI	DEPRECATED. The Done Trades blotter and related UI elements are not visible to the user.
FXIPro Hide Exceptions Blotter	FXI	DEPRECATED. The Exceptions blotter and related UI elements are not visible to the user.
FXIPro Hide FILL@MKT Buttons	FXI5	All FILL@MKT buttons are not visible to the user (Order module's order list, Orders blotter, order notification popup window).
FXIPro Hide Full Book Module	FXI	DEPRECATED. The Full Book module and related UI elements are not visible to the user.
FXIPro Hide FX Board Module	FXI	DEPRECATED. The FX Board module and related UI elements are not visible to the user.
FXIPro Hide Messages Blotter	FXI	DEPRECATED. The Messages monitor and related UI elements are not visible to the user.
FXIPro Hide Orders Blotter	FXI5	DEPRECATED. The Orders blotter and related UI elements are not visible to the user.
FXIPro Hide Orders Module	FXI5	The Orders module and related UI elements are not visible to the user. Not used in FXI6.
FXIPro Hide Positions Blotter	FXI	DEPRECATED. The Positions monitor and related UI elements are not visible to the user.
FXIPro Hide RFS Full Book Module	FXI	DEPRECATED. The RFS Full Book module and related UI elements are not visible to the user.
FXIPro Hide RFS Module	FXI	DEPRECATED. The RFS module and related UI elements are not visible to the user.
FXIPro Intrafloor Prices Trade	FXI5	DEPRECATED. Users can see and hit prices submitted as displayed orders by users in their own organization.
FXIPro Intrafloor Prices View	FXI5	DEPRECATED. Users can see non-tradable prices submitted as displayed orders by users in their own organization.
FXIPro Ladder Panel	FXI5	DEPRECATED. Access to the Ladder module for pricing and trading.
FXIPro Mid Rate	FXI	DEPRECATED. Controls visibility of benchmark mid rate in FX Board panel. User must also have "FXIPro Receive FX Grid MidRate Group" permission group to see mid rates.

**Table 1-3** Permission groups for all users (continued)

Permission Group	App	Description
FXIPro Multiple LE Trading	FXI5	The user can access multiple legal entities with a drop-down list for trading.
	FXI6	
FXIPro Multi-Tabbed FX Board	FXI	
FXIPro OCX Trader	FXI	In the FX Board panel, controls visibility of Bid@ and Offer@ buttons and top-of-book prices and spread.
FXIPro Order Start Time	FXI5	DEPRECATED. Shows the tools to enter a start time for orders from the Orders panel.
FXIPro Order Suspend and Resume	FXI5	DEPRECATED. The user can suspend and resume active orders.
FXIPro Orders Amend	FXI5	DEPRECATED. Enables order amendment.
FXIPro Position Service	FXI	DEPRECATED. Do not assign to users.
FXIPro Price Grid Panel	FXI5	DEPRECATED. Do not assign to users.
FXIPro Prime Mode	FXI	DEPRECATED. Determines whether or not a user sees the multi-LP or the single LP interface. (no LP names in trading panels, Full Book panel not available or applicable, Ladder panel available).
FXIPro Providers Toolbar List	FXI5	Integral internal use only. Controls visibility of Providers combo box in toolbar
	FXI6	
FXIPro Receive FX Benchmark	FXI	Controls benchmark rate streaming to Orders panel in .NET trading app.
FXIPro Receive FX Grid MidRate Group	FXI	Controls mid rate streaming to .NET trading app. User must also have " <a href="#">"FXIPro OCX Trader"</a> " permission group to see rates.
FXIPro REX	FXI	DEPRECATED.
FXIPro RFS Request One Way	FXI5	The user can submit RFS requests for one-way prices only (buy or sell).
	HTML	
FXIPro RFS Request Two Way	FXI5	The user can submit RFS requests for two-way and one-way prices (buy or sell).
	HTML	
FXIPro RFS Trade NDF	FXI5	DEPRECATED. The NDF order type is added to the drop-down list in the RFS module.
FXIPro RFS Trade NDF Swap	FXI5	DEPRECATED. The NDF Swap order type is added to the drop-down list in the RFS module.
FXIPro RFS Trade Outright	FXI5	DEPRECATED. The user can access the RFS trading modules, see RFS information in the monitors and reports, and submit RFS requests for outright.
FXIPro RFS Trade Spot	FXI5	DEPRECATED. The user can access the RFS trading modules, see RFS information in the monitors and reports, and submit RFS requests for spot.

**Table 1-3** Permission groups for all users (continued)

Permission Group	App	Description
FXIPro RFS Trade Swap	FXI5	DEPRECATED. The user can access the RFS trading modules, see RFS information in the monitors and reports, and submit RFS requests for swaps.
FXIPro Sales Dealer Spreads	FXI5	DEPRECATED. Shows spreads boxes in Sales Dealer panel.
FXIPro Sales Dealer Trading	FXI5 HTML	Enables the user to trade on behalf of a customer in .NET, OCX/FXI6, and HTML clients. In HTML client, shows the <b>Org</b> and <b>Account</b> drop-down lists at the top of the screen. The customer organization/legal entity and the user must be part of the same sales dealer group. See <a href="#">Sales dealer groups</a> on page 75.
FXIPro Show Clicked On Rate in Orders Blotter	FXI5	DEPRECATED. User can add the Market Rate column to the Orders Blotter to show the rate clicked on without execution range added.
FXIPro Show Full Fill Settings Checkbox	FXI5	DO NOT ASSIGN TO USERS. DEPRECATED. This feature and functionality are obsolete and not supported. Adds <b>Full Fill</b> checkbox to Orders module and <b>Orders &gt; Quick Orders</b> settings allowing users to submit all-or-nothing (AON) orders.
FXIPro Staging Area Chief Dealer	FXI	
FXIPro Stop Sweep Execution	FXI5	DEPRECATED. Enables sweeping of stop orders
FXIPro Submit Order Day	FXI6	The user can submit day orders
FXIPro Submit Order If Done	FXI5	DEPRECATED. The user can submit If Done orders.
FXIPro Submit Order Market	HTML	The user can submit market orders.
FXIPro Submit Order Stop	FXI5	DEPRECATED. The user can submit stop orders.
FXIPro Submit Order Stop Limit	FXI5	DEPRECATED. The user can submit stop limit orders.
FXIPro Submit Order TP/SL	FXI5	DEPRECATED. The user can access the OCO module and submit One-Cancels-the-Other orders
FXIPro Submit Order Trailing Stop	FXI	DEPRECATED. DO NOT ASSIGN TO USERS. Trailing stops not supported.
FXIPro Themes	FXI5	DEPRECATED. DO NOT ASSIGN TO USERS. Planned for future functionality.
FXIPro Trade Ticker	FXI5	DEPRECATED. Enables the trade ticker.
FXIPro Trading Enabled	FXI5 FXI6 HTML	The permission group that enables a user to trade. A user must have this permission group to be able to trade. If the user does not have this permission, then the user has only read-only access to trading apps.

**Table 1-3** Permission groups for all users (continued)

Permission Group	App	Description
FXIPro Volatile Market Button and Settings Deprecated	FXI5	DO NOT ASSIGN TO USERS. DEPRECATED.
GridMon Dibre Trade Email	GridMonitor	—
GridMon FIX Session View	GridMonitor	—
GridMon Grid Monitor CFSA Trade Email	GridMonitor	—
GridMon Grid Monitor NTRS Trade Email	GridMonitor	—
GridMon Grid Monitor SUNCFSA Trade Email	GridMonitor	—
GridMon Grid Monitor TPSD Trade Email	GridMonitor	—
GridMon Grid Monitor View Edit	GridMonitor	Access to the Grid Monitor
GridMon Grid Monitor View Read Only	GridMonitor	Read-only access to the Grid Monitor
GridMon Grid Monitor WFNA Trade Email	GridMonitor	—
GridMon Market Snapshot View	GridMonitor	—
GridMon Reports	GridMonitor	Access to reports in the Grid Monitor
GridMon RFS Only View	GridMonitor	For admin users only. A user with this permission group sees only the RFS screen when they log in to the Grid Monitor. This permission group is intended to satisfy SEF regulatory requirements.
Hide Price Spreads	???	
HTML Permission With Trading Allowed	FXI	DO NOT ASSIGN TO USERS. DEPRECATED.
HTML Show Accounts Dropdown	HTML	Shows drop-down list with additional accounts to trade under.
HTML Show Accounts Dropdown	HTML	Shows drop-down list with additional accounts to trade under.
HTML Web App Access	HTML	Shows drop-down list with additional accounts to trade under.
InvestorFXDefault	InvestorFX	—
INVFX Base Term Netting Allowed	InvestorFX	Enables/disables base/term netting workflow.

**Table 1-3** Permission groups for all users (continued)

Permission Group	App	Description
INVFX Base Term Netting with Cross Currency Split	InvestorFX	Enables/disables base/term netting with cross-currency split workflow.
INVFX Chief Dealer Portfolio Trading	InvestorFX	Controls access to Portfolio screen and access to organization-wide data and functionality.
INVFX No-Netting Plan Allowed	InvestorFX	Controls access to no-netting workflow.
INVFX Portfolio Display Import Settings	InvestorFX	Controls access to the Import setting to choose between file import and the Staging Area.
INVFX Portfolio Display Netting Settings	InvestorFX	Controls access to netting settings.
INVFX Portfolio Display Workflow Settings	InvestorFX	Controls access to workflow screen settings.
INVFX Portfolio Trading	InvestorFX	Controls access to InvestorFX Portfolio screen.
INVFX Simple Netting Allowed	InvestorFX	Enables/disables simple netting workflow.
INVFX Single Spot Portfolio Allocation	InvestorFX	Enables/disables allocation workflow.
INVFX Staging Area Chief Dealer	InvestorFX	Controls access to Chief Dealer view of Staging Area
INVFX Staging Area Delete Orders Button	InvestorFX	Controls access to <b>Delete Orders</b> button in Staging Area.
INVFX Staging Area Download Draft Button	InvestorFX	Controls access to <b>Download Draft</b> button in Staging Area.
INVFX Staging Area Export Done Button	InvestorFX	Controls access to <b>Export Trades</b> button in Staging Area.
INVFX Staging Panel	InvestorFX	Controls access to the Staging Area panel.
KAVS	FXI	
MIS Reports Access	Admin	Access to the following reports: <ul style="list-style-type: none"> <li>● Profit/Loss               <ul style="list-style-type: none"> <li>○ Cover Trade Profit</li> <li>○ Sales Spread Profit</li> <li>○ Spreads</li> </ul> </li> <li>● Trades               <ul style="list-style-type: none"> <li>○ Trade Summary</li> <li>○ Trade Volume</li> <li>○ Trade Statistics</li> </ul> </li> <li>● Archives</li> </ul>
MIS Reports Billing Fees Read Only	Analytics	—
MIS Reports Billing Rules Read Only	Analytics	—

**Table 1-3** Permission groups for all users (continued)

Permission Group	App	Description
MIS Trade Detail Recon Use AccountID	Analytics	—
Mobile Application Access	—	—
MT4 Admin	—	—
Multiple Boards Access	—	—
OCXT Display Admin TAB	FXI6	Shows tabs to switch between Admin and Trading
New position service	—	—
OCX Trader Full Amount	FXI6	—
OCXT Chief dealer Hide Off All	FXI6	—
OCXT Enable LE Rebooking	FXI6	—
OCXT Hide Chart	FXI6	Hides the Charts panel
OCXT Hide Full Book	FXI6	Hides the Full Book panel
OCXT Hide Market SP Rate and OR Point	FXI6	—
OCXT Hide Ladder	FXI6	Hides the Ladder panel
OCXT Hide Order Entry	FXI6	Hides the Orders panel
OCXT Hide Orders STOP	FXI6	Hides access to the following orders in the Orders panel: STOP, TP/SL, If Done checkbox
OCXT Hide RFS	FXI6	Hides access all RFS UI components.
OCXT Hide RFS Fullbook	FXI6	Hides the RFS Full Book view of RFS panels
OCXT Hide Setting Prices for Max Size Avail	FXI6	Hides the <b>Show Prices for Maximum Size Available</b> checkbox in the General settings window. If the user requests a size greater than the largest available size in the Board panel, prices are stopped to prevent trading and avoid partial fills.
OCXT Hide Swap Ladder	FXI6	—
OCXT Hide SWAP Ladder	FXI6	—
OCXT Hide Ticker	FXI6	Hides the Ticker panel.
OCXT Hide Ticker Market Data	FXI6	Shows only rate updates from trading activity in the ticker
OCXT Hide Ticker Trades	FXI6	Shows only rate updates from pricing
OCXT Hide TIF GTC	FXI6	Hides the GTC time-in-force in all settings and trading panels
OCXT Hide Watchlist	FXI6	Hides the Watchlist panel

**Table 1-3** Permission groups for all users (continued)

Permission Group	App	Description
OCXT Manual Price Credit Override	FXI6	—
OCXT Manual Pricer	FXI6	Enables access the Manual Pricer workflow and UI for quoting customer requests that match the criteria for manual pricing. The Manual Pricer UI includes request popup windows when a manual request is received, the Manual RFQ Status panel, and the Manual Pricer window.
OCXT Manual Pricer Credit Override	FXI6	—
OCXT Manual Pricer Dealer Rate View	FXI6	Users with access to the Manual Pricer workflow can edit the Dealer Rate in the Manual Pricer window.
OCXT Market Maker Allow Application Access	FXI6	Access to Market Maker tab and tools.
OCXT Order OMS	FXI6	Shows <b>Auto</b> and <b>Manual</b> radio buttons in Orders panel for placing orders in Integral OMS
OCXT Order Switch Dark	FXI6	DEPRECATED (part of "OCXT Advanced Trading" permission group)
OCXT Order Switch Lit	FXI6	DEPRECATED (part of "OCXT Advanced Trading" permission group)
OCXT Orders Disable TP/SL	FXI6	Disable TP/SL order type. The button in the Orders panel is grayed out and inactive.
OCXT Orders Hide If Done	FXI6	Hide If Done order type (linked orders). The checkbox is not shown in the Orders panel.
OCXT Orders Hide TWAP	FXI6	Hides the TWAP order type. Not included in <b>Algos</b> drop-down list in the Orders panel.
OCXT Orders LOOP	FXI6	Access to loop orders.
OCXT Orders Quick	FXI6	Shows setting for Quick Order buttons, allows submitting Quick Orders from the Board and Full Book panels.  Prior to release 6.98 of the client, this permission was included "OCXT Advanced Trading" permission group.
OCXT Orders Type Fixing	FXI6	DEPRECATED (part of "OCXT Advanced Trading" permission group)
OCXT Orders Type RiskNet	FXI6	DEPRECATED (part of "OCXT Advanced Trading" permission group)
OCXT Positions Trader	FXI6	Shows only the trader's positions in the blotter
OCXT Positions Trader and Org	FXI6	Shows positions for the trader and the organization in the blotter
OCXT Post Trade Allocation	FXI6	—

**Table 1-3** Permission groups for all users (continued)

Permission Group	App	Description
OCXT Report Tab	FXI6	—
OCXT Show Market Maker	FXI6	—
OCXT Show Volatile Service Configuration	FXI6	—
OCXT Streaming Outright Trading	FXI6	—
OCXT Streaming Outright Trading	FXI6	—
OCXT Trade Amend	FXI6	—
OCXT Trading 1 Way RFS GPS	FXI6	—
OCXT Test Mode	FXI6	Shows the <b>Provider</b> drop-down list in the Status bar
OCXT Trading Advanced	FXI6	Controls access to the following: <ul style="list-style-type: none"><li>• Advanced Trading slider in the Status bar (mid pricing and orders in the ESP Board and Full Book panels)</li><li>• Quick Order buttons in the ESP Board and Full Book panels</li><li>• OCX RiskNet orders in the Orders panel</li><li>• OCX Fixing orders in the Orders panel</li><li>• Dark Switch algo orders in the Orders panel</li></ul>
OCXT Trading Basic	FXI6	DEPRECATED (product default)
OCXT Trading Full Amount	FXI6	Access workflow to trade the full amount of your orders with a single provider.  Adds the <b>FULL/VWAP</b> button to toggle between full-amount prices and VWAP prices in the Board panel and the Ladder panel.  <b>NOTE:</b> Full amount trading requires full-amount prices from your providers.
OCXT Trading Keypad	FXI6	Enables keypad support beginning with client release 6.9.6.
OCXT Trading Manual Pricer	FXI6	—
OCXT Trading MIFID	FXI6	—
OCXT Trading On Behalf of Accounts	FXI6	Show <b>Account</b> drop-down in Status panel to trade on behalf of other accounts
OCXT Trading RFS	FXI6	Shows RFS tabs and panels
OCXT Trading Sales Dealer	FXI6	Shows Sales Dealer panel
OCXT Trading Sales Dealer Positive Spread Only	FXI6	—
OCXT UI Compact View	FXI6	—

**Table 1-3** Permission groups for all users (continued)

Permission Group	App	Description
OCXT UI Display Account Details	FXI6	Shows account details next to Status bar
OCXT UI Display Admin TAB,	FXI6	Shows Admin tab. Access to admin functionality is managed by Admin permissions.
OCXT UI Display BID/OFFER	FXI6	Controls the display of bid/offer labels in the Board panel and Orders panel.  This permission interacts with the permission that shows buy/sell labels (OCXT UI Display BUY/SELL): <ul style="list-style-type: none"><li>● In the Board panel, if both permissions are assigned, the user sees neither BID/OFFER nor BUY/SELL labels.</li><li>● In the Orders panel, if both permissions are assigned, the user sees BID/OFFER labels.</li></ul>
OCXT UI Display Blotter 1 Week	FXI6	Shows access to the 1 week period in blotters
OCXT UI Display BUY/SELL	FXI6	Controls the display of buy/sell labels in the Board panel and Orders panel.  This permission interacts with the permission that shows bid/offer labels (OCXT UI Display BID/OFFER): <ul style="list-style-type: none"><li>● In the Board panel, if both permissions are assigned, the user sees neither BID/OFFER nor BUY/SELL labels.</li><li>● In the Orders panel, if both permissions are assigned, the user sees BID/OFFER labels.</li></ul>
OCXT UI Display LP Names	FXI6	Shows provider names in ESP Board and Full Book panels
OCXT UI Display Market Snapshot	FXI6	Show ESP market snapshot
OCXT UI Display Price Spreads	FXI6	Show price spreads in ESP Board, Full Book, and Ladder panels
OCXT UI Local Time Settings	FXI6	Show settings for choosing local time or UTC time
OCXT UI Show Account Details	FXI6	Shows the Account Details bar
OCXT UI Show Price Spreads	FXI6	Shows prices spreads in trading panels
OCXT UI Themes	FXI6	DEPRECATED (product default)
OCXT UI Windows Detachable	FXI6	DEPRECATED (product default)
OCXT UI Windows Tabbed	FXI6	DEPRECATED (product default)
OCXTHideBlotterPeriod1Week	FXI6	Hides the chose of 1 week period in blotters.
OMS User Admin	OMS	—
OMS User Chief Dealer	OMS	—
OMS User Trader	OMS	—

**Table 1-3** Permission groups for all users (continued)

Permission Group	App	Description
Payment Approver	—	—
Payment FI Admin	—	—
Payment Maker	—	—
Portfolio Auto Execution	—	—
Portfolio Bilateral Trading Tab	—	—
PriceTiersPanel	FXI	
REX Default Values Group	—	—
REX InvestorFx Group	—	—
RFS Portfolio Trading	.NET Client	Added to control access to SEF portfolio trading in the RFS workflow.
SRP	FXI	
StreamManagement View Only Group	—	—
SYMPHONY Chat Integration	—	—
V0 Admin Manual Trade Deprecated	Admin	DEPRECATED. DO NOT ASSIGN TO USERS.
V0 Admin Reinitialize Credit Deprecated	Admin	DEPRECATED. DO NOT ASSIGN TO USERS.
V0 MM FXIPro Price Spreads Panel Deprecated	FXI	DEPRECATED. DO NOT ASSIGN TO USERS.
WL Liquidity Management Group Deprecated	FXI	DEPRECATED. DO NOT ASSIGN TO USERS.
WL Manual Request Blotter Group Deprecated	FXI	DEPRECATED. DO NOT ASSIGN TO USERS.
XRay Access	—	—
YM CircuitBreaker Configuration	FX Yield Manager	Access to FX Yield Manager circuit breaker config.
YM Dashboard	FX Yield Manager	Controls access to FX Yield Manager
YM Enable Position Reset	FX Yield Manager	Controls access to the Position Reset screen
YM Execution Configuration	FX Yield Manager	—
YM Manual Hedging	FX Yield Manager	—

**Table 1-3** Permission groups for all users (continued)

Permission Group	App	Description
YM Read Only	FX Yield Manager	User had read-only access to FX Yield Manager.
YM RiskNet Configuration	FX Yield Manager	—
YM Skew Configuration	FX Yield Manager	Enables position skew functionality and configuration tools: Activates the skew definition tools in the Risk Policies screen Activates the <b>Enable position skewing</b> slider switch in the Configuration screen

#### User permission groups for new customer users

The following permission groups are available for you to assign to your customer users.

**Table 1-4** Permission groups for customer users

Permission Group	App	Description
Admin Customer Portal	Admin	Includes all permissions for the user to manage customer organizations in the Customer Management screens
Admin Portal View Edit	Admin	Includes all permissions for the user to edit their own organization in the Admin Portal
Admin Portal View Read Only	Admin	Give the user all permissions for read-only access to their own organization in the Admin Portal
FXIPro ESP Trading	FXI	The user can trade ESP spot, submit all order types, and access reports.
FXIPro ESP View Read Only	FXI	The user has read-only access to ESP modules and reports.
FXIPro RFS Trading	FXI	The user can trade RFS spot, outright, and swap, submit all order types, and access reports.
FXIPro RFS View Read Only	FXI	The user has read-only access to RFS modules and reports.

#### 1.4.6 Remove user information

You can erase user data to meet Article 17 GDPR Right to Erasure regulatory requirements.

To access this functionality, you must have the “Admin Users Erase PII Data” permission group.

1. Navigate to the User List screen (**Organization > User > User List**).
2. *(Optional)* To erase inactive users, click the **Show Inactive List** link.
3. Select the checkboxes of the users that you want to erase.
4. Click the **Erase PII** button.

The Erase PII Data confirmation popup opens.

5. Enter any notes for the deletion, such as a ticket number or authorization. These notes are saved in the audit log.
6. Click **Yes**.

#### 1.4.7 Associate a user with sales dealer groups

You can associate a user with a [sales dealer group](#) or several groups. See [Sales dealer groups](#) on page 75 for more information about sales dealer groups.

1. Navigate to the User List screen ([Organizations > Users](#)).
2. Click the ID of the user that you want to edit.
3. Click the **User/Sales Dealer Groups** link.
4. Add sales dealer groups by clicking listings in the Available list on the left and clicking the **Add>** button.
5. Remove sales dealer groups by selecting listings in the Included list on the right and clicking the **<<Remove** button.
6. Click **Save**.

#### 1.4.8 Audit user activity

The User Audit screen allows you to review the activity of users in your organization and to download a record of their activity to a file.

- [Filter criteria](#) on page 50
- [View user actions](#) on page 51
- [Download the audit list results](#) on page 51

##### Filter criteria

You can filter audited events according to the following criteria:

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**Modified By** drop-down list Choose the user that performed the action or "All" to select all users.

---

**On User** drop-down list Choose the user on which the action was performed or "All" to select all users.

---

<b>Actions</b> drop-down list	Choose the specific action or "All" to select all users. The following actions are audited:
	<ul style="list-style-type: none"> <li>● Activation</li> <li>● Change Password at Next Login</li> <li>● Creation</li> <li>● Default Legal Entity Change</li> <li>● Deletion</li> <li>● Exempt from Inactivation</li> <li>● Exempt from Password Expiry</li> <li>● Exempt from Password Locking</li> <li>● External Authentication Type</li> <li>● Inactivation</li> <li>● Inactivation Due to No Activity</li> <li>● Legal Entity Association</li> <li>● Login</li> <li>● Login Failed</li> <li>● Logout</li> <li>● Password Change</li> <li>● Permission Change</li> <li>● Role Change</li> <li>● STP Change</li> <li>● Sales Dealer Changes</li> <li>● Secret Question Answer Change</li> <li>● Suspended</li> <li>● User Details Change</li> </ul>
<b>Period tools</b>	<p>Choose the time period The ID of a done trade.</p> <p>Choose either a preset period or enter a custom period range:</p> <ul style="list-style-type: none"> <li>● Select a preset time period, such as "Today" or "WTD" (week-to-date).</li> <li>● Select "Custom" and specify a custom time period with the <b>From</b> and <b>To</b> fields and </li> </ul>

---

### View user actions

1. Navigate to the User Audit screen ([Organization > User > Audit](#)).
2. Specify the filter criteria.

The list updates dynamically as you choose your criteria.

### Download the audit list results

You can download the audit list as a [CSV](#) file or as an Excel file.

1. Filter the list as necessary. See [View user actions](#) on page 51.
2. Do one of the following:
  - Click the  Excel Download button.
  - Click the  Excel Download button.

A File Download dialog opens.

3. Click **Save**.

The file is saved in the format you chose.

## 1.5 Legal entities

You can use the Admin Portal to manage your organization's [legal entity](#):

- [Set your organization's default legal entity](#) on page 52
- [Add a new legal entity](#) on page 52
- [Enable a legal entity for all users](#) on page 53
- [Edit the details of a legal entity](#) on page 53

- [Enable or disable STP download for a legal entity](#) on page 54
- [Send email notifications by legal entity](#) on page 54
- [Edit SWIFT MT 300 tag 72 for a legal entity](#) on page 54
- [Legal entity contacts](#) on page 55
  - [Add legal entity contacts](#) on page 55
  - [Edit legal entity contact details](#) on page 55
- Inactivate and reactivate legal entities (see [Active and inactive items](#) on page 446)

### 1.5.1 Set your organization's default legal entity

Your default legal entity is selected by default in the trading system's user interface for your trading users.

1. Navigate to the Organization Legal Entity List screen ([Organizations > Legal Entities](#)).
2. Choose a legal entity from the **Default Legal Entity** drop-down list.
3. If applicable, choose a legal entity from the **Default SEF Legal Entity** drop-down list
4. Click **Save**.

### 1.5.2 Add a new legal entity

You can add a new [legal entity](#) to the system with the Admin Portal.

When using the .NET Client, you can trade using only one legal entity. You may have multiple legal entities defined for your organization, but you must choose one to use with the .NET Client. When trading using the API, multiple legal entities are supported by the sales dealer workflow.

1. Navigate to the Organization Legal Entity List screen ([Organization > Legal Entities](#)).
  2. Click the **Add Legal Entity** link.
  3. Enter information for the new legal entity in the Legal Entity Creation - Data Entry screen.
- 
- NOTE:** Fields marked with an asterisk (\*) are required.
4. Enter regulatory information, if any, for the legal entity in the Regulatory Details panel:

<b>Legal Entity Identifier</b>	Legal Entity Identifier as given by the CFTC to identify a globally unique legal entity (LEI) field
<b>Interim LEI checkbox</b>	Used to indicate if the value is an interim value taken from the CFTC Interim Compliant Identifier (CICI) Utility
<b>SEF Type</b> drop-down list	Indicates the SEF organization type: <ul style="list-style-type: none"><li>● "None": Not a SEF member (does trade under US jurisdiction or does not trade NDFs. This is the default value.</li><li>● "SEF Member": Trades NDFs under US jurisdiction and trades are sent for clearing.</li><li>● "Exempt": Trades NDFs under US jurisdiction, but has taken exemption from the CFTC so that trades do not need to be sent for clearing</li></ul>

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<b>Firm Registration Type</b> drop-down list	The registration type as defined by the CFTC <ul style="list-style-type: none"> <li>● "Major swap participant"</li> <li>● "Swap dealer"</li> <li>● "Commercial end user"</li> </ul>
<b>Executing Firm ID</b> field	The ID provided by the clearing house for this account
<b>Jurisdiction</b> drop-down list	<ul style="list-style-type: none"> <li>● "US"</li> <li>● "EUROPE"</li> </ul>
<b>SDR Download</b> checkbox	If the legal entity is a reporting party (per the CFTC's definition), whether or not the trade download should be sent to the SDR
<p>5. Click <b>Next</b>.</p> <p>6. Enter information for the legal entity's contact in the Legal Entity Contact Creation - Data Entry screen.</p> <p><b>NOTE:</b> Fields marked with an asterisk (*) are required.</p>	
<p>7. Click <b>Finish</b> to save the new legal entity, <b>Reset</b> to clear the screen, or <b>Cancel</b> to cancel your changes and close the screen.</p>	

---

### 1.5.3 Enable a legal entity for all users

You can quickly enable a legal entity for all users in your organization with a single button click.

1. Navigate to the Organization Legal Entity List screen (**Organizations > Legal Entities**).
2. Click the ID of the legal entity that you want to enable.
3. Click the **Activate All** button.

### 1.5.4 Edit the details of a legal entity

1. Navigate to the Organization Legal Entity List screen (**Organizations > Legal Entities**).
2. Click the ID of the legal entity that you want to edit.
3. Enter new information in the Main Details panel of the Legal Entity Detail Edit screen.

**NOTE:** Fields marked with an asterisk (\*) are required.

4. Enter regulatory information, if any, for the legal entity in the **Regulatory Details** panel:

---

<b>Legal Entity Identifier</b> field	Legal Entity Identifier as given by the CFTC to identify a globally unique legal entity (LEI)
<b>Interim LEI</b> checkbox	Used to indicate if the value is an interim value taken from the CFTC Interim Compliant Identifier (CICI) Utility
<b>SEF Type</b> drop-down list	<p>Indicates the SEF organization type:</p> <ul style="list-style-type: none"> <li>● "None": Not a SEF member (does trade under US jurisdiction or does not trade NDFs. This is the default value.)</li> <li>● "SEF Member": Trades NDFs under US jurisdiction and trades are sent for clearing.</li> <li>● "Exempt": Trades NDFs under US jurisdiction, but has taken exemption from the CFTC so that trades do not need to be sent for clearing</li> </ul>

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<b>Firm Registration Type</b>	The registration type as defined by the CFTC drop-down list
	<ul style="list-style-type: none"> <li>● "Major swap participant"</li> <li>● "Swap dealer"</li> <li>● "Commercial end user"</li> </ul>
<b>Executing Firm ID</b> field	The ID provided by the clearing house for this account
<b>Jurisdiction</b> drop-down list	<ul style="list-style-type: none"> <li>● "US"</li> <li>● "EUROPE"</li> </ul>

---

5. Click **Save**.

### 1.5.5 Send email notifications by legal entity

You decide whether or not a legal entity receives notification emails for trades done by the legal entity.

1. Navigate to the Organization Legal Entity List screen (**Organizations > Legal Entities**).
2. Click the ID of the legal entity that you want to edit.
3. In the **Email** panel, check or clear the **Send Mail** checkbox.
4. Click **Save**.

### 1.5.6 Enable or disable STP download for a legal entity

You can enable or disable STP download by legal entity. Disabling STP download for a legal entity allows you to avoid receiving unnecessary, procedural STP downloads for cancelled/rebooked trades when processing batch trades.

1. Navigate to the Organization Legal Entity List screen (**Organizations > Legal Entities**).
2. Click the ID of the legal entity that you want to edit.
3. In the **STP Configuration** panel, choose an STP option from the **STP Download Enabled** drop-down list.
  - Default: Use the default STP setting for the legal entity's organization.
  - Yes: Enable STP for the legal entity, overriding the organization's setting. If STP is disabled for the organization, this legal entity still receives STP download messages.
  - No: Disable STP for the legal entity, overriding the organization's setting. This legal entity has STP disabled no matter the organization setting.
4. Click **Save**.

### 1.5.7 Edit SWIFT MT 300 tag 72 for a legal entity

This value is sent on JSON STP messages in the **MT300Field72** field.

1. Navigate to the Organization Legal Entity List screen (**Organizations > Legal Entities**).
2. Click the ID of the legal entity that you want to edit.
3. In the **MT300Field72** field of the **MT300Field72 Details** panel, edit the value as necessary.

4. Click **Save**.

### 1.5.8 Legal entity contacts

You can manage the contact information for individuals in your [legal entity](#) with the Legal Entity Detail Edit screen:

- [Add legal entity contacts](#) on page 55
- [Edit legal entity contact details](#) on page 55

#### Add legal entity contacts

1. Navigate to the Organization Legal Entity List screen ([Organization > Legal Entities](#)).
2. Click the ID of the legal entity that you want to edit.
3. Click the **Create Contact** link in the Contact List panel.
4. Enter the new contact's information in the Legal Entity Contact Creation - Data Entry screen.

**NOTE:** Fields marked with an asterisk (\*) are required.

5. Click **Finish** to save the new contact, **Reset** to clear the screen, or **Cancel** to cancel your changes and close the screen.

#### Edit legal entity contact details

1. Navigate to the Organization Legal Entity List screen ([Organization > Legal Entities](#)).
2. Click the ID of the legal entity that you want to edit.
3. Click the ID of the contact that you want to edit in the Contact List panel.
4. Edit the contact's information in the Legal Entity Contact Detail Edit screen.

**NOTE:** Fields marked with an asterisk (\*) are required.

5. Click **Save**.

## 1.6 Organization contacts

Organization contacts have two purposes:

- Record the contact information for individuals in your organization who are not users on the system.
- Provide a mechanism for maintaining distribution lists for trading and support emails. For information about these special organization contacts, see [Organization contacts for email distribution](#) on page 56.

You can manage the contact information for individuals in your organization with the Organization Detail Edit screen:

- [Add organization contacts](#) on page 56
- [Edit organization contact details](#) on page 56

## 1.6.1 Organization contacts for email distribution

Special organization contacts with specific short name IDs are used by the system as mail lists for distributing email for certain trading and support events.

When an event occurs, such as a trade verification, the system sends an email to all of the email address in the special contact's **Email** field. For more information about editing contact details, see [Edit organization contact details](#) on page 56.

The following table describes the contact IDs and trigger events:

Org Contact ID/Short Name	Email Distribution	Trigger Event
TradingSupport	Trading support emails	Trade request, verification, and rejection

If the special contacts are not already defined in the system, you can add them. See [Add organization contacts](#) on page 56.

## 1.6.2 Add organization contacts

1. Navigate to the Contacts screen (**Organization > Contacts**).
2. Click the **Add Organization Contact** link.
3. Enter the new contact's information in the Create Organization Contact - Data Entry screen. Separate multiple email addresses with a comma or semicolon.  
**NOTE:** Fields marked with an asterisk (\*) are required.
4. Click **Finish** to save the new contact, **Reset** to clear the screen, or **Cancel** to cancel your changes and close the screen.

## 1.6.3 Edit organization contact details

1. Navigate to the Contacts screen (**Organization > Contacts**).
2. Click the ID (short name) of the contact that you want to edit.
3. Edit the contact's information in the Organization Contact Detail Edit screen.  
**NOTE:** Fields marked with an asterisk (\*) are required.
4. Click **Save** to save your changes, **Reset** to restore the previous settings, or **Cancel** to cancel your changes and close the screen.

## 1.7 STP configuration

You decide the how your organization handles trades via STP.

1. Navigate to the STP Download Configuration screen (**Organization > STP Download Configuration > Edit**).
2. Use the following tools to configure STP download for your organization/

3. When you are done, click **Save** to save your changes, **Reset** to restore the previous settings, or **Cancel** to cancel your changes and close the screen.

**Table 1-5 STP configuration settings**

Component	Action/Description
Type	Choose the download method: <ul style="list-style-type: none"> <li>• No Download: STP download is not enabled.</li> <li>• Automatic: When a trade is done, it is automatically placed on the outbound queue for STP download.</li> <li>• Manual: Done trades are placed on the outbound STP queue manually.</li> </ul>
Format	Choose the format of the trade download message. The configuration tools in the screen may change depending on the format you choose. Please refer to the <i>STP Trade Download</i> guide for information about the various download formats.
Outbound Queue Name	An informational, read-only field that shows the name of the STP queue to which downloaded trades are placed
Session Name	Enter an identifying label for the download source for broker reference.
Broker Reference	A reference string for broker use
Vendor	Enter the vendor organization ID.
Deal Type	Select the deal types that you want to download.
Include Market Rate & Spreads	Select to include the market rate and spreads on the download message. This option only applies to the TOF, FinXML, and FIX4.3 (35=AE) formats.
Include Order ID	Select to include the downloaded trade's originating order ID, select the <b>Include Order ID</b> checkbox.
Include Intrafloor Trades	Choose how you want to route intrafloor trades: <ul style="list-style-type: none"> <li>• None: The organization does not receive any STP message for an intrafloor trade.</li> <li>• Taker: The organization receives one STP message from the taker's perspective (the taker on the intrafloor trade).</li> <li>• Maker: The organization receives one STP message from the maker's perspective (the maker on the intrafloor trade).</li> <li>• Both: The organization receives two STP messages: one from the taker's perspective and one from the maker's perspective.</li> </ul>
Exclude Manual Trades	Select to exclude all manually entered trades from STP download. See <a href="#">Manual trades</a> on page 422 for more information about manual trades.
Exclude Net Trades	Select to exclude all net trades from STP download. See <a href="#">Net your positions</a> on page 430 for more information about net trades.
Exclude Cancelled Trades	Select to exclude all cancelled trades from STP download. See <a href="#">Cancel trades</a> on page 439 for more information about cancelled trades.
Include Stream LP	Select to include the executing liquidity provider.

**Table 1-5 STP configuration settings (continued)**

Component	Action/Description
Include SEF Identifiers	Select to include SEF identifiers in applicable STP formats and sales dealer information in RTNS.
Include UTI	Select to include the UTI in applicable STP formats.
Include Allocation	Select to include the allocations in STP downloads in applicable formats.
Full Allocation Details in Single Trade	Only applicable if <b>Include Allocation</b> is selected. Select to package all allocation details in a single downloaded trade.
Include Salesdealer Details	Select to include the details of the salesdealer who did the trade on behalf of another organization where applicable.
Include Aggressor Indicator	Select to include an indicator of which counterparty aggressed on a price in initiated the trade.
Included Booked Trades Channels	A list of channels eligible for STP that source manually booked trades. This list is read only. For a list of all possible channels, see <a href="#">Trade request channels</a> on page 58
Include Synthetic Cross	Select to include trades done in synthetic cross currency pairs
Include Portfolio ID	Select to include the portfolio ID in applicable STP formats for single- and multi-leg trades for reference to trade portfolios for batch trade processing.
Include Portfolio ID	Select to include the <code>originatingPortfolioID (#7901)</code> field in FIX STP messages. The checkbox is only active when you choose "FIX4.3 (34=AE)" from the <b>Format</b> drop-down list.
Include Portfolio ID	Select to include the <code>ymBookName</code> element to the XML STP message for ESP (spot trades) and RFS (outrights and swaps). The checkbox is only active when you choose "FinXML51v21" from the <b>Format</b> drop-down list.

## 1.7.1 Trade request channels

Trade channel codes indicate the trading app and specific UI component or API that was used to execute a trade or submit an order.

**Table 1-6 Channels**

Channel Code	Client App	Workflow	Analytics/Monitor Display
Admin/CSV	Admin	Manual	Admin Manual CSV
Admin/Manual	Admin	Manual	Admin Manual

**Table 1-6 Channels (continued)**

Channel Code	Client App	Workflow	Analytics/Monitor Display
Admin/Manual/AutoRoll	Admin	AutoRoll	Admin Auto Roll
Admin/Net	Admin	Net	Admin Net
API/CreditEntry	API	TradeEntryforCredit	Trade Entry for Credit
API/TradeEntry	API	TradeEntry	Trade Entry
BA/ESP	BA	ESP	Broker ESP Cover
BA/ESP/COPY	BA	ESP	Broker ESP Copy Order
BA/ESP/FM	BA	ESP	Broker ESP AutoCover
BA/RFS	BA	RFS	Broker RFS Cover
ClientSDK	CSDK	ESP	SDK ESP
CSDK	PT	ESP	PowerTrader
DNET	DNET	ESP	FXI NET ESP
DNET/AOP	DNET	ESP	FXI NET ESP Advanced Orders
DNET/CSV	DNET	Manual	FXI NET Manual CSV
DNET/DO	DNET	Order	FXI NET Draft Orders
DNET/ENA/FM	DNET	Order	FXI NET Expiry (No Fill) Popup Fill @ Mkt
DNET/EPA/FM	DNET	Order	FXI NET Expiry (Partial Fill) Popup Fill @ Mkt
DNET/ESP/AG	DNET	ESP	FXI Net ESP Strategy
DNET/ESP/FXID/DLP	DNET	ESP	FXI NET ESP Relationship Trading Direct LP
DNET/ESP/FXID/FMA	DNET	ESP	FXI NET ESP Relationship Trading FMA
DNET/ESP/FXID/FXB	DNET	ESP	FXI NET ESP FX Board FMA
DNET/ESP/FXID/OP	DNET	ESP	FXI NET ESP Orders Panel FMA
DNET/ESP/FXID/PM	DNET	ESP	FXI NET ESP Positions Manager FMA
DNET/ESP/PD	DNET	ESP	FXI NET ESP Price Details
DNET/ESP/PP	DNET	ESP	FXI NET ESP Price Panel
DNET/ESP/SDP	DNET	ESP	FXI NET ESP Sales Dealer Trading
DNET/INFXSEF/FB	DNET	INFXSEF	FXI NET INFX-SEF Full Book
DNET/Manual	DNET	Manual	FXI NET Manual
DNET/OB/FM	DNET	Order	FXI NET Order Blotter Fill @ Mkt
DNET/OCO	DNET	ESP	FXI NET ESP OCO Orders
DNET/OP	DNET	Order	FXI NET Order Panel

**Table 1-6 Channels (continued)**

Channel Code	Client App	Workflow	Analytics/Monitor Display
DNET/OP/FM	DNET	Order	FXI NET Order Panel Fill @ Mkt
DNET/OP/TWAP	DNET	Order	TWAP
DNET/OP/TWAPPLUS	DNET	Order	TWAPPLUS
DNET/Order/RO	DNET	Order	FXI NET Resting Order Panel
DNET/OS	DNET	Order	FXI NET Order Shortcut
DNET/PD	DNET	ESP	FXI NET ESP Price Details
DNET/PG	DNET	ESP	FXI NET ESP Price Grid
DNET/PM	DNET	Order	FXI NET Position Manager Order
DNET/PP	DNET	ESP	FXI NET ESP Price Panel
DNET/PT	DNET	ESP	FXI Net PriceTier
DNET/RFS/AG	DNET	RFS	FXI Net RFS Strategy
DNET/RFS/BB	DNET	RFS	FXI NET RFS Bulletin Board
DNET/RFS/PD	DNET	RFS	FXI NET RFS Price Details
DNET/RFS/PM	DNET	RFS	FXI NET Position Manager RFS
DNET/RFS/PP	DNET	RFS	FXI NET RFS Price Panel
DNET/RFS/SDP	DNET	RFS	FXI NET RFS Sales Dealer Trading
DNETD/ESP/PD	DNETD	ESP	FXI Direct ESP Price Details
DNETD/RFS/PD	DNETD	RFS	FXI Direct RFS Price Details
FIX/ESP	FIX	ESP	FIX ESP
FIX/ESP/4T	FIX	ESP	FIX ESP FourthStory
FIX/ESP/360T	FIX	ESP	ESP Trades via 360T
FIX/ESP/AP	FIX	ESP	FIX ESP Apama
FIX/ESP/ES	FIX	ESP	FIX ESP Esignal
FIX/ESP/FXALL	FIX	ESP	ESP Trades via FXALL
FIX/ESP/FXGO	FIX	ESP	ESP Trades via FXGO(Bloomberg)
FIX/ESP/HostedMT4	FIX	ESP	FIX ESP Hosted MT4
FIX/ESP/INTMT4	FIX	ESP	FIX ESP INT MT4
FIX/ESP/MC	FIX	ESP	FIX ESP Multicharts
FIX/ESP/MT	FIX	ESP	FIX ESP Multistation
FIX/ESP/MT4	FIX	ESP	FIX ESP MT4

**Table 1-6 Channels (continued)**

Channel Code	Client App	Workflow	Analytics/Monitor Display
FIX/ESP/OCX	FIX	Order	FIX ESP OCX API
FIX/ESP/PT	FIX	ESP	FIX ESP PowerTrader
FIX/ESP/QH	FIX	ESP	FIX ESP QuantHouse
FIX/ESP/RT	FIX	ESP	FIX ESP Retail
FIX/ESP/SB	FIX	ESP	FIX ESP Streambase
FIX/Order	FIX	Order	FIX Order
FIX/Order/4T	FIX	Order	FIX Order FourthStory
FIX/Order/360T	FIX	Order	Orders via 360T
FIX/Order/AP	FIX	Order	FIX Order Apama
FIX/Order/ES	FIX	Order	FIX Order Esignal
FIX/Order/FXALL	FIX	Order	Orders via FXALL
FIX/Order/FXGO	FIX	Order	Orders via FXGO(Bloomberg)
FIX/Order/HostedMT4	FIX	Order	FIX Order Hosted MT4
FIX/Order/INTMT4	FIX	Order	FIX Order INT MT4
FIX/Order/MC	FIX	Order	FIX Order Multicharts
FIX/Order/ME	FIX	MatchingEngine	FIX Order ME
FIX/Order/MT	FIX	Order	FIX Order Multistation
FIX/Order/MT4	FIX	Order	FIX Order MT4
FIX/Order/OCX	FIX	Order	FIX Order OCX API
FIX/Order/Outright	FIX	Order	FIX Resting Order
FIX/Order/PT	FIX	Order	FIX Order PowerTrader
FIX/Order/QH	FIX	Order	FIX Order QuantHouse
FIX/Order/RiskNet	FIX	Order	FIX Order To RiskNet
FIX/Order/RT	FIX	Order	FIX Order Retail
FIX/Order/SB	FIX	Order	FIX Order Streambase
FIX/Order/Stream	FIX	Order	FIX Streaming Orders
FIX/RFS	FIX	RFS	FIX RFS
FIX/RFS/4T	FIX	RFS	FIX RFS FourthStory
FIX/RFS/360T	FIX	RFS	RFS Trades via 360T
FIX/RFS/AP	FIX	RFS	FIX RFS Apama

**Table 1-6 Channels (continued)**

Channel Code	Client App	Workflow	Analytics/Monitor Display
FIX/RFS/Celer	FIX	RFS	RFS Trades via Celer
FIX/RFS/ES	FIX	RFS	FIX RFS Esignal
FIX/RFS/FXALL	FIX	RFS	RFS Trades via FXALL
FIX/RFS/FXGO	FIX	RFS	RFS Trades via FXGO(Bloomberg)
FIX/RFS/INTMT4	FIX	RFS	FIX RFS INTMT4
FIX/RFS/MC	FIX	RFS	FIX RFS Multicharts
FIX/RFS/MT	FIX	RFS	FIX RFS Multistation
FIX/RFS/MT4	FIX	RFS	FIX RFS MT4
FIX/RFS/PT	FIX	RFS	FIX RFS PowerTrader
FIX/RFS/QH	FIX	RFS	FIX RFS QuantHouse
FIX/RFS/RT	FIX	RFS	FIX RFS Retail
FIX/RFS/SB	FIX	RFS	FIX RFS Streambase
FIX/RFS/SWPT	FIX	RFS	RFS Trades via Swapstech (For Oanda)
FXI	DNET	ESP	FXI NET ESP
FXIAPI_FXIPrime	—	—	FXIAPI Prime Trade Channel
HTML/ESP/AG	HTML	ESP	FXI HTML ESP Strategy
HTML/ESP/FXB	HTML	ESP	FXI HTML ESP FX Board
HTML/ESP/FXFB	HTML	ESP	FXI HTML ESP FX Full Book
HTML/ESP/FXID/DLP	HTML	ESP	FXI HTML ESP Relationship Trading Direct LP
HTML/ESP/FXID/FMA	HTML	ESP	FXI HTML ESP Relationship Trading FMA
HTML/ESP/FXID/FXB	HTML	ESP	FXI HTML ESP FX Board FMA
HTML/ESP/FXID/OP	HTML	ESP	FXI HTML ESP Orders Pane FMA
HTML/ESP/FXL	HTML	ESP	FXI HTML ESP FX Ladder
HTML/ESP/IFX	HTML	ESP	InvestorFX ESP Trade
HTML/ESP/OP	HTML	ESP	FXI HTML ESP Orders Panel
HTML/ESP/OP/FM	HTML	ESP	Fill At Market
HTML/ESP/PB	HTML	ESP	HTML Positions Blotter
HTML/FIXING/OP	HTML	ESP	FIXING
HTML/ICX/OP	HTML	OP	HTML ICX OP
HTML/Manual/IFX	HTML	Manual	InvestorFX Allocated Trade

**Table 1-6 Channels (continued)**

Channel Code	Client App	Workflow	Analytics/Monitor Display
HTML/MIDBOOK/OP	HTML	ESP	MIDBOOK
HTML/MINT/OP	HTML	OP	HTML MINT Orders Panel
HTML/N-FIX/OP	HTML	ESP	N-FIX
HTML/OP/DS	HTML	OP	HTML OP Dark Switch
HTML/OP/FIXING	HTML	OP	HTML OP FIXING
HTML/OP/LS	HTML	OP	HTML OP Lit Switch
HTML/OP/PEG	HTML	OP	HTML OP PEG
HTML/OP/RISKNET	HTML	OP	HTML OP RISKNET
HTML/OP/TWAP	HTML	OP	HTML OP TWAP
HTML/OP/TWAPPLUS	HTML	OP	HTML OP TWAPPLUS
HTML/RFS/1W	HTML	RFS	FXI HTML RFS 1 Way
HTML/RFS/2W	HTML	RFS	FXI HTML RFS 2 Way
HTML/RFS/FB	HTML	RFS	FXI HTML RFS Full Book
HTML/RFS/IFX	HTML	RFS	InvestorFX RFS Trade
HTML/RFS/TOB	HTML	RFS	FXI HTML RFS TOB Panel
iOS/ESP/FB	iOS	ESP	FXI iOS ESP Full Book
iOS/ESP/FXB	iOS	ESP	FXI iOS ESP Full Book
iOS/ESP/PB	iOS	ESP	FXI iOS ESP Position Blotter
MM/DT/LD	MM	ESP	Market Maker Desktop Ladder
MT4/ESP	MT4	ESP	MT4
OA/IF	OA	Order	Intrafloor Order
OCX/DT/BD	OCX	ESP	OCX Desktop Board
OCX/DT/BD/FA	OCX	RFS	OCX Desktop Board Full Amount
OCX/DT/BD/LMT/MID	OCX	Order	OCX Desktop Board Limit Mid Order
OCX/DT/BD/LMT/QO	OCX	Order	OCX Desktop Board Limit Quick Order
OCX/DT/BD/MID	OCX	Order	OCX Desktop Mid Order
OCX/DT/BD/PEG/MID	OCX	Order	OCX Desktop Board Peg Mid Order
OCX/DT/BD/RISKNET/MID	OCX	Order	OCX Desktop Board RiskNet Mid Order
OCX/DT/ENA/FM	OCX	Order	OCX Desktop Order Expired Alert Fill@MKT
OCX/DT/EPA/FM	OCX	Order	OCX Desktop Order Expired Partial Alert Fill@MKT

**Table 1-6 Channels (continued)**

Channel Code	Client App	Workflow	Analytics/Monitor Display
OCX/DT/BD/LMT/NDF/QO	OCX	Order	OCX Desktop Board Limit NDF Quick Order
OCX/DT/BD/LMT/OR/QO	OCX	Order	OCX Desktop Board Limit Outright Quick Order
OCX/DT/BD/LMT/SPOT/QO	OCX	Order	OCX Desktop Board Limit Spot Quick Order
OCX/DT/BD/NDF	OCX	ESP	OCX Desktop Board NDF
OCX/DT/BD/NDF/FA	OCX	ESP	OCX Desktop Board NDF Full Amount
OCX/DT/BD/OR	OCX	ESP	OCX Desktop Board Outright
OCX/DT/BD/OR/FA	OCX	ESP	OCX Desktop Board Outright Full Amount
OCX/DT/BD/SPOT	OCX	ESP	OCX Desktop Board Spot
OCX/DT/BD/SPOT/FA	OCX	ESP	OCX Desktop Board Spot Full Amount
OCX/DT/FB	OCX	ESP	OCX Desktop Full Book
OCX/DT/FB/LMT/MID	OCX	Order	OCX Desktop Full Book Limit Mid Order
OCX/DT/FB/LMT/QO	OCX	Order	OCX Desktop Full Book Limit Quick Order
OCX/DT/FB/MID	OCX	Order	OCX Desktop Full Book Mid Order
OCX/DT/FB/PEG/MID	OCX	Order	OCX Desktop Full Book Peg Mid Order
OCX/DT/FB/RISKNET/MID	OCX	Order	OCX Desktop Full Book RiskNet Mid Order
OCX/DT/LD	OCX	ESP	OCX Desktop Ladder
OCX/DT/LD/FA	OCX	RFS	OCX Desktop Ladder Full Amount
OCX/DT/OB/FM	OCX	Order	OCX Desktop Fill@MKT
OCX/DT/OE	OCX	Order	OCX Desktop Order Entry
OCX/DT/OE/DARK	OCX	Order	OCX Desktop Dark Order
OCX/DT/OE/DS	OCX	Order	OCX Desktop Dark Order
OCX/DT/OE/FIXING	OCX	Order	OCX Desktop FIXING
OCX/DT/OE/LIT	OCX	Order	OCX Desktop Lit Order
OCX/DT/OE/LOOP	OCX	Order	OCX Desktop Order Entry LOOP
OCX/DT/OE/LS	OCX	Order	OCX Desktop Lit Order
OCX/DT/OE/MIDBOOK	OCX	Order	OCX Desktop Order Entry RiskNet MidBook
OCX/DT/OE/TWAP	OCX	Order	TWAP
OCX/DT/OE/TWAPPLUS	OCX	Order	OCX Desktop Order Entry TWAPPLUS
OCX/DT/OS/FM	OCX	Order	OCX Desktop Fill@MKT
OCX/DT/QO	OCX	Order	OCX Desktop Quick Order

**Table 1-6 Channels (continued)**

Channel Code	Client App	Workflow	Analytics/Monitor Display
OCX/DT/RFS/OR	OCX	RFS	OCX Desktop RFS OUTRIGHT
OCX/DT/RFS/SP	OCX	RFS	OCX Desktop RFS SPOT
OCX/DT/RFS/SWAP	OCX	RFS	OCX Desktop RFS SWAP
OCX/DT/SD/RFS/OR	OCX	SDRFS	OCX Desktop SD RFS OUTRIGHT
OCX/DT/SD/RFS/SP	OCX	SDRFS	OCX Desktop SD RFS SPOT
OCX/DT/SD/RFS/SWAP	OCX	SDRFS	OCX Desktop SD RFS SWAP
OCX/DT/TWAP	OCX	Order	OCX Desktop TWAP
OCX/SL/BD	OCX	ESP	OCX Silverlight Board
OCX/SL/BD/FA	OCX	RFS	OCX Silverlight Full Amount
OCX/SL/BD/LMT/MID	OCX	Order	OCX Silverlight Board Limit Mid Order
OCX/SL/BD/LMT/QO	OCX	Order	OCX Silverlight Board Limit Quick Order
OCX/SL/BD/MID	OCX	Order	OCX Silverlight Mid Order
OCX/SL/BD/PEG/MID	OCX	Order	OCX Silverlight Board Peg Mid Order
OCX/SL/BD/RISKNET/MID	OCX	Order	OCX Silverlight Board RiskNet Mid Order
OCX/SL/FB	OCX	ESP	OCX Silverlight Full Book
OCX/SL/FB/LMT/MID	OCX	Order	OCX Silverlight Full Book Limit Mid Order
OCX/SL/FB/LMT/QO	OCX	Order	OCX Silverlight Full Book Limit Quick Order
OCX/SL/FB/MID	OCX	Order	OCX Silverlight Full Book Mid Order
OCX/SL/FB/PEG/MID	OCX	Order	OCX Silverlight Full Book Peg Mid Order
OCX/SL/FB/RISKNET/MID	OCX	Order	OCX Silverlight Full Book RiskNet Mid Order
OCX/SL/LD	OCX	ESP	OCX Silverlight Ladder
OCX/SL/OB/FM	OCX	Order	OCX Silverlight Fill@MKT
OCX/SL/OE	OCX	Order	OCX Silverlight Order Entry
OCX/SL/OE/FIXING	OCX	Order	OCX Silverlight Order Entry RiskNet FIXING
OCX/SL/OE/MIDBOOK	OCX	Order	OCX Silverlight Order Entry RiskNet MidBook
OCX/SL/OE/TWAP	OCX	Order	OCX Silverlight Order Entry TWAP
OCX/SL/OS/FM	OCX	Order	OCX Silverlight Fill@MKT
OCX/SL/QO	OCX	Order	OCX Silverlight Quick Order
OCX/SL/RFS/OR	OCX	RFS	OCX Silverlight RFS OUTRIGHT
OCX/SL/RFS/SP	OCX	RFS	OCX Silverlight RFS SPOT

**Table 1-6 Channels (continued)**

Channel Code	Client App	Workflow	Analytics/Monitor Display
OCX/SL/RFS/SWAP	OCX	RFS	OCX Silverlight RFS SWAP
OCX/SL/TWAP	OCX	Order	OCX Silverlight TWAP
OMS/AUTO	OMS	ESP	OMS Order Auto Execution on FXI
OMS/MANUAL	OMS	Manual	OMS Order Manual execution
PNET	PNET	ESP	FXI Prime .NET ESP
PNET/CSV	PNET	Manual	FXI Prime .NET Manual CSV
PNET/DO	PNET	Order	FXI Prime .NET Draft Orders
PNET/ENA/FM	PNET	Order	FXI Prime Expiry (No Fill) Popup Fill @ Mkt
PNET/EPA/FM	PNET	Order	FXI Prime Expiry (Partial Fill) Popup Fill @ Mkt
PNET/ESP/AG	PNET	ESP	FXI Prime .NET ESP Strategy
PNET/ESP/PD	PNET	ESP	FXI Prime .NET ESP Price Details
PNET/ESP/PP	PNET	ESP	FXI Prime .NET ESP Price Panel
PNET/Manual	PNET	Manual	FXI Prime .NET Manual
PNET/OB/FM	PNET	Order	FXI Prime Order Blotter Fill @ Mkt
PNET/OP	PNET	Order	FXI Prime .NET Order Panel
PNET/OP/FM	PNET	Order	FXI Prime Order Panel Fill @ Mkt
PNET/OS	PNET	Order	FXI Prime .NET Order Shortcut
PNET/PD	PNET	ESP	FXI Prime .NET ESP Price Details
PNET/PM	PNET	Order	FXI Prime .NET Position Manager Order
PNET/PP	PNET	ESP	FXI Prime .NET ESP Price Panel
PNET/PT	PNET	ESP	FXI Prime .NET PriceTier
PNET/RFS/AG	PNET	RFS	FXI Prime .NET RFS Strategy
PNET/RFS/PD	PNET	RFS	FXI Prime .NET RFS Price Details
PNET/RFS/PM	PNET	RFS	FXI Prime .NET Position Manager RFS
PNET/RFS/PP	PNET	RFS	FXI Prime .NET RFS Price Panel
PNETD/ESP/PD	PNETD	ESP	FXI Direct ESP Price Details
PNETD/RFS/PD	PNETD	RFS	FXI Direct RFS Price Details
PT/ESP	PT	ESP	PowerTrader
SDKCPP/ESP	CPP	ESP	CPP SDK ESP
SDKCPP/RFS	CPP	RFS	CPP SDK RFS

**Table 1-6 Channels (continued)**

Channel Code	Client App	Workflow	Analytics/Monitor Display
SDKJava/ESP	Java	ESP	Java SDK ESP
SDKJava/RFS	Java	RFS	Java SDK RFS
Trader/ESP	Trader	ESP	HTML Client ESP Price Panel
Trader/Order	Trader	Order	HTML Client Order Panel
Trader/RFS	Trader	RFS	HTML Client RFS Price Panel
WPF/BD	WPF	ESP	FXI WPF ESP FX Board
WPF/BDMID	WPF	Order	FXI WPF Mid Order
WPF/FB	WPF	ESP	FXI WPF ESP Full Book
WPF/LD	WPF	ESP	FXI WPF ESP Ladder
WPF/OB/FM	WPF	Order	Fill At Market
WPF/OE	WPF	Order	FXI WPF Order Entry
WPF/OE/CONTINUOUS	WPF	Order	FXI WPF Order Entry RiskNet Continuous
WPF/OE/TWAP	WPF	Order	TWAP
WPF/OS/FM	WPF	Order	Fill At Market
WPF/QO	WPF	Order	FXI WPF Quick Order
YM/AUTO/LP	YM	Order	Risk hedging
YM/AUTO/RiskNet	YM	RiskNet	RiskNet
YM/LLmt/DS	YM	DarkSwitch	Dark Switch Order due to long posn lmt breach
YM/LLmt/LP	YM	Order	Risk hedging due to long position limit breach
YM/LLmt/Market	YM	Order	Market Order due to long posn lmt breach
YM/LLmt/TWAP	YM	Order	TWAP Order due to long posn lmt breach
YM/LMaintLmt/OCX	YM	RiskNet	RiskNet due to long maintenance limit breach RiskNet due to long maintenance limit breach
YM/LMaintLmt/RiskNet	YM	RiskNet	RiskNet due to long maintenance limit breach
YM/LMUL/OCX	YM	RiskNet	Risk mnntence due to long max unexpsd lmt breach
YM/LMUL/RiskNet	YM	RiskNet	RiskNet due to long max unexposed limit breach
YM/Off/LP	YM	Off	Risk hedging due to risk off
YM/Off/Market	YM	Off	Market Order due to risk off
YM/SL/LP	YM	Order	Risk hedging due to stop loss

**Table 1-6 Channels (continued)**

Channel Code	Client App	Workflow	Analytics/Monitor Display
YM/SL/Market	YM	Order	Market Order due to stop loss
YM/SLmt/DS	YM	DarkSwitch	Dark Switch Order due to short posn lmt breach
YM/SLmt/LP	YM	Order	Risk hedging due to short position limit breach
YM/SLmt/Market	YM	Order	Market Order due to short posn lmt breach
YM/SLmt/TWAP	YM	Order	TWAP Order due to short posn lmt breach
YM/SMaintLmt/OCX	YM	RiskNet	RiskNet due to short maintenance limit breach
YM/SMaintLmt/RiskNet	YM	RiskNet	RiskNet due to short maintenance limit breach
YM/SMUL/OCX	YM	RiskNet	Risk mnitence due to short max unexpsd lmt breach
YM/SMUL/RiskNet	YM	RiskNet	RiskNet due to short max unexposed limit breach
YM/TIME/DS	YM	Order	Dark Switch Order due to posn age
YM/TIME/LP	YM	Order	Risk hedging due to position age
YM/TIME/Market	YM	Order	Market Order due to posn age
YM/TIME/TWAP	YM	Order	TWAP Order due to posn age
YM/TP/DS	YM	Order	Dark Switch Order due to take profit
YM/TP/LP	YM	Order	Risk hedging due to take profit
YM/TP/Market	YM	Order	Market Order due to take profit
YM/TP/TWAP	YM	Order	TWAP Order due to take profit

## 1.8 Liquidity rules

Liquidity rules allow you to provision your liquidity, configure execution, and control liquidity streams from liquidity providers to your customers.

- [Liquidity provisioning on page 68](#)
- [Enable and disable streams and order execution on page 70](#)
- [Aggregation on page 71](#)
- [Audit liquidity rules on page 73](#)

### 1.8.1 Liquidity provisioning

The Liquidity Provisioning panel in the Liquidity Rules screen (**Organization > Liquidity Rules > Liquidity Rules**) allows you to specify price provisioning defaults for liquidity providers (LPs), currency pairs, and currency pair groups so that brokers can configure the providers for their multi-LP customers.

The defaults set in the Liquidity Provisioning panel are overridden at a currency-pair or a currency-pair-group level.

**NOTE:** The changes that you make to price provisioning in the Liquidity Rules screen are saved dynamically and take effect immediately.

- **Currency Pairs list:** The currency pairs and currency pair groups to which the provisioning rules apply.
- **Provider lists:** Providers are provisioned separately for subscription (aggregation) and order matching (execution):

When a new provider is added to the system, the new provider is automatically available for subscriptions and order matching.

The **Hide DO Providers** checkbox allows you to show or hide displayed order providers from lists in the liquidity rules screens to make the lists more manageable. Showing or hiding providers from the lists does not affect the providers who are included for aggregation and execution. To confirm the list of all providers who are included, the **Hide DO Providers** checkbox must be cleared.

- **Aggregation list:** The providers in this list are available to all users in the organization for price subscription in the .NET client. Also, when a FIX subscription request calls for a blanket subscription to all providers, the providers in the Aggregation list are used for subscriptions.
- **Execution list:** The providers in this list are used to determine the providers used for matching. Providers that are both in this Execution list and in the preferred provider list are used for matching.
- **Min Quote Size:** The minimum size for each price in a quote message. Any price less than this minimum quote size is stripped from the quote and the remainder of the quote is forwarded to the user. This minimum quote size filter is applied only during price discovery. All tiers regardless of size are used for order matching.
- **Min Fill Size:** The minimum size of the first fill of the order. There is no restriction on the size for subsequent fills. Any minimum quantity in the FIX MinQty (#110) field sent with an order overrides this field if the order value is greater than this value. This value must be equal to or greater than the Min Match Size.
- **Min Match Size:** The minimum size price that an order matches against. This value is sent as the FIX MinQty (#110) field to the LP to ensure a fill is no smaller than this. This value must be equal to or less than the Min Fill Size. The **Ignore On Residue** checkbox determines if the Min Match Size can be ignored in certain circumstances. When selected, the minimum size is ignored and an order can be matched with prices less than the minimum size when the order's residual amount or total size is less than the minimum size. If cleared, orders remain unmatched when their residual amount or total size is less than the minimum.
- **Reg Match Size:** All fills must be a multiple of this value. If the regular fill size is set to 0 (zero), then there is no enforcement of regular fill size. The **Ignore On Residue** checkbox determines if the Regular Match Size can be ignored in certain circumstances. When selected, the regular size is ignored and an order can be matched with prices less than the regular size when the order's residual amount or total size is less than the regular size. If cleared, orders remain unmatched when their residual amount or total size is less than the regular size.
- **Min Order Size:** Minimum size for any order for this organization. Any order less than this size is rejected.

- **Max Order Size:** Maximum size for any order for this organization. Any order greater than this is rejected.
- **Secondary Sort Priority:** Used as a tiebreaker. The initial tiebreaker is the LP's price. If there are multiple LPs with the same price, this secondary priority is used to break the tie.
  - Time (earliest): Older prices are higher priority.
  - Time (latest): Newer prices are higher priority.
  - Provider: Prices from providers that are higher in the **Execution** list are higher priority.
  - Size: Prices with a larger size are higher priority.

**NOTE:** The changes that you make to price provisioning in the Liquidity Rules screen are saved dynamically and take effect immediately.

#### To configure price provisioning:

1. Navigate to the Liquidity Rules screen (**Organization > Liquidity Rules > Liquidity Rules**).
2. Use the **Hide DO Providers** checkbox to show or hide displayed order providers from lists in the liquidity rules screens to make the lists more manageable.

**NOTE:** This feature is intended only to facilitate liquidity rules configuration. Showing or hiding providers from the lists does not affect the providers who are included for aggregation and execution. To confirm the list of all providers who are included, the **Hide DO Providers** checkbox must be cleared.

3. To add new provisioning rules, click the  Add button at the top of the Liquidity Provisioning panel. Otherwise, you can edit the default provisioning rules or use the search and filter tools to find the rules that you want to edit.
4. Click the  Edit button in the **Ccy Pairs** columns to open a window and choose the currency pairs and currency groups to which the provisioning rules apply.
5. Click the  Edit button in the Liquidity Providers columns to open a window and choose the providers to which the provisioning rules apply for aggregation and order execution. The order of the providers in the Execution list is used to determine order matching priority if you choose "Provider" in the **Secondary Sort Priority** column. Use the **Hide DO Providers** checkbox to show or hide displayed order providers.
6. Edit the provisioning rules as necessary.
7. Click and drag the rules to change the order they are applied.
8. To remove a rule, click the  Remove button for the rule.

#### 1.8.2 Enable and disable streams and order execution

You can control order execution and liquidity streams from liquidity providers (LPs) to your customers with a single click in the Liquidity Rules screen (**Organization > Liquidity Rules > Liquidity Rules**). The screen includes the following panels:

- **Master Control:** Toggle buttons to enable or disable streams and order execution for all of your customers.
- **Liquidity Providers:** A searchable table of all LP organizations with their current streaming status and buttons to enable or disable streams from specific LPs.

When price streaming is turned off, prices from all liquidity providers stop for users of all customers.

When price streaming is turned on, prices from all liquidity providers start flowing to all customers.

When order execution is turned off, active orders stop matching and new orders cannot be submitted. Attempts to submit an order fail with appropriate notification.

When order execution is turned on, new orders can be submitted and are matched. Any existing, active orders resume matching.

***To enable or disable price streams from all liquidity providers:***

1. Navigate to the Liquidity Rules screen (**Organization > Liquidity Rules > Liquidity Rules**).
2. In the Master Control panel, click the ON/OFF toggle button in the “Stream Prices” row to enable and disable price streams. The toggle button shows the current status.

***To enable or disable order execution for the customer:***

1. Navigate to the Liquidity Rules screen (**Organization > Liquidity Rules > Liquidity Rules**).
2. In the Master Control panel, click the ON/OFF toggle button in the “Order Execution” row to enable and disable order execution. The toggle button shows the current status.

***To enable or disable price streams from individual liquidity providers:***

1. Navigate to the Liquidity Rules screen (**Organization > Liquidity Rules > Liquidity Rules**).
2. In the Liquidity Providers panel, Use the table filtering and navigation tools to find the liquidity providers that you want to modify
3. Click the ON/OFF toggle button in the “Status” column to enable or disable the LP’s price stream. The toggle button shows the current status.

### 1.8.3 Aggregation

The Aggregation screen (**Organization > Liquidity Rules > Price Making**) allows your organization to control pricing to your customers and to your own trading users. The permission group “Admin Liquidity Rules Price Making View Edit” controls the visibility of the Aggregation screen.

#### Aggregation settings

The following settings are the same as defined for individual pricing streams.

- **Full Stream Update Interval** field: The interval in milliseconds at which the book is republished if there is any change to price or size
- **Best Bid/Offer Stream Update Interval** field: The interval in milliseconds at which the book is republished only if the best bid or best offer changes. The best bid/offer interval must be shorter than the full stream interval. If you leave the best bid/offer value blank or set it to zero, the system assumes that it is the same as the full stream interval.
- Aggregation Method drop-down list: Allows you to select a price making method for ESP workflows:
  - Best Price: Prices are aggregated and the best bid and best offer are picked, adding your spread and bias to the stream.

- Full Book: Takes the entire book to create a price stream for your counterparties, adding your spread and bias to the stream. Prices with the same rate from multiple liquidity providers are merged.
- Multi-Price Market: multi-tier price stream aggregated from your liquidity providers according to a tier structure as determined by the market, adding your spread and bias to the tiers.
- Multi-Price Tiers: multi-tier price stream aggregated from your liquidity providers according to a tier structure defined by you. The panel expands with a table to define tier sizes for aggregation.
- Weighted Average: weighted average price of the book, rounded down to the appropriate precision on the bid side and rounded up on the offer side. The stream is sent as a multi-tier price stream according to the tier structure defined by you. Also known as Volume-Weighted Average Price (VWAP). The panel expands with a table to define tier sizes for aggregation.
- Synthetic Full Book (Weighted Average): multi-quote, full-book price stream from multi-tier prices using the weighted average method to aggregate prices at each requested size. The panel expands with a table to define tier sizes for aggregation.
- Synthetic Full Book (Multi-Price Tiers): multi-quote, full-book price stream from multi-tier prices using the multi-price tier method to aggregate prices at each requested size. The panel expands with a table to define tier sizes for aggregation.
- Multi Tier FOK: multi-tier price stream of fill-or-kill prices at each requested size. The panel expands with a table to define tier sizes for aggregation.
- Synthetic Full Book (Multi Tier FOK): multi-quote, full-book fill-or-kill price stream from multi-tier prices using the weighted average method to aggregate prices at each requested size. The panel expands with a table to define tier sizes for aggregation.

### Order execution settings

- **Change IOC & FOK Orders to GTD Orders** checkbox and **Time In Force** field: You can choose to treat IOC and FOK orders as GTD orders with the specified time in force.
- **Aggregate Fills on Order Completion** checkbox: For customers whose business processes or preferences require a single fill notification per order, you can configure the FX Grid to average multiple fills of an order into a single trade. Notifications suppressed include STP messages, FIX Client API Execution Report messages, and .NET Client/HTML Client trade notifications. All deals that filled the order are cancelled and a new single trade is done with an aggregated VWAP price across all deals. Post-trade averaging applies only to orders with a time in force of IOC or GTD only. Post-trade averaging does not apply to FOK, GTC, and DAY orders. With post-trade averaging enabled, you can additionally choose to receive notifications for each fill on the order or to suppress fill notifications until the order reaches a terminal state (the order is cancelled, fully filled, or expired).
- **Match Against Own Orders** checkbox: You choose whether or not Integral matches your organization's orders against each other with this checkbox. When the checkbox is selected, the Integral matches your orders with displayed orders submitted by your organization as well as prices from other counterparties. This is the default setting. If you clear the checkbox, your orders are matched only with prices from other counterparties. This setting applies to all legal entities of your organization.

### Rate filter settings

The tools at the top of the Rate Filters panel are default values that apply to all currency pairs. You use the **Add/Remove** buttons to define filters for individual currency pairs and currency pair groups that override the default values.

- **Inverted Rate Check** checkbox: If the checkbox is not selected, then no check is performed and all incoming inverted quotes are considered for aggregation. If the checkbox is selected, then incoming inverted quotes are checked to make sure they fall within the tolerance range specified in the Pips field. If the rate tolerance is set to 0 (zero), then all inverted rates are dropped. If the following expression is true, then the inverted rate is used for aggregation:  $\text{offerRate} - \text{bidRate} + (\text{rateToleranceRange} / \text{pipsFactor}) \geq 0$  You can override the default tolerance setting by adding a filter for a currency pair or currency pair group.
- **Staleness Check** checkbox: The staleness check determines how old a rate can be in relation to other rates before it is dropped. The staleness check requires quotes from a minimum of three (3) liquidity providers to work. If enabled, the system drops a quote if it is stale. A quote is stale if it is older than the average age of other quotes plus the time interval that you specify in the **Check Interval** field. A quote's age is the time since it was received. A reasonable interval is 5 seconds. Using the average age of other quotes ensures that in slow markets a quote is not considered stale if all other quotes are old as well. For example, a quote was received 8 seconds ago. The average age of all other quotes (not including the quote being tested) is 4 seconds. If you specify an interval of 3 seconds, the quote being tested would be dropped ( $8 [\text{quote age}] > 4 [\text{average}] + 3 [\text{interval}]$ ). If you specify an interval of 5 seconds, the quote being tested is not dropped ( $8 [\text{quote age}] < 4 [\text{average}] + 5 [\text{interval}]$ ). You can override the default staleness interval by adding a filter for a currency pair or currency pair group.

#### To configure aggregation:

1. Navigate to the Aggregation screen (**Organization > Liquidity Rules > Price Making**).
2. Edit the aggregation settings as necessary.
3. Click **Save**.

#### 1.8.4 Audit liquidity rules

To allow you to more securely manage your liquidity provisioning, the Liquidity Rules Audit screen (**Organization > Liquidity Rules > Audit**) shows a record of all liquidity-rules changes with such details as the time the change was made, the user who made the change, the action performed, and a description of the change.

1. Navigate to the Liquidity Rules Audit screen (**Organization > Liquidity Rules > Audit**).  
The screen appears with the liquidity provisioning changes, if any, for the current business day.
2. To view a broader range of changes, choose a time period of audit events from the **Period** drop-down list or choose "Custom" and enter a date range in the **From** and **To** fields.
3. To filter the list by user, organization, or action, use the drop-down lists at the top of the panel.

### 1.9 Price streams

The Stream Management screen (**Organization > Stream Management**) allows you to control the price streams, both disclosed and undisclosed, that source prices from your organization. Changes made in this screen are audited (see [Stream management audit](#) on page 74). To access the Stream

Management screen, a user must belong to a liquidity provider organization and must have the “Admin Matrix Stream Management Edit” permission group.

**To determine the pricing streams that are streamed to specific counterparties:**

1. Navigate to the Stream Management screen (**Organization > Stream Management**).
2. Choose the default stream for new customer organizations from the **Default Stream** drop-down list.
3. For the counterparty ID that you want to edit, choose the streams that you want to send to the counterparty from the drop-down lists in the stream columns “Stream1”, “Stream2”, and so on. You can sort the list by the **ID, Customer Identifier** (when available), and **Clearing Counterparty** columns.
4. Click **Save**.

### 1.9.1 Stream management audit

The Stream Management Audit screen (**Organization > Stream Management > Audit**) allows you to more securely manage the prices that you stream to your price consumers. The system records all price-making changes to an audit log with such details as the time the change was made, the user who made the change, the system entity that was changed (rate filter, product, trading party, stream, organization, currency pair configuration), and a description of the change. To access the Stream Management Audit screen, a user must belong to a liquidity provider organization and must have the “Admin Matrix Stream Management Edit” permission group.

## 1.10 Click-through agreements

You use the Admin Portal to manage click-through legal agreements that your counterparties must accept before they access the trading app.

You upload license agreements as HTML files. The Admin Portal allows you to assign a reference ID and version number to the agreements to aid auditing and reconciliation.

- [Upload a new agreement](#) on page 75
- [Choose an agreement](#) on page 74
- [Choose how your agreement is enforced](#) on page 75

### 1.10.1 Choose an agreement

You decide which agreement to show. See [Upload a new agreement](#) on page 75 to add agreements to the system.

1. Navigate to the License Agreement List screen (**Organization > License Agreement**).
2. Find the agreement that you want to configure in the **Available License Agreement List** panel. Make note of the agreement’s reference number and version.
3. In the **Applicable License Details** panel, choose the agreement’s reference number from the **Applicable Reference ID** drop-down list.
4. Choose the agreement’s version from the **Applicable License Version** drop-down list.

---

**NOTE:** Usually only new users are shown the agreement. If you want all users to see your newly configured agreement the next time they log in, make sure to choose an agreement enforcement of "Optional" or "Mandatory" from the **Customer Click Through Requirements** drop-down list. See [Choose how your agreement is enforced](#) on page 75.

---

5. Click **Save**.

### 1.10.2 Upload a new agreement

You manage your license agreements as HTML files uploaded with the Admin Portal.

1. Navigate to the License Agreement List screen ([Organization > License Agreement](#)).
2. In the Agreement Upload panel, specify the license file by either entering the path and filename in the **HTML File** field or by clicking the **Browse...** button and choose the file.
3. Enter a reference ID and version number for the license agreement in the adjacent fields.
4. *(Optional)* Enter a comment in the **Comment** field.
5. Click **Import**.

### 1.10.3 Choose how your agreement is enforced

You choose how your click-through agreement is enforced and how users gain access to the trading app.

1. Navigate to the License Agreement List screen ([Organization > License Agreement](#)).
2. Choose an enforcement policy from the **Customer Click Through Requirements** drop-down list:
  - Not Required: The click-through screen is not shown. Users can access the app without being shown an agreement.
  - Optional: The click-through screen is shown with your configured agreement. Users must click through the license screen to access the app, but they are not required to explicitly accept the agreement.
  - Mandatory: The click-through screen is shown with your configured agreement. Users must accept your agreement to access the app.
3. Click **Save**.

## 1.11 Sales dealer groups

You can designate users in your organization as sales dealers who have the ability to trade on behalf of a customer organization.

The following conditions must be met so that a user can trade on behalf of a customer:

- Your organization must be configured for the sales dealer workflow. Contact Integral Business Support if you have questions.
- The user must be given the "FXIPro Sales Dealer Trading" permission group.
- The customer organization must have a taker relationship with your organization.
- Your organization and the customer organization must have a taker relationship with the liquidity provider.

You manage your sales dealers and the market segments with sales dealer groups.

A [sales dealer group](#) defines a set of sales dealer users and the customers they trade for.

- [Add a new sales dealer group](#) on page 76
- [Edit a sales dealer group](#) on page 77
- [Active and inactive items](#) on page 446

### 1.11.1 Add a new sales dealer group

You can add a new [sales dealer group](#) to the system with the Admin Portal.

1. Navigate to the Sales Dealer Group List screen ([Organization > Sales Dealer Groups](#)).

2. Click the **Add Sales Dealer Group** link.

3. Enter an ID and name for the new group in the **ID** and **Name** fields.

---

**NOTE:** Fields marked with an asterisk (\*) are required.

4. If you want to assign an email address to the group to allow notifications to be sent to all members of the group, enter the address in the **Email Address** field.
5. In the **Sales Dealer Mapping** panel:
  - Click the **Include all users** checkbox to add all current users to the sales dealer group and to ensure that all new users are included in the sales dealer group by default when they are added to the system.
  - Add sales dealers to the group by clicking listings in the **Available** list on the left and clicking the **Add>>** button. For a user to appear in this panel, they must be assigned the “MM FXIPro Sales Dealer Trading” permission group.
  - Remove sales dealers from the group by selecting listings in the **Included** list on the right and clicking the **<<Remove** button.
6. In the **Counterparty Mapping** panel, do one of the following:
  - 6a. Click the **Include all org/cpty** checkbox to add all current counterparties to the sales dealer group and to ensure that all new counterparties are included in the sales dealer group by default when they are added to the system.
  - 6b. Choose the type of counterparties for the sales dealer group by clicking one of the following radio buttons:
    - **Organization:** Entire organizations.
    - **Legal Entity:** Individual legal entities within organizations.
    - **Client Account**
    - **Client Account Group**
7. If you chose a specific counterparty type, configure the counterparties:
  - Click the **Include all org/cpty** checkbox to add all current counterparties to the sales dealer group and to ensure that all new counterparties are included in the sales dealer group by default when they are added to the system.
  - Add counterparties to the group by clicking listings in the Available list on the left and clicking the **Add>>** button. Both your organization and the counterparty must have a taker relationship with the liquidity provider. Also, the counterparty must have a taker relationship with your organization.
  - Remove counterparties from the group by selecting listings in the Included list on the right and clicking the **<<Remove** button.

8. Click **Save** to save the new group, **Reset** to clear the screen, or **Cancel** to cancel your changes and close the screen.

### 1.11.2 Edit a sales dealer group

You can manage the sales dealers and trading parties associated with a [sales dealer group](#).

1. Navigate to the Sales Dealer Group List screen ([Organization > Sales Dealer Groups](#)).
2. Edit the name the new group in the **Name** field.

---

**NOTE:** Fields marked with an asterisk (\*) are required.

---

3. If you want to assign an email address to the group to allow notifications to be sent to all members of the group, enter the address in the **Email Address** field.
4. In the **Sales Dealer Mapping** panel:
  - Click the **Include all users** checkbox to add all current users to the sales dealer group and to ensure that all new users are included in the sales dealer group by default when they are added to the system.
  - Add sales dealers to the group by clicking listings in the **Available** list on the left and clicking the **Add>>** button. For a user to appear in this panel, they must be assigned the “MM FXIPro Sales Dealer Trading” permission group.
  - Remove sales dealers from the group by selecting listings in the **Included** list on the right and clicking the **<<Remove** button.
5. In the **Counterparty Mapping** panel, do one of the following:
  - 5a. Click the **Include all org/cpty** checkbox to add all current counterparties to the sales dealer group and to ensure that all new counterparties are included in the sales dealer group by default when they are added to the system.
  - 5b. Choose the type of counterparties for the sales dealer group by clicking one of the following radio buttons:
    - **Organization:** Entire organizations.
    - **Legal Entity:** Individual legal entities within organizations.
    - **Client Account**
    - **Client Account Group**
6. If you chose a specific counterparty type, configure the counterparties:
  - Add trading parties to the group by clicking listings in the **Available** list on the left and clicking the **Add>>** button.
  - Remove trading parties from the group by selecting listings in the **Included** list on the right and clicking the **<<Remove** button.
7. Click **Save**.

## 1.12 Currency pair groups

You organize currency pairs into groups that align with your business and liquidity needs so you can quickly and easily configure price making and rate filters.

- [Add or edit a currency pair group](#) on page 78
- [Copy currency pair groups](#) on page 78

### 1.12.1 Add or edit a currency pair group

1. Navigate to the Currency Pair Groups List screen ([Organization > Currency Pair Groups](#)).
2. Click the ID of a group in the list to edit an existing group or click the [Add Currency Pair Groups](#) link to add a new group.

The Currency Pair Groups Edit screen or Add Currency Pair Groups screen opens. The screens are functionally equivalent.
3. If adding a new group, enter the group's ID in the **ID** field.
4. Edit the details of the group as necessary:
  - **Name** field: The group's name
  - **Sort Order** field: The order in which the group is sorted in the Currency Pair Groups List screen.
  - **Quote Convention** drop-down list: Defines quoting conventions such as valid currency pairs and pips precision.
  - Group tools: Add existing currency pair groups to the list on the right to quickly add currency pairs to the group.
  -  **Advanced Settings** button: Click this button to expand the panel and access tools for including and excluding specific currency pairs.
  - Current Currency Pairs section: Shows the list of all currency pairs in the group. Because this list can quickly grow very large, you can use the **Filter** field to search the list. This list is only updated when the group is saved.
5. Click **Save** to save your changes. If you made changes to the currency pairs in the group, the list of currency pairs in the Current Currency Pairs section updates.

### 1.12.2 Copy currency pair groups

Quickly add a new currency pair group by copying and modifying an existing group.

1. Navigate to the Currency Pair Groups List screen ([Organization > Currency Pair Groups](#)).
2. Click the  **Copy** button of the group that you want to copy.

- The Copy Currency Pair Group window opens.
3. Enter the ID and name of the new group and click **OK**.
  4. Edit the details of the group as necessary:
    - **Sort Order** field: The order in which the group is sorted in the Currency Pair Groups List screen.
    - **Quote Convention** drop-down list: Defines quoting conventions such as valid currency pairs and pips precision.
    - Group tools: Add existing currency pair groups to the list on the right to quickly add currency pairs to the group.
    -  **Advanced Settings** button: Click this button to expand the panel and access tools for including and excluding specific currency pairs.
    - Current Currency Pairs section: Shows the list of all currency pairs in the group. Because this list can quickly grow very large, you can use the **Filter** field to search the list. This list is only updated when the group is saved.

5. Click **Save** to save your changes. If you made changes to the currency pairs in the group, the list of currency pairs in the Current Currency Pairs section updates.

## 1.13 Set up a prime broker

The system models your relationship with your prime broker counterparties in three ways.

The following sections describe how to set up your counterparties according to these models with references to the specific procedures.

- Direct Market Access (DMA): You deal with liquidity providers directly with a prime broker participating as a settlement counterparty or as both a settlement and credit counterparty. See [Prime brokers: direct market access](#) on page 79.
- Prime Broker System: You deal directly with a prime broker and anonymously with liquidity providers. See [Prime brokers: prime broker system](#) on page 81.
- Execution Broker System: You deal directly with the prime broker. You may also assign a prime broker to your execution broker if necessary. See [Prime brokers: execution broker system](#) on page 81.

### 1.13.1 Prime brokers: direct market access

If you deal with liquidity providers directly (DMA), you can specify a prime broker to participate in your transactions from both a settlement and credit perspective.

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**NOTE:** Before you can assign a prime broker to a liquidity provider, a trading party relationship must be established between the prime broker and the provider and between your organization and the prime broker. The Business Support team makes these relationships as part of the initial provisioning process.

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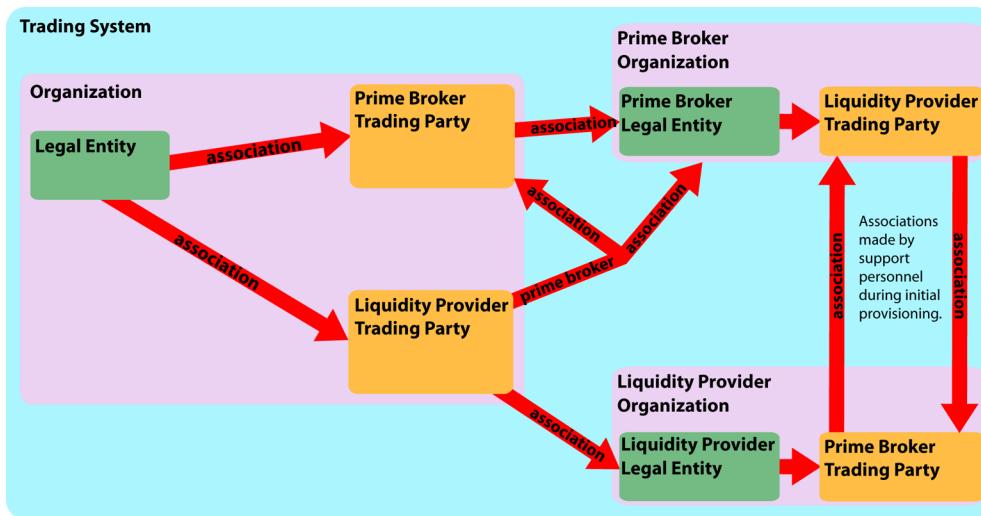
#### Relationships

Each of your liquidity-provider counterparties is represented as a trading party in the system. You assign prime brokers to the trading parties that correspond to your liquidity-provider counterparties. You can specify a different prime broker for each of your liquidity providers.

When you make the association, you specify both the prime broker's organization and trading party.

See [Configure your prime broker for a trading party](#) on page 83 for details.

The following image summarizes the associations made by you and by support personnel:



**Figure 1-1 DMA prime broker associations**

### STP download

When you assign a prime broker to a trading party, the prime broker receives STP download messages for all trades done with the trading party as long as the prime broker is connected to the system for STP download. In addition, the STP message that you receive indicates the prime broker on the trade. See the *STP Download Guide* for details.

### Exposure and credit participation

You may elect to enable credit with the prime broker to track exposure to that prime broker. See [Configure your prime broker for a trading party](#) on page 83 for details.

The system aggregates all trades done with any liquidity providers where that prime broker is assigned. This allows the organization to see total exposure to that prime broker. In addition, this allows the prime broker to track its exposure to the liquidity provider on a net basis across all counterparties using that prime broker for that provider.

A liquidity provider may choose one of the following credit scenarios:

- Perform credit checks on your organization themselves
- Allow the system to perform credit checks for them
- Route the credit checks via the prime broker

The system supports a multi-lateral credit model with the prime broker and liquidity provider where the provider can net all exposure to the prime broker across all counterparties and then allow the prime broker to track exposure separately for your organization. This allows for efficient credit allocation.

### 1.13.2 Prime brokers: prime broker system

If you deal directly with a prime broker and anonymously with liquidity providers, you specify the prime broker in much the same way as you do for DMA.

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**NOTE:** Before you can assign a prime broker to a liquidity provider, a trading party relationship must be established between the prime broker and the provider and between your organization and the prime broker. The Business Support team makes these relationships as part of the initial provisioning process.

---

#### Relationships

Your anonymous liquidity-provider counterparties are represented in the system as trading parties with pseudonyms. You assign your prime brokers to the trading parties that correspond to your anonymous providers.

When you make the association, you specify both the prime broker's organization and trading party.

See [Configure your prime broker for a trading party](#) on page 83 for details.

#### STP download

When you assign a prime broker to a trading party, the prime broker receives STP download messages for all trades done with the trading party as long as the prime broker is connected to the system for STP download. In addition, the STP message that you receive indicates the prime broker on the trade. See the *STP Download Guide* for details.

#### Exposure and credit participation

You may elect to track and limit your exposure to your prime broker. This may not be needed as all of your trades will be with that prime broker directly. See [Configure your prime broker for a trading party](#) on page 83 for details.

### 1.13.3 Prime brokers: execution broker system

If you deal with an execution broker system, it is likely your execution broker is also your prime broker. You deal directly with the execution broker's trading party.

However, in cases where you still have a separate prime broker, you can specify the prime broker on your execution broker's trading party. See [Configure your prime broker for a trading party](#) on page 83 for details.

# CHAPTER 2

# Counterparties

## 2.1 Introduction

You manage the pricing and trading details of your counterparty relationships with the Counterparty area of the Admin Portal.

Your counterparty organizations are set up for you by Business Support as part of the initial provisioning process. You cannot add new counterparty organizations to the system with the Admin Portal.

- [Trading parties](#) on page 82
- [Currency pairs](#) on page 86
- [Price making](#) on page 91
- [Price provisioning](#) on page 179
- [Client accounts](#) on page 205
- [Liquidity regeneration](#) on page 197

## 2.2 Trading parties

A trading party is a [legal entity](#) of a counterparty organizations that can establish trading relationships.

You can edit trading parties in the following ways:

- [Trading party relationships](#) on page 82
- [Trading party contacts](#) on page 83
- [Configure your prime broker for a trading party](#) on page 83
- [Configure your business center for a trading party](#) on page 84
- [Trading party STP configuration](#) on page 84
- Inactivate and reactivate trading parties (see [Active and inactive items](#) on page 446)

### 2.2.1 Trading party relationships

You edit selected trading party data directly from the Organization Trading Party List screen, allowing you to quickly edit important information for several trading parties at once.

***To edit the details of a trading party in the list screen:***

1. Navigate to the Organization Trading Party List screen ([Counterparty > Trading Parties](#)).
2. *(Optional)* Search for the trading parties that you want to edit. See [Filter lists of data](#) on page 449 for information about searching tables.

3. Edit the information of the trading parties that you need to modify.
4. Click **Save**.

**To deactivate a trading party from the list screen:**

1. Navigate to the Organization Trading Party List screen (**Counterparty > Trading Parties**).
2. *(Optional)* Search for the trading parties that you want to deactivate. See [Filter lists of data](#) on page 449 for information about searching tables.
3. Select the checkboxes of the trading parties that you want to deactivate.
4. Click **Inactivate**.

For more information about inactivating and reactivating data, see [Active and inactive items](#) on page 446.

## 2.2.2 Trading party contacts

1. Navigate to the Organization Trading Party List screen (**Counterparty > Trading Parties**).
2. Click the ID of the trading party that you want to edit. You can edit the trading party's name directly in the list.
3. Edit the trading party's information in the Main Details panel of the Trading Party Detail Edit screen.

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**NOTE:** Fields marked with an asterisk (\*) are required.

4. Click **Save**.

## 2.2.3 Configure your prime broker for a trading party

If you use a prime broker for trading relationships, you can configure the system to ensure that your prime broker receives an STP download of the trades you do with a trading party to streamline trade reconciliation and eliminate manual input errors.

You can also decide whether or not a prime broker participates in the trade as a credit counterparty.

---

**NOTE:** Before you change your prime broker settings for a trading party, you should review the trading party's own prime broker settings in the table in the Prime Brokerage panel (**Counterparty > Customers > customer ID > Trading Parties > trading party ID**). The trading party's prime broker organization, broker trading party, and credit workflow illustration allow you to make sure that relationships are set up correctly on both sides.

You can edit many prime broker settings directly in the Organization Trading Party List screen.

1. Navigate to the Organization Trading Party List screen (**Counterparty > Trading Parties**).  
The Trading Party list screen shows the prime broker and prime broker legal entity, and prime broker credit configured, if any, for each trading party.
2. If you need to edit all of a trading party's information, click the ID (short name) of the trading party that you want to edit. If you only need to update selected information (noted below), you can make those changes directly in the list screen.

3. In the Prime Brokerage panel, choose a prime broker organization from the **Prime Broker** drop-down list. This list contains all the organizations that have a trading relationship with the trading party. This data can also be edited directly in the list screen.
4. Choose one of the prime broker's trading parties from the **Prime Broker Trading Party** drop-down list. This trading party receives STP downloads if you enable STP download for the prime broker. This data can also be edited directly in the list screen.
5. Select the **Anonymous to LP** checkbox to render the trading party anonymous to the liquidity provider. Clear the checkbox to reveal the trading party's identity to the provider. This data can only be edited in the Trading Party Detail screen.
6. Select the **STP Download Enabled** checkbox to send STP messages to the prime broker. Clear the checkbox to disable STP messages to the prime broker. This setting only applies when cover trading is not enabled. This data can only be edited in the Trading Party Detail screen.
7. Select the **Prime Brokerage Credit** checkbox if the prime broker participates in the trade as a credit counterparty. This data can also be edited directly in the list screen:
  - If cleared, the prime broker's credit relationship with you and the trading party is not considered for a trade. For credit checking and utilization purposes, the trade is counted directly between you and the trading party.
  - If selected, the credit relationship between you and the trading party is not considered for a trade. For credit checking and utilization purposes, the trade is counted between both you and the prime broker, and the trading party and the prime broker. If a credit check fails between one or the other, the trade is not done.
8. If you have selected the **Prime Brokerage Credit** checkbox, choose a prime broker organization from the **Credit Prime Broker** drop-down list. This list contains all the organizations that have a trading relationship with the trading party. This data can also be edited directly in the list screen.
9. Choose one of the prime broker's trading parties as a credit participant from the **Credit Prime Broker Trading Party** drop-down list. This data can also be edited directly in the list screen.
10. Click **Save**.

## 2.2.4 Configure your business center for a trading party

1. Navigate to the Organization Trading Party List screen (**Counterparty > Trading Parties**).
2. Click the ID of the trading party that you want to edit.
3. Choose a business center from the **Associated FI Business Center Association** drop-down list in the FI Business Center Association panel.
4. Click **Save**.

## 2.2.5 Trading party STP configuration

You can control STP download by trading party and determine the characteristics of the downloads you receive for each trading party.

A trading party's STP download can also be enabled or disabled directly from the Organization Trading Party List screen.

1. Navigate to the Organization Trading Party List screen (**Counterparty > Trading Parties**).
2. Click the ID of the trading party that you want to edit.

STP Download section contains the tools you use to configure STP download for the trading party as well as the default values for your organization's STP download as set when your organization was first provisioned. If you need to change your organization's STP download settings, please contact Business Support.

3. Enable or disable STP download with the **STP Download Enabled** drop-down list. Choose "Yes" to enable STP, "No" to disable STP, or "Default" to use your organization's default setting for the trading party. This data can also be edited directly in the list screen.
4. Use the **STP Downloaded As** drop-down list to choose the perspective in which your organization receives STP messages:
  - Default:** The perspective of the downloaded trade depends on how counterparty relationships in the system are configured.
  - Trading Party As Maker:** Your organization receives the download with the trading party as a maker on the trade.
  - Trading Party As Taker:** Your organization receives the download with the trading party as a taker on the trade.
5. Click **Save**.

## 2.2.6 STP trade origination example

You can configure how originating counterparties are recorded in STP messages for trading parties.

The settings are in the Organization Trading Party List screen (**Counterparty > Trading Parties**) of individual trading parties.

For the following examples, consider:

- Your organization (YourOrg) receives the downloads
- YourOrg has two legal entities: YourOrg-LE and YourOrg-Japan
- PrimeBrokerCpty is a customer of PrimeBroker
- PrimeBroker covers the trade with your organization's legal entity, YourOrg-Japan
- YourOrg-Japan covers the trade with YourOrgCpty

### Default behavior

- YourOrg receives two STP download messages, one for the PrimeBroker and the YourOrg-Japan trade and another for the YourOrg-Japan and YourOrgCpty trade.
- The trade done between YourOrg-Japan and YourOrgCpty has the originating counterparty set as PrimeBroker. Because the download is going to YourOrg-Japan, this is not a problem as YourOrg-Japan already knows that the trade came from PrimeBroker
- The trade done between PrimeBroker and YourOrg-Japan has the originating counterparty set as PrimeBrokerCpty. This is an issue because YourOrg-Japan does not know about PrimeBroker's customers.

### Use organization's counterparty

- When YourOrg downloads the trade between PrimeBroker and YourOrg-Japan, it has the originating counterparty as YourOrg-Japan. It is not YourOrg-LE (even though it might be the default)

legal entity of the YourOrg organization) as the trade was done with YourOrg-Japan and not YourOrg-LE.

- The originating user is the YourOrg user that participated in the trade. If a YourOrg user is not available, the default dealing user for the YourOrg organization is set as the originating user.
- This configuration does not affect the trade downloads for PrimeBroker.
- This configuration also not affect the trade download to YourOrg for the trade done between YourOrg-Japan and YourOrgCpty.

### Use trading party's counterparty

- When YourOrg downloads the trade between PrimeBroker and YourOrg-Japan, it has the originating counterparty as PrimeBroker.
- The originating user is the PrimeBroker user that participated in the trade. If a PrimeBroker user is not available, the default dealing user for the PrimeBroker organization is set as the originating user.
- This selection does not affect the trade downloads for PrimeBroker.
- This selection also does not affect the trade download to YourOrg for the trade done between YourOrg-Japan and YourOrgCpty.

## 2.3 Currency pairs

You can configure the currency pairs that are available for trading to your taker counterparties and customize currency pairs on a per-counterparty basis. You assign currency pairs to taker counterparties both in groups and as individual pairs. You can also define currency pair groups for your organization (see [Currency pair groups](#) on page 77).

- [Download a currency pair report](#) on page 86
- [Choose to use the defaults or override a taker counterparty's configuration](#) on page 87
- Default Currency Pairs
  - [Review the list of currency pairs available by default](#) on page 87
  - [Choose a default quote convention](#) on page 88
  - [Configure default currency pair groups](#) on page 88
  - [Configure default custom currency pairs](#) on page 89
- Counterparty Currency Pairs
  - [Review the list of currency pairs available to a taker counterparty](#) on page 89
  - [Choose a quote convention for a taker counterparty](#) on page 90
  - [Configure currency pair groups for a taker counterparty](#) on page 90
  - [Configure custom currency pairs for a taker counterparty](#) on page 91

### 2.3.1 Download a currency pair report

The Admin Portal allows you to download a report of taker counterparties and the currency pairs available to each counterparty so that you can more easily review and audit currency pair availability in the system.

Choosing a quote convention is usually the first step in determining the currency pairs that you make available to trade as a maker to your taker counterparties.

**NOTE:** Changing quote conventions can significantly affect the list of currency pairs available to your taker counterparties.

1. Navigate to the Currency Pairs List screen (**Counterparty > Currency Pairs**).
2. Click the **Download reports** link.
3. In the File Download dialog, click **Save**.
4. Choose the location where you want to save the file.
5. If you want to change the file's default name, enter the new name in the **File name:** field.
6. Click **Save**.

The report is saved as a [CSV](#) file.

### 2.3.2 Choose to use the defaults or override a taker counterparty's configuration

For each taker counterparty, you can choose to apply the default currency pair settings or to use a configuration specific to the counterparty.

You can make this choice in two ways:

#### *From the Currency Pairs List screen:*

1. Navigate to the Currency Pairs List screen (**Counterparty > Currency Pairs**).
  2. In the **Use Defaults** column of the table in the **Counterparty** panel:
    - Select the checkbox to use the default currency pair settings for the counterparty.
    - Clear the checkbox to use the currency pair configuration you have defined for the counterparty.
  3. Click **Save**.
- You can make this choice for multiple counterparties by selecting and clearing their checkboxes.

#### *From the specific counterparty's set-up screen:*

1. Navigate to the counterparty's Currency Pairs screen (**Counterparty > Currency Pairs > counterparty ID**).
2. In the **Use Defaults** checkbox:
  - Select the checkbox to enable use the default currency pair settings for the counterparty.
  - Clear the checkbox to use the currency pair configuration you have specifically defined for the counterparty.
3. Click **Save**.

### 2.3.3 Default currency pairs

Review the list of currency pairs available by default

Because the combination of [quote convention](#), currency groups, and custom currency pairs can be complex, the Admin Portal gives you an easy way to confirm the list of available currency pairs.

To review the list of currency pairs available by default to taker counterparties, navigate to the Currency Pairs List screen ([Counterparty > Currency Pairs](#)).

At the bottom of the Default Currency Pairs panel, the Current Currency Pairs row contains all the default currency pairs. You can also filter the list to make currency pair review easier. Click the question mark (?) link or see [Filter lists of data](#) on page 449.

You can also download a report to a file for easy, comprehensive audit of all counterparties and available currency pairs. See [Download a currency pair report](#) on page 86.

### Choose a default quote convention

Choosing a [quote convention](#) is usually the first step in determining the currency pairs that you make available to trade.

A quote convention defines the list of valid currency pairs and embodies the market conventions that are associated with the currency pairs that are traded in the system.

Typical market conventions for a currency pair are the base and term currencies of the pair, the precision to which the currency pair is quoted, and the settlement calendar that applies to trades in the currency pair.

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**NOTE:** Changing quote conventions can significantly affect the list of currency pairs available to your taker counterparties.

---

1. Navigate to the Currency Pairs List screen ([Counterparty > Currency Pairs](#)).
2. Choose a quote convention from the **Quote Convention** drop-down list.
3. Click **Save**.

### Configure default currency pair groups

For your convenience, the Admin Portal gathers many common currency pairs into groups that you can make available to taker counterparties to trade. You can define currency pair groups for your organization (see [Currency pair groups](#) on page 77).

Only the currency pairs that are in both the group and the currently selected [quote convention](#) are made available.

1. Navigate to the Currency Pairs List screen ([Counterparty > Currency Pairs](#)).
2. Select the groups you want to add in **Group** list on the left. You can use Ctrl+click and Shift+click to select multiple currency pairs. You can also filter the list to make group selection easier. Click the question mark (?) link or see [Filter lists of data](#) on page 449.
3. Click the add button (>) to add the currency pairs to the list of active currency pair groups on the right.
4. Select the groups you want to remove in the list on the right.
5. Click the remove button (<) to remove the currency pair groups from the list of active currency pairs on the right.

6. Click **Save**.

Configure default custom currency pairs

The Admin Portal allows you to add individual currency pairs to the set available to taker counterparties by default.

The currency pairs that you can add are valid in the currently selected [quote convention](#) but have not been selected as part of a currency group.

1. Navigate to the Currency Pairs List screen ([Counterparty > Currency Pairs](#)).
2. Click the  **Advanced Settings** button.

The **Default Currency Pairs** panel expands to show the **Custom Currency Pairs** inclusion and exclusion lists.

3. In the **Included Custom Currency Pairs** lists, select the currency pairs you want to add to the group in list on the left. You can use Ctrl+click and Shift+click to select multiple currency pairs. Use the add button (») and the remove button («) to build the list. You can also filter the list to make currency pair selection easier. Click the question mark (?) link or see [Filter lists of data](#) on page 449.
4. In the **Excluded Custom Currency Pairs** lists, select the currency pairs you want to exclude from the group in list on the left. You can use Ctrl+click and Shift+click to select multiple currency pairs. Use the add button (») and the remove button («) to build the list. You can also filter the list to make currency pair selection easier. Click the question mark (?) link or see [Filter lists of data](#) on page 449.
5. Click **Save**.

### 2.3.4 Taker counterparty currency pairs

Review the list of currency pairs available to a taker counterparty

Because the combination of [quote convention](#), currency groups, and custom currency pairs can be complex, the Admin Portal gives you an easy way to confirm the list of available currency pairs.

You can review the list of currency pairs available to a particular taker counterparty in several ways:

**From the Currency Pairs List screen:**

Navigate to the Currency Pairs List screen ([Counterparty > Currency Pairs](#)).

The **Counterparty** panel contains a table of taker counterparties in the system and the currency pairs that are available to them.

**From the taker counterparty's Currency Pairs screen:**

Navigate to the counterparty's Currency Pairs screen ([Counterparty > Currency Pairs > counterparty ID](#)).

At the bottom of the **Currency Pairs** panel, the **Current Currency Pairs** row contains all the currency pairs available to the taker counterparty. You can also filter the list to make currency pair review easier. Click the question mark (?) link or see [Filter lists of data](#) on page 449.

***From the taker counterparty's Currency Pairs screen if you have permission to access Customer Management:***

Navigate to the counterparty's Currency Pairs screen (**Counterparty > Customers > counterparty ID > Currency Pairs**).

At the bottom of the **Currency Pairs** panel, the **Current Currency Pairs** row contains all the currency pairs available to the taker counterparty. You can also filter the list to make currency pair review easier. Click the question mark (?) link or see [Filter lists of data](#) on page 449.

You can also download a report to a file for easy, comprehensive audit of all counterparties and available currency pairs. See [Download a currency pair report](#) on page 86.

#### Choose a quote convention for a taker counterparty

Choosing a [quote convention](#) is usually the first step in determining the currency pairs that you make available to trade.

A quote convention defines the list of valid currency pairs and embodies the market conventions that are associated with the currency pairs that are traded in the system.

Typical market conventions for a currency pair are the base and term currencies of the pair, the precision to which the currency pair is quoted, and the settlement calendar that applies to trades in the currency pair.

---

**NOTE:** Changing quote conventions can significantly affect the list of currency pairs available to a counterparty.

---

1. Navigate to the counterparty's Currency Pairs screen (**Counterparty > Currency Pairs > counterparty ID**).
2. Choose a quote convention from the **Quote Convention** drop-down list.
3. Make sure the **Use Defaults** checkbox is cleared to override the defaults and enable the counterparty's configuration.
4. Click **Save**.

#### Configure currency pair groups for a taker counterparty

For your convenience, the Admin Portal gathers many common currency pairs into groups that you can make available to trade.

Only the currency pairs that are in both the group and the currently selected [quote convention](#) are made available.

1. Navigate to the counterparty's Currency Pairs screen (**Counterparty > Currency Pairs > counterparty ID**).

2. Select the groups you want to add in Group list on the left. You can use Ctrl+click and Shift+click to select multiple currency pairs. You can also filter the list to make currency pair group selection easier. Click the question mark (?) link or see [Filter lists of data](#) on page 449.
3. Click the add button (>) to add the currency pairs to the list of active currency pair groups on the right.
4. Select the groups you want to remove in the list on the right.
5. Click the remove button (<) to remove the currency pair groups from the list of active currency pairs on the right.
6. Make sure the **Use Defaults** checkbox is cleared to override the defaults and enable the counterparty's configuration.
7. Click **Save**.

#### Configure custom currency pairs for a taker counterparty

The Admin Portal allows you to add individual currency pairs to the set available to a specific taker counterparty.

The currency pairs that you can add are valid in the currently selected [quote convention](#) but have not been selected as part of a currency group.

1. Navigate to the counterparty's Currency Pairs screen (**Counterparty > Currency Pairs > counterparty ID**).
2. Make sure the **Use Defaults** checkbox is cleared to override the defaults and enable the counterparty's configuration.
3. Click the  **Advanced Settings** button.

The panel expands to show the Custom Currency Pairs selection lists.

4. In the Included Custom Currency Pairs lists, select the currency pairs you want to add to the group in list on the left. You can use Ctrl+click and Shift+click to select multiple currency pairs. Use the add button (>) and the remove button (<) to build the list. You can also filter the list to make currency pair selection easier. Click the question mark (?) link or see [Filter lists of data](#) on page 449.
5. In the Excluded Custom Currency Pairs lists, select the currency pairs you want to exclude from the group in list on the left. You can use Ctrl+click and Shift+click to select multiple currency pairs. Use the add button (>) and the remove button (<) to build the list. You can also filter the list to make currency pair selection easier. Click the question mark (?) link or see [Filter lists of data](#) on page 449.
6. Click **Save**.

## 2.4 Price making

When you make prices in the Admin Portal, you decide how your liquidity providers' prices are aggregated in a stream, how your prices are spread, which currency pairs are included in the stream, and which counterparties receive each stream.

All price making activity starts from the Price Making screen (**Counterparty > Price Making**).

- [Price making concepts](#) on page 92

- [Review liquidity provider status](#) on page 115
- [Work with price streams](#) on page 113
- [Work with rates and rate filters](#) on page 159
- [Review audited changes to price making](#) on page 168
- [Provide manual quotes \(manual RFQ\)](#) on page 168
- [Work with market data](#) on page 171

## 2.4.1 Price making concepts

To familiarize yourself with the operating concepts behind price-making functionality and procedures, see the following topics:

- [Price streaming methodologies \(ESP/RFS\)](#) on page 92
- [Customer fill rules](#) on page 100
- [How customer orders and cover orders are filled](#) on page 101
- [Execution methods](#) on page 102
- [Copy ESP trading flow](#) on page 106
- [Basis point of spot \(BPS\) spreads](#) on page 108
- [Minimum/maximum spread and bias](#) on page 109
- [Hourglass spreads](#) on page 110
- [Price making aggregation methods](#) on page 112

### Price streaming methodologies (ESP/RFS)

Your organization has the option of supporting three methodologies for streaming prices to your counterparties:

- [Executable streaming prices \(ESP\)](#) on page 92
- [Request for stream \(RFS\)](#) on page 92
- [RFS prices sourced from ESP spot prices \(Spot & MDS\)](#) on page 93
- [RFS prices sourced from streaming swap prices \(Spot & Swap\)](#) on page 95
- [Fixed spot roll \(FSR\) pricing](#) on page 97
- [Single spot portfolio \(SSP\) pricing](#) on page 99
- [Prices sourced from Excel and API clients](#) on page 99
- [Methodologies compared](#) on page 100

#### Executable streaming prices (ESP)

The trading app initiates ESP streams when the counterparty logs in. The streams live for the duration of the counterparty's trading session.

The ESP methodology applies to spot trades only.

Your organization must support ESP.

#### Request for stream (RFS)

Each RFS stream results from a discrete request from your counterparty and has an expiry time, typically 120 seconds.

With the RFS methodology, your counterparty can request streams for spot, outright, and swap trades.

You can choose whether or not your organization supports RFS. See [Choose the price stream channels to support \(ESP/RFS\) on page 15](#) for more information.

RFS prices sourced from ESP spot prices (Spot & MDS)

As a broker, you can respond to customers' RFS requests with prices that are sourced from ESP prices instead of passing the RFS request directly to liquidity providers. These RFS prices are derived from liquid ESP prices and less volatile prices, such as FX forward points. You might want to source these derived RFS prices for tenors that are not available in the market or to provide stable prices to certain market segments. With the ESP-to-RFS workflow, you can offer a competitive and stable price to your customers while at the same time configuring execution algorithms to cover the risk in the market.

ESP spreads are applied by tier when making RFS prices with multi-tier aggregation methods. If you choose to employ ESP-sourced RFS prices, only the following combinations of ESP and RFS aggregation methods are allowed. Any other combination of ESP and RFS aggregation method results in an error.

**Table 2-1** Valid ESP and RFS aggregation method combinations

RFS Aggregation Methods	Valid ESP Aggregation Methods
<b>Single-tier Aggregation</b>	
Best Price FOK	<ul style="list-style-type: none"> <li>• Best Price</li> <li>• Best Price FOK</li> <li>• Full Book</li> </ul>
<b>Multi-tier Aggregation</b>	
<ul style="list-style-type: none"> <li>• Price at Size</li> <li>• Weighted Average</li> </ul>	<ul style="list-style-type: none"> <li>• Multi-Price Tiers</li> <li>• Multi-Tier FOK</li> <li>• Synthetic Full Book (Multi-Price Tiers)</li> <li>• Synthetic Full Book (Weighted Average)</li> <li>• Weighted Average</li> </ul>

The follow table describes how the various aggregation methods apply to Spot & MDS prices.

---

**NOTE:** The conditions for the "Partial Fill Possible?" column are the **Full Fill** checkbox selected and the **Min % Covered** value less than 100.

---

**Table 2-2** ESP to RFS price aggregation methods

RFS Checkbox	Spot & MDS Checkbox	Spot & MDS Aggregation	Description	Aggregation Per Trade Type	Partial Fill Possible?
X	—	—	No aggregation. Prices are sourced directly as RFS prices.	<ul style="list-style-type: none"> <li>• Spot: None</li> <li>• Outright, NDF, Window Fwd: None</li> <li>• Swap, Fwd/Fwd: None</li> </ul>	No
—	X	Weighted Avg	VWAP aggregation	<ul style="list-style-type: none"> <li>• Spot: ESP VWAP</li> <li>• Outright, NDF, Window Fwd: ESP VWAP + forward points from market data</li> <li>• Swap, Fwd/Fwd: ESP VWAP + forward points from market data for each leg, then swap points calculated</li> </ul>	Yes
—	X	Price at Size	Price-at-depth aggregation	<ul style="list-style-type: none"> <li>• Spot: ESP price at depth</li> <li>• Outright, NDF, Window Fwd: ESP price at depth + forward points from market data</li> <li>• Swap, Fwd/Fwd: ESP price at depth + forward points from market data for each leg, then swap points calculated</li> </ul>	Yes
—	X	Best Price FOK	No aggregation. Prices are sourced from a single provider with the best price at the specified size.	<ul style="list-style-type: none"> <li>• Spot: ESP best price at size from one provider</li> <li>• Outright, NDF, Window Fwd: ESP best price at size from one provider + forward points from market data</li> <li>• Swap, Fwd/Fwd: ESP best price at size from one provider + forward points from market data for each leg, then swap points calculated</li> </ul>	Yes
X	X	Weighted Avg	RFS prices in competition with ESP (VWAP) prices	<ul style="list-style-type: none"> <li>• Spot: ESP VWAP</li> <li>• Outright, NDF, Window Fwd: ESP VWAP + forward points from market data</li> <li>• Swap, Fwd/Fwd: ESP VWAP + forward points from market data for each leg, then swap points calculated</li> </ul>	Yes
X	X	Price at Size	RFS prices in competition with ESP (Size) prices	<ul style="list-style-type: none"> <li>• Spot: ESP price at depth</li> <li>• Outright, NDF, Window Fwd: ESP price at depth + forward points from market data</li> <li>• Swap, Fwd/Fwd: ESP price at depth + forward points from market data for each leg, then swap points calculated</li> </ul>	Yes
X	X	Best Price FOK	RFS prices in competition with ESP (FOK) prices	<ul style="list-style-type: none"> <li>• Spot: ESP best price at size from one provider</li> <li>• Outright, NDF, Window Fwd: ESP best price at size from one provider + forward points from market data</li> <li>• Swap, Fwd/Fwd: ESP best price at size from one provider + forward points from market data for each leg, then swap points calculated</li> </ul>	Yes

You can choose whether or not your organization supports RFS. See [Choose the price stream channels to support \(ESP/RFS\)](#) on page 15 for more information.

RFS prices sourced from streaming swap prices (Spot & Swap)

As a broker, you can respond to customers' RFS requests for the following trade types with prices that are sourced from real-time streaming swap prices instead of passing the RFS request directly to liquidity providers:

- FX Outright
- FX Swap
- FX Fwd Fwd
- FX SSP
- FX Window FWD

---

**NOTE:** Contact your Integral Technical Account Manager to configure Spot & Swap pricing

---

#### Request pricing workflow

1. The customer requests pricing for the following SSP:

**Table 2-3 Customer SSP request**

Currency Pair	Tenor	Buy/Sell	Size	Dealt Currency
EUR/USD	1W	BUY	1M	EUR
EUR/USD	1M	BUY	1M	EUR
EUR/USD	3M	BUY	1M	EUR

2. The pricing engine makes three equivalent swap RFS requests, one for each tenor, and submits them for pricing:

**Table 2-4 Equivalent swaps for pricing**

	Currency Pair	Tenor	Near Buy/Sell	Far Buy/Sell	Size	Dealt Currency
Swap 1	EUR/USD	SP/1W	SELL	BUY	1M	EUR
Swap 2	EUR/USD	SP/1M	SELL	BUY	1M	EUR
Swap 3	EUR/USD	SP/3M	SELL	BUY	1M	EUR

**Table 2-5 Cashflows**

	Your Cashflow IN	Your Cashflow OUT	Your Cashflow OUT to customer	Your Net
SPOT	+3 Million (Net Spot)	-3 Million (Swaps 1,2,3)	0	0
1 Wk	+1 Million (Swap 1)	0	-1 Million	0
1 Month	+1 Million (Swap 2)	0	-1 Million	0

**Table 2-5 Cashflows (continued)**

Your Cashflow IN	You Cashflow OUT	Your Cashflow OUT to customer	Your Net
3 Month +1 Million (Swap 3)	0	-1 Million	0

3. The pricing engine generates prices:

3a. Get a spot rate from the ESP stream for the corresponding tier (the net spot amount of all outrights in the SSP).

3b. Get swap points from the RFS swap requests.

3c. Aggregate spot from ESP and swap points from the swap.

4. Return the price to the customer.

The pricing engine repeats price generation ([Step 3](#)) with each aggregation interval so the customer gets the latest applicable rates.

---

**NOTE:** The customer is priced only after pricing is received for all the swap value dates.

---

### Execution

The spot-component cover trade is attempted first.

Swap cover trades are attempted in parallel.

- Swap execution uses execution rules defined for the originating trade type.
- Swap matching logic for cover trades is the same as for regular swap trades.

Once the spot component is filled, the customer trade is verified. Full-fill functionality works as well.

---

**NOTE:** The customer will not be rejected if the spot is filled but swaps are not filled. Forward Risk Notification emails are generated to alert the traders of the swap risk.

---

### Risk email

As soon as all swaps are covered or at the end of the time-in-force as defined on the stream, Integral notifies you of any risk position in swaps with risk emails for the spot and forward components as applicable.

The spot risk email is sent if the spot component is not covered.

The forward risk email is sent if:

- If the swap request is not matched with a price.
- The liquidity provider rejects the swap.
- The provider does not respond in time.
- If the swaps are done but customer trade allocation fails.

### Risk email scenarios: customer trade verified

Customer trade is verified and one or more swap cover trades are not covered.

The SSP Cover Risk Email includes the following “Swap Cover Details” section showing the details of uncovered forward risk.

**Table 2-6 Customer trade verified**

Trade ID	Curren cy Pair	Dealt Curren cy	Value Date	Dealt Buy/Sel l	Dealt Amount	Settled Amount	Rate	Status
FXI90547620 34	GBP/U SD	USD	Apr 28, 2020/ May 05 ,2020	BUY/SE LL	2,000,000.00/2,000,00 0.00	1,678,373.32/1,678,51 4.18	-0.000100	Not Cover ed
FXI9054762 039	GBP/U SD	USD	Apr 28,2020/ May 28,2020	SELL/B UY	1,000,000.00/1,000,00 0.00	841,226.85/841,226.4 6	0.000000 55	Cover ed
FXI9054762 040	GBP/U SD	USD	Apr 28,2020/J ul 28,2020	SELL/B UY	3,000,000.00/3,000,0 0.00	2,523,680.54/2,523,6 79.37	0.000000 55	Cover ed
FXI90547620 37	GBP/U SD	USD	Apr 24, 2020/ Apr 28, 2020	SELL/B UY	2,000,000.00/2,000,00 0.00	1,682,453.38/1,682,4 52.91	0.0000003 3	Not Cover ed

#### Risk email scenarios: customer trade not verified

Customer trade is not verified and one or more swap cover trade are covered.

The SSP Cover Risk Email includes the following “Swap Cover Details” section showing the details of undesired cover of forward risk.

**Table 2-7 Customer trade not verified**

Trade ID	Curren cy Pair	Dealt Curren cy	Value Date	Dealt Buy/Sel l	Dealt Amount	Settled Amount	Rate	Status
FXI90547620 04	GBP/U SD	USD	Apr 28,2020/M ay 05,2020	BUY/SE LL	3,000,000.00/3,000,00 0.00	2,517,559.98/2,517,7 7127	-0.000100	Not Cover ed
FXI90547620 06	GBP/U SD	USD	Apr 28,2020/J ul 28,2020	BUY/SE LL	2,000,000.00/2,000,00 0.00	1,678,373.32/1,678,51 4.18	-0.000100	Not Cover ed
FXI90547620 08	GBP/US D	USD	Apr 28, 2020/ May 28, 2020	SELL/B UY	1,000,000.00/1,000,000.0 0	841,226.85/841,22 6.46	0.000000 55	Cover ed

Fixed spot roll (FSR) pricing

An FSR is a swap trade where the price of the spot component has been pre-specified by the requesting counterparty. The pricing organization then prices the forward component of the swap. You have two options for pricing the forward component:

- Spot & MDS: Using the spot price plus your uploaded forward curve (market data set) to derive the price
- RFS: Using the liquidity provider's top-of-book RFS price as a base to derive the price

#### FSR pricing: algorithm

The algorithm used to derive the forward points of the forward leg is:

$$FP' = FP * S' / S$$

Where:

FP': Adjusted forward points

FP:

- Spot & MDS sourced: Forward points from the uploaded forward curve
- RFS sourced: Forward points from the liquidity provider's top-of-book swap price

S': Pre-specified spot rate

S:

- Spot & MDS sourced: Spot rate from which the forward curve is computed
- RFS sourced: Spot rate from the liquidity provider's top-of-book swap price

#### FSR pricing: cover and spread

FSR pricing supports execution rules for "Cover", "Manual", and "No Cover".

If "Cover" is selected, the FSR trade is covered by the provider's swap trade and the broker/bank manages the cashflow on spot and far dates.

If "Manual" or "No Cover" execution rules are specified, then the broker/bank takes on the forward risk.

No price-making or price-provisioning spot spreads are applied to the FSR price. Only forward spreads are applied, both price making and price provisioning.

#### FSR pricing: business scenarios

##### **Example 2-1 Liquidity provider or white-label bank using forward curve upload**

Used by liquidity providers or white-label banks who act as a liquidity provider for FSR:

1. Bank's forward desk uploads the forward curve.
2. Bank sources and covers the spot rates from the market.
3. Bank's forward desk manages the forward risk.

##### **Example 2-2 White-label bank sourcing RFS swap liquidity**

White-label bank acts as a counterparty and provides FSR liquidity for its customers:

1. Bank sources RFS Swap from its liquidity providers.
2. Bank adjusts the swap points for its customers.
3. Bank books the FSR trade with its customer and the swap trade with its liquidity provider.
4. Bank manages the cashflow differential on spot and far dates.

**Example 2-3 Liquidity Provider providing RFS swap liquidity**

Liquidity provider provides RFS swap, but not FSR:

1. Set up a broker adaptor as an FSR pricing engine on behalf of the liquidity provider.
2. Broker adaptor sources liquidity provider's own RFS swap liquidity as an indicative price.
3. Liquidity provider adjusts the swap points based on its own swap price and sends FSR quotes to customers.
4. Liquidity provider does not trade on its own RFS swap feed to avoid double booking.
5. FSR trade is booked with the customer with no cover. The resulting swap trade is sent via STP to the liquidity provider's position management system.

Single spot portfolio (SSP) pricing

In the Price Making Configuration screen (**Counterparty > Price Making > Streams > stream name > currency pair configuration name**) you can define RFS price-making rules for SSP trades by selecting "FX SSP" as the applicable trade type in the Trade Type drop-down list.

Pricing SSP trades involves the following process:

- Netted spot amount is computed from all trades in the list.
- The spot component is priced using the aggregated spot rate and existing pricing and spreading rules based on the **Net Spot Amnt** value.
- If configured, you have the option of using forward points from RFS responses by checking the **Spot & Swap** checkbox in the **Pricing** column.
- "Forward strips" are priced using the provider's forward curve:
  - The net amount is calculated for each value date.
  - Forward points are calculated for each value date using the bank's forward curve and existing pricing/spreading rules.
  - The fully loaded "all-in" price for each value date is calculated.

For allocation, all component trades of the SSP trade share the same spot rate. All component trades that share a value date have the same forward points.

Two cover execution types are available to manage risk on SSP trades:

- No Cover (warehouse entire risk)
- Spot Cover (warehouse forward risk only)

Prices sourced from Excel and API clients

You have two options when sourcing prices:

- Aggregated pricing from liquidity providers
- Prices sourced from Excel or API clients

You choose between the two with the **Aggregate from LPs** and **Source From Excel (Multi-Price Tiers)** radio buttons in the Price Making and Execution panel in the Price Making Configuration screen (**Counterparty > Price Making > Streams > stream name > currency pair configuration name**). See [Step 2e of Price making and execution \(ESP rules\)](#) on page 132.

With the Excel macro installed, configured, and connected, when prices in Excel are updated, they are automatically streamed to Integral, saved in the market data set, and available for execution and pricing. Prices sourced from Excel are spread according to your settings in the ESP Tiers and Spreads panel.

RFS price-making is also enhanced when you enable Excel pricing integration. If you source forward points from Excel, those forward points are saved to the market data set and, if the “Spot & MDS” pricing method is specified, both the spot price and the forward points from the Excel spreadsheet may be used when deriving RFS prices.

For more information about installation, configuration, and operation of the Excel pricing macro, please contact your Integral Solutions Manager.

#### Methodologies compared

The following table highlights the differences between the pricing methodologies:

**Table 2-8 ESP and RFS methodologies compared**

Comparison	ESP	RFS	RFS from ESP
What trade types are supported?	Spot only	<ul style="list-style-type: none"> <li>• Spot</li> <li>• Outright</li> <li>• Swap</li> </ul>	<ul style="list-style-type: none"> <li>• Spot</li> <li>• Outright, NDF, Window Forward</li> <li>• Swap</li> </ul>
How does a counterparty start a stream?	ESP streams are started when the user logs in.	Your counterparty must submit an RFS request to you.	Your counterparty must submit an RFS request to you.
When does the stream expire?	<p>The stream does not expire. Your counterparty receives prices as long as your organization streams prices for the currency pair and the counterparty:</p> <ul style="list-style-type: none"> <li>• Is logged in.</li> <li>• Is connected.</li> <li>• Has a trading relationship with your organization.</li> </ul>	The counterparty requests an expiry time on RFS requests, but your organization ultimately determines a stream's expiry.	The counterparty requests an expiry time on RFS requests, but your organization ultimately determines a stream's expiry.

#### Customer fill rules

Brokers typically offset customer trades with matching cover trades so that they remain flat with respect to the market.

However, you may want to guarantee customer execution regardless of the ability to execute a cover trade. You then take a position to ensure your customer's service quality. The system sends you

an email for every position you take to fill a customer's order. You can also define how these full-fill positions are covered or unwound automatically. See [Full-fill auto cover](#) on page 136.

Brokers specify customer fill rules to govern how customer orders should be filled depending on how related cover trades are executed, either guaranteeing full execution for the customer or allowing partial fills.

For details about configuring customer fill rules, see [Step 2g of Price making and execution \(ESP rules\)](#) on page 132 and [Step 1n of Price making and execution \(RFS rules\)](#) on page 134.

---

**NOTE:** Customer fill rules do not apply to RFS price making when the only pricing source is RFS (when only the **RFS** checkbox is selected in the Pricing column).

---

For information about configuring execution methods, see [Step 2e of Price making and execution \(ESP rules\)](#) on page 132 and [Step 1m of Price making and execution \(RFS rules\)](#) on page 134.

## Partial covers

Brokers can configure ESP execution rules to cover a percentage of a customer order's amount. The cover fill determines then how the customer order is filled.

---

**NOTE:** Full fill execution takes precedence over partial cover execution. If a customer order matches both a full-fill execution rule and a partial-cover rule, full fill is applied.

---

### **Example workflow**

1. The broker has **Partial Cover** set to 30% and receives a customer order of 100K.
2. The broker sends a cover order for 30K (30%) to the liquidity provider (LP).
3. How the LP fills the cover determines how the customer order is filled:
  - Scenario #1: cover fully filled:
    - The LP fills 30K (100%) of the cover order.
    - The broker fills 100K (100%) of the customer order amount.
  - Scenario #2: cover partially filled:
    - The LP fills 20K (66.67%) of the cover order.
    - The broker fills 66.67K (66.67%) of the customer order.
  - Scenario #3: cover unfilled or rejected:
    - The LP fills 0K of the cover order or rejects the cover.
    - The broker responds to the customer with an order rejection.

For information about configuring ESP execution methods, see [Step 2e of Price making and execution \(ESP rules\)](#) on page 132.

## How customer orders and cover orders are filled

The system uses the following parameters to determine how customer orders and associated cover orders are filled:

- The price stream's pricing and execution rules set by the broker in the Admin Portal
- The execution method and time-in-force requested by the customer for the order in the customer's trading app

### Full fill specified

If you enable customer fill rules, the system will fill the customer completely based on additional rules.

**CAUTION:** By enabling customer fill rules, your organization may take positions and be exposed to risk. The system sends an email to alert your organization if there is a risk position. Contact Integral Business Support to confirm your risk position email address.

The system fills a customer's order when the associated cover order has at least the specified percentage of its order amount filled. If the cover amount filled is less than the percentage chosen, that amount is filled for the customer as well. The higher the percentage cover fill, the lower the risk.

The cover order is filled according to the execution method configured for the price stream. Any uncovered amount is taken by the broker as a position and the system sends the broker an email notifying them of the new position. You can define how this full-fill position is covered or unwound automatically. For more information about customer fill rules, see [Customer fill rules](#) on page 100. For more information about execution methods, see [Execution methods](#) on page 102.

### Full fill not specified

If the broker does not apply customer fill rules, then orders are filled to the amount equal to their associated cover order, if any. Cover trade execution are done considering the broker and request execution methods with the following precedence:

- |                                     |                     |
|-------------------------------------|---------------------|
| 1. No Cover, No Price Check (NCNPC) | 5. Market Range FOK |
| 2. No Cover (NOC)                   | 6. Limit FOK        |
| 3. Market FOK                       | 7. Limit IOC        |
| 4. Market IOC                       |                     |

For example, if the broker execution method is set to Limit FOK and a request's execution is Market FOK execution, then the cover order is filled according to Market FOK execution.

## Execution methods

The Admin Portal allows broker users to choose the method by which prices are executed.

The execution methods are set per currency group per price stream.

To set the execution method, see [Step 2e of Price making and execution \(ESP rules\)](#) on page 132 and [Step 1m of Price making and execution \(RFS rules\)](#) on page 134.

Execution methods and customer fill rules determine how customer trades and their associated cover trades are executed. See [How customer orders and cover orders are filled](#) on page 101 for details.

- [ESP execution method settings](#) on page 102
- [RFS execution method settings](#) on page 104
- [FX Yield Manager execution method settings](#) on page 105

### ESP execution method settings

**CAUTION:** If you choose the **Market** radio button, you specify market execution with no defined range, executing with any and all prices in the market until filled.

**CAUTION:** If you choose “No Cover” and select the **NPC** checkbox (No Price Check), then no cover trade is executed. You take on risk. No price validation is performed. The execution range is ignored.

**IMPORTANT:** Rules with market execution or with an execution range may consume fixed spreads.

**NOTE:** In the following descriptions, the limit price is the customer match price with spreads removed.

**Table 2-9** ESP execution method settings

Description	Settings					
	Cover Type	No Price Check	Market or Limit	Range	Range Type	VWAP or FOK
Risk position is routed to be managed by my risk management rules defined by FX Yield Manager. If warehouse in FX Yield Manager is turned OFF, fill according to additional execution method settings for “Cover”.	Warehouse	N/A	N/A	N/A	N/A	N/A
Fill at limit with a range of 0 pips. Partial fills are allowed.	Cover	Disabled	Limit	0 (zero)	N/A	Both cleared
Fill at limit with a range of 0 pips. Partial fills are not allowed. When you select the <b>FOK</b> checkbox the <b>VWAP</b> checkbox is disabled.	Cover	Disabled	Limit	0 (zero)	N/A	FOK
Fill at market. Partial fills are allowed.	Cover	Disabled	Market	Disabled	N/A	Both cleared
Fill at limit with a range of X pips. Partial fills are allowed.	Cover	Disabled	Limit	Greater than zero	Pips	Both cleared
Fill at limit with a range of X% of spread. Partial fills are allowed.	Cover	Disabled	Limit	Greater than zero	% Spd	Both cleared
Fill using VWAP execution. Partial fills are allowed. When you select the <b>VWAP</b> checkbox: <ul style="list-style-type: none"> <li>• The Limit radio button is selected.</li> <li>• The Market radio button is disabled.</li> <li>• The FOK checkbox is disabled.</li> </ul>	Cover	Disabled	Limit (Market disabled)	Enabled	Enabled	VWAP
Fill at market with a single provider. Partial fills are not allowed.	Cover	Disabled	Market	Enabled	Enabled	FOK
Fill at limit with a range of X pips. Partial fills are not allowed.	Cover	Disabled	Limit	Greater than zero	Pips	FOK

**Table 2-9** ESP execution method settings (continued)

Description	Settings						
	Cover Type	No Price Check	Market or Limit	Range	Range Type	VWAP or FOK	
Text Fill at limit with a range of X% of spread. Partial fills are not allowed.	Cover	Disabled	Limit	Greater than zero	% Spd	FOK	
Do not cover. Price will be checked to ensure it is valid.	No Cover	Cleared	Limit	0 (zero)	N/A	Disabled	
Do not cover. Price will be checked to ensure it is within the range.	No Cover	Cleared	Limit	Greater than zero	N/A	Disabled	
Do not cover. No price check will be done.	No Cover	Selected	Disabled	Disabled	Disabled	Disabled	
Copy. Price will be checked to ensure it is valid.	Copy	Cleared	Disabled	0 (zero)	N/A	Disabled	
Copy. Price will be checked to ensure it is within the range.	Copy	Cleared	Disabled	Greater than zero	Pips	Disabled	
Copy. Price will be checked to ensure it is within the range.	Copy	Cleared	Disabled	Greater than zero	% Spd	Disabled	
Copy. No price check will be done.	Copy	Selected	Disabled	Disabled	Disabled	Disabled	

#### RFS execution method settings

**CAUTION:** If you choose the **Market** radio button, you specify market execution with no defined range, executing with any and all prices in the market until filled.

**CAUTION:** If you choose “No Cover” and select the **NPC** checkbox (No Price Check), then no cover trade is executed. You take on risk. No price validation is performed. The execution range is ignored.

**IMPORTANT:** Rules with market execution or with an execution range may consume fixed spreads.

**NOTE:** In the following descriptions, the limit price is the customer match price with spreads removed.

**Table 2-10** RFS execution method settings

Description	Settings						
	Cover Type	No Price Check	Market or Limit	Range	Range Type	VWAP or FOK	
Text Fill at limit with a range of 0 pips. Partial fills are allowed.	Cover	Hidden	Limit	0 (zero)	N/A	Cleared	

**Table 2-10 RFS execution method settings (continued)**

Description	Settings						
	Cover Type	No Price Check	Market or Limit	Range	Range Type	VWAP or FOK	
Text Fill at limit with a range of 0 pips. Partial fills are not allowed.	Cover	Hidden	Limit	0 (zero)	N/A	Selected	
Fill at market. Partial fills are allowed.	Cover	Hidden	Market	Disabled	Disabled	Cleared	
Fill at limit with a range of X pips. Partial fills are allowed.	Cover	Hidden	Limit	Greater than zero	Pips	Cleared	
Fill at limit with a range of X% of spread. Partial fills are allowed.	Cover	Hidden	Limit	Greater than zero	% Spd	Cleared	
Fill at market with a single provider. Partial fills are not allowed.	Cover	Hidden	Market	Disabled	Disabled	Selected	
Fill at limit with a range of X pips. Partial fills are not allowed.	Cover	Hidden	Limit	Greater than zero	Pips	Selected	
Fill at limit with a range of X% of spread. Partial fills are not allowed.	Cover	Hidden	Limit	Greater than zero	% Spd	Selected	
Do not cover. Price will be checked to ensure it is valid.	No Cover	Cleared	Limit	0 (zero)	N/A	Disabled	
Do not cover. Price will be checked to ensure it is within the range.	No Cover	Cleared	Limit	Greater than zero	N/A	Disabled	
Do not cover. No price check will be done.	No Cover	Selected	Disabled	Disabled	Disabled	Disabled	
Send for manual intervention by dealer.	Manual	Hidden	Disabled	Disabled	Disabled	Disabled	
Reject the request. Requesting user sees "Pricing not available at this time."	Reject	Disabled	Disabled	Disabled	Disabled	Disabled	

#### FX Yield Manager execution method settings

For organizations who manage customer flow through FX Yield Manager, Integral Pricing Engine execution rules can be set to better manage customer flow.

Your organization must be configured to access this functionality. Please contact your Integral Technical Account Manager.

To determine how FX Yield Manager flow is routed, use the cover type drop-down lists for both the ESP and RFS execution rules in the Price Making Configuration screen (**Counterparty > Price Making > Streams > stream name > ccy pair config name**).

The following three cover types can be applied to flow routed from FX Yield Manager:

- **Cover:** Flow is always A-booked.
- **No Cover:** No book assigned, unmanaged risk or "C-booked"
- **Warehouse:** Determined by the currency pair's status in FX Yield Manager:

- If the currency pair is supported and in **Auto** or **Manual** mode, the customer flow is B-booked.
- If the currency pair is not supported or is **Off** in FX Yield Manager, customer flow is A-booked.

## Copy ESP trading flow

The Admin Portal gives brokers the ability to copy a customer's ESP trading flow completely or partially, either in the same or opposite direction. This allows for more effective and flexible risk management by customer segment.

For the details of setting the Copy execution method, see [Step 2e of Price making and execution \(ESP rules\) on page 132](#).

**IMPORTANT:** When you use the Copy execution method you take on risk.

- [Copy flow scenarios on page 106](#)
- [ESP execution rule conditions on page 107](#)

### Copy flow scenarios

- [Copy a trader on page 106](#)
- [Partial B-book for a trader on page 106](#)
- [Leverage on a trader on page 107](#)

#### [Copy a trader](#)

For traders who consistently make money, the broker A-Books the trades to off-load the position and makes the cover spread. Consider the following scenario:

1. Customer opens position by buying 1,000 EUR/USD @ 1.5
2. Broker covers by buying 1,000 EUR/USD @ 1.49 on the market
3. Customer closes the position by selling 1,000 EUR/USD @ 1.6
4. Broker covers by selling 1,000 EUR/USD @ 1.61

The broker is risk-free in this exchange, but only makes 20USD from the cover spread. The broker can improve profitability by copying the customer trade and applying a greater than 100% copy ratio:

1. Customer opens position by buying 1,000 EUR/USD @ 1.5
2. Broker covers by buying 1,500 EUR/USD @ 1.49 on the market; of which 1,000 covers the customer trade and 500 opens a position of its own.
3. Customer closes the position by selling 1,000 EUR/USD @ 1.6
4. Broker covers by selling 1,500 EUR/USD @ 1.61; of which 1,000 covers the customer trade and 500 closes its own position.

In this exchange, the broker still makes 20USD from the cover spread and, in addition, makes 60USD profit from its own position for a total of 80USD.

#### [Partial B-book for a trader](#)

For traders who consistently lose money, the broker B-Books the trades and make profit by internalization. Consider the following scenario:

1. Customer opens position by buying 1,000 EUR/USD @ 1.6
2. Broker does nothing (no cover).
3. Customer closes the position by selling 1,000 EUR/USD @ 1.5
4. Broker does nothing (no cover).

The Broker makes a profit of 100USD by internalizing the risk. However, the market could go against the broker, exposing them with 100% of the position. To control the internalization risk, the broker can take part of the customer position. For example, the broker can take 50% of the risk by doing the following:

1. Customer opens position by buying 1,000 EUR/USD @ 1.6
2. Broker buys 500 EUR/USD @ 1.59; which cover half of the customer trade and made a 5USD cover profit
3. Customer closes the position by selling 1,000 EUR/USD @ 1.5
4. Broker sells 500 EUR/USD @ 1.49. Broker makes another 5USD cover profit

Broker makes 50USD from internalization and 10USD from cover trading. It makes a total of 60USD. This approach lowers profit in comparison with a complete B-Booking, but exposure is better controlled.

#### Leverage on a trader

For brokers with more risk tolerance, a more aggressive method is to reverse copy the trade flow from traders. This essentially has a leveraging effect. Considering the following example of applying a -50% copy ratio (negative values indicate trading in a opposite direction from the customer).

1. Customer opens position by buying 1,000 EUR/USD @ 1.6
2. Broker sells 500 EUR/USD @ 1.59 on the market
3. Customer closes the position by selling 1,000 EUR/USD @ 1.5
4. Broker buys 500 EUR/USD @ 1.51 on the market

The broker makes 100USD from internalization the customer trades. In addition, the broker makes 40USD profit by opening and closing a 500 EUR/USD position on the market. In total, the broker makes 140USD. The leverage effect also magnify the market risk for the broker.

#### ESP execution rule conditions

All ESP rule conditions apply to Copy execution. For example, brokers can define notional bands so that different copy percentage values are applied based on the size of the trade.

#### No price check (NPC)

- If you select the **NPC** checkbox for Copy execution, the customer's order is filled fully and then the copy trade is done.
- If you clear the **NPC** checkbox, the system verified the customer-matched rate with the current market rate with the specified methods. This process verification is the same as the NPC for cover scenario. If the price check fails, then the customer order is rejected and no copy trade is done.

### Auto cover

When positive % copy is used, the trade is executed using the execution rule first. If the rule does not fill up to the specified amount, auto-cover rule fills the rest.

Auto Cover does not apply to negative copy values. Negative copy values always use the market fill.

### Basis point of spot (BPS) spreads

Unlike static pips spreads, Basis Point of Spot (BPS) spreads are calculated from the reference mid spot rate allowing your spreads to adapt to market conditions.

#### BPS for spot

##### Spot spread calculation

The reference mid spot rate is used as the base rate for BPS calculation. For RFS pricing, the rate at the time of the request is used:

```
spread = ReferenceMidRate * BPS/PipsFactor  
BidRate = AggregatedBidRateFromProviders - spread  
OfferRate = AggregatedOfferRateFromProviders + spread
```

For example, assuming:

- ReferenceMidRate = 1
- BPS = 100
- PipsFactor = 10000 (taken from the currency pair's quoting convention)

The spread calculations are:

```
spread = 1 * 100/10000 = 0.01  
BidRate = 1 - 0.01 = 0.99  
OfferRate = 1 + 0.01 = 1.01
```

##### Min/max spreads

The reference mid spot rate is also used to calculate the BPS value to derive a rate that satisfies the min/max spread value.

##### Post-trade spread

Post-trade spreads are applied to the customer rate.

### BPS for forward points

##### Spot spread

See [Spot spread calculation](#) on page 108.

### Tenor-based spreads

BPS calculation of forward points also uses the reference mid spot rate.

### BPS for swaps

#### Spot spread

See [Spot spread calculation](#) on page 108.

#### Tenor-based spreads

While applying tenor-based spreads in terms of BPS, the **Use Outright Spreads for Swaps** checkbox option is not valid. Swap spreads must be defined separately in terms of swap points and not in terms of the spot rate value.

Swap spread options are:

- Pips
- % of Swap Points
- % of Swap Points Spread (a percentage of the difference between the bid/off and offer/bid spreads on incoming swap prices so that your spreads scale dynamically along with the market as it widens and narrows)

#### Manual RFQ

In the Manual RFQ workflow, BPS values are calculated in pips and shown in the Manual RFQ UI where the spread can be modified.

### Minimum/maximum spread and bias

Some price aggregation methods allow you to apply a minimum spread, maximum spread, and bias to incoming prices before you distribute them to your counterparties.

Applying a minimum spread ensures that your bid and offer prices are always spread by at least the number of pips that you specify.

Applying a maximum spread ensures that the cumulative spread never exceeds the number of pips that you specify.

The bias determines how the prices are rounded after your minimum spread has been applied. A bid bias rounds up the bid and offer prices. An offer bias rounds down the bid and offer prices.

#### Apply minimum spread

For example, you receive bid and offer prices of 1.4870/1.4871 with a precision of 4 places. You have configured the system to apply a minimum spread of 2 with a bid bias.

The system determines your outgoing prices according to the following steps:

Step #	Operation	Result
1	Compare incoming spread with minimum spread	incoming (1) < minimum (2) Apply the minimum spread.
2	Calculate the midpoint of the incoming prices	$(1.4870 + 1.4871) / 2 = 1.48705$
3	Apply the minimum spread	bid $1.48705 - 1 = 1.48695$ offer $1.48705 + 1 = 1.48715$
4	Apply the bid bias	bid $(1.48695)$ rounded up = $1.4870$ offer $(1.48715)$ rounded up = $1.4872$
5	Distribute prices	bid $1.4870$ offer $1.4872$

#### Apply maximum spread

For example, you receive bid and offer prices of 1.4518/1.4526 with a precision of 4 places. You have configured the system to apply a maximum spread of 5 with an offer bias.

The system determines your outgoing prices according to the following steps:

Step #	Operation	Result
1	Compare spread with maximum spread	incoming (8) < maximum (5) Apply the maximum spread.
2	Calculate the midpoint of the incoming prices	$(1.4518 + 1.4526) / 2 = 1.4522$
3	Apply the maximum spread	bid $1.4522 - (0.0005 / 2) = 1.45195$ offer $1.4522 + (0.0005 / 2) = 1.45245$
4	Apply the offer bias	bid $(1.45195)$ rounded down = $1.4519$ offer $(1.45245)$ rounded down = $1.4524$
5	Distribute prices	bid $1.4519$ offer $1.4524$

#### Hourglass spreads

For single-provider multi-tier prices, you can define spreads independent of tier size, usually to account for the relative higher costs of processing smaller tickets.

Typically, the spreads of the larger tiers are greater than or equal to smaller tiers as shown in the following table:

**Table 2-11 Normalized tiers/spreads**

Tier #	Size	Spread(pips)
1	1M	0.1

**Table 2-11 Normalized tiers/spreads (continued)**

Tier #	Size	Spread(pips)
2	3M	0.2
3	5M	0.3
4	10M	0.5
5	50M	1.0

You can choose to define spreads independent of tier size. The term *hourglass* refers to the typical configuration of non-normalized spreads: wide for the top tiers, narrowing towards the middle tiers, and widening again towards the bottom tiers. Non-normalized spreads can be random. The hourglass configuration is not required.

**Table 2-12 Non-normalized "hourglass" spreads**

Tier #	Size	Spread(pips)
1	50K	0.7
2	100K	0.5
3	500K	0.3
4	1M	0.1
5	3M	0.2
6	5M	0.3
7	10M	0.5
8	50M	1.0

## Requirements

Customers who are assigned streams with hourglass spreads must:

- Receive prices from a single provider
- Have a customer-of-broker relationship with the price provider
- Receive multi-tier prices

If provider streams are sent to a customer receiving an hourglass stream, the provider streams are dropped. If an hourglass stream is sent to a broker organization, the hourglass stream's prices are dropped.

## User interface

Select the **Enable Hourglass Pricing** checkbox in the **ESP Tiers and Spreads** panel in the Stream Detail screen (**Counterparty > Price Making > Streams > stream name > ccy par config name**).

The checkbox is only active when you choose “Multi-Price Tiers” with the **Price Making Method** tools. Either click the **Aggregate from LPs** radio button and choose “Multi-Price Tiers” from the drop-down list or click the **Source From Excel (Multi-Price Tiers)** radio button.

If cleared, ESP spreads must be normalized: spreads of larger tiers must be greater than or equal to smaller tiers. If spreads are not normalized, an error window appears. You cannot save your changes to the stream until you normalize the spreads.

If selected, ESP spreads can be either normalized or hourglass.

### Price making aggregation methods

The Admin Portal allows you to choose the method for consolidating the prices from your liquidity providers into price streams that you publish to your counterparty.

For the details of setting the price making method, see [Edit or create a direct currency pair configuration in a stream](#) on page 130.

Each type of price stream is referred to by the price-making methodology used to generate the price stream:

- **Benchmark:**
- **Best Price:** Takes only the best bid and offer to create a price stream for your counterparties, adding your spread and bias to the stream. See [Minimum/maximum spread and bias](#) on page 109.
- **Best Price FOK:** Use the best bid and best offer. If same price is being provided by multiple providers, then the best bid and offer with the largest size is used. The spread and bias are added to the bid and offer. See [Minimum/maximum spread and bias](#) on page 109.
- **Synthetic Full Book (Multi-Price Tiers):** multi-quote, full-book price stream from multi-tier prices using the multi-price tier method to aggregate prices at each requested size.
- **Synthetic Full Book (Multi-Tier FOK):** multi-quote, full-book fill-or-kill price stream from multi-tier prices using the weighted average method to aggregate prices at each requested size.
- **Synthetic Full Book (Weighted Average):** multi-quote, full-book price stream from multi-tier prices using the weighted average method to aggregate prices at each requested size.
- **Full Book:** Takes the entire book to create a price stream for your counterparties, adding your spread and bias to the stream. Also known as Direct Market Access (DMA). See [Minimum/maximum spread and bias](#) on page 109.
- **Multi-Price Tiers:** Aggregates prices from your liquidity providers into a multi-tier price stream according to a tier structure defined by you. A customer can take any or all prices. See [Manage price tiers for a direct currency pair configuration](#) on page 156 for more information.
- **Multi-Tier FOK:** Use the best bid and best offer providing the sizes specified in the tier structure. The spreads and bias specified for each tier are added to the respective bids and offers. See [Minimum/maximum spread and bias](#) on page 109. A customer can take a single tier price based on the size of their trade request.
- **Weighted Average:** Computes and streams the weighted average price of the book, rounded down to the appropriate precision on the bid side and rounded up on the offer side. The stream is sent as a multi-tier price stream according to the tier structure defined by you. See [Manage price tiers for a direct currency pair configuration](#) on page 156 for more information. Also known as Volume-Weighted Average Price (VWAP).

## 2.4.2 Work with price streams

Configuration:

- [Upload spreads for currency pair configurations](#) on page 127
- [Enable or disable liquidity providers for aggregation and execution](#) on page 113
- [Configure a stream for volatile markets](#) on page 113
- [Order submission time and order execution after closing](#) on page 114
- [Enable a price stream for skew](#) on page 115
- [Inactivate or reactivate a price stream](#) on page 126
- [Price making setup](#) on page 117

Review:

- [Review liquidity provider status](#) on page 115
- [Review price stream details](#) on page 115

Start/Stop:

- [Start or stop prices for a currency pair in a price stream](#) on page 116
- [Start or stop all price streams](#) on page 116
- [Start or stop order execution for a currency pair in a price stream](#) on page 116
- [Start or stop order execution in all currency pairs](#) on page 116
- [Start or stop aggregating displayed orders](#) on page 117
- [Disable or restore full fill for all streams](#) on page 117

Enable or disable liquidity providers for aggregation and execution

The Admin Portal allows you to quickly enable or disable a liquidity provider's price stream for price aggregation and trade execution.

1. Navigate to the Price Making Status screen (**Counterparty > Price Making**).

The Liquidity Providers panel shows the current status of all of your liquidity providers, whether they are connected to the system (active) or not (inactive). You can filter the list of providers with the filtering tools at the top of the Liquidity Providers panel, either by name in the **Provider** field or by selecting one or more of the provider type checkboxes.

2. Click the toggle button in the Control column of the table to enable (ON) or disable (OFF) the individual provider's stream.

Configure a stream for volatile markets

During times of increased market volatility, you may find that the execution ranges that are effective in normal market conditions are too narrow and that the orders may go unfilled.

You can define a factor to widen spreads to better ensure that your liquidity needs are met.

The volatile market factor multiplies all spot and forward point spreads on the stream. Displayed orders are not affected.

The volatile market factor is not applied by default. You must do the following to use volatile market factors:

1. [Define the volatile market factor on page 114](#)
2. [Identify streams on page 114](#)
3. [Engage volatile market spreads on page 114](#)

#### Define the volatile market factor

You define the factor with the **Volatile Market Factor** field and **Honor Max Spread** checkbox in the Price Streams screen (**Counterparty > Price Making > Streams**).

The factor value must be greater than or equal to zero and must have no more than two decimals of precision.

When volatile market spreads are engaged, all spot and forward point spreads on the stream are multiplied by the volatile market factor. To ensure that the maximum spread is enforced on streams, select the **Honor Max Spread** checkbox. For example, if the spread on a stream is 2.0 pips and the volatile market factor is 4.0, the spread with volatile market trading is 8.0 pips (2.0 pips X 4.0). However, if you select the **Honor Max Spread** checkbox and define a maximum spread of 6.0 pips on the stream, then the spread is 6.0 pips.

#### Identify streams

Identify streams that are candidates for volatile market functionality, with the checkboxes in the **Volatile Market** column in the Price Streams screen (**Counterparty > Price Making > Streams**). When a stream's checkbox is selected, the factor is applied when volatile market trading is enabled.

#### Engage volatile market spreads

You enable and disable volatile market spreads with the **Volatile Market ON/OFF** toggle button in the Master Control panel in the Price Making Status screen (**Counterparty > Price Making > Status**).

When the toggle button is **ON**, the volatile market factor multiplies the spreads of the streams that you identified in the Price Streams screen (**Counterparty > Price Making > Streams**).

#### Order submission time and order execution after closing

You can define a separate time period for order submission for all customers while execution continues so that you can avoid issues when an order was submitted but not matched before the cut-off time.

You configure the time with tools in the **Customer Order Entry Timings** row in the **Defaults** panel of the Price Streams screen (**Counterparty > Price Making > Streams**). The new row includes tools that you use to define the time period in which your customers are allowed to submit orders. Orders submitted outside of the time period are rejected with an error message indicating that the order entry time was invalid.

If you have specific customer organizations that you want to exempt from the order submission time, contact your Integral Technical Account Manager.

## Enable a price stream for skew

Skew allows you to adjust the prices you publish automatically based on your inventory in FX Yield Manager. To use skew, FX Yield Manager price streams must have skew enabled. VWAP skew calculates skew values for pricing tier that are larger than position skew levels defined in FX Yield Manager.

### **To enable a stream for skew from the Price Streams screen:**

1. Navigate to the Price Streams screen (**Counterparty > Price Making > Streams**).
2. In the Streams panel, select the checkbox in the **Enable Skew** column of a stream.
3. To enable a stream for VWAP skew, select the **VWAP Skew** checkbox.
4. Click **Save**.

### **To enable a stream for skew from the Stream Details screen:**

1. Navigate to the Stream Detail screen (**Counterparty > Price Making > Streams > stream name**).
2. Select the checkbox in the **Enable Skew** column of a stream.
3. To enable a stream for VWAP skew, select the **VWAP Skew** checkbox.
4. Click **Save**.

## Review liquidity provider status

The Admin Portal allows you to quickly review the trading status of all your liquidity providers.

To review liquidity provider status, navigate to the Price Making Status screen (**Counterparty > Price Making > Status**).

The Liquidity Providers panel shows the current status of all of your liquidity providers, whether they are connected to the system (active) or not (inactive).

You can filter the list of providers with the filtering tools at the top of the Liquidity Providers panel, either by name in the **Provider** field or by checking one or more of the provider type checkboxes.

To review the status of individual rate streams by currency and provider, see [Review the status of rate streams](#) on page 167.

You can also enable or disable individual providers for price aggregation and trade execution from this screen. See [Enable or disable liquidity providers for aggregation and execution](#) on page 113.

## Review price stream details

A price stream involves many settings and attributes that are critical to your business.

The Admin Portal gives you a complete, concise summary a stream so that you can quickly review all of the important price-making details.

1. Navigate to the Price Streams screen (**Counterparty > Price Making > Streams**).
2. Click the **Price Making Details** link.

A pop-up window opens with the details of the all price-making streams, such as the execution method, providers, and spreads.

3. To focus on an individual stream, choose the stream from the **Select Stream** drop-down box.  
The window updates to show the details of the selected stream.

#### Start or stop prices for a currency pair in a price stream

The Admin Portal allows prime broker users to enable or disable prices for individual currencies in a stream.

To reset a stream that has been filtered out, see [Manually reset rates](#) on page 166.

1. Navigate to the Price Making Status screen (**Counterparty > Price Making > Status**).  
The Price Making Status screen appears.
2. In the Status panel at the bottom of the screen, click the currency pair's ON/OFF toggle button in the Stream Prices row to start or stop the outgoing price stream in the currency pair.

#### Start or stop all price streams

The Admin Portal allows prime broker users to enable or disable all of their price streams with a single click.

To reset a stream that has been filtered out, see [Manually reset rates](#) on page 166.

1. Navigate to the Price Making Status screen (**Counterparty > Price Making > Status**).  
The Price Making Status screen appears.
2. In the Master Control panel at the top of the screen, click the ON/OFF toggle button in the Stream Prices row to start or stop all of your outgoing price streams by pricing source (for example, ESP or RFS). The toggle button shows the current status.

---

**NOTE:** The ON status means that all eligible streams for the channel are started. If an individual stream is turned off, the ON master control does not override the stream setting and it remains turned off. OFF, however, means that all streams are stopped.

---

#### Start or stop order execution for a currency pair in a price stream

The Admin Portal allows prime broker users to enable or disable order execution for a price stream with a single click.

1. Navigate to the Price Making Status screen (**Counterparty > Price Making > Status**).  
The Price Making Status screen appears.
2. In the Status panel at the bottom of the screen, click the ON/OFF toggle button in the Order Execution column of the stream to start or stop order execution for that stream.

#### Start or stop order execution in all currency pairs

The Admin Portal allows prime broker users to enable or disable order execution in all currency pairs with a single click.

1. Navigate to the Price Making Status screen (**Counterparty > Price Making > Status**).  
The Price Making Status screen appears.
2. In the Master Control panel, click the **ON/OFF** toggle button in the “Order Execution” row to start or stop order execution in all currency pairs. The toggle button shows the current status.

#### Start or stop aggregating displayed orders

The Admin Portal allows your organization to control whether or not displayed orders are included in price discovery for your aggregated price output with the **Stream Orders** control in the Price Making Status screen.

**NOTE:** The **Stream Prices** control overrides the **Stream Orders** control: If **Stream Prices** is set to **OFF**, displayed orders are not aggregated irrespective of the status of the **Stream Orders** control.

1. Navigate to the Price Making Status screen (**Counterparty > Price Making > Status**).  
The Price Making Status screen appears.
2. In the **Master Control** panel, click the **ON/OFF** toggle button in the **Stream Orders** row to start or stop aggregating displayed orders. The toggle button shows the current status: **ON** indicates that displayed orders are included and **OFF** indicates that displayed orders are excluded. The **Stream Prices** control must also be set to **ON** to aggregate and stream displayed orders.

#### Disable or restore full fill for all streams

You can disable or restore full fill settings for all eligible streams with one click.

The **Feature Control** panel has been added to the Price Making Status screen (**Counterparty > Price Making > Status**). The button in the **Full Fill** section of the new panel toggles between these two states:

- **Disable:** Click to override stream settings and turn off full fill.
  - **Restore:** Click to restore stream settings for full fill.
1. Navigate to the Price Making Status screen (**Counterparty > Price Making > Status**).  
The Price Making Status screen appears.
  2. In the **Feature Control** panel, click the **Disable/Restore** toggle button in the **Full Fill** row:
    - **Disable:** Click to override stream settings and turn off full fill for all streams.
    - **Restore:** Click to restore stream settings for full fill.

### 2.4.3 Price making setup

The Stream Detail screen (**Price Making > Streams**) is the starting point for configuring how your liquidity is packaged and delivered to your counterparties.

Set up price streams involves the following concepts and procedures:

- [Make global changes to a stream or to all streams in the system](#) on page 118
- [Set the default price stream](#) on page 119
- [Order submission time and order execution after closing](#) on page 114
- [Review price stream details](#) on page 115

- [Choose a stream for an individual counterparty](#) on page 119
- [Add a new price stream](#) on page 119
- [Remove a price stream](#) on page 122
- [Edit a price stream](#) on page 122
- [Copy a price stream](#) on page 126
- [Configure the currency pairs in a price stream](#) on page 127
- [Manage price tiers for a direct currency pair configuration](#) on page 156

Make global changes to a stream or to all streams in the system

If you need to make a systematic change to your organization's price streams, you can use the Price Making Configuration screen of a stream's currency pair group to update all of the currency pair groups of a stream or all streams in the system.

The settings that you can change globally relate to price making and execution, aggregation, and order execution.

1. Navigate to the Price Streams screen (**Counterparty > Price Making > Streams**).
2. In the Streams panel, click the name of the stream that you want to edit.  
The Stream Detail screen appears.
3. In the Currency Pair Configurations panel, click the name of a group.  
The group's Price Making Configuration screen appears.
4. Choose the scope of your changes from the drop-down list next to the **Save** button:
  - "this Config": The settings you save in this screen apply to the currency pair configuration only.
  - "this Stream": Settings with their **Save to** checkboxes selected are saved to all currency pair configurations in the price stream.
  - "all Streams": Settings with their **Save to** checkboxes selected are saved to all currency pair configurations of all price streams.
5. Edit the new group as necessary. See [Edit or create a direct currency pair configuration in a stream](#) on page 130 for more information.
6. Select the **Save to** checkboxes of the settings that you want to apply globally.
7. Click the **Save** button.

Configure liquidity providers for streams

The Admin Portal gives you a quick way to add or remove liquidity providers from price streams. Instead of configuring the providers in each stream's detail screen, you can use the tools in the main price-making setup screen to configure providers for one or more streams at a time.

1. Navigate to the Price Streams screen (**Counterparty > Price Making > Streams**).
2. In the Streams panel, select the checkboxes of the streams that you want modify.  
The Stream Detail screen appears.
3. At the bottom of the Streams panel, choose the action that you want to perform from the drop-down list, either "Add LP" or "Remove LP"
4. Select the provider from the next drop-down list.

5. Choose the aspect of the price stream that you want to modify from the next drop-down list:
  - Aggregation & Execution (Last): Apply your changes to aggregation and order execution. If adding a provider, it is added as the last provider in the execution list.
  - Aggregation & Execution (First): Apply your changes to aggregation and order execution. If adding a provider, it is added as the first provider in the execution list.
  - Aggregation Only: Apply your changes to aggregation only.
  - Execution Only (Last): Apply your changes to order execution only. If adding a provider, it is added as the last provider in the execution list.
  - Execution Only (First): Apply your changes to order execution only. If adding a provider, it is added as the first provider in the execution list.
6. Click **Submit**.

The streams that you selected are modified as you have directed.

For more information about aggregation and order execution, see [ESP and RFS providers: aggregation and order execution](#) on page 137 and [Order execution](#) on page 137.

#### Set the default price stream

You can choose a price stream to apply to counterparties by default.

1. Navigate to the Price Streams screen (**Counterparty > Price Making > Streams** or **Counterparty > Price Making > Counterparties**).
2. In the Defaults panel, select a price stream from the **Default Stream** drop-down list. The  Edit button next to the drop-down list opens a pop-up window with the details of the stream.
3. Click **Save**.

The price stream you choose is used whenever you choose “Default” for a counterparty’s stream. See [Choose a stream for an individual counterparty](#) on page 119.

#### Choose a stream for an individual counterparty

The Admin Portal allows broker users to choose the price stream each counterparty receives.

1. Navigate to the Counterparties screen (**Counterparty > Price Making > Counterparties**).
2. Locate the counterparty in the Counterparty panel and choose a different stream from the drop-down list in the Stream column. The  Edit button next to the drop-down list opens a pop-up window with the details of the stream. You can also set the default stream from this screen in the Defaults panel. For more information, see [Set the default price stream](#) on page 119.
3. Click **Save**.

#### Add a new price stream

You can add price streams to better manage the liquidity you stream to your counterparties.

1. Navigate to the Price Streams screen (**Counterparty > Price Making > Streams**).
2. Click the **New Stream** link.  
The Stream Detail screen appears.
3. Enter the following information. Click **Save** when you have finished.

### **Activate or inactivate the stream**

Select the **Active** checkbox to enable the new stream. Clear the **Active** checkbox to disable the stream. An inactive stream sends unsupported rates. Users see either blank rates or all zeroes for the stream depending on their trading app.

### **Stream ID**

Enter the ID of the new stream in the **ID** field.

### **Description**

Enter a description of the new stream in the **Description** field.

### **Default user**

Choose a user and legal entity to associate with the stream from the **AutoDealer User** and **Associated Legal Entity** drop-down lists. All deals executed for this stream are done with this user and legal entity as the dealer.

### **Client spread**

Select or clear the **Preserve Client Spread** checkbox.

This spread is only the spread specified in the price provision and not the minimum spread specified for the stream.

If selected, order matching is done with the base rate after removal of the spread. You as the prime broker are guaranteed the spread that you have defined in the client's price provisioning against the matching liquidity provider trades.

If cleared, order matching is done with the spread rate. See [Price provisioning](#) on page 179 for more information.

### **Price improvement**

Select or clear the **Keep Price Improvement** checkbox.

If selected, your organization keeps all price improvements.

If cleared, all price improvements are passed to the counterparty.

For example, when cleared, if the counterparty attempts to sell at 1.1837 and the order is matched to 1.1839, the deal between you and the counterparty is done at 1.1839.

If selected, you as the prime broker keep the price improvements and the price returned to the counterparty is the limit price of the order. For example, in the previous case, the deal is done at 1.1837 and you keep the price improvement as profit.

Note that the limit price may be with or without spread as determined by the **Preserve Client Spread** checkbox.

### **Request expiry**

Enter the default maximum expiry time in seconds for RFS streams in the **Request Expiry** field.

If a counterparty requests a shorter expiry, the stream you supply has the shorter time.

If a counterparty requests a longer expiry, your entry overrides the request and the stream you supply has your default expiry time. You must click the **Channels/RFS** checkbox for this field to be applicable.

### **Update intervals**

Enter the interval in milliseconds at which the book is republished if there is any change to the underlying price or size in the **Full Stream Update Interval** field. The final published price and size may remain unchanged for several updates.

Enter the interval in milliseconds at which the book is republished only if the underlying best bid or best offer changes in the **Best Bid/Offer Stream Update Interval** field. The final published best bid and offer may remain unchanged for several updates.

The best bid/offer interval must be shorter than the full stream interval. If you leave the best bid/offer value blank or set it to zero, the system assumes that it is the same as the full stream interval.

### **Channels (ESP/RFS)**

In the Channels checkboxes, choose the default price stream channels for the stream. See [Price streaming methodologies \(ESP/RFS\)](#) on page 92.

You can override these settings for individual currency pair groups. See [Edit or create a direct currency pair configuration in a stream](#) on page 130.

- To receive ESP requests from counterparties and stream ESP, select the **ESP** checkbox. If you clear this checkbox, your organization will not receive requests for ESP from your counterparties for the stream.
- To receive RFS requests from counterparties and stream RFS prices for the stream, select the **RFS** checkbox. You should then enter a request expiry time and maximum tenor (see steps below). If you clear this checkbox, your organization will not receive requests for RFS from your counterparties for the stream.

### **Maximum tenor**

Enter the maximum tenor that your organization accepts for RFS requests **Maximum Tenor** field.

Your organization will receive only RFS requests from counterparties with tenors equal to or shorter than this maximum tenor. If a counterparty requests a greater tenor, you will not receive their request. You must click the **Channels/RFS** checkbox for this field to be applicable.

### **Time in force**

Enter the time for which order matching is attempted for multiple fills against the stream for

counterparty orders. Enter a time in milliseconds for limit orders the **Time In Force (Limit)** field and for market orders in the **Time In Force (Market)** field. If the order is not completely filled in this time, the trading app is notified so that it can handle the order as appropriate. For example, if the order is a GTC order, the client resubmits the order.

You need to configure the individual currency pairs in the stream. See [Configure the currency pairs in a price stream](#) on page 127.

### Remove a price stream

You cannot restore a price stream after you have removed it.

If you want to simply deactivate a price screen without removing it from the system, see [Inactivate or reactivate a price stream](#) on page 126.

1. Navigate to the Price Streams screen (**Counterparty > Price Making > Streams**).
2. Select the checkboxes of the streams that you want to remove.
3. Click **Remove**.

A popup window opens asking you to confirm the stream removal.

4. Click **Yes** to remove the streams or **No** to keep the streams.

### Edit a price stream

You can edit the general attributes of a price stream as well as configure the individual currency pairs that make up the stream.

- [Edit the details of a price stream](#) on page 122
- [Configure a stream for volatile markets](#) on page 113
- [Enable periodic market data sets for guaranteed rates](#) on page 126
- [Configure the currency pairs in a price stream](#) on page 127
- [Copy a currency pair configuration in a stream](#) on page 129
- [Make global changes to a stream or to all streams in the system](#) on page 118

#### Edit the details of a price stream

1. Navigate to the Price Streams screen (**Counterparty > Price Making > Streams**).
2. In the Streams panel, click the name of the stream that you want to edit.
3. Edit the following information. Click **Save** when you have finished.

#### *Activate or deactivate the stream*

- 3a. Select the **Active** checkbox to enable the stream. Clear the **Active** checkbox to disable the stream. An inactive stream sends unsupported rates. Users see either blank rates or all zeroes for the stream depending on their trading app.

#### *Description*

- 3b. Enter a description of the stream in the **Description** field.

### **Default user and legal entity**

- 3c. Choose a user and legal entity to associate with the stream from the **AutoDealer User** and **Associated Legal Entity** drop-down lists. All deals executed for this stream are done with this user and legal entity as the dealer. If the stream is associated with a SEF, choose a legal entity from the **Associated SEF Legal Entity** drop-down list.

### **Preserve client spread**

- 3d. Select or clear the **Preserve Client Spread** checkbox.

This spread is only the spread specified in the price provision and not the minimum spread specified for the stream.

If selected, order matching is done with the base rate after removal of the spread. You as the prime broker are guaranteed the spread that you have defined in the client's price provisioning against the matching liquidity provider trades.

If cleared, order matching is done with the spread rate. See [Price provisioning](#) on page 179 for more information.

For example, say the provider price is 1.5900 and your spread is 2. Your customer sees 1.5902. The price might change and go against you. If **Preserve Client Spread** is selected, you keep the 2 pips spread, even if that means losing your deal. If **Preserve Client Spread** is cleared, you agree to lose your spread to guarantee a fill for your customer.

### **Price improvement**

- 3e. Select or clear the **Keep Price Improvement** checkbox.

If selected, your organization keeps price improvements. If selected, you as the prime broker keep the price improvements and the price returned to the counterparty is the price of the order. As in the previous case, the deal is done at 1.1837 and you keep the price improvement as profit.

If cleared, price improvements are passed to the customer. For example, if the counterparty attempts to sell at 1.1837 and the order is matched to a VWAP price of 1.1839, the deal between you and the counterparty is done at 1.1839.

Price improvement involves movement in the market while an order is executing. If the VWAP price on the market improves during execution, then the broker can choose to keep the advantage or pass it to the customer. However, if a customer submits a market order well above the market VWAP price and the VWAP price does not move, the customer is filled at the market rate plus any spread the broker has defined on the cross. The broker does not get the difference between the market price and the market order price.

Note that the customer price may be with or without spread as determined by the **Preserve Client Spread** checkbox.

### **Request expiry**

- 3f. Enter the default maximum expiry time in seconds for RFS streams in the **Request Expiry** field.

If a counterparty requests a shorter expiry, the stream you supply has the shorter time.

If a counterparty requests a longer expiry, your entry overrides the request and the stream you supply has your default expiry time. You must click the **Channels/RFS** checkbox for this field to be applicable.

### ***Update intervals***

- 3g. Enter the interval in milliseconds at which the book is republished if there is any change to the underlying price or size in the **ESP Full Stream Update Interval** and **RFS Full Stream Update Interval** fields. The final published price and size may remain unchanged for several updates.
- 3h. Enter the interval in milliseconds at which the book is republished only if the underlying best bid or best offer change in the **ESP Best Bid/Offer Stream Update Interval** and **RFS Best Bid/Offer Stream Update Interval** fields. The final published best bid and offer may remain unchanged for several updates.

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**NOTE:** The best bid/offer intervals must be shorter than the full stream intervals. If you leave a best bid/offer value blank or set it to zero, the system assumes that it is the same as the full stream interval.

---

### ***Channels (ESP/RFS)***

- 3i. In the Channels checkboxes, choose the default price stream channels for the stream. See [Price streaming methodologies \(ESP/RFS\)](#) on page 92.  
You can override these settings for individual currency pair groups. See [Edit or create a direct currency pair configuration in a stream](#) on page 130.
  - To receive ESP requests from counterparties and stream ESP, select the **ESP** checkbox. If you clear this checkbox, your organization will not receive requests for ESP from your counterparties for the stream.
  - To receive RFS requests from counterparties and stream RFS prices for the stream, select the **RFS** checkbox. You should then enter a request expiry time and maximum tenor (see steps below). If you clear this checkbox, your organization will not receive requests for RFS from your counterparties for the stream.

### ***Maximum tenor***

- 3j. Enter the maximum tenor that your organization accepts for RFS requests **Maximum Tenor** field.  
Your organization will receive only RFS requests from counterparties with tenors equal to or shorter than this maximum tenor. If a counterparty requests a greater tenor, you will not receive their request. You must click the **Channels/RFS** checkbox for this field to be applicable.

### ***Time in force***

- 3k. Enter the time for which order matching is attempted for multiple fills against the stream for counterparty orders. Enter a time in milliseconds for limit orders the **Time In Force (Limit)** field and for market orders in the **Time In Force (Market)** field.

### ***Instantaneous response for ESP full fills***

- 3l. Select or clear the **Instantaneous Response for ESP Full Fills** checkbox.

The checkbox applies when a broker chooses to take on risk by guaranteeing customer full-fill execution to a customer regardless of the ability to execute a cover trade. When the **Instantaneous Response for ESP Full Fills** checkbox is selected, the system responds to customers immediately when the request expiry is reached, without waiting for the liquidity provider's response. This feature helps brokers satisfy response-time requirements of SLAs with customers and ensures that cover order execution never exceeds the request expiry setting. As a special case, when the broker configures full-fill execution with a cover order fill percentage of 0% (the highest risk potential), the customer order is fully filled immediately after receiving the cover order. In this special case, the STP message received by the broker for the customer trade will not include references to any cover trades.

When the **Instantaneous Response for ESP Full Fills** checkbox is cleared, the system waits for the liquidity provider's response before responding to the customer request.

### ***Displayed orders***

- 3m. Select or clear the **Displayed Orders only** checkbox.

If selected, then only no-last-look providers and brokers or masks of brokers with a displayed order stream are allowed in the stream.

If cleared, any provider can be added to the stream.

### ***FMA providers***

- 3n. Select or clear the **Include FMA Providers** checkbox.

If selected, then Full Market Access providers are included on the stream.

If cleared, FMA providers are excluded on the stream.

### ***Enable skew***

- 3o. (Applicable only to FX Yield Manager users) Select or clear the **Enable Skew** checkbox.

Skew allows you to adjust the prices you publish automatically based on your inventory in FX Yield Manager. To use skew, FX Yield Manager price streams must have skew enabled. Select the **VWAP Skew** checkbox to calculate skew values for pricing tier that are larger than position skew levels defined in FX Yield Manager.

### ***Periodic MDS***

Some customers need to create a named market data set (MDS) from the stream that are valid for a period of time. Use the tools in the Periodic MDS panel to define the attributes of the MDS.

- 3p. Select the **Create** checkbox to access the tools in the panel.

- 3q. Enter name in the **Market Data Set Name** field. This name is used in APIs and reports.

- 3r. Enter the time the MDS is effective in the **Start Time(GMT)** field.

- 3s. Enter the number of hours the MDS is in effect in the **Period** field.
- 3t. To avoid any gap in pricing, enter the number of minutes of overlap between market data sets in the **Overlap Period** field.

#### Inactivate or reactivate a price stream

If you want to simply deactivate a price screen without removing it from the system, see you can deactivate the stream.

An inactive stream sends unsupported rates. Users see either blank rates or all zeroes for the stream depending on their trading app.

1. Navigate to the Price Streams screen (**Counterparty > Price Making > Streams**).
2. In the Streams panel, clear the checkbox in the Active column of a stream to deactivate the stream. Select the checkbox to reactivate the stream.
3. Click **Save**.

To completely remove a stream from the system, see [Remove a price stream](#) on page 122.

#### Enable periodic market data sets for guaranteed rates

Some price-makers need to offer a guaranteed rate to customers for a period of time with a fixed market data set (MDS). You enable and configure these market data sets in the **Periodic MDS** panel of the Stream Detail screen. Contact your Integral Technical Account Manager to set up guaranteed rates for your customers.

1. Navigate to the Price Streams screen (**Counterparty > Price Making > Streams**).
2. In the **Periodic MDS** panel, select the **Create** checkbox to start generating market data sets for pricing.
3. Edit the following information. Enter time values in the format hh:mm. Click **Save** when you done,
  - **Market Data Set Name:** name used to retrieve and assign the MDS.
  - **Start Time (timezone):** time and timezone when the MDS is active.
  - **Activation Delay:** can be zero. Any activation delay to overlap with the previous MDS so that there are no gaps in pricing availability. For example, if set to 00:10 (10 minutes) and start time is 10:15 with validity of 1:00 (1 hour), then the MDS is created at 10:15, but rates are valid from 10:25 until 11:25.
  - **Create Frequency:** How often the MDS is generated.
  - **Validity:** The amount of time that the rates are valid and tradable.

The Periodic MDS panel also shows the following information about the current MDS. Blank if there is no current active MDS. All times in the format yyyy-MM-dd HH:mm.

- **Current MDS Created Time:** when the current MDS was created.
- **Current MDS Active Time:** when the rates in the current MDS were first valid.
- **Current MDS Valid until:** when the current MDS expires.
- **Next MDS Creation Time:** when the next market data set is set to be created.

#### Copy a price stream

You can copy existing price streams as a quick way to add a new stream to the system.

1. Navigate to the Price Streams screen (**Counterparty > Price Making > Streams**).
2. In the Streams panel, click **Copy** link of the stream that you want to copy.  
A popup window opens prompting you for a name for the new stream.
3. Enter a name for the new stream in the field.
4. Click **OK**.

The new stream appears in the list. You can now edit the stream as necessary. See [Edit a price stream](#) on page 122.

### Configure the currency pairs in a price stream

You manage currency pairs as configurations in a price stream. This allows you to customize price-making rules according to currency pair attribute that you choose, such as currency pairs with the same base currency or currency pairs with term currencies from a particular region.

Additionally, currency pair configurations can be direct or synthetic cross:

- Direct: Liquidity in the currency pair is sourced directly from aggregated provider rates or Excel spreadsheets
- Synthetic: Liquidity for a currency pair is generated by crossing two side currency pairs.

Currency pair groups can be configured with a single currency.

- [Copy a currency pair configuration in a stream](#) on page 129
- Edit or create:
  - [Edit or create a direct currency pair configuration in a stream](#) on page 130
  - [Edit or create a synthetic cross currency pair configuration in a stream](#) on page 144
  - [Edit or create a market making configuration in a stream](#) on page 154
- [Remove a currency pair configuration from a stream](#) on page 143
- [Inactivate or reactivate a currency pair configuration in a stream](#) on page 144
- [Set the sort order of currency pair configurations in a stream](#) on page 144

### Upload spreads for currency pair configurations

You can create and update price stream configurations by copying and modifying an existing configuration with a CSV upload.

The upload supports single-tier and multi-tier prices.

The CSV file includes references to the source configuration to copy and ESP spread information for the new and updated configurations. RFS spreads are copied from the source configuration.

#### Procedure

1. Click the **Update Configurations** link in the Defaults panel of the Price Streams screen (**Counterparty > Price Making > Streams**).  
The **Import/Upload Configuration** popup window opens.
2. Click **Choose File** to select a CSV file with your stream updates.

3. Select the **Update the config if exists** checkbox to update existing configurations. Clear the checkbox to leave existing configurations unchanged.
4. Click **Upload**.

[CSV upload file format](#)

The first line of the CSV file must be a header.

**Example 2-1 CSV price stream config upload example (multi-tier spreads highlighted)**

Organization,Stream,ConfigName,Symbol,Bid Markup,Ask Markup,Min Spread,Max Spread,Providers

YourOrgID,jk1Stream,ILS,USD/CAD,

[1000000,1000000,6.1,6.2,4.3,5.1;2100000,2200000,5.1,5.2,7,8],ProvA

YourOrgID,jk1Stream,CNG1,XAG/USD,

[1000,1000,2.2,2.3,3.1,3.2;2100,2200,3.2,3.3,4.1,5.1],ProvA;ProvB;ProvC

YourOrgID,jk1Stream,South4,NZD/USD,2.5,2.4,4.2,4.4,ProvX;ProvY;ProvC

YourOrgID,PriceStreamAPAC,BestPricePips,EUR/AUD,4.8,4.9,2.1,8.5,ProviderA

YourOrgID,PriceStreamAPAC,BestPricePips,AUD/CAD,4.8,4.9,2,8,ProviderA

YourOrgID,PriceStreamEMEA,BestPricePips,EUR/USD,5.9,6.2,2,8,ProviderA;ProviderB

**Table 2-13 Price making config upload fields (single-tier and multi-tier)**

Field	Datatype	Description
Organization	string	Your organization ID.
Stream	string	The name of the price stream that contains the configurations you want to copy, create, and update.
ConfigName	string	The name of the source configuration to copy. The RFS spreads from this configuration are used for new configurations.
Symbol	string	The currency pair symbol. This is the name of existing configurations to update and the name used for new configurations.
Single-tier price fields separated by commas		
Bid Markup	double	Total pre-trade ESP bid spread.
Ask Markup	double	Total pre-trade ESP ask spread.
Min Spread	double	Minimum ESP spread.
Max Spread	double	Maximum ESP spread.
Multi-tier price fields separated by commas. Each tier is separated by a semicolon. The block of fields for all tiers is enclosed in square brackets. The block replaces the single-tier data for the following four columns: Bid Markup, Ask Markup, Min Spread, Max Spread. See the highlighted multi-tier spreads in <a href="#">Example 2-1</a> on page 128.		
Bid Size	double	Tier bid size.
Ask Size	double	Tier ask size.

**Table 2-13** Price making config upload fields (single-tier and multi-tier) (continued)

Field	Datatype	Description
Bid Markup	double	Total pre-trade ESP bid spread.
Ask Markup	double	Total pre-trade ESP ask spread.
Min Spread	double	Minimum ESP spread.
Max Spread	double	Maximum ESP spread.
Providers	string	Semicolon-separated list of provider IDs.

Copy a currency pair configuration in a stream

You can copy an existing currency pair configuration in a stream. This allows you to add several similar configurations to a stream quickly and easily.

**To copy a currency pair configuration in a price stream from the stream detail screen:**

1. Navigate to the Price Streams screen (**Counterparty > Price Making > Streams**).
2. In the Streams panel, click the name of the stream that includes the configuration that you want to copy.  
The Stream Detail screen appears.
3. In the Currency Pair Configurations panel, click the  Copy button of the configuration that you want to copy.  
The new group's Price Making Configuration screen appears.
4. Enter a name for the new configuration in the **Name** field.

**NOTE:** The name you enter must be made up of no more than 30 alphanumeric characters with no spaces or special characters.

5. Edit the new configuration as necessary. See [Edit or create a direct currency pair configuration in a stream](#) on page 130 for more information.
6. Click the **Save** button.

The Stream Detail screen opens with the new configuration in the Currency Pair Configurations panel.

**To copy a configuration in a price stream from the currency pair configuration screen:**

1. Navigate to the Price Streams screen (**Counterparty > Price Making > Streams**).
2. In the Streams panel, click the name of the stream includes the configuration that you want to copy.  
The Stream Detail screen appears.
3. In the Currency Pair Configurations panel, click the name of the configuration that you want to copy.  
The group's Price Making Configuration screen appears.

4. Enter a name for the new configuration in the field next to the **Save As** button.

**NOTE:** The name you enter must be made up of no more than 30 alphanumeric characters with no spaces or special characters.

5. Edit the new configuration as necessary. See [Edit or create a direct currency pair configuration in a stream](#) on page 130 for more information.
6. Click the **Save As** button.

The Stream Detail screen opens with the new configuration in the Currency Pair Configurations panel.

#### Edit or create a direct currency pair configuration in a stream

Liquidity for direct currency pairs is sourced directly from aggregated provider rates or Excel spreadsheets. This contrasts with synthetic cross currency pairs where liquidity is generated by crossing two side currency pairs with a common vehicle currency. For information about working with synthetic pairs, see [Edit or create a synthetic cross currency pair configuration in a stream](#) on page 144.

The price-making Stream Detail screen allows you to edit existing direct currency pair configurations and create new configurations, either from scratch or by copying an existing configuration.

You can also apply some of the changes that you make in the screen to all currency pair configurations in the stream or all configurations in all streams. You can make these global changes to aspects of price making and execution, aggregation, and order execution.

#### To edit or create currency pair configurations:

1. Navigate to the Price Streams screen (**Counterparty > Price Making > Streams**).
2. In the Streams panel, click the name of the stream that you want to edit.

The Stream Detail screen appears.

3. In the **Currency Pair Configurations** panel, do one of the following:
  - To edit an existing direct currency pair configuration, click the name of a configuration that shows "Direct" in the **Type** column.
  - To copy an existing direct currency pair configuration, click the name of a configuration that shows "Direct" in the **Type** column. In the Price Making Configuration screen, enter a name for the new currency pair configuration in the field next to the **Save As** button. You can then either edit the configuration and click the **Save As** button or click the **Save As** button and then edit the new configuration.
  - To create a new direct currency pair configuration, choose "Direct" from the drop-down list at the top of the panel and click the  New button.

The Price Making Configuration screen opens.

4. Select the scope of your changes from the drop-down list next to the **Save** button:
  - "this Config": The settings you save in this screen apply to the currency pair configuration only.
  - "this Stream": Settings with their **Save to** checkboxes selected are saved to all currency pair configurations in the price stream.

- “all Streams”: Settings with their **Save to** checkboxes selected are saved to all currency pair configurations of all price streams.
5. Edit the configuration with the tools in the following panels:

### Currency pair group

The Currency Pair Group panel provides general settings for the configuration, including the [quote convention](#), currency pair groups, and any additional currency pairs. Click the button to expand and collapse the panel.

**NOTE:** The currency pairs included in the configuration are displayed in the Current Currency Pair area at the bottom of the panel. Use the **Filter** field to narrow your view of the list. Leave the field blank to see all currency pairs in the configuration.

1. Select the **Active** checkbox to activate the configuration as soon as you save it. Clear the **Active** checkbox to save the configuration but leave it inactive.
2. For new configurations, enter a name in the **Name** field.
3. Select a [quote convention](#) for the configuration from the **Quote Convention** drop-down list.
4. Choose currency pair groups to add to the configuration from the **Available** list in the **Group** area and click the **>>** button. You can click the Show Fewer and Show More buttons to decrease or increase the number of groups visible. You can also enter a filter expression in the **Filter** field to focus your view of the list. For information about filter expressions, click the question mark (?) link or see [Filter lists of data](#) on page 449.
5. To add individual currency pairs not already included as part of a group, click the **Advanced Settings** toggle button to show the **Included Custom Currency Pairs** area. The currency pairs that you move to the **Selected** list are included in the configuration.
6. To exclude individual currency pairs from the configuration, click the **Advanced Settings** toggle button to show the **Excluded Custom Currency Pairs** area. The currency pairs that you move to the **Selected** list are excluded from the configuration.
7. Click **Save**.

### Price making and execution

The Price Making and Execution panel allows you to set the price-making and customer fill details of the currency pair configuration for the ESP and RFS workflows.

1. To override the stream’s settings for price stream channels and use the configuration’s settings, select the **Override Stream Channels** checkbox. Note that the **ESP** and **RFS** checkboxes activate. See [Price streaming methodologies \(ESP/RFS\)](#) on page 92 for more information about ESP and RFS channels.
  - To receive ESP requests from counterparties and stream ESP for the currency pairs in the configuration, select the **ESP** checkbox. If you clear this checkbox, your organization will not receive requests for ESP from your counterparties for the configuration.
  - To receive RFS requests from counterparties and stream RFS prices for the currency pairs in the configuration, select the **RFS** checkbox. You should then enter a request expiry time, maximum tenor, and set the RFS-specific spreads (see steps below). If you clear this checkbox, your organization will not receive requests for RFS from your counterparties for the currency pair configuration.

2. From the **Market Data Set** drop-down list, choose a market data set for cover prices and price interpolation when sourcing RFS forward prices from ESP spot prices.
3. To apply price-making tenor-based spreads to streaming outright prices, select the **Use Market Data Set for Streaming Outright points** checkbox. Points are taken from the market data set you've chosen from the **Market Data Set** drop-down list.
4. To calculate forward points for synthetic cross currencies when points are available for the component currency pairs, select the **Enable Synthetic Cross Points** checkbox. You can then choose the vehicle currency that split the synthetic cross currency pair into components from the **Vehicle Currency** drop-down list.
5. Select a price priority from the **Price Priority** drop-down list. Price priority determines the criteria by which a tie is resolved given the same rate from multiple providers.
  - Provider: The rate from one provider is given priority over another provider based on the order of providers in the Order Execution panel. See below for details.
  - Size: The price with the largest size is taken first.
  - Time: The oldest price is taken first.
6. Select a spread priority from the **Spread Priority** drop-down list. Spread priority determines the order in which multiple spreads are applied to a price:
  - "Apply Maximum spreads after Minimum and Fixed spreads"
  - "Apply Fixed spreads before Minimum and Maximum spreads"
  - "Apply Fixed spreads after Minimum and Maximum spreads" This option ensures that you will always get your fixed spread.

### **Price making and execution (ESP rules)**

1. Choose the price making method by clicking one of the following radio buttons:
  - Aggregate from LPs:** To make prices by aggregating liquidity provider prices. Select a price-making method for ESP workflows from the drop-down list. See [Price making aggregation methods](#) on page 112 for details. The price-making method that you choose determines whether the ESP Tiers and Spreads panel or the ESP Spreads panel are displayed for the currency pair configuration. See [ESP tiers and spreads](#) on page 138 and [ESP spreads](#) on page 139.
  - Source From Excel (Multi-Price Tiers):** To source prices from a macro-enabled Excel spreadsheet. See [Prices sourced from Excel and API clients](#) on page 99 for more information.

**CAUTION:** By enabling customer fill rules, your organization may take positions and be exposed to risk. The Admin Portal sends an email to alert your organization of any position risk. Contact Integral Business Support to confirm your position alert email address.

2. Define the execution rules for the ESP stream:
  - 2a. Enter the sort order in the **Sort** column. This value determines how the rule is sorted in a list of rules and when the rule is applied. The lower the sort order, the higher the rule's precedence. The more specific a rule, the higher its sort order should be.
  - 2b. Enter a notional range to which the rule applies in the fields of the **Notional** column. The Low value is exclusive (the rule applies to notional amounts greater than the value). The High value is inclusive (the rule applies to notional amounts lesser than or equal to the value). Notional values are specified in the base currency of the currency pair.

- 2c. Enter a time period and time zone during which the rule is in effect with the **Start** and **Stop** fields in the **Time** column. Choose the time zone from the drop-down list in the column.
- 2d. Choose a counterparty group to which the rule applies from the drop-down list in the **Counterparty** column. The drop-down list contains the sales dealer groups defined for your organization in the Sales Dealer Group List screen ([Edit a sales dealer group](#) on page 77). The counterparty's criteria take precedence over other execution rules criteria. For example, if all other criteria of two execution rules are the same (notional range, tenor, time, trade type), then the execution rule that includes the counterparty is applied. If a counterparty is in a group that is specified in multiple rules, the first execution rule that matches the other criteria is applied. If the drop-down list is empty, then all counterparties are considered.
- 2e. Use the tools in the **Execution Rule** column to configure an execution method for ESP workflows. See [ESP execution method settings](#) on page 102 for more information about how these settings map to execution methods.

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**CAUTION:** If you choose the **Market** radio button, you specify market execution with no defined range, executing with any and all prices in the market until filled.

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- 2f. Choose to send partial cover orders for only a percentage of customer order amount. How the liquidity provider fills the cover then determines how the broker fills the customer order. See [Partial covers](#) on page 101 for details. Clear the checkbox in the **Partial Cover** column to always send cover orders for the whole customer order amount. Select the checkbox to send partial cover orders and enter a percentage value in the field.

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**NOTE:** Full fill execution takes precedence over partial cover execution. If a customer order matches both a full-fill execution rule and a partial-cover rule, full fill is applied.

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- 2g. Choose the customer fill method to determine how customer orders are filled with relation to cover orders. See [Customer fill rules](#) on page 100 for details. Clear the checkbox in the **Full Fill** column to allow partial fills of your customer orders and enter a percentage value in the field. Selecting the checkbox guarantees that your customers' orders are fully filled according to the criteria that you specify. The customer order is fully filled as long as the associated cover order has at least the specified percentage of its order amount filled. If the cover order fill is less, the customer order is left partially filled. If you enter 0 (zero), the customer order is always filled regardless of the state of the associated cover order. If you enter 100, the customer's order is only fully filled when the associated cover order is fully filled.
  - 2h. If you select the checkbox in the **Full Fill** column, you can then determine whether any position taken from a full fill is covered or unwound by selecting the checkbox in the **Auto Cover** column. If you select the checkbox, the position taken for a full fill is covered or unwound automatically according to the auto-cover rules that you define. See [Full-fill auto cover](#) on page 136. If you do not select the Auto Cover checkbox, the position must be covered or unwound manually.
- 2i. Click the **Add Rule** button.
  3. Choose how you want to aggregate cover fills:
    - **Aggregated Fill** radio button: Cover fills are aggregated into a single fill with an average rate. Any pending fills are timed out. A pending fill that is later verified will then become a risk position for the broker. The timeout period is set by your Integral Solutions Manager.
    - **Multiple Fills** radio button: Each cover fill is sent as a separate fill. The **No Timeout** checkbox applies only when Multiple Fills is selected and is cleared by default. If selected and a cover fill goes pending, the fill waits indefinitely with no notification sent to the customer until

pending is cleared, either rejected or verified. If cleared, then any pending fills are timed out and returned to the customer. A pending fill that is later verified will then become a risk position for the broker. The timeout period is set by your Integral Solutions Manager.

4. If you want to override the stream's ESP update intervals for this currency pair, select the **Override Stream Update Interval** checkbox and enter the following intervals:
  - Enter the interval in milliseconds at which the book is republished if there is any change to price or size in the **Full Stream Update Interval** field.
  - Enter the interval in milliseconds at which the book is republished only if the best bid or best offer change in the **Best Bid/Offer Update Interval** field. The best bid/offer interval must be shorter than the full stream interval. If you leave the best bid/offer value blank or set it to zero, the system assumes that it is the same as the full stream interval.

### **Price making and execution (RFS rules)**

- I. Define the pricing and execution rules for the RFS stream:
  - 1a. Choose a market data set (MDS) to validate RFS points from the **RFS Provider Points Validation Market Data Set** drop-down list and enter the deviation percentage in the **Allowed Deviation (Percent)** field. Points that fall within this percentage of the MDS are kept. Points outside the percentage are dropped.
  - 1b. Enter the sort order in the **Sort** column. This value determines how the rule is sorted in a list of rules and when the rule is applied. The lower the sort order, the higher the rule's precedence. The more specific a rule, the higher its sort order should be.
  - 1c. Choose a trade type to which the rule applies from the drop-down list in the **Trade Type** column. The values, if any, that you specify in the Tenor column take precedence over this setting. For the details of FSR pricing, see [Fixed spot roll \(FSR\) pricing](#) on page 97. For the details of SSP pricing, see [Single spot portfolio \(SSP\) pricing](#) on page 99.
  - 1d. Enter a notional range to which the rule applies in the fields of the **Notional** column. The Low value is exclusive (the rule applies to notional amounts greater than the value). The High value is inclusive (the rule applies to notional amounts lesser than or equal to the value). Notional values are specified in the base currency of the currency pair.
  - 1e. Enter a net spot amount range to which the rule applies with the fields in the **Net Spot Amt** column. This is the net spot amount calculated for uneven swaps and SSPs. The Low value is exclusive (the rule applies to notional amounts greater than the value). The High value is inclusive (the rule applies to amounts lesser than or equal to the value). You specify the net spot amount as an absolute value without regard for whether the amount is a buy or sell amount. For example, you can set the condition that all net spot amounts less than or equal to 3M are covered with RFS pricing and net spot amounts greater than 3M are covered with spot pricing.
  - 1f. Enter a time period and time zone during which the rule is in effect with the **Start** and **Stop** fields in the **Time** column. Choose the time zone from the drop-down list in the column.
  - 1g. In the **Tenor** column of the RFS rule table in the **Price Making and Execution** panel, choose the leg-matching behavior:
    - Click the **Any Leg** radio button to apply the rule if any leg matches the tenor/value date criteria.
    - Click the **All Legs** radio button to apply the rule only if all legs match the tenor/value date criteria.

- 1h. In the same column, choose the tenor/value date matching criteria:
  - Click the **Default** radio button to apply a tenor or value-date range. Enter a tenor or date range in fields in the **Range** column. The Min value is exclusive (the rule applies to dates and tenors after than the value). The Max value is inclusive (the rule applies to dates and tenors before or equal to the value).
  - Click the **Standard Tenor** radio button to test for a tenor from the **Standard Tenors** list above the table. The Min/Max fields are disabled.
  - Click the **Non Standard Tenor** radio button to test for a tenor that is not in the **Standard Tenors** list. The Min/Max fields are disabled.
- 1i. Enter a pips deviation value with the field in the **Spot Pips Deviation** column. Pips deviation is significant in two cases:
  - For FSR trades to validate the customer-specified spot rate against the reference rate in the forward curve data.
  - When forward points adjustment for RFS ESP pricing for outright and swaps is enabled, to validate the market spot rate against the forward curve data to ensure that the forward curve data has not gone stale.

You specify pips as absolute values to one-tenth of a pip.
- 1j. Choose a counterparty group to which the rule applies from the drop-down lists in the **Counterparty** column. The drop-down lists contain the sales dealer groups defined for your organization in the Sales Dealer Group List screen ([Edit a sales dealer group](#) on page 77). The counterparty's criteria take precedence over other execution rules criteria. For example, if all other criteria of two execution rules are the same (notional range, tenor, time, trade type), then the execution rule that includes the counterparty is applied. If a counterparty is in a group that is specified in multiple rules, the first execution rule that matches the other criteria is applied. If the drop-down list is empty, then all counterparties are considered.
- 1k. Choose how prices are sourced for the rule with the tools in the **Pricing** column (at least one checkbox must be selected.):
  - Select the **RFS** checkbox to specify true RFS pricing.
  - Select the **Spot & MDS** checkbox to specify pricing sourced from ESP spot prices and market data. At least one checkbox must be selected. See [RFS prices sourced from ESP spot prices \(Spot & MDS\)](#) on page 93 for more information about your choices.
  - Select the **Spot & Swap** checkbox to specify pricing sourced from ESP spot prices and real-time swap points from liquidity providers. See [RFS prices sourced from streaming swap prices \(Spot & Swap\)](#) on page 95 for more information about your choices.
- 1l. To provide prices in sizes that are larger than the maximum size available from the market, select the **Inflate Price** checkbox in the Pricing column and enter a percentage over the maximum size in the field. For example, without price inflation, if a customer requests a price for 18M and the largest size available is 15M, the order is rejected. If you select the checkbox and enter 20 in the field, the customer receives the price from the market closest in size to 15M at a size of 18M.
- 1m. Use the tools in the **Execution Rule** column to configure an execution method for RFS workflows. See [RFS execution method settings](#) on page 104 for more information about how these settings map to execution methods. The "Manual" method invokes the manual RFQ workflow. See [Provide manual quotes \(manual RFQ\)](#) on page 168. Window Forward trades are always manually priced.

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**CAUTION:** If you choose the **Market** radio button, you specify market execution with no defined range, executing with any and all prices in the market until filled.

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- 1n. Customer orders on an RFS stream are always either fully filled or rejected. Choose the customer fill method to determine whether customer orders are filled or rejected with relation to cover orders. See [Customer fill rules](#) on page 100 for details. Clear the checkbox in the **Full Fill** column to fill or reject orders regardless of the state of any cover order. Select the checkbox to define a threshold by which a customer order is filled or rejected based on the state of the cover order. If you select the checkbox, enter a percentage value in the field. The customer order is fully filled as long as the associated cover order has at least this percentage of its order amount filled. If the cover order fill is less, the customer order is rejected. If you enter 0 (zero), the customer order is always filled regardless of the state of the associated cover order. If you enter 100, the customer's order is only fully filled when the associated cover order is fully filled.

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**NOTE:** Customer fill rules do not apply to RFS price making when the only pricing source is RFS (when only the **RFS** checkbox is selected in the **Pricing** column).

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- 1o. If you select the checkbox in the **Full Fill** column and select the **Spot & MDS** checkbox for RFS pricing, you can then determine whether any position taken from a full fill is covered or unwound by selecting the checkbox in the **Auto Cover** column. If you select the checkbox, the position taken for a full fill is covered or unwound automatically according to the auto-cover rules that you define. See [Full-fill auto cover](#) on page 136. If you do not select the checkbox, the position must be covered or unwound manually. The **Auto Cover** checkbox is only available when you select the **Spot & MDS** checkbox for RFS pricing.
2. If you want to override the stream's RFS update intervals for this currency pair, select the **Override Stream Update Interval** checkbox and enter the following intervals:
  - Enter the interval in milliseconds at which the book is republished if there is any change to price or size in the **Full Stream Update Interval** field.
  - Enter the interval in milliseconds at which the book is republished only if the best bid or best offer change in the **Best Bid/Offer Stream Update Interval** field. The best bid/offer interval must be shorter than the full stream interval. If you leave the best bid/offer value blank or set it to zero, the system assumes that it is the same as the full stream interval.
3. If you want to override the stream's RFS settings for this currency pair, select the **Override Stream RFS Parameters** checkbox and enter the following:
  - Enter the override maximum expiry time in seconds for RFS streams in the **Request Expiry** field. If a counterparty requests a shorter expiry, the stream you supply has the shorter time. If a counterparty requests a longer expiry, your entry overrides the request and the stream you supply has your default expiry time.
  - Enter the override maximum tenor that your organization accepts for RFS requests **Maximum Tenor** field. Your organization will receive only RFS requests from counterparties with tenors equal to or shorter than this maximum tenor. If a counterparty requests a greater tenor, you will not receive their request.

#### **Full-fill auto cover**

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**CAUTION:** By enabling customer fill rules, your organization may take positions and be exposed to risk. The Admin Portal sends an email to alert your organization of any position risk. See [Customer](#)

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[fill rules](#) on page 100 for more information. Contact Integral Business Support to confirm your position alert email address.

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If you have configured auto cover for full fill execution, you need to define rules that determine how the full-fill positions are covered or unwound. See [Step 2h of Price making and execution \(ESP rules\)](#) on page 132 and [Step 1o of Price making and execution \(RFS rules\)](#) on page 134.

1. Enter the sort order in the **Sort** column. This value determines how the rule is sorted in a list of rules and when the rule is applied. The lower the sort order, the higher the rule's precedence. The more specific a rule, the higher its sort order should be.
2. Choose the action performed on the position from the drop-down list in the **Action** column. You can choose to cover or to unwind a position.
3. Enter a notional range to which the rule applies in the fields of the **Notional Amount** column. The Low value is exclusive (the rule applies to notional amounts greater than the value). The High value is inclusive (the rule applies to notional amounts lesser than or equal to the value). Notional values are specified in the base currency of the currency pair.
4. Choose the execution method from the drop-down list in the **Execution Method** column. You can choose **Market** or **Limit To Market**. Market execution covers or unwinds a position immediately with a market order. Limit To Market execution first attempts to cover or unwind the position with a limit order. If the action is not successful within a specified time, the position is covered or unwound with a market order.
5. If you choose "Limit To Market" execution, the fields in the **Limit Order** column become active. Enter the time in force in milliseconds for the initial limit order in the **TIF(ms)** field. If the limit order is not filled after this time period, it is cancelled and a market order is submitted. Enter a pips value in the **Range** field. This value defines an acceptable range of pips from the position price for covering or unwinding the position.
6. Enter a pips value in the **TOB Range** field in the Market Order column to define the range from the top-of-book price for the market order. A value of zero indicates that the market order should execute at the top-of-book price only.

#### ***ESP and RFS providers: aggregation and order execution***

Click the  Expand button to configure providers. In the **Aggregation** section of the **ESP and RFS Providers** panel, you choose the liquidity providers to be used for price aggregation for the currency pair configuration. Select the **Save to** checkbox if you intend to save this setting to all configurations in the stream or all streams. You can click the  Show Fewer and  Show More buttons to decrease or increase the number of items in the list. Select the **Hide Displayed Order Providers** checkbox to hide displayed order providers and show only real providers.

1. In the Aggregation section, choose the providers for price aggregation from the **Available** list and click the **>>** button.
2. Click **Save**.

#### ***Order execution***

Click the  Expand button to configure providers. In the **Order Execution** section of the **ESP and RFS Providers** panel, you choose the liquidity providers who are eligible to see and execute on

orders submitted for the currency pairs in the currency pair configuration. Select the **Save to** checkbox if you intended to save this setting to all configurations in the stream or all streams. You can click the Show Fewer and Show More buttons to decrease or increase the number of items in the list. Select the **Hide Displayed Order Providers** checkbox to hide displayed order providers and show only real providers.

1. In the Order Execution section, choose the providers for order execution from the **Available** list and click the **>>** button. Use the up and down arrow buttons next to the list to set provider priority. The providers at the top of the list are given order execution priority over providers lower in the list if you choose provider priority from the **Price Priority** drop-down list. Click the **Show Fewer** and **Show More** buttons to decrease or increase the number of items in the list.
2. Click **Save**.

### **Swap point providers**

Often the ESP and RFS Providers panel includes a large number of providers. This can lead to performance issues when pricing some requests, especially SSP requests. To improve performance, you can select a list of providers specifically for Spot+Swap pricing.

1. In the **Swap Point Providers** panel, choose the list of providers:
  - o Click the **Use ESP and RFS Providers** radio button to use the providers listed in the Use ESP and RFS Providers panel for all ESP and RFS pricing.
  - o Click the **Use Swap Point Providers** radio button to define a list of providers for Spot+Swap pricing exclusively.
2. Choose the providers for Spot+Swap pricing from the **Available** list and click the **>>** button. Click the **Show Fewer** and **Show More** buttons to decrease or increase the number of items in the list.
3. Click **Save**.

### **ESP tiers and spreads**

The **ESP Tiers and Spreads** panel is displayed if you click the **Aggregate from LPs** radio button and then choose the “Weighted Average”, “Synthetic Full Book (Weighted Average)”, “Synthetic Full Book (Multi-Price Tiers)”, “Multi-Price Tiers”, “Multi-Tier FOK”, or “Multi-Price Market” price-making method or click the **Source From Excel (Multi-Price Tiers)** radio button. See [Step 1 of Price making and execution \(ESP rules\)](#) on page 132. For examples of how spreads are calculated and applied, see [Minimum/maximum spread and bias](#) on page 109.

1. Choose the unit in which spreads are denominated with the **Spread Unit** radio buttons, **Pips**, **BPS** (basis point of spot), or **Spread Percent**.
2. Select the **Minimum Spread** checkbox to enable a minimum spread for the aggregated rate, choose the spread bias (Bid or Offer) from the drop-down list, and enter the pips in the **Minimum Spread** field of each tier.
3. Select the **Maximum Spread** checkbox to enable a maximum spread for the aggregated rate, choose the spread bias (Bid or Offer) from the drop-down list, and enter the pips in the **Maximum Spread** field of each tier.
4. Choose whether to preserve client prices:

- If you select the **Preserve** checkbox, the spread is removed from the tier before it is matched with an order. The spread is added back to the rate verified by the liquidity provider when a trade is executed even if the order is matched at a price that is worse than the price accepted by the counterparty, such as in the case of market and stop orders.
- If you clear the **Preserve** checkbox, the tier spread is kept on the price for order matching. The price that the counterparty sees is then determined by the **Keep Price Improvement** setting on the stream (see [Price improvement](#) on page 123).
- If price improvement is enabled, the counterparty sees the actual rate as verified by the liquidity provider.
- If price improvement is disabled, the counterparty sees the rate that they accepted.

**NOTE:** This preserve spread setting is independent of the **Preserve Client Spread** setting on the stream. See [Preserve client spread](#) on page 123.

5. To apply pre-trade spreads, select the **Pre-Trade Fixed Spread** checkbox and enter the Bid and Offer pips in the Pre-Trade Fixed Spreads section of each tier.
6. To apply post-trade spreads, select the **Post-Trade Fixed Spread** checkbox and enter the Bid and Offer pips in the Post-Trade Fixed Spreads section of each tier.

**NOTE:** Post-trade spreads are fixed spreads that are applied to the fill price that is sent back to the customer. In most cases, post-trade spreads result in a price that is worse than the price the customer accepted.

7. Determine how the post-trade spread is calculated:
  - To use the order amount to determine the post-trade spread, select the **Use Order Amount** checkbox.
  - To use the filled amount to calculate the post-trade spread, clear the checkbox.
8. Configure your tiers and minimum spreads as appropriate. See [Manage price tiers for a direct currency pair configuration](#) on page 156.
9. Click **Save**. When you add a tier or edit existing tiers, the tiers are sorted when you save your changes.

### **ESP spreads**

The ESP Spreads panel is displayed if you choose the “Full Book”, “Best Price”, or “Best Price FOK” price making method. See [Step 1 of Price making and execution \(ESP rules\)](#) on page 132.

In the ESP Spread panel, you configure the spreads for ESP prices for the currency pair configuration. The ESP spread is applied in addition to the stream’s minimum spread. The minimum spread is applied first and then the ESP spread is applied during aggregation. You can also specify a maximum spread so that the total spread never exceeds a specified amount.

To apply these spreads, you must select the **Override Stream Channels** and **ESP** checkboxes in the Price Making and Execution panel. See [Step 1 of Price making and execution](#) on page 131.

You enter spreads as pips or as basis points of spot (BPS). The absolute value of the pips as applied to the price is defined by the currency pair’s [quote convention](#). For information about calculating BPS, see [Basis point of spot \(BPS\) spreads](#) on page 108.

Prices with a bid bias are rounded up and prices with an offer bias are rounded down.

For examples of how spreads are calculated and applied, see [Minimum/maximum spread and bias on page 109](#).

To configure ESP spreads:

1. Choose the type of spread to apply from the **Spread Unit** radio buttons:
  - **Pips**: A fixed number of pips.
  - **BPS**: A number used to calculate the spread from the reference mid spot rate.
  - **Spread Percent**: Effect spread calculated as a percentage of the incoming bid/offer spread. Min/max spreads are denominated in pips.
1. Select the **Minimum Spread** checkbox to enable a minimum spread for the aggregated rate, enter the pips in the field, and choose the spread bias (Bid or Offer) from the drop-down list.
2. Select the **Maximum Spread** checkbox to enable a maximum spread for the aggregated rate, enter the pips in the field, and choose the spread bias (Bid or Offer) from the drop-down list.
3. Choose whether to preserve the client spreads for ESP prices:
  - If you select the **Preserve** checkbox, the ESP spread is removed from the price before it is matched with an order. The spread is added back to the rate verified by the liquidity provider when a trade is executed even if the order is matched at a price that is worse than the price accepted by the counterparty, such as in the case of market and stop orders.
  - If you clear the **Preserve** checkbox, the ESP spread is kept on the price for order matching. The price that the counterparty sees is then determined by the **Keep Price Improvement** setting on the stream (see [Price improvement on page 123](#)).
  - If price improvement is enabled, the counterparty sees the actual rate as verified by the liquidity provider.
  - If price improvement is disabled, the counterparty sees the rate that they accepted.

**NOTE:** This preserve spread setting is independent of the **Preserve Client Spread** setting on the stream. See [Preserve client spread on page 123](#).

4. To apply pre-trade spreads, select the **Pre-Trade Fixed Spread** checkbox and enter the Bid and Offer pips in the Pre-Trade Fixed Spreads section.
5. To apply post-trade spreads, select the **Post-Trade Fixed Spread** checkbox and enter the Bid and Offer pips in the Post-Trade Fixed Spreads section.

**NOTE:** Post-trade spreads are applied to the fill price that is sent back to the customer. In most cases, post-trade spreads result in a price that is worse than the price the customer accepted.

6. Click **Save**.

### RFS spreads

In the RFS Spreads panel, you configure the spreads for RFS prices for the currency pair configuration.

The minimum spread is applied first and then the RFS spread is applied during aggregation.

If the RFS spread is less than the minimum spread, then the system applies only the minimum spread.

If the spread is more than the maximum spread, then the system applies the maximum spread.

To apply these spreads, you must click the **Channels/RFS** checkbox in the Price Making and Execution panel ([Step 1 of Price making and execution](#) on page 131).

You enter spreads as pips or as basis points of spot (BPS). The absolute value of the pips as applied to the price is defined by the currency pair's **quote convention**. For information about calculating BPS, see [Basis point of spot \(BPS\) spreads](#) on page 108.

One-way spreads are applied to one-way bid and offer prices.

Otherwise, bid spreads are applied to bid prices and offer spreads are applied to offer prices.

For swap spreads only, you can also choose a calculation basis.

If you choose pips for swap spreads, the system simply subtracts the pips spread from the far bid forward points and adds the pips spread to the far offer forward points.

For % of spread, the spread in question is the absolute value between the far forward points and the near forward points of the swap rate (the far forward points minus the near forward points).

The system then calculates a percentage of this spread using your % of spread value and adds it to the far forward points. For example, assume the following for a spot-forward swap rate:

- Near forward points = 0 (the near leg is spot)
- Far forward points = +3.50

The spread is then  $|3.50 - 0| = 3.50$  pips.

If you have set the % of spread to 20%, then the sales spread =  $0.2 \times 3.50 = 0.7$ .

The spread far forward points are then  $3.50 + 0.7 = 4.20$ .

The spread swap rate for the spot-forward swap is then spot/+4.30 pips.

For forward-forward swaps, the system calculates % of spread in the same way.

For example, assume the following for a forward-forward swap rate:

- Near forward points = +5.54
- Far forward points = +7.54

The spread is then  $7.54 - 5.54 = 2$  pips.

If you have set the % of spread to 20%, then the sales spread =  $0.2 \times 2.0 = 0.4$ .

The spread far forward points are then  $7.54 + 0.4 = 7.94$ .

The spread swap rate for the forward-forward swap is then 5.54/7.94 pips.

If the RFS spread is less than the minimum spread, then the system applies the minimum spread.

If the RFS spread is more than the maximum spread, then the system applies the maximum spread.

### **To configure RFS spreads:**

1. Choose whether to preserve the client prices:
  - If you select the **Preserve** checkbox, the spread is removed from the price before it is matched with an order. The spread is added back to the rate verified by the liquidity provider when a trade is executed even if the order is matched at a price that is worse than the price accepted by the counterparty, such as in the case of market and stop orders.

- If you clear the **Preserve** checkbox, the spread is kept on the price for order matching. The price that the counterparty sees is then determined by the **Keep Price Improvement** setting on the stream ([Price improvement](#) on page 123).
- If price improvement is enabled, the counterparty sees the actual rate as verified by the liquidity provider.
- If price improvement is disabled, the counterparty sees the rate that they accepted.

**NOTE:** This preserve spread setting is independent of the **Preserve Client Spread** setting on the stream ([Preserve client spread](#) on page 123).

#### Fixed RFS Spreads

1. Choose the type of spread to apply from the **Spread Unit** radio buttons:
  - **Pips:** A fixed number of pips.
  - **BPS:** A number used to calculate the spread from the reference mid spot rate at the time of RFS request.
2. To apply min/max spreads, select the **Minimum Spread** and **Maximum Spread** checkboxes and then enter the pips and bias.
3. To apply pre-trade spreads, select the **Pre-Trade Fixed Spread** checkbox for each RFS trade type and enter the Bid and Offer pips in the Pre-Trade section for the far leg of 2-way and 1-way requests of each type.
4. To apply post-trade spreads, select the **Post-Trade Fixed Spread** checkbox for each RFS trade type and enter the Bid and Offer pips in the Post-Trade section for the far leg of 2-way and 1-way requests of each type.

**NOTE:** Post-trade spreads are applied to the fill price that is sent back to the customer. In most cases, post-trade spreads result in a price that is worse than the price the customer accepted.

5. To enable fixed, tier-based spreads for RFS spot and outright, select the **Use Tier Based Spreads** checkbox. The SPOT/OTR row appears with tier definition tools.
  - 5a. Click **Add/Remove** to manage the number of tiers.
  - 5b. Enter the maximum **Limit** amount (tier size).
  - 5c. Enter the **Minimum Spread (Pips)** and **Maximum Spread (Pips)**.
  - 5d. Enter the Bid, Offer, and 1-Way pips for **Pre-Trade Fixed Spread** and **Post-Trade Fixed Spread**.
6. To apply fixed spreads to swaps:
  - 6a. Enter the maximum **Limit** amount (tier size).
  - 6b. Enter the Bid, Offer, 1-Way spreads and calculation basis for **Pre-Trade** and **Post-Trade**.

#### Tenor-based RFS Spreads

1. Choose the type of spread to apply from the **Spread Unit** radio buttons:
  - **Pips:** A fixed number of pips.
  - **BPS:** A number used to calculate the spread from the reference mid spot rate at the time of RFS request.
2. To enable tenor-based spreads, select the **Use Tenor Based Spreads** checkbox.
3. To apply outright tenors to swap prices, select the **Use Outright Spreads for Swaps** checkbox. Note that any independent swap spreads are grayed out and inactivated. To define independent swap spreads, clear the checkbox.
4. Choose a method for determining spreads when an exact tenor match is not found in the system.

- Click the **Interpolate** radio button for the system to interpolate the spread based on the tenors preceding and following the unmatched tenor. The unmatched tenor must be between defined spreads. Extrapolation of tenor-based spreads is not supported.
- Click the **Use Following Tenor** radio button for the system to use the spread defined for the tenor following the unmatched tenor.

**NOTE:** For a list of valid tenors, see [Tenors](#) on page 451.

5. To apply spread multipliers by notional tier size, select the **Use Tier Multipliers for Swaps** checkbox. The Tier Multiplier section appears. Note that any independent swap spreads are grayed out and inactivated. To define independent swap spreads, clear the checkbox.
6. To spread forward points for outright tenors:
  - 6a. Select the **Use Tenor Based Spreads** checkbox.
  - 6b. Click **Add** in the OTR section to add a tenor to the list.
  - 6c. Enter the tenor, bid, offer, 1-way for **Pre-Trade** and **Post-Trade** spread for each tenor.
7. To spread the far leg forward points for swap tenors:
  - 7a. Select the **Use Tenor Based Spreads** checkbox.
  - 7b. Clear the **Use Outright Spreads for Swaps** checkbox.
  - 7c. Choose how spreads are defined from the drop-down box in the SWAP section:
    - Pips: Continue to [Step 7e](#).
    - % of Swap Points: Continue to [Step 7e](#).
    - % of Swap Points Spread (a percentage of the difference between the bid/off and offer/bid spreads on incoming swap prices so that your spreads scale dynamically along with the market as it widens and narrows): Continue to [Step 7d](#).
  - 7d. If you chose "% of Swap Points Spread", enter a percentage in the field. Note that the tenors are grayed out. Continue to [Step 8](#).
  - 7e. Click **Add** in the SWAP section to add a tenor to the list.
  - 7f. Choose the calculation bases for **Pre-Trade** and **Post-Trade** spreads from the drop-down lists.
  - 7g. Enter the tenor, bid, offer, 1-way for **Pre-Trade** and **Post-Trade** spread for each tenor.
8. Click **Save**.

Remove a currency pair configuration from a stream

Removing a currency pair configuration from a stream deletes the configuration from the current stream only. The configuration is still available if it was saved to other streams.

To effectively remove a currency pair configuration from a stream but keep it in the stream's definition, you should consider inactivating the configuration. See [Inactivate or reactivate a currency pair configuration in a stream](#) on page 144.

1. Navigate to the Price Streams screen (**Counterparty** > **Price Making** > **Streams**).
2. In the **Streams** panel, click the name of the stream that you want to edit.
3. In the **Currency Pair Configurations** panel, select the checkboxes of the currency pair configurations that you want to remove.
4. Click **Remove**.
5. Click **Save**.

Inactivate or reactivate a currency pair configuration in a stream

To effectively remove a currency pair configuration from a stream while keeping the configuration in the stream, you should deactivate the configuration.

1. Navigate to the Price Streams screen (**Counterparty > Price Making > Streams**).
2. In the **Streams** panel, click the name of the stream that you want to edit.
3. In the **Currency Pair Configurations** panel, select or clear the checkboxes in the **Active** column to enable or disable the currency pair configuration for the stream.
4. Click **Save**.

Set the sort order of currency pair configurations in a stream

The sort order is used by the system to determine the priority of currency pair configurations. If two configurations contain the same currency pair, the configuration with the higher priority (lower sort order number) is used for that currency pair. The other configuration with lower priority (higher sort order number) is not used. The list in the Currency Pair Configurations panel is also sorted by sort priority by default.

1. Navigate to the Price Streams screen (**Counterparty > Price Making > Streams**).
2. In the **Streams** panel, click the name of the stream that you want to edit.
3. In the **Currency Pair Configurations** panel, enter a numerical ranking in the fields in the **Sort** column. The lower the sort number, the higher the priority.
4. Click **Save**.

Edit or create a synthetic cross currency pair configuration in a stream

A synthetic cross currency pair configuration defines a currency pair by crossing two side currency pairs with a common currency to split the cross. Liquidity for the synthetic currency pair is generated from the side pairs. For information about working with direct pairs, see [Edit or create a direct currency pair configuration in a stream](#) on page 130.

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**NOTE:** Before you can price and trade synthetic cross currency pairs, they must be added to your organization's quote conventions and list of supported currency pairs. Contact your Integral Relationship Manager with the synthetic cross currency pairs that you want to price and trade.

You can price synthetic pairs for both ESP spot and RFS spot, outright, and swap.

You manage synthetic currency pairs from the Stream Detail screen (**Counterparty > Price Making > Streams > stream name**).

- [Component currencies](#) on page 145
- [ESP pricing example](#) on page 145
- [RFS pricing](#) on page 145
- [Synthetic cross matching and execution explained](#) on page 146
- [Manage positions and risk](#) on page 147
- [Cover behavior of matched swaps in synthetic cross currency pairs](#) on page 148
- [Edit and create synthetic currency pair groups](#) on page 148

### Component currencies

A synthetic currency pair consists of the following components:

- Vehicle currency: The currency used to split the cross. Eligible currencies are USD, EUR, and GBP.
- Primary currency pair: A currency pair that is typically aggregated from providers and can be covered on the market. One currency pair must be the defined primary currency pair.
- Secondary currency pair: A currency pair an organization is willing to take risk on. Secondary currency pairs are typically sourced in-house from Excel or an indicative rate source. One currency pair must be the defined secondary currency pair.

The vehicle currency can be either the base or term currency of the primary and secondary pairs. For example, for the synthetic pair EUR/NOK, you can use EUR/USD and USD/NOK, USD/EUR and NOK/USD, or USD/EUR and USD/NOK.

### ESP pricing example

Suppose that your organization wants to provide an ESP spot price for CAD/MXN using the USD/CAD and USD/MXN currency pairs.

USD is the vehicle currency.

Primary/Secondary Currency Pair	Bid	Offer
USD/CAD	1.06697	1.06712
USD/MXN	12.9689	12.9801
<b>Synthetic Currency Pair</b>		
CAD/MXN (12.9801 / 1.06697)	12.1653	
CAD/MXN (12.9689 / 1.06712)	12.1532	

Synthetic cross currency pairs currently support only ESP multi-tier pricing.

Synthetic cross currency pairs support inverted prices. For example, the EUR/USD and USD/NOK currency pairs can result in prices for EUR/NOK and NOK/EUR.

### RFS pricing

RFS requests in synthetic pairs are priced using forward curve data (ESP+MDS) that you upload.

1. You upload a market data set (MDS) that includes forward curve data for the synthetic cross currency.
2. You select the MDS with the **RFS with Spot and MDS** panel in the Price Making Configuration screen of the synthetic pair.
3. The system receives an RFS subscription request for the synthetic cross currency.
4. The request is broken down into component currency pairs (primary and secondary) using the vehicle currency. For example, CAD/MXN can be priced using USD as the vehicle currency for USD/CAD and USD/MXN.

- Vehicle currency: The currency used to split the cross. Eligible currencies are USD, EUR, and GBP.
  - Primary currency pair: A currency pair that is typically aggregated from providers and can be covered on the market.
  - Secondary currency pair: A currency pair an organization is willing to take risk on. Secondary currency pairs are typically sourced in-house from Excel or an indicative rate source.
5. The ESP spot price is derived for the synthetic currency pair using the prices for the primary and secondary pairs. You define price-making spreads with ESP spreads on these currency pairs.
  6. The system uses forward points from the forward curve in the MDS to derive an RFS price for the synthetic pair.

Synthetic cross matching and execution explained

Matching and execution in synthetic cross currency pairs involve three requests: the initial customer request and then two component requests in the primary and secondary currency pairs.

**Table 2-14 Overview of matching and execution of synthetic cross requests**

Request	Ccy Pair	Matching	Execution
Customer request	Synthetic cross	<p>Customer request parameters are tested against the matching rules in the synthetic cross matching configuration. The order type can be either:</p> <ul style="list-style-type: none"> <li>● Market</li> <li>● Limit+range (new with this release)</li> </ul> <p><b>NOTE:</b> The limit range specified on synthetic cross price-making configuration is only used for matching the initial customer request with the synthetic cross matching rule. The limit range is not used for primary or secondary request matching and execution.</p>	Executed according to customer request
Primary request	Primary (the base/term ccy from customer request and the vehicle ccy)	Always matched according to parameters of customer request	Always FOK to fill or reject the customer quickly
Secondary request	Secondary (the remaining ccy and the vehicle ccy)	Always matched as limit with zero range because there is a chance of range loss on the primary request. If there is range loss on both the primary and secondary, it is loss for the broker.	Always IOC to fill as much as possible

#### Market matching rule for synthetic cross

- Primary request:
  - The customer request parameters (order type: market, order range) are passed directly for matching.
  - Order execution on the primary request is always FOK to fill or reject the customer quickly.
- Secondary request (same for both limit and market matching rules):
  - Order execution is LIMIT IOC to fill as much as possible.

- No range is passed because there is a chance of range loss on primary request. If there is range loss on both the primary and secondary requests, it is loss for the broker.
- The limit rate used for matching is the secondary rate that was used to generate the synthetic rate sent to customer.

#### *Limit matching rule for synthetic cross*

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**NOTE:** The limit range specified on synthetic cross price-making configuration is only used for matching the initial customer request with the synthetic cross matching rule. The limit range is not used for primary or secondary request matching and execution.

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- Primary request:
  - The customer request parameters (order type: limit, order range) are passed directly for matching.
  - The limit rate used for matching is the primary rate that was used to generate the synthetic rate sent to customer.
  - Order execution on the primary request is always FOK to fill or reject the customer quickly.
- Secondary request (same for both limit and market matching rules):
  - Order execution is LIMIT IOC to fill as much as possible.
  - No range is passed because there is a chance of range loss on primary request. If there is range loss on both the primary and secondary requests, it is loss for the broker.
  - The limit rate used for matching is the secondary rate that was used to generate the synthetic rate sent to customer.

#### Manage positions and risk

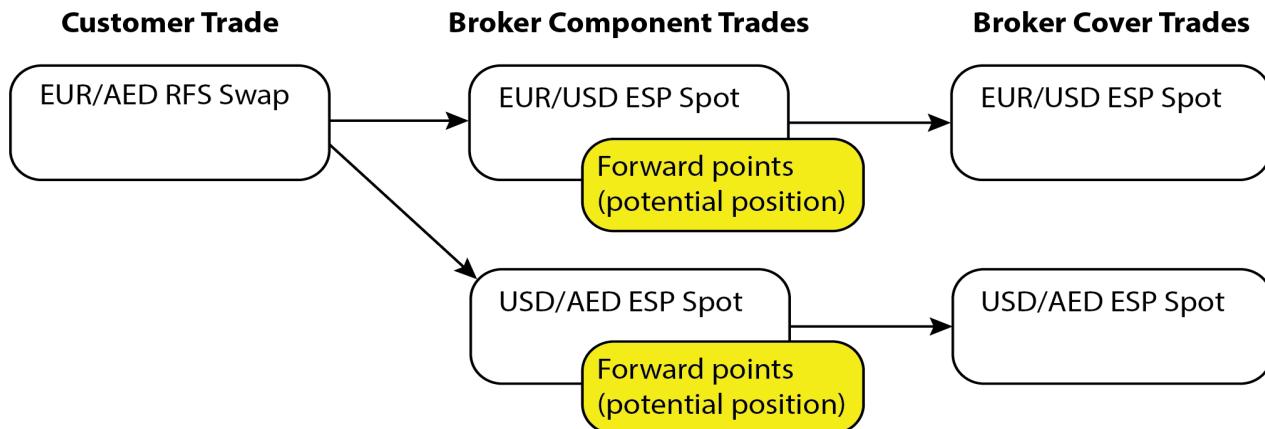
The customer takes on a position in the synthetic currency pair (for example, EUR/NOK).

The broker takes on positions in both the primary and secondary pairs (for example, EUR/USD and USD/NOK).

You have complete flexibility and control over how you take on risk with synthetic currency pair configurations. You can cover one pair and warehouse the other pair, cover both pairs, or warehouse both pairs.

Typically with synthetic cross currency pairs for ESP spot, the trades executed for the primary and secondary currency pairs net out resulting in a net-zero position for the broker. With RFS, there may be a small residual position resulting from the mismatch between the forward-curve component of the trades in the primary and secondary currency pairs and the spot cover trades.

Also, the final customer trade is viewed differently by the customer and the broker. The customer sees a trade in the synthetic currency pair. The broker sees trades in the split primary/vehicle and secondary/vehicle currency pairs to reconcile its positions with its cover trade.



**Figure 2-1 Potential positions from forward points**

Cover behavior of matched swaps in synthetic cross currency pairs

The execution rule for matched swaps in synthetic currency pairs is always set to "No Cover", meaning that no attempt to cover the trade is made. This approach is necessary because the near and far legs of the matched swap net each other out by design. There is no position to cover.

The cover/no-cover behavior still applies to other RFS trade types (spot and outright) in synthetic currency pairs.

Edit and create synthetic currency pair groups

#### **To edit or create synthetic currency pair groups:**

1. Navigate to the Price Streams screen (**Counterparty > Price Making > Streams**).
2. In the **Streams** panel, click the name of the stream that you want to edit.  
The Stream Detail screen appears.
3. In the **Currency Pair Configurations** panel, do one of the following:
  - To edit an existing synthetic currency pair configuration, click the name of a configuration that shows "Synthetic" in the **Type** column.
  - To create a new synthetic currency pair configuration, choose "Synthetic" from the drop-down list at the top of the panel and click the New button.

---

**NOTE:** When you add a new synthetic currency pair, users on the NET Client trading app must reconnect to see prices in the new currency pair.

---

The Price Making Configuration screen opens.

4. Edit the group with the tools in the following panels:

#### **Currency Pair Group**

The Currency Pair Group panel provides general settings, including the [quote convention](#), vehicle currency, primary and secondary currency pairs, and any excluded currency pairs.

---

**NOTE:** The currency pairs included in the configuration are displayed in the Current Currency Pair area at the bottom of the panel. Use the **Filter** field to narrow your view of the list. Leave the field blank to see all currency pairs in the configuration.

1. Select the **Active** checkbox to activate the configuration as soon as you save it. Clear the **Active** checkbox to save the configuration but leave it inactive.
2. For new configurations, enter a name in the **Name** field.
3. Select a [quote convention](#) for the configuration from the **Quote Convention** drop-down list.
4. Select a [vehicle currency](#) for the configuration from the **Vehicle Currency** drop-down list.
5. Choose the primary currency pairs of the configuration from the **Available** list in the **Primary Currency Pairs** area and click the **>>** button. Primary currency pairs are typically aggregated from providers and are covered on the market. You can also enter a filter expression in the **Filter** field to focus your view of the list. For information about filter expressions, click the question mark (?) link or see [Filter lists of data](#) on page 449.
6. Choose the secondary currency pairs of the configuration from the **Available** list in the **Secondary Currency Pairs** area and click the **>>** button. Typically, you are willing to take risk in a secondary currency pair. You can also enter a filter expression in the **Filter** field to focus your view of the list. For information about filter expressions, click the question mark (?) link or see [Filter lists of data](#) on page 449.
7. To exclude individual currency pairs from the configuration, use the tools in the **Excluded Custom Currency Pairs** area. The currency pairs that you move to the **Selected** list are excluded from the configuration.
8. Click **Save**.

### Pricing Source

The Pricing Source panel allows you to choose the price stream for the component currency pairs.

1. Choose a price source for primary currency pairs from the **Primary Stream** drop-down list. Note that the time in force for the primary request is always FOK.
2. Choose a price source for secondary currency pairs from the **Secondary Stream** drop-down list. Note that the time in force for the primary request is always IOC.

### ESP (Price Making and Execution)

The ESP panel allows you to set the price-making and customer fill details of the currency pair configuration for the ESP and RFS workflows.

---

**CAUTION:** By enabling customer fill rules, your organization may take positions and be exposed to risk. The Admin Portal sends an email to alert your organization of any position risk. Contact Integral Business Support to confirm your position alert email address.

1. Define the matching rules for the initial customer request:
  - 1a. Enter the sort order in the **Sort** column. This value determines how the rule is sorted in a list of rules and when the rule is applied. The lower the sort order, the higher the rule's precedence. The more specific a rule, the higher its sort order should be.

- 1b. Use the tools in the **Matching Rule** column to configure an execution method for ESP workflows. See [ESP execution method settings](#) on page 102 for more information about how these settings map to execution methods.

**CAUTION:** If you choose “No Cover” and select the **NPC** checkbox (No Price Check), then no cover trade is executed. You take on risk. No price validation is performed. The execution range is ignored.

**NOTE:** The limit range specified here is only used for matching the initial customer request with the synthetic cross matching rule. The limit range is not used for primary or secondary request matching and execution.

- 1c. Choose a counterparty group to which the rule applies from the drop-down list in the **Counterparty** column. The drop-down list contains the sales dealer groups defined for your organization in the Sales Dealer Group List screen ([Edit a sales dealer group](#) on page 77). The counterparty’s criteria take precedence over other execution rules criteria. For example, if all other criteria of two execution rules are the same (notional range, tenor, time, trade type), then the execution rule that includes the counterparty is applied. If a counterparty is in a group that is specified in multiple rules, the first execution rule that matches the other criteria is applied. If the drop-down list is empty, then all counterparties are considered.
- 1d. Enter a notional range to which the rule applies in the fields of the **Notional** column. The Low value is exclusive (the rule applies to notional amounts greater than the value). The High value is inclusive (the rule applies to notional amounts lesser than or equal to the value). Notional values are specified in the base currency of the currency pair.
- 1e. Enter a time period and time zone during which the rule is in effect with the **Start** and **Stop** fields in the **Time** column. Choose the time zone from the drop-down list in the **TZ** column.
- 1f. Click the **Add Rule** button.

### **ESP Tiers and Spreads**

You define spreads by notional tier in the ESP Tiers and Spreads panel.

1. Choose the unit in which spreads are denominated with the **Spread Unit** radio buttons, either **Pips** or **BPS** (basis point of spot) spreads.
2. Choose when spreads are applied to tiers from the **Spread Priority** drop-down list:
  - Apply Maximum spreads of Minimum and Fixed spreads
  - Apply Fixed spreads before Minimum and Maximum spreads
  - Apply Fixed spreads after Minimum and Maximum spreads
3. Select the **Minimum Spread** checkbox to enable a minimum spread for the aggregated rate, choose the spread bias (Bid or Offer) from the drop-down list, and enter the pips in the Minimum Spread field of each tier.
4. Select the **Maximum Spread** checkbox to enable a maximum spread for the aggregated rate, choose the spread bias (Bid or Offer) from the drop-down list, and enter the pips in the Maximum Spread field of each tier.
5. Choose whether to preserve the client prices:
  - If you select the **Preserve** checkbox, the spread is removed from the tier before it is matched with an order. The spread is added back to the rate verified by the liquidity provider when a

trade is executed even if the order is matched at a price that is worse than the price accepted by the counterparty, such as in the case of market and stop orders.

- If you clear the **Preserve** checkbox, the tier spread is kept on the price for order matching. The price that the counterparty sees is then determined by the **Keep Price Improvement** setting on the stream (see [Price improvement](#) on page 123).
- If price improvement is enabled, the counterparty sees the actual rate as verified by the liquidity provider.
- If price improvement is disabled, the counterparty sees the rate that they accepted.

---

**NOTE:** This preserve spread setting is independent of the **Preserve Client Spread** setting on the stream. See [Preserve client spread](#) on page 123.

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6. To apply pre-trade spreads, select the **Pre-Trade Fixed Spread** checkbox and enter the Bid and Offer pips in the Pre-Trade Fixed Spreads section of each tier.
7. To apply post-trade spreads, select the **Post-Trade Fixed Spread** checkbox and enter the Bid and Offer pips in the Post-Trade Fixed Spreads section of each tier.

---

**NOTE:** Post-trade spreads are fixed spreads that are applied to the fill price that is sent back to the customer. In most cases, post-trade spreads result in a price that is worse than the price the customer accepted.

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8. Determine how the post-trade spread is calculated:
  - To use the order amount to determine the post-trade spread, select the **Use Order Amount** checkbox.
  - To use the filled amount to calculate the post-trade spread, clear the checkbox.
9. Configure your tiers and minimum spreads as appropriate. See [Manage price tiers for a synthetic currency pair group](#) on page 158.
10. Click **Save**.

### RFS with Spot and MDS

You choose the market data set (MDS) for pricing synthetic cross currency pairs and define the pricing and execution rules for the synthetic RFS stream:

1. Select the appropriate market data set from the **Market Data Set** drop-down list in the **RFS with Spot and MDS** panel.
2. Enter the sort order in the **Sort** column. This value determines how the rule is sorted in a list of rules and when the rule is applied. The lower the sort order, the higher the rule's precedence. The more specific a rule, the higher its sort order should be.
3. Choose a trade type to which the rule applies from the drop-down list in the **Trade Type** column. The values, if any, that you specify in the Tenor column take precedence over this setting. For the details of FSR pricing, see [Fixed spot roll \(FSR\) pricing](#) on page 97. For the details of SSP pricing, see [Single spot portfolio \(SSP\) pricing](#) on page 99.
4. Choose a counterparty group to which the rule applies from the drop-down lists in the **Counterparty** column. The drop-down lists contain the sales dealer groups defined for your organization in the Sales Dealer Group List screen ([Edit a sales dealer group](#) on page 77). The counterparty's criteria take precedence over other execution rules criteria. For example, if all other criteria of two execution rules are the same (notional range, tenor, time, trade type), then the execution rule that includes the counterparty is applied. If a counterparty is in a group that is

specified in multiple rules, the first execution rule that matches the other criteria is applied. If the drop-down list is empty, then all counterparties are considered.

5. Enter a notional range to which the rule applies in the fields of the **Notional** column. The **Low** value is exclusive (the rule applies to notional amounts greater than the value). The **High** value is inclusive (the rule applies to notional amounts lesser than or equal to the value). Notional values are specified in the base currency of the currency pair.
6. Enter a net spot amount range to which the rule applies with the fields in the **Net Spot Amount** column. This is the net spot amount calculated for uneven swaps and SSPs. The **Low** value is exclusive (the rule applies to notional amounts greater than the value). The **High** value is inclusive (the rule applies to amounts lesser than or equal to the value). You specify the net spot amount as an absolute value without regard for whether the amount is a buy or sell amount. For example, you can set the condition that all net spot amounts less than or equal to 3M are covered with RFS pricing and net spot amounts greater than 3M are covered with spot pricing.
7. Enter a time period and time zone during which the rule is in effect with the **Start** and **Stop** fields in the **Time** column. Choose the time zone from the drop-down list in the column.
8. In the **Tenor** column of the RFS rule table in the **Price Making and Execution** panel, choose the leg-matching behavior:
  - Click the **Any Leg** radio button to apply the rule if any leg matches the tenor/value date criteria.
  - Click the **All Legs** radio button to apply the rule only if all legs match the tenor/value date criteria.
9. In the same column, choose the tenor/value date matching criteria:
  - Click the **Default** radio button to apply a tenor or value-date range. Enter a tenor or date range in fields in the **Range** column. The **Min** value is exclusive (the rule applies to dates and tenors after than the value). The **Max** value is inclusive (the rule applies to dates and tenors before or equal to the value).
  - Click the **Standard Tenor** radio button to test for a tenor from the **Standard Tenors** list above the table. The **Min/Max** fields are disabled.
  - Click the **Non Standard Tenor** radio button to test for a tenor that is not in the **Standard Tenors** list. The **Min/Max** fields are disabled.
10. Use the tools in the **Execution Rule** column to configure an execution method for RFS workflows. See [RFS execution method settings](#) on page 104 for more information about how these settings map to execution methods. Select the **DI** checkbox (Dealer Intervention) to require manual confirmation.

**CAUTION:** If you choose the **Market** radio button, you specify market execution with no defined range, executing with any and all prices in the market until filled.

## RFS Spreads

1. Choose whether to preserve the client prices:
  - If you select the **Preserve** checkbox, the spread is removed from the price before it is matched with an order. The spread is added back to the rate verified by the liquidity provider when a trade is executed even if the order is matched at a price that is worse than the price accepted by the counterparty, such as in the case of market and stop orders.

- If you clear the **Preserve** checkbox, the spread is kept on the price for order matching. The price that the counterparty sees is then determined by the **Keep Price Improvement** setting on the stream ([Price improvement](#) on page 123).
- If price improvement is enabled, the counterparty sees the actual rate as verified by the liquidity provider.
- If price improvement is disabled, the counterparty sees the rate that they accepted.

**NOTE:** This preserve spread setting is independent of the **Preserve Client Spread** setting on the stream ([Preserve client spread](#) on page 123).

#### Fixed RFS Spreads

1. Choose the type of spread to apply from the **Spread Unit** radio buttons:
  - **Pips:** A fixed number of pips.
  - **BPS:** A number used to calculate the spread from the reference mid spot rate at the time of RFS request.
2. To apply min/max spreads, select the **Minimum Spread** and **Maximum Spread** checkboxes and then enter the pips and bias.
3. To apply pre-trade spreads, select the **Pre-Trade Fixed Spread** checkbox for each RFS trade type and enter the Bid and Offer pips in the Pre-Trade section for the far leg of 2-way and 1-way requests of each type.
4. To apply post-trade spreads, select the **Post-Trade Fixed Spread** checkbox for each RFS trade type and enter the Bid and Offer pips in the Post-Trade section for the far leg of 2-way and 1-way requests of each type.

**NOTE:** Post-trade spreads are applied to the fill price that is sent back to the customer. In most cases, post-trade spreads result in a price that is worse than the price the customer accepted.

5. To enable fixed, tier-based spreads for RFS spot and outright, select the **Use Tier Based Spreads** checkbox. The SPOT/OTR row appears with tier definition tools.
  - 5a. Click **Add/Remove** to manage the number of tiers.
  - 5b. Enter the maximum **Limit** amount (tier size).
  - 5c. Enter the **Minimum Spread (Pips)** and **Maximum Spread (Pips)**.
  - 5d. Enter the Bid, Offer, and 1-Way pips for **Pre-Trade Fixed Spread** and **Post-Trade Fixed Spread**.
6. To apply fixed spreads to swaps:
  - 6a. Enter the maximum **Limit** amount (tier size).
  - 6b. Enter the Bid, Offer, 1-Way spreads and calculation basis for **Pre-Trade** and **Post-Trade**.

#### Tenor-based RFS Spreads

1. Choose the type of spread to apply from the **Spread Unit** radio buttons:
  - **Pips:** A fixed number of pips.
  - **BPS:** A number used to calculate the spread from the reference mid spot rate at the time of RFS request.
2. To enable tenor-based spreads, select the **Use Tenor Based Spreads** checkbox.
3. To apply outright tenors to swap prices, select the **Use Outright Spreads for Swaps** checkbox. Note that any independent swap spreads are grayed out and inactivated. To define independent swap spreads, clear the checkbox.
4. Choose a method for determining spreads when an exact tenor match is not found in the system.

- Click the **Interpolate** radio button for the system to interpolate the spread based on the tenors preceding and following the unmatched tenor. The unmatched tenor must be between defined spreads. Extrapolation of tenor-based spreads is not supported.
- Click the **Use Following Tenor** radio button for the system to use the spread defined for the tenor following the unmatched tenor.

**NOTE:** For a list of valid tenors, see [Tenors](#) on page 451.

5. To apply spread multipliers by notional tier size, select the **Use Tier Multipliers for Swaps** checkbox. The Tier Multiplier section appears. Note that any independent swap spreads are grayed out and inactivated. To define independent swap spreads, clear the checkbox.
6. To spread forward points for outright tenors:
  - 6a. Select the **Use Tenor Based Spreads** checkbox.
  - 6b. Click **Add** in the OTR section to add a tenor to the list.
  - 6c. Enter the tenor, bid, offer, 1-way for **Pre-Trade** and **Post-Trade** spread for each tenor.
7. To spread the far leg forward points for swap tenors:
  - 7a. Select the **Use Tenor Based Spreads** checkbox.
  - 7b. Clear the **Use Outright Spreads for Swaps** checkbox.
  - 7c. Choose how spreads are defined from the drop-down box in the in the **SWAP** section:
    - Pips: Continue to [Step 7e](#).
    - % of Swap Points: Continue to [Step 7e](#).
    - % of Swap Points Spread (a percentage of the difference between the bid/off and offer/bid spreads on incoming swap prices so that your spreads scale dynamically along with the market as it widens and narrows): Continue to [Step 7d](#).
  - 7d. If you chose "% of Swap Points Spread", enter a percentage in the field. Note that the tenors are grayed out. Continue to [Step 8](#).
  - 7e. Click **Add** in the SWAP section to add a tenor to the list.
  - 7f. Choose the calculation bases for **Pre-Trade** and **Post-Trade** spreads from the drop-down lists.
  - 7g. Enter the tenor, bid, offer, 1-way for **Pre-Trade** and **Post-Trade** spread for each tenor.
8. Click **Save**.

#### Edit or create a market making configuration in a stream

A synthetic cross currency pair configuration defines a currency pair by crossing two side currency pairs with a common currency to split the cross. Liquidity for the synthetic currency pair is generated from the side pairs. For information about working with direct pairs, see [Edit or create a direct currency pair configuration in a stream](#) on page 130.

You can price synthetic pairs for both ESP spot and RFS spot, outright, and swap.

You manage market making configurations from the Stream Detail screen (**Counterparty > Price Making > Streams > stream name**).

#### **To create a new market making configuration:**

1. Navigate to the Price Streams screen (**Counterparty > Price Making > Streams**).
2. In the **Streams** panel, click the name of the stream that you want to edit.

The Stream Detail screen appears.

3. In the **Currency Pair Configurations** panel, choose "Market Maker" from the drop-down list at the top of the panel and click the  New button.
4. Select the **Active** checkbox to activate the configuration and price requests as soon as you save it. Clear the **Active** checkbox to save the configuration but leave it inactive.
5. Enter a name for the new configuration in the **Name** field.
6. Choose the currency pair from the **Currency Pair** drop-down list.
7. Choose a quote convention from the **Quote Convention** drop-down list.
8. If you need the market making configuration to override any direct currency pair configurations in the stream, select the **Override** checkbox.
  - 8a. Select the **ESP** or **RFS** checkboxes to indicate the pricing channels to override.
  - 8b. If you selected RFS, review the maximum tenor and request expiry values. Edit them as necessary. the stream defaults are shown for your reference.
9. Click **Save**.

The edit screen opens with your new configuration. Edit the configuration to choose a timezone, define spreads and execution rules, and choose providers.

#### **To edit a market making configuration:**

1. Navigate to the Price Streams screen (**Counterparty > Price Making > Streams**).
2. In the **Streams** panel, click the name of the stream that you want to edit.  
The Stream Detail screen appears.
3. In the **Currency Pair Configurations** panel, click the name of a configuration that shows "MarketMaker" in the **Type** column.
4. Select the **Active** checkbox to activate the configuration as soon as you save it. Clear the **Active** checkbox to save the configuration but leave it inactive.
5. Choose a time zone for the stream from the **Time Zone** drop-down list.
6. Click the  Expand button to expand the panel and access additional settings.
7. If you need the market making configuration to override any direct currency pair configurations in the stream, select the **Override** checkbox.
  - 7a. Select the **ESP** or **RFS** checkboxes to indicate the pricing channels to override.
  - 7b. If you selected RFS, review the maximum tenor and request expiry values. Edit them as necessary. the stream defaults are shown for your reference.
8. Choose how spreads are applied from the **Spread Priority** drop-down list.
9. Click **Save**.
10. Edit the group with the tools in the following panels:

#### ***ESP:pricing***

Use the tools in the **ESP** tab and **Pricing** panel to define the price tiers and bid/offer spreads that apply.

The stream takes the core price tier structure and generates the stream-level tier structure.

The tier amounts are inclusive.

- **Minimum Spread** checkbox, column, and **Bias** drop-down list: enable a minimum spread and choose either bid or offer bias.
- **Maximum Spread** checkbox, column, and **Bias** drop-down list: enable a maximum spread and choose either bid or offer bias.
- **Enable Hourglass Pricing** checkbox: enable spreads independent of tier size, usually to account for the relative higher costs of processing smaller tickets. The term hourglass refers to the typical configuration of non-normalized spreads: wide for the top tiers, narrowing towards the middle tiers, and widening again towards the bottom tiers. Non-normalized spreads can be random. The hourglass configuration is not required.

### ***ESP: execution***

Use the tools in the **ESP** tab and **Execution** panel to define execution rules and risk position hedging rules.

The **Execution Rules** section allows you to manage execution on the stream by notional amount, time, and counterparty. The value in the **Sort** column determines how the rule is sorted in a list of rules and when the rule is applied. The lower the sort order, the higher the rule's precedence. The more specific a rule, the higher its sort order should be.

Select the **DI** checkbox (Dealer Intervention) in the **Execution** column to require manual confirmation.

The **Risk Position Hedging Rules** section defines how you hedge A-booking risk positions.

### ***RFS: pricing***

Use the tools in the **RFS** tab and **Pricing** panel to choose the source of the pricing forward curve.

### ***RFS: fixed spreads***

Use the tools in the **RFS** tab and **Fixed Spreads** panel to configure swap spreads, including points and spread priority.

For new Market Maker configurations, the **Pre-Trade Fixed Spread** checkbox is cleared by default. To enable spreads, you must select the checkbox.

## Manage price tiers for a direct currency pair configuration

For certain price aggregation methods, you can define how your liquidity provider's prices are aggregated into tiers and streamed to your counterparties.

See [Price making aggregation methods](#) on page 112 for the price aggregation methods that allow you to manage tiers.

- [Edit or create price tiers in a currency pair configuration](#) on page 156
- [Remove price tiers from a currency pair configuration](#) on page 157

### Edit or create price tiers in a currency pair configuration

The Admin Portal allows prime broker users to define price tiers into which liquidity provider prices are aggregated and then published to your counterparties.

**NOTE:** Only certain price aggregation methods allow you to define tiers. See [Price making aggregation methods](#) on page 112 for details.

1. Navigate to the Price Streams screen (**Counterparty > Price Making > Streams**).
2. In the Streams panel, click the name of the stream that you want to edit.
3. In the **Currency Pair Configurations** panel, click the name of the configuration that you want to edit that shows "Direct" in the **Type** column.
4. In the **ESP Tiers and Spreads** panel, do one of the following:
  - To edit an existing price tier, go to the next step in this procedure.
  - To add a new price tier, click **Add** and continue with the next step in this procedure.

If you do not see the ESP Tiers and Spreads panel, remember that only certain price aggregation methods allow you to define tiers. See [Price making aggregation methods](#) on page 112 for details.

5. Enter amounts in the **Bid Limit** and **Offer Limit** fields. You can also choose to denominate these amounts in the base currency or another currency with the **Base Currency** and **Other** radio buttons.
6. Choose whether you want to define normalized spreads or hourglass spreads:
  - For hourglass spreads, select the **Enable Hourglass Pricing** checkbox (the spread amount can be independent of tier size).
  - For normalized spreads, clear the checkbox (the spreads of larger tiers must be greater than or equal to smaller tiers).

For more information about hourglass and normalized spreads, see [Hourglass spreads](#) on page 110.

7. Enter the minimum, maximum, pre-trade, and post-trades spreads for the tier. See [Minimum/maximum spread and bias](#) on page 109 for more details.

**NOTE:** Post-trade spreads are fixed spreads that are applied to the fill price that is sent back to the customer. In most cases, post-trade spreads result in a price that is worse than the price the customer accepted.

**NOTE:** Post-trade spreads are fixed spreads that are applied to the fill price that is sent back to the customer. In most cases, post-trade spreads result in a price that is worse than the price the customer accepted.

8. Click **Save**.

Remove price tiers from a currency pair configuration

The Admin Portal allows prime broker users to edit the price tiers into which liquidity provider prices are aggregated and then published to your counterparties.

**NOTE:** Only certain price aggregation methods allow you to define tiers. See [Price making aggregation methods](#) on page 112 for details.

1. Navigate to the Price Streams screen (**Counterparty > Price Making > Streams**).
2. In the Streams panel, click the name of the stream that you want to edit.

3. In the **Currency Pair Configurations** panel, click the name of the configuration that you want to edit that shows "Direct" in the **Type** column.
4. In the **ESP Tiers and Spreads** panel, do one of the following, select the checkboxes of the tiers that you want to remove.
  5. Click **Remove**.
  6. Click **Save**.

### Manage price tiers for a synthetic currency pair group

Synthetic cross currency pairs support only multi-tier prices. You must define tiers for your synthetic currency pair configuration.

- [Edit or create price tiers in a synthetic currency pair group](#) on page 158
- [Remove price tiers from a synthetic currency pair group](#) on page 158

#### Edit or create price tiers in a synthetic currency pair group

The Admin Portal allows prime broker users to define price tiers into which prices for your synthetic cross currency pair are aggregated and then published to your counterparties.

1. Navigate to the Price Streams screen (**Counterparty > Price Making > Streams**).
2. In the **Streams** panel, click the name of the stream that you want to edit.
3. In the **Currency Pair Configurations** panel, click the name of the configuration that you want to edit that shows "Synthetic" in the **Type** column.
4. In the **ESP Tiers and Spreads** panel, do one of the following:
  - To edit an existing price tier, go to the next step in this procedure.
  - To add a new price tier, click **Add** and continue with the next step in this procedure.
5. Enter amounts in the **Bid Limit** and **Offer Limit** fields. For the Weighted Average and Multi-Price Tiers price-making methods, you can also choose to denominate these amounts in the base currency or another currency with the **Base Currency** and **Other** radio buttons.
6. Enter the minimum, maximum, pre-trade, and post-trades spreads for the tier. See [Minimum/maximum spread and bias](#) on page 109 for more details.

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**NOTE:** Post-trade spreads are fixed spreads that are applied to the fill price that is sent back to the customer. In most cases, post-trade spreads result in a price that is worse than the price the customer accepted.

7. Click **Save**.

#### Remove price tiers from a synthetic currency pair group

The Admin Portal allows prime broker users to edit the price tiers into which liquidity provider prices are aggregated and then published to your counterparties.

1. Navigate to the Price Streams screen (**Counterparty > Price Making > Streams**).
2. In the **Streams** panel, click the name of the stream that you want to edit.
3. In the **Currency Pair Configurations** panel, click the ID of the currency pair group that you want to edit.
4. In the **ESP Tiers and Spreads** panel, select the checkboxes of the tiers that you want to remove.

5. Click **Remove**.
6. Click **Save**.

#### 2.4.4 Work with rates and rate filters

Rate filters give you control over the liquidity that is streamed to you by your providers, ensuring the quality of the rates that are used for aggregation and price making.

You define the parameters of the filters (such as pips deviation and maximum spread) and any rates that do not meet the filter requirements are dropped.

- [Add or edit a rate filter on page 159](#)
- [Upload and download rate filters on page 165](#)
- [Choose the active rate filter on page 166](#)
- [Manually reset rates on page 166](#)
- [Review the status of rate streams on page 167](#)
- [Export rate status as a file on page 167](#)
- [Remove a rate filter on page 168](#)

##### Add or edit a rate filter

You can edit existing filters and add new filters.

###### *To add or edit a rate filter:*

1. Navigate to the Rate Filters Setup screen (**Counterparty > Price Making > Rate Filters**).
2. Do one of the following:
  - To add a new rate filter, click the **New Rate Filter** link.
  - To edit an existing rate filter, click the name of the filter that you want to edit.The Price Making Rate Filters screen appears.
3. If you are adding a new rate filter, enter the ID of the filter in the **Name** field.
4. Enter the following information. All of the values that you enter must be positive numbers. Click **Save** when you have finished.

##### *Description*

Enter some descriptive text in the **Description** field.

##### *Rate Recovery Mode*

Choose how the rate stream recovers when the filter scrubs a rate. Changing the rate recovery mode resets all rate streams, turning on all streams that have been turned off.

- Click the **Automatic** radio button to reset the filter automatically with the next incoming rate when rates are scrubbed for staleness, off-market, and maximum spread. Automatic reset does not apply to rates that are scrubbed because of maximum pips deviation.
- Click the **Manual** radio button to leave the stream turned off when a rate is scrubbed for any reason by the rate filter. All subsequent rates from the provider in the same currency pair are

dropped until the filter is reset. For information about resetting rate filters manually, see [Manually reset rates](#) on page 166.

#### Single quote filters

Single quote filters consider the attributes of a single quote out of context with the rest of the market.

#### **Inverted rates check**

If the checkbox is cleared, then no check is performed and all incoming inverted quotes are considered for aggregation.

If the checkbox is selected, then incoming inverted quotes are checked to make sure they fall within the tolerance range specified in the **Pips** field. If the rate tolerance is set to 0 (zero), then all inverted rates are dropped. If the following expression is true, then the inverted rate is used for aggregation.

$$\text{offerRate} - \text{bidRate} + (\text{rateToleranceRange} / \text{pipsFactor}) \geq 0$$

#### **Maximum pips deviation**

The maximum pips deviation defines the maximum deviation allowed between a running average of quotes and the latest quote published by a provider for a single currency pair.

If enabled, the system drops a quote if the newly received quote differs by a certain deviation from the running average of quotes received from the same provider for the same currency pair.

You can specify the maximum deviation as both a percentage and an absolute number of pips.

You then set the number of rates to establish a running average before rate filters are applied so that you can better distinguish between significant market movement and a bad rate.

In the case of illiquid currency pairs with a significant amount of time between rate updates, you can also set a time period after which rates are passed through the filter.

With the filter in effect, rates are dropped until the number of sample rates is received or the time period has elapsed. If you set a time period, then rates are passed through the filter at the end of the time period even if the minimum number of rates has not yet been received to establish the rate filter sample size. If you do not set a time period, then rates flow is stopped indefinitely until the minimum number of rates has been received. When you stop and restart price streaming, the sample set of rate is reset. Price streaming is delayed until the number of sample rates is received or the time period has elapsed.

#### **Example 2-1 Percentage**

The following example demonstrates the use of maximum deviation set as a percentage:

- Maximum deviation= 1%
- Number of rates for running average = 5
- Currency pair: EUR/USD

1. The running average of the last five rates received from the provider for EUR/USD is 1.5824.

2. The rate is converted into the number of pips using the pips factor. For EUR/USD, the pips factor is 0.0001. Thus, number of pips for previous rate is  $1.5824 * (1/0.0001) = 15824$  pips.
3. The maximum allowed deviation is  $15824 * 1\% = 158.24$  pips
4. The deviation is truncated to 158 pips. This is the maximum allowed deviation for the next incoming rate.
5. If the new rate is  $> (1.5824 + 0.0158)$  or if the new rate is  $< (1.5824 - 0.0158)$ , the new rate is dropped.

#### **Example 2-2 Pips**

The following example demonstrates the use of maximum deviation set as pips:

- Maximum deviation= 10 pips
  - Number of rates for running average = 5
  - Currency pair: EUR/USD
1. The running average of the last five rates received from the provider for EUR/USD is 1.5824.
  2. Convert the pips into points using the rate basis. In this case, it would be  $10/10000 = 0.0010$ .
  3. If the new rate is  $> (1.5824 + 0.0010)$  or if the new rate is  $< (1.5824 - 0.0010)$ , the new rate is dropped.

#### **Maximum spread**

The maximum spread defines the greatest allowable spread on a rate published by a provider.

If enabled, the system drops a quote if the spread of the newly received quote exceeds the maximum spread.

You can define a global default maximum spread amount and override amounts for individual currency pairs.

To define a global maximum spread:

1. Select the **Maximum Spread** checkbox.
2. Enter the spread in the adjacent **Pips** field.
3. Click **Save**.

To define override maximum spreads by currency pair:

1. Select the **Maximum Spread** checkbox.

---

**NOTE:** You must select the **Maximum Spread** checkbox to enable override spreads.

2. Click **Add**.
3. Choose a currency pair from drop-down list in the **Currency Pair** column.
4. Enter the spread in the field in the **Maximum Spread (Pips)** column.
5. Click **Save**.

#### **One-sided rates check**

If the checkbox is selected, then one-sided quotes are dropped. The following are considered one-sided quotes:

- One or more bid quotes with no valid or supported (active) offer quote
- One or more offer quotes and no valid or supported (active) bid quote

A quote with a zero price or zero amount is considered an unsupported quote.

**To configure the global single-quote filter for all currencies:**

1. Do one of the following for inverted rates:
  - Clear the **Inverted Rate Check** checkbox to allow all inverted rates to be considered for aggregation.
  - Select the checkbox and enter a tolerance range of pips in the **Pips** field. Only inverted rates within the tolerance range are used for aggregation. If the range is set to 0 (zero), then all inverted rates are dropped.
2. Use the **Maximum Pips Deviation** checkboxes to enable or disable the maximum deviation checks. If you enable the maximum deviation checks, enter a percentage in the **%** field and a number of pips in the **Pips** field as appropriate.
3. Use the **# Rates** field and **ms** field to set the parameters for calculating the running average that is used for comparison and filtering. Rates are not streamed until the either the number of rates has been received or the amount of time has elapsed since the last rate update. If you leave the **ms** field empty, then rates flow is stopped indefinitely until the minimum number of rates has been received.
4. Do one of the following for spread:
  - Clear the **Maximum Spread** checkbox disable the check for maximum spread. All rates of any spread are used for aggregation.
  - Select the checkbox to enable spread checks and enter the number of pips of spread allowed in the **Pips** field. Only rates with a spread within the allowed spread are used for aggregation.
5. Do one of the following for one-sided rates:
  - Clear the **One Sided Rates Check** checkbox to allow one-sided rates to be used for aggregation.
  - Select the checkbox to drop one-sided rates.
6. Click **Save**.

**To configure single-quote filters for individual currency pairs or currency pair groups and override the global filter:**

1. Click the **Add** button.
2. Select the currency pair or currency pair group from the drop-down list in the **Currency Pair** column.
3. Enter a percentage in the (%) column of the Maximum Pips Deviation section. Leave this field blank to use the global value.
4. Enter a number of (Pips) in the column of the Maximum Pips Deviation section. Leave this field blank to use the global value.
5. Enter a number of pips in the field in the Maximum Spread (Pips) column. Leave this field blank to use the global value.
6. Select or clear the checkbox in the One Sided column. Clear the checkbox to allow one-sided rates to be used for aggregation. Select the checkbox to drop one-sided rates.
7. Enter a number of pips in the field in the Inverted Rates Tolerance (Pips) column. Leave this field blank to use the global value.

## 8. Click **Save**.

To remove filters for currency pairs or currency pair groups and apply the global filter, click the **Remove** button of the currency pair or currency pair group you want to remove.

### Multi-quote filters

Multi-quote filters compare a quote to other quotes in the market to determine its viability.

Multi-quote filters are applied in the following sequence:

1. Staleness Check
2. Off Market Check
3. Inverted Rate Check

#### ***Staleness check***

The staleness check determines how old a rate can be in relation to other rates before it is dropped.

If enabled, the system drops a quote if it is stale. A quote is stale if it is older than the average age of other quotes plus the time interval that you specify in the **Interval** field. A quote's age is the time since it was received. A reasonable interval is 5 seconds.

Using the average age of other quotes ensures that in slow markets a quote is not considered stale if all other quotes are old as well.

For example, a quote was received 8 seconds ago. The average age of all other quotes (not including the quote being tested) is 4 seconds.

If you specify an interval of 3 seconds, the quote being tested would be dropped ( $8 \text{ [quote age]} > 4 \text{ [average]} + 3 \text{ [interval]}$ ).

If you specify an interval of 5 seconds, the quote being tested is not dropped ( $8 \text{ [quote age]} < 4 \text{ [average]} + 5 \text{ [interval]}$ ).

#### ***Off market check***

The off market check determines how far a price can deviate from the market before it is dropped.

If enabled, the system drops a quote (both the bid and offer) from order matching and rate aggregation if the bid or offer price of the quote deviates from the median bid or offer price by the maximum inverse spread or greater.

The system calculates the median bid and offer prices from the freshest bid and offer prices, not including the price being tested, from a minimum and maximum number of providers as set by you. If there are not enough prices to meet the minimum requirement, then the Off Market Check is not run.

For example, if you have a Maximum Allowed Inverse Spread set as 5.0 Pips and the Required Number of Providers and Maximum Number of Required Providers both have a setting of '3', we would run the below check on the new rate from BNKD.

BNKD 1.15190/1.15200

It would check against most recent quotes:

BNKA	1.15261	1.15267	BNKC
BNKC	1.15260	1.15268	BNKA
BNKB	1.15259	1.15269	BNKB

Median Bid/Offer is 1.15260/1.15268

BNKD's Offer of 1.15200 inverts the reference Bid book by 6 pips (BNKC 1.15260 – BNKD 1.15200), so it breaches of the Maximum Allowed Inverse Spread of 5.0 pip.

BNKD's quote, both Bid and Offer are dropped.

### Inverted rate check

When this checkbox is selected, the incoming quote is checked with the last best bid and last best offer from the last set of quotes from all providers (except the provider being tested). If the resulting top of book (TOB) prices of aggregated quote are inverted and the inversion is greater than the inverted rate tolerance, then the quote is dropped.

If the following expression is true, then the rate is used for aggregation:

`offerTOB - bidTOB + (rateToleranceRange / pipsFactor) >= 0`

The example below illustrates this logic.

If the last set of quotes from the providers are as follows with an inverted rate tolerance of 0.1 and pips factor of 1:

BNKA	1.10	1.20	BNKC
BNKB	1.09	1.21	BNKA
BNKC	1.08	1.22	BNKB

The next quote received from BNKA is 1.22/1.23, then the resulting aggregated quote would be:

BNKA	1.22	1.20	BNKC
BNKB	1.09	1.22	BNKA
BNKC	1.08	1.22	BNKB

This results in an inverted aggregated rate. The inverted rate check tolerance test evaluates to -0.1:

`offerTOB(1.20) - bidTOB(1.22) + (rateToleranceRange(0.1) / pipsFactor(1)) = -0.1`

The check value is not greater than or equal to zero, so the new quote is dropped.

### To configure the global multi-quote filter for all currencies:

1. Use the **Staleness Check** checkbox to enable or disable the staleness check. If you enable the staleness check, enter a number of seconds in the **Check Interval** field.

2. Use the **Off-Market Check** checkbox to enable or disable off-market checks. If you enable the off-market check, enter the minimum and maximum number of required providers, and the maximum allowed inverse spread in the related fields. The number of providers is exclusive of the provider streaming the rate being examined. The maximum number of providers must be greater than the minimum number of providers.
3. Click **Save**.

**To configure multi-quote filters for individual currency pairs or currency pair groups and override the global filter:**

1. Click the **Add** button.
2. Select the currency pair or currency pair group from the drop-down list in the Currency Pair column.
3. Enter a number of seconds in the field in the Staleness Interval (seconds) column. You can leave this field blank.
4. Enter a number of pips in the field in the Maximum Inverse Spread (Pips) column. You can leave this field blank.
5. Enter a number of pips in the field in the Inverted Rates Tolerance (Pips) column. Leave this field blank to use the global value.
6. Click **Save**.

To remove filters for currency pairs or currency pair groups and apply the global filter, click the **Remove** button of the currency pair or currency pair group you want to remove.

#### Upload and download rate filters

You can manage your rate filters by uploading and downloading batch update files. The system supports both CSV and Excel formats so that you can edit rate filters in another app, such as Excel, and quickly and easily adjust your filters throughout the day.

##### **To upload rate filters:**

1. Navigate to the Rate Filters Setup screen (**Counterparty > Price Making > Rate Filters**).
2. Enter the path and name of the file that contains the rate filters that you want to upload in the **Market Data Upload** field or click the **Browse...** button to choose the file.
3. Choose the type of the upload file from the **File Type** drop-down list.
4. Click the **Import** button.

Any new rate filters are added to the list. Existing rate filters are updated with new parameters.

##### **To download rate filters:**

1. Navigate to the Rate Filters Setup screen (**Counterparty > Price Making > Rate Filters**).
2. Do one of the following to begin your browser's file download process. Depending on your browser, a popup window or infobar opens so you can open or save the file.
  - To download an Excel file, click the  Excel Download button.
  - To download a CSV file, click the  Excel Download button.

### Rate filter file format

The rate filter file that you download has the following columns.

You should use a downloaded file as a source for editing and uploading. Make sure the file you upload has the same columns and header values.

#### **Example 2-1 Rate filter file header (CSV)**

```
RateFilterName,Type,SortOrder,CurrencyPair,MaxPipDev_Percent,MaxPipDev_Pips,MaxPipDev_NumRates,  
MaxPipDev_TimeEnabled,MaxPipDev_  
TimeMs,MaximumSpread,OneSidedEnabled,InvertedRatesTolerance,  
StalenessInterval,MaxInverseSpread,SQDefaultInvertedRateCheckEnabled,SQDefaultInvertedR  
ateCheck,  
SQDefaultMaxPipsDeviationPercentCheckEnabled,SQDefaultMaxPipsDeviationPercent,  
SQDefaultMaxPipsDeviationPipsCheckEnabled,SQDefaultMaxPipsDeviationPips,  
SQDefaultMaxPipsDeviationNumRates,SQDefaultMaxPipsDeviationTimeCheckEnabled,  
SQDefaultMaxPipsDeviationTimeLimit,SQDefaultMaxSpreadCheckEnabled,SQDefaultMaxSpreadPip  
s,  
SQDefaultOneSidedRatesCheckEnabled,MQDefaultInvertedRateCheckEnabled,MQDefaultInvertedR  
ateCheck,  
MQDefaultStalenessCheckEnabled,MQDefaultCheckInterval,MQDefaultOffMarketCheckEnabled,  
MQDefaultNumRequiredProviders,MQDefaultMaxNumProviders,MQDefaultMaxAllowedInverseSpread
```

### Choose the active rate filter

You can create several rate filters and then choose from them to make one active.

#### **To choose the active rate filter from the Rate Filters Setup screen:**

1. Navigate to the Rate Filters Setup screen (**Counterparty > Price Making > Rate Filters**).
2. Choose the rate filter from the **Active Rate Filter** drop-down list.

---

**CAUTION:** If you choose "None" then no filtering is performed on incoming rate streams and all rates are passed on for aggregation.

3. Click **Save** to confirm the removal or **Reset** to undo the removal.

#### **To choose the active rate filter from the Rate Status screen:**

1. Navigate to the Rate Filters Setup screen (**Counterparty > Price Making > Rate Status**).
2. Choose the rate filter from the **Active Rate Filter** drop-down list.

---

**CAUTION:** If you choose "None" then no filtering is performed on incoming rate streams and all rates are passed on for aggregation.

3. Click **Save** to confirm the removal or **Reset** to undo the removal.

### Manually reset rates

When a rate is filtered from a stream, the rate is removed from consideration for aggregation.

You can configure a rate filter to either pass the next good rate automatically or to drop all rates from the provider in the currency pair until the stream is reset manually. See the [Add or edit a rate filter](#) on page 159 for more information about how to configure rate recovery.

You can reset individual rate streams or all rate streams that have been turned off.

***To manually reset a single rate stream that has been turned off:***

1. Navigate to the Rate Status screen (**Counterparty > Price Making > Rate Status**).
2. Navigate through the table of providers and currency pairs to find the stream that you want to reset. To aid in your search, rates that have been turned off because of a dropped rate are highlighted with red text, a red OFF button, and a blinking yellow/red background.
3. Click the OFF button of the rate stream that you want to reset.

As long as the provider is streaming rates that are not dropped by the currently active filter, the OFF button changes to a green ON button indicating the rate stream has been turned on.

***To manually reset all rate streams that have been turned off:***

1. Navigate to the Rate Status screen (**Counterparty > Price Making > Rate Status**).
2. Click the **ON ALL** button at the top of the rate table.

As long as the providers stream rates that are not dropped by the currently active filter, all the OFF buttons change to a green ON buttons indicating the rate stream has been turned on.

**Review the status of rate streams**

1. Navigate to the Rate Status screen (**Counterparty > Price Making > Rate Status**).
2. Navigate through the table of providers and currency pairs to review their status. Rate streams that are on have an adjacent green ON button. Rates that have been turned off because of a dropped rate are highlighted with red text, a red OFF button, and a blinking yellow/red background.

To change the rates shown in the table, you can activate a different filter with the **Active Rate Filter** drop-down list and **Save** button.

**CAUTION:** Changing the active filter in this screen changes the filtering performed on incoming rate streams and the rates that are passed on for aggregation. If you choose "None" then no filtering is performed on incoming rate streams and all rates are passed on for aggregation.

**Export rate status as a file**

1. Navigate to the Rate Status screen (**Counterparty > Price Making > Rate Status**).
2. Below the table, click the Export button of the file format that you want to export:
  - Click the  button for a CSV file.
  - Click the  button for an Excel (XLS) file.

Your browser opens a popup window or infobar allowing you to open or save the file.

### Remove a rate filter

You can remove rate filters to manage your list of filters.

You cannot remove the active rate filter.

1. Navigate to the Rate Filters Setup screen (**Counterparty > Price Making > Rate Filters**).
2. Select the checkbox of the filter that you want to remove. You can check more than one filter.

**NOTE:** You cannot remove the active filter. See [Choose the active rate filter](#) on page 166 for information about changing the active filter.

3. Click the **Remove** button.

**CAUTION:** The filters that you remove are deleted from the system and are not recoverable.

4. Click **Save** to confirm the removal or **Reset** to undo the removal.

### 2.4.5 Review audited changes to price making

To more securely manage the prices that you stream to your price consumers, the system records all price-making changes to an audit log with such details as the time the change was made, the user who made the change, the system entity that was changed (rate filter, product, trading party, stream, organization, currency pair configuration), and a description of the change.

1. Navigate to the Audit screen (**Counterparty > Price Making > Audit**).

The Audit screen appears with the price making changes, if any, for the current business day.

2. To view a broader range of changes, choose a time period of audit events from the **Period** drop-down list or choose “Custom” and enter a date range in the **From** and **To** fields.

The Audit screen updates to show the price making changes, if any, for the new period or date range.

### 2.4.6 Provide manual quotes (manual RFQ)

The Admin Portal allows you to define execution rules that refer customer RFS requests to manual pricing. NDF and Window Forward trades are always manually priced.

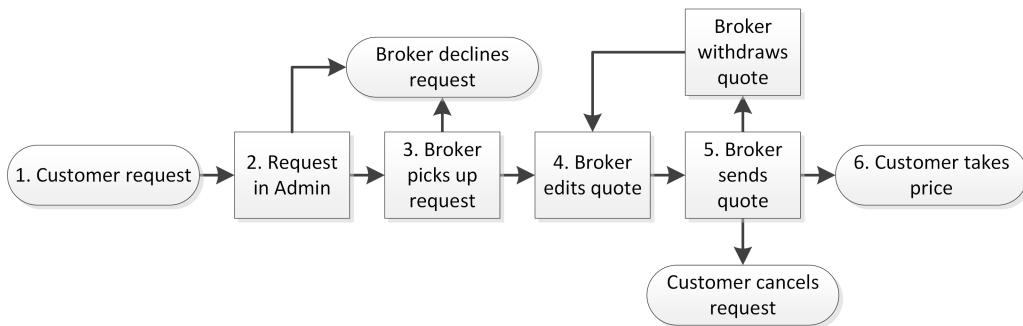
- [Typical RFQ workflow](#) on page 168
- [Price a manual RFQ \(dealer intervention\)](#) on page 170
- [Review RFQ activity](#) on page 171

For information about configuring execution rules for manual RFQ pricing, see [Step 1k of Price making and execution \(RFS rules\)](#) on page 134.

You can also configure the Admin Portal to alert you to incoming RFQs. See [Alerts](#) on page 443.

#### Typical RFQ workflow

The following diagram shows the typical workflow for a manual RFQ, from customer submission to trade execution:



**Figure 2-1 Typical manual RFQ workflow**

1. The customer submits an RFS request that meets the criteria for manual RFQ according to the execution rules set on the applicable price stream. See [RFS execution method settings](#) on page 104.
2. The Admin Portal updates the Manual RFQ screen with the new RFQ (RFQ state is NEW). If configured, the Admin Portal also displays a pop-up window alert and sounds an alert.
3. The broker picks up and takes exclusive ownership of the RFQ by clicking the expand button in the Manual RFQ screen (RFQ state changes from NEW to PENDING).
4. The RFQ expands to allow the broker to edit the RFQ (RFQ state is PENDING).
5. Broker sends the quote to the customer (RFQ changes from PENDING to QUOTED).
6. The customer takes the quoted price and a trade is executed (RFQ state changes from QUOTED to VERIFIED-Buy or VERIFIED-Sell).

#### Important points:

- At any point after the customer submits the request and before they take a price to execute a trade, the customer can cancel their request (RFQ state changes to CANCELLED). The RFQ is removed from the RFQ Workspace as is added to the RFQ Blotter.
- At any point after the Admin Portal displays the new request and before the customer takes a price to execute a trade, the broker can decline the quote by clicking the **Off** button (RFQ state changes to OFF). The RFQ is removed from the Manual RFQ screen and is added to the Manual RFQ blotter.
- At any point after the broker sends the quote and before the customer cancels the request or takes the price to execute a trade, the broker can withdraw the quote by clicking the **Withdraw** button. The request is still active and the expiry timer continues to count down. The broker can then requote the request by sending a new quote or the customer can cancel the request. If nothing else is done, the request expires.
- If the request is not cancelled by the customer (state CANCELLED), declined by the broker (state OFF), or executed by the customer (state VERIFIED-Buy or VERIFIED-Sell) before the timeout period, the request expires (state EXPIRED).
- When the customer submits the RFS request that meets the criteria for manual RFQ, the request is active with the expiry time counting down until the request reaches the following end states of the RFQ workflow:
  - VERIFIED-Buy (quote accepted by the customer)
  - VERIFIED-Sell (quote accepted by the customer)
  - OFF (request declined by the broker)
  - CANCELLED (request cancelled by the customer)
  - EXPIRED (expiry timer counts down to zero and request is expired by the system).

## Price a manual RFQ (dealer intervention)

The prerequisites for pricing manual RFQs are:

- Permission to view and price manual RFQs (Admin Manual RFQ, see [User permission groups for all users on page 29](#))
- Execution rules that define the criteria by which a customer's request for RFS pricing triggers the manual RFQ workflow (see [Step 1m of Price making and execution \(RFS rules\) on page 134](#) and [Execution methods on page 102](#))

The following procedure leads you through pricing a manual RFQ:

1. Navigate to the Manual RFQ screen (**Counterparty > Manual RFQ**).

The Manual RFQ screen appears with new and pending RFQs in the Manual RFQ table and historical RFQ activity for the trading day in the RFQ blotter. You can price RFQs with a status of NEW. Any RFQs with a PENDING status have already been picked up by another user.

---

**NOTE:** You should consider configuring the Admin Portal to alert you of incoming manual RFQs. See [Alerts](#) on page 443 for details.

---

2. Click the  Expand button of an RFQ with a status of NEW.

The RFQ expands to display the tools you need to edit the RFQ and any predefined spreads in the system. The RFQ status changes to PENDING.

3. Edit the quote as necessary.
4. Click the either of the **Send** buttons to send your quote to the customer. The RFQ status changes to QUOTED.

The **Send** buttons change to **Withdraw** buttons that allow you to withdraw the quote. If you withdraw the quote, the RFQ is still active with the expiry time counting down, allowing you to edit and resend a quote for the request.

The customer then can do one of the following:

- Take the price and execute a trade. The RFQ status changes to either VERIFIED-Buy or VERIFIED-Sell and the request is moved to the RFQ blotter.
- Cancel the request. The RFQ status changes to CANCELLED and the request is moved to the RFQ blotter.
- Allow the request to expire. The RFQ status changes to EXPIRED and the request is moved to the RFQ blotter.

While you wait for the customer to take action, you can:

- Withdraw the quote: If you withdraw the quote, the RFQ status returns to PENDING and the expiry time continues counting down. You can edit and resend a quote.
- Decline the request by clicking the **Off** button: If you decline the request, the RFQ is inactive and added to the RFQ blotter.

Important points:

- At any point after the customer submits the request and before they take a price to execute a trade, the customer can cancel their request (RFQ state changes to CANCELLED). The RFQ is removed from the Manual RFQ screen as is added to the RFQ blotter.

- At any point after the Admin Portal displays the new request and before the customer takes a price to execute a trade, you can decline the quote by clicking the **Off** button (RFQ state changes to OFF). The RFQ is removed from the Manual RFQ screen as is added to the RFQ blotter.
- At any point after you send the quote and before the customer cancels the request or takes the price, you can withdraw the quote by clicking the **Withdraw** button. The state of the RFQ changes back to PENDING and the expiry timer continues counting down. You can then requote the request by sending a new quote or the customer can cancel the request. If nothing else is done, the request expires.
- If the request is not cancelled by the customer (state CANCELLED), declined by you (state OFF), or executed by the customer (state VERIFIED-Buy or VERIFIED-Sell) before the timeout period, the request expires (state EXPIRED).
- When the customer submits the RFS request that meets the criteria for manual RFQ, the RFQ status is PENDING with the expiry time counting down until the request reaches the following end states of the RFQ workflow:
  - VERIFIED-Buy (quote accepted by the customer)
  - VERIFIED-Sell (quote accepted by the customer)
  - OFF (request declined by you)
  - CANCELLED (request cancelled by the customer)
  - EXPIRED (expiry timer counts down to zero and request is expired by the system).

#### Review RFQ activity

The RFQ Blotter shows all of the RFQ activity during the trading day for your organization.

1. Navigate to the Manual RFQ screen (**Counterparty > Manual RFQ**).

The Manual RFQ screen appears with new and pending RFQs in the Manual RFQ table and historical RFQ activity for the trading day in the RFQ blotter.

2. In RFQ blotter table, click the  Expand button to see the details of the RFQ.

#### 2.4.7 Work with market data

Market data is a collection of prices used for the following specialized purposes:

- Deriving RFS forward prices from ESP spot prices if your trading system is configured to source forward prices from spot prices
- Determining rates for rolled positions when your trading system is configured to automatically roll positions from day to day

Prices in the market data are defined by currency pair, tenor/date, and interpolation method. Market data defines two significant dates:

- **Effective date:** The date on which the prices are in effect
- **Base date:** The date on which tenor calculations are based

You define the bid/offer and mid prices for each currency pair and tenor/date combination. You must define at least the bid/offer prices or the mid price. You can also define all three prices.

The tenor or broken date of the price determines the nature of the price value:

- Prices with a tenor of "SPOT": The bid/offer/mid price values are spot prices.
- Prices for all other tenors other than "SPOT" and broken dates: The price values are forward points.

The Admin Portal allows you to manage market data in the following ways:

- [Upload market data](#) on page 172
- [Choose default market data](#) on page 172
- [Edit market data](#) on page 173
- [Export market data](#) on page 175
- [Active and inactive items](#) on page 446

### Upload market data

You can upload market data from [CSV](#) files as well as Microsoft Excel files. For information about the upload file, see [File formats for market data upload](#) on page 176.

---

**NOTE:** If you upload market data with the same name as an existing data set, the prices in the existing data set are overwritten.

---

#### **To upload one or more sets of market data:**

1. Navigate to the FX Market Data List screen (**Counterparty > Price Making > Market Data**).
2. Enter the path and file name of the market data that you want to upload in the **Market Data Upload** field or click the **Browse...** button to choose the file.
3. Choose the type of the upload file from the **File Type** drop-down list.
4. Click the **Import** button.

Any new market data in the upload file are added to the list. Existing market data is updated with new prices.

#### **To upload prices to specific market data:**

1. Navigate to the FX Market Data List screen (**Counterparty > Price Making > Market Data**).
2. Click the ID of the market data that you want to update.  
The FX Market Data Detail Edit screen opens.
3. Enter the path and file name of the market data that you want to upload in the **Market Data Upload** field or click the **Browse...** button to choose the file. The file must contain only prices for the selected market data.
4. Choose the type of the upload file from the **File Type** drop-down list.
5. Click the **Import** button.

Your market data is added to the list.

### Choose default market data

If market data is not specified explicitly when you roll positions, the default market data is used.

1. Navigate to the FX Market Data List screen (**Counterparty > Price Making > Market Data**).
2. Choose a new data set from the **Default Market Data** drop-down list.

### 3. Click **Save**.

#### Edit market data

You can edit the various aspects of existing market data:

- [Change the name and dates of market data](#) on page 173
- [Set the interpolation method for market data](#) on page 173
- [Set alerts for stale market data](#) on page 174
- [Add prices to market data](#) on page 174
- [Remove prices from market data](#) on page 174
- [Edit prices in market data](#) on page 175
- [Filter the list of prices in market data](#) on page 175

#### Change the name and dates of market data

1. Navigate to the FX Market Data List screen (**Counterparty > Price Making > Market Data**).
2. Click the ID of the market data that you want to edit.
3. Enter a new name in the **Name** field.
4. Enter a new date in the **Effective Date** field or click the  Calendar button. This is the date on which the market data is in effect.
5. Choose a new effective time from the **Time** drop-down list.
6. Enter a new date in the **Base Date** field or click the  Calendar button. This is the date on which tenor calculations are made.
7. Click **Save**.

#### Set the interpolation method for market data

The forward points in a market data set are used to determine the points on RFS forward prices sourced from ESP spot prices.

When prices are sourced for tenors with no corresponding tenor/price in the market data, the forward points are interpolated.

You can choose how the points are interpolated:

- Linear: The tenors before and after the tenor/date in question are used to calculate the price via linear interpolation.
  - Forward Tenor: No interpolation. The tenor after the tenor/date in question is used.
1. Navigate to the FX Market Data List screen (**Counterparty > Price Making > Market Data**).
  2. Click the ID of the market data that you want to edit.
  3. Click one of the following Interpolation radio buttons:
    - Linear**
    - Following tenor**
  4. Click **Save**.

#### Set alerts for stale market data

You can configure Integral to send email alerts to a list of email addresses whenever a market data set grows stale. This is useful if you automatically upload your swaps data from Excel spreadsheets or from an API client.

When a market data set goes stale, Integral does the following:

- Sends an email alert to the configured list of email addresses.
- Overwrites the stale market data with zero rates to prevent pricing with stale rates.

Integral sends another email when a stale market data set receives a valid update.

1. Navigate to the FX Market Data Detail Edit screen (**Counterparty > Price Making > Market Data > market data ID**).
2. In the **Main Details** panel, select the **Stale Alerting** checkbox.
3. Enter the number of seconds after which a market data set is considered stale in the field. Integral sends alert emails for market data sets that do not receive an update in this interval.
4. Enter one or more email addresses in the **Emails to** field. You must enter at least one address in the field to enable market data alerts. Use a comma to separate multiple addresses.
5. Click **Save**.

#### Add prices to market data

You can manually add prices to existing market data.

1. Navigate to the FX Market Data List screen (**Counterparty > Price Making > Market Data**).
2. Click the ID of the market data that you want to edit.
3. Select the base currency of the price from the **Base Currency** drop-down list.
4. Select a term currency from the **Term Currency** drop-down list.
5. Enter a tenor or broken date for the price in the **Tenor** field. You must enter broken dates in the format configured in your display preferences (see [Display preferences](#) on page 442). For a list of tenors, see [Tenors](#) on page 451.
6. Click the **Add** button.  
The currency pair and tenor/date are added to the list.
7. Enter the prices for the currency pair and tenor/date. You must enter the bid/offer prices or the mid price. You may enter all three. If the tenor of the price is "SPOT", these values are spot rates. If the tenor of the price is anything other than "SPOT" or is a broken date, these price values are forward points. You must add a spot price for a currency pair before you can add a forward price.
8. Click **Save**.

#### Remove prices from market data

1. Navigate to the FX Market Data List screen (**Counterparty > Price Making > Market Data**).
2. Click the ID of the market data that you want to edit.
3. Select the checkboxes next to the prices that you want to remove from the list.
4. Click **Remove**.

The prices are removed from the market data.

#### Edit prices in market data

The prices are defined by currency pair and tenor/date. Market data defines two significant dates:

- **Effective date:** The date on which the prices are in effect
- **Base date:** The date on which tenor calculations are based

You define the bid/offer and mid prices for each currency pair and tenor/date combination. You must define at least the bid/offer prices or the mid price. You can also define all three prices.

The tenor or broken date of the price determines the nature of the price value:

- Prices with a tenor of "SPOT" and broken dates: The bid/offer/mid price values are spot prices.
- Prices for all other tenors other than "SPOT" and broken dates: The price values are forward points.

You can filter the list of prices. See [Filter the list of prices in market data](#) on page 175.

1. Navigate to the FX Market Data List screen (**Counterparty > Price Making > Market Data**).
2. Click the ID of the market data that you want to edit.
3. Enter the prices for the currency pair and tenor/date. You must enter the bid/offer prices or the mid price. You may enter all three. If the tenor of the price is "SPOT", these values are spot rates. If the tenor of the price is anything other than "SPOT", these price values are forward points. You must enter broken dates in the format configured in your display preferences (see [Display preferences](#) on page 442). For a list of tenors, see [Tenors](#) on page 451.
4. Click **Save**.

#### Filter the list of prices in market data

You can filter the list of prices displayed for market data so that you can better focus on the data you need.

You can filter by currency, tenor, or both.

To clear your search filter and show all prices in the market data, click the **Clear** button.

1. Navigate to the FX Market Data List screen (**Counterparty > Price Making > Market Data**).
2. Click the ID of the market data that you want to review.
3. Choose the currency or currency pair from the filter drop-down list:
  - Currency Pair
  - Base Currency
  - Term Currency
4. Enter your currency filter in the adjacent field.
5. Enter a tenor for your filter in the **Tenor** field. For a list of tenors, see [Tenors](#) on page 451.
6. Click **Search**.

The list updates to show only the prices, if any, that match your filter criteria.

#### Export market data

To work on market data in another app, such as Microsoft Excel, you can export market data to a [CSV](#) file or to an Excel XLS worksheet (Excel 97-2003 format).

You can export market data from the list screen and detail screen.

***To export market data from the list screen:***

1. Navigate to the FX Market Data List screen (**Counterparty > Price Making > Market Data**)
2. Click the **Export** button of the data set in the list that you want to export:

- Click the  button for a CSV file.
- Click the  button for an XLS file.

Your browser opens a popup window or infobar allowing you to open or save the file.

***To export market data from the detail screen:***

1. Navigate to the one of the following:
  1. FX Market Data List screen (**Counterparty > Price Making > Market Data**)
  2. Click the ID of the data set that you want to export.  
The FX Market Data Detail Edit screen opens.
3. Click the **Export** button:

- Click the  button for a CSV file.
- Click the  button for an XLS file.

Your browser opens a popup window or infobar allowing you to open or save the file.

#### File formats for market data upload

You can upload market data to the system and export data sets from the system as [CSV](#) files and Excel files.

Both CSV and Excel upload files must include a heading line, as in the examples below.

---

**NOTE:** You must define a spot price for a currency pair before you define prices for any other tenor.

---

#### Format Examples

***Figure 2-1 Example 1: CSV with spot tenor and all three prices***

MDSName,MDSLongName,EffectiveDate,BaseDate,Interpolate,CurrencyPair,Tenor,Bid,Mid,Offer  
EuroSet,Euro market data,2023/04/26,2023/04/30,false,EUR/USD,SPOT,1.3404,1.3405,1.3406

***Figure 2-2 Example 2: CSV with spot and 3m tenor with mid price***

MDSName,MDSLongName,EffectiveDate,BaseDate,Interpolate,CurrencyPair,Tenor,Bid,Mid,Offer  
EuroSet,Euro market data,2023/04/26,2023/04/30,false,EUR/USD,SPOT,1.3404,1.3405,1.3406  
EuroSet,Euro market data,2023/04/26,2023/04/30,false,EUR/USD,3M,,0.8,

***Figure 2-3 Example 3: CSV with spot and broken date (2023/5/21) with bid/offer prices***

MDSName,MDSLongName,EffectiveDate,BaseDate,Interpolate,CurrencyPair,Tenor,Bid,Mid,Offer

EuroSet,Euro market data,2023/04/26,2023/04/30,false,EUR/USD,SPOT,1.3404,1.3405,1.3406

EuroSet,Euro market data,2023/04/26,2023/04/30,false,EUR/USD,2023/5/21,0.9,,0.8

**Figure 2-4 Example 4: CSV with two sets of market data in one file**

MDSName,MDSLongName,EffectiveDate,BaseDate,Interpolate,CurrencyPair,Tenor,Bid,Mid,Offer

EuroSet,Euro market data,2023/04/26,2023/04/30,false,EUR/USD,SPOT,1.3404,1.3405,1.3406

EuroSet,Euro market data,2023/04/26,2023/04/30,false,EUR/USD,3m,,0.8,

EuroSet,Euro market data,2023/04/26,2023/04/30,false,EUR/USD,2IMM,0.9,,0.8

AsiaSet,Asia market data,2023/04/26,2023/04/30,false,EUR/JPY,SPOT,1.1,1.2,1.3

AsiaSet,Asia market data,2023/04/26,2023/04/30,false,USD/JPY,SPOT,,0.0,

You can omit repeated data in the upload file. After you specify the market data in one line for a currency pair, you can then specify just the tenor and price for subsequent entries for the same dates and currency pair.

**Figure 2-5 Example 5: CSV with two sets of market data, shorthand**

MDSName,MDSLongName,EffectiveDate,BaseDate,Interpolate,CurrencyPair,Tenor,Bid,Mid,Offer

EuroSet,Euro market data,2023/04/26,2023/04/30,false,EUR/USD,SPOT,1.3404,1.3405,1.3406

,,,,3m,,0.8,

,,,,2IMM,0.9,,0.8

,,,,EUR/GBP,SPOT,0.87729,,0.87739

AsiaSet,Asia market data,2023/04/26,2023/04/30,false,EUR/JPY,SPOT,1.1,1.2,1.3

,,,,USD/JPY,SPOT,,0.0,

**Figure 2-6 Example 6: Excel with two sets of market data**

	A	B	C	D	E	F	G	H	I	J
1	MDSName	MDSLongName	EffectiveDate	BaseDate	Interpolate	CurrencyPair	Tenor	Bid	Mid	Offer
2	EuroSet	Euro prices	2012/04/26	2012/04/30	false	EUR/USD	SPOT	1.3404	1.3405	1.3406
3	EuroSet	Euro prices	2012/04/26	2012/04/30	false	EUR/USD	3m			0.8
4	EuroSet	Euro prices	2012/04/26	2012/04/30	false	EUR/USD	2IMM	0.9		0.8
5	AsiaSet	Asia prices	2012/04/26	2012/04/30	false	EUR/JPY	SPOT	1.1	1.2	1.3
6	AsiaSet	Asia prices	2012/04/26	2012/04/30	false	USD/JPY	SPOT			0

#### Format specification

The data must be specified in the same order as the following table:

**Table 2-15 Market data upload format**

Label	Req'd?	Description	Example Values
MDSName	Y	The ID of the market data. Must contain no more than 31 alphanumeric characters with no special characters, symbols, or spaces. A single CSV file can contain multiple sets of market data.	RollEUR
MDSLongName	N	A descriptive name for the market data	Data set for EUR
EffectiveDate	Y	The date on which the market data is in effect. Must be specified in the yyyy/MM/dd format. For Excel files, you need to make sure that these cells are formatted as text.	2023/3/26
BaseDate	Y	The date on which tenor and value date calculations are based. Must be specified in the yyyy/MM/dd format. For Excel files, you need to make sure that these cells are formatted as text.	2023/3/26
Interpolate	Y	The interpolation method for tenors not in the market data when sourcing RFS forward prices from ESP spot prices: <ul style="list-style-type: none"> <li>• false: No interpolation, use the tenor following the tenor that is not in the market data</li> <li>• true: Linear interpolation using the tenors before and after the tenor that is not in the market data</li> </ul>	false
CurrencyPair	Y	The currency pair of the price	EUR/USD
Tenor	Y	The tenor of the price or a broken date. If the tenor of the price is "SPOT", then the price values are spot prices. If any other tenor or a broken date, the values are forward points. You must enter broken dates in the format yyyy/MM/dd. For a list of tenors, see <a href="#">Tenors</a> on page 451. If a broken date and a tenor with the same effective date result in the same value date, then the market data for the broken date takes precedence.	SPOT 2023/12/14
Bid	See descr.	The bid price. You must define the bid and offer prices or the mid price. You can define all three. If the tenor of the price is "SPOT", then this value is the spot price. If any other tenor, this price is the forward points.	1.34020
Mid	See descr.	The mid price. You must define the bid and offer prices or the mid price. You can define all three. If you define the bid/offer prices and do not define the mid price, the mid price is calculated for you. If the tenor of the price is "SPOT", then this value is the spot price. If any other tenor, this price is the forward points.	1.34025
Offer	See descr.	The offer price. You must define the bid and offer prices or the mid price. You can define all three. If the tenor of the price is "SPOT", then this value is the spot price. If any other tenor, this price is the forward points.	1.34030
AbsoluteDate	See descr.	DEPRECATED. Absolute dates for tenors are no longer used and not recommended. Absolute dates have been replaced by more efficient and secure relative dates.	false

## 2.5 Price provisioning

The Admin Portal allows you to edit the spreads and trading limits applied to the prices that you publish to specific counterparties:

- [Price provisioning audit on page 179](#)
- [Download price provisioning details on page 180](#)
- [Enable or disable currency pairs on page 180](#)
- Spreads
  - [Concepts: RFS spread profiles on page 184](#)
  - [Enable or disable spreads on page 181](#)
  - [Set spot spreads on page 181](#)
  - [Set forward spreads on page 182](#)
  - [Set swap spreads on page 183](#)
- Other price provisioning settings
  - [ESP spot trading limits on page 188](#)
  - [Set spread improvement \(give-back\) on page 189](#)
  - [Dynamic price control \(DPC\) on page 190](#)
  - [Pre-trade or post-trade spreads on page 193](#)
  - [Configure channels for a customer on page 193](#)
- [Upload batches of spreads and limits on page 194](#)
  - [Upload spreads and limits for one counterparty on page 194](#)
  - [Upload spreads and limits for multiple counterparties on page 194](#)
- [Set the cutoff time for TOD and TOM streams on page 196](#)

### 2.5.1 Price provisioning audit

To allow you to more securely manage your price provisioning, the Price Provisioning Audit screen ([Organization > Liquidity Rules > Audit](#)) shows a record of all changes with details like the time the change was made, the user who made the change, the action performed, and a description of the change.

#### View price provisioning events

1. Navigate to the Price Provisioning Audit screen ([Counterparty > Price Provisioning > Audit](#)).
2. Specify the filter criteria.

The list updates dynamically as you choose your criteria.

#### Download the audit list results

You can download the audit list as a CSV file or as an Excel file.

1. Filter the list as necessary.
2. Do one of the following:

- Click the  Excel Download button.
- Click the  Excel Download button.

A File Download dialog opens.

3. Click **Save**.

The file is saved in the format you chose.

## 2.5.2 Download price provisioning details

Price provisioning of your counterparties involves many settings and attributes that are critical to your business.

The Admin Portal gives you a complete, concise summary for all of your counterparties so that you can quickly review their price-making details. You can choose to download the summary as a [CSV file](#) or [Excel file](#).

- [Download the price provisioning details as a CSV file](#) on page 180
- [Download the price provisioning details as an Excel file](#) on page 180

### Download the price provisioning details as a CSV file

You can download a complete, concise summary of all of your counterparties as a [CSV file](#).

1. Navigate to the Price Provisioning screen ([Counterparty > Price Provisioning](#)).
2. Click the  Excel Download button.

Your browser opens a popup window or infobar allowing you to open or save the file.

The details are saved as a CSV file with all of your counterparties and their price-provisioning settings, such as the spreading rules, spread improvement setting, and allowed pricing channels.

### Download the price provisioning details as an Excel file

You can download a complete, concise summary of all of your counterparties as an Excel file.

1. Navigate to the Price Provisioning screen ([Counterparty > Price Provisioning](#)).
2. Click the  Excel Download button.

Your browser opens a popup window or infobar allowing you to open or save the file.

The details are saved as an Excel file with all of your counterparties and their price-provisioning settings, such as the spreading rules, spread improvement setting, and allowed pricing channels.

## 2.5.3 Enable or disable currency pairs

You can determine which currency pairs a maker counterparty streams from a customer's price provisioning screen. Each currency pair includes a checkbox that determines whether or not a currency pair is streamed.

The checkbox does not override the bid/offer trading limit settings for a currency pair. For example, if a currency pair's trading limits are set to zero, the customer does not receive prices in that currency pair no matter the state of the **Enable** checkbox, either selected or cleared.

**To configure the currency pairs streamed by your maker counterparties:**

1. Navigate to the Price Provisioning Rule Edit screen (**Counterparty > Price Provisioning > Counterparties > counterparty ID**).  
The Price Provisioning Rule Edit screen appears showing the current provisioning settings.
2. Do one of the following in the "Enable" column:
  - Select the checkbox of the individual currency pairs that you want the counterparty to stream. Users who are subscribed to the currency pair from the customer receive rates for that currency pair from the customer.
  - Clear the checkbox of the currency pairs that you do not want the counterparty to stream. Users who are subscribed to the currency pair from the customer stop receiving rates for that currency pair from the customer.
  - Use the checkbox in the header to select and clear all currencies.
3. Click **Save**.

## 2.5.4 Enable or disable spreads

You can quickly enable and disable price-provisioning spreads for a counterparty from the Counterparties price-provisioning screen (**Counterparty > Price Provisioning > Counterparties**).

For a specific counterparty, select the checkbox in the **Enable Spread** column to enable spreads. Clear the checkbox to disable spreads.

---

**NOTE:** The **Enable Spread** checkboxes enable and disable all spreads defined for a counterparty, including those defined in the counterparty's Price Provisioning Rule Edit screen (**Counterparty > Price Provisioning > Counterparties > counterparty ID**).

To enable spreads for all counterparties, choose "True" from the drop-down list above the **Enable Spread** column. Choose "False" from the drop-down list to disable spreads for all counterparties.

## 2.5.5 Set spot spreads

Spot spreads are applied to ESP prices and RFS spot prices.

You can set spot spreads in two places:

- Default spot spread for all currency pairs in a counterparty: Counterparties screen (**Counterparty > Price Provisioning > Counterparties**).
- Spot spreads for individual currency pairs in a counterparty: Price Provisioning Rule Edit screen (**Counterparty > Price Provisioning > Counterparties > counterparty ID**).

Set a default spot spread for a counterparty

1. Navigate to the Counterparties screen (**Counterparty > Price Provisioning > Counterparties**).  
The Counterparties screen appears showing the current provisioning settings.

2. In the "Enable Spread" column, make sure the checkbox is selected to enable spreads for the counterparty.
3. In the "Spot Spread" column, enter the bid/offer pips for the counterparty.
4. Click **Save**.

#### Set spot spreads for a counterparty's currency pairs

**NOTE:** The currency pair needs to be enabled for the counterparty in order for rates to be streamed. See [Enable or disable currency pairs](#) on page 180.

1. Navigate to the Price Provisioning Rule Edit screen (**Counterparty > Price Provisioning > Counterparties > counterparty ID**).
- The Price Provisioning Rule Edit screen appears showing the current provisioning settings.
2. To enable the currency pair for streaming, select the checkbox in the **Enable** column. See [Enable or disable currency pairs](#) on page 180 for more information.
  3. To enable spreads and override the counterparty's default spread, click the currency pair's checkbox in the **Spread Override** column.
  4. In the **Spot Spread** column, enter the bid/offer value for each currency pair and choose the value denominator from the drop-down list, either "Pips" or "Basis Point".
  5. Click **Save**.

#### 2.5.6 Set forward spreads

Forward spreads are applied to RFS prices with non-spot tenors.

Forward spreads are assigned as spread profiles. You must define at least one spread profile before you can set forward spreads. See [RFS spread profiles](#) on page 184 for more information.

You can set forward spreads in two places:

- Default forward spread for all currency pairs in a counterparty: Counterparties screen (**Counterparty > Price Provisioning > Counterparties**).
- Forward spreads for individual currency pairs in a counterparty: Price Provisioning Rule Edit screen (**Counterparty > Price Provisioning > Counterparties > counterparty ID**).

#### Set a default forward spread for a counterparty

1. Navigate to the Counterparties screen (**Counterparty > Price Provisioning > Counterparties**).  
The Counterparties screen appears showing the current provisioning settings.
2. In the "Enable Spread" column, make sure the checkbox is selected to enable spreads for the counterparty.
3. In the "Forward Spread" column, choose a spread profile for the counterparty. See [RFS spread profiles](#) on page 184 for more information.
4. Click **Save**.

#### Set forward spreads for a counterparty's currency pairs

---

**NOTE:** The currency pair needs to be enabled for the counterparty in order for rates to be streamed. See [Enable or disable currency pairs](#) on page 180.

---

1. Navigate to the Price Provisioning Rule Edit screen (**Counterparty > Price Provisioning > Counterparties > counterparty ID**).  
The Price Provisioning Rule Edit screen appears showing the current provisioning settings.
2. To enable the currency pair for streaming, select the checkbox in the **Enable** column. See [Enable or disable currency pairs](#) on page 180 for more information.
3. To enable spreads and override the counterparty's default spread, click the currency pair's checkbox in the **Spread Override** column.
4. In the **Forward Spread** column, choose a spread profile for the counterparty. See [RFS spread profiles](#) on page 184 for more information.
5. Click **Save**.

## 2.5.7 Set swap spreads

Swap spreads are applied to RFS prices for spot-forward and forward-forward swaps.

Swap spreads are assigned as spread profiles. You must define at least one spread profile before you can set forward spreads. See [RFS spread profiles](#) on page 184 for more information.

You can set forward spreads in two places:

- Default forward spread for all currency pairs in a counterparty: Counterparties screen (**Counterparty > Price Provisioning > Counterparties**).
- Forward spreads for individual currency pairs in a counterparty: Price Provisioning Rule Edit screen (**Counterparty > Price Provisioning > Counterparties > counterparty ID**).

### Set a default swap spread for a counterparty

1. Navigate to the Counterparties screen (**Counterparty > Price Provisioning > Counterparties**).  
The Counterparties screen appears showing the current provisioning settings.
2. In the "Enable Spread" column, make sure the checkbox is selected to enable spreads for the counterparty.
3. In the "Forward Spread" column, choose a spread profile for the counterparty. See [RFS spread profiles](#) on page 184 for more information.
4. Click **Save**.

### Set swap spreads for a counterparty's currency pairs

---

**NOTE:** The currency pair needs to be enabled for the counterparty in order for rates to be streamed. See [Enable or disable currency pairs](#) on page 180.

---

1. Navigate to the Price Provisioning Rule Edit screen (**Counterparty > Price Provisioning > Counterparties > counterparty ID**).

The Price Provisioning Rule Edit screen appears showing the current provisioning settings.

2. To enable the currency pair for streaming, select the checkbox in the **Enable** column. See [Enable or disable currency pairs](#) on page 180 for more information.
3. To enable spreads and override the counterparty's default spread, click the currency pair's checkbox in the **Spread Override** column.
4. In the **Swap Spread** column, choose a spread profile for the counterparty. See [RFS spread profiles](#) on page 184 for more information.
5. Click **Save**.

## 2.5.8 RFS spread profiles

Spread profiles are named collections of tenor-based spreading information that you can apply to one or more counterparties. Spread profiles allow you to more easily define and manage price-provisioning spreads.

A spread profile contains the following information:

- The name of the profile
- A description of the spread profile
- The method for determining the spread for broken dates or for tenors that fall between defined tenors, either linear interpolation or using the following tenor
- The spread calculation basis:
  - "Pips": Spreads are expressed as pips. No further calculation or conversion is needed to apply the spreads for price discovery and trade booking.
  - "% of Forward Points": Spreads are expressed as a percentage of forward points and are converted to pips for price discovery and trade booking.
  - "Basis Point of Spot Rate": Spreads are calculated as  $\text{spotRate} * \text{spreadPoints}$ . For example, for EUR/USD 1.1600 with a spread amount of 1 basis point, the applied spread would be  $0.000116 = (1.1600 * 0.01\%)$ .

You can manage spread profiles in the Admin Portal as well as in [CSV](#) and Excel files. See [Download spread profiles](#) on page 185 and [Upload spread profiles](#) on page 186.

### Edit spread profiles

To remove a profile, click the  Remove button.

***To add a new profile or edit an existing profile in the Admin Portal:***

1. Navigate to the Spread Profiles screen (**Counterparty > Price Provisioning > Spread Profiles**).  
The Spread Profiles screen appears showing the list of spread profiles.
2. Click the  Add button.  
The Create Spread Profile popup window opens.
3. Enter the new profile's name in the **Name** field.
4. *(Optional)* Enter the profile's description in the **Description** field.
5. Choose the broken date calculation method by clicking one of the following radio buttons:

- Interpolation:** The spread for the broken date is interpolated from preceding and following tenors.
  - Use Following Tenor:** The following tenor is used.
6. Choose a calculation basis for the spread values from the Calculation Basis drop-down list:
- "Pips": Spreads are expressed as pips. No further calculation or conversion is needed to apply the spreads for price discovery and trade booking.
  - "% of Forward Points": Spreads are expressed as a percentage of forward points and are converted to pips for price discovery and trade booking.
7. Click **Submit**.
- Your new Spread Profile is added to the list. You must now add spreads by tenor to the new profile.
8. Click the new profile's name in the list.
- The Spread Profiles edit screen opens with the details of the profile.
9. Click the  Add button for each tenor that you want to add.
10. Enter the tenor, bid spread, and offer spread. See [Tenors](#) on page 451 for information about entering tenor shortcuts.
11. Click **Save**.

**To edit an existing profile in the Admin Portal:**

1. Navigate to the Spread Profiles screen (**Counterparty > Price Provisioning > Spread Profiles**).  
The Spread Profiles screen appears showing the list of spread profiles.
2. Click the profile's name in the list.  
The Spread Profiles edit screen opens with the details of the profile.
3. Edit the profile's description in the **Description** field.
4. Choose the broken date calculation method by clicking one of the following radio buttons:
  - Interpolation:** The spread for the broken date is interpolated from preceding and following tenors.
  - Use Following Tenor:** The following tenor is used.
5. Choose a calculation basis for the spread values from the Calculation Basis drop-down list:
  - "Pips": Spreads are expressed as pips. No further calculation or conversion is needed to apply the spreads for price discovery and trade booking.
  - "% of Forward Points": Spreads are expressed as a percentage of forward points and are converted to pips for price discovery and trade booking.
6. Add new tenors by clicking the  Add button.
7. Remove existing tenors by clicking the  Remove button.
8. Edit tenors, bid spreads, and offer spreads. See [Tenors](#) on page 451 for information about entering tenor shortcuts.
9. Click **Save**.

Download spread profiles

In addition to editing spread profiles in the Admin Portal, you can maintain your spread profiles with your tool of choice by downloading and uploading spread profiles as files.

When you download spread profiles, you choose the file type:

- [Download spread profiles as a CSV file on page 186](#)
- [Download spread profiles as an Excel file on page 186](#)

### Download spread profiles as a CSV file

You can download all of your spread profiles as a CSV file. See [Spread profile file formats on page 187](#) for information about the file contents.

1. Navigate to the Spread Profiles screen (**Counterparty > Price Provisioning > Spread Profiles**).

The Spread Profiles screen appears showing the list of spread profiles.

2. Click the  Excel Download button.

Your browser opens a popup window or infobar allowing you to open or save the file.

The profiles are saved as a CSV file.

### Download spread profiles as an Excel file

You can download all of your spread profiles as an Excel file. See [Spread profile file formats on page 187](#) for information about the file contents.

1. Navigate to the Spread Profiles screen (**Counterparty > Price Provisioning > Spread Profiles**).

The Spread Profiles screen appears showing the list of spread profiles.

2. Click the  Excel download button.

Your browser opens a popup window or infobar allowing you to open or save the file.

The profiles are saved as an Excel file.

### Upload spread profiles

The Admin Portal allows you to upload spread profiles so that you can maintain your profiles in the tool of your choice.

Only the spread profiles included in the upload file are updated. Spread profiles and tenors in the system that are omitted from the upload file remain unchanged.

You can upload spread profiles in the following formats:

- [CSV](#)
- [XLS \(Excel 97-Excel 2003\)](#)
- [XLSX \(Excel 2007-Excel 2010\)](#)

For information about spread profile file types, see [Spread profile file formats on page 187](#).

1. Navigate to the Spread Profiles screen (**Counterparty > Price Provisioning > Spread Profiles**).

The Spread Profiles screen appears showing the list of spread profiles.

2. Click the **Browse** button next to the **Spread Profile Upload** field to select the upload file.

The Choose File to Upload dialog opens.

3. Select the upload file and click **Open**.
4. Choose the file type from the **File Type** drop-down list.
5. Click **Import**.

The spread profiles are updated with profiles and tenors in the upload file. Profiles and tenors in the system that are omitted from the upload file remain unchanged.

### Spread profile file formats

The spread profile files that you download and upload have the following structure in both the [CSV](#) and Excel file types:

**Table 2-16 Spread profile file structure**

Header	Description	Values	UI Element
ProfileName	The name of the spread profile. This name is repeated on each row for each tenor defined in the spread profile	—	Name field
ProfileDesc	The description of the spread profile	—	Description field
CalcBasis	The spread calculation basis	<ul style="list-style-type: none"> <li>Pips</li> <li>PercentOfFwdPts</li> </ul>	Calculation Basis drop-down list
TenorbasedSpread	The method for determining the spread for broken dates or for tenors that fall between defined tenors, either linear interpolation or using the following tenor	<ul style="list-style-type: none"> <li>Interpolation</li> <li>FollowingTenor</li> </ul>	Tenor Based Spread radio buttons: <ul style="list-style-type: none"> <li>Interpolation</li> <li>Use Following Tenor</li> </ul>
Tenor	The tenor to which the spread values are applied	See <a href="#">Tenors</a> on page 451.	Tenor field in table
Bid	The bid spread in pips or percentage value	—	Bid field in table
Offer	The offer spread in pips or percentage value	—	Offer field in table

If you use CSV files, the header items must be the first line of the file and separated with commas with no spaces.

#### **Example 2-1 CSV Example**

```
ProfileName,ProfileDesc,CalcBasis,TenorbasedSpread,Tenor,Bid,Offer
SpreadProfile1,Description of SpreadProfile1,Pips,Interpolation,1W,0.1,0.1
SpreadProfile1,Description of SpreadProfile1,Pips,Interpolation,1M,0.5,0.5
SpreadProfile2,Description of SpreadProfile2,PercentOfFwdPts,FollowingTenor,1W,2.5,2.5
SpreadProfile2,Description of SpreadProfile2,PercentOfFwdPts,FollowingTenor,1M,3.0,3.0
```

SpreadProfile2,Description of  
SpreadProfile2,PercentOffFwdPts,FollowingTenor,3M,5.0,5.0

If you use Excel files, the header items must be in the first row of the worksheet, each header item to a separate column.

## 2.5.9 ESP spot trading limits

Trading limit rules determine the size of the prices that you publish to counterparties.

You can specify trading limits either as an absolute amount or as a percentage of the base price's size.

For example, if you enter "1m" for EUR/USD bid and your base price's size is five million, the counterparty sees one million in their trading screen.

If you enter "40%" with a five million base price, the counterparty sees two million in their trading screen for your EUR/USD bid price.

---

**NOTE:** If you leave a limit value blank, the base trading limit of the rate is left unchanged. A limit value of zero turns off the rate in the currency pair for the counterparty. Also, the currency pair needs to be enabled for the counterparty in order for rates to be streamed. See [Enable or disable currency pairs](#) on page 180.

---

You can enter trading limit values in the following ways:

Format	Example
A number	100000
A number with a unit shortcut	<ul style="list-style-type: none"> <li>• 100k</li> <li>• .1m</li> </ul>
A percentage	10%

Choose base-stream or customer-specific limits

**To use the limits specified by the base prices:**

1. Navigate to the Price Provisioning Rule Edit screen (**Counterparty > Price Provisioning > Counterparties > counterparty ID**).  
The Price Provisioning Rule Edit screen appears showing the current provisioning settings.
2. In the "Trading Limit Rule" section, click the **Use base stream trading limits** radio button.
3. Click **Save**.

**To edit the trading limits applied to the base prices published to a counterparty:**

1. Navigate to the Price Provisioning Rule Edit screen (**Counterparty > Price Provisioning > Counterparties > counterparty ID**).  
The Price Provisioning Rule Edit screen appears showing the current provisioning settings.
2. In the "Trading Limit Rule" section, click the **Use customer-specific trading limits** button.

3. In the “ESP Spot Trading Limits” column of the currency pair table, enter the bid/offer limits for each currency pair and choose the denominator currency from the drop-down list.

**NOTE:** If you leave the limit value blank, the base trading limit of the rate is left unchanged. A limit value of zero turns off the rate in the currency pair for the counterparty.

4. If you want to ensure that the limits you define override smaller base price limits, select the **Increase trading limit if customer specific trading limit is higher than base trading limit** checkbox. Otherwise, to allow smaller base price limits to stand, clear the checkbox.
5. Click **Save**.

#### Enable or disable ESP trading limits for a customer

**NOTE:** The currency pair needs to be enabled for the counterparty in order for rates to be streamed. See [Enable or disable currency pairs](#) on page 180.

1. Navigate to the Price Provisioning Rule Edit screen (**Counterparty > Price Provisioning > Counterparties > counterparty ID**).  
The Price Provisioning Rule Edit screen appears showing the current provisioning settings.
2. Make sure the checkbox in the “Enable” column is selected to enable the currency pair for streaming. See [Enable or disable currency pairs](#) on page 180 for more information.
3. In the “ESP Spot Trading Limits” column, enter the bid/offer limits for each currency pair and choose the denominator currency from the drop-down list.

**NOTE:** If you leave the limit value blank, the base trading limit of the rate is left unchanged. A limit value of zero turns off the rate in the currency pair for the counterparty.

4. Click **Save**.

#### 2.5.10 Set spread improvement (give-back)

The Admin Portal allows you to specify a tolerance to filling a customer’s price-taking request, the flexibility deriving from your spread. By enabling spread improvement, you then specify a percentage of spread that may be given back to the client due to price movements. To ensure a customer’s quality of experience you give up some of the profit established by your spread.

For example, if you publish prices with a 10 pip spread, the provider’s price is be spread by 10 pips. If you allow spread improvement and specify a give-back percentage value of 50%, then the price taker may get up to 5 pips of price improvement. If the provider’s base price is 1.0000, the spread price is now 1.0010. If the taker clicks on this price, the system may execute against a provider’s rate down to 1.0005, instead of 1.0010.

Continuing the example, if the provider’s price is initially 1.0000 but then moves to 1.0002, the taker’s trade request would still get filled. If the percentage is 100%, the client would be filled at 1.0002. If the percentage is 50% of the 10-pip spread, the taker would get filled at 1.0007. The taker would get filled as long as provider’s price was less than or equal to 1.0005.

For providers that do not handle spreads, the give-back value is always 100%, meaning the spread itself is the tolerance.

### To enable or disable spread improvement

1. Make sure that spreads are enabled for the counterparty. See [Enable or disable spreads on page 181](#).
2. Navigate to the Price Provisioning Rule Edit screen (**Counterparty > Price Provisioning > Counterparties > counterparty ID**).  
The Price Provisioning Rule Edit screen appears showing the current provisioning settings.
3. Do one of the following in the “Spreading Rule” section:
  - Click the **Allow Spread Improvement** checkbox to enable spread improvement
  - Clear the checkbox to disable spread improvement.
4. Enter a percentage value for the spread improvement give-back tolerance in the **Give-back Percentage** field. The actual tolerance equals the spread multiplied by the give-back percentage.
5. Click **Save**.

### 2.5.11 Dynamic price control (DPC)

DPC allows banks or brokers to actively manage pricing as a response to changes in market conditions or a customer’s trading behavior. You define DPC rules per customer based on the customer’s trading direction on a per-currency-pair basis. For retail brokers, this concept can be extended to a customer group, instead of individual retail customers.

---

**NOTE:** DPC is applied to ESP spot pricing only. Brokers can choose to apply DPC only to customers for whom they are the broker or to all counterparties regardless of their relationship with the broker. Only done trades are tracked to determine DPC. Unsuccessful trade attempts or rejected trades are not considered.

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To access DPC functionality, please contact your Relationship Manager.

- [DPC parameters on page 190](#)
- [Currency pair DPC parameters on page 191](#)
- [Give-back percentage and DPC on page 192](#)
- [Enable DPC on page 192](#)
- [Edit DPC parameters on page 192](#)

#### DPC parameters

You define the start and end conditions of the DPC session that apply to all currency pairs for a customer with the “Dynamic Price Control” section of the Price Provisioning Rule Edit screen (**Counterparty > Price Provisioning > Counterparties > counterparty ID**).

- [DPC start condition on page 190](#)
- [DPC end condition on page 191](#)

#### DPC start condition

DPC starts when the customer initiates a new trade series (more than one trade in the same direction within a number of seconds that you set):

- The customer has been selling a currency pair and then starts to buy (the price moves to the offer side)
- The customer has been buying a currency pair and then starts to sell (the price moves to the bid side)

The buy/sell direction is defined with respect to the base currency. If a customer trades the term currency, the buy/sell direction is reversed. All the following examples assume trades in the same currency pair.

You can define an optional trading amount threshold to confirm the customer's trading direction. The trading amount threshold is defined in the base currency of the pair. When you set a trading amount threshold, DPC starts when the accumulated amount of trades in that direction exceeds the threshold.

For example, with a 2M trading amount threshold, if a customer who has been selling a currency buys 1M, DPC is not started. The customer then buys another 1M and DPC is still not applied. When the customer again buys 1M, the accumulated buying amount is 3M and a DPC session is started.

The trading amount threshold calculation considers both buy and sell trades. For example, with a 5M threshold, if a customer sells 4M and then buys 2M, there is now 2M remaining on the sell side. The customer would then have to sell more than 3M to trigger DPC.

When DPC is triggered, the trading amount threshold calculation is reset to zero.

If you do not set a trading amount threshold, then a new session is triggered with every change in trading direction. For example, the customer's last trade was a sell, so prices moved to the bid side. With the very next buy, prices are then moved to the offer side for the customer.

#### DPC end condition

When a customer's trading direction reverses during a DPC session, the session ends and the DPC spread is removed from pricing. For example, a customer starts a DPC session with a streak of buy trades and system skewed the price to the offer side. Then the customer does a sell trade and the session ends, removing the DPC spread.

If you do not set a trading amount threshold, then the session ends with every change in trading direction. For example, the customer's last trade was a buy, so prices are moved to the offer side. With the very next sell, offer-side DPC ends and prices are then moved to the bid side.

You should set an expiry time for DPC sessions. If no trades are done after a session starts, the session ends and DPC stops after the specified time. You specify the expiry time in seconds.

#### Currency pair DPC parameters

The **Enable DPC** and **DPC Spread** columns in the Counterparties screen (**Counterparty > Price Provisioning > Counterparties > counterparty ID**) allow you to enable/disable DPC and define the spread amount and calculation bases for each currency pair.

---

**NOTE:** DPC is applied to ESP spot pricing only. Only done trades are tracked to determine DPC. Unsuccessful trade attempts or rejected trades are not considered.

---

To enable or disable DPC for a currency pair, select or clear the currency pair's checkbox. The default value is cleared. Use the checkbox at the column heading to select or clear all checkboxes at once.

This DPC spread parameter defines the amount of price adjustment. You can define the DPC spread as pips or basis points with the drop-down list. The default is pips.

When the customer is buying and a DPC session is active, rates are skewed to the offer side by the defined amount. When the customer is selling, rates are adjusted to the bid side by the same amount. DPC does not change the bid/offer spread of the rate. It moves both bid and offer rates to the same direction. For example, with the following conditions:

- Customer rate after applying price provisioning bid/offer spread is 1.23456/1.23458.
- DPC spread is 0.1 pip.
- The customer is buying.
- DPC session is active.

Then the price is adjusted to the offer side to 1.23457/1.23459.

### Give-back percentage and DPC

Any give-back percentage applies to the original spread only and does not apply to DPC-modified spread. For example, if the spread is 1/1 and DPC is 0.5 to the bid side; the DPC spread is 1.5/0.5. If the give-back percentage is 50%, the give-back is 0.5 pip based on the original spread of 1/1.

### Enable DPC

You can enable or disable DPC for an individual counterparty in two ways:

- The checkbox in the **Enable DPC** column of the Counterparties price-provisioning list screen (**Counterparty > Price Provisioning > Counterparties**). You can also enable or disable DPC for all counterparties with the drop-down list above the **Enable DPC** column.
- The **Enable Dynamic Price Control (DPC)** drop-down list in the counterparty's Price Provisioning Rule Edit screen (**Counterparty > Price Provisioning > Counterparties > counterparty ID**).

### Edit DPC parameters

#### ***To edit skewing parameters for a counterparty:***

1. Navigate to the Price Provisioning Rule Edit screen (**Counterparty > Price Provisioning > Counterparties > counterparty ID**).  
The Price Provisioning Rule Edit screen appears showing the current provisioning settings.
2. In the **Dynamic Price Control** section, enter the directional trading amount that starts DPC and the DPC expiry time in the fields. See [DPC start condition](#) on page 190 and [DPC end condition](#) on page 191 for more information.
3. Use the checkboxes in the **Enable DPC** column to enable or disable DPC for individual currency pairs.
4. Enter the DPC value in the field and choose the denomination (either "Pips" or "Basis Point") from the drop-down list in the **DPC Spread** column.
5. Click **Save**.

## 2.5.12 Pre-trade or post-trade spreads

Broker users can also choose when the spread is applied, either pre-trade or post-trade.

If the spread is applied pre-trade, then the spread is removed from the price before the trade request is sent to the provider.

If the spread is applied post-trade, the spread accounted for in post-trade workflow where two trades are created, one between the prime broker and the counterparty with the all-in rate (with spread) and one between the prime broker and the provider with the base price (no spread).

**To choose when spreads are applied:**

1. Navigate to the Price Provisioning Rule Edit screen (**Counterparty > Price Provisioning > Counterparties > counterparty ID**).  
The Price Provisioning Rule Edit screen appears showing the current provisioning settings.
2. Click one of the following radio buttons in the “Spreading Sequence” section:
  - Pre-Trade Spreading**
  - Post-Trade Spreading**
3. Click **Save**.

## 2.5.13 Configure channels for a customer

The Admin Portal allows you to configure the channels available to individual counterparties and determine the prices they can request and trades they can execute.

1. Navigate to the Price Provisioning Rule Edit screen (**Counterparty > Price Provisioning > Counterparties > counterparty ID**).  
The Price Provisioning Rule Edit screen appears showing the current provisioning settings.
2. Select or clear the checkboxes in the **Allowed Channels** section:
  - ESP Spot:** You stream ESP spot prices to the counterparty that they can execute.
  - RFS Spot:** Your counterparty can submit RFS requests for spot prices and execute spot trades from the prices you stream.
  - RFS Outright:** Your counterparty can submit RFS requests for outright prices and execute outright trades from the prices you stream.
  - RFS Swap:** Your counterparty can submit RFS requests for swap prices and execute spot trades.
  - RFS NDF:** Your counterparty can submit RFS requests for NDF prices and execute NDF trades.
  - RFS FSR:** Your counterparty can submit RFS requests for fixed spot roll prices and execute FSR trades (see [Fixed spot roll \(FSR\) pricing](#) on page 97).
  - RFS SSP:** Your counterparty can submit RFS requests for single spot portfolio prices and execute SSP trades (see [Single spot portfolio \(SSP\) pricing](#) on page 99).
  - NDF Swap:** Your counterparty can submit RFS requests for NDF swap prices and execute NDF swap trades.
3. Click **Save**.

## 2.5.14 Upload batches of spreads and limits

The Admin Portal allows you to upload spreads and limits in batches so that you can quickly add new provisioning rules or update existing rules.

You can upload price provisioning data in the following formats:

- CSV
- XLS (Excel 97-Excel 2003)
- XLSX (Excel 2007-Excel 2010)

For information about preparing spreads and limits for upload in these formats, see [Spread upload file formats](#) on page 195.

You can upload price provisioning data for multiple counterparties of liquidity provider at once or for an individual counterparty:

- [Upload spreads and limits for one counterparty](#) on page 194
- [Upload spreads and limits for multiple counterparties](#) on page 194

### Upload spreads and limits for one counterparty

The Admin Portal allows you to upload a batch of spreads for an individual counterparty.

For information about preparing the files for spread upload, see [Spread upload file formats](#) on page 195.

1. Navigate to the counterparty's Price Provisioning Rule Edit screen (**Counterparty > Price Provisioning > Counterparties > counterparty ID**).  
The Price Provisioning Rule Edit screen appears showing the current provisioning settings.
2. Click the **Browse** button next to the **Price Provision Spread Upload** field to select the upload file.  
The Choose File to Upload dialog opens.
3. Select the upload file and click **Open**.
4. Choose the file type from the **File Type** drop-down list.
5. Click **Import**.

The spreads are uploaded to the currency pairs specified in the upload file and the screen refreshes to show the updated spreads.

### Upload spreads and limits for multiple counterparties

The Admin Portal allows you to upload a batch of spreads for multiple counterparties at once.

For information about preparing the files for spread upload, see [Spread upload file formats](#) on page 195.

1. Navigate to the Counterparties screen (**Counterparty > Price Provisioning > Counterparties**).  
The Counterparties screen appears showing the list of counterparties.
2. Click the **Browse** button next to the **Price Provision Spread Upload** field to select the upload file.  
The Choose File to Upload dialog opens.

3. Select the upload file and click **Open**.
4. Choose the file type from the **File Type** drop-down list.
5. Click **Import**.

The spreads are uploaded to the counterparties and currency pairs specified in the upload file.

### Spread upload file formats

The files that you use to upload spreads must have the following structure:

**Table 2-17 Spread upload file structure**

Header	Description
Organization	(For future use)
CptyOrganization	The counterparty organization ID
CcyPair	Currency pair
SpreadEnabled	The valid values are "on" and "off". This field indicated if spread is enabled for the given currency pair.
SpreadModel	(For future use. At present only Bid-Offer Mode is supported the value if which is "1")
BidSpread	The bid spot spread in pips
OfferSpread	The offer spot spread pips
CalculationType	How spot spreads are applied, either "Pips" or "Basis Point".
BidLimit	Bid limit
OfferLimit	Offer limit
BidLimitCcy	Bid limit currency
OfferLimitCcy	Offer limit currency
BidForwardPoints	The bid forward spread in points
OfferForwardPoints	The offer forward spread in points
ForwardCalculationType	How forward spreads are applied, either "Pips" or "Basis Point".
ForwardSpreadProfile	The spread profile, if any, applied to forward prices.
SwapSpreadProfile	The spread profile, if any, applied to swap prices.

If you use CSV files, the header items must be the first line of the file and separated with commas with no spaces.

#### **Example 2-1 CSV Example**

```
CptyOrganization,CcyPair,SpreadEnabled,SpreadModel,BidSpread,OfferSpread,CalculationType,BidLimit,
OfferLimit,BidLimitCcy,OfferLimitCcy,BidForwardPoints,OfferForwardPoints,ForwardCalculationType,
```

```
ForwardSpreadProfile,SwapSpreadProfile  
BRKXXcust1,EUR/USD,on,1,0.3,0.3,Pips,5000000,5000000,EUR,EUR,0.1,0.1,Pips,SprdProfile1,  
wapProfileSED052145
```

If you use Excel files, the header items must be in the first row of the worksheet, each header item to a separate column.

## 2.5.15 Set the cutoff time for TOD and TOM streams

By default, requests to trade and subscription requests with TOD (today) and TOM (tomorrow) tenors are accepted by the system until the end of the business day.

You can use the Admin Portal to set the cutoff time for TOD and TOM trades and price streams so that your organization has time to settle trades at the end of the day.

Users receive a message like “Past the TOD cutoff time” or “Past the TOM cutoff time” when their requests for price streams and trades are declined.

You manage cutoff times by currency pairs and currency pair groups. For more information, see [Currency pairs](#) on page 86.

**To add or edit TOD and TOM cutoff times for currency pairs and currency pair groups:**

1. Navigate to the TOD/TOM Cutoff Timings screen (**Counterparty > TOD/TOM Cutoff Timings**).
2. To add a cutoff time for a currency pair group, click a currency pair group in the list in the TOD/TOM Cutoff Timings panel.
3. Click the **Add** button next to the list. A currency pair group is added to the table at the bottom of the panel.
4. To add a cutoff time for a specific currency pair, click the **Advanced Settings** button. A list of currency pairs expands.
5. Click a currency pair in the list.
6. Click the **Add** button next to currency pair list. A currency pair is added to the table at the bottom of the panel.
7. Select the time zone of the cutoff times from the **Time Zone** drop-down list.
8. Enter a sort order priority number in the field in the Sort column. The lower the number, the higher the cutoff time is displayed in the table.
9. Enter a cutoff time in the format *hh:mm:ss* in the field in the TOD Cutoff Time column.
10. Enter a cutoff time in the format *hh:mm:ss* in the field in the TOM Cutoff Time column.
11. Select the checkbox in the “Active” column to put the cutoff time into effect.
12. Click **Save**.

**To deactivate cutoff times:**

1. Navigate to the TOD/TOM Cutoff Timings screen (**Counterparty > TOD/TOM Cutoff Timings**).
2. In the TOD/TOM Cutoff Timings panel, clear the checkbox in the “Active” column of the cutoff times that you want to deactivate.
3. Click **Save**.

### To remove TOD and TOM cutoff times:

**NOTE:** Cutoff times that you remove are deleted and cannot be recovered. If you accidentally remove a cutoff time, you must add a new cutoff time with equivalent settings. Both TOD and TOM cutoff times are also removed when you remove cutoff times for a currency pair group or currency pair.

1. Navigate to the TOD/TOM Cutoff Timings screen (**Counterparty > TOD/TOM Cutoff Timings**).
2. In the TOD/TOM Cutoff Timings panel, select the checkboxes of the cutoff times that you want to remove.
3. Click the **Remove** button at the bottom of the panel.  
The selected TOD and TOM cutoff times are removed.
4. Click **Save**.

## 2.6 Liquidity regeneration

Liquidity regeneration is a process that manages the liquidity available to a counterparty and allows you to throttle deal execution against streaming prices.

When you enable liquidity regeneration, the liquidity available to a counterparty is reduced by the notional amount of each deal. The available liquidity then regenerates to the full amount over a period of time that you configure.

- [Benefits](#) on page 197
- [Process overview](#) on page 197
- [Configure liquidity regeneration](#) on page 198
- [What you can change](#) on page 201
- [Examples](#) on page 201

### 2.6.1 Benefits

- Ensures that the risk of a deal is appropriately offset before the next execution is allowed.
- Ensures that a counterparty does not execute multiple deals against the same rate before the deal execution can be taken into account for the next rate.
- Limits the available liquidity so that any one counterparty cannot execute against the entire liquidity pool and deny liquidity to other counterparties sharing the pool.

### 2.6.2 Process overview

The regeneration process is inserted in the trading workflow between a counterparty and the price provider, working with the counterparty's trading limits and credit limits to determine the prices the counterparty can deal.

For example, a counterparty with liquidity regeneration enabled executes a 6M deal on a price with a limit of 20M. The limit on the next price sent to the counterparty is determined by the following process:

1. When the next price is received from the price provider, 2M has already been regenerated, so the limit available to the counterparty is reduced by 4M ( $6\text{M dealt} - 2\text{M regenerated} = 4\text{M still to be regenerated}$ ).
2. The counterparty's trading limit is 15M. The lowest limit always takes precedence (15M trading limit < 20M price limit). The counterparty's current limit is therefore reduced to 11M (15M trading limit - 4M still to be regenerated = 11M limit).
3. The counterparty's remaining credit limit is 44M. Because the lowest limit always takes precedence (11M price limit < 44M credit limit), this figure does not affect the counterparty's current price limit.
4. A price with an 11M limit is published to the counterparty. The counterparty can deal a maximum of 11M at that price.
5. Regeneration continues until the original dealt amount of 6M is regenerated or another deal request is received from the same counterparty, triggering another regeneration cycle.

#### Deal acceptance and rejection

Liquidity regeneration starts when the server receives a counterparty deal request.

If the deal is accepted, liquidity generation continues unaffected.

If the server receives a deal rejection, the previously deducted amount is reverted back to the counterparty's trading limit.

If the trading limit with the reverted amount is equal to or greater than the counterparty's trading limit, regeneration stops immediately. Otherwise, regeneration continues as configured.

#### New tiered prices

New prices with an unchanged tier structure received during the regeneration period do not effect liquidity regeneration. The new price is published with the unchanged tiers.

When the server receives a price with a new tier structure during the regeneration period, the server performs one of two actions depending on the size of the new tier limit and the currently regenerated amount:

- If the new tier limit is equal to or less than the currently regenerated amount, liquidity regeneration stops and the server publishes the new price to the counterparty.
- If the new tier limit is greater than the currently regenerated amount, liquidity regeneration continues with the new tier limit according to the configured regeneration model and period, and the regenerated price is published to the counterparty.

### 2.6.3 Configure liquidity regeneration

For the details of liquidity regeneration that you configure, see [What you can change on page 201](#).

---

**NOTE:** To enable liquidity generation, you must first define a default configuration that applies globally to all counterparties. You can then customize or disable regeneration for individual counterparties as necessary.

---

### Configure default regeneration (all counterparties)

1. Navigate to the Liquidity Regeneration screen (**Counterparty > Liquidity Regeneration**).
2. In the Liquidity Regeneration Configuration Details panel, choose a liquidity regeneration method from the **Liquidity Regeneration** drop-down list ([Liquidity regeneration models](#) on page 200). You can disable regeneration for all counterparties by selecting “No regeneration”.
3. Choose a liquidity management model from the **Liquidity Management Model** drop-down list ([Liquidity management models](#) on page 200).
4. Choose a tier regeneration model from the **Tier Regeneration Model** drop-down list ([Tier regeneration models](#) on page 201).
5. Choose a price regeneration period from the Regeneration Period area ([Price regeneration amount and period](#) on page 201):
  - **Replenish amount per x seconds**
  - **Replenish entire trading limit in x seconds**
6. Choose whether you want to throttle your liquidity by selecting or clearing the **Turn off the currency pair for x milliseconds after deal execution** checkbox and entering the time in milliseconds ([Price regeneration amount and period](#) on page 201).
7. Choose whether or not to allow only one match per quote by selecting or clearing the **Allow one match per quote** checkbox. When selected, a quote is matched only once and then withdrawn even if the match is for an amount less than the liquidity available on the quote.
8. Click **Save**.

### Configure regeneration for specific counterparties

You can override the global default regeneration scheme by configuring regeneration for specific counterparties.

1. Navigate to the Liquidity Regeneration screen (**Counterparty > Liquidity Regeneration**).
2. Click a counterparty ID link in the Counterparties table.

The counterparty’s Liquidity Regeneration screen appears. If the user interface components are inactive, you must first enable regeneration for all counterparties ([Configure default regeneration \(all counterparties\)](#) on page 199).
3. Do one of the following:
  - To use the default configuration, click the **Use default regeneration period** radio button. You can then click **Save** and skip the remainder of this procedure.
  - To override the default configuration, click the **Use counterparty-specific regeneration period** radio button. Continue with the next step.
4. Choose a liquidity regeneration method from the **Liquidity Regeneration** drop-down list ([Liquidity regeneration models](#) on page 200). You can turn off regeneration for the counterparty by selecting “No regeneration”.
5. Choose a liquidity management model from the **Liquidity Management Model** drop-down list ([Liquidity management models](#) on page 200).
6. Choose a tier regeneration model from the **Tier Regeneration Model** drop-down list ([Tier regeneration models](#) on page 201).

7. Choose a price regeneration period from the Regeneration Period area ([Price regeneration amount and period on page 201](#)):
  - **Replenish amount per x seconds**
  - **Replenish entire trading limit in x seconds**
8. Choose whether you want to throttle your liquidity by selecting or clearing the **Turn off the currency pair for x milliseconds after deal execution** checkbox and entering the time in milliseconds ([Price regeneration amount and period on page 201](#)).
9. Choose whether or not to allow only one match per quote by selecting or clearing the **Allow one match per quote** checkbox. When selected, a quote is matched only once and then withdrawn even if the match is for an amount less than the liquidity available on the quote.
10. Choose whether or not liquidity regeneration applies to the counterparty in the Sales Dealer workflow by selecting or clearing the **Enable for the Sales Dealer Workflow** checkbox.
11. Click **Save**.

### Liquidity regeneration models

You can set regeneration to one of three options:

- **No regeneration:** The server does not provide price regeneration. Price update is completely driven from the provider stream. This setting should be used for providers who already have built-in price regeneration. This option disables the other configuration parameters.
- **Regeneration without Replenishment:** The server decreases the available trading limit when a deal is executed against the quote. The trading limit does not replenish automatically, but is reset to its full amount by the next provider quote. You can add a blackout period with the time tools in the Regeneration Period section.
- **Basic Model (Regeneration with Replenishment):** The server decreases the available trading limit when a deal is executed against the quote. The server then replenishes the trading limit to its full amount within a pre-defined time period.

You configure regeneration options with the **Liquidity Regeneration** drop-down list in the Liquidity Regeneration screen. See [Configure liquidity regeneration on page 198](#) for details.

### Liquidity management models

You can manage the pools for bid and offer liquidity in the following ways:

- **Combined liquidity with netting:** There is a common liquidity pool for both bid and offer, and buy and sell orders net with each other. The net position is either long or short. At least one side of the liquidity is at its maximum. See [Netting \(reduce liquidity from highest tier to lower tier\) on page 202](#) for details.
- **Combined liquidity with no netting:** There is a common liquidity pool for both bid and offer but buy and sell orders do not net with each other. Bid and offer prices show the same available trading limit. For example, if a counterparty buys 2M and sells 3M, a total of 5M is deducted from the liquidity pool. See [No netting on page 203](#) for details.
- **Independent bid/offer liquidity:** There are two separate liquidity pools for bid and offer. Bid and offer liquidity regenerations are managed independently. See [Independent bid/offer liquidity on page 204](#) for more details.

You configure the model with the **Liquidity Management Model** drop-down list in the Liquidity Regeneration screen. See [Configure liquidity regeneration](#) on page 198 for details.

#### Tier regeneration models

For tiered prices, you decide how the tiers are regenerated:

- Reduce Liquidity from Lowest Tier to Highest Tier. See [Reduce liquidity from lowest tier to highest tier](#) on page 202 for an example.
- Reduce Liquidity from Highest Tier to Lower Tier. See [Netting \(reduce liquidity from highest tier to lower tier\)](#) on page 202 for an example.

You configure tier regeneration with the **Tier Regeneration Model** drop-down list in the Liquidity Regeneration screen. See [Configure liquidity regeneration](#) on page 198 for details.

#### Price regeneration amount and period

Liquidity regeneration with replenishment is linear. A trading limit is regenerated by a set amount after a set time period until fully replenished. You configure both the amount and time.

For example, the trading limit can be regenerated at the rate of  $n$  million per  $x$  number of seconds, where you set  $n$  and  $x$ .

Alternately, the entire trading limit can be regenerated in  $x$  seconds.

In addition, you can throttle your liquidity by setting a time period in which prices for the currency pair are stopped after a price is hit. The trading limit regenerates while prices are stopped.

For further throttling, you can limit the number of deals on a quote to a single match even if the match is for an amount less than the liquidity available on the quote.

You set period, amount, and price-stopping parameters with the **Regeneration Period** controls in the Liquidity Regeneration screen. See [Configure liquidity regeneration](#) on page 198 for details.

### 2.6.4 What you can change

You can configure the following aspects of liquidity regeneration:

- How regeneration occurs, if enabled ([Liquidity regeneration models](#) on page 200)
- Bid and offer prices, netting ([Liquidity management models](#) on page 200)
- Price tiers ([Tier regeneration models](#) on page 201)
- How regeneration progresses over time, stopping prices, and quote withdrawal ([Price regeneration amount and period](#) on page 201)

### 2.6.5 Examples

The following examples show liquidity regeneration in action:

- [Reduce liquidity from lowest tier to highest tier](#) on page 202
- [Netting \(reduce liquidity from highest tier to lower tier\)](#) on page 202
- [No netting](#) on page 203

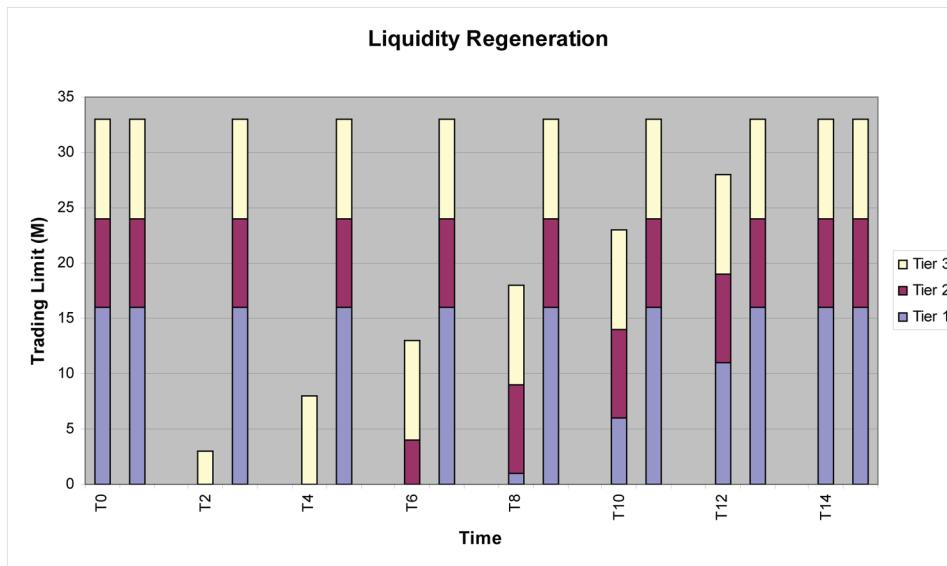
- [Independent bid/offer liquidity](#) on page 204

**NOTE:** The examples do not include counterparty trading limits and credit limits for the sake of simplicity.

Reduce liquidity from lowest tier to highest tier

This example shows regeneration with the following configuration:

- Price Regeneration Period: Regenerated at the rate of 5 million per 2 seconds
- Tier Regeneration Model: Reduce Liquidity from Lowest Tier to Highest Tier
- Liquidity Management Model: Not applicable to this example (could be either combined liquidity with netting or independent bid/offer liquidity)



**Figure 2-1 Liquidity regeneration: reduce liquidity from lowest tier to highest tier**

- T0: Bid and offer have 33M trading limits on each side
- T2: A counterparty hits the bid side for 30M. The available bid trading limit is reduced to 3M. The offer trading limit is unchanged so that counterparty can still hit with the full trading limit to net the long position. The 30M will be regenerated at the rate of 5 million every 2 seconds.
- T4: After 2 seconds, 5M is regenerated starting from the worst tier in this model. At T4, the total trading limit increases to 8M.
- T6: The bid trading limit is increased by another 5M to 13M. Tier 3 is fully regenerated and Tier 2 is partially regenerated.
- T8: The bid trading limit is increased by 5M to 18M. Tier 2 is completely regenerated and Tier 1 is partially regenerated.
- T10: The bid trading limit is increased by 5M to 23M.
- T12: The trading limit is increased by 5M to 28M.
- T14: The trading limit is increased by 5M to 33M. The bid trading limit is fully recovered.

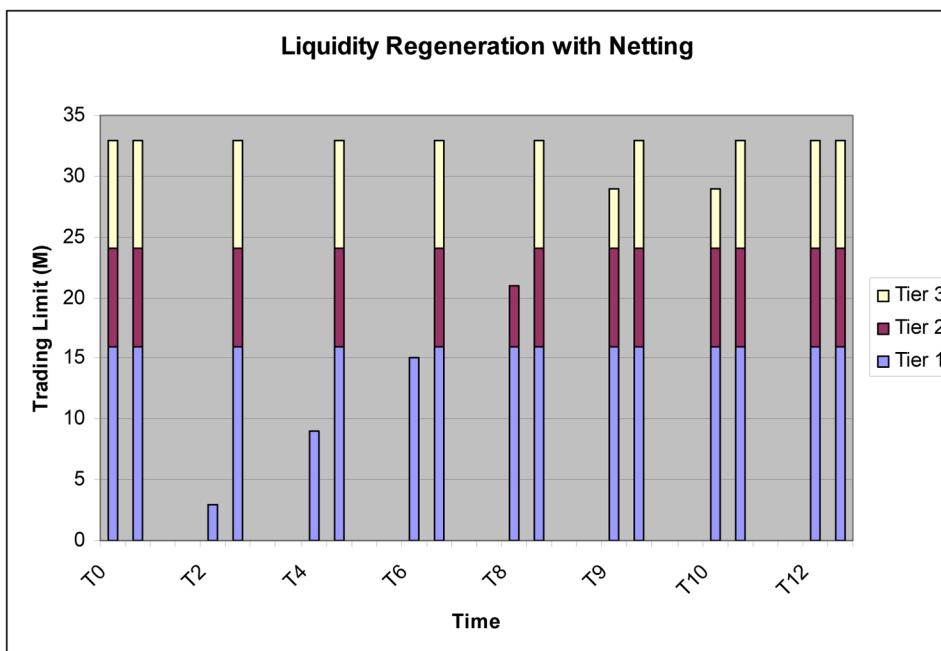
Netting (reduce liquidity from highest tier to lower tier)

Netting is the process to handle the case in which a deal has an opposite side of the current net position. A net long or short position is maintained when counterparties execute deals in a liquidity regeneration cycle. When a counterparty executes a deal, the position can be increased or decreased or reversed, depending on the side and size of the deal.

If a new deal has the opposite side from the current position and is smaller than the current position, the position is reduced. However, the liquidity regeneration schedule is not changed.

The following example shows regeneration with the following configuration:

- Price Regeneration Period: Entire limit regenerated in 10 seconds
- Tier Regeneration Model: Reduce Liquidity from Highest Tier to Lower Tier
- Liquidity Management Model: Combined liquidity with netting



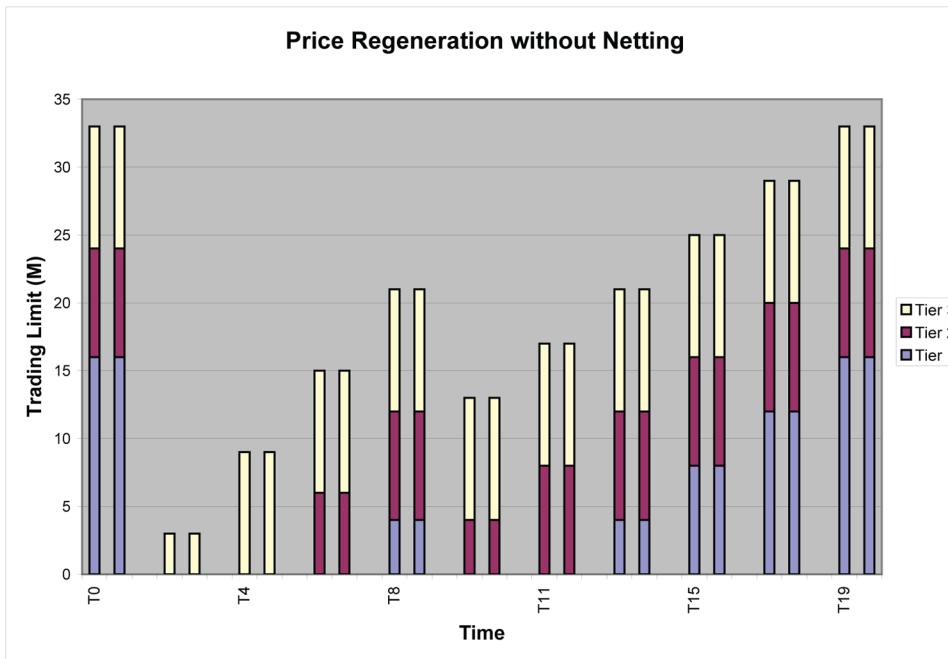
**Figure 2-1 Liquidity regeneration with netting (reduce liquidity from highest tier to lower tier)**

- T0: Bid and offer have 33M trading limits on each side
- T2: A counterparty hits the bid side for 30M. The provider has a long position of 30M. The available bid trading limit is reduced to 3M. The 30M will be regenerated in the next 10 seconds.
- T4: The bid trading limit is increased to 9M.
- T6: The bid trading limit is increased to 15M.
- T8: The bid trading limit is increased to 21M.
- T9: A counterparty hits the offer side for 8M. It reduces the provider's long position. The available bid trading limit is increased by 8M to 29M. The offer trading limit is unchanged.
- T10: Liquidity regeneration on the bid side continues. The bid trading limit should have increased to 27M. Since the new trading limit is already at 29M, the trading limit shows 29M.
- T12: The trading limit is increased to 33M. The bid trading limit is fully recovered.

### No netting

The following example shows regeneration with the following configuration:

- Price Regeneration Period: Entire limit regenerated in 10 seconds
- Tier Regeneration Model: Highest tier to lowest tier
- Liquidity Management Model: Combined liquidity without netting



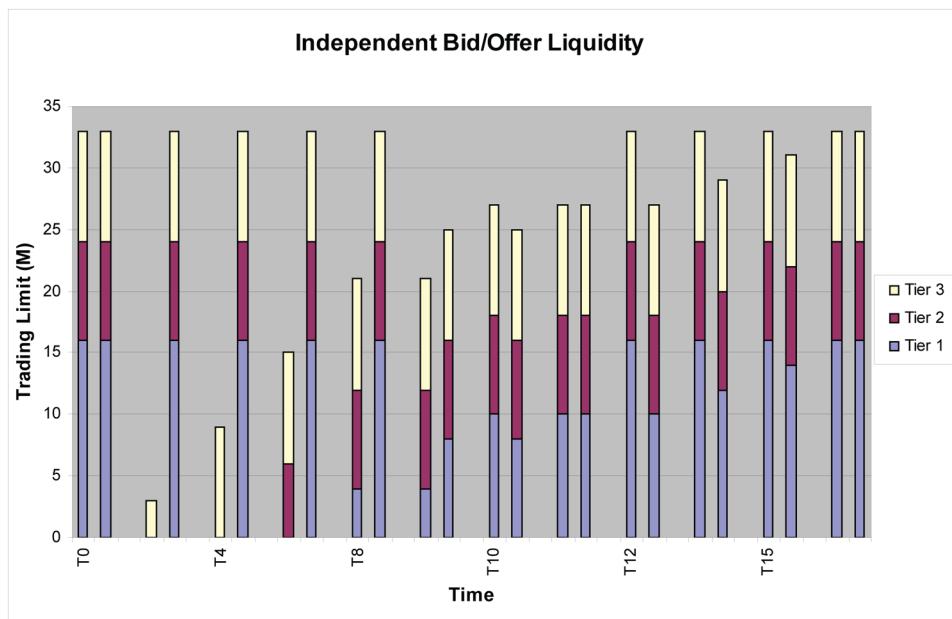
**Figure 2-1 Liquidity regeneration without netting**

- T0: Bid and offer have 33M trading limits on each side.
- T2: A counterparty hits the bid side for 30M. The provider has a long position of 30M. The available trading limit is reduced to 3M on both the bid and offer side. The 30M will be regenerated in the next 10 seconds on both the bid and offer side.
- T4: The trading limit is increased to 9M.
- T6: The trading limit is increased to 15M.
- T8: The trading limit is increased to 21M.
- T9: A counterparty hits the offer side for 8M. Since there is no netting and the same liquidity pool is maintained for both bid and offer, the available trading limit is further reduced by 8M to 13M on both the bid and offer side (21M - 8M).
- T11: Price regeneration continues. 20M (33M - 13M) needs to be generated in 10 seconds for both bid and offer. The trading limit is increased to 17M.
- T13: The trading limit is increased to 21M.
- T15: The trading limit is increased to 25M.
- T17: The trading limit is increased to 29M.
- T19: The trading limit is increased to 33M and is now fully recovered.

### Independent bid/offer liquidity

This example shows regeneration with the following configuration:

- Price Regeneration Period: Entire limit regenerated in 10 seconds
- Tier Regeneration Model: Highest tier to lowest tier
- Liquidity Management Model: Independent bid/offer liquidity



**Figure 2-1 Independent bid/offer liquidity**

- T0: Bid and offer have 33M trading limits on each side.
- T2: A counterparty hits the bid side for 30M. The provider has a long position of 30M. The bid available trading limit is reduced to 3M. The 30M will be regenerated in the next 10 seconds.
- T4: The bid trading limit is increased to 9M.
- T6: The bid trading limit is increased to 15M.
- T8: The bid trading limit is increased to 21M.
- T9: A counterparty hits the offer side for 8M. Since the bid and offer have independent liquidity pools, the available bid trading limit on the bid side remains 21M, while on the offer side, the pool is reduced by 8M. Therefore, the offer trading limit is now 25M (33M – 8M).
- T10: The bid trading limit is increased to 27M.
- T11: Price regeneration starts on the offer side. 8M is to be regenerated in 10 seconds. The offer trading limit increases to 27M.
- T12: The bid trading limit is increased to 33M. The bid trading limit is fully recovered.
- T13: The offer trading limit is increased to 29M.
- T15: The offer trading limit is increased to 31M.
- T17: The offer trading limit is increased to 33M. The offer trading limit is fully recovered.

## 2.7 Client accounts

You manage MT4/MT5 accounts in the Admin Portal with the Accounts screen (**Counterparty > Accounts**).

All price making activity starts from the Price Making screen (**Counterparty > Price Making**).

- [Permissions](#) on page 206
- [View accounts](#) on page 206
- [Edit accounts](#) on page 206
- [Add accounts manually](#) on page 206

- [Upload accounts and account groups](#) on page 207
- [Account and account group upload CSV format](#) on page 207

## 2.7.1 Permissions

The Admin user needs the “Admin Accounts View Edit” permission group to see the new screen.

## 2.7.2 View accounts

Navigate to the Accounts screen (**Counterparty > Accounts**). To see the accounts defined for an organization, choose the organization from the **Show Account for** drop-down list in the **Supported Organizations** panel. You can choose your organization or a customer.

## 2.7.3 Edit accounts

Edit the **Group ID** and **Long Name** of an account:

1. Navigate to the Accounts screen (**Counterparty > Accounts**).
2. Click the **Edit** link of the account that you want to edit.  
The account appears in the top of the Accounts List panel.
3. Edit the **Group ID** and **Long Name**.
4. Select or clear the **Trading Enabled** checkbox.
5. Click **Save** to save your changes or **Cancel** to leave the account unchanged.

## 2.7.4 Add accounts manually

Add individual accounts with the tools in the **Accounts List** panel:

1. Navigate to the Accounts screen (**Counterparty > Accounts**).
2. Click **Add Account**.
3. Enter the account information in the appropriate fields:
  - Enter Short Name
  - Enter Group ID
  - Enter Long Name
  - The customer organization is set by default to the currently selected customer organization.

The account ID is derived automatically from the organization ID, customer organization ID, and the short name in the following format:

<org ID>\_<customer org ID>\_<short name>

4. Select or clear the **Trading Enabled** checkbox.
5. Click **Add** to add the new account or **Cancel** to clear your entry.

## 2.7.5 Upload accounts and account groups

Upload a CSV file to add new accounts and account groups and to update existing accounts and groups. For details of the upload file, see [Account and account group upload CSV format](#) on page 207.

Existing accounts and groups are overwritten when you upload.

If you don't set the Trading Enabled column to true or false in the CSV file, new accounts are enabled for trading by default (the **Trading Enabled** checkbox is selected).

1. Navigate to the Accounts screen (**Counterparty > Accounts**).
2. Click **Upload Accounts**.
3. Click **Choose File** to select your upload file.
4. Click **Upload**.  
A confirmation popup opens.
5. Click **Yes** to upload the file or **Cancel** to return to the Accounts screen.

## 2.7.6 Account and account group upload CSV format

Each line of the upload file is a comma-separated list of information for a single account.

---

**NOTE:** Do not include a header row in your upload file.

---

**Example 2-1** Upload file CSV format

AccountID,CustomerOrg,AccountName,AccountGroupID,CustomerOrgName,TradingEnabled (true or false)

**Example 2-2** Upload file with five accounts and three groups

```
BrokerOrg_BrokerCustA_Account4,BrokerCustA,Account4,AccountGroup1,BrokerCustA account retail,true  
BrokerOrg_BrokerCustA_Account5,BrokerCustA,Account5,AccountGroup1,BrokerCustA account hiperf,true  
BrokerOrg_BrokerCustX_Account1,BrokerCustX,Account1,AccountGroup5,BrokerCustX account ,false  
BrokerOrg1001_BrokerCust10_  
AccountNo10,BrokerCust10,AccountNo10,GroupNo2,AccountNumber10,true  
BrokerOrg1001_BrokerCust10_  
AccountNo11,BrokerCust10,AccountNo11,GroupNo2,AccountNumber11,true
```

## CHAPTER 3

# Credit

### 3.1 Credit mode: carve-out vs. integration

- Credit Carve-out: You reserve a fixed amount of credit and manage exposures and utilization in the Credit Service and you configure credit in the Admin Portal using live rates for credit calculations. Credit carve-out provides tight integration between trading and credit in Integral. It provides the best performance in terms of transaction processing. This is the default mode for new organizations.
- Credit Integration: You integrate your in-house credit system with Integral. You manage exposures and utilizations in your in-house credit system and use the Credit Web API to notify Integral of utilizations. With credit integration, you do not dilute your credit with fixed carve-outs and you are able to use your proprietary credit evaluation methods. If the API connection goes down, Integral allows trades to the latest credit limit update and then suspends trading until the next credit update.

Both modes give Integral the information needed to ensure that a requested trade does not breach a counterparty's credit limits and that the prices you distribute to a counterparty reflect that counterparty's remaining credit.

---

**NOTE:** If you want to use "Credit Integration" mode, please contact your Integral Technical Account Manager.

---

When you choose "Credit Integration" mode, tools and concepts that are not applicable are inactivated, such as the Aggregate Methodology and Daily Methodology drop-down lists. Otherwise, the credit tools in the Admin Portal can be used to view the latest credit configuration and status.

When you choose "Credit Carve-Out" mode, the Credit Service uses credit settings that you define in the Admin Portal for each counterparty, including credit limits and how counterparty utilization is calculated.

If you use a prime broker, you can choose to include the prime broker as a credit counterparty on transactions. See [Set up a prime broker](#) on page 79.

### 3.2 Work with carve-out credit

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**IMPORTANT:** The [credit methodology](#) you choose determine how a counterparty's trading activity counts against their credit limit. A thorough understanding of these methodologies is essential to managing your credit exposures effectively. See [Credit methodologies and examples](#) on page 209 for details.

---

The following topics describe the concepts and methodologies that drive the functionality of the Credit Service in "Credit Carve-Out" mode as well as the procedures for using and configuring the Credit Service to manage your counterparty credit exposures according to your needs.

- [Credit methodologies and examples](#) on page 209: The methodologies used by the Credit Service in “Credit Carve-Out” mode to manage counterparty credit, including concrete, step-by-step examples
- [Credit concepts](#) on page 224: The concepts that are the basis for Credit Service methodologies in “Credit Carve-Out” mode
- [Common credit tasks](#) on page 236: Common credit-related tasks
- [Configure the credit service](#) on page 242: The tools and procedures you use to configure credit limits and calculation methodologies for your counterparties

### 3.3 Credit methodologies and examples

**NOTE:** This topic applies to the “Credit Carve-Out” mode only. See [Credit mode: carve-out vs. integration](#) on page 208.

The Credit Service provides the following methodologies for managing your counterparties’ credit:

- [Net receivable](#) on page 210
- [Gross settlement](#) on page 213
- [Net settlement](#) on page 216
- [Net settlement \(P/R\)](#) on page 219
- [Net settlement-receivable only](#) on page 222

### 3.3.1 Net receivable

**NOTE:** All examples are from the maker's perspective: trade direction (buy/sell), credit obligation (receivable/payable), and position (long/short).

#### Summary

Amounts of both base and term currencies are considered, as well as the position direction (buy or sell), to calculate the total receivable as the credit utilization.

**Limit currency:** USD

**Credit horizon:**

- Daily: Each open value date.
- Aggregate of daily: Each open value date and then summed.

**Process:**

1. Look at the net amount that the maker is long in for each individual currency for each open value date (daily) or each open value date and then summed (aggregate of daily).
2. Convert exposure for each currency to the limit currency (USD) using real-time Integral rates.
3. Total of all short (receivable) positions is the credit utilization.

#### Trades

Deal ID	Trade Date	Maker Buy/Sell	CCY Pair	Base Amount	Rate	Term Amount	Value Date
FXI1048722750	2/23/2021	Buy	EUR/GBP	3,000,000.00	0.78275	2,348,250.00	2/25/2021
FXI1048321606	2/22/2021	Sell	EUR/JPY	3,000,000.00	124.653	373,959,000.00	2/24/2021
FXI1048017848	2/22/2021	Buy	EUR/USD	2,000,000.00	1.10555	2,211,100.00	2/24/2021
FXI1049291364	2/23/2021	Buy	GBP/JPY	2,000,000.00	157.333	314,666,000.00	2/25/2021
FXI1048808961	2/23/2021	Buy	GBP/JPY	2,000,000.00	158.047	316,094,000.00	2/25/2021
FXI1049291426	2/23/2021	Buy	GBP/USD	1,000,000.00	140.241	140,241.00	2/25/2021
FXI1048808251	2/23/2021	Sell	GBP/USD	3,000,000.00	1.41347	4,240,410.00	2/25/2021
FXI1048116191	2/22/2021	Buy	GBP/USD	2,000,000.00	1.41173	2,823,460.00	2/24/2021

#### Position per currency

1. Look at the net amount that the maker is long in for each individual currency.
2. Convert exposure for each currency to the limit currency (USD) using real-time Integral rates.

EUR

EOD Rate: EUR/USD bid/offer 1.10196/**1.10201**

Deal ID	Maker Buy/Sell	Currency Pair	Base Amount	Rate	Term Amount	EUR Amount
FXI1048321606	Sell	EUR/JPY	3,000,000.00	124.653	373,959,000.00	3,000,000.00
FXI1048017848	Buy	EUR/USD	2,000,000.00	1.10555	2,211,100.00	(2,000,000.00)
FXI1048722750	Buy	EUR/GBP	3,000,000.00	0.78275	2,348,250.00	(3,000,000.00)
EUR position						(2,000,000.00)
EUR position in USD					EUR @ 1.10201 (2,000,000.00)	USD (2,204,020.00)

GBP

**EOD Rate: GBP/USD bid/offer 1.40222/1.40242**

Deal ID	Maker Buy/Sell	Currency Pair	Base Amount	Rate	Term Amount	GBP Amount
FXI1048808251	Sell	GBP/USD	3,000,000.00	1.41347	4,240,410.00	3,000,000.00
FXI1048116191	Buy	GBP/USD	2,000,000.00	1.41173	2,823,460.00	(2,000,000.00)
FXI1048722750	Buy	EUR/GBP	3,000,000.00	0.78275	2,348,250.00	2,348,250.00
FXI1048808961	Buy	GBP/JPY	2,000,000.00	158.047	316,094,000.00	(2,000,000.00)
FXI1049291364	Buy	GBP/JPY	2,000,000.00	157.333	314,666,000.00	(2,000,000.00)
FXI1049291426	Buy	GBP/USD	1,000,000.00	1.40241	1,402,410.00	(1,000,000.00)
GBP position						(1,651,750.00)
GBP position in USD					GBP (1,651,750.00) @ 1.40242	USD (2,316,447.24)

JPY (payable amount not used)

**EOD Rate: USD/JPY bid/offer 112.028/112.036**

Deal ID	Maker Buy/Sell	Currency Pair	Base Amount	Rate	Term Amount	JPY Amount
FXI1048321606	Sell	EUR/JPY	3,000,000.00	124.653	373,959,000.00	(373,959,000.00)
FXI1048808961	Buy	GBP/JPY	2,000,000.00	158.047	316,094,000.00	316,094,000.00
FXI1049291364	Buy	GBP/JPY	2,000,000.00	157.333	314,666,000.00	314,666,000.00
JPY position						256,801,000.00
JPY position in USD					JPY 256,801,000.00 @ 112.036	USD 2,292,129.32

USD (payable amount not used)

**EOD Rate: USD/USD bid/offer 1.0000/1.0000**

Deal ID	Maker Buy/Sell	Currency Pair	Base Amount	Rate	Term Amount	USD Amount
FXI1048808251	Sell	GBP/USD	3,000,000.00	1.41347	4,240,410.00	(4,240,410.00)

Deal ID	Maker Buy/Sell	Currency Pair	Base Amount	Rate	Term Amount	USD Amount
FXI1048017848	Buy	EUR/USD	2,000,000.00	1.10555	2,211,100.00	2,211,100.00
FXI1048116191	Buy	GBP/USD	2,000,000.00	1.41173	2,823,460.00	2,823,460.00
FXI1049291426	Buy	GBP/USD	1,000,000.00	1.40241	1,402,410.00	1,402,410.00
USD position						2,196,560.00
USD position in USD				USD 2,196,560.00	@ 10000	<b>USD 2,196,560.00</b>

## Utilization

3. Total of all maker long (receivable) positions is the credit utilization.

Receivable	
From EUR position	USD (2,204,020.00)
From GBP position	USD (2,316,447.24)
Total	(4,520,467.24)
Absolute Value	4,520,467.24
<b>Credit Utilization</b>	<b>4,520,467.24</b>

### 3.3.2 Gross settlement

**NOTE:** All examples are from the maker's perspective: trade direction (buy/sell), credit obligation (receivable/payable), and position (long/short).

#### Summary

Only the total notional amount equivalent in the limit currency is considered. Position direction (buy or sell) is ignored.

**Limit currency:** USD

**Credit horizon:**

- **Aggregate:** All open value dates.
- **Daily:** Each open value date.

**Process:**

1. For trades that include the limit currency as base or term (USD in this example), total the amount in USD regardless of payable or receivable for all open value dates (aggregate) or for each value date (daily).
2. If USD is not part of the currency pair, convert the total receivable amount (amount maker is long) to USD using real-time Integral rates.
3. Sum all direct and converted USD amounts.
4. The total USD amount is the gross credit utilization.

#### Trades

Deal ID	Trade Date	Maker Buy/Sell	CCY Pair	Base Amount	Rate	Term Amount	Value Date
FXI1048722750	2/23/2021	Buy	EUR/GBP	3,000,000.00	0.78275	2,348,250.00	2/25/2021
FXI1048321606	2/22/2021	Sell	EUR/JPY	3,000,000.00	124.653	373,959,000.00	2/24/2021
FXI1048017848	2/22/2021	Buy	EUR/USD	2,000,000.00	110555	2,211,100.00	2/24/2021
FXI1049291364	2/23/2021	Buy	GBP/JPY	2,000,000.00	157.333	314,666,000.00	2/25/2021
FXI1048808961	2/23/2021	Buy	GBP/JPY	2,000,000.00	158.047	316,094,000.00	2/25/2021
FXI1049291426	2/23/2021	Buy	GBP/USD	1,000,000.00	140241	1,402,410.00	2/25/2021
FXI1048808251	2/23/2021	Sell	GBP/USD	3,000,000.00	141347	4,240,410.00	2/25/2021
FXI1048116191	2/22/2021	Buy	GBP/USD	2,000,000.00	141173	2,823,460.00	2/24/2021

#### Position per currency

1. For trades that include the limit currency as base or term (USD in this example), total the amount in USD regardless of payable or receivable.
2. If USD is not part of the currency pair, convert the total receivable amount (amount maker is long) to USD using real-time Integral rates.

USD

**EOD Rate: USD/USD bid/offer 1.00000/1.00000**

Deal ID	Maker Buy/Sell	Currency Pair	Base Amount	Rate	Term Amount	USD Amount
FXI1048017848	Buy	EUR/USD	2,000,000.00	1.0555	2,211,100.00	2,211,100.00
FXI1049291426	Buy	GBP/USD	1,000,000.00	1.40241	1,402,410.00	1,402,410.00
FXI1048808251	Sell	GBP/USD	3,000,000.00	1.41347	4,240,410.00	4,240,410.00
FXI1048116191	Buy	GBP/USD	2,000,000.00	1.41173	2,823,460.00	2,823,460.00
USD position						10,677,380.00
USD position in USD					USD 10,677,380.00	@ 1.00000
						<b>USD 10,677,380.00</b>

EUR

**EOD Rate: EUR/USD bid/offer 1.10196/1.10201**

Deal ID	Maker Buy/Sell	Currency Pair	Base Amount	Rate	Term Amount	EUR Amount
FXI1048722750	Buy	EUR/GBP	3,000,000.00	0.78275	2,348,250.00	3,000,000.00
EUR position						3,000,000.00
EUR position in USD					EUR 3,000,000.00	@ 1.10201
						<b>USD 2,722,298.35</b>

JPY

**EOD Rate: USD/JPY bid/offer 112.028/112.036**

Deal ID	Maker Buy/Sell	Currency Pair	Base Amount	Rate	Term Amount	JPY Amount
FXI1048321606	Sell	EUR/JPY	3,000,000.00	124.653	373,959,000.00	373,959,000.00
JPY position						373,959,000.00
JPY position in USD					JPY 373,959,000.00	@ 112.036
						<b>USD 3,337,846.76</b>

GBP

**EOD Rate: GBP/USD bid/offer 1.40222/1.40242**

Deal ID	Maker Buy/Sell	Currency Pair	Base Amount	Rate	Term Amount	GBP Amount
FXI1049291364	Buy	GBP/JPY	2,000,000.00	157.333	314,666,000.00	2,000,000.00
FXI1048321606	Buy	GBP/JPY	2,000,000.00	158.047	316,094,000.00	2,000,000.00
GBP position						4,000,000.00
GBP position in USD					GBP 4,000,000.00	@ 1.40242
						<b>USD 2,852,212.60</b>

## Utilization

1. Add all direct and converted USD amounts.
2. The total USD amount is the gross credit utilization.

Total Gross Position	
From USD position	USD 10,677,380.00
From EUR position	USD 2,722,298.35
From JPY position	USD 3,337,846.76
From GBP position	USD 2,852,212.60
<b>Aggregate Credit Utilization</b>	<b>USD 19,589,737.71</b>

### 3.3.3 Net settlement

**NOTE:** All examples are from the maker's perspective: trade direction (buy/sell), credit obligation (receivable/payable), and position (long/short).

#### Summary

Amounts of both base and term currencies are considered, as well as the position direction (buy or sell), to calculate the total payable and receivable. The larger amount, either receivable or payable, is the credit utilization.

**Limit currency:** USD

**Credit horizon:**

Aggregate: All open value dates.

**Process:**

1. Look at the net amount that the maker is long or short in for each individual currency for all open value dates.
2. Convert exposure for each currency to USD using real-time Integral rates.
3. Sum all long positions (payable).
4. Sum all short positions (receivable).
5. The larger of the two position totals is considered the higher risk and is the credit utilization.

#### Trades

Deal ID	Trade Date	Maker Buy/Sell	CCY Pair	Base Amount	Rate	Term Amount	Value Date
FXI1048722750	2/23/2021	Buy	EUR/GBP	3,000,000.00	0.78275	2,348,250.00	2/25/2021
FXI1048321606	2/22/2021	Sell	EUR/JPY	3,000,000.00	124.653	373,959,000.00	2/24/2021
FXI1048017848	2/22/2021	Buy	EUR/USD	2,000,000.00	1.10555	2,211,100.00	2/24/2021
FXI1049291364	2/23/2021	Buy	GBP/JPY	2,000,000.00	157.333	314,666,000.00	2/25/2021
FXI1048808961	2/23/2021	Buy	GBP/JPY	2,000,000.00	158.047	316,094,000.00	2/25/2021
FXI1049291426	2/23/2021	Buy	GBP/USD	1,000,000.00	1.40241	1,402,410.00	2/25/2021
FXI1048808251	2/23/2021	Sell	GBP/USD	3,000,000.00	1.41347	4,240,410.00	2/25/2021
FXI1048116191	2/22/2021	Buy	GBP/USD	2,000,000.00	1.41173	2,823,460.00	2/24/2021

#### Position per currency

1. Look at the net amount that the customer is long or short in for each individual currency.
2. Convert exposure for each currency to USD using real-time Integral rates.

EUR

**EOD Rate: EUR/USD bid/offer 1.10196/1.10201**

Deal ID	Maker Buy/Sell	Currency Pair	Base Amount	Rate	Term Amount	EUR Amount
FXI1048321606	Sell	EUR/JPY	3,000,000.00	124.653	373,959,000.00	3,000,000.00
FXI1048017848	Buy	EUR/USD	2,000,000.00	110.555	2,211,100.00	(2,000,000.00)
FXI1048722750	Buy	EUR/GBP	3,000,000.00	0.78275	2,348,250.00	(3,000,000.00)
EUR Position						(2,000,000.00)
EUR Position in USD					EUR @ 1.10201 (2,000,000.00)	USD (2,204,020.00)

GBP

**EOD Rate: GBP/USD bid/offer 1.40222/1.40242**

Deal ID	Maker Buy/Sell	Currency Pair	Base Amount	Rate	Term Amount	GBP Amount
FXI1048808251	Sell	GBP/USD	3,000,000.00	1.41347	4,240,410.00	3,000,000.00
FXI1048116191	Buy	GBP/USD	2,000,000.00	1.41173	2,823,460.00	(2,000,000.00)
FXI1048722750	Buy	EUR/GBP	3,000,000.00	0.78275	2,348,250.00	2,348,250.00
FXI1048808961	Buy	GBP/JPY	2,000,000.00	158.047	316,094,000.00	(2,000,000.00)
FXI1049291364	Buy	GBP/JPY	2,000,000.00	157.333	314,666,000.00	(2,000,000.00)
FXI1049291426	Buy	GBP/USD	1,000,000.00	1.40241	1,402,410.00	(1,000,000.00)
GBP Position						(1,651,750.00)
GBP Position in USD					GBP (1,651,750.00) @ 140242	USD (2,316,447.24)

JPY

**EOD Rate: USD/JPY bid/offer 112.028/112.036**

Deal ID	Maker Buy/Sell	Currency Pair	Base Amount	Rate	Term Amount	JPY Amount
FXI1048321606	Sell	EUR/JPY	3,000,000.00	124.653	373,959,000.00	(373,959,000.00)
FXI1048808961	Buy	GBP/JPY	2,000,000.00	158.047	316,094,000.00	316,094,000.00
FXI1049291364	Buy	GBP/JPY	2,000,000.00	157.333	314,666,000.00	314,666,000.00
JPY Position						256,801,000.00
JPY Position in USD					JPY @ 112.036 256,801,000.00	USD 2,292,129.32

USD

**EOD Rate: USD/USD bid/offer 1.0000/1.0000**

Deal ID	Maker Buy/Sell	Currency Pair	Base Amount	Rate	Term Amount	USD Amount
FXI1048808251	Sell	GBP/USD	3,000,000.00	141347	4,240,410.00	(4,240,410.00)
FXI1048017848	Buy	EUR/USD	2,000,000.00	110555	2,211,100.00	2,211,100.00
FXI1048116191	Buy	GBP/USD	2,000,000.00	141173	2,823,460.00	2,823,460.00
FXI1049291426	Buy	GBP/USD	1,000,000.00	140241	1,402,410.00	1,402,410.00
USD Position						2,196,560.00
USD Position in USD					USD 2,196,560.00	USD 2,196,560.00

### Utilization

3. Sum all long positions (payable).
4. Sum all short positions (receivable).
5. The larger of the two position totals is considered the higher risk and is the credit utilization.

	Receivable	Payable
From EUR position	USD (2,204,020.00)	
From GBP position	USD (2,316,447.24)	
From JPY position		USD 2,292,129.32
From USD position		USD 2,196,560.00
Total	(4,520,467.24)	4,488,689.32
Absolute Value	4,520,467.24	4,488,689.32
<b>Credit Utilization</b>	<b>4,520,467.24</b>	

### 3.3.4 Net settlement (P/R)

**NOTE:** All examples are from the maker's perspective: trade direction (buy/sell), credit obligation (receivable/payable), and position (long/short).

#### Summary

Amounts of both base and term currencies are considered, as well as the position direction (buy or sell), to calculate the total payable and receivable. Amounts in the limit currency are ignored. The sum of the absolute value of receivable and payable is the credit utilization.

**Limit currency:** USD

**Credit horizon:**

Aggregate: All open value dates.

**Process:**

1. Look at the net amount that the maker is long or short in for each individual currency *except for the limit currency (USD)* for all open value dates.
2. Convert exposure for each currency to USD using real-time Integral rates.
3. Sum all long positions (payable).
4. Sum all short positions (receivable).
5. The sum of the absolute value of the two position totals is the credit utilization.

#### Trades

Deal ID	Trade Date	Maker Buy/Sell	CCY Pair	Base Amount	Rate	Term Amount	Value Date
FXI1048722750	2/23/2021	SellBuy	EUR/GBP	3,000,000.00	0.78275	2,348,250.00	2/25/2021
FXI1048321606	2/22/2021	BuySell	EUR/JPY	3,000,000.00	124.653	373,959,000.00	2/24/2021
FXI1048017848	2/22/2021	SellBuy	EUR/USD	2,000,000.00	1.10555	2,211,100.00	2/24/2021
FXI1049291364	2/23/2021	SellBuy	GBP/JPY	2,000,000.00	157.333	314,666,000.00	2/25/2021
FXI1048808961	2/23/2021	SellBuy	GBP/JPY	2,000,000.00	158.047	316,094,000.00	2/25/2021
FXI1049291426	2/23/2021	SellBuy	GBP/USD	1,000,000.00	1.40241	1,402,410.00	2/25/2021
FXI1048808251	2/23/2021	BuySell	GBP/USD	3,000,000.00	1.41347	4,240,410.00	2/25/2021
FXI1048116191	2/22/2021	SellBuy	GBP/USD	2,000,000.00	1.41173	2,823,460.00	2/24/2021

#### Position per currency

1. Look at the net amount that the customer is long or short in for each individual currency *except for the limit currency (USD)*.
2. Convert exposure for each currency to USD using real-time Integral rates.

EUR

**EOD Rate: EUR/USD bid/offer 1.10196/1.10201**

Deal ID	Maker Buy/Sell	Currency Pair	Base Amount	Rate	Term Amount	EUR Amount
FXI1048321606	BuySell	EUR/JPY	3,000,000.00	124.653	373,959,000.00	3,000,000.00
FXI1048017848	SellBuy	EUR/USD	2,000,000.00	1.10555	2,211,100.00	(2,000,000.00)
FXI1048722750	SellBuy	EUR/GBP	3,000,000.00	0.78275	2,348,250.00	(3,000,000.00)
EUR position						(2,000,000.00)
EUR position in USD					EUR @ 1.10201 (2,000,000.00)	USD (2,204,020.00)

GBP

**EOD Rate: GBP/USD bid/offer 1.40222/1.40242**

Deal ID	Maker Buy/Sell	Currency Pair	Base Amount	Rate	Term Amount	GBP Amount
FXI1048808251	BuySell	GBP/USD	3,000,000.00	1.41347	4,240,410.00	3,000,000.00
FXI1048116191	SellBuy	GBP/USD	2,000,000.00	1.41173	2,823,460.00	(2,000,000.00)
FXI1048722750	SellBuy	EUR/GBP	3,000,000.00	0.78275	2,348,250.00	2,348,250.00
FXI1048808961	SellBuy	GBP/JPY	2,000,000.00	158.047	316,094,000.00	(2,000,000.00)
FXI1049291364	SellBuy	GBP/JPY	2,000,000.00	157.333	314,666,000.00	(2,000,000.00)
FXI1049291426	SellBuy	GBP/USD	1,000,000.00	1.40241	1,402,410.00	(1,000,000.00)
GBP position						(1,651,750.00)
GBP position in USD					GBP (1,651,750.00) @ 1.40242	USD (2,316,447.24)

JPY

**EOD Rate: USD/JPY bid/offer 112.028/112.036**

Deal ID	Maker Buy/Sell	Currency Pair	Base Amount	Rate	Term Amount	JPY Amount
FXI1048321606	BuySell	EUR/JPY	3,000,000.00	124.653	373,959,000.00	(373,959,000.00)
FXI1048808961	SellBuy	GBP/JPY	2,000,000.00	158.047	316,094,000.00	316,094,000.00
FXI1049291364	SellBuy	GBP/JPY	2,000,000.00	157.333	314,666,000.00	314,666,000.00
JPY position						256,801,000.00
JPY position in USD					JPY 256,801,000.00 @ 112.036	USD 2,292,129.32

USD (not used)

**EOD Rate: USD/USD bid/offer 1.0000/1.0000**

Deal ID	Maker Buy/Sell	Currency Pair	Base Amount	Rate	Term Amount	USD Amount
FXI1048808251	BuySell	GBP/USD	3,000,000.00	1.41347	4,240,410.00	(4,240,410.00)
FXI1048017848	SellBuy	EUR/USD	2,000,000.00	1.10555	2,211,100.00	2,211,100.00
FXI1048116191	SellBuy	GBP/USD	2,000,000.00	1.41173	2,823,460.00	2,823,460.00
FXI1049291426	SellBuy	GBP/USD	1,000,000.00	1.40241	1,402,410.00	1,402,410.00
USD position						2,196,560.00
USD position in USD					USD 2,196,560.00	USD 2,196,560.00

## Utilization

3. Sum all long positions (amount maker owes taker).
4. Sum all short positions (amount taker owes maker).
5. The sum of the absolute value of the two position totals is the credit utilization.

	Receivable	Payable
From EUR position	USD (2,204,020.00)	
From GBP position	USD (2,316,447.24)	
From JPY position		USD 2,292,129.32
From USD position		—
Total	(4,520,467.24)	2,292,129.32
Absolute Value	4,520,467.24	2,292,129.32
Credit Utilization	<b>6,812,596.56</b>	

### 3.3.5 Net settlement-receivable only

**NOTE:** All examples are from the maker's perspective: trade direction (buy/sell), credit obligation (receivable/payable), and position (long/short).

#### Summary

Amounts of both base and term currencies are considered, as well as the position direction (buy or sell), to calculate the total receivable. The total receivable is the credit utilization.

**Limit currency:** USD

**Credit horizon:**

Aggregate: All open value dates.

**Process:**

1. Look at the net amount that the maker is long or short in for each individual currency for all open value dates.
2. Convert exposure for each currency to USD using real-time Integral rates.
3. Sum all short positions (receivable).
4. The total receivable is the credit utilization.

#### Trades

Deal ID	Trade Date	Maker Buy/Sell	CCY Pair	Base Amount	Rate	Term Amount	Value Date
FXI1048722750	2/23/2022	Buy	EUR/GBP	3,000,000.00	0.78275	2,348,250.00	2/25/2022
FXI1048321606	2/22/2022	Sell	EUR/JPY	3,000,000.00	124.653	373,959,000.00	2/24/2022
FXI1048017848	2/22/2022	Buy	EUR/USD	2,000,000.00	1.10555	2,211,100.00	2/24/2022
FXI1049291364	2/23/2022	Buy	GBP/JPY	2,000,000.00	157.333	314,666,000.00	2/25/2022
FXI1048808961	2/23/2022	Buy	GBP/JPY	2,000,000.00	158.047	316,094,000.00	2/25/2022
FXI1049291426	2/23/2022	Buy	GBP/USD	1,000,000.00	1.40241	1,402,410.00	2/25/2022
FXI1048808251	2/23/2022	Sell	GBP/USD	3,000,000.00	1.41347	4,240,410.00	2/25/2022
FXI1048116191	2/22/2022	Buy	GBP/USD	2,000,000.00	1.41173	2,823,460.00	2/24/2022

#### Position per currency

1. Look at the net amount that the customer is long or short in for each individual currency.
2. Convert exposure for each currency to USD using real-time Integral rates.

EUR

EOD Rate: EUR/USD bid/offer 1.10196/1.10201

Deal ID	Maker Buy/Sell	Currency Pair	Base Amount	Rate	Term Amount	EUR Amount
FXI1048321606	Sell	EUR/JPY	3,000,000.00	124.653	373,959,000.00	3,000,000.00
FXI1048017848	Buy	EUR/USD	2,000,000.00	1.10555	2,211,100.00	(2,000,000.00)
FXI1048722750	Buy	EUR/GBP	3,000,000.00	0.78275	2,348,250.00	(3,000,000.00)
EUR Position						(2,000,000.00)
EUR Position in USD					EUR @ 1.10201 (2,000,000.00)	USD (2,204,020.00)

GBP

**EOD Rate: GBP/USD bid/offer 1.40222/1.40242**

Deal ID	Maker Buy/Sell	Currency Pair	Base Amount	Rate	Term Amount	GBP Amount
FXI1048808251	Sell	GBP/USD	3,000,000.00	1.41347	4,240,410.00	3,000,000.00
FXI1048116191	Buy	GBP/USD	2,000,000.00	1.41173	2,823,460.00	(2,000,000.00)
FXI1048722750	Buy	EUR/GBP	3,000,000.00	0.78275	2,348,250.00	2,348,250.00
FXI1048808961	Buy	GBP/JPY	2,000,000.00	158.047	316,094,000.00	(2,000,000.00)
FXI1049291364	Buy	GBP/JPY	2,000,000.00	157.333	314,666,000.00	(2,000,000.00)
FXI1049291426	Buy	GBP/USD	1,000,000.00	1.40241	1,402,410.00	(1,000,000.00)
GBP Position						(1,651,750.00)
GBP Position in USD					GBP (1,651,750.00) @ 1.40242	USD (2,316,447.24)

JPY

**EOD Rate: USD/JPY bid/offer 112.028/112.036**

Deal ID	Maker Buy/Sell	Currency Pair	Base Amount	Rate	Term Amount	JPY Amount
FXI1048321606	Sell	EUR/JPY	3,000,000.00	124.653	373,959,000.00	(373,959,000.00)
FXI1048808961	Buy	GBP/JPY	2,000,000.00	158.047	316,094,000.00	316,094,000.00
FXI1049291364	Buy	GBP/JPY	2,000,000.00	157.333	314,666,000.00	314,666,000.00
JPY Position						256,801,000.00
JPY Position in USD					JPY @ 112.036 256,801,000.00	USD 2,292,129.32

USD

**EOD Rate: USD/USD bid/offer 1.0000/1.0000**

Deal ID	Maker Buy/Sell	Currency Pair	Base Amount	Rate	Term Amount	USD Amount
FXI1048808724	Sell	GBP/USD	3,000,000.00	141347	4,240,410.00	(4,340,410.00)
FXI1048017848	Buy	EUR/USD	2,000,000.00	110555	2,211,100.00	2,211,100.00
FXI1048116191	Buy	GBP/USD	2,000,000.00	141173	2,823,460.00	2,823,460.00
FXI1049291426	Buy	GBP/USD	1,000,000.00	140241	1,402,410.00	1,402,410.00
USD Position						2,296,560.00
USD Position in USD					USD 2,296,560.00	@ 10000
						<b>USD 2,296,560.00</b>

### Utilization

3. Sum all short positions (receivable).
4. The total net receivable is considered the higher risk and is the credit utilization even though the net payable is the larger amount.

Receivable	Payable
From EUR position	USD (2,204,020.00)
From GBP position	USD (2,316,447.24)
From JPY position	USD 2,292,129.32
From USD position	USD 2,296,560.00
Total	(4,520,467.24) 4,588,689.32
Absolute Value	4,520,467.24 4,588,689.32
Credit Utilization	<b>4,520,467.24</b>

## 3.4 Credit concepts

The following concepts lay the foundation for the methodologies and examples that help you understand the Credit Service's functionality and to configure the Credit Service to manage your counterparty credit exposures.

- [Credit mode: carve-out vs. integration](#) on page 208
- Credit carve-out topics:
  - [Credit methodologies and examples](#) on page 209
  - [Gross vs. net methodologies](#) on page 225
  - [Daily vs. aggregate methodologies](#) on page 225
  - [Net settlement vs. net receivable methodologies](#) on page 225
  - [Credit margin factor](#) on page 225
  - [Potential future exposure \(PFE\) credit coefficients](#) on page 227
  - [Apply a P/L to aggregate credit utilization](#) on page 234

### 3.4.1 Gross vs. net methodologies

**NOTE:** This topic applies to the “Credit Carve-Out” mode only. See [Credit mode: carve-out vs. integration](#) on page 208.

*Gross* credit methodologies involve only the total notional amount of trades, disregarding whether you buy or sell the currency pair.

*Net* methodologies consider the direction of trades (either buy or sell) and the amounts of both the base and term currencies to arrive at net receivable and net payable amounts.

Gross and net methodologies are mutually exclusive.

Real-time market rates are used to convert gross and net amounts to the limit currency for credit calculations.

### 3.4.2 Daily vs. aggregate methodologies

**NOTE:** This topic applies to the “Credit Carve-Out” mode only. See [Credit mode: carve-out vs. integration](#) on page 208.

*Daily* credit methodologies calculate credit utilization and maintain credit limits for individual value dates.

*Aggregate* methodologies consider all future value dates in credit calculations and credit limits. With aggregate net methodologies (see [Gross vs. net methodologies](#) on page 225), the entire credit horizon is considered, but netting is done on each value date, not across value dates.

Daily and aggregate methodologies are not mutually exclusive. You can define and maintain both daily and aggregate credit limits for your counterparties.

### 3.4.3 Net settlement vs. net receivable methodologies

**NOTE:** This topic applies to the “Credit Carve-Out” mode only. See [Credit mode: carve-out vs. integration](#) on page 208.

*Net settlement* methodologies consider both the receivable and payable amounts in credit calculations.

*Net receivable* methodologies consider only the receivable amounts of trades.

Aggregate net methodologies are often referred to as net open position (NOP). See [Daily vs. aggregate methodologies](#) on page 225 for more details.

### 3.4.4 Credit margin factor

**NOTE:** This topic applies to the “Credit Carve-Out” mode only. See [Credit mode: carve-out vs. integration](#) on page 208.

Aggregate credit methodologies allow you to apply a margin factor to scale down a counterparty's used credit.

The margin factor is an integer between 1 and 100. The counterparty's credit utilization is divided by the margin factor for credit calculations.

By scaling down the counterparty's used credit and allowing them to trade on margin, you can increase the total notional value of their trades to be greater than their credit limit.

For example, if a counterparty does a trade for 10M and their margin factor is 20, then the amount added to their used credit is 500K ( $10M / 20 = 500K$ ).

A margin factor of 1 indicates no margining. Typical margin values are 20, 50, and 100.

A larger margin factor provides greater leverage for your counterparties, as well as greater risk.

To help you manage this risk, you can monitor your credit exposures in real time. See [Review aggregate credit exposures in real time](#) on page 237.

You can set a default margin factor to be applied to all newly created counterparty organizations as part of setting up the default credit methodologies. See [Choose the default credit methodologies for new counterparties](#) on page 247.

Of course, you can override the default value for each counterparty as necessary. See [Choose the credit methodologies for a counterparty](#) on page 256.

To maintain your settled balances, you can upload limit updates with CSV files. See [Upload credit limit updates](#) on page 238.

### 3.4.5 Potential future exposure (PFE) credit coefficients

**NOTE:** This topic applies to the “Credit Carve-Out” mode only. See [Credit mode: carve-out vs. integration](#) on page 208.

You can define coefficients by tenor and currency pair to adjust a counterparty’s credit utilization.

To calculate the utilization, the notional amount of a trade is multiplied by the applicable coefficient. The resulting value is used for credit calculations. For example, for notional X, the amount used for credit is:

$$X \cdot PFE\_Coefficient = notionalForCredit$$

Typically, the longer the tenor, the greater the coefficient.

**IMPORTANT:** A PFE coefficient value of 0% (zero) means that trades in that tenor and currency pair have no effect on a counterparty’s credit utilization. A coefficient of 100% (one) means the entire notional amount is used for credit calculations.

The following table shows the effect on available credit by a single 2M trade in different tenors on 5 available credit.

**Table 3-1 Available credit by tenor after PFE coefficient applied**

Tenor	Notional	PFE coefficient	Calculation	Utilization	Available credit
SPOT	2,000,000	0%	$2,000,000 \cdot 0$	0	5,000,000
1M	2,000,000	10.5%	$2,000,000 \cdot 0.105$	210,000	4,790,000
6M	2,000,000	25%	$2,000,000 \cdot 0.25$	500,000	4,500,000
2Y	2,000,000	110%	$2,000,000 \cdot 1.1$	2,200,000	2,800,000

Coefficient values can have a maximum of two decimal places and must be positive.

For trades on broken dates, the coefficient value of the following tenor is used. Linear interpolation does not apply for credit checks.

**NOTE:** When you use tenor-based coefficients, if a trade’s tenor or value date does not fall within a tenor band, the trade is rejected. If such a deal is entered manually, it will not apply to a customer’s credit exposure.

You assign coefficients at the counterparty organization level and can then override them per legal entity.

You manage collections of tenors and their credit coefficients as PFE profiles and associate the PFE profiles with currency pair groups in PFE configurations.

#### PFE profiles and PFE configurations compared

To clarify the distinction between PFE profiles and PFE configurations:

- **PFE profile:**
  - Associates tenors with PFE coefficients, one tenor to each coefficient.

- You can apply one profile directly to an organization or legal entity.
- **PFE configuration:**
  - Contains one or more PFE profiles.
  - Applies PFE profiles to currency pair groups. You can associate more than one currency pair group with a profile, but each group must have a different sort order.
  - Requires that you designate a default PFE profile.
  - Requires that you define currency pair groups.
  - You can apply one configuration to an organization or legal entity.

See [Manage PFE coefficients](#) on page 260 for information about creating and using PFE coefficients.

### Credit utilization re-valuation

When using tenor-based credit coefficients, the utilization of unsettled trades is re-evaluated at the end of the business week as a trade's maturity approaches. The remaining days to the maturity are calculated. The credit utilization is recalculated using the corresponding coefficient.

Let's say a customer does a 1M 12-Month trade and we use the following coefficients.

- 1 month 5%
- 2 Months 7.5%
- 3 Months 10%
- 6 Months 15%
- 12 Months 25%

Post-trade, the credit utilization is reevaluated in the following sequence.

1. When trade is booked, utilization is  $1\text{M} * 25 = 250\text{k}$  12 months from the value day
2. The credit utilization remains the same in the next 6 month.
3. Value date is within 6 months, credit utilization reduces to  $1\text{M} \cdot 15\% = 150\text{K}$
4. Value date is with 3 months, credit utilization reduces to  $1\text{M} \cdot 10\% = 100\text{K}$
5. ...
6. On the value date, the credit utilization is completely removed.

### Effect on net limit currency positions

When managing credit with PFE configurations, trades with the same notional and tenor can result in different amounts of a currency being utilized based on the currency pair. For example, the following table shows the utilized amount of USD for two similar spot trades in different currency pairs.

Trade	Applicable currency pair group	PFE profile applied in PFE configuration	Coefficient defined by PFE profile	Amount of USD utilized
Buy Spot 100M USD/JPY	G7	Asia	1 (1%)	1M
Buy Spot 100M XAU/USD	Metals	Gold	5 (5%)	5M

## Sort order and duplicate currency pairs

You set a sort order for each currency pair group in a PFE configuration to resolve duplicate currency pairs. If a currency pair is included in more than one currency pair group, the group with the lowest sort order number in the configuration is used.

### PFE example: net receivable

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**NOTE:** All examples are from the maker's perspective: trade direction (buy/sell), credit obligation (receivable/payable), and position (long/short).

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#### Summary

Amounts of both base and term currencies are considered, as well as the trade direction (buy or sell).

PFE coefficients are applied by currency pair and tenor to calculate the total receivable as the credit utilization.

**Limit currency:** USD

**Credit horizon:**

- Daily: Each open value date.
- Aggregate of daily: Each open value date and then summed.

**Process:**

1. Look at the net amount that the maker is long in for each individual currency for each open value date (daily) or each open value date and then summed (aggregate of daily).
2. Apply PFE coefficient by currency pair and tenor.
3. Convert exposure for each currency to the limit currency (USD) using real-time Integral rates.
4. Sum of all short (receivable) positions is the credit utilization.

PFE profile: Group1 (USD/CAD) PFE profile: Group2 (EUR/GBP, USD/MXN)

Tenor	Coefficient %	Tenor	Coefficient %
SPOT	0	SPOT	0
1W	6	1W	6.5
2W	7.5	2W	8
1M	10	1M	10.5
45D	11.1	45D	11.9
2M	12.5	2M	13.5
3M	15	3M	16
6M	20.5	6M	22
1Y	29.5	1Y	31
18M	36	18M	39
2Y	42.5	2Y	45.5

### Trades

Deal ID	Trade Type	Maker Buy/Sell	CCY Pair	Base Amount	Rate	Term Amount	Trade Date	Value Date	Days til Value Date
FXI7304719941	Outright	Sell	USD/CAD	7,500,000.00	1.312752	9,845,640.00	10/14/2020	10/19/2021	79
FXI8366707061	Outright	Buy	EUR/GBP	46,285,000.00	0.886823	41,046,625.70	7/19/2021	10/19/2021	79
FXI8385890152	Fwd/Fwd near leg	Buy	USD/MXN	30,000,000.00	17.857942	535,738,272.00	7/31/2021	8/11/2021	10
FXI8385890152	Fwd/Fwd far leg	Sell	USD/MXN	30,000,000.00	17.9502791	538,508,373.00	7/31/2021	9/11/2021	41
FXI838589044	Fwd/Fwd near leg	Buy	USD/MXN	30,000,000.00	17.96203	538,860,900.00	7/31/2021	9/11/2021	41
FXI838589044	Fwd/Fwd far leg	Sell	USD/MXN	30,000,000.00	18.957422	568,722,684.00	7/31/2021	8/13/2022	377

### PFE per currency pair

#### USD/CAD (PFE profile: Group1)

See [PFE profile: Group1 \(USD/CAD\)](#) on page 230.

Deal ID	Trade Type	Maker Buy/Sell	CCY Pair	Base Amount	Rate	Term Amount	Trade Date	Value Date	Days til Value Date
FXI7304719941	Outright	Sell	USD/CAD	7,500,000.00	1.312752	9,845,640.00	10/14/2016	10/19/2021	79

PFE Coefficient: 15% (Tenor: 79 days, no exact match in PFE profile so use the following tenor 3M).

Utilization:  $9,845,640.00 \times 0.15 = 1,476,846.00$  CAD

#### EUR/GBP (PFE profile: Group2)

See [PFE profile: Group2 \(EUR/GBP, USD/MXN\) on page 230.](#)

Deal ID	Trade Type	Maker Buy/Sell	CCY Pair	Base Amount	Rate	Term Amount	Trade Date	Value Date	Days til Value Date
FXI8366707061	Outright	Buy	EUR/GBP	46,285,000.00	0.8868235	41,046,625.70	7/19/2021	10/19/2021	79

PFE Coefficient: 16% (Tenor: 79 days, no exact match in PFE profile so use the following tenor 3M).

Utilization:  $41,046,625.70 \times 0.16 = 6,156,993.86$  GBP

#### USD/MXN (PFE profile: Group2)

See [PFE profile: Group2 \(EUR/GBP, USD/MXN\) on page 230.](#)

#	Deal ID	Trade Type	Maker Buy/Sel l	CCY Pair	Base Amount	Rate	Term Amount	Trade Date	Value Date	Days til Value Date
1	FXI8385890152	Fwd/Fwd near leg	Buy	USD/MXN	30,000,000.00	17.8579424	535,738,272.00	7/31/2021	8/11/2021	10
2	FXI8385890152	Fwd/Fwd far leg	Sell	USD/MXN	30,000,000.00	17.9502791	538,508,373.00	7/31/2021	9/11/2021	41
3	FXI8385890444	Fwd/Fwd near leg	Buy	USD/MXN	30,000,000.00	17.9620380	538,860,900.00	7/31/2021	9/11/2021	41
4	FXI8385890444	Fwd/Fwd far leg	Sell	USD/MXN	30,000,000.00	18.9574228	568,722,684.00	7/31/2021	8/13/2022	377

#### Trade #1:

PFE Coefficient: 8% (Tenor: 10 days, no exact match in PFE profile so use the following tenor 2W).

Utilization:  $535,738,272.00 \times 0.08 = 42,859,061.76$  MXN

#### Trade #2:

PFE Coefficient: 11.9% (Tenor: 41 days, no exact match in PFE profile so use the following tenor 45D).

Utilization:  $538,508,373.00 \times 0.119 = 64,082,496.39$  MXN

#### Trade #3:

PFE Coefficient: 11.9% (Tenor: 41 days, no exact match in PFE profile so use the following tenor 45D).

Utilization:  $538,860,900.00 \times 0.119 = 64,124,447.10$  MXN

#### Trade #4:

PFE Coefficient: 39% (Tenor: 377 days, no exact match in PFE profile so use the following tenor 18M).

Utilization:  $568,722,684.00 \times 0.39 = 221,801,846.76$  MXN

#### Position per currency

1. Look at the net amount that the customer is short in for each individual currency.
2. Convert exposure for each currency to the limit currency (USD) using real-time Integral rates.

#### CAD

EOD Rate: USD/CAD bid/offer 1.312722/**1.312791**

PFE Coefficient (Group1): 15% (Tenor: 79 days, no exact match in PFE profile so use the following tenor 3M).

Utilization:  $9,845,640.00 \times 0.15 = 1,476,846.00$  CAD

Deal ID	Trade Type	Maker Buy/Sell	Currency Pair	Base Amount	Rate	Term Amount	CAD Amount
FXI1048321606	Outright	Sell	USD/CAD	7,500,000.00	1.312752	<b>9,845,640.00</b>	(9,845,640.00)
CAD position							(9,845,640.00)
CAD utilization with PFE							(1,476,846.00)
CAD position in USD					CAD @ 1.312791 (1,476,846.00)		USD (1,938,790.14)

#### GBP

EOD Rate: GBP/USD bid/offer 1.34997/**1.35002**

PFE Coefficient: 16% (Tenor: 79 days, no exact match in PFE profile so use the following tenor 3M).

Utilization:  $41,046,625.70 \times 0.16 = 6,156,993.86$  GBP

Deal ID	Trade Type	Maker Buy/Sell	Currency Pair	Base Amount	Rate	Term Amount	GBP Amount
FXI1048808251	Outright	Buy	EUR/GBP	46,285,000.00	0.8868235	41,046,625.70	(41,046,625.70)
GBP position							(41,046,625.70)
GBP utilization with PFE							(6,156,993.86)
GBP position in USD					GBP @ 1.35002 (6,156,993.86)		USD (8,312,064.85)

MXN (payable amount not used)

EOD Rate: USD/MXN bid/offer 17.92840/**17.97953**

Trade #1:

PFE Coefficient: 8% (Tenor: 10 days, no exact match in PFE profile so use the following tenor 2W).

Utilization:  $535,738,272.00 \times 0.08 = \mathbf{42,859,061.76}$  MXN

Trade #2:

PFE Coefficient: 11.9% (Tenor: 41 days, no exact match in PFE profile so use the following tenor 45D).

Utilization:  $538,508,373.00 \times 0.119 = \mathbf{64,082,496.39}$  MXN

Trade #3:

PFE Coefficient: 11.9% (Tenor: 41 days, no exact match in PFE profile so use the following tenor 45D).

Utilization:  $538,860,900.00 \times 0.119 = \mathbf{64,124,447.10}$  MXN

Trade #4:

PFE Coefficient: 39% (Tenor: 377 days, no exact match in PFE profile so use the following tenor 18M).

Utilization:  $568,722,684.00 \times 0.39 = \mathbf{221,801,846.76}$  MXN

#	Deal ID	Trade Type	Maker Buy/Sell	Currency Pair	Base Amount	Rate	Term Amount	MXN Amount
1	FXI1048321606	Fwd/Fwd near leg	Buy	USD/MXN	30,000,000.00	17.8579424	535,738,272.00	(535,738,272.00)
2	FXI1048808961	Fwd/Fwd far leg	Sell	USD/MXN	30,000,000.00	17.9502791	538,508,373.00	538,508,373.00
3	FXI1049291364	Fwd/Fwd near leg	Buy	USD/MXN	30,000,000.00	17.96203	538,860,900.00	(538,860,900.00)
4	FXI1049291364	Fwd/Fwd far leg	Sell	USD/MXN	30,000,000.00	18.9574228	568,722,684.00	568,722,684.00

#	Deal ID	Trade Type	Maker Buy/Sell	Currency Pair	Base Amount	Rate	Term Amount	MXN Amount
	Trade #1: MXN utilization with PFE							(42,859,061.76)
	Trade #2: MXN utilization with PFE							64,082,496.39
	Trade #3: MXN utilization with PFE							(64,124,447.10)
	Trade #4: MXN utilization with PFE							221,801,846.76
	MXN position							178,900,834.29
	MXN position in USD				MXN @ 17.97953		USD	9,950,250.88

#### Utilization

3. Sum of all maker long (receivable) positions is the credit utilization.

Receivable	
From CAD position	USD (1,938,790.14)
From GBP position	USD (8,312,064.85)
Total	(10,250,854.99)
Absolute Value	10,250,854.99
Credit Utilization	10,250,854.99

#### 3.4.6 Apply a P/L to aggregate credit utilization

**NOTE:** This topic applies to the "Credit Carve-Out" mode only. See [Credit mode: carve-out vs. integration](#) on page 208.

You can configure the system to apply a counterparty's profit or loss to their credit utilization for all aggregate credit methodologies except Gross Settlement.

You can choose to apply the unsettled P/L and the settled P/L to a counterparty's credit utilization.

The unsettled P/L is calculated through the day and affects intraday calculations. The settled P/L is applied at the end of the business day (the system's roll time) so that the effects on a counterparty's credit utilization are carried over from day to day.

With the addition of P/L to the credit calculations, the counterparty's available credit can be thought of as the counterparty's settled cash value.

The P/L equals the counterparty's net receivables minus their net payables.

When receivables are greater than payables, the counterparty has a profit that you can use to reduce the utilization.

When receivables are less than the payables, the counterparty has a loss that increases their credit utilization, effectively lowering their credit limit.

If you have applied a margin factor to the counterparty's credit limit, the P/L amount is applied to their credit limit before the margin factor is applied. For example, a P/L of (100) at a margin of 100 results in a reduction of available credit by 10K.

The unsettled P/L includes unsettled payments after today. You can choose to include or exclude trades settling today from aggregation credit utilization and P/L calculations. See the **Exclude Trades Settling Today** checkbox in [Choose the credit methodologies for a counterparty](#) on page 256 and [Choose the default credit methodologies for new counterparties](#) on page 247.

You can choose to apply P/L to all newly created counterparty organizations as part of setting up the default credit methodologies. See [Choose the default credit methodologies for new counterparties](#) on page 247.

Of course, you can override the default setting for each counterparty as necessary. See [Choose the credit methodologies for a counterparty](#) on page 256.

### Apply unsettled P/L (open positions)

**To apply a counterparty's unsettled P/L to credit calculations:**

1. Navigate to either the Credit Setup screen (**Counterparty > Credit > Setup**) or to the specific counterparty's set-up screen (**Counterparty > Credit > Setup > counterparty ID** or **Counterparty > Credit > Credit Exposure > Static > counterparty ID**).
2. Ensure that you have chosen a credit method other than "Aggregate Gross Settlement" from the **Aggregate Methodology** drop-down list.
3. Select the **Include P/L** checkbox to add the counterparty's unsettled P/L to the credit utilization.
4. Click **Save**.

### Apply settled P/L (closed positions)

**To apply a counterparty's settled P/L to their credit utilization at the end of the day:**

1. Navigate to either the Credit Setup screen (**Counterparty > Credit > Setup**) or to the specific counterparty's set-up screen (**Counterparty > Credit > Setup > counterparty ID** or **Counterparty > Credit > Credit Exposure > Static > counterparty ID**).
2. Ensure that you have chosen a credit method other than "Aggregate Gross Settlement" from the **Aggregate Methodology** drop-down list.
3. Select the **Update Credit Balance with P/L at End of Day** checkbox to add the counterparty's settled P/L to the credit utilization.
4. Click **Save**.

## 3.5 Common credit tasks

**NOTE:** This topic applies to the “Credit Carve-Out” mode only. See [Credit mode: carve-out vs. integration](#) on page 208.

- [Upload credit limit updates](#) on page 238
- [Enable or disable credit checking](#) on page 236
- [Edit a counterparty’s credit limit](#) on page 253
- [Review all credit exposures](#) on page 236
- [Review aggregate credit exposures in real time](#) on page 237
- [Review the underlying trades of aggregate credit exposures](#) on page 237
- [View a counterparty’s credit utilization](#) on page 238
- [Review audited credit events](#) on page 241
- [Designate currency pairs exempt from credit checks](#) on page 245

### 3.5.1 Enable or disable credit checking

**NOTE:** This topic applies to the “Credit Carve-Out” mode only. See [Credit mode: carve-out vs. integration](#) on page 208.

The Admin Portal allows you to turn on or turn off the Credit Service, both globally for all counterparties and for specific counterparties.

- [Enable or disable the credit service](#) on page 243
- [Enable or disable credit checking for a specific counterparty](#) on page 252

### 3.5.2 Review all credit exposures

**NOTE:** This topic applies to the “Credit Carve-Out” mode only. See [Credit mode: carve-out vs. integration](#) on page 208.

To review your credit exposure with all of your counterparties in all credit methodologies, both daily and aggregate, navigate to the Credit Exposure screen (**Counterparty > Credit > Credit Exposure > Static**).

The Counterparty Credit Exposure table shows a summary of credit statistics for all of your counterparties. See [Search and navigate tables](#) on page 447 for information about using tables.

The limits are shown as “flat numbers” without margin factors. Utilizations include any margin factor that has been applied. See [Credit margin factor](#) on page 225.

A counterparty’s utilizations also include their profit or loss if you have chosen to apply their P/L. See [Apply a P/L to aggregate credit utilization](#) on page 234.

The available amounts are the size available to execute on equaling: [(trading suspension percentage) x credit limit] - utilization. For more information about the trading suspension threshold, see [Set the default credit trading suspension threshold for new counterparties](#) on page 250 and [Set the credit trading suspension threshold for a counterparty](#) on page 260.

From this screen you can review or configure your counterparty credit settings. See [Configure the credit service](#) on page 242.

### 3.5.3 Review aggregate credit exposures in real time

**NOTE:** This topic applies to the "Credit Carve-Out" mode only. See [Credit mode: carve-out vs. integration](#) on page 208.

You can monitor your aggregate counterparty exposures in real time in the Real Time Credit Exposure view of the Credit Exposure screen (**Counterparty > Credit > Credit Exposure > Real Time**).

This real-time view is especially important if you have leveraged your counterparties' credit with a margin factor. See [Credit margin factor](#) on page 225.

The table shows a dynamic summary of credit statistics for all of your counterparties updated every 5 seconds. See [Search and navigate tables](#) on page 447 for information about using tables.

The limits are shown as "flat numbers" without margin factors applied.

The real-time utilizations do not include any margin factor or applied P/L. See [Apply a P/L to aggregate credit utilization](#) on page 234 for more information.

The available amounts are the size available to execute on equaling: [(trading suspension percentage) x credit limit] - utilization. For more information about the trading suspension threshold, see [Set the default credit trading suspension threshold for new counterparties](#) on page 250 and [Set the credit trading suspension threshold for a counterparty](#) on page 260.

You can also review the underlying trades that make up a counterparty's aggregate utilization. See [Review the underlying trades of aggregate credit exposures](#) on page 237.

### 3.5.4 Review the underlying trades of aggregate credit exposures

**NOTE:** This topic applies to the "Credit Carve-Out" mode only. See [Credit mode: carve-out vs. integration](#) on page 208.

You can review the individual trades that make up a counterparty's aggregate exposures, organized by currency, and including the current market data used to calculate the positions.

**To see the trades and market data that are used to calculate aggregate exposures:**

1. Navigate to the Real-time Credit Exposure view of the Credit Exposure screen (**Counterparty > Credit > Credit Exposure > Real Time**).
2. Click the available amount of a counterparty that has utilized some of its credit limit.

The screen updates with the Credit Exposure Details - Market Data panel showing the details of your positions with the counterparty, including a table of positions per currency. The rates shown are static rates current at the moment the screen opens.

3. Click the  Open button of the currency for which you want to see the individual trades.

The row expands to show a table of the underlying trades with position and P/L for each trade, ordered by trade date (descending) and trade ID (ascending).

The net currency position equals the net receivable plus the net payable.

The bold rate in the **Market Rate Used** column is the bid or offer rate used to convert to the limit currency for the net limit currency position. The bid and offer rates are shown from the counterparty's perspective. The mid rate is used only when the bid/offer rates are not available and mid rate is defined.

If the position includes more than five underlying trades, you can use the table navigation tools to review all the trades. See [Search and navigate tables](#) on page 447.

### 3.5.5 View a counterparty's credit utilization

**NOTE:** This topic applies to the "Credit Carve-Out" mode only. See [Credit mode: carve-out vs. integration](#) on page 208.

In addition to the quick summaries, both static and real time, provided by the Credit Exposure screens (**Counterparty > Credit > Credit Exposure > Static and Counterparty > Credit > Credit Exposure > Real Time**), the Admin Portal allows you to view a counterparty's individual credit utilization. See [Review all credit exposures](#) on page 236 and [Review aggregate credit exposures in real time](#) on page 237.

To review an individual counterparty's credit utilization, navigate to the counterparty's credit set-up screen (**Counterparty > Credit > Setup > counterparty ID** or **Counterparty > Credit > Credit Exposure > Static > counterparty ID**).

The limits are shown as "flat numbers" without margin factors. Utilizations include any margin factor that has been applied. See [Credit margin factor](#) on page 225.

A counterparty's utilizations also include their profit or loss if you have chosen to apply their P/L. See [Apply a P/L to aggregate credit utilization](#) on page 234.

The available amounts equal:

$$[(\text{trading suspension percentage}) \times \text{credit limit}] - \text{utilization}$$

For more information about the trading suspension threshold, see [Set the default credit trading suspension threshold for new counterparties](#) on page 250 and [Set the credit trading suspension threshold for a counterparty](#) on page 260.

If the counterparty is a separate [legal entity](#) that is part of an organization, you can also access the credit set-up screen from the parent organization's set-up screen.

The credit set-up screen contains tables that show the aggregate and daily credit limits, where applicable, and the counterparty's utilizations. See [Daily vs. aggregate methodologies](#) on page 225.

You can edit the aggregate and daily credit limits from this screen as well.

### 3.5.6 Upload credit limit updates

**NOTE:** This topic applies to the "Credit Carve-Out" mode only. See [Credit mode: carve-out vs. integration](#) on page 208.

Depending on your dealing workflow and back-office procedures, your organization may have settled balances to account for in the system.

You can upload these balances as [CSV](#) files.

For the details of the credit-limit upload CSV file, see [CSV format for credit limit download and upload](#) on page 239.

1. Navigate to the Credit Setup screen ([Counterparty > Credit > Setup](#)).

2. Click the **Upload CSV** link.

The Upload CSV popup window opens.

3. Enter the path and filename of the CSV file in the field or select the file by clicking the **Browse..** button.

4. Click **Start Upload**.

### 3.5.7 CSV format for credit limit download and upload

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**NOTE:** This topic applies to the “Credit Carve-Out” mode only. See [Credit mode: carve-out vs. integration](#) on page 208.

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If you have settled balances to account for in the system, you can load the credit limit updates in a [CSV](#) file.

Each organization/[legal entity](#) credit limit update is represented by a line of comma-separated data in the file.

Your upload file can include a heading line, as in the example below, or not. If you include a value date with your daily limits, you must include a header that specifies the date format.

The date format you specify can be any combination of the following indicators:

- Day: DD
- Month: MM (numeric) or MMM (abbreviation)
- Year: YY or YYYY
- Separators: You must separate the format indicators with all hyphens (-) or all slashes/strokes (/).

**Figure 3-1 Example 1: managing credit at the legal entity level, daily methodology**

Organization,LegalEntity,Methodology,Date(DD-Mon-YYYY),Limit,LEI,Status  
BankA,BankA-le1,DNR,27-Nov-2017,2500000.00,,Active

**Figure 3-2 Example 2: managing credit at the organization level, aggregate methodology**

Organization,LegalEntity,Methodology,Date(DD-Mon-YYYY),Limit,LEI,Status  
BankA,,DNR,,50000000.00,,Active

The data must be specified in the same order as the following table:

**Table 3-2 Credit limit CSV format**

Label	Req'd for Upload?	Description	Example Values
Organization	Y	The organization	BankA

**Table 3-2 Credit limit CSV format (continued)**

Label	Req'd for Upload?	Description	Example Values
LegalEntity	N	The organization's <a href="#">legal entity</a> . Leave this empty if you are managing credit at the organization level. See <a href="#">Choose how to manage exposures by default for new counterparties</a> on page 246 and for details <a href="#">Choose how to manage exposures for an organization</a> on page 255.	BankA-LE1
Methodology	Y	The credit methodology to apply. See <a href="#">Credit methodologies and examples</a> on page 209 for details.	<ul style="list-style-type: none"> <li>● ANS: Aggregate Net Settlement</li> <li>● AGS: Aggregate Gross Settlement</li> <li>● ANR: Aggregate Net Receivable</li> <li>● ANSPR: Aggregate Net Receivable (P/R)</li> <li>● AN: None (no aggregate methodology)</li> <li>● DNR: Daily Net Receivable</li> <li>● DGS: Daily Gross Settlement</li> <li>● DN: None (no daily methodology)</li> </ul>
Date( <i>date format</i> )	Y	The value date if you specify a daily credit method. You specify the date format in the file header between the parentheses. Leave empty to use the default date or if you specify an aggregate method.	27-Nov-2017
Limit	Y	The credit limit denominated in the limit currency. Do not use thousands separator characters to format the amount. You must use a period to indicate decimal amounts, not a comma.	50000000.00
LEI	N	The Legal Entity Identifier assigned to the organization, if any. This field is ignored for credit upload.	N/A

**Table 3-2** Credit limit CSV format (continued)

Label	Req'd for Upload?	Description	Example Values
Status	Y	The credit status of the organization	<ul style="list-style-type: none"> <li>“No Check”: Credit checking disabled. Trades are executed and prices are streamed with no credit check.</li> <li>“Active”: Credit checking enabled. Trades are executed only after a successful check and are counted toward future credit calculations.</li> <li>“Suspend”: Trading is suspended but credit checking is still active for prices to be streamed to the counterparty.</li> </ul>

### 3.5.8 Review audited credit events

**NOTE:** This topic applies to the “Credit Carve-Out” mode only. See [Credit mode: carve-out vs. integration](#) on page 208.

The Credit Service updates a log for a variety of credit events:

- Credit threshold breach
- Credit rejection
- Changes in credit configuration

#### Logged event data

The system logs the following information for each event:

**Table 3-3** Event information

Information	Description
Entry Date/Time	The date/time the system updated the log with the event entry
User	The user who initiated the event. For counterparty credit events like rejections and threshold breaches, this is the counterparty user who requested the trade.
Organization	The organization for which the event occurred
Legal entity	The legal entity for which the event occurred

**Table 3-3** Event information (continued)

Information	Description
Description	A description of the event, including details of the change or the details of the trade that triggered the credit event

### View credit audit events

You can review all the credit events in the system from the Audit screen (**Counterparty > Credit > Audit**).

To narrow the scope of your review, you can filter the events using the following criteria:

**Table 3-4** Event filter criteria

Criteria	Report Screen Element
The user that initiated the event	<b>User</b> drop-down list
The organization for which the event occurred	<b>Organization</b> drop-down list
The logged action	<b>Actions</b> drop-down list
Date range of events	<b>Period</b> drop-down list or <b>From</b> and <b>To</b> fields and  Calendar buttons ( <a href="#">Enter a date with a calendar</a> on page 449)

### Download credit audit events

Click the  CSV button or the  Excel button to download the credit events in that match your filter criteria.

## 3.6 Configure the credit service

**NOTE:** This topic applies to the “Credit Carve-Out” mode only. See [Credit mode: carve-out vs. integration](#) on page 208.

The Credit Service maintains three kinds of credit settings:

- **Global:** Global settings apply to the Credit Service as a whole, such as enabling and disabling the Credit Service. See [Global credit settings](#) on page 243 for details.
- **Default:** Default settings apply to new counterparties. They are a quick and convenient way to ensure that you apply your organization’s basic credit policies to counterparties as they are added to the system. Changing the default settings has no effect on existing counterparty credit settings. See [Set up credit defaults for new counterparties](#) on page 245 for details.
- **Counterparty:** Counterparty-specific settings allow you to customize your credit exposures for each counterparty, changing the default settings that were applied when the counterparty was added to the system. You define credit-limit amounts at the counterparty level. See [Set up credit for a counterparty](#) on page 251 for details.

If you need to manage credit settings for individual [legal entity](#) of a counterparty organization, see [Choose how to manage exposures by default for new counterparties](#) on page 246 and [Choose how to manage exposures for an organization](#) on page 255 for details.

### 3.6.1 Global credit settings

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**NOTE:** This topic applies to the “Credit Carve-Out” mode only. See [Credit mode: carve-out vs. integration](#) on page 208.

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Global credit settings apply to your organization’s Credit Service as a whole or to all counterparties:

- [Enable or disable the credit service](#) on page 243
- [Set the exposure horizon](#) on page 243
- [Set the email sender address](#) on page 244
- [Enable or disable rejection emails](#) on page 244
- [Designate currency pairs exempt from credit checks](#) on page 245

#### Enable or disable the credit service

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**NOTE:** This topic applies to the “Credit Carve-Out” mode only. See [Credit mode: carve-out vs. integration](#) on page 208.

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If you already have in-house credit checking processes in place, you can disable the Credit Service.

Otherwise, you can enable Credit Service to take advantage of its functionality.

##### **To enable or disable credit checking globally for all counterparties:**

1. Navigate to the Credit Setup screen (**Counterparty > Credit > Setup**).
2. From the **Status** drop-down list, choose one of the following:
  - No Check: Credit checking disabled. Trades are executed and prices are streamed with no credit check.
  - Active: Credit checking enabled. Trades are executed only after a successful check and are counted toward future credit calculations.
  - Suspended: Trading is suspended but prices are still streamed to counterparties.

---

**IMPORTANT:** Credit checking is not retroactive. When you disable credit checking, any trades done afterwards are not counted towards credit calculations if you later enable credit checking.

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3. Click **Save**.

#### Set the exposure horizon

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**NOTE:** This topic applies to the “Credit Carve-Out” mode only. See [Credit mode: carve-out vs. integration](#) on page 208.

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The Credit Exposure screen (**Counterparty > Credit > Credit Exposure > Static**) gives you a quick, near-term summary of your counterparty credit exposures. The calculations in the screen are based on applicable counterparty daily credit methodologies, but are limited to the exposure horizon, the time

period in days considered for the credit calculations. See [Credit methodologies and examples](#) on page 209.

1. Navigate to the Credit Setup screen (**Counterparty > Credit > Setup**).
2. In the **Daily Exposure Horizon** field in the Credit Defaults panel, enter a whole number of days greater than zero. A typical horizon is five days deep.

**NOTE:** Calculating credit exposures takes time. Setting your exposure horizon too large may significantly affect system performance.

3. Click **Save**.

### Set the email sender address

**NOTE:** This topic applies to the "Credit Carve-Out" mode only. See [Credit mode: carve-out vs. integration](#) on page 208.

If you configure the Credit Service to send email, you need to enter the address for the email sender.

1. Navigate to the Credit Setup screen (**Counterparty > Credit > Setup**).
2. In the **Email Sender Address** field in the Credit Defaults panel, enter one email address. This address is displayed in the From: field of the credit emails and it receives responses to any replies. If you do not set a sender address, the address defaults to a property set on the server.
3. Click **Save**.

### Enable or disable rejection emails

**NOTE:** This topic applies to the "Credit Carve-Out" mode only. See [Credit mode: carve-out vs. integration](#) on page 208.

If a counterparty's trade is rejected because of a credit check failure, you can configure the Credit Service to send an email to the addresses defined for the counterparty. See [Set the send-to email addresses for a counterparty](#) on page 258.

The text of the email is as follows:

Subject: Credit Reject for *creditOrganization:creditLegalEntity*  
Trade: [BUY or SELL] 10M EUR/USD SPOT  
Trade Date: DD-MMM-YYYY  
Execution Date/Time: DD-MMM-YYYY hh:mm:ss  
Reason: *Rejection reason*  
Value Date: DD-MMM-YYYY

The rejection reason can be one of the following:

- Insufficient credit
- No current market data found for currency pair
- Value date is before current business date
- System runtime error

#### To enable or disable rejection emails:

1. Navigate to the Credit Setup screen (**Counterparty > Credit > Setup**).
2. Select or clear the **Enable Rejection Emails** checkbox to enable or disable rejection emails.

3. Click **Save**.

#### Designate currency pairs exempt from credit checks

**NOTE:** This topic applies to the “Credit Carve-Out” mode only. See [Credit mode: carve-out vs. integration](#) on page 208.

You can select a currency pair group that is exempt from credit checking for your organization. Credit calculations are not performed for the currency pairs in the exempt group and trades done in the exempt currency pairs are not credit checked.

You define currency pair groups in the existing Add Currency Pair Group screen ([Organization > Currency Pair Groups > Add Currency Pair Groups](#)).

*To choose the currency pair group exempt from credit checking:*

1. Navigate to the Credit Setup screen ([Counterparty > Credit > Setup](#)).
2. In the Credit Defaults panel, select the currency pair group from the **Currency Pair Exemptions** drop-down list.
3. Click **Save**.

#### 3.6.2 Set up credit defaults for new counterparties

**NOTE:** This topic applies to the “Credit Carve-Out” mode only. See [Credit mode: carve-out vs. integration](#) on page 208.

Default credit settings are a quick and convenient way to ensure that you apply your organization’s basic credit policies to counterparties as they are added to the system.

The defaults serve as a template of credit settings for counterparty creation.

Except for the **Status** drop-down list, changing the settings Credit Defaults tab has no effect on existing counterparty credit settings.

You should define your credit defaults before adding counterparties to the system.

- [Enable or disable the credit service](#) on page 243
- [Choose how to manage exposures by default for new counterparties](#) on page 246
- [Choose the limit currency for new counterparties](#) on page 245
- [Set the default minimum and maximum tenors for new counterparties](#) on page 246
- [Choose how to manage exposures by default for new counterparties](#) on page 246
- [Choose the default credit methodologies for new counterparties](#) on page 247
- [Set the default credit thresholds for new counterparties](#) on page 248
- [Set the default send-to email addresses for new counterparties](#) on page 249

#### Choose the limit currency for new counterparties

**NOTE:** This topic applies to the “Credit Carve-Out” mode only. See [Credit mode: carve-out vs. integration](#) on page 208.

This setting only applies to new counterparties as they are added to the system.

You can choose the currency the Credit Service uses for denominating credit limits and calculating credit utilizations.

The latest rates for the limit currency are used to calculate credit utilization.

**NOTE:** Changing the limit currency may substantially affect the counterparty credit utilizations for credit methodologies that disregard dealt amounts in the limit currency. See [Net settlement \(P/R\) on page 219](#) for details.

**To choose the default limit currency:**

1. Navigate to the Credit Setup screen (**Counterparty > Credit > Setup**).
2. From the **Limit Currency** drop-down list in the Credit Defaults panel, choose a new limit currency.
3. Click **Save**.

Set the default minimum and maximum tenors for new counterparties

**NOTE:** This topic applies to the “Credit Carve-Out” mode only. See [Credit mode: carve-out vs. integration on page 208](#).

This setting only applies to new counterparties as they are added to the system.

You can set the minimum and the maximum tenors that the Credit Service allows your counterparties to trade. If a counterparty attempts to trade prior to the minimum tenor or longer than the maximum tenor, the Credit Service rejects the request to trade.

The minimum and maximum tenors are only enforced when the Credit Service is enabled. See [Enable or disable the credit service on page 243](#) and [Enable or disable credit checking for a specific counterparty on page 252](#).

For a list of valid tenors, see [Tenors on page 451](#).

1. Navigate to the Credit Setup screen (**Counterparty > Credit > Setup**).
2. In the **Maximum Tenor** field in the Credit Defaults panel, enter a tenor. To disable tenor checking for credit, leave the field empty.
3. Enter the minimum tenor in the **Minimum Tenor** field of the Credit Defaults panel. To disable minimum tenor checking for credit and allow new counterparties to trade any tenor prior to the maximum, leave the field empty.
4. Enter the maximum tenor in the **Maximum Tenor** field of the Credit Defaults panel. To disable maximum tenor checking for credit and allow new counterparties to trade any tenor longer than the minimum, leave the field empty.
5. Click **Save**.

Choose how to manage exposures by default for new counterparties

**NOTE:** This topic applies to the “Credit Carve-Out” mode only. See [Credit mode: carve-out vs. integration on page 208](#).

This setting only applies to new counterparties as they are added to the system.

You can choose whether the Credit Service maintains credit settings for organizations as a whole or for the organizations' individual [legal entity](#).

For example, if an organization has multiple legal entities and you choose to manage exposures at the legal entity level, you define credit settings for each legal entity and the Credit Service maintains credit exposures for each legal entity.

However, if you choose to manage exposures at the organization level, Credit Service maintains a single credit exposure for the organization no matter what has been defined for the organization's individual legal entities.

When you create a new organization, the credit settings are managed at the organization level by default.

You can override this default setting for individual organizations. See [Choose how to manage exposures for an organization](#) on page 255 for details.

***To manage exposures at the organization level by default***

1. Navigate to the Credit Setup screen (**Counterparty > Credit > Setup**).
2. From the **Exposure Level** radio buttons in the Credit Defaults panel, click **Organization**.
3. Click **Save**.

***To manage exposures at the legal entity level by default***

1. Navigate to the Credit Setup screen (**Counterparty > Credit > Setup**).
2. From the **Exposure Level** radio buttons in the Credit Defaults panel, click **Legal Entity**.
3. Click **Save**.

**Choose the default credit methodologies for new counterparties**

---

**NOTE:** This topic applies to the "Credit Carve-Out" mode only. See [Credit mode: carve-out vs. integration](#) on page 208.

---

You can choose the credit methodologies to apply by default to new counterparties as they are added to the system.

Credit methodologies encompass the conventions, procedures, and calculations used to determine a counterparty's credit utilization.

Credit settings for a [legal entity](#) may or may not override the settings for the parent organization depending on how you have set the exposure levels for the organization. See [Choose how to manage exposures for an organization](#) on page 255.

You can choose to apply daily or aggregate methodologies, or both. See [Daily vs. aggregate methodologies](#) on page 225 for more details.

**Default daily methodology**

1. Navigate to the Credit Setup screen (**Counterparty > Credit > Setup**).

2. From the **Daily Methodology** drop-down list in the Credit Defaults panel, choose a credit methodology.

If you choose "None", then no daily credit methodology is applied by default to new counterparties. You must set the daily methodology for each new counterparty. See [Choose the credit methodologies for a counterparty](#) on page 256.

3. Click **Save**.

#### Default aggregate methodology

1. Navigate to the Credit Setup screen (**Counterparty > Credit > Setup**).
2. From the **Aggregate Methodology** drop-down list in the Credit Defaults panel, choose a credit methodology.  
If you choose "None", then no aggregate credit methodology is applied by default to new counterparties. You must set the aggregate methodology for each counterparty. See [Choose the credit methodologies for a counterparty](#) on page 256.
3. Enter a margin factor in the **Margin** field. The larger the margin factor, the greater your counterparty's credit limit is leveraged and the greater the risk. See [Credit margin factor](#) on page 225 for details.
4. If you have chosen a method other than Aggregate Gross Settlement, select or clear the **Include P/L** checkbox to add the counterparty's P/L to the credit limit or to disregard the P/L. See [Apply a P/L to aggregate credit utilization](#) on page 234.
5. Select the **Exclude Trades Settling Today** checkbox to exclude trades settling in the current business day from aggregate credit utilization and P/L calculations. For example, assume that a trade is done on Monday that settles on Wednesday. During Tuesday, the balance of the trade is used when calculating the customer's credit utilization and P/L. However, at end-of-day Tuesday, the positions resulting from the trade no longer affect the customer's credit utilization and P/L.
6. Choose how positions are consolidated for netting and utilized amount calculation with the following radio buttons:
  - Daily P/L:** Positions are consolidated based on the trade date of the trades. If you choose, daily P/L, the **Exclude Trades Settling Today** is not applicable.
  - Open P/L:** Positions are consolidated based on the value date of the trades.
7. Click **Save**.

#### Set the default credit thresholds for new counterparties

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**NOTE:** This topic applies to the "Credit Carve-Out" mode only. See [Credit mode: carve-out vs. integration](#) on page 208.

---

This setting applies only to new counterparties as they are added to the system.

You can set the default credit utilization thresholds at which the Credit Service sends email to alert your counterparties and your own personnel.

To change the thresholds for an existing counterparty, see [Set credit thresholds for a counterparty](#) on page 258.

The thresholds are expressed as a percentage of the counterparty's credit limit, either daily or aggregate depending on the applicable [credit methodology](#).

The thresholds indicate three levels of alert:

- Notification (must be less than the warning threshold, see [Set the credit notification threshold for a counterparty](#) on page 259 for details)
- Warning (must be greater than the notification threshold but less than the trading suspension threshold, see [Set the credit warning threshold for a counterparty](#) on page 259 for details)
- Trading suspension (must be greater than the warning threshold, see [Set the credit trading suspension threshold for a counterparty](#) on page 260 for details)

If you define credit thresholds, you must also enter email addresses for the sender and recipients. See [Set the email sender address](#) on page 244 and [Set the default send-to email addresses for new counterparties](#) on page 249 for details.

#### Set the default send-to email addresses for new counterparties

**NOTE:** This topic applies to the "Credit Carve-Out" mode only. See [Credit mode: carve-out vs. integration](#) on page 208.

If you configure the Credit Service to send email, you should enter the default addresses the email recipients.

You can enter one or more addresses to which email is sent when a counterparty breaches a credit threshold.

1. Navigate to the Credit Setup screen (**Counterparty > Credit > Setup**).
2. In the **Email Sender Address** field in the Credit Defaults panel, enter one email address. This address is displayed in the From: field of the credit emails and it receives responses to any replies. If you do not set a sender address, the address defaults to a property set on the server.
3. In the **Email Notification Addresses** field, enter one or more addresses to receive credit emails. Separate multiple addresses with a comma or semicolon. These addresses are displayed in the To: field of the credit emails. They receive one email for each default threshold breach for each counterparty.
4. Click **Save**.

#### Set the default credit notification threshold for new counterparties

**NOTE:** This topic applies to the "Credit Carve-Out" mode only. See [Credit mode: carve-out vs. integration](#) on page 208.

This setting applies only to new counterparties as they are added to the system.

You can set the default threshold at which a notification email is sent.

To change the threshold for an existing counterparty, see [Set the credit notification threshold for a counterparty](#) on page 259.

The threshold is expressed as a percentage of the counterparty's credit limit, either daily or aggregate depending on the applicable [credit methodology](#).

The Credit Service sends the notification email only once a day when the counterparty's utilization breaches the notification threshold but is smaller than the warning threshold.

**To set the notification threshold:**

1. Navigate to the Credit Setup screen (**Counterparty > Credit > Setup**).
2. In the **Utilization Notification Percentage** field in the Credit Defaults panel, enter a percentage. The notification threshold must be smaller than the warning threshold.

---

**NOTE:** You should also enter email addresses in the **Email Sender Address** and **Email Notification Addresses** fields.

---

3. Click **Save**.

Set the default credit warning threshold for new counterparties

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**NOTE:** This topic applies to the "Credit Carve-Out" mode only. See [Credit mode: carve-out vs. integration](#) on page 208.

---

This setting applies only to new counterparties as they are added to the system.

You can set the default threshold at which a warning email is sent.

To change the threshold for an existing counterparty, see [Set the credit warning threshold for a counterparty](#) on page 259.

The threshold is expressed as a percentage of the counterparty's credit limit, either daily or aggregate depending on the applicable [credit methodology](#).

The Credit Service sends the warning email only once a day when the counterparty's utilization breaches the warning threshold but is smaller than the trading suspension threshold.

**To set the warning threshold:**

1. Navigate to the Credit Setup screen (**Counterparty > Credit > Setup**).
2. In the **Utilization Warning Percentage** field in the Credit Defaults panel, enter a percentage. The warning threshold must be larger than the notification threshold but smaller than the trading suspension threshold.

---

**NOTE:** You should also enter email addresses in the **Email Sender Address** and **Email Notification Addresses** fields.

---

3. Click **Save**.

Set the default credit trading suspension threshold for new counterparties

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**NOTE:** This topic applies to the "Credit Carve-Out" mode only. See [Credit mode: carve-out vs. integration](#) on page 208.

---

This setting applies only to new counterparties as they are added to the system.

The threshold is expressed as a percentage of the counterparty's credit limit, either daily or aggregate depending on the applicable [credit methodology](#).

The trading suspension threshold determines the credit available to a counterparty.

The credit available to a counterparty equals: [(trading suspension percentage) x credit limit] - utilization.

If the threshold is reached, an email is sent and the size available for the counterparty to trade on is reduced. The counterparty can continue to trade to their credit limit. For an organization with multiple legal entities, the price available is only reduced when changed for the organization's default legal entity.

To change the threshold for an existing counterparty, see [Set the credit trading suspension threshold for a counterparty](#) on page 260.

The Credit Service sends the suspension email only once a day when the counterparty's utilization breaches the suspension threshold.

***To set the suspension threshold:***

1. Navigate to the Credit Setup screen (**Counterparty > Credit > Setup**).
2. In the **Trading Suspension Percentage** field in the Credit Defaults panel, enter a percentage. The suspension threshold must be larger than the warning threshold.  
**NOTE:** You should also enter email addresses in the **Email Sender Address** and **Email Notification Addresses** fields.
3. Click **Save**.

### 3.6.3 Set up credit for a counterparty

**NOTE:** This topic applies to the "Credit Carve-Out" mode only. See [Credit mode: carve-out vs. integration](#) on page 208.

You can define credit settings for a specific counterparty that differ from the credit defaults that were applied when the counterparty was added to the system.

For the counterparty's credit settings to take effect, you must enable the Credit Service and enable credit for the counterparty. See [Enable or disable credit checking](#) on page 236.

You can choose to manage credit for the organization or for each **legal entity** in the organization. If you set the credit exposure level to the legal entities, you should configure credit for those legal entities. See [Choose how to manage exposures for an organization](#) on page 255.

- [Enable or disable credit checking for a specific counterparty](#) on page 252
- [Edit a counterparty's credit limit](#) on page 253
- [Set the minimum and maximum tenors for a counterparty](#) on page 253
- [Choose how to manage exposures for an organization](#) on page 255
- [Choose the credit methodologies for a counterparty](#) on page 256
- [Manage PFE coefficients](#) on page 260
- [Set credit thresholds for a counterparty](#) on page 258
- [Set the send-to email addresses for a counterparty](#) on page 258

## Enable or disable credit checking for a specific counterparty

**NOTE:** This topic applies to the “Credit Carve-Out” mode only. See [Credit mode: carve-out vs. integration](#) on page 208.

You can enable or disable credit checking for a counterparty in two places:

### **From the Credit Setup screen:**

1. Navigate to the Credit Setup screen (**Counterparty > Credit > Setup**).
2. In the Counterparties panel in the Status column for the counterparty, choose one of the following from the drop-down list:
  - No Check: Credit checking disabled. Trades are executed and prices are streamed with no credit check.
  - Active: Credit checking enabled. Trades are executed only after a successful check and are counted toward future credit calculations.
  - Suspended: Trading is suspended but credit checking is still active for prices to be streamed to the counterparty.

**IMPORTANT:** Credit checking is not retroactive. When you disable credit checking, any trades done afterwards are not counted towards credit calculations if you later enable credit checking.

You can changes the status of multiple counterparties.

To change the status of all counterparties in the table, use the drop-down list in the column heading row.

3. Click **Save**.

### **From the specific counterparty's set-up screen:**

1. Navigate to the counterparty's credit set-up screen (**Counterparty > Credit > Setup > counterparty ID** or **Counterparty > Credit > Credit Exposure > Static > counterparty ID**).

**NOTE:** The credit settings for a [legal entity](#) may override the settings for the legal entity's parent organization. The parent organization's settings are shown in parentheses. See [Choose how to manage exposures for an organization](#) on page 255 for details.

2. Choose one of the following from the **Status** drop-down list:
  - No Check: Credit checking disabled. Trades are executed and prices are streamed with no credit check.
  - Active: Credit checking enabled. Trades are executed only after a successful check and are counted toward future credit calculations.
  - Suspended: Trading is suspended but credit checking is still active for prices to be streamed to the counterparty.

**IMPORTANT:** Credit checking is not retroactive. When you disable credit checking, any trades done afterwards are not counted towards credit calculations if you later enable credit checking.

3. Click **Save**.

## Edit a counterparty's credit limit

**NOTE:** This topic applies to the "Credit Carve-Out" mode only. See [Credit mode: carve-out vs. integration](#) on page 208.

The Admin Portal allows you to set the credit limits for specific counterparties.

**IMPORTANT:** The [credit methodology](#) you choose determines how a counterparty's trading activity counts against their credit limit. A thorough understanding of these methodologies is essential to managing your credit exposures effectively. See [Credit methodologies and examples](#) on page 209 for details.

A counterparty's credit limit plays an important part in determining the size of prices that the counterparty can trade.

The price that you publish to a counterparty is the minimum amount that results from the following checks and processes:

- Credit limit
- Trading limit (see [ESP spot trading limits](#) on page 188)
- Liquidity regeneration (see [Liquidity regeneration](#) on page 197)

**NOTE:** You must enable the Credit Service and enable credit for the counterparty in order for the credit limits to be enforced. See [Enable or disable the credit service](#) on page 243 and [Enable or disable credit checking for a specific counterparty](#) on page 252.

You can edit the counterparty's credit limits in two places:

### *From the Counterparties Credit Setup screen:*

1. Navigate to the Credit Setup screen ([Counterparty > Credit > Setup](#)).
2. Edit the credit limits as necessary. Daily limits apply to the value date, not the trade date.
3. Click **Save**.

### *From the specific counterparty's set-up screen:*

1. Navigate to the counterparty's credit set-up screen ([Counterparty > Credit > Setup > counterparty ID](#) or [Counterparty > Credit > Credit Exposure > Static counterparty ID](#)).
2. Edit the credit limits as necessary. Daily limits apply to the value date, not the trade date.
3. Click **Save**.

## Set the minimum and maximum tenors for a counterparty

**NOTE:** This topic applies to the "Credit Carve-Out" mode only. See [Credit mode: carve-out vs. integration](#) on page 208.

You can set the minimum and the maximum tenors that the Credit Service allows your counterparties to trade. If a counterparty attempts to trade prior to the minimum tenor or longer than the maximum tenor, the Credit Service rejects the request to trade.

The minimum and maximum tenors are only enforced when the Credit Service is enabled. See [Enable or disable credit checking](#) on page 236 and [Enable or disable credit checking for a specific counterparty](#) on page 252.

When you manage counterparty credit at the organization level you can override the min/max tenors by legal entity. See [Override minimum and maximum tenors by legal entity for a counterparty](#) on page 254.

For a list of valid tenors, see [Tenors](#) on page 451.

**To set a counterparty's minimum and maximum tenors for credit checking:**

1. Navigate to the counterparty's set-up screen (**Counterparty > Credit > Setup > counterparty ID** or **Counterparty > Credit > Credit Exposure > Static > counterparty ID**).
2. Enter the minimum tenor in the **Minimum Tenor** field of the Credit Details panel. To disable minimum tenor checking for credit and allow the counterparty to trade any tenor prior to the maximum, leave the field empty.
3. Enter the maximum tenor in the **Maximum Tenor** field of the Credit Details panel. To disable maximum tenor checking for credit and allow the counterparty to trade any tenor longer than the minimum, leave the field empty.
4. Click **Save**.

**Override minimum and maximum tenors by legal entity for a counterparty**

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**NOTE:** This topic applies to the "Credit Carve-Out" mode only. See [Credit mode: carve-out vs. integration](#) on page 208.

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You can now choose to manage counterparty credit by organization and override min/max credit tenors by legal entity.

When you manage credit at the organization level (click the **Organization** option button for **Exposure Level**), the **Tenor Restriction** panel appears in the counterparty credit set-up screen (**Counterparty > Credit > Setup > counterparty ID**).

---

**NOTE:** When you change credit management from legal entity to organization, you must click **Save** for the **Tenor Restriction** panel to appear.

---

You must select the **Override at Legal Entity** checkbox in the **Tenor Restrictions** panel to show the list of legal entities. The checkbox is cleared by default and the list of legal entities is not shown.

To indicate the counterparties that override credit tenor by legal entity, the sortable **Override Tenor at LE** column has been added to the Counterparties panel in the Credit Setup screen (**Counterparty > Credit > Setup**).

1. Navigate to the counterparty's set-up screen (**Counterparty > Credit > Setup > counterparty ID** or **Counterparty > Credit > Credit Exposure > Static > counterparty ID**).
2. Click the **Organization** option button for **Exposure Level**.  
The **Tenor Restriction** panel appears.
3. Select the **Override at Legal Entity** checkbox.

The **Override Tenor at LE** panel with the list of legal entities appears. The list shows the legal entities that have a credit relationship with your organization. By default the list only shows the legal entities that currently override the organization tenors.

- 3a. To show all legal entities, select the **Show All** checkbox in the **Use Org Default** column heading.
- 3b. Select the checkboxes of the legal entities that you want to override tenors.
4. Select the **Business Days (Only if value defined in days)** checkbox to consider only business days when a tenor is specified as a number of days (for example, "30D"). Business days are defined by the currency pair's quote convention and holiday calendar.
5. Enter the minimum tenor in the **Minimum Tenor** column. The inherited value from the organization is shown in parentheses. To disable minimum tenor checking for credit and allow legal entities to trade any tenor prior to the maximum, leave the field empty.
6. Enter the maximum tenor in the **Maximum Tenor** column. The inherited value from the organization is shown in parentheses. To disable maximum tenor checking for credit and allow legal entities to trade any tenor longer than the minimum, leave the field empty.
7. Click **Save**.

#### Choose how to manage exposures for an organization

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**NOTE:** This topic applies to the "Credit Carve-Out" mode only. See [Credit mode: carve-out vs. integration](#) on page 208.

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You can choose whether the Credit Service maintains credit exposures for an organization as a whole or for the organization's individual legal entities.

For example, if an organization has multiple legal entities and you choose to manage exposures at the legal entity level, you define credit settings for each legal entity and the Credit Service maintains credit limits for each legal entity.

However, if you choose to manage exposures at the organization level, the Credit Service maintains a single credit limit for the organization no matter what has been defined for the organization's individual legal entities.

##### *To manage exposures at the organization level:*

1. Navigate to the counterparty organization's credit set-up screen (**Counterparty > Credit > Setup > organization ID** or **Counterparty > Credit > Credit Exposure > Static > organization ID**).
2. From the **Exposure Level** radio buttons, click **Organization**.
3. Click **Save**.

##### *To manage exposures at the legal entity level:*

1. Navigate to the counterparty organization's credit set-up screen (**Counterparty > Credit > Setup > organization ID** or **Counterparty > Credit > Credit Exposure > Static > organization ID**).
2. From the **Exposure Level** radio buttons, click **Legal Entity**.
3. Click **Save**.

To make credit configuration easier when you manage credit at the legal entity level, the counterparty and legal entity (LE) credit screens show values inherited from the organization. In addition, the screen indicates the values that have been overridden at the counterparty/LE level.

The credit settings taken from the organization configuration are shown next to the counterparty/LE settings in parentheses in the counterparty/LE credit set-up screen. Fields with override settings on the counterparty/LE are now highlighted. Please note that highlighted override settings can match the organization value. This indicates that the value has been set at the counterparty/LE level and is no longer inherited from the organization. Any changes to the organization value has no effect.

## Choose the credit methodologies for a counterparty

**NOTE:** This topic applies to the “Credit Carve-Out” mode only. See [Credit mode: carve-out vs. integration](#) on page 208.

You can choose the credit methodologies to apply by default to all of your counterparties.

Any credit settings that you have defined for a specific counterparty override the default settings.

Credit settings for a [legal entity](#) may override the settings for the parent organization depending on how you have set the exposure level for the organization. The parent organization's settings are shown in parentheses. See [Choose how to manage exposures for an organization](#) on page 255 for details.

You can choose to apply daily or aggregate methodologies, or both. See [Daily vs. aggregate methodologies](#) on page 225 for more details.

### Daily methodology

#### **To choose a counterparty's daily credit methodology:**

1. Navigate to either the Credit Setup screen (**Counterparty > Credit > Setup**) or to the specific counterparty's set-up screen (**Counterparty > Credit > Setup > counterparty ID** or **Counterparty > Credit > Credit Exposure > Static > counterparty ID**).
2. From the **Daily Methodology** drop-down list, choose a credit methodology.  
If you choose “None”, the Credit Service does not maintain daily credit limits for the counterparty.
3. Click **Save**.

### Aggregate methodology

#### **To choose a counterparty's aggregate credit methodology:**

1. Navigate to either the Credit Setup screen (**Counterparty > Credit > Setup**) or to the specific counterparty's set-up screen (**Counterparty > Credit > Setup > counterparty ID** or **Counterparty > Credit > Credit Exposure > Static > counterparty ID**).
2. From the **Aggregate Methodology** drop-down list, choose a credit methodology.

If you choose "None", the Credit Service does not maintain an aggregate credit limit for the counterparty.

3. Enter a margin factor in the **Margin** field. The larger the margin factor, the greater your counterparty's credit limit is leveraged and the greater the risk. See [Credit margin factor](#) on page 225 for details.
4. If you have chosen a method other than "Aggregate Gross Settlement", select or clear the **Include P/L** checkbox to add the counterparty's unsettled P/L to the credit limit or to disregard the P/L. See [Apply a P/L to aggregate credit utilization](#) on page 234.
5. If you have chosen a method other than "Aggregate Gross Settlement", select or clear the **Update Credit Balance with P/L at End of Day** checkbox to add the counterparty's settled P/L to the credit limit or to disregard the P/L. See [Apply a P/L to aggregate credit utilization](#) on page 234.
6. Select the **Exclude Trades Settling Today** checkbox to exclude trades settling in the current business day from aggregate credit utilization and P/L calculations. For example, assume that a trade is done on Monday that settles on Wednesday. During Tuesday, the balance of the trade is used when calculating the customer's credit utilization and P/L. However, at end-of-day Tuesday, the positions resulting from the trade no longer affect the customer's credit utilization and P/L. This checkbox has no effect if you choose daily P/L. See below.
7. Choose how positions are consolidated for netting and utilized amount calculation with the following radio buttons:
  - Daily P/L:** Positions are consolidated based on the trade date of the trades. If you choose, daily P/L, the **Exclude Trades Settling Today** is not applicable.
  - Open P/L:** Positions are consolidated based on the value date of the trades.
8. Click **Save**.

#### Designate currency pairs exempt from credit checks for a counterparty

**NOTE:** This topic applies to the "Credit Carve-Out" mode only. See [Credit mode: carve-out vs. integration](#) on page 208.

You can select a currency pair group that is exempt from credit checking for your organization. Credit calculations are not performed for the currency pairs in the exempt group and trades done in the exempt currency pairs are not credit checked.

You define currency pair groups in the existing Add Currency Pair Group screen (**Organization > Currency Pair Groups > Add Currency Pair Groups**).

1. Navigate to the counterparty's set-up screen (**Counterparty > Credit > Setup > counterparty ID** or **Counterparty > Credit > Credit Exposure > Static > counterparty ID**).
2. In the Credit Defaults panel, select the currency pair group from the **Currency Pair Exemptions** drop-down list.
3. Do one of the following:
  - Select the **Use Default** checkbox to use the currency group exemption defined for your organization, if any.
  - Clear the checkbox to override any organization setting with the counterparty-specific setting.
4. Click **Save**.

## Set credit thresholds for a counterparty

**NOTE:** This topic applies to the “Credit Carve-Out” mode only. See [Credit mode: carve-out vs. integration](#) on page 208.

You can set the credit utilization thresholds at which the Credit Service sends email to alert your counterparty and your own personnel.

The thresholds are expressed as a percentage of the counterparty’s credit limit, either daily or aggregate depending on the applicable credit methodology.

The thresholds indicate three levels of alert:

- Notification (must be less than the warning threshold, see [Set the credit notification threshold for a counterparty](#) on page 259 for details)
- Warning (must be greater than the notification threshold but less than the trading suspension threshold, see [Set the credit warning threshold for a counterparty](#) on page 259 for details)
- Trading suspension (must be greater than the warning threshold, see [Set the credit trading suspension threshold for a counterparty](#) on page 260 for details)

If you define credit email thresholds for a counterparty, you must also enter email addresses for the sender and for any of the counterparty’s recipients. See [Set the email sender address](#) on page 244 and [Set the send-to email addresses for a counterparty](#) on page 258.

Credit settings for a [legal entity](#) may override the settings for the parent organization depending on how you have set the exposure level for the organization. The parent organization’s settings are shown in parentheses. See [Choose how to manage exposures for an organization](#) on page 255 for details.

## Set the send-to email addresses for a counterparty

**NOTE:** This topic applies to the “Credit Carve-Out” mode only. See [Credit mode: carve-out vs. integration](#) on page 208.

If you configure the Credit Service to send email, you should enter email addresses for counterparty recipients.

You can enter one or more addresses to which email is sent when the counterparty breaches a credit threshold. These addresses are used in addition to the default addresses that were copied to the counterparty when it was created in the system. See [Set the default send-to email addresses for new counterparties](#) on page 249 for details.

You must also set the email sender. See [Set the email sender address](#) on page 244 for details.

1. Navigate to the counterparty’s credit set-up screen ([Counterparty > Credit > Setup > counterparty ID](#) or [Counterparty > Credit > Credit Exposure > Static > counterparty ID](#)).
2. In the **Email Notification Addresses** field, enter one or more addresses to receive credit emails. Separate multiple addresses with a comma or semicolon. These addresses are displayed in the To: field of the credit emails. They receive one email for each threshold breach per day.
3. Click **Save**.

4. If you have not already done so, set the email sender. See [Set the email sender address](#) on page 244 for details.

Set the credit notification threshold for a counterparty

**NOTE:** This topic applies to the “Credit Carve-Out” mode only. See [Credit mode: carve-out vs. integration](#) on page 208.

You can set the default threshold for a counterparty at which a notification email is sent.

The threshold is expressed as a percentage of the counterparty’s credit limit, either daily or aggregate depending on the applicable [credit methodology](#).

A threshold defined for a legal entity may or may not override the default threshold depending on how you have set the exposure levels for the organization. See [Choose how to manage exposures for an organization](#) on page 255 for details.

The Credit Service sends the notification email only once a day when the counterparty’s utilization breaches the notification threshold but is smaller than the warning threshold.

**To set the notification threshold:**

1. Navigate to the counterparty’s credit set-up screen (**Counterparty > Credit > Setup > counterparty ID** or **Counterparty > Credit > Credit Exposure > Static > counterparty ID**).
2. In the **Utilization Notification Percentage** field, enter a percentage. The notification threshold must be smaller than the warning threshold.

**NOTE:** You should also enter one or more email addresses in the **Email Notification Addresses** field.

3. Click **Save**.

Set the credit warning threshold for a counterparty

**NOTE:** This topic applies to the “Credit Carve-Out” mode only. See [Credit mode: carve-out vs. integration](#) on page 208.

You can set the default threshold for a counterparty at which a warning email is sent.

The threshold is expressed as a percentage of the counterparty’s credit limit, either daily or aggregate depending on the applicable credit methodology.

A threshold defined for a legal entity may or may not override the default threshold depending on how you have set the exposure levels for the organization. See [Choose how to manage exposures for an organization](#) on page 255 for details.

The Credit Service sends the warning email only once a day when the counterparty’s utilization breaches the warning threshold but is smaller than the trading suspension threshold.

**To set the warning threshold:**

1. Navigate to the counterparty’s credit set-up screen (**Counterparty > Credit > Setup > counterparty ID** or **Counterparty > Credit > Credit Exposure > Static > counterparty ID**).

2. In the **Utilization Warning Percentage** field, enter a percentage. The warning threshold must be larger than the notification threshold but smaller than the trading suspension threshold.

**NOTE:** You should also enter one or more email addresses in the **Email Notification Addresses** field.

3. Click **Save**.

Set the credit trading suspension threshold for a counterparty

**NOTE:** This topic applies to the "Credit Carve-Out" mode only. See [Credit mode: carve-out vs. integration](#) on page 208.

The trading suspension threshold determines the available size that a counterparty can execute on.

The threshold is expressed as a percentage of the counterparty's credit limit, either daily or aggregate depending on the applicable credit methodology.

The size available to a counterparty equals: [(trading suspension percentage) x credit limit] - utilization.

If the threshold is reached, an email notification is sent to the counterparty.

The threshold defined for a legal entity may or may not override the default or organization thresholds depending on how you have set the exposure levels for the organization. See [Choose how to manage exposures for an organization](#) on page 255 for details.

The Credit Service sends the suspension email only once a day when the counterparty's utilization breaches the suspension threshold.

**To set the suspension threshold:**

1. Navigate to the counterparty's credit set-up screen (**Counterparty > Credit > Setup > counterparty ID** or **Counterparty > Credit > Credit Exposure > Static > counterparty ID**).
2. In the **Trading Suspension Percentage** field, enter a percentage. The suspension threshold must be larger than the warning threshold.

**NOTE:** You should also enter one or more email addresses in the **Email Notification Addresses** field.

3. Click **Save**.

### 3.6.4 Manage PFE coefficients

**NOTE:** This topic applies to the "Credit Carve-Out" mode only. See [Credit mode: carve-out vs. integration](#) on page 208.

You can define a coefficient for each tenor that is used to increase a counterparty's credit utilization by a percentage value. You manage collections of these tenor coefficients in profiles that you can assign to counterparties.

If you want to further associate PFE coefficients with currency pair groups, you can organize PFE profiles into PFE configurations:

- [Manage PFE profiles](#) on page 261
- [Manage PFE configurations](#) on page 263

For more information about how credit coefficients are used, see [Potential future exposure \(PFE\) credit coefficients](#) on page 227.

## Manage PFE profiles

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**NOTE:** This topic applies to the “Credit Carve-Out” mode only. See [Credit mode: carve-out vs. integration](#) on page 208.

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For more information about how credit coefficients are used, see [Potential future exposure \(PFE\) credit coefficients](#) on page 227.

You use the following screens to define PFE profiles:

- Potential Future Exposure Coefficients list screen ([Counterparty > Credit > PFE Coefficient Profiles](#))
- Potential Future Exposure Coefficient detail screen ([Counterparty > Credit > PFE Coefficient Profiles > profile name](#))

### Assign a profile to a counterparty

You can assign separate PFE profiles for aggregate and daily limits for counterparties.

1. Navigate to the Credit for Counterparty screen ([Counterparty > Credit > Setup > counterparty organization ID](#)).
2. In the **Aggregate PFE Credit Coefficients** section, click the **Tenor Based or Currency Pair and Tenor Based** radio button and choose a PFE profile from the drop-down list.
3. In the **Daily PFE Credit Coefficients** section, click the **Tenor Based or Currency Pair and Tenor Based** radio button and choose a PFE profile from the drop-down list.
4. Use the **Exclude PFE for Daily Exposure** drop-down list to configure how PFE coefficients are applied. For more information about PFE and daily credit, see [Potential future exposure \(PFE\) credit coefficients](#) on page 227.
  - No: PFE coefficients are applied to both aggregate and daily methodologies.
  - Yes: PFE coefficients are applied to aggregate methodologies only.
  - Default: Use the default setting from the parent organization (applicable only to legal entities and counterparties)

### Assign a default profile for new counterparties

1. Navigate to the Credit Setup screen ([Counterparty > Credit > Setup](#)).
2. In the **PFE Credit Coefficients** section, click the **Tenor Based or Currency Pair and Tenor Based** radio button and choose a PFE profile from the drop-down list.
3. Use the **Exclude PFE for Daily Exposure** drop-down list to configure how PFE coefficients are applied. For more information about PFE and daily credit, see [Potential future exposure \(PFE\) credit coefficients](#) on page 227.
  - No: PFE coefficients are applied to both aggregate and daily methodologies.
  - Yes: PFE coefficients are applied to aggregate methodologies only.

#### Assign a profile to a legal entity

1. Navigate to the Credit for Counterparty Legal Entity screen (**Counterparty > Credit > Setup > counterparty organization ID > counterparty LE ID**).
  - o Credit definition for a counterparty organization: Credit for Counterparty screen (**Counterparty > Credit > Setup > counterparty organization ID**). You can assign separate PFE profiles for aggregate and daily limits for counterparty organizations.
2. In the **PFE Credit Coefficients** section, click the **Tenor Based or Currency Pair and Tenor Based** radio button and choose a PFE profile from the drop-down list.
3. Use the **Exclude PFE for Daily Exposure** drop-down list to configure how PFE coefficients are applied. For more information about PFE and daily credit, see [Potential future exposure \(PFE\) credit coefficients](#) on page 227.
  - o No: PFE coefficients are applied to both aggregate and daily methodologies.
  - o Yes: PFE coefficients are applied to aggregate methodologies only.
  - o Default: Use the default setting from the parent organization (applicable only to legal entities and counterparty organizations)

#### Add a PFE coefficient profile

1. Navigate to the Potential Future Exposure Coefficients list screen (**Counterparty > Credit > PFE Coefficient Profiles**).
2. Click the  Add button in the panel.

The Create PFE Coefficients Profile popup window opens.

3. Enter a name and description of the new profile.
4. Click **Submit**.

Your new profile is added to the list.

5. Click the name of the new profile.

Potential Future Exposure Coefficient detail screen opens.

6. Click the  Add button to add a tenor.

An empty tenor/coefficient is added to the profile.

7. Enter the tenor and coefficient. See [Tenors](#) on page 451 for information about entering tenors. Coefficient values can have a maximum of two decimal places and must be positive.
8. When you have finished editing the profile, click **Save**.

Your profile is added to the list of profiles in the system and is ready to assign to counterparties.

#### Edit a PFE coefficient profile

1. Navigate to the Potential Future Exposure Coefficients list screen (**Counterparty > Credit > PFE Coefficient Profiles**).
2. Click the name of the profile that you want to edit.

The Potential Future Exposure Coefficients Detail screen opens.

3. Edit the description of the new profile as necessary.

4. Click the  Add button to add a tenor.
5. Click the  Remove button to delete a tenor from the profile.
6. Edit the tenors and coefficients as necessary. See [Tenors](#) on page 451 for information about entering tenors. Coefficient values can have a maximum of two decimal places and must be positive.
7. When you have finished editing the profile, click **Save**.

#### Remove a profile

1. Navigate to the Potential Future Exposure Coefficients list screen ([Counterparty > Credit > PFE Coefficient Profiles](#)).
2. Click the  Remove button of the profile that you want to delete.

Your profile is deleted from the system.

#### Exclude daily credit from PFE coefficients

Typically PFE coefficients are applied to both daily and aggregate credit methodologies.

Some organizations use daily credit to model settlement risk and use aggregate credit to model pre-settlement risk. For settlement risk, PFE coefficients should not be applied and the full notional amount should be considered for credit calculations.

You can exclude PFE coefficients from daily credit or apply them to both daily and aggregate credit. When you exclude PFE coefficients from daily credit, they are still applied to aggregate limits to normalize credit exposure across the tenors.

Use the **Exclude PFE for Daily Exposure** drop-down list in the following credit screens to control how PFE coefficients are applied:

- Credit defaults for new organizations: Credit Setup screen ([Counterparty > Credit > Setup](#))
- Credit definition for a counterparty organization: Credit for Counterparty screen ([Counterparty > Credit > Setup > counterparty organization ID](#))
- Credit definition for a counterparty's legal entity: Credit for Counterparty Legal Entity screen ([Counterparty > Credit > Setup > counterparty organization ID > counterparty LE ID](#))

The selections in the drop-down list have the following affects:

- No: PFE coefficients are applied to both aggregate and daily methodologies. This is the default value.
- Yes: PFE coefficients are applied to aggregate methodologies only.
- Default: Use the setting from the parent organization (applicable only to legal entities and counterparty organizations)

#### Manage PFE configurations

---

**NOTE:** This topic applies to the "Credit Carve-Out" mode only. See [Credit mode: carve-out vs. integration](#) on page 208.

---

For more information about how credit coefficients are used, see [Potential future exposure \(PFE\) credit coefficients](#) on page 227.

You use the PFE Configurations screen (**Counterparty > Credit > PFE Configurations**) to manage PFE configurations.

#### Create new and edit existing PFE configurations

You create new configurations and edit existing configurations by uploading files that you edit in your tool of choice, such as a text editor or in Microsoft Excel. For the details of the file format for PFE configurations, see [PFE configuration CSV file format](#) on page 265.

**NOTE:** When you update an existing configuration, the definitions in the upload file overwrites any matching definitions in the existing configuration.

1. Prepare a CSV file with one or more PFE configurations. See [PFE configuration CSV file format](#) on page 265.
2. Ensure that the currency pair groups and default PFE profile that you reference in the file already exist in the system:
  - o Currency Pair Groups List screen (**Organization > Currency Pair Groups**)
  - o Potential Future Exposure Coefficients screen (**Counterparty > Credit > PFE Coefficient Profiles**)
3. Navigate to the PFE Configurations screen (**Counterparty > Credit > PFE Configurations**).
4. In the **PFE Configuration Upload** section, click the **Choose File** button and select your upload file.
5. Choose the file type of your upload from the **File Type** drop-down list.
6. Click **Import**.

#### Assign PFE configurations

You now can choose to assign PFE coefficients by single profile or by configuration.

Before you can assign PFE configurations, you must create at least one configuration using the CSV upload facility. See [Create new and edit existing PFE configurations](#) on page 264.

PFE profiles and PFE configurations are mutually exclusive: you can choose to apply either a tenor-based profile or a tenor- and currency-pair-based configuration.

1. Navigate to one of the following screens:
  - o Credit defaults for new organizations: Credit Setup screen (**Counterparty > Credit > Setup**)
  - o Credit definition for a counterparty organization when you manage credit at the organization level: Credit for Counterparty screen (**Counterparty > Credit > Setup > counterparty organization ID**)
  - o Credit definition for a counterparty's legal entity when you manage credit at the legal-entity level: Credit for Counterparty Legal Entity screen (**Counterparty > Credit > Setup > counterparty organization ID > counterparty LE ID**)
2. Do one of the following in the **Potential Future Exposure Coefficients** panel:
  - o To assign a tenor-based profile, click the **Tenor Based** radio button and select a profile from the drop-down list.

- To assign a configuration (currency pair and tenor), click the **Currency Pair and Tenor Based** radio button and select a configuration from the drop-down list.
3. *(Optional)* To open a popup window with the details of the selected profile or configuration, click the **Applicable Credit Coefficients** link.
  4. Click **Save**.

[PFE configuration reporting](#)

The **Applicable Credit Coefficients** link in the new **Potential Future Exposure Coefficients** panel opens a report so that you can quickly examine and confirm the coefficients in profiles and configurations as you apply them.

### PFE configuration CSV file format

---

**NOTE:** This topic applies to the "Credit Carve-Out" mode only. See [Credit mode: carve-out vs. integration](#) on page 208.

---

You upload PFE configurations as CSV files or as Excel files. Both file types consist of the following columns of data:

**Table 3-5 PFE configuration file format**

Column label	Required	Description
PFECConfiguration	Y	The name of the configuration. This is what you see in drop-down lists when you assign the configuration.
SortOrder	Y	The priority order of the currency pair groups in a configuration. This is used to resolve duplicate currency pairs. If a currency pair is included in more than one currency pair group in a configuration, the group with the lowest sort order is used. Each group in a configuration must have a different sort order. All of the entries for the group in a configuration must have the same sort order.
CurrencyPairGroup	Y	The ID of the currency pair group to apply to the profile/tenor/coefficient definition in the configuration. This currency pair group must already exist in the system.
DefaultPFECoefficientProfile	Y	The default PFE profile of the configuration. Each configuration must have exactly one default profile. All of the entries for the group in a configuration must have the same default profile.
PFECoefficientProfile	Y	The ID of the PFE profile
Tenor	Y	The tenor to which the coefficient is applied
PFECoefficient	Y	The coefficient expressed as a percent value (10.25 = 10.25%). Coefficient values can have a maximum of two decimal places and must be positive.

The following example CSV contains two configurations with two profiles per configuration.

**Example 3-1 PFE configuration upload CSV format**

PFECConfiguration,Sort0rder,CurrencyPairGroup,DefaultPFECoefficientProfile,

```

PFECoefficientProfile,Tenor,PFECoefficient
GeneralConfig,10,G7,Default,LenientProfile,SPOT,5
GeneralConfig,10,G7,Default,LenientProfile,1M,10
GeneralConfig,10,G7,Default,LenientProfile,3M,20
GeneralConfig,10,G7,Default,LenientProfile,6M,25
GeneralConfig,10,G7,Default,LenientProfile,1Y,40
GeneralConfig,20,CLS,Default,LenientProfile,SPOT,5
GeneralConfig,20,CLS,Default,LenientProfile,1M,10
GeneralConfig,20,CLS,Default,LenientProfile,3M,20
GeneralConfig,20,CLS,Default,LenientProfile,6M,25
GeneralConfig,20,CLS,Default,LenientProfile,1Y,40
GeneralConfig,50,EM,Default,StrictProfile,SPOT,10
GeneralConfig,50,EM,Default,StrictProfile,1M,20
GeneralConfig,50,EM,Default,StrictProfile,3M,40
GeneralConfig,50,EM,Default,StrictProfile,6M,50
GeneralConfig,50,EM,Default,StrictProfile,1Y,80
PreferredClientConfig,10,G7,PreferredDefault,SuperLenientProfile,SPOT,1
PreferredClientConfig,10,G7,PreferredDefault,SuperLenientProfile,1M,5
PreferredClientConfig,10,G7,PreferredDefault,SuperLenientProfile,3M,8
PreferredClientConfig,10,G7,PreferredDefault,SuperLenientProfile,6M,10
PreferredClientConfig,10,G7,PreferredDefault,SuperLenientProfile,1Y,20
PreferredClientConfig,20,CLS,PreferredDefault,SuperLenientProfile,SPOT,1
PreferredClientConfig,20,CLS,PreferredDefault,SuperLenientProfile,1M,5
PreferredClientConfig,20,CLS,PreferredDefault,SuperLenientProfile,3M,8
PreferredClientConfig,20,CLS,PreferredDefault,SuperLenientProfile,6M,10
PreferredClientConfig,20,CLS,PreferredDefault,SuperLenientProfile,1Y,20
PreferredClientConfig,50,EM,PreferredDefault,MediumStrictProfile,SPOT,2
PreferredClientConfig,50,EM,PreferredDefault,MediumStrictProfile,1M,8
PreferredClientConfig,50,EM,PreferredDefault,MediumStrictProfile,3M,10
PreferredClientConfig,50,EM,PreferredDefault,MediumStrictProfile,6M,15
PreferredClientConfig,50,EM,PreferredDefault,MediumStrictProfile,1Y,30

```

The following table shows the same CSV example in an editing tool. The colored background has been added to highlight individual PFE profiles in each configuration.

**Table 3-6 PFE configuration upload CSV in editor**

PFEConfiguration	SortOrder	CurrencyPairGroup	DefaultPFECoefficientProfile	PFECoefficientProfile	Tenor	PFECoefficient
GeneralConfig	10	G7	Default	LenientProfile	SPOT	5
GeneralConfig	10	G7	Default	LenientProfile	1M	10
GeneralConfig	10	G7	Default	LenientProfile	3M	20
GeneralConfig	10	G7	Default	LenientProfile	6M	25
GeneralConfig	10	G7	Default	LenientProfile	1Y	40
GeneralConfig	20	CLS	Default	LenientProfile	SPOT	5

**Table 3-6 PFE configuration upload CSV in editor (continued)**

PFEConfiguration	SortOrder	CurrencyPairGroup	DefaultPFECoefficientProfile	PFECoefficientProfile	Tenor	PFECoefficient
GeneralConfig	20	CLS	Default	LenientProfile	1M	10
GeneralConfig	20	CLS	Default	LenientProfile	3M	20
GeneralConfig	20	CLS	Default	LenientProfile	6M	25
GeneralConfig	20	CLS	Default	LenientProfile	1Y	40
GeneralConfig	50	EM	Default	StrictProfile	SPO T	10
GeneralConfig	50	EM	Default	StrictProfile	1M	20
GeneralConfig	50	EM	Default	StrictProfile	3M	40
GeneralConfig	50	EM	Default	StrictProfile	6M	50
GeneralConfig	50	EM	Default	StrictProfile	1Y	80
PreferredClientConfig	10	G7	PreferredDefault	SuperLenientProfile	SPO T	1
PreferredClientConfig	10	G7	PreferredDefault	SuperLenientProfile	1M	5
PreferredClientConfig	10	G7	PreferredDefault	SuperLenientProfile	3M	8
PreferredClientConfig	10	G7	PreferredDefault	SuperLenientProfile	6M	10
PreferredClientConfig	10	G7	PreferredDefault	SuperLenientProfile	1Y	20
PreferredClientConfig	20	CLS	PreferredDefault	SuperLenientProfile	SPO T	1
PreferredClientConfig	20	CLS	PreferredDefault	SuperLenientProfile	1M	5
PreferredClientConfig	20	CLS	PreferredDefault	SuperLenientProfile	3M	8
PreferredClientConfig	20	CLS	PreferredDefault	SuperLenientProfile	6M	10
PreferredClientConfig	20	CLS	PreferredDefault	SuperLenientProfile	1Y	20
PreferredClientConfig	50	EM	PreferredDefault	MediumStrictProfile	SPO T	2
PreferredClientConfig	50	EM	PreferredDefault	MediumStrictProfile	1M	8
PreferredClientConfig	50	EM	PreferredDefault	MediumStrictProfile	3M	10
PreferredClientConfig	50	EM	PreferredDefault	MediumStrictProfile	6M	15
PreferredClientConfig	50	EM	PreferredDefault	MediumStrictProfile	1Y	30

# CHAPTER 4

# Positions

## 4.1 Introduction

The Positions screen shows your positions by currency pair grouped according to the criteria you specify and updated dynamically. The Positions report presents similar information but does not update dynamically. See [Positions-CcyPair report](#) on page 328.

- [Group and filter criteria](#) on page 268
- [View positions](#) on page 268
- [Download position data](#) on page 269

## 4.2 Group and filter criteria

You can group and filter your positions information according to the following criteria:

<b>Position Type</b> radio buttons	<ul style="list-style-type: none"><li>• Organization: Group by currency pair.</li><li>• Maker: Long/short positions where your organization is the maker</li><li>• Taker: Long/short positions where your organization is the taker</li><li>• User: Group by user that took the position</li><li>• Legal Entity: Group by your organization's legal entity that took the position (<a href="#">legal entity</a>)</li><li>• Counterparty Organization: Group by counterparty organization</li></ul>
<b>Value Date</b> field	Show only positions for a specific value date. Leave empty to show all value dates.
<b>Currency Pair</b> drop-down list	Show only positions for a specific currency pair. Choose "ALL" for all currency pairs.

## 4.3 View positions

1. Navigate to the Positions screen (**Positions > Positions**)

2. Specify the grouping and filter criteria.

The **Update** button turns red to indicate that you have changed the criteria and need to update the Positions table.

3. Click the **Update** button.

The Positions table shows the following information for the positions that match your filter criteria. Additional columns are added according to your choice of grouping criteria.

Currency Pair	The currency pair of the position
---------------	-----------------------------------

Value Date	The value date of the position
Long/Short	Whether your organization is long or short
Net Open Base	The net amount in the base currency
Net Open Term	The net amount in the term currency
Base Buy Amt	Total buy positions in the base currency
Term Sell Amt	Total sell positions in the term currency
Base Sell Amt	Total sell positions in the base currency
Term Buy Amt	Total buy positions in the term currency
Avg Buy Rate	Weighted average rate of all buys
Avg Sell Rate	Weighted average rate of all sells
Avg Rate	Weighted average rate of all buys and sells
P/L (currency)	The net amount in the reporting currency
Unrealized P/L (currency)	The net amount in the reporting currency determined by taking the position's currency pair rate against the current market rate at the position amount

## 4.4 Download position data

You can download the position data as a [CSV](#) file.

1. View positions according to your filter and grouping criteria. See [View positions](#) on page 268.
2. Click the  Excel Download button.

A File Download dialog opens.

3. Click **Save**.

A Save As dialog opens.

4. Choose the location to which you want to save the file.
5. If you want to change the file's default name, enter it in the **File name:** field.
6. Click the **Save** button.

The file is saved as a [CSV](#) file.

## CHAPTER 5

# MiFID

## 5.1 Admin screens for MiFID onboarding

Integral MTF's Business Support team guides participants through onboarding to trade on Integral MTF.

---

**NOTE:** Integral captures all configured MiFID parameters as part of trade requests, but does not validate them or reject trades if the data has been incorrectly specified. It is the customer's responsibility to make sure these fields are correct.

---

## 5.1.1 Organization details

Enter the organization's LEI and MIC as applicable on the Organization Detail Edit screen (Organization > Organization List > *org ID*).

**G Organization Detail Edit**

**Main Details**

Fields marked with an asterisk (\*) are required

ID	G
* Name	G Bank LE
Description	
Address Line 1	1234 Street
Address Line 2	Bldg A
Address Line 3 (City)	City
Address Line 4 (State)	State
Zip/Postal Code	987654
Country	New Zealand ▼
Organization Group	GBank
Region	Asia-Pacific ▼

**Regulatory Details**

Legal Entity Identifier (LEI)	ABCD1234567890	<input type="checkbox"/> Interim LEI
MIC Code		

Save    Reset

## 5.1.2 Legal entity details

The organization's LEI can be overridden at the Legal Entity level if a Legal Entity has a different LEI. Use the Legal Entity Detail Edit screen (**Organizations > Legal Entities > legalEntity ID**).

**NOTE:** You must set the country for every legal entity that trades on Integral MTF.

Organization Legal Entity List >  
**Legal Entity Detail Edit**

**Save**   **Reset**

Main Details	
Fields marked with an asterisk (*) are required	
* ID	GLE
* Name	G Bank LE
* Business Center	GBC ▾
Address Line 1	1234 Street
Address Line 2	Bldg A
Address Line 3 (City)	City
Address Line 4 (State)	State
Zip/Postal Code	987654
Country	New Zealand ▾
Tax ID	THX1138
No Netting	<input type="checkbox"/>

**Default Contact**

Default Contact	None ▾
-----------------	--------

**Contact List**

[Create Contact](#)

Displaying Items 1 - 1 of 1

ID	Name
GCC	G Bank

1-1 «Previous Next»

**Regulatory Details**

Legal Entity Identifier (LEI)	GBankLEI
	<input type="checkbox"/> Interim LEI
MiFID Executing Firm	<input checked="" type="checkbox"/>
Investment Decision Maker	<input checked="" type="checkbox"/>
Jurisdiction	MiFID

### 5.1.3 User details

Configure users for Integral MTF with the User Detail Edit screen (**Organization > User > User List > user ID**).

A user can be marked as a natural person or an algorithm (**User Type** radio buttons **NATURAL** and **ALGO**).

When a user account is created, a system-generated Short Code is assigned to the user, which can be overridden if the organization supplies its own Short Code.

---

**NOTE:** Please contact your Integral Technical Account Manager if you need to supply your own Short Codes so that the **Short Code** field can be user editable. It is the customer's responsibility to manage the uniqueness of Short Codes. The Short Code is reported if this user is linked as the maker user on a Price Stream. See [Price stream details](#) on page 275 for more details.

---

The National ID is saved in the database in encrypted format and is not visible once saved.

User List >  
**User Detail Edit**

[Detail](#) | [Security](#) | [Display](#) | [User/Legal Entity](#) | [User/Sales Dealer Groups](#) | [Logout](#)

Save    Reset

Main Details	
Fields marked with an asterisk (*) are required	
ID	MIFIDINVMaker
* Name	Investment Desc Maker
Title	N/A
First Name	Algo
Last Name	Trader-INVM1234
User Type	<input type="radio"/> NATURAL <input checked="" type="radio"/> ALGO
Short Code	INVM1234
National ID Type	Passport ▾
National ID Country	Please Select ▾
National ID	****_**_*****
MIFID Executing User	<input checked="" type="checkbox"/>
Investment Decision Maker	<input checked="" type="checkbox"/>
Date of Birth	1972/01/10 <input style="border: none; width: 20px; height: 15px; vertical-align: middle;" type="button" value="Calendar"/> [yyyy/mm/dd]
Telephone	(09) 55 455 90010
Fax	
Email Address	dtrader@gbank.com
Address Line 1	1234 Street
Address Line 2	Bldg A
Address Line 3 (City)	City
Address Line 4 (State)	
Zip/Postal Code	
Country	New Zealand ▾

## 5.1.4 Price stream details

The MiFID Parameters panel is divided into two sections in the Stream Detail screen (**Counterparty > Price Making > Streams >stream name**):

- Maker:

These MiFID parameters are sent when a broker makes prices into external MTF venues.

You can override these parameters with settings in the Currency Pair Configuration screen to support currency-pair-level granularity.

- Taker:

These MiFID parameters are sent when a broker executes a cover trade on Integral MTF.

You can override these parameters with settings in the Currency Pair Configuration screen to support currency-pair-level granularity.

The legal entity for the stream on the trade is recorded as the executing firm

The user on the transaction is recorded as the executing user. User can be of the type natural person or algorithm (see [User details](#) on page 273).

[Price Making Streams >](#)

### G Stream Detail for AdarshStream1

General		<input checked="" type="checkbox"/> Active
ID	AdarshStream1	
Description	AdarshStream1	
AutoDealer User	AdarshBA1	
Associated Legal Entity	GLE	
Associated SEF Legal Entity	None	
Preserve Client Spread	<input checked="" type="checkbox"/>	
Keep Price Improvement	<input checked="" type="checkbox"/>	
Request Expiry	120	seconds
ESP Full Stream Update Interval	250	milliseconds
ESP Best Bid/Offer Stream Update Interval	50	milliseconds
RFS Full Stream Update Interval	250	milliseconds
RFS Best Bid/Offer Stream Update Interval	50	milliseconds
Quote Cache Size	10	
Channels	<input checked="" type="checkbox"/> ESP <input checked="" type="checkbox"/> RFS	
Maximum Tenor	10Y	
Time In Force (Limit)	1,500 milliseconds	
Time In Force (Market)	5,000 milliseconds	
Instantaneous Response for ESP Full Fills	<input type="checkbox"/>	
Include FMA Providers	<input type="checkbox"/>	
Enable Skew	<input type="checkbox"/>	VWAP Skew <input type="checkbox"/>

MiFID Parameters	
<b>Maker</b>	
Investment Decision Maker	kiranRFQ
Trading Capacity	DEAL
SI Execution	<input checked="" type="checkbox"/>
SI Venue	IMTF
Cover On MTF	<input checked="" type="checkbox"/>
<b>Taker</b>	
Investment Decision Maker	Antoniocopy
Trading Capacity	MTCH
Securities Financing	<input checked="" type="checkbox"/>
Non Price Forming	<input checked="" type="checkbox"/>

## 5.1.5 Currency pair configuration

You can override the MiFID parameters on the price stream with settings in the Price Making Configuration screen (**Counterparty > Price Making > Streams > stream name > ccy pair config name**).

The screenshot shows the 'Price Making Streams > Stream Detail' screen for 'G-AdarshStream1'. The title bar says 'G-AdarshStream1 Price Making Configuration for Cpg1'. The main area has two tabs: 'Currency Pair Group' and 'Mifid Parameters'. Under 'Currency Pair Group', there is a table with columns 'Available' and 'Selected'. The 'Available' column lists currency pairs like 'AED/All', 'ASU/unsupported', 'AUD/All', 'AUD/all', 'B0Y12', and 'B0Y13'. The 'Selected' column contains 'G10' and 'G7'. Buttons for 'Save', 'Reset', and 'Save As' are at the top right, along with an 'Active' checkbox which is checked. Under 'Mifid Parameters', there are sections for 'Override Stream Parameters' (checkbox checked), 'Maker' (Investment Decision Maker: Antoniopy, Trading Capacity: DEAL, SI Execution: checked, SI Venue: MTF, Cover On MTF: unchecked), and 'Taker' (Investment Decision Maker: Adarsh1, Trading Capacity: HTCH, Securities Financing: checked, Non Price Forming: checked). Buttons for 'Save', 'Reset', and 'Save As' are at the top right.

## 5.2 Configure MiFID users

### 5.2.1 Configure an existing user

Configure existing users in the User Detail Edit screen (**Organization > User > User List > user ID**).

You must specify the following personally identifiable information (PII) for each MiFID user and algo:

- **ID:** The user ID or algo ID (configurable only for new users)
- **Name:** The user's full name
- **User Type:** NATURAL (Natural Person) or ALGO (Algorithm)
- **Short Code:** The user's short code or algorithm ID. To enable this field you must mark the user as executing user or investment decision maker and then save your changes.

You must provide the user or algorithm short code before MTF go-live to be included in quotes and execution reports.

By default the user is assigned an Integral-generated short code. To provide your own short codes, please contact your Integral Technical Account Manager to enable short code access for your organization. If a legal entity is an executing user or investment decision maker, use the LEI as the short code.

Per MiFID requirements, the PII data associated with the short code is used for record keeping in a secure format.

- **National ID:** Saved in the database in encrypted format and is not visible once saved. Applicable only to the Natural Person user type (**User Type** = NATURAL).
- **MiFID Executing User:** Whether or not the user/algo is an Executing Trader
- **Investment Decision Maker:** Whether or not the user/algo is an Investment Decision Maker
- **Date of Birth:** Applicable only to the Natural Person user type (**User Type** = NATURAL)

User List >  
**User Detail Edit**

Detail | Security | Display | User/Legal Entity | User/Sales Dealer Groups | **Save** **Reset**

Main Details	
Fields marked with an asterisk (*) are required	
ID	ChiefDealerUser
* Name	Manaia Traynor Fitz
Title	Ms.
First Name	Manaia
Last Name	Fitz
User Type	<input checked="" type="radio"/> NATURAL <input type="radio"/> ALGO
Short Code	640
National ID Type	Passport ▾
National ID Country	Please Select ▾
National ID	****_**_*****
MIFID Executing User	<input checked="" type="checkbox"/>
Investment Decision Maker	<input checked="" type="checkbox"/>
Date of Birth	1972/01/10 <input type="button" value="Calendar"/> [yyyy/mm/dd]
Telephone	(09) 55 455 90010
Fax	
Email Address	dtrader@gbank.com
Address Line 1	1234 Street
Address Line 2	Bldg A
Address Line 3 (City)	City
Address Line 4 (State)	

## 5.2.2 Add a new MiFID user

---

**NOTE:** Integral recommends that you add a new user by copying an existing user with proven connectivity and access to functionality.

---

1. Navigate to your organization's User List screen (**Organization > User > User List**).
2. Use the tools in the User List panel to find the existing user that you want to copy.
3. Click the  Copy button of the user that you want to copy.

The Copy User popup window opens. The title of the window indicates both the user and the organization to which the user belongs.

4. Enter the ID, name, and password for the new user in the appropriate fields.
5. Click **OK**.

The new user is created and the User Detail Edit screen opens so that you can edit the user's details (see [Configure an existing user](#) on page 277).

If you need to add a new user from scratch, click the **Add User** link in the User List screen (**Organization > User > User List**). You enter the required MiFID information in the User Creation - Data Entry screen.

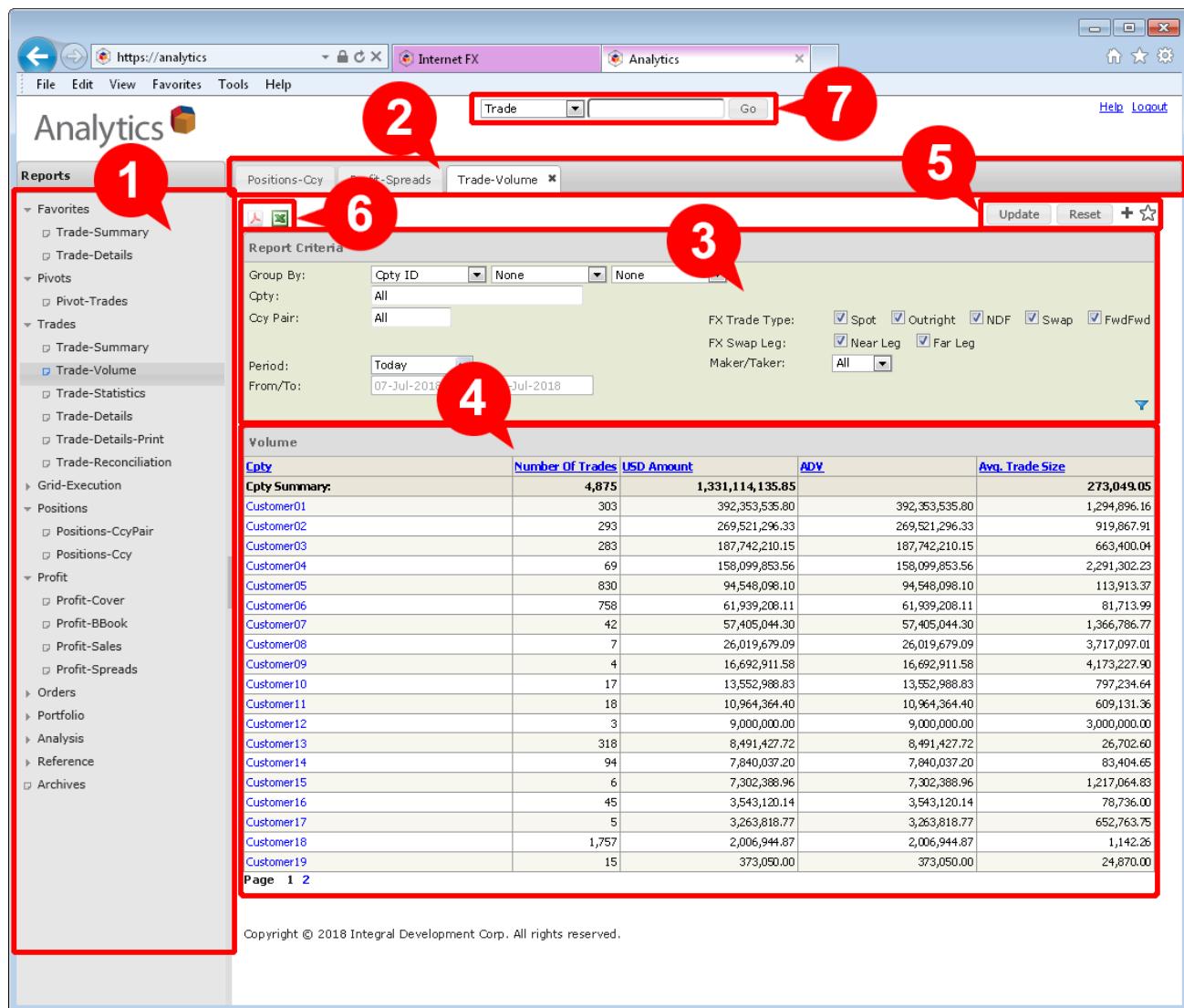
# CHAPTER 6

# Integral Analytics reports

## 6.1 Introduction

Integral Analytics reports provide powerful filtering tools for analyzing and rationalizing the data that comprise your business so you can quickly identify trends and make effective decisions.

- Pivots
  - [Pivot-Trade report](#) on page 284
- Trades
  - [Trade-Summary report](#) on page 286
  - [Trade-Volume report](#) on page 287
  - [Trade-Statistics report](#) on page 291
  - [Trade-Details report](#) on page 295
  - [Trade-Reconciliation report](#) on page 314
  - [Trade-Details-Print report](#) on page 302
- Positions
  - [Positions-CcyPair report](#) on page 328
  - [Positions-Ccy report](#) on page 331
- Profit
  - [Profit-Cover report](#) on page 335
  - [Profit-Sales report](#) on page 338
  - [Profit-Spreads report](#) on page 341
  - [Profit-Yields report](#) on page 346
- Spot Exposure
  - [Spot-Exposure-YieldsPnl report](#) on page 350
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- Portfolio
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- Orders
  - [Order-Summary report](#) on page 356
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- Analysis
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**Figure 6-1** Analytics screen components

**Table 6-1** Analytics screen components

Item	Description
1	Side navigation panel: Click the reports in the panel to open a report.
2	Report tabs: Reports open in a tab so that you can easily manage open reports and preserve the filter settings of each report as you click between them.
3	Report criteria panel: The most common filter criteria are shown here. Access less commonly used report criteria by expanding the panel with the  Filter button.

**Table 6-1** Analytics screen components (continued)

Item	Description
4	Report results panels: When you generate a report, the results appear here in one or more panels. Look through multiple pages of results with navigation tools at the bottom of panel. The report results may include active content: <ul style="list-style-type: none"> <li>Links with context menus that allow you to generate reports on specific counterparties and drill-down through your data (see <a href="#">Drill down through report results</a> on page 282)</li> <li>Links that open popup windows with trade and order ticket details (see <a href="#">Trade ticket details</a> on page 414 and <a href="#">Order and request ticket details</a> on page 407)</li> </ul>
5	<b>Update</b> and <b>Reset</b> buttons: Click the <b>Update</b> button to generate the report or to refresh the report results after you change criteria. The <b>Reset</b> button restores the criteria of the most recently generated report. <ul style="list-style-type: none"> <li><b>+ New Tab</b> button: Add a tab of the same report type. See <a href="#">Add multiple tabs of the same report type</a> on page 283.</li> <li><b>☆/★ Favorite</b> toggle button: Add the report with the current criteria to Favorites in the navigation panel. See <a href="#">Report favorites</a> on page 283.</li> </ul>
6	Download buttons: Most reports include buttons so you can download report results as printable  PDF files or as  CSV files that you can work with in Excel and other apps.
7	<b>Trade/Order</b> quick search drop-down list and field: If you know the ID of a specific trade, order, or customer order that you want to examine, you can enter the ID in the field and open a popup window with the item's details.

## 6.2 Drill down through report results

Many reports include active links to grouped results, such as currency pairs and counterparty IDs.

When you hover your pointer over these links, context menus open that allow you to generate reports on specific categories and drill-down through your data.

The drill-down report opens in its own tab labeled to indicate the data that you originally drilled down into. For example, if you open a Trade Statistics report on an organization named "BrokerB", the report tab reads "Trade Statistics-BrokerB". This label does not change if you change the report's filter criteria.

Volume	
Cpty	Number C
<b>Cpty Summary:</b>	
Customer01	
Customer02	
Customer03	
Customer04	
Customer05	
Customer06	
Customer07	
Customer08	
Customer09	
Customer10	
Customer11	
Customer12	

Figure 6-1 Report results with drill-down menu for Customer01

## 6.3 Report favorites

You can “favorite” specific reports and report criteria with the  Favorites toggle button in the top right of the Analytics screen.

Your favorite reports (including their report criteria) are saved under the Favorites item in the navigation panel.

**To add a report to Favorites:**

1. Generate the report that you want to favorite.
2. Click the  Favorites toggle button in the top right of the screen.  
A popup window opens.
3. Enter the name of your new favorite report.
4. Click Add.

**To remove a report from Favorites:**

1. Generate the report that you want to remove.
2. Click the  Favorites toggle button in the top right of the screen.  
A popup window opens.
3. Click Remove.

## 6.4 Add multiple tabs of the same report type

If you want to preserve the results of a report and further analyze your data with the same report type, you can add multiple tabs of the same report type with the  New Tab button in the top right of the Analytics screen.

## 6.5 Pivot reports

Pivot reports allow you to quickly summarize and analyze large amounts of data, aggregating results and showing new perspectives on your data, by dragging and dropping data dimensions to different rows and columns.

- [Pivot-Trade report](#) on page 284

### 6.5.1 Pivot-Trade report

Pivot reports allow you to quickly summarize and analyze large amounts of data, aggregating results and showing new perspectives on your data, by dragging and dropping data dimensions to different rows and columns.

The Pivot-Trade report gives this dynamic perspective on trade metrics over a time period.

- [Report filter criteria](#) on page 284
- [Report metrics](#) on page 284
- [Data dimensions](#) on page 284
- [Generate the report](#) on page 285

#### Report filter criteria

You can generate a Pivot-Trade report according to the following criteria:

**Table 6-2** Pivot-Trade report filter criteria

Interval drop-down list	Currently the only interval is "Month".
Period drop-down list and From/To fields	Select a preset time period, such as "Today" or "WTD" (week-to-date). To specify a custom time period, select "Custom" and click the <b>From/To</b> fields to either enter the dates or choose dates from the pop-up calendars.

#### Report metrics

You can choose the metrics in the Pivot-Trade report:

- Volume USD (bil): Total trade volume in billions denominated in USD
- Volume USD (mil): Total trade volume in millions denominated in USD
- Cover Profit USD: Total profit from cover trades in USD
- Yield: Total yield per million USD

#### Data dimensions

Data dimensions are the categories by which you can filter, group, and label your data. The Pivot-Trade report includes the following data dimensions that you can drag and drop between rows and columns.

**Table 6-3** Pivot-Trade report data dimensions

Cpty	Defaults to all counterparties. Click the arrow on the button to open a popup window to select individual counterparties or to filter the list of counterparties.
Month	Defaults to all months in the selected period. Click the arrow on the button to open a popup window to select individual months.
TradeType	Defaults to all trade types. Click the arrow on the button to open a popup window to select individual trade types: <ul style="list-style-type: none"> <li>• FXSPOT</li> <li>• FXOUTRIGHT</li> <li>• FXSwaps (spot-forward and forward-forward swap)</li> </ul>
MakerTaker	Whether the counterparty is a maker or a taker on trades. Defaults to both maker and taker. Click the arrow on the button to open a popup window to select either "Maker" or "Taker" individually.

### Generate the report

1. Click **Reports** in the menu.

The Analytics window opens as a new tab in your browser.

2. Open a Pivot-Trade report tab (**Pivots > Pivot-Trade**).
3. Specify the report criteria.

The **Update** button turns red to indicate that you have changed the report criteria and that any results shown do not necessarily reflect the current criteria.

4. Click the **Update** button.

The Pivot-Trade report shows the trading activity that matches your filter criteria. By default, the report shows metrics for counterparty (rows) by month (columns). Additional data dimension (**TradeType** and **MakerTaker**) are reserved in buttons above the table.

5. Click and drag the data dimensions between columns and rows to customize your view of the report results.
6. Choose a metric to show as values in the report:
  - Volume USD (bil): Total trade volume in billions denominated in USD
  - Volume USD (mil): Total trade volume in millions denominated in USD
  - Cover Profit USD: Total profit from cover trades in USD
  - Yield: Total yield per million USD

## 6.6 Trade reports

Analytics provides the following reports for trade data:

- [Trade-Summary report on page 286](#)
- [Trade-Volume report on page 287](#)
- [Trade-Statistics report on page 291](#)
- [Trade-Details report on page 295](#)
- [Trade-Reconciliation report on page 314](#)

## 6.6.1 Trade-Summary report

The Trade-Summary report provides a quick overview of trading activity, including the top five currency pairs and counterparties by volume according to the criteria you specify.

- [Report filter criteria](#) on page 286
- [Generate the report](#) on page 286

### Report filter criteria

You can generate a Trade-Summary report according to the following criteria:

**Table 6-4** Trade-Summary report filter criteria

Period drop-down list	Select a preset time period, such as "Today" or "WTD" (week-to-date). To specify a custom time period, select "Custom" and click the <b>From/To</b> fields to either enter the dates or choose dates from the pop-up calendars.
-----------------------	---

### Generate the report

1. Click **Reports** in the menu.

The Analytics window opens as a new tab in your browser.

2. Open a Trade-Summary report tab (**Trades > Trade-Summary**).
3. Specify the report criteria.

The **Update** button turns red to indicate that you have changed the report criteria and that any results shown do not necessarily reflect the current criteria.

4. Click the **Update** button.

The Trade-Summary report shows the following information for the trading activity that matches your filter criteria, grouped by currency pair, counterparty, or both:

**Table 6-5** Trade-Summary report results

Summary table	
Total Volume	Total volume of all done trades in the report
Number of Trades	Total number of trades in all workflow states (done, pending, failed) in the report
Done Trades	Number of done trades in the report
Avg. Trade Size	Average trade size for all trades in the report
Rejected Trades	Number of rejected trades in the report
Failed Trades	Number of failed trades in the report
Manual Trades	Number of trades entered manually by admin users
Spot Trades	Number of spot trades and percentage of total number of trades
Outright Trades	Number of outright trades and percentage of total number of trades

**Table 6-5 Trade-Summary report results (continued)**

Swap Trades	Number of swap trades (spot-forward and forward-forward) and percentage of total number of trades
ESP Trades	Number and percentage of trades resulting from ESP price discovery
RFS Trades	Number and percentage of trades resulting from RFS price discovery
Order Trades	Number and percentage of trades resulting from submitted orders
Net/Netted/Avg. Trades	Number of net/netted trades executed by admin users
Top five currency pairs by volume	
Number of Trades	Total number of trades for the currency pair in the report
USD Amount	The total volume of trades for the currency pair in the report
Average Trade Size	The average trade size of trades for the currency pair in the report
Top five currency pairs by counterparty	
Number of Trades	Total number of trades for the counterparty in the report
USD Amount	The total volume of trades for the counterparty in the report
Average Trade Size	The average trade size of trades for the counterparty in the report

## 6.6.2 Trade-Volume report

The Trade-Volume report shows trading volumes according to the criteria you specify.

- [Report filter criteria](#) on page 287
- [Generate the report](#) on page 290
- [Download report results](#) on page 290
- [Print report results](#) on page 291

### Report filter criteria

You can generate a Trade-Volume report according to the following criteria:

**Table 6-6 Trade-Volume report filter criteria**

<b>Group By</b> drop-down lists	Choose the data to group the report results. The results are grouped by your choices from left to right. For example, if you choose "CcyPair" in the leftmost list and "Cpty" in the middle list, the report results are grouped first by currency pair and then by counterparty. <ul style="list-style-type: none"> <li>• Cpty ID: Counterparty organization ID</li> <li>• Cpty Name: Counterparty name</li> <li>• Cpty Account: Counterparty legal entity ID</li> <li>• Cpty Dealer: Counterparty's dealer user ID</li> <li>• Cpty Region: Counterparty's geographic region</li> <li>• Cpty Country: Counterparty's country</li> <li>• Org Account: Your organization's legal entity ID</li> <li>• Portfolio ID: The portfolio associated with the trade, if any (applicable to trades that result from portfolio processing/netting)</li> <li>• LEI: The organization's Legal Entity Identifier as assigned by the CFTC</li> <li>• Client Tag: Anonymous code for customers trading through a broker</li> <li>• Org Dealer: Your organization's dealer user ID</li> <li>• Ccy Pair: Currency pair</li> <li>• Covered Cpty: Counterparty on covered trade</li> <li>• Prime Broker: Prime broker on the trade</li> <li>• PB Account: Primer broker account on the trade</li> <li>• Maker/Taker: Liquidity maker and liquidity taker</li> <li>• Trading Session: Geographical/time-zone region</li> <li>• Date: Trade date</li> <li>• Week: Monday's date</li> <li>• Month: Grouped numerically by the first of day of the each month</li> <li>• Quarter: Q1, Q2, Q3, Q4</li> <li>• Workflow Type: The workflow that originated the trade</li> <li>• Stream: The stream that sourced the price</li> <li>• Trade Type: The trade type</li> <li>• Book: The book the trade was done in (A, B, All, None)</li> </ul>
<b>Cpty</b> field	Enter a counterparty ID to see a report of that counterparty's trading volume. When you start typing, a menu opens with a list of IDs that match your entry, as well as general categories, such as "All", "Takers", or "Takers-Brokers".
<b>Ccy Pair</b> field	Enter a currency pair (for example, "EUR/USD") in which you want to see report results. Leave empty or enter "All" to specify all currency pairs. The field also takes wildcard criteria using the asterisk (*). If you enter "EUR*" you get a report with all EUR/* currency pairs. If you enter "*USD*", your report includes all currency pairs with USD, such as EUR/USD and USD/JPY.
<b>FX Trade Type</b> and <b>Swap Leg</b> checkboxes	Choose one or more trade types: <ul style="list-style-type: none"> <li>• All (all trade types)</li> <li>• Spot</li> <li>• Outright</li> <li>• NDF (non-deliverable forward)</li> <li>• Swap (spot-forward and forward-forward swap)</li> <li>• SSP (single spot portfolio)</li> </ul> If you choose a swap trade type, you can further refine your report results by filtering by swap leg, <b>Near Leg</b> , <b>Far Leg</b> , or both.
<b>Period</b> drop-down list and <b>From/To</b> fields	Select a preset time period, such as "Today" or "WTD" (week-to-date). To specify a custom time period, select "Custom" and click the <b>From/To</b> fields to either enter the dates or choose dates from the pop-up calendars.

**Table 6-6 Trade-Volume report filter criteria (continued)**

<b>Maker/Taker</b> drop-down list	Whether your organization is a maker or a taker on trades
<b>Book</b> drop-down list	The book the trade was done in: <ul style="list-style-type: none"> <li>• A</li> <li>• B</li> <li>• None</li> </ul>
The following report filters are accessed by clicking the  More Filters button:	
<b>Workflow Type</b> drop-down list	The pricing workflow that originated the trade. Auto suggestions are listed as you type. Enter an asterisk (*) to see a list of all workflow types.
	<ul style="list-style-type: none"> <li>• All</li> <li>• AutoRoll</li> <li>• ESO</li> <li>• ESP</li> <li>• INFXSEF</li> <li>• Manual (manually entered trades)</li> <li>• MatchRequest</li> <li>• NDF</li> <li>• Net (trades resulting from netting)</li> <li>• OP</li> <li>• Order (fills of submitted orders)</li> <li>• RFS</li> <li>• Trade Entry for Credit</li> </ul>
<b>Covered Cpty</b> field	The counterparty on covered trades
<b>Prime Broker</b> field and <b>Direct Trades Only</b> checkbox	A prime broker on the trade. Select the <b>Direct Trades Only</b> checkbox to disregard this field and show only direct trades between your organization and a counterparty. Clear to include all trades.
<b>Portfolio ID</b> field	The portfolio associated with the trade, if any (applicable to trades that result from portfolio processing/netting). Enter “[None]” to include only trades that do not have a portfolio ID. Enter “Any” to include only trades that have a portfolio ID.
<b>Stream</b> field	The pricing stream that sourced the trade price
<b>Client Tag</b> field and <b>Trade/Cpty</b> radio buttons	Client tags are a code that represents a customer anonymously to a liquidity provider when the customer trades through a broker. Click the <b>Trade</b> radio-button to filter results only for trades with the client tag. Click the <b>Cpty</b> radio button to filter results for trades with the client tag’s associated customer whether or not the client tag is used.
<b>Cpty Dealer</b> field	The counterparty dealing user on the trade
<b>Org Dealer</b> field	Your dealing user on the trade
<b>Cpty Account</b> field	The counterparty account ( <a href="#">legal entity</a> ) that the trade was booked against
<b>Org Account</b> field	Your account ( <a href="#">legal entity</a> ) that the trade was booked against
<b>CptyOrg Region</b> field	The counterparty’s geographic region

**Table 6-6 Trade-Volume report filter criteria (continued)**

CptyOrg Country field	The counterparty's country
LEI field	The Legal Entity Identifier
Broker Trades drop-down list	The type of trade in the broker trading workflow: <ul style="list-style-type: none"> <li>• Cover</li> <li>• Covered</li> <li>• NotCovered</li> <li>• DirectLP</li> </ul>

### Generate the report

1. Click **Reports** in the menu.  
The Analytics window opens as a new tab in your browser.
2. Open a Trade-Volume report tab (**Trades > Trade-Volume**).
3. Specify the report criteria. To access additional criteria, click the  More Filters button.

The **Update** button turns red to indicate that you have changed the report criteria and that any results shown do not necessarily reflect the current criteria.

4. Click the **Update** button.

The Trade-Volume report shows the following information for the trading activity that matches your filter criteria and organized according to your choice of grouping:

**Table 6-7 Trade-Volume report results**

Number of Trades	Total number of done trades
USD Amount	Volume of trades in USD by grouping
ADV	The average daily volume (ADV). Calculated by the total volume of the reporting period divided by the number of business days in the reporting period. The average daily volume is only significant when you filter your reports by a reporting period longer than a single day.
Avg. Trade Size	Average trade size by grouping

### Download report results

You can download the report as a [CSV](#) file.

1. Generate the report. See [Generate the report](#) on page 290.
2. Click the  Excel Download button to begin your browser's file download process. Depending on your browser, a popup window or infobar opens allowing you to open or save the file.

### Print report results

You can generate a printable version of your report results as a PDF file.

See [Work with PDF reports](#) on page 420 for more information about working with PDF files.

1. Generate the report. See [Generate the report](#) on page 290.
2. Click the  PDF Download button.

If you have a PDF viewer installed and configured for your browser, the PDF report is displayed.

Please refer to your PDF viewer's documentation for information about printing and saving your report.

If you do not have a PDF viewer for your browser, a File Download dialog opens. You can save the file for viewing and printing in another app.

### 6.6.3 Trade-Statistics report

The Trade-Statistics report shows trading activity grouped by currency pair, counterparty, or both according to the criteria you specify.

- [Report filter criteria](#) on page 291
- [Generate the report](#) on page 294
- [Download report results](#) on page 294
- [Print report results](#) on page 295

#### Report filter criteria

You can generate a Trade-Statistics report according to the following criteria:

**Table 6-8 Trade-Statistics report filter criteria**

<b>Group By</b> drop-down lists	Choose the data to group the report results. The results are grouped by your choices from left to right. For example, if you choose "CcyPair" in the leftmost list and "Cpty" in the middle list, the report results are grouped first by currency pair and then by counterparty. <ul style="list-style-type: none"> <li>• Cpty ID: Counterparty organization ID</li> <li>• Cpty Name: Counterparty name</li> <li>• Cpty Account: Counterparty legal entity ID</li> <li>• Cpty Dealer: Counterparty's dealer user ID</li> <li>• Cpty Region: Counterparty's geographic region</li> <li>• Cpty Country: Counterparty's country</li> <li>• Org Account: Your organization's legal entity ID</li> <li>• Portfolio ID: The portfolio associated with the trade, if any (applicable to trades that result from portfolio processing/netting)</li> <li>• LEI: The organization's Legal Entity Identifier as assigned by the CFTC</li> <li>• Client Tag: Anonymous code for customers trading through a broker</li> <li>• Org Dealer: Your organization's dealer user ID</li> <li>• Ccy Pair: Currency pair</li> <li>• Covered Cpty: Counterparty on covered trade</li> <li>• Prime Broker: Prime broker on the trade</li> <li>• PB Account: Primer broker account on the trade</li> <li>• Maker/Taker: Liquidity maker and liquidity taker</li> <li>• Trading Session: Geographical/time-zone region</li> <li>• Date: Trade date</li> <li>• Week: Monday's date</li> <li>• Month: Grouped numerically by the first of day of the each month</li> <li>• Quarter: Q1, Q2, Q3, Q4</li> <li>• Workflow Type: The workflow that originated the trade</li> <li>• Stream: The stream that sourced the price</li> <li>• Trade Type: The trade type</li> <li>• Book: The book the trade was done in (A, B, All, None)</li> </ul>
<b>Cpty</b> field	Enter a counterparty ID to see a report of that counterparty's trading volume. When you start typing, a menu opens with a list of IDs that match your entry, as well as general categories, such as "All", "Takers", or "Takers-Brokers".
<b>Ccy Pair</b> field	Enter a currency pair (for example, "EUR/USD") in which you want to see report results. Leave empty or enter "All" to specify all currency pairs. The field also takes wildcard criteria using the asterisk (*). If you enter "EUR*" you get a report with all EUR/* currency pairs. If you enter "*USD*", your report includes all currency pairs with USD, such as EUR/USD and USD/JPY.
<b>FX Trade Type</b> and <b>Swap Leg</b> checkboxes	Choose one or more trade types: <ul style="list-style-type: none"> <li>• All (all trade types)</li> <li>• Spot</li> <li>• Outright</li> <li>• NDF (non-deliverable forward)</li> <li>• Swap (spot-forward and forward-forward swap)</li> <li>• SSP (single spot portfolio)</li> </ul> If you choose a swap trade type, you can further refine your report results by filtering by swap leg, <b>Near Leg</b> , <b>Far Leg</b> , or both.
<b>Period</b> drop-down list and <b>From/To</b> fields	Select a preset time period, such as "Today" or "WTD" (week-to-date). To specify a custom time period, select "Custom" and click the <b>From/To</b> fields to either enter the dates or choose dates from the pop-up calendars.

**Table 6-8 Trade-Statistics report filter criteria (continued)**

<b>Maker/Taker</b> drop-down list	Whether your organization is a maker or a taker on trades
<b>Book</b> drop-down list	The book the trade was done in: <ul style="list-style-type: none"> <li>• A</li> <li>• B</li> <li>• None</li> </ul>
The following report filters are accessed by clicking the  More Filters button:	
<b>Workflow Type</b> drop-down list	The pricing workflow that originated the trade. Auto suggestions are listed as you type. Enter an asterisk (*) to see a list of all workflow types.
	<ul style="list-style-type: none"> <li>• All</li> <li>• AutoRoll</li> <li>• ESO</li> <li>• ESP</li> <li>• INFXSEF</li> <li>• Manual (manually entered trades)</li> <li>• MatchRequest</li> <li>• NDF</li> <li>• Net (trades resulting from netting)</li> <li>• OP</li> <li>• Order (fills of submitted orders)</li> <li>• RFS</li> <li>• Trade Entry for Credit</li> </ul>
<b>Covered Cpty</b> field	The counterparty on covered trades
<b>Prime Broker</b> field and <b>Direct Trades Only</b> checkbox	A prime broker on the trade. Select the <b>Direct Trades Only</b> checkbox to disregard this field and show only direct trades between your organization and a counterparty. Clear to include all trades.
<b>Portfolio ID</b> field	The portfolio associated with the trade, if any (applicable to trades that result from portfolio processing/netting). Enter “[None]” to include only trades that do not have a portfolio ID. Enter “Any” to include only trades that have a portfolio ID.
<b>Stream</b> field	The pricing stream that sourced the trade price
<b>Client Tag</b> field and <b>Trade/Cpty</b> radio buttons	Client tags are a code that represents a customer anonymously to a liquidity provider when the customer trades through a broker. Click the <b>Trade</b> radio-button to filter results only for trades with the client tag. Click the <b>Cpty</b> radio button to filter results for trades with the client tag’s associated customer whether or not the client tag is used.
<b>Cpty Dealer</b> field	The counterparty dealing user on the trade
<b>Org Dealer</b> field	Your dealing user on the trade
<b>Cpty Account</b> field	The counterparty account ( <a href="#">legal entity</a> ) that the trade was booked against
<b>Org Account</b> field	Your account ( <a href="#">legal entity</a> ) that the trade was booked against
<b>CptyOrg Region</b> field	The counterparty’s geographic region

**Table 6-8 Trade-Statistics report filter criteria (continued)**

CptyOrg Country field	The counterparty's country
LEI field	The Legal Entity Identifier
Broker Trades dropdown list	The type of trade in the broker trading workflow: <ul style="list-style-type: none"> <li>• Cover</li> <li>• Covered</li> <li>• NotCovered</li> <li>• DirectLP</li> </ul>

### Generate the report

1. Click **Reports** in the menu.  
The Analytics window opens as a new tab in your browser.
2. Open a Trade-Statistics report tab (**Trades > Trade-Statistics**).
3. Specify the report criteria. To access additional criteria, click the  More Filters button.

The **Update** button turns red to indicate that you have changed the report criteria and that any results shown do not necessarily reflect the current criteria.

4. Click the **Update** button.

The Trade-Statistics report shows the following information for the trading activity that matches your filter criteria and organized according to your choice of grouping:

**Table 6-9 Trade-Statistics report results**

Volume	Total volume of done trades
Avg. Trade Size	Average trade size
Total	Total number of trades in all workflow states (done, pending, failed)
Done	Number of done trades
Failed	Number of failed trades
Rejected	Number of rejected trades
Rejected Percentage	The percentage of rejected trades in relation to the total number of trades
Manual	Number of manual trades

### Download report results

You can download the report as a [CSV](#) file.

1. Generate the report. See [Generate the report](#) on page 294.
2. Click the  Excel Download button to begin your browser's file download process. Depending on your browser, a popup window or infobar opens allowing you to open or save the file.

## Print report results

You can generate a printable version of your report results as a PDF file.

See [Work with PDF reports](#) on page 420 for more information about working with PDF files.

1. Generate the report. See [Generate the report](#) on page 294.
2. Click the  PDF Download button.

If you have a PDF viewer installed and configured for your browser, the PDF report is displayed.

Please refer to your PDF viewer's documentation for information about printing and saving your report.

If you do not have a PDF viewer for your browser, a File Download dialog opens. You can save the file for viewing and printing in another app.

### 6.6.4 Trade-Details report

The Trade-Details report shows done trades by currency pair, counterparty, and dealer user according to the criteria you specify.

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**IMPORTANT:** Trade-Details reports often involve very large amounts of data and can adversely affect system performance. Be sure to use the filter criteria to limit your report results.

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You can also view the details of a trade or order by clicking the ID in the report results. See [Trade ticket details](#) on page 414 and [Order and request ticket details](#) on page 407 for more information.

- [Report filter criteria](#) on page 295
- [Download a trade archive for a single day](#) on page 298
- [Generate the report](#) on page 299
- [Download report results](#) on page 301
- [Print report results](#) on page 301

#### Report filter criteria

You can generate a Trade-Details report according to the following criteria:

**Table 6-10 Trade-Details report filter criteria**

<b>Group By</b> drop-down lists	Choose the data to group the report results. The results are grouped by your choices from left to right. For example, if you choose "CcyPair" in the leftmost list and "Cpty" in the middle list, the report results are grouped first by currency pair and then by counterparty. <ul style="list-style-type: none"> <li>• Org Account: Your organization's legal entity ID</li> <li>• Portfolio ID: The portfolio associated with the trade, if any (applicable to trades that result from portfolio processing/netting)</li> <li>• Client Tag: Anonymous code for customers trading through a broker</li> <li>• Covered Cpty: Counterparty on covered trade</li> <li>• Cpty ID: Counterparty organization ID</li> <li>• Cpty Name: Counterparty name</li> <li>• Org Dealer: Your organization's dealer user ID</li> <li>• Cpty Account: Counterparty legal entity ID</li> <li>• Ccy Pair: Currency pair</li> <li>• Maker/Taker: Liquidity maker and liquidity taker</li> <li>• Workflow Type: The workflow that originated the trade</li> <li>• Trade Date: Trade date</li> <li>• Trade Type: The trade type</li> </ul>
<b>Cpty</b> field	Enter a counterparty ID to see a report of that counterparty's trading volume. When you start typing, a menu opens with a list of IDs that match your entry, as well as general categories, such as "All", "Takers", or "Takers-Brokers".
<b>Ccy Pair</b> field	Enter a currency pair (for example, "EUR/USD") in which you want to see report results. Leave empty or enter "All" to specify all currency pairs. The field also takes wildcard criteria using the asterisk (*). If you enter "EUR*" you get a report with all EUR/* currency pairs. If you enter "*USD*", your report includes all currency pairs with USD, such as EUR/USD and USD/JPY.
<b>FX Trade</b> <b>Type</b> and <b>FX</b> <b>Swap Leg</b> checkboxes	Choose one or more trade types: <ul style="list-style-type: none"> <li>• All (all trade types)</li> <li>• Spot</li> <li>• Outright</li> <li>• NDF (non-deliverable forward)</li> <li>• Swap (spot-forward and forward-forward swap)</li> <li>• SSP (single spot portfolio)</li> </ul> If you choose a swap trade type, you can further refine your report results by filtering by swap leg, <b>Near Leg</b> , <b>Far Leg</b> , or both.
<b>Period</b> drop-down lists and <b>From/To</b> fields	From the drop-down list on the left, select the date to filter: <ul style="list-style-type: none"> <li>• Trade Date: The contractual trade date</li> <li>• Value Date: The value date of the trade</li> <li>• Exec Date: The date the trade was executed in the system</li> </ul> From the drop-down list on the right, select a preset time period, such as "Today" or "WTD" (week-to-date). To specify a custom time period, select "Custom" and click the <b>From/To</b> fields to either enter the dates or choose dates from the pop-up calendars.
<b>Maker/Taker</b> drop-down list	Whether your organization is a maker or a taker on trades
<b>Execution</b> <b>Period:</b> <b>Enable</b> checkbox and <b>From/To</b> fields	To filter report results for a specific time period in which the trades were executed, select the <b>Enable</b> checkbox and click the <b>From/To</b> fields to either enter the dates/times or chose dates/times from the pop-up calendars.

**Table 6-10 Trade-Details report filter criteria (continued)**

<b>Book drop-down list</b>	The book the trade was done in: <ul style="list-style-type: none"> <li>• A</li> <li>• B</li> <li>• None</li> </ul>
The following report filters are accessed by clicking the  More Filters button:	
<b>Order ID field</b>	The ID of an order or request that originated done trades. Enter a specific ID or use the asterisk character (*) to search for a range of IDs. For example, "4063*" can include IDs such as "4063" and "4063802". Entering "*12" can include IDs like "12" and "54412". Leave blank or enter "*" to choose all IDs.
<b>Trade ID field</b>	The ID of a done trade. Enter a specific ID or use the asterisk character (*) to search for a range of IDs. For example, "4063*" can include IDs such as "4063" and "4063802". Entering "*12" can include IDs like "12" and "54412". Leave blank or enter "*" to choose all IDs.
<b>Trade Status drop-down list</b>	Choose the trade status: <ul style="list-style-type: none"> <li>• Active: Trades with a status of "Net", "Confirmed", or "Verified"</li> <li>• All Done: All done trades (not failed, rejected, or pending)</li> <li>• Verified: Verified by the liquidity provider</li> <li>• Confirmed: Confirmed by the requesting counterparty</li> <li>• Verified + Confirmed: Both verified by the liquidity provider and confirmed by the requesting counterparty</li> <li>• Failed + Rejected: Both failed and rejected trades</li> <li>• Manual: Trades entered manually by an admin user</li> <li>• Net: Trades that have been executed to net a number of other trades</li> <li>• Netted: Trades that have been netted</li> <li>• Cancelled: Trades that have been cancelled</li> <li>• Any: Trades with any status</li> </ul>
<b>Workflow Type drop-down list</b>	The pricing workflow that originated the trade. Auto suggestions are listed as you type. Enter an asterisk (*) to see a list of all workflow types. <ul style="list-style-type: none"> <li>• All</li> <li>• AutoRoll</li> <li>• ESO</li> <li>• ESP</li> <li>• INFXSEF</li> <li>• Manual (manually entered trades)</li> <li>• MatchRequest</li> <li>• NDF</li> <li>• Net (trades resulting from netting)</li> <li>• OP</li> <li>• Order (fills of submitted orders)</li> <li>• RFS</li> <li>• Trade Entry for Credit</li> </ul>
<b>Covered Cpty field</b>	The counterparty on covered trades
<b>Prime Broker field and Direct Trades Only checkbox</b>	A prime broker on the trade. Select the <b>Direct Trades Only</b> checkbox to disregard this field and show only direct trades between your organization and a counterparty. Clear to include all trades.
<b>Stream field</b>	The pricing stream that sourced the trade price
<b>Maker Ref ID field</b>	The ID the trade was assigned by the maker. Enter a specific ID or use the asterisk character (*) to search for a range of IDs. For example, "4063*" can include IDs such as "4063" and "4063802". Entering "*12" can include IDs like "12" and "54412". Leave blank or enter "*" to choose all IDs.

**Table 6-10 Trade-Details report filter criteria (continued)**

<b>Taker Ref ID</b> field	The ID the trade was assigned by the taker. Enter a specific ID or use the asterisk character (*) to search for a range of IDs. For example, "4063*" can include IDs such as "4063" and "4063802". Entering "*12" can include IDs like "12" and "54412". Leave blank or enter "*" to choose all IDs.
<b>Portfolio ID</b> field	The portfolio associated with the trade, if any (applicable to trades that result from portfolio processing/netting). Enter "[None]" to include only trades that do not have a portfolio ID. Enter "Any" to include only trades that have a portfolio ID.
<b>Dealt</b> drop-down list	Whether the base currency (Base Ccy) or term currency (Term Ccy) of the currency pair was dealt
<b>Client Tag</b> field and <b>Trade/Cpty</b> radio buttons	Client tags are a code that represents a customer anonymously to a liquidity provider when the customer trades through a broker. Click the <b>Trade</b> radio-button to filter results only for trades with the client tag. Click the <b>Cpty</b> radio button to filter results for trades with the client tag's associated customer whether or not the client tag is used.
<b>Cpty Dealer</b> field	The counterparty dealing user on the trade
<b>Org Dealer</b> field	Your dealing user on the trade
<b>Cpty</b> <b>Account</b> field	The counterparty account ( <a href="#">legal entity</a> ) that the trade was booked against
<b>Org Account</b> field	Your account ( <a href="#">legal entity</a> ) that the trade was booked against
<b>CptyOrg</b> <b>Region</b> field	The counterparty's geographic region
<b>CptyOrg</b> <b>Country</b> field	The counterparty's country
<b>Trade</b> <b>Metrics</b> tools	Enter a range of values to filter the results of the report. You can filter by the following trade attributes: <ul style="list-style-type: none"> <li>• USD Amount</li> <li>• Dealt Amt</li> <li>• Base Amt</li> <li>• Term Amt</li> <li>• Rate</li> <li>• USD Rate</li> <li>• Cover Profit</li> </ul>

### Download a trade archive for a single day

The Trade-Details report provides the  Daily Trade Archive Download button that allows you to download all data for a single day as zip archive file.

**NOTE:** The results of the Daily Trade Archive Download button are independent of the report criteria. There is no need to generate a report or refresh report results before downloading a daily archive.

**To download a single-day archive of data:**

1. Click **Reports** in the menu.  
The Analytics window opens as a new tab in your browser.
2. Open a Trade-Details report tab (**Trades > Trade-Details**).
3. Click the  Daily Trade Archive Download button.  
A calendar chooser opens.
4. Click the date of the data that you want to download.
5. Your browser downloads the archive zip file.

**Generate the report**

1. Click **Reports** in the menu.  
The Analytics window opens as a new tab in your browser.
2. Open a Trade-Details report tab (**Trades > Trade-Details**).
3. Specify the report criteria. To access additional criteria, click the  More Filters button.

The **Update** button turns red to indicate that you have changed the report criteria and that any results shown do not necessarily reflect the current criteria.

4. Click the **Update** button.

The Trade-Details report shows the following information for the done trades that match your filter criteria and organized according to your choice of grouping:

**Table 6-11 Trade-Details report results**

Status	The trade's status: <ul style="list-style-type: none"> <li>• V: Verified by the liquidity provider</li> <li>• C: Confirmed by the requesting counterparty</li> <li>• M: Trades entered manually by an admin user</li> <li>• N: Trades that have been executed to net a number of other trades</li> <li>• NX: Trades that have been netted</li> <li>• F: Failed</li> <li>• R: Rejected</li> </ul>
Order ID	The ID of the order or request that originated the trade. Click the ID to see the details of the order. See <a href="#">Order and request ticket details</a> on page 407.
Trade ID	The trade ID. Click the ID to see the details of the trade. See <a href="#">Trade ticket details</a> on page 414.
Type	<ul style="list-style-type: none"> <li>• FXSPOT: Spot</li> <li>• FXOUTRIGHT: Outright</li> <li>• FXNDF: Non-deliverable forward</li> <li>• FXSWAP_Near: Swap (spot-forward), near leg</li> <li>• FXSWAP_Far: Swap (spot-forward), far leg</li> <li>• FXFWDFWD_Near: Forward-forward swap, near leg</li> <li>• FXFWDFWD_Far: Forward-forward swap, far leg</li> </ul>

**Table 6-11 Trade-Details report results (continued)**

Workflow	The pricing workflow that originated the trade: <ul style="list-style-type: none"> <li>• All</li> <li>• AutoRoll</li> <li>• ESO</li> <li>• ESP</li> <li>• INFXSEF</li> <li>• Manual (manually entered trades)</li> <li>• MatchRequest</li> <li>• NDF</li> <li>• Net (trades resulting from netting)</li> <li>• OP</li> <li>• Order (fills of submitted orders)</li> <li>• RFS</li> <li>• Trade Entry for Credit</li> </ul>
Trade Date	The trade date
Value Date	The trade's value date
Fixing Date	For NDF trades: the trade's fixing date
Tenor	The trade's tenor. See <a href="#">Tenors</a> on page 451.
Execution Time	The time the trade was done
Mkr/Tkr	Whether your organization was a maker or taker on the trade. For prime brokers, this field is empty.
B/S	Whether the trade was a buy or sell in the base currency from your organization's perspective
Ccy Pair	The currency pair of the trade
Dealt	The dealt currency of the currency pair
Rate	The rate at which the trade was done
Spot Rate	The spot rate of the price with which the trade was executed. Most useful for outright and swap trades.
Fwd Points	The forward points of the price with which the trade was executed. Applicable to outright and swap trades.
Base Amt	The amount of the trade in the base currency
Term Amt	The amount of the trade in the term currency
USD Rate	The USD cross rate
USD Amt	The notional amount of the trade in USD
Org	The organization on the trade
Account	Your legal entity that did the trade. For prime brokers, this is Counterparty A's legal entity.
Cpty	The trading party with which the trade was done (the counterparty's organization and legal entity). For prime brokers, this is Counterparty A's legal entity.
Cpty Account	The counterparty's legal entity that did the trade. For prime brokers, this is Counterparty B's legal entity.
Dealer	Your organization's dealer user on the trade. For prime brokers, this is Counterparty A's user.

**Table 6-11 Trade-Details report results (continued)**

Covered Trade ID	The ID of the trade that this trade covers, if any.
Taker Ref ID	The taker's reference ID for the trade
Maker Ref ID	The maker's reference ID for the trade
Prime Broker	The prime broker on the trade
PB Account	The prime broker's account ( <a href="#">legal entity</a> )
SD Account	The sales dealer's account ( <a href="#">legal entity</a> ) if the trade was executed as part of the sales dealer workflow
SD User	The ID of the sales dealer user who executed the trade
Stream	The ID of the price stream that sourced the trade price
Comment	Comments on the trade
Book	The book the trade was done in: <ul style="list-style-type: none"> <li>• A</li> <li>• B</li> <li>• None</li> </ul>
Fees	Any fees incurred with the trade

## Download report results

You can download the report as a [CSV](#) file.

1. Generate the report. See [Generate the report](#) on page 299.
2. Click the  Excel Download button to begin your browser's file download process. Depending on your browser, a popup window or infobar opens allowing you to open or save the file.

## Print report results

You can generate a printable version of your report results as a PDF file.

See [Work with PDF reports](#) on page 420 for more information about working with PDF files.

1. Generate the report. See [Generate the report](#) on page 299.
2. Click the  PDF Download button.

If you have a PDF viewer installed and configured for your browser, the PDF report is displayed. Please refer to your PDF viewer's documentation for information about printing and saving your report.

If you do not have a PDF viewer for your browser, a File Download dialog opens. You can save the file for viewing and printing in another app.

### 6.6.5 Trade-Details-Print report

The Trade-Details-Print report is the same as the Trade-Details report with the columns formatted specifically for PDF generation and printing.

**IMPORTANT:** Trade-Details-Print reports often involve very large amounts of data and can adversely affect system performance. Be sure to use the filter criteria to limit your report results.

You can also view the details of a trade or order by clicking the ID in the report results. See [Trade ticket details](#) on page 414 and [Order and request ticket details](#) on page 407 for more information.

- [Report filter criteria](#) on page 302
- [Download a trade archive for a single day](#) on page 305
- [Generate the report](#) on page 306
- [Download report results](#) on page 306
- [Print report results](#) on page 307

#### Report filter criteria

You can generate a Trade-Details-Print report according to the following criteria:

**Table 6-12** Trade-Details-Print report filter criteria

<b>Group By</b> drop-down lists	Choose the data to group the report results. The results are grouped by your choices from left to right. For example, if you choose "CcyPair" in the leftmost list and "Cpty" in the middle list, the report results are grouped first by currency pair and then by counterparty. <ul style="list-style-type: none"><li>• Org Account: Your organization's legal entity ID</li><li>• Portfolio ID: The portfolio associated with the trade, if any (applicable to trades that result from portfolio processing/netting)</li><li>• Client Tag: Anonymous code for customers trading through a broker</li><li>• Covered Cpty: Counterparty on covered trade</li><li>• Cpty ID: Counterparty organization ID</li><li>• Cpty Name: Counterparty name</li><li>• Org Dealer: Your organization's dealer user ID</li><li>• Cpty Account: Counterparty legal entity ID</li><li>• Ccy Pair: Currency pair</li><li>• Maker/Taker: Liquidity maker and liquidity taker</li><li>• Workflow Type: The workflow that originated the trade</li><li>• Trade Date: Trade date</li><li>• Trade Type: The trade type</li></ul>
<b>Cpty</b> field	Enter a counterparty ID to see a report of that counterparty's trading volume. When you start typing, a menu opens with a list of IDs that match your entry, as well as general categories, such as "All", "Takers", or "Takers-Brokers".
<b>Ccy Pair</b> field	Enter a currency pair (for example, "EUR/USD") in which you want to see report results. Leave empty or enter "All" to specify all currency pairs. The field also takes wildcard criteria using the asterisk (*). If you enter "EUR*" you get a report with all EUR/* currency pairs. If you enter "*USD*", your report includes all currency pairs with USD, such as EUR/USD and USD/JPY.

**Table 6-12 Trade-Details-Print report filter criteria (continued)**

<b>FX Trade Type and FX Swap Leg checkboxes</b>	Choose one or more trade types: <ul style="list-style-type: none"> <li>• All (all trade types)</li> <li>• Spot</li> <li>• Outright</li> <li>• NDF (non-deliverable forward)</li> <li>• Swap (spot-forward and forward-forward swap)</li> <li>• SSP (single spot portfolio)</li> </ul> <p>If you choose a swap trade type, you can further refine your report results by filtering by swap leg, <b>Near Leg</b>, <b>Far Leg</b>, or both.</p>
<b>Period drop-down lists and From/To fields</b>	From the drop-down list on the left, select the date to filter: <ul style="list-style-type: none"> <li>• Trade Date: The contractual trade date</li> <li>• Value Date: The value date of the trade</li> <li>• Exec Date: The date the trade was executed in the system</li> </ul> <p>From the drop-down list on the right, select a preset time period, such as "Today" or "WTD" (week-to-date). To specify a custom time period, select "Custom" and click the <b>From/To</b> fields to either enter the dates or choose dates from the pop-up calendars.</p>
<b>Maker/Taker drop-down list</b>	Whether your organization is a maker or a taker on trades
<b>Execution Period: Enable checkbox and From/To fields</b>	To filter report results for a specific time period in which the trades were executed, select the <b>Enable</b> checkbox and click the <b>From/To</b> fields to either enter the dates/times or chose dates/times from the pop-up calendars.
<b>Book drop-down list</b>	The book the trade was done in: <ul style="list-style-type: none"> <li>• A</li> <li>• B</li> <li>• None</li> </ul>
The following report filters are accessed by clicking the  More Filters button:	
<b>Order ID field</b>	The ID of an order or request that originated done trades. Enter a specific ID or use the asterisk character (*) to search for a range of IDs. For example, "4063*" can include IDs such as "4063" and "4063802". Entering "*12" can include IDs like "12" and "54412". Leave blank or enter "*" to choose all IDs.
<b>Trade ID field</b>	The ID of a done trade. Enter a specific ID or use the asterisk character (*) to search for a range of IDs. For example, "4063*" can include IDs such as "4063" and "4063802". Entering "*12" can include IDs like "12" and "54412". Leave blank or enter "*" to choose all IDs.

**Table 6-12 Trade-Details-Print report filter criteria (continued)**

<b>Trade Status</b> drop-down list	Choose the trade status: <ul style="list-style-type: none"> <li>• Active: Trades with a status of "Net", "Confirmed", or "Verified"</li> <li>• All Done: All done trades (not failed, rejected, or pending)</li> <li>• Verified: Verified by the liquidity provider</li> <li>• Confirmed: Confirmed by the requesting counterparty</li> <li>• Verified + Confirmed: Both verified by the liquidity provider and confirmed by the requesting counterparty</li> <li>• Failed + Rejected: Both failed and rejected trades</li> <li>• Manual: Trades entered manually by an admin user</li> <li>• Net: Trades that have been executed to net a number of other trades</li> <li>• Netted: Trades that have been netted</li> <li>• Cancelled: Trades that have been cancelled</li> <li>• Any: Trades with any status</li> </ul>
<b>Workflow Type</b> drop-down list	The pricing workflow that originated the trade. Auto suggestions are listed as you type. Enter an asterisk (*) to see a list of all workflow types. <ul style="list-style-type: none"> <li>• All</li> <li>• AutoRoll</li> <li>• ESO</li> <li>• ESP</li> <li>• INFXSEF</li> <li>• Manual (manually entered trades)</li> <li>• MatchRequest</li> <li>• NDF</li> <li>• Net (trades resulting from netting)</li> <li>• OP</li> <li>• Order (fills of submitted orders)</li> <li>• RFS</li> <li>• Trade Entry for Credit</li> </ul>
<b>Covered Cpty field</b>	The counterparty on covered trades
<b>Prime Broker</b> field and <b>Direct Trades Only</b> checkbox	A prime broker on the trade. Select the <b>Direct Trades Only</b> checkbox to disregard this field and show only direct trades between your organization and a counterparty. Clear to include all trades.
<b>Stream</b> field	The pricing stream that sourced the trade price
<b>Maker Ref ID</b> field	The ID the trade as assigned by the maker. Enter a specific ID or use the asterisk character (*) to search for a range of IDs. For example, "4063*" can include IDs such as "4063" and "4063802". Entering "*12" can include IDs like "12" and "54412". Leave blank or enter "*" to choose all IDs.
<b>Taker Ref ID</b> field	The ID the trade as assigned by the taker. Enter a specific ID or use the asterisk character (*) to search for a range of IDs. For example, "4063*" can include IDs such as "4063" and "4063802". Entering "*12" can include IDs like "12" and "54412". Leave blank or enter "*" to choose all IDs.
<b>Portfolio ID</b> field	The portfolio associated with the trade, if any (applicable to trades that result from portfolio processing/netting). Enter "[None]" to include only trades that do not have a portfolio ID. Enter "Any" to include only trades that have a portfolio ID.
<b>Dealt</b> drop-down list	Whether the base currency (Base Ccy) or term currency (Term Ccy) of the currency pair was dealt

**Table 6-12** Trade-Details-Print report filter criteria (continued)

<b>Client Tag field and Trade/Cpty radio buttons</b>	Client tags are a code that represents a customer anonymously to a liquidity provider when the customer trades through a broker. Click the <b>Trade</b> radio-button to filter results only for trades with the client tag. Click the <b>Cpty</b> radio button to filter results for trades with the client tag's associated customer whether or not the client tag is used.
<b>Cpty Dealer field</b>	The counterparty dealing user on the trade
<b>Org Dealer field</b>	Your dealing user on the trade
<b>Cpty Account field</b>	The counterparty account ( <a href="#">legal entity</a> ) that the trade was booked against
<b>Org Account field</b>	Your account ( <a href="#">legal entity</a> ) that the trade was booked against
<b>CptyOrg Region field</b>	The counterparty's geographic region
<b>CptyOrg Country field</b>	The counterparty's country
<b>Trade Metrics tools</b>	<p>Enter a range of values to filter the results of the report. You can filter by the following trade attributes:</p> <ul style="list-style-type: none"> <li>• USD Amount</li> <li>• Dealt Amt</li> <li>• Base Amt</li> <li>• Term Amt</li> <li>• Rate</li> <li>• USD Rate</li> <li>• Cover Profit</li> </ul>

### Download a trade archive for a single day

The Trade-Details-Print report provides the  Daily Trade Archive Download button that allows you to download all data for a single day as zip archive file.

**NOTE:** The results of the Daily Trade Archive Download button are independent of the report criteria. There is no need to generate a report or refresh report results before downloading a daily archive.

#### To download a single-day archive of data:

1. Click **Reports** in the menu.  
The Analytics window opens as a new tab in your browser.
2. Open a Trade-Details-Print report tab (**Trades > Trade-Details**).
3. Click the  Daily Trade Archive Download button.  
A calendar chooser opens.
4. Click the date of the data that you want to download.

5. Your browser downloads the archive zip file.

### Generate the report

1. Click **Reports** in the menu.

The Analytics window opens as a new tab in your browser.

2. Open a Trade-Details-Print report tab (**Trades > Trade-Details**).

3. Specify the report criteria. To access additional criteria, click the  More Filters button.

The **Update** button turns red to indicate that you have changed the report criteria and that any results shown do not necessarily reflect the current criteria.

4. Click the **Update** button.

The Trade-Details-Print report shows the following information for the done trades that match your filter criteria and organized according to your choice of grouping:

**Table 6-13 Trade-Details-Print report results**

Trade ID	The trade ID. Click the ID to see the details of the trade. See <a href="#">Trade ticket details</a> on page 414.
Type	<ul style="list-style-type: none"> <li>• FXSPOT: Spot</li> <li>• FXOUTRIGHT: Outright</li> <li>• FXNDF: Non-deliverable forward</li> <li>• FXSWAP_Near: Swap (spot-forward), near leg</li> <li>• FXSWAP_Far: Swap (spot-forward), far leg</li> <li>• FXFWDFWD_Near: Forward-forward swap, near leg</li> <li>• FXFWDFWD_Far: Forward-forward swap, far leg</li> </ul>
Trade Date	The trade date
Value Date	The trade's value date
Execution Time	The time the trade was done
Mkr/Tkr	Whether your organization was a maker or taker on the trade. For prime brokers, this field is empty.
B/S	Whether the trade was a buy or sell in the base currency from your organization's perspective
Ccy Pair	The currency pair of the trade
Rate	The rate at which the trade was done
Base Amt	The amount of the trade in the base currency
Term Amt	The amount of the trade in the term currency
Cpty Account	The counterparty's legal entity that did the trade. For prime brokers, this is Counterparty B's legal entity.
SD User	The ID of the sales dealer user who executed the trade

### Download report results

You can download the report as a [CSV](#) file.

1. Generate the report. See [Generate the report](#) on page 306.
2. Click the  Excel Download button to begin your browser's file download process. Depending on your browser, a popup window or infobar opens allowing you to open or save the file.

#### Print report results

You can generate a printable version of your report results as a PDF file.

See [Work with PDF reports](#) on page 420 for more information about working with PDF files.

1. Generate the report. See [Generate the report](#) on page 306.
2. Click the  PDF Download button.

If you have a PDF viewer installed and configured for your browser, the PDF report is displayed. Please refer to your PDF viewer's documentation for information about printing and saving your report.

If you do not have a PDF viewer for your browser, a File Download dialog opens. You can save the file for viewing and printing in another app.

#### 6.6.6 Trade-Details-Account report

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**NOTE:** This report is applicable to users of the Integral MT4 Bridge.

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The Trade-Details-Account report shows done trades by currency pair, counterparty, and dealer user according to the criteria you specify.

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**IMPORTANT:** Trade-Details-Account reports often involve very large amounts of data and can adversely affect system performance. Be sure to use the filter criteria to limit your report results.

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You can also view the details of a trade or order by clicking the ID in the report results. See [Trade ticket details](#) on page 414 and [Order and request ticket details](#) on page 407 for more information.

- [Report filter criteria](#) on page 307
- [Download a trade archive for a single day](#) on page 310
- [Generate the report](#) on page 311
- [Download report results](#) on page 313
- [Print report results](#) on page 313

#### Report filter criteria

You can generate a Trade-Details-Account report according to the following criteria:

**Table 6-14 Trade-Details-Account report filter criteria**

<b>Group By</b> drop-down lists	Choose the data to group the report results. The results are grouped by your choices from left to right. For example, if you choose "CcyPair" in the leftmost list and "Cpty" in the middle list, the report results are grouped first by currency pair and then by counterparty. <ul style="list-style-type: none"> <li>• Org Account: Your organization's legal entity ID</li> <li>• Portfolio ID: The portfolio associated with the trade, if any (applicable to trades that result from portfolio processing/netting)</li> <li>• Client Tag: Anonymous code for customers trading through a broker</li> <li>• Covered Cpty: Counterparty on covered trade</li> <li>• Cpty ID: Counterparty organization ID</li> <li>• Cpty Name: Counterparty name</li> <li>• Org Dealer: Your organization's dealer user ID</li> <li>• Cpty Account: Counterparty legal entity ID</li> <li>• Ccy Pair: Currency pair</li> <li>• Maker/Taker: Liquidity maker and liquidity taker</li> <li>• Workflow Type: The workflow that originated the trade</li> <li>• Trade Date: Trade date</li> <li>• Trade Type: The trade type</li> </ul>
<b>Cpty</b> field	Enter a counterparty ID to see a report of that counterparty's trading volume. When you start typing, a menu opens with a list of IDs that match your entry, as well as general categories, such as "All", "Takers", or "Takers-Brokers".
<b>Ccy Pair</b> field	Enter a currency pair (for example, "EUR/USD") in which you want to see report results. Leave empty or enter "All" to specify all currency pairs. The field also takes wildcard criteria using the asterisk (*). If you enter "EUR*" you get a report with all EUR/* currency pairs. If you enter "*USD*", your report includes all currency pairs with USD, such as EUR/USD and USD/JPY.
<b>FX Trade</b> <b>Type</b> and <b>FX</b> <b>Swap Leg</b> checkboxes	Choose one or more trade types: <ul style="list-style-type: none"> <li>• All (all trade types)</li> <li>• Spot</li> <li>• Outright</li> <li>• NDF (non-deliverable forward)</li> <li>• Swap (spot-forward and forward-forward swap)</li> <li>• SSP (single spot portfolio)</li> </ul> If you choose a swap trade type, you can further refine your report results by filtering by swap leg, <b>Near Leg</b> , <b>Far Leg</b> , or both.
<b>Period</b> drop-down lists and <b>From/To</b> fields	From the drop-down list on the left, select the date to filter: <ul style="list-style-type: none"> <li>• Trade Date: The contractual trade date</li> <li>• Value Date: The value date of the trade</li> <li>• Exec Date: The date the trade was executed in the system</li> </ul> From the drop-down list on the right, select a preset time period, such as "Today" or "WTD" (week-to-date). To specify a custom time period, select "Custom" and click the <b>From/To</b> fields to either enter the dates or choose dates from the pop-up calendars.
<b>Maker/Taker</b> drop-down list	Whether your organization is a maker or a taker on trades
<b>Execution</b> <b>Period:</b> <b>Enable</b> checkbox and <b>From/To</b> fields	To filter report results for a specific time period in which the trades were executed, select the <b>Enable</b> checkbox and click the <b>From/To</b> fields to either enter the dates/times or chose dates/times from the pop-up calendars.

**Table 6-14 Trade-Details-Account report filter criteria (continued)**

<b>Book drop-down list</b>	The book the trade was done in: <ul style="list-style-type: none"> <li>• A</li> <li>• B</li> <li>• None</li> </ul>
The following report filters are accessed by clicking the  More Filters button:	
<b>Order ID field</b>	The ID of an order or request that originated done trades. Enter a specific ID or use the asterisk character (*) to search for a range of IDs. For example, "4063*" can include IDs such as "4063" and "4063802". Entering "*12" can include IDs like "12" and "54412". Leave blank or enter "*" to choose all IDs.
<b>Trade ID field</b>	The ID of a done trade. Enter a specific ID or use the asterisk character (*) to search for a range of IDs. For example, "4063*" can include IDs such as "4063" and "4063802". Entering "*12" can include IDs like "12" and "54412". Leave blank or enter "*" to choose all IDs.
<b>Trade Status drop-down list</b>	Choose the trade status: <ul style="list-style-type: none"> <li>• Active: Trades with a status of "Net", "Confirmed", or "Verified"</li> <li>• All Done: All done trades (not failed, rejected, or pending)</li> <li>• Verified: Verified by the liquidity provider</li> <li>• Confirmed: Confirmed by the requesting counterparty</li> <li>• Verified + Confirmed: Both verified by the liquidity provider and confirmed by the requesting counterparty</li> <li>• Failed + Rejected: Both failed and rejected trades</li> <li>• Manual: Trades entered manually by an admin user</li> <li>• Net: Trades that have been executed to net a number of other trades</li> <li>• Netted: Trades that have been netted</li> <li>• Cancelled: Trades that have been cancelled</li> <li>• Any: Trades with any status</li> </ul>
<b>Workflow Type drop-down list</b>	The pricing workflow that originated the trade. Auto suggestions are listed as you type. Enter an asterisk (*) to see a list of all workflow types. <ul style="list-style-type: none"> <li>• All</li> <li>• AutoRoll</li> <li>• ESO</li> <li>• ESP</li> <li>• INFXSEF</li> <li>• Manual (manually entered trades)</li> <li>• MatchRequest</li> <li>• NDF</li> <li>• Net (trades resulting from netting)</li> <li>• OP</li> <li>• Order (fills of submitted orders)</li> <li>• RFS</li> <li>• Trade Entry for Credit</li> </ul>
<b>Covered Cpty field</b>	The counterparty on covered trades
<b>Prime Broker field and Direct Trades Only checkbox</b>	A prime broker on the trade. Select the <b>Direct Trades Only</b> checkbox to disregard this field and show only direct trades between your organization and a counterparty. Clear to include all trades.
<b>Stream field</b>	The pricing stream that sourced the trade price
<b>Maker Ref ID field</b>	The ID the trade was assigned by the maker. Enter a specific ID or use the asterisk character (*) to search for a range of IDs. For example, "4063*" can include IDs such as "4063" and "4063802". Entering "*12" can include IDs like "12" and "54412". Leave blank or enter "*" to choose all IDs.

**Table 6-14 Trade-Details-Account report filter criteria (continued)**

<b>Taker Ref ID</b> field	The ID the trade was assigned by the taker. Enter a specific ID or use the asterisk character (*) to search for a range of IDs. For example, "4063*" can include IDs such as "4063" and "4063802". Entering "*12" can include IDs like "12" and "54412". Leave blank or enter "*" to choose all IDs.
<b>Portfolio ID</b> field	The portfolio associated with the trade, if any (applicable to trades that result from portfolio processing/netting). Enter "[None]" to include only trades that do not have a portfolio ID. Enter "Any" to include only trades that have a portfolio ID.
<b>Dealt</b> drop-down list	Whether the base currency (Base Ccy) or term currency (Term Ccy) of the currency pair was dealt
<b>Client Tag</b> field and <b>Trade/Cpty</b> radio buttons	Client tags are a code that represents a customer anonymously to a liquidity provider when the customer trades through a broker. Click the <b>Trade</b> radio-button to filter results only for trades with the client tag. Click the <b>Cpty</b> radio button to filter results for trades with the client tag's associated customer whether or not the client tag is used.
<b>Cpty Dealer</b> field	The counterparty dealing user on the trade
<b>Org Dealer</b> field	Your dealing user on the trade
<b>Cpty</b> <b>Account</b> field	The counterparty account ( <a href="#">legal entity</a> ) that the trade was booked against
<b>Org Account</b> field	Your account ( <a href="#">legal entity</a> ) that the trade was booked against
<b>CptyOrg</b> <b>Region</b> field	The counterparty's geographic region
<b>CptyOrg</b> <b>Country</b> field	The counterparty's country
<b>Trade</b> <b>Metrics</b> tools	Enter a range of values to filter the results of the report. You can filter by the following trade attributes: <ul style="list-style-type: none"> <li>• USD Amount</li> <li>• Dealt Amt</li> <li>• Base Amt</li> <li>• Term Amt</li> <li>• Rate</li> <li>• USD Rate</li> <li>• Cover Profit</li> </ul>

### Download a trade archive for a single day

The Trade-Details-Account report provides the  Daily Trade Archive Download button that allows you to download all data for a single day as zip archive file.

**NOTE:** The results of the Daily Trade Archive Download button are independent of the report criteria. There is no need to generate a report or refresh report results before downloading a daily archive.

**To download a single-day archive of data:**

1. Click **Reports** in the menu.  
The Analytics window opens as a new tab in your browser.
2. Open a Trade-Details-Account report tab (**Trades > Trade-Details-Account**).
3. Click the  Daily Trade Archive Download button.  
A calendar chooser opens.
4. Click the date of the data that you want to download.
5. Your browser downloads the archive zip file.

**Generate the report**

1. Click **Reports** in the menu.  
The Analytics window opens as a new tab in your browser.
2. Open a Trade-Details-Account report tab (**Trades > Trade-Details-Account**).
3. Specify the report criteria. To access additional criteria, click the  More Filters button.

The **Update** button turns red to indicate that you have changed the report criteria and that any results shown do not necessarily reflect the current criteria.

4. Click the **Update** button.

The Trade-Details-Account report shows the following information for the done trades that match your filter criteria and organized according to your choice of grouping:

**Table 6-15 Trade-Details-Account report results**

Status	The trade's status: <ul style="list-style-type: none"> <li>• V: Verified by the liquidity provider</li> <li>• C: Confirmed by the requesting counterparty</li> <li>• M: Trades entered manually by an admin user</li> <li>• N: Trades that have been executed to net a number of other trades</li> <li>• NX: Trades that have been netted</li> <li>• F: Failed</li> <li>• R: Rejected</li> </ul>
Order ID	The ID of the order or request that originated the trade. Click the ID to see the details of the order. See <a href="#">Order and request ticket details</a> on page 407.
Trade ID	The trade ID. Click the ID to see the details of the trade. See <a href="#">Trade ticket details</a> on page 414.
Type	<ul style="list-style-type: none"> <li>• FXSPOT: Spot</li> <li>• FXOUTRIGHT: Outright</li> <li>• FXNDF: Non-deliverable forward</li> <li>• FXSWAP_Near: Swap (spot-forward), near leg</li> <li>• FXSWAP_Far: Swap (spot-forward), far leg</li> <li>• FXFWDFWD_Near: Forward-forward swap, near leg</li> <li>• FXFWDFWD_Far: Forward-forward swap, far leg</li> </ul>

**Table 6-15 Trade-Details-Account report results (continued)**

Workflow	The pricing workflow that originated the trade: <ul style="list-style-type: none"> <li>• All</li> <li>• AutoRoll</li> <li>• ESO</li> <li>• ESP</li> <li>• INFXSEF</li> <li>• Manual (manually entered trades)</li> <li>• MatchRequest</li> <li>• NDF</li> <li>• Net (trades resulting from netting)</li> <li>• OP</li> <li>• Order (fills of submitted orders)</li> <li>• RFS</li> <li>• Trade Entry for Credit</li> </ul>
Trade Date	The trade date
Value Date	The trade's value date
Fixing Date	For NDF trades: the trade's fixing date
Tenor	The trade's tenor. See <a href="#">Tenors</a> on page 451.
Execution Time	The time the trade was done
Mkr/Tkr	Whether your organization was a maker or taker on the trade. For prime brokers, this field is empty.
B/S	Whether the trade was a buy or sell in the base currency from your organization's perspective
Ccy Pair	The currency pair of the trade
Dealt	The dealt currency of the currency pair
Rate	The rate at which the trade was done
Spot Rate	The spot rate of the price with which the trade was executed. Most useful for outright and swap trades.
Fwd Points	The forward points of the price with which the trade was executed. Applicable to outright and swap trades.
Base Amt	The amount of the trade in the base currency
Term Amt	The amount of the trade in the term currency
USD Rate	The USD cross rate
USD Amt	The notional amount of the trade in USD
Org	The organization on the trade
Account	Your legal entity that did the trade. For prime brokers, this is Counterparty A's legal entity.
Cpty	The trading party with which the trade was done (the counterparty's organization and legal entity). For prime brokers, this is Counterparty A's legal entity.
Cpty Account	The counterparty's legal entity that did the trade. For prime brokers, this is Counterparty B's legal entity.
Dealer	Your organization's dealer user on the trade. For prime brokers, this is Counterparty A's user.

**Table 6-15 Trade-Details-Account report results (continued)**

Covered Trade ID	The ID of the trade that this trade covers, if any.
Taker Ref ID	The taker's reference ID for the trade
Maker Ref ID	The maker's reference ID for the trade
Prime Broker	The prime broker on the trade
PB Account	The prime broker's account ( <a href="#">legal entity</a> )
SD Account	The sales dealer's account ( <a href="#">legal entity</a> ) if the trade was executed as part of the sales dealer workflow
SD User	The ID of the sales dealer user who executed the trade
Stream	The ID of the price stream that sourced the trade price
Comment	Comments on the trade
Book	The book the trade was done in: <ul style="list-style-type: none"> <li>• A</li> <li>• B</li> <li>• None</li> </ul>
Account ID	MT4 Account information of the end client, if any.

## Download report results

You can download the report as a [CSV](#) file.

1. Generate the report. See [Generate the report](#) on page 311.
2. Click the  Excel Download button to begin your browser's file download process. Depending on your browser, a popup window or infobar opens allowing you to open or save the file.

## Print report results

You can generate a printable version of your report results as a PDF file.

See [Work with PDF reports](#) on page 420 for more information about working with PDF files.

1. Generate the report. See [Generate the report](#) on page 311.
2. Click the  PDF Download button.

If you have a PDF viewer installed and configured for your browser, the PDF report is displayed. Please refer to your PDF viewer's documentation for information about printing and saving your report.

If you do not have a PDF viewer for your browser, a File Download dialog opens. You can save the file for viewing and printing in another app.

## 6.6.7 Trade-Reconciliation report

The Trade-Reconciliation report allows you to generate reports of all trading activity so that you can more easily reconcile your book internally and with counterparties.

**IMPORTANT:** Reconciliation reports often involve very large amounts of data and can adversely affect system performance. Be sure to use the filter criteria to limit your report results.

You can also view the details of a trade or order by clicking the ID in the report results. See [Trade ticket details](#) on page 414 and [Order and request ticket details](#) on page 407 for details.

- [Report filter criteria](#) on page 314
- [Download a reconciliation archive for a single day](#) on page 317
- [Generate the report](#) on page 318
- [Download report results](#) on page 320
- [Print report results](#) on page 320

### Report filter criteria

You can generate a Trade-Reconciliation report according to the following criteria:

**Table 6-16 Trade-Reconciliation report filter criteria**

<b>Group By drop-down lists</b>	Choose the data to group the report results. The results are grouped by your choices from left to right. For example, if you choose "CcyPair" in the leftmost list and "Cpty" in the middle list, the report results are grouped first by currency pair and then by counterparty. <ul style="list-style-type: none"> <li>• Org Account: Your organization's legal entity ID</li> <li>• Portfolio ID: The portfolio associated with the trade, if any (applicable to trades that result from portfolio processing/netting)</li> <li>• Client Tag: Anonymous code for customers trading through a broker</li> <li>• Covered Cpty: Counterparty on covered trade</li> <li>• Cpty ID: Counterparty organization ID</li> <li>• Cpty Name: Counterparty name</li> <li>• Org Dealer: Your organization's dealer user ID</li> <li>• Cpty Account: Counterparty legal entity ID</li> <li>• Ccy Pair: Currency pair</li> <li>• Maker/Taker: Liquidity maker and liquidity taker</li> <li>• Workflow Type: The workflow that originated the trade</li> <li>• Trade Date: Trade date</li> <li>• Trade Type: The trade type</li> </ul>
<b>Cpty field</b>	Enter a counterparty ID to see a report of that counterparty's trading volume. When you start typing, a menu opens with a list of IDs that match your entry, as well as general categories, such as "All", "Takers", or "Takers-Brokers".
<b>Ccy Pair field</b>	Enter a currency pair (for example, "EUR/USD") in which you want to see report results. Leave empty or enter "All" to specify all currency pairs. The field also takes wildcard criteria using the asterisk (*). If you enter "EUR*" you get a report with all EUR/* currency pairs. If you enter "*USD*", your report includes all currency pairs with USD, such as EUR/USD and USD/JPY.

**Table 6-16** Trade-Reconciliation report filter criteria (continued)

<b>FX Trade Type and FX Swap Leg checkboxes</b>	Choose one or more trade types: <ul style="list-style-type: none"> <li>• All (all trade types)</li> <li>• Spot</li> <li>• Outright</li> <li>• NDF (non-deliverable forward)</li> <li>• Swap (spot-forward and forward-forward swap)</li> <li>• SSP (single spot portfolio)</li> </ul> <p>If you choose a swap trade type, you can further refine your report results by filtering by swap leg, <b>Near Leg</b>, <b>Far Leg</b>, or both.</p>
<b>Period drop-down lists and From/To fields</b>	From the drop-down list on the left, select the date to filter: <ul style="list-style-type: none"> <li>• Trade Date: The contractual trade date</li> <li>• Value Date: The value date of the trade</li> <li>• Exec Date: The date the trade was executed in the system</li> </ul> <p>From the drop-down list on the right, select a preset time period, such as "Today" or "WTD" (week-to-date). To specify a custom time period, select "Custom" and click the <b>From/To</b> fields to either enter the dates or choose dates from the pop-up calendars.</p>
<b>Maker/Taker drop-down list</b>	Whether your organization is a maker or a taker on trades
<b>Execution Period: Enable checkbox and From/To fields</b>	To filter report results for a specific time period in which the trades were executed, select the <b>Enable</b> checkbox and click the <b>From/To</b> fields to either enter the dates/times or chose dates/times from the pop-up calendars.
<b>Show Trades</b> drop-down list	Choose to filter for matched trades, unmatched trades, or all trades.
<b>View</b> drop-down list	Choose to filter for cover trades, covered trades, no-cover trades, or all trades.
The following report filters are accessed by clicking the  More Filters button:	
<b>Order ID</b> field	The ID of an order or request that originated done trades. Enter a specific ID or use the asterisk character (*) to search for a range of IDs. For example, "4063*" can include IDs such as "4063" and "4063802". Entering "*12" can include IDs like "12" and "54412". Leave blank or enter "*" to choose all IDs.
<b>Trade ID</b> field	The ID of a done trade. Enter a specific ID or use the asterisk character (*) to search for a range of IDs. For example, "4063*" can include IDs such as "4063" and "4063802". Entering "*12" can include IDs like "12" and "54412". Leave blank or enter "*" to choose all IDs.

**Table 6-16 Trade-Reconciliation report filter criteria (continued)**

<b>Trade Status</b> drop-down list	Choose the trade status: <ul style="list-style-type: none"> <li>• Active: Trades with a status of "Net", "Confirmed", or "Verified"</li> <li>• All Done: All done trades (not failed, rejected, or pending)</li> <li>• Verified: Verified by the liquidity provider</li> <li>• Confirmed: Confirmed by the requesting counterparty</li> <li>• Verified + Confirmed: Both verified by the liquidity provider and confirmed by the requesting counterparty</li> <li>• Failed + Rejected: Both failed and rejected trades</li> <li>• Manual: Trades entered manually by an admin user</li> <li>• Net: Trades that have been executed to net a number of other trades</li> <li>• Netted: Trades that have been netted</li> <li>• Cancelled: Trades that have been cancelled</li> <li>• Any: Trades with any status</li> </ul>
<b>Workflow Type</b> drop-down list	The pricing workflow that originated the trade. Auto suggestions are listed as you type. Enter an asterisk (*) to see a list of all workflow types. <ul style="list-style-type: none"> <li>• All</li> <li>• AutoRoll</li> <li>• ESO</li> <li>• ESP</li> <li>• INFXSEF</li> <li>• Manual (manually entered trades)</li> <li>• MatchRequest</li> <li>• NDF</li> <li>• Net (trades resulting from netting)</li> <li>• OP</li> <li>• Order (fills of submitted orders)</li> <li>• RFS</li> <li>• Trade Entry for Credit</li> </ul>
<b>Covered Cpty field</b>	The counterparty on covered trades
<b>Prime Broker</b> field and <b>Direct Trades Only</b> checkbox	A prime broker on the trade. Select the <b>Direct Trades Only</b> checkbox to disregard this field and show only direct trades between your organization and a counterparty. Clear to include all trades.
<b>Stream</b> field	The pricing stream that sourced the trade price
<b>Maker Ref ID</b> field	The ID the trade as assigned by the maker. Enter a specific ID or use the asterisk character (*) to search for a range of IDs. For example, "4063*" can include IDs such as "4063" and "4063802". Entering "*12" can include IDs like "12" and "54412". Leave blank or enter "*" to choose all IDs.
<b>Taker Ref ID</b> field	The ID the trade as assigned by the taker. Enter a specific ID or use the asterisk character (*) to search for a range of IDs. For example, "4063*" can include IDs such as "4063" and "4063802". Entering "*12" can include IDs like "12" and "54412". Leave blank or enter "*" to choose all IDs.
<b>Portfolio ID</b> field	The portfolio associated with the trade, if any (applicable to trades that result from portfolio processing/netting). Enter "[None]" to include only trades that do not have a portfolio ID. Enter "Any" to include only trades that have a portfolio ID.
<b>Dealt</b> drop-down list	Whether the base currency (Base Ccy) or term currency (Term Ccy) of the currency pair was dealt

**Table 6-16 Trade-Reconciliation report filter criteria (continued)**

<b>Client Tag field and Trade/Cpty radio buttons</b>	Client tags are a code that represents a customer anonymously to a liquidity provider when the customer trades through a broker. Click the <b>Trade</b> radio-button to filter results only for trades with the client tag. Click the <b>Cpty</b> radio button to filter results for trades with the client tag's associated customer whether or not the client tag is used.
<b>Cpty Dealer field</b>	The counterparty dealing user on the trade
<b>Org Dealer field</b>	Your dealing user on the trade
<b>Cpty Account field</b>	The counterparty account ( <a href="#">legal entity</a> ) that the trade was booked against
<b>Org Account field</b>	Your account ( <a href="#">legal entity</a> ) that the trade was booked against
<b>CptyOrg Region field</b>	The counterparty's geographic region
<b>CptyOrg Country field</b>	The counterparty's country
<b>Trade Metrics tools</b>	<p>Enter a range of values to filter the results of the report. You can filter by the following trade attributes:</p> <ul style="list-style-type: none"> <li>• USD Amount</li> <li>• Dealt Amt</li> <li>• Base Amt</li> <li>• Term Amt</li> <li>• Rate</li> <li>• USD Rate</li> <li>• Cover Profit</li> </ul>

Download a reconciliation archive for a single day

The Trade-Reconciliation Report provides the  Daily Trade Archive Download button that allows you to download all data for a single day as zip archive file.

**NOTE:** The results of the Daily Trade Archive Download button are independent of the report criteria. There is no need to generate a report or refresh report results before downloading a daily archive.

#### To download a single-day archive of data:

1. Click **Reports** in the menu.  
The Analytics window opens as a new tab in your browser.
2. Open a Trade-Reconciliation report tab (**Trades > Trade-Reconciliation**).
3. Click the  Daily Trade Archive Download button.  
A calendar chooser opens.
4. Click the date of the data that you want to download.

5. Your browser downloads the archive zip file.

### Generate the report

1. Click **Reports** in the menu.

The Analytics window opens as a new tab in your browser.

2. Open a Trade-Reconciliation report tab (**Trades > Trade-Reconciliation**).
3. Specify the report criteria. To access additional criteria, click the  More Filters button.

The **Update** button turns red to indicate that you have changed the report criteria and that any results shown do not necessarily reflect the current criteria.

4. Click the **Update** button.

The Trade-Reconciliation report shows the following information for the done trades that match your filter criteria and organized according to your choice of grouping:

**Table 6-17 Trade-Reconciliation report results**

Status	The trade's status: <ul style="list-style-type: none"> <li>• V: Verified by the liquidity provider</li> <li>• C: Confirmed by the requesting counterparty</li> <li>• M: Trades entered manually by an admin user</li> <li>• N: Trades that have been executed to net a number of other trades</li> <li>• NX: Trades that have been netted</li> <li>• X: Done trades that have been manually cancelled</li> <li>• F: Failed trades</li> <li>• R: Rejected trades</li> </ul>
Order ID	The ID of the order or request that originated the trade. Click the ID to see the details of the order. See <a href="#">Order and request ticket details</a> on page 407.
Trade ID	The trade ID. Click the ID to see the details of the trade. See <a href="#">Trade ticket details</a> on page 414.
Type	<ul style="list-style-type: none"> <li>• FXSPOT: Spot</li> <li>• FXOUTRIGHT: Outright</li> <li>• FXNDF: Non-deliverable forward</li> <li>• FXSWAP_Near: Swap (spot-forward), near leg</li> <li>• FXSWAP_Far: Swap (spot-forward), far leg</li> <li>• FXFWDFWD_Near: Forward-forward swap, near leg</li> <li>• FXFWDFWD_Far: Forward-forward swap, far leg</li> </ul>
Workflow	The pricing workflow that originated the trade: <ul style="list-style-type: none"> <li>• All</li> <li>• AutoRoll</li> <li>• ESO</li> <li>• ESP</li> <li>• INFSEF</li> <li>• Manual (manually entered trades)</li> <li>• MatchRequest</li> <li>• NDF</li> <li>• Net (trades resulting from netting)</li> <li>• OP</li> <li>• Order (fills of submitted orders)</li> <li>• RFS</li> <li>• Trade Entry for Credit</li> </ul>
Trade Date	The trade date

**Table 6-17 Trade-Reconciliation report results (continued)**

Value Date	The trade's value date
Fixing Date	For NDF trades: the trade's fixing date
Tenor	The specified tenor of the trade, if any (for example, "SPOT", "1W", or "JAN")
Execution Time	The time the trade was done
Mkr/ Tkr	Whether your organization was a maker or taker on the trade. For prime brokers, this field is empty.
B/S	Whether the trade was a buy or sell in the base currency from your organization's perspective
Ccy Pair	The currency pair of the trade
Dealt	The dealt currency of the trade
Rate	The rate at which the trade was done
Spot Rate	The spot rate of the price with which the trade was executed. Most useful for outright and swap trades.
Fwd Points	The forward points of the price with which the trade was executed. Applicable to outright and swap trades.
Base Amt	The amount of the trade in the base currency
Term Amt	The amount of the trade in the term currency
USD Rate	The USD cross rate
USD Amt	The notional amount of the trade in USD
Total Cover(ed)	The amount covered by this trade or covered by other trades
Matched Rate	The matched rate of the trade
Org	The organization on the trade
Account	Your legal entity that did the trade. For prime brokers, this is Counterparty A's legal entity.
Cpty	The trading party with which the trade was done (the counterparty's organization and legal entity). For prime brokers, this is Counterparty A's legal entity.
Cpty Account	The counterparty's legal entity that did the trade. For prime brokers, this is Counterparty B's legal entity.
Dealer	Your organization's dealer user on the trade. For prime brokers, this is Counterparty A's user.
Covered Cpty	The counterparty organization on the originating trade covered by this offsetting or cover trade
Covered Trade ID	The ID of the trade that this trade covers, if any.

**Table 6-17 Trade-Reconciliation report results (continued)**

Taker Ref	The taker's reference ID for the trade ID
Maker Ref	The maker's reference ID for the trade ID
Profit USD	Total profit in USD
Spreads	For a description of spreads columns, see <a href="#">Price-making Spreads</a> on page 344 and <a href="#">Price-provisioning Spreads</a> on page 345.
Prime Broker	The prime broker on the trade
PB Account	The prime broker's account ( <a href="#">legal entity</a> )
SD Account	The sales dealer's account ( <a href="#">legal entity</a> ) if the trade was executed as part of the sales dealer workflow
SD User	The ID of the sales dealer user who executed the trade
Stream	The ID of the price stream that sourced the trade price
Comment	Comments on the trade, if any
Book	The book the trade was done in: <ul style="list-style-type: none"> <li>• A</li> <li>• B</li> <li>• None</li> </ul>
Fees	Any fees incurred with the trade

## Download report results

You can download the report as a [CSV](#) file.

1. Generate the report. See [Generate the report](#) on page 318.
2. Click the  Excel Download button to begin your browser's file download process. Depending on your browser, a popup window or infobar opens allowing you to open or save the file.

## Print report results

You can generate a printable version of your report results as a PDF file.

See [Work with PDF reports](#) on page 420 for more information about working with PDF files.

1. Generate the report. See [Generate the report](#) on page 318.
2. Click the  PDF Download button.

If you have a PDF viewer installed and configured for your browser, the PDF report is displayed. Please refer to your PDF viewer's documentation for information about printing and saving your report.

If you do not have a PDF viewer for your browser, a File Download dialog opens. You can save the file for viewing and printing in another app.

### 6.6.8 Trade-Recon-Account report

**NOTE:** This report is applicable to users of the Integral MT4 Bridge.

The Trade-Recon-Account report allows you to generate reports of all trading activity so that you can more easily reconcile your book internally and with counterparties.

**IMPORTANT:** Reconciliation reports often involve very large amounts of data and can adversely affect system performance. Be sure to use the filter criteria to limit your report results.

You can also view the details of a trade or order by clicking the ID in the report results. See [Trade ticket details](#) on page 414 and [Order and request ticket details](#) on page 407 for details.

- [Report filter criteria](#) on page 321
- [Download a reconciliation archive for a single day](#) on page 324
- [Generate the report](#) on page 325
- [Download report results](#) on page 327
- [Print report results](#) on page 327

#### Report filter criteria

You can generate a Trade-Recon-Account report according to the following criteria:

**Table 6-18** Trade-Recon-Account report filter criteria

<b>Group By</b> drop-down lists	Choose the data to group the report results. The results are grouped by your choices from left to right. For example, if you choose "CcyPair" in the leftmost list and "Cpty" in the middle list, the report results are grouped first by currency pair and then by counterparty. <ul style="list-style-type: none"><li>• Org Account: Your organization's legal entity ID</li><li>• Portfolio ID: The portfolio associated with the trade, if any (applicable to trades that result from portfolio processing/netting)</li><li>• Client Tag: Anonymous code for customers trading through a broker</li><li>• Covered Cpty: Counterparty on covered trade</li><li>• Cpty ID: Counterparty organization ID</li><li>• Cpty Name: Counterparty name</li><li>• Org Dealer: Your organization's dealer user ID</li><li>• Cpty Account: Counterparty legal entity ID</li><li>• Ccy Pair: Currency pair</li><li>• Maker/Taker: Liquidity maker and liquidity taker</li><li>• Workflow Type: The workflow that originated the trade</li><li>• Trade Date: Trade date</li><li>• Trade Type: The trade type</li></ul>
<b>Cpty</b> field	Enter a counterparty ID to see a report of that counterparty's trading volume. When you start typing, a menu opens with a list of IDs that match your entry, as well as general categories, such as "All", "Takers", or "Takers-Brokers".

**Table 6-18 Trade-Recon-Account report filter criteria (continued)**

<b>Ccy Pair field</b>	Enter a currency pair (for example, "EUR/USD") in which you want to see report results. Leave empty or enter "All" to specify all currency pairs. The field also takes wildcard criteria using the asterisk (*). If you enter "EUR*" you get a report with all EUR/* currency pairs. If you enter "*USD*", your report includes all currency pairs with USD, such as EUR/USD and USD/JPY.
<b>FX Trade Type and FX Swap Leg checkboxes</b>	<p>Choose one or more trade types:</p> <ul style="list-style-type: none"> <li>• All (all trade types)</li> <li>• Spot</li> <li>• Outright</li> <li>• NDF (non-deliverable forward)</li> <li>• Swap (spot-forward and forward-forward swap)</li> <li>• SSP (single spot portfolio)</li> </ul> <p>If you choose a swap trade type, you can further refine your report results by filtering by swap leg, <b>Near Leg</b>, <b>Far Leg</b>, or both.</p>
<b>Period drop-down lists and From/To fields</b>	<p>From the drop-down list on the left, select the date to filter:</p> <ul style="list-style-type: none"> <li>• Trade Date: The contractual trade date</li> <li>• Value Date: The value date of the trade</li> <li>• Exec Date: The date the trade was executed in the system</li> </ul> <p>From the drop-down list on the right, select a preset time period, such as "Today" or "WTD" (week-to-date). To specify a custom time period, select "Custom" and click the <b>From/To</b> fields to either enter the dates or choose dates from the pop-up calendars.</p>
<b>Maker/Taker drop-down list</b>	Whether your organization is a maker or a taker on trades
<b>Execution Period: Enable checkbox and From/To fields</b>	To filter report results for a specific time period in which the trades were executed, select the <b>Enable</b> checkbox and click the <b>From/To</b> fields to either enter the dates/times or chose dates/times from the pop-up calendars.
<b>Show Trades drop-down list</b>	Choose to filter for matched trades, unmatched trades, or all trades.
<b>View drop-down list</b>	Choose to filter for cover trades, covered trades, no-cover trades, or all trades.
The following report filters are accessed by clicking the  More Filters button:	
<b>Order ID field</b>	The ID of an order or request that originated done trades. Enter a specific ID or use the asterisk character (*) to search for a range of IDs. For example, "4063*" can include IDs such as "4063" and "4063802". Entering "*12" can include IDs like "12" and "54412". Leave blank or enter "*" to choose all IDs.
<b>Trade ID field</b>	The ID of a done trade. Enter a specific ID or use the asterisk character (*) to search for a range of IDs. For example, "4063*" can include IDs such as "4063" and "4063802". Entering "*12" can include IDs like "12" and "54412". Leave blank or enter "*" to choose all IDs.

**Table 6-18 Trade-Recon-Account report filter criteria (continued)**

<b>Trade Status</b> drop-down list	Choose the trade status: <ul style="list-style-type: none"> <li>• Active: Trades with a status of "Net", "Confirmed", or "Verified"</li> <li>• All Done: All done trades (not failed, rejected, or pending)</li> <li>• Verified: Verified by the liquidity provider</li> <li>• Confirmed: Confirmed by the requesting counterparty</li> <li>• Verified + Confirmed: Both verified by the liquidity provider and confirmed by the requesting counterparty</li> <li>• Failed + Rejected: Both failed and rejected trades</li> <li>• Manual: Trades entered manually by an admin user</li> <li>• Net: Trades that have been executed to net a number of other trades</li> <li>• Netted: Trades that have been netted</li> <li>• Cancelled: Trades that have been cancelled</li> <li>• Any: Trades with any status</li> </ul>
<b>Workflow Type</b> drop-down list	The pricing workflow that originated the trade. Auto suggestions are listed as you type. Enter an asterisk (*) to see a list of all workflow types. <ul style="list-style-type: none"> <li>• All</li> <li>• AutoRoll</li> <li>• ESO</li> <li>• ESP</li> <li>• INFXSEF</li> <li>• Manual (manually entered trades)</li> <li>• MatchRequest</li> <li>• NDF</li> <li>• Net (trades resulting from netting)</li> <li>• OP</li> <li>• Order (fills of submitted orders)</li> <li>• RFS</li> <li>• Trade Entry for Credit</li> </ul>
<b>Covered Cpty field</b>	The counterparty on covered trades
<b>Prime Broker</b> field and <b>Direct Trades Only</b> checkbox	A prime broker on the trade. Select the <b>Direct Trades Only</b> checkbox to disregard this field and show only direct trades between your organization and a counterparty. Clear to include all trades.
<b>Stream</b> field	The pricing stream that sourced the trade price
<b>Maker Ref ID</b> field	The ID the trade was assigned by the maker. Enter a specific ID or use the asterisk character (*) to search for a range of IDs. For example, "4063*" can include IDs such as "4063" and "4063802". Entering "*12" can include IDs like "12" and "54412". Leave blank or enter "*" to choose all IDs.
<b>Taker Ref ID</b> field	The ID the trade was assigned by the taker. Enter a specific ID or use the asterisk character (*) to search for a range of IDs. For example, "4063*" can include IDs such as "4063" and "4063802". Entering "*12" can include IDs like "12" and "54412". Leave blank or enter "*" to choose all IDs.
<b>Portfolio ID</b> field	The portfolio associated with the trade, if any (applicable to trades that result from portfolio processing/netting). Enter "[None]" to include only trades that do not have a portfolio ID. Enter "Any" to include only trades that have a portfolio ID.
<b>Dealt</b> drop-down list	Whether the base currency (Base Ccy) or term currency (Term Ccy) of the currency pair was dealt

**Table 6-18 Trade-Recon-Account report filter criteria (continued)**

<b>Client Tag field and Trade/Cpty radio buttons</b>	Client tags are a code that represents a customer anonymously to a liquidity provider when the customer trades through a broker. Click the <b>Trade</b> radio-button to filter results only for trades with the client tag. Click the <b>Cpty</b> radio button to filter results for trades with the client tag's associated customer whether or not the client tag is used.
<b>Cpty Dealer field</b>	The counterparty dealing user on the trade
<b>Org Dealer field</b>	Your dealing user on the trade
<b>Cpty Account field</b>	The counterparty account ( <a href="#">legal entity</a> ) that the trade was booked against
<b>Org Account field</b>	Your account ( <a href="#">legal entity</a> ) that the trade was booked against
<b>CptyOrg Region field</b>	The counterparty's geographic region
<b>CptyOrg Country field</b>	The counterparty's country
<b>Trade Metrics tools</b>	<p>Enter a range of values to filter the results of the report. You can filter by the following trade attributes:</p> <ul style="list-style-type: none"> <li>• USD Amount</li> <li>• Dealt Amt</li> <li>• Base Amt</li> <li>• Term Amt</li> <li>• Rate</li> <li>• USD Rate</li> <li>• Cover Profit</li> </ul>

Download a reconciliation archive for a single day

The Trade-Recon-Account Report provides the  Daily Trade Archive Download button that allows you to download all data for a single day as zip archive file.

**NOTE:** The results of the Daily Trade Archive Download button are independent of the report criteria. There is no need to generate a report or refresh report results before downloading a daily archive.

#### To download a single-day archive of data:

1. Click **Reports** in the menu.  
The Analytics window opens as a new tab in your browser.
2. Open a Trade-Recon-Account report tab (**Trades > Trade-Recon-Account**).
3. Click the  Daily Trade Archive Download button.  
A calendar chooser opens.
4. Click the date of the data that you want to download.

5. Your browser downloads the archive zip file.

### Generate the report

1. Click **Reports** in the menu.

The Analytics window opens as a new tab in your browser.

2. Open a Trade-Recon-Account report tab (**Trades > Trade-Recon-Account**).
3. Specify the report criteria. To access additional criteria, click the  More Filters button.

The **Update** button turns red to indicate that you have changed the report criteria and that any results shown do not necessarily reflect the current criteria.

4. Click the **Update** button.

The Trade-Recon-Account report shows the following information for the done trades that match your filter criteria and organized according to your choice of grouping:

**Table 6-19** Trade-Recon-Account report results

Status	The trade's status: <ul style="list-style-type: none"> <li>• V: Verified by the liquidity provider</li> <li>• C: Confirmed by the requesting counterparty</li> <li>• M: Trades entered manually by an admin user</li> <li>• N: Trades that have been executed to net a number of other trades</li> <li>• NX: Trades that have been netted</li> <li>• X: Done trades that have been manually cancelled</li> <li>• F: Failed trades</li> <li>• R: Rejected trades</li> </ul>
Order ID	The ID of the order or request that originated the trade. Click the ID to see the details of the order. See <a href="#">Order and request ticket details</a> on page 407.
Trade ID	The trade ID. Click the ID to see the details of the trade. See <a href="#">Trade ticket details</a> on page 414.
Type	<ul style="list-style-type: none"> <li>• FXSPOT: Spot</li> <li>• FXOUTRIGHT: Outright</li> <li>• FXNDF: Non-deliverable forward</li> <li>• FXSWAP_Near: Swap (spot-forward), near leg</li> <li>• FXSWAP_Far: Swap (spot-forward), far leg</li> <li>• FXFWDFWD_Near: Forward-forward swap, near leg</li> <li>• FXFWDFWD_Far: Forward-forward swap, far leg</li> </ul>
Workflow	The pricing workflow that originated the trade: <ul style="list-style-type: none"> <li>• All</li> <li>• AutoRoll</li> <li>• ESO</li> <li>• ESP</li> <li>• INFSEF</li> <li>• Manual (manually entered trades)</li> <li>• MatchRequest</li> <li>• NDF</li> <li>• Net (trades resulting from netting)</li> <li>• OP</li> <li>• Order (fills of submitted orders)</li> <li>• RFS</li> <li>• Trade Entry for Credit</li> </ul>
Trade Date	The trade date

**Table 6-19 Trade-Recon-Account report results (continued)**

Value Date	The trade's value date
Fixing Date	For NDF trades: the trade's fixing date
Tenor	The specified tenor of the trade, if any (for example, "SPOT", "1W", or "JAN")
Execution Time	The time the trade was done
Mkr/ Tkr	Whether your organization was a maker or taker on the trade. For prime brokers, this field is empty.
B/S	Whether the trade was a buy or sell in the base currency from your organization's perspective
Ccy Pair	The currency pair of the trade
Dealt	The dealt currency of the trade
Rate	The rate at which the trade was done
Spot Rate	The spot rate of the price with which the trade was executed. Most useful for outright and swap trades.
Fwd Points	The forward points of the price with which the trade was executed. Applicable to outright and swap trades.
Base Amt	The amount of the trade in the base currency
Term Amt	The amount of the trade in the term currency
USD Rate	The USD cross rate
USD Amt	The notional amount of the trade in USD
Total Cover(ed)	The amount covered by this trade or covered by other trades
Matched Rate	The matched rate of the trade
Org	The organization on the trade
Account	Your legal entity that did the trade. For prime brokers, this is Counterparty A's legal entity.
Cpty	The trading party with which the trade was done (the counterparty's organization and legal entity). For prime brokers, this is Counterparty A's legal entity.
Cpty Account	The counterparty's legal entity that did the trade. For prime brokers, this is Counterparty B's legal entity.
Dealer	Your organization's dealer user on the trade. For prime brokers, this is Counterparty A's user.
Covered Cpty	The counterparty organization on the originating trade covered by this offsetting or cover trade
Covered Trade ID	The ID of the trade that this trade covers, if any.

**Table 6-19 Trade-Recon-Account report results (continued)**

Taker Ref	The taker's reference ID for the trade ID
Maker Ref	The maker's reference ID for the trade ID
Profit USD	Total profit in USD
Spreads	For a description of spreads columns, see <a href="#">Price-making Spreads</a> on page 344 and <a href="#">Price-provisioning Spreads</a> on page 345.
Prime Broker	The prime broker on the trade
PB Account	The prime broker's account ( <a href="#">legal entity</a> )
SD Account	The sales dealer's account ( <a href="#">legal entity</a> ) if the trade was executed as part of the sales dealer workflow
SD User	The ID of the sales dealer user who executed the trade
Stream	The ID of the price stream that sourced the trade price
Comment	Comments on the trade, if any
Book	The book the trade was done in: <ul style="list-style-type: none"> <li>• A</li> <li>• B</li> <li>• None</li> </ul>
Account ID	MT4 Account information of the end client, if any.

## Download report results

You can download the report as a [CSV](#) file.

1. Generate the report. See [Generate the report](#) on page 325.
2. Click the  Excel Download button to begin your browser's file download process. Depending on your browser, a popup window or infobar opens allowing you to open or save the file.

## Print report results

You can generate a printable version of your report results as a PDF file.

See [Work with PDF reports](#) on page 420 for more information about working with PDF files.

1. Generate the report. See [Generate the report](#) on page 325.
2. Click the  PDF Download button.

If you have a PDF viewer installed and configured for your browser, the PDF report is displayed. Please refer to your PDF viewer's documentation for information about printing and saving your report.

If you do not have a PDF viewer for your browser, a File Download dialog opens. You can save the file for viewing and printing in another app.

## 6.7 Positions reports

Analytics provides the following reports for positions data:

- [Positions-CcyPair report](#) on page 328
- [Positions-Ccy report](#) on page 331

### 6.7.1 Positions-CcyPair report

The Positions-CcyPair report shows positions by currency pair, counterparty, and dealer user according to the criteria you specify.

- [Report filter criteria](#) on page 328
- [Generate the report](#) on page 330
- [Download report results](#) on page 331
- [Print report results](#) on page 331

#### Report filter criteria

You can generate a Positions-CcyPair report according to the following criteria:

**Table 6-20** Positions-CcyPair report filter criteria

<b>Group By</b> drop-down lists	Choose the data to group the report results. The results are grouped by your choices from left to right. For example, if you choose "Date" in the leftmost list and "Cpty ID" in the middle list, the report results are grouped first by currency pair and then by counterparty. <ul style="list-style-type: none"><li>• Date: Position date</li><li>• Ccy Pair: Currency pair</li><li>• Cpty ID: Counterparty organization ID</li><li>• Cpty Name: Counterparty name</li><li>• Prime Broker: A prime broker on the trade</li><li>• PB Account: Prime broker account (<a href="#">legal entity</a>)</li><li>• Org Account: Your organization's legal entity ID</li><li>• Portfolio ID: The portfolio associated with the trade, if any (applicable to trades that result from portfolio processing/netting)</li><li>• Client Tag: Anonymous code for customers trading through a broker</li><li>• Cpty Account: Counterparty legal entity ID</li><li>• Org Dealer: Your organization's dealer user ID</li><li>• Maker/Taker: Liquidity maker and liquidity taker</li><li>• Channel: The app, price source, and user-interface component that originated the trades</li><li>• Workflow Type: The workflow that originated the trade</li><li>• Trade Type: The trade type</li></ul>
<b>Cpty</b> field	Enter a counterparty ID to see a report of that counterparty's trading volume. When you start typing, a menu opens with a list of IDs that match your entry, as well as general categories, such as "All", "Takers", or "Takers-Brokers".

**Table 6-20 Positions-CcyPair report filter criteria (continued)**

<b>Ccy Pair field</b>	Enter a currency pair (for example, "EUR/USD") in which you want to see report results. Leave empty or enter "All" to specify all currency pairs. The field also takes wildcard criteria using the asterisk (*). If you enter "EUR*" you get a report with all EUR/* currency pairs. If you enter "*USD*", your report includes all currency pairs with USD, such as EUR/USD and USD/JPY.
<b>FX Trade Type and FX Swap Leg checkboxes</b>	<p>Choose one or more trade types:</p> <ul style="list-style-type: none"> <li>• All (all trade types)</li> <li>• Spot</li> <li>• Outright</li> <li>• NDF (non-deliverable forward)</li> <li>• Swap (spot-forward and forward-forward swap)</li> </ul> <p>If you choose a swap trade type, you can further refine your report results by filtering by swap leg, <b>Near Leg</b>, <b>Far Leg</b>, or both.</p>
<b>Period dropdown lists and From/To fields</b>	<p>From the drop-down list on the left, select the date to filter:</p> <ul style="list-style-type: none"> <li>• Trade Date: The contractual trade date</li> <li>• Value Date: The value date of the trade</li> </ul> <p>From the drop-down list on the right, select a preset time period, such as "Today" or "WTD" (week-to-date). To specify a custom time period, select "Custom" and click the <b>From/To</b> fields to either enter the dates or choose dates from the pop-up calendars.</p>

The following report filters are accessed by clicking the  More Filters button:

<b>Workflow Type dropdown list</b>	The pricing workflow that originated the trade. Auto suggestions are listed as you type. Enter an asterisk (*) to see a list of all workflow types. <ul style="list-style-type: none"> <li>• All</li> <li>• AutoRoll</li> <li>• ESO</li> <li>• ESP</li> <li>• INFXSEF</li> <li>• Manual (manually entered trades)</li> <li>• MatchRequest</li> <li>• NDF</li> <li>• Net (trades resulting from netting)</li> <li>• OP</li> <li>• Order (fills of submitted orders)</li> <li>• RFS</li> <li>• Trade Entry for Credit</li> </ul>
<b>Prime Broker field and Direct Trades Only checkbox</b>	A prime broker on the trade. Select the <b>Direct Trades Only</b> checkbox to disregard this field and show only direct trades between your organization and a counterparty. Clear to include all trades.
<b>Stream field</b>	The pricing stream that sourced the trade price
<b>Portfolio ID field</b>	The ID of the originating portfolio. Enter "[None]" to include only trades that do not have a portfolio ID. Enter "Any" to include only trades that have a portfolio ID.
<b>Client Tag field and Trade/Cpty radio buttons</b>	Client tags are a code that represents a customer anonymously to a liquidity provider when the customer trades through a broker. Click the <b>Trade</b> radio-button to filter results only for the client tag. Click the <b>Cpty</b> radio button to filter results for the client tag's associated customer whether or not the client tag is used.
<b>Cpty Account field</b>	The counterparty account ( <a href="#">legal entity</a> ) that trades in the position were booked against

**Table 6-20 Positions-CcyPair report filter criteria (continued)**

<b>Org Account</b>	Your account ( <a href="#">legal entity</a> ) that trades in the position were booked against field
<b>CptyOrg Region</b>	The counterparty's geographic region
<b>CptyOrg Country</b>	The counterparty's country
<b>Net Ccy</b>	Choose the currency in which to denominate net amounts in the report. drop-down list
<b>Net Ccy Conversion Date</b>	The date from which data should be used to perform conversion to the net currency. Click the field to either enter the dates or choose dates from the pop-up calendars.
<b>Broker Trades</b>	The type of trade in the broker trading workflow: drop-down list • Cover • Covered • NotCovered • DirectLP

### Generate the report

1. Click **Reports** in the menu.

The Analytics window opens as a new tab in your browser.

2. Open a Positions-CcyPair report tab (**Reports > Positions > Positions-CcyPair**).
3. Specify the report criteria. To access additional criteria, click the  More Filters button.

The **Update** button turns red to indicate that you have changed the report criteria and that any results shown do not necessarily reflect the current criteria.

4. Click the **Update** button.

The Positions-CcyPair report shows the following information for the trading activity that matches your filter criteria and organized according to your choice of grouping:

**Table 6-21 Positions-CcyPair report results**

<b>Net Base</b>	The net position in the base currency. Positive for buy (long) and negative for sell (short).
<b>Net Term</b>	The net position in the term currency
<b>Buy Amount Base</b>	Total buy positions in the base currency
<b>Sell Amount Term</b>	Total sell positions in the term currency
<b>Sell Amount Base</b>	Total sell positions in the base currency
<b>Buy Amount Term</b>	Total buy positions in the term currency
<b>Avg Buy Rate</b>	Weighted average rate of all buys

**Table 6-21 Positions-CcyPair report results (continued)**

Avg Sell Rate	Weighted average rate of all sells
Net currency	The net amount in currency as chosen from the <b>Net Ccy</b> drop-down list

## Download report results

You can download the report as a [CSV](#) file.

1. Generate the report. See [Generate the report](#) on page 330.
2. Click the  Excel Download button to begin your browser's file download process. Depending on your browser, a popup window or infobar opens allowing you to open or save the file.

## Print report results

You can generate a printable version of your report results as a PDF file.

See [Work with PDF reports](#) on page 420 for more information about working with PDF files.

1. Generate the report. See [Generate the report](#) on page 330.
2. Click the  PDF Download button.

If you have a PDF viewer installed and configured for your browser, the PDF report is displayed.

Please refer to your PDF viewer's documentation for information about printing and saving your report.

If you do not have a PDF viewer for your browser, a File Download dialog opens. You can save the file for viewing and printing in another app.

## 6.7.2 Positions-Ccy report

The Positions-Ccy report provides an overview of currency settlement, showing the amount of a currency to be settled as well as the buy amount and sell amount. The net settlement amount is simply the buy amount minus the sell amount.

- [Report filter criteria](#) on page 331
- [Generate the report](#) on page 333
- [Download report results](#) on page 334
- [Print report results](#) on page 334

### Report filter criteria

You can generate a Positions-Ccy report according to the following criteria:

**Table 6-22 Positions-Ccy report filter criteria**

<b>Group By</b> drop-down lists	Choose the data to group the report results. The results are grouped by your choices from left to right. For example, if you choose "Date" in the leftmost list and "Cpty ID" in the middle list, the report results are grouped first by currency pair and then by counterparty. <ul style="list-style-type: none"> <li>● Date: Position date</li> <li>● Ccy: Currency</li> <li>● Cpty ID: Counterparty organization ID</li> <li>● Cpty Name: Counterparty name</li> <li>● Prime Broker: A prime broker on the trade</li> <li>● PB Account: Prime broker account (<a href="#">legal entity</a>)</li> <li>● Org Account: Your organization's legal entity ID</li> <li>● Portfolio ID: The portfolio associated with the trade, if any (applicable to trades that result from portfolio processing/netting)</li> <li>● Client Tag: Anonymous code for customers trading through a broker</li> <li>● Cpty Account: Counterparty legal entity ID</li> <li>● Org Dealer: Your organization's dealer user ID</li> <li>● Maker/Taker: Liquidity maker and liquidity taker</li> <li>● Channel: The app, price source, and user-interface component that originated the trades</li> <li>● Workflow Type: The workflow that originated the trade</li> <li>● Trade Type: The trade type</li> </ul>
<b>Cpty</b> field	Enter a counterparty ID to see a report of that counterparty's trading volume. When you start typing, a menu opens with a list of IDs that match your entry, as well as general categories, such as "All", "Takers", or "Takers-Brokers".
<b>Ccy Pair</b> field	Enter a currency pair (for example, "EUR/USD") in which you want to see report results. Leave empty or enter "All" to specify all currency pairs. The field also takes wildcard criteria using the asterisk (*). If you enter "EUR*" you get a report with all EUR/* currency pairs. If you enter "*USD*", your report includes all currency pairs with USD, such as EUR/USD and USD/JPY.
<b>FX Trade Type</b> and <b>FX Swap Leg</b> checkboxes	Choose one or more trade types: <ul style="list-style-type: none"> <li>● All (all trade types)</li> <li>● Spot</li> <li>● Outright</li> <li>● NDF (non-deliverable forward)</li> <li>● Swap (spot-forward and forward-forward swap)</li> </ul> If you choose a swap trade type, you can further refine your report results by filtering by swap leg, <b>Near Leg</b> , <b>Far Leg</b> , or both.
<b>Period</b> drop-down lists and <b>From/To</b> fields	From the drop-down list on the left, select the date to filter: <ul style="list-style-type: none"> <li>● Trade Date: The contractual trade date</li> <li>● Value Date: The value date of the trade</li> </ul> From the drop-down list on the right, select a preset time period, such as "Today" or "WTD" (week-to-date). To specify a custom time period, select "Custom" and click the <b>From/To</b> fields to either enter the dates or choose dates from the pop-up calendars.

The following report filters are accessed by clicking the  More Filters button:

**Table 6-22 Positions-Ccy report filter criteria (continued)**

<b>Workflow Type</b> drop-down list	The pricing workflow that originated the trade. Auto suggestions are listed as you type. Enter an asterisk (*) to see a list of all workflow types. <ul style="list-style-type: none"> <li>• All</li> <li>• AutoRoll</li> <li>• ESO</li> <li>• ESP</li> <li>• INFXSEF</li> <li>• Manual (manually entered trades)</li> <li>• MatchRequest</li> <li>• NDF</li> <li>• Net (trades resulting from netting)</li> <li>• OP</li> <li>• Order (fills of submitted orders)</li> <li>• RFS</li> <li>• Trade Entry for Credit</li> </ul>
<b>Prime Broker</b> field and <b>Direct Trades Only</b> checkbox	A prime broker on the trade. Select the <b>Direct Trades Only</b> checkbox to disregard this field and show only direct trades between your organization and a counterparty. Clear to include all trades.
<b>Stream</b> field	The pricing stream that sourced the trade price
<b>Portfolio ID</b> field	The ID of the originating portfolio. Enter “[None]” to include only trades that do not have a portfolio ID. Enter “Any” to include only trades that have a portfolio ID.
<b>Client Tag</b> field and <b>Trade/Cpty</b> radio buttons	Client tags are a code that represents a customer anonymously to a liquidity provider when the customer trades through a broker. Click the <b>Trade</b> radio-button to filter results only for the client tag. Click the <b>Cpty</b> radio button to filter results for the client tag's associated customer whether or not the client tag is used.
<b>Cpty Account</b> field	The counterparty account ( <a href="#">legal entity</a> ) that trades in the position were booked against
<b>Org Account</b> field	Your account ( <a href="#">legal entity</a> ) that trades in the position were booked against
<b>CptyOrg Region</b> field	The counterparty's geographic region
<b>CptyOrg Country</b> field	The counterparty's country
<b>Net Ccy</b> drop-down list	Choose the currency in which to denominate net amounts in the report.
<b>Net Ccy Conversion Date</b> field	The date from which data should be used to perform conversion to the net currency. Click the field to either enter the dates or choose dates from the pop-up calendars.

### Generate the report

1. Click **Reports** in the menu.

The Analytics window opens as a new tab in your browser.

2. Open a Positions-Ccy report tab ([Reports > Positions > Positions-Ccy](#)).
3. Specify the report criteria. To access additional criteria, click the  More Filters button.

The **Update** button turns red to indicate that you have changed the report criteria and that any results shown do not necessarily reflect the current criteria.

4. Click the **Update** button.

The Positions-Ccy report shows the following information for the trading activity that matches your filter criteria and organized according to your choice of grouping:

**Table 6-23** Positions-Ccy report results

Net	The net settlement amount
Buy Amount	Total buy settlement amount
Sell Amount	Total sell settlement amount
Net currency	The net amount in currency as chosen from the <b>Net Ccy</b> drop-down list

### Download report results

You can download the report as a [CSV](#) file.

1. Generate the report. See [Generate the report](#) on page 333.
2. Click the  Excel Download button to begin your browser's file download process. Depending on your browser, a popup window or infobar opens allowing you to open or save the file.

### Print report results

You can generate a printable version of your report results as a [PDF](#) file.

See [Work with PDF reports](#) on page 420 for more information about working with PDF files.

1. Generate the report. See [Generate the report](#) on page 333.
2. Click the  PDF Download button.

If you have a PDF viewer installed and configured for your browser, the PDF report is displayed.

Please refer to your PDF viewer's documentation for information about printing and saving your report.

If you do not have a PDF viewer for your browser, a File Download dialog opens. You can save the file for viewing and printing in another app.

## 6.8 Profit reports

Analytics provides the following reports for P&L data:

- [Profit-Cover report](#) on page 335
- [Profit-Sales report](#) on page 338
- [Profit-Spreads report](#) on page 341

- [Profit-Yields report](#) on page 346

## 6.8.1 Profit-Cover report

The Profit-Cover report shows the profit made as the result of cover trades.

- [Report filter criteria](#) on page 335
- [Generate the report](#) on page 337
- [Download report results](#) on page 337
- [Print report results](#) on page 338

### Report filter criteria

You can generate a Profit-Cover report according to the following criteria:

**Table 6-24 Profit-Cover report filter criteria**

<b>Group By drop-down lists</b>	Choose the data to group the report results. The results are grouped by your choices from left to right. For example, if you choose "CcyPair" in the leftmost list and "Cpty Name" in the middle list, the report results are grouped first by currency pair and then by counterparty. <ul style="list-style-type: none"> <li>• Cpty ID: Counterparty organization ID</li> <li>• Cpty Name: Counterparty name</li> <li>• Cpty Account: Counterparty legal entity ID</li> <li>• Cpty Dealer: Counterparty's dealer user ID</li> <li>• Org Account: Your organization's legal entity ID</li> <li>• Portfolio ID: The portfolio associated with the trade, if any (applicable to trades that result from portfolio processing/netting)</li> <li>• Client Tag: Anonymous code for customers trading through a broker</li> <li>• Ccy Pair: Currency pair</li> <li>• Stream: The stream that sourced the price</li> <li>• Maker/Taker: Liquidity maker and liquidity taker</li> <li>• Org Dealer: Your organization's dealer user ID</li> <li>• Date: Trade date</li> <li>• Week: Monday's date</li> <li>• Month</li> <li>• Workflow Type: The workflow that originated the trade</li> <li>• Trade Type: The trade type</li> <li>• DPC: Whether or not dynamic price control (DPC) is enabled</li> <li>• Value Date: Trade value date</li> <li>• Book: The book the trade was done in (A, B, All, None)</li> </ul>
<b>Cpty field</b>	Enter a counterparty ID to see a report of that counterparty's trading volume. When you start typing, a menu opens with a list of IDs that match your entry, as well as general categories, such as "All", "Takers", or "Takers-Brokers".
<b>Ccy Pair field</b>	Enter a currency pair (for example, "EUR/USD") in which you want to see report results. Leave empty or enter "All" to specify all currency pairs. The field also takes wildcard criteria using the asterisk (*). If you enter "EUR*" you get a report with all EUR/* currency pairs. If you enter "*USD*", your report includes all currency pairs with USD, such as EUR/USD and USD/JPY.

**Table 6-24 Profit-Cover report filter criteria (continued)**

<b>FX Trade Type and FX Swap Leg checkboxes</b>	Choose one or more trade types: <ul style="list-style-type: none"> <li>• All (all trade types)</li> <li>• Spot</li> <li>• Outright</li> <li>• NDF (non-deliverable forward)</li> <li>• Swap (spot-forward and forward-forward swap)</li> </ul> <p>If you choose a swap trade type, you can further refine your report results by filtering by swap leg, <b>Near Leg</b>, <b>Far Leg</b>, or both.</p>
<b>Period drop-down list and From/To fields</b>	Select a preset time period, such as "Today" or "WTD" (week-to-date). To specify a custom time period, select "Custom" and click the <b>From/To</b> fields to either enter the dates or choose dates from the pop-up calendars.
<b>Maker/Taker drop-down list</b>	Whether your organization is a maker or a taker on trades
<b>Book drop-down list</b>	The book the trade was done in: <ul style="list-style-type: none"> <li>• A</li> <li>• B</li> <li>• None</li> </ul>

The following report filters are accessed by clicking the  More Filters button:

<b>Workflow Type dropdown list</b>	The pricing workflow that originated the trade. Auto suggestions are listed as you type. Enter an asterisk (*) to see a list of all workflow types. <ul style="list-style-type: none"> <li>• All</li> <li>• AutoRoll</li> <li>• ESO</li> <li>• ESP</li> <li>• INFXSEF</li> <li>• Manual (manually entered trades)</li> <li>• MatchRequest</li> <li>• NDF</li> <li>• Net (trades resulting from netting)</li> <li>• OP</li> <li>• Order (fills of submitted orders)</li> <li>• RFS</li> <li>• Trade Entry for Credit</li> </ul>
<b>Covered Cpty field</b>	The counterparty on covered trades
<b>Prime Broker field and Direct Trades Only checkbox</b>	A prime broker on the trade. Select the <b>Direct Trades Only</b> checkbox to disregard this field and show only direct trades between your organization and a counterparty. Clear to include all trades.
<b>Stream field</b>	The pricing stream that sourced the trade price
<b>Portfolio ID field</b>	The portfolio associated with the trade, if any (applicable to trades that result from portfolio processing/netting). Enter "[None]" to include only trades that do not have a portfolio ID. Enter "Any" to include only trades that have a portfolio ID.
<b>Client Tag field and Trade/Cpty radio buttons</b>	Client tags are a code that represents a customer anonymously to a liquidity provider when the customer trades through a broker. Click the <b>Trade</b> radio-button to filter results only for trades with the client tag. Click the <b>Cpty</b> radio button to filter results for trades with the client tag's associated customer whether or not the client tag is used.

**Table 6-24 Profit-Cover report filter criteria (continued)**

Cpty Account field	The counterparty account ( <a href="#">legal entity</a> ) that the trade was booked against
Org Account field	Your account ( <a href="#">legal entity</a> ) that the trade was booked against
CptyOrg Region field	The counterparty's geographic region
CptyOrg Country field	The counterparty's country
Broker Trades drop- down list	The type of trade in the broker trading workflow: <ul style="list-style-type: none"> <li>• Cover</li> <li>• Covered</li> <li>• NotCovered</li> <li>• DirectLP</li> </ul>
DPC drop- down list	Whether or not dynamic price control (DPC) is enabled: <ul style="list-style-type: none"> <li>• Yes: DPC is enabled.</li> <li>• No: DPC is not enabled.</li> <li>• All: All counterparties regardless of DPC status.</li> </ul>

### Generate the report

1. Click **Reports** in the menu.  
The Analytics window opens as a new tab in your browser.
2. Open a Profit-Cover report tab (**Reports > Profit > Profit-Cover**).
3. Specify the report criteria. To access additional criteria, click the  More Filters button.

The **Update** button turns red to indicate that you have changed the report criteria and that any results shown do not necessarily reflect the current criteria.

4. Click the **Update** button.

The Profit-Cover report shows the following information for the done trades that match your filter criteria and organized according to your choice of grouping:

**Table 6-25 Profit-Cover report results**

Profit (USD)	The profit denominated in USD
USD Amount	Total volume in USD
Yield	Profit in USD per million of volume

### Download report results

You can download the report as a [CSV](#) file.

1. Generate the report. See [Generate the report](#) on page 337.

2. Click the  Excel Download button to begin your browser's file download process. Depending on your browser, a popup window or infobar opens allowing you to open or save the file.

#### Print report results

You can generate a printable version of your report results as a PDF file.

See [Work with PDF reports](#) on page 420 for more information about working with PDF files.

1. Generate the report. See [Generate the report](#) on page 337.
2. Click the  PDF Download button.

If you have a PDF viewer installed and configured for your browser, the PDF report is displayed.

Please refer to your PDF viewer's documentation for information about printing and saving your report.

If you do not have a PDF viewer for your browser, a File Download dialog opens. You can save the file for viewing and printing in another app.

### 6.8.2 Profit-Sales report

The Profit-Sales report shows the profit made as the result of spreads added in price provisioning.

- [Report filter criteria](#) on page 338
- [Generate the report](#) on page 340
- [Download report results](#) on page 341
- [Print report results](#) on page 341

#### Report filter criteria

You can generate a Profit-Sales report according to the following criteria:

**Table 6-26 Profit-Sales report filter criteria**

<b>Group By</b> drop-down lists	Choose the data to group the report results. The results are grouped by your choices from left to right. For example, if you choose "CcyPair" in the leftmost list and "Cpty Name" in the middle list, the report results are grouped first by currency pair and then by counterparty. <ul style="list-style-type: none"> <li>• Cpty ID: Counterparty organization ID</li> <li>• Cpty Name: Counterparty name</li> <li>• Cpty Account: Counterparty legal entity ID</li> <li>• Cpty Dealer: Counterparty's dealer user ID</li> <li>• Org Account: Your organization's legal entity ID</li> <li>• Portfolio ID: The portfolio associated with the trade, if any (applicable to trades that result from portfolio processing/netting)</li> <li>• Client Tag: Anonymous code for customers trading through a broker</li> <li>• Ccy Pair: Currency pair</li> <li>• Stream: The stream that sourced the price</li> <li>• Maker/Taker: Liquidity maker and liquidity taker</li> <li>• Org Dealer: Your organization's dealer user ID</li> <li>• Date: Trade date</li> <li>• Week: Monday's date</li> <li>• Month</li> <li>• Workflow Type: The workflow that originated the trade</li> <li>• Trade Type: The trade type</li> <li>• DPC: Whether or not dynamic price control (DPC) is enabled</li> <li>• Value Date: Trade value date</li> <li>• Book: The book the trade was done in (A, B, All, None)</li> </ul>
<b>Cpty</b> field	Enter a counterparty ID to see a report of that counterparty's trading volume. When you start typing, a menu opens with a list of IDs that match your entry, as well as general categories, such as "All", "Takers", or "Takers-Brokers".
<b>Ccy Pair</b> field	Enter a currency pair (for example, "EUR/USD") in which you want to see report results. Leave empty or enter "All" to specify all currency pairs. The field also takes wildcard criteria using the asterisk (*). If you enter "EUR*" you get a report with all EUR/* currency pairs. If you enter "*USD*", your report includes all currency pairs with USD, such as EUR/USD and USD/JPY.
<b>FX Trade Type</b> and <b>Swap Leg</b> checkboxes	Choose one or more trade types: <ul style="list-style-type: none"> <li>• All (all trade types)</li> <li>• Spot</li> <li>• Outright</li> <li>• NDF (non-deliverable forward)</li> <li>• Swap (spot-forward and forward-forward swap)</li> </ul> If you choose a swap trade type, you can further refine your report results by filtering by swap leg, <b>Near Leg</b> , <b>Far Leg</b> , or both.
<b>Period</b> drop-down list and <b>From/To</b> fields	Select a preset time period, such as "Today" or "WTD" (week-to-date). To specify a custom time period, select "Custom" and click the <b>From/To</b> fields to either enter the dates or choose dates from the pop-up calendars.
<b>Maker/Taker</b> drop-down list	Whether your organization is a maker or a taker on trades
<b>Book</b> drop-down list	The book the trade was done in: <ul style="list-style-type: none"> <li>• A</li> <li>• B</li> <li>• None</li> </ul>

**Table 6-26 Profit-Sales report filter criteria (continued)**

The following report filters are accessed by clicking the  More Filters button:

<b>Workflow Type</b> drop-down list	<p>The pricing workflow that originated the trade. Auto suggestions are listed as you type. Enter an asterisk (*) to see a list of all workflow types.</p> <ul style="list-style-type: none"> <li>• All</li> <li>• AutoRoll</li> <li>• ESO</li> <li>• ESP</li> <li>• INFXSEF</li> <li>• Manual (manually entered trades)</li> <li>• MatchRequest</li> <li>• NDF</li> <li>• Net (trades resulting from netting)</li> <li>• OP</li> <li>• Order (fills of submitted orders)</li> <li>• RFS</li> <li>• Trade Entry for Credit</li> </ul>
<b>Covered Cpty</b> field	The counterparty on covered trades
<b>Prime Broker</b> field and <b>Direct Trades Only</b> checkbox	A prime broker on the trade. Select the <b>Direct Trades Only</b> checkbox to disregard this field and show only direct trades between your organization and a counterparty. Clear to include all trades.
<b>Stream</b> field	The pricing stream that sourced the trade price
<b>Client Tag</b> field and <b>Trade/Cpty</b> radio buttons	Client tags are a code that represents a customer anonymously to a liquidity provider when the customer trades through a broker. Click the <b>Trade</b> radio-button to filter results only for trades with the client tag. Click the <b>Cpty</b> radio button to filter results for trades with the client tag's associated customer whether or not the client tag is used.
<b>Cpty Account</b> field	The counterparty account ( <a href="#">legal entity</a> ) that the trade was booked against
<b>Org Account</b> field	Your account ( <a href="#">legal entity</a> ) that the trade was booked against
<b>CptyOrg Region</b> field	The counterparty's geographic region
<b>CptyOrg Country</b> field	The counterparty's country
<b>Broker Trades</b> drop-down list	<p>The type of trade in the broker trading workflow:</p> <ul style="list-style-type: none"> <li>• Cover</li> <li>• Covered</li> <li>• NotCovered</li> <li>• DirectLP</li> </ul>
<b>DPC</b> drop-down list	<p>Whether or not dynamic price control (DPC) is enabled:</p> <ul style="list-style-type: none"> <li>• Yes: DPC is enabled.</li> <li>• No: DPC is not enabled.</li> <li>• All: All counterparties regardless of DPC status.</li> </ul>

## Generate the report

1. Click **Reports** in the menu.

The Analytics window opens as a new tab in your browser.

2. Open a Profit-Sales report tab (**Reports > Profit > Profit-Sales**).

3. Specify the report criteria. To access additional criteria, click the  More Filters button.

The **Update** button turns red to indicate that you have changed the report criteria and that any results shown do not necessarily reflect the current criteria.

4. Click the **Update** button.

The Profit-Sales report shows the following information for the done trades that match your filter criteria and organized according to your choice of grouping:

**Table 6-27 Profit-Sales report results**

Profit (USD)	The profit denominated in USD
USD Amount	Total volume in USD
Yield	Profit in USD per million of volume

### Download report results

You can download the report as a [CSV](#) file.

1. Generate the report. See [Generate the report](#) on page 340.
2. Click the  Excel Download button to begin your browser's file download process. Depending on your browser, a popup window or infobar opens allowing you to open or save the file.

### Print report results

You can generate a printable version of your report results as a PDF file.

See [Work with PDF reports](#) on page 420 for more information about working with PDF files.

1. Generate the report. See [Generate the report](#) on page 340.
2. Click the  PDF Download button.

If you have a PDF viewer installed and configured for your browser, the PDF report is displayed.

Please refer to your PDF viewer's documentation for information about printing and saving your report.

If you do not have a PDF viewer for your browser, a File Download dialog opens. You can save the file for viewing and printing in another app.

## 6.8.3 Profit-Spreads report

The Profit-Spreads report shows the profit made as the result of all spreads defined in the system.

- [Report filter criteria](#) on page 342
- [Generate the report](#) on page 344

- [Download report results on page 346](#)
- [Print report results on page 346](#)

## Report filter criteria

You can generate a Profit-Spreads report according to the following criteria:

**Table 6-28** Profit-Spreads report filter criteria

<b>Group By</b> drop-down lists	Choose the data to group the report results. The results are grouped by your choices from left to right. For example, if you choose "CcyPair" in the leftmost list and "Cpty Name" in the middle list, the report results are grouped first by currency pair and then by counterparty. <ul style="list-style-type: none"> <li>• Cpty ID: Counterparty organization ID</li> <li>• Cpty Name: Counterparty name</li> <li>• Cpty Account: Counterparty legal entity ID</li> <li>• Cpty Dealer: Counterparty's dealer user ID</li> <li>• Org Account: Your organization's legal entity ID</li> <li>• Portfolio ID: The portfolio associated with the trade, if any (applicable to trades that result from portfolio processing/netting)</li> <li>• Client Tag: Anonymous code for customers trading through a broker</li> <li>• Ccy Pair: Currency pair</li> <li>• Stream: The stream that sourced the price</li> <li>• Maker/Taker: Liquidity maker and liquidity taker</li> <li>• Org Dealer: Your organization's dealer user ID</li> <li>• Date: Trade date</li> <li>• Week: Monday's date</li> <li>• Month</li> <li>• Workflow Type: The workflow that originated the trade</li> <li>• Trade Type: The trade type</li> <li>• DPC: Whether or not dynamic price control (DPC) is enabled</li> <li>• Book: The book the trade was done in (A, B, All, None)</li> </ul>
<b>Cpty</b> field	Enter a counterparty ID to see a report of that counterparty's trading volume. When you start typing, a menu opens with a list of IDs that match your entry, as well as general categories, such as "All", "Takers", or "Takers-Brokers".
<b>Ccy Pair</b> field	Enter a currency pair (for example, "EUR/USD") in which you want to see report results. Leave empty or enter "All" to specify all currency pairs. The field also takes wildcard criteria using the asterisk (*). If you enter "EUR*" you get a report with all EUR/* currency pairs. If you enter "*USD*", your report includes all currency pairs with USD, such as EUR/USD and USD/JPY.
<b>FX Trade Type</b> and <b>FX Swap Leg</b> checkboxes	Choose one or more trade types: <ul style="list-style-type: none"> <li>• All (all trade types)</li> <li>• Spot</li> <li>• Outright</li> <li>• NDF (non-deliverable forward)</li> <li>• Swap (spot-forward and forward-forward swap)</li> </ul> If you choose a swap trade type, you can further refine your report results by filtering by swap leg, <b>Near Leg</b> , <b>Far Leg</b> , or both.
<b>Period</b> drop-down list and <b>From/To</b> fields	Select a preset time period, such as "Today" or "WTD" (week-to-date). To specify a custom time period, select "Custom" and click the <b>From/To</b> fields to either enter the dates or choose dates from the pop-up calendars.

**Table 6-28 Profit-Spreads report filter criteria (continued)**

<b>Maker/Taker drop-down list</b>	Whether your organization is a maker or a taker on trades
<b>Book drop-down list</b>	The book the trade was done in: • A • B • None
The following report filters are accessed by clicking the  More Filters button:	
<b>Workflow Type drop-down list</b>	The pricing workflow that originated the trade. Auto suggestions are listed as you type. Enter an asterisk (*) to see a list of all workflow types. <ul style="list-style-type: none"><li>• All</li><li>• AutoRoll</li><li>• ESO</li><li>• ESP</li><li>• INFXSEF</li><li>• Manual (manually entered trades)</li><li>• MatchRequest</li><li>• NDF</li><li>• Net (trades resulting from netting)</li><li>• OP</li><li>• Order (fills of submitted orders)</li><li>• RFS</li><li>• Trade Entry for Credit</li></ul>
<b>Covered Cpty field</b>	The counterparty on covered trades
<b>Prime Broker field and Direct Trades Only checkbox</b>	A prime broker on the trade. Select the <b>Direct Trades Only</b> checkbox to disregard this field and show only direct trades between your organization and a counterparty. Clear to include all trades.
<b>Stream field</b>	The pricing stream that sourced the trade price
<b>Portfolio ID field</b>	The portfolio associated with the trade, if any (applicable to trades that result from portfolio processing/netting). Enter “[None]” to include only trades that do not have a portfolio ID. Enter “Any” to include only trades that have a portfolio ID.
<b>Client Tag field and Trade/Cpty radio buttons</b>	Client tags are a code that represents a customer anonymously to a liquidity provider when the customer trades through a broker. Click the <b>Trade</b> radio-button to filter results only for trades with the client tag. Click the <b>Cpty</b> radio button to filter results for trades with the client tag’s associated customer whether or not the client tag is used.
<b>Cpty Account field</b>	The counterparty account ( <a href="#">legal entity</a> ) that the trade was booked against
<b>Org Account field</b>	Your account ( <a href="#">legal entity</a> ) that the trade was booked against
<b>CptyOrg Region field</b>	The counterparty’s geographic region
<b>CptyOrg Country field</b>	The counterparty’s country

**Table 6-28** Profit-Spreads report filter criteria (continued)

Spreads Metrics: <b>Spreads and Yields</b> radio buttons and drop-down lists	Choose to show the values in the report as spreads or as yields. You can use the drop-down lists to limit the report results to price making spreads or price provisioning spreads and to the total spread, pre-trade spread, or post-trade spread.
<b>Broker Trades</b> drop-down list	The type of trade in the broker trading workflow: <ul style="list-style-type: none"> <li>● Cover</li> <li>● Covered</li> <li>● NotCovered</li> <li>● DirectLP</li> </ul>
DPC drop-down list	Whether or not dynamic price control (DPC) is enabled: <ul style="list-style-type: none"> <li>● Yes: DPC is enabled.</li> <li>● No: DPC is not enabled.</li> <li>● All: All counterparties regardless of DPC status.</li> </ul>

### Generate the report

1. Click **Reports** in the menu.  
The Analytics window opens as a new tab in your browser.
2. Open a Profit-Spreads report tab (**Reports > Profit > Profit-Spreads**).
3. Specify the report criteria. To access additional criteria, click the  More Filters button.

The **Update** button turns red to indicate that you have changed the report criteria and that any results shown do not necessarily reflect the current criteria.

4. Click the **Update** button.

The Profit-Spreads report shows the following data for the trades that match your filter criteria and organized according to your choice of grouping:

- The spread/yield totals (see [Price-making Spreads](#) on page 344 and [Price-provisioning Spreads](#) on page 345)
- Gross Yield
- DPC Spread: Dynamic Price Control (DPC) allows banks or brokers to actively manage pricing as a response to changes in market conditions or a customer's trading behavior.
- Profit

### Price-making Spreads

The report shows totals for the following price-making spreads:

- PMMINSPREAD: The minimum spread applied to the spot rate.
- PMMAXSPREAD: The maximum spread applied to the spot rate.
- PMSPOTSPREAD: The sum of pre-trade and post-trade fixed spreads applied to the spot rate. This value includes price improvement, if any. For swaps, this value is applied based on the side of the far leg. If the far leg spot side is bid, the PMSPOTSPREAD is subtracted. If the far leg spot side is offer, the PMSPOTSPREAD is added.

- PMFWDSPREAD: The sum of the tenor based pre-trade and post-trade spreads. This value includes price improvement, if any.
- PMNEARSPREAD: The sum of pre-trade and post-trade fixed spreads for the near leg. This value includes price improvement, if any.
- PMFARSPREAD: The sum of pre-trade and post-trade fixed spreads for the far leg. This value includes price improvement, if any.
- PMPRESPOTSPREAD: The pre-trade fixed spread applied to the spot rate. For swaps, this value is applied based on the side of the far leg. If the far leg spot side is bid, the PMPRESPOTSPREAD is subtracted. If the far leg spot side is offer, the PMPRESPOTSPREAD is added.
- PMPREFWDSPREAD: The tenor-based pre-trade spread applied to the forward points.
- PMPRENEARSPREAD: The pre-trade fixed spread for the near leg.
- PMPREFARSPREAD: The pre-trade fixed spread for the far leg.
- PMPOSTSPOTSPREAD: The post-trade fixed spread applied to the spot rate. For swaps, this value is applied based on the side of the far leg. If the far leg spot side is bid, the PMPOSTSPOTSPREAD is subtracted. If the far leg spot side is offer, the PMPOSTSPOTSPREAD is added.
- PMPOSTFWDSPREAD: The tenor-based post-trade spread applied to the forward points.
- PMPOSTNEARSPREAD: The post-trade fixed spread for the near leg.
- PMPOSTFARSPREAD: The post-trade fixed spread for the far leg.

#### Price-provisioning Spreads

The report shows totals for the following price-provisioning spreads:

- PPSPOTSPREAD: The spread applied to the spot rate. For swaps, this value is applied based on the side of the far leg. If the far leg spot side is bid, the PPSPOTSPREAD is subtracted. If the far leg spot side is offer, the PPSPOTSPREAD is added.
- PPFWDSPREAD: For outright trades, the forward spread.
- PPNEARSPREAD: The forward spread for the near leg.
- PPFARSPREAD: The forward spread for the far leg.
- PPPRESPOTSPREAD: The pre-trade fixed spread applied to the spot rate. For swaps, this value is applied based on the side of the far leg. If the far leg spot side is bid, the PPPRESPOTSPREAD is subtracted. If the far leg spot side is offer, the PPPRESPOTSPREAD is added.
- PPPREFWDSPREAD: The tenor-based pre-trade spread applied to the forward points.
- PPPRENEARSPREAD: The pre-trade fixed spread for the near leg.
- PPPREFARSPREAD: The pre-trade fixed spread for the far leg.
- PPPOSTSPOTSPREAD: The post-trade fixed spread applied to the spot rate. For swaps, this value is applied based on the side of the far leg. If the far leg spot side is bid, the PPPOSTSPOTSPREAD is subtracted. If the far leg spot side is offer, the PPPOSTSPOTSPREAD is added.
- PPPOSTFWDSPREAD: The tenor-based post-trade spread applied to the forward points.
- PPPOSTNEARSPREAD: The post-trade fixed spread for the near leg.
- PPPOSTFARSPREAD: The post-trade fixed spread for the far leg.

#### Other Spread-related Values

- Gross Yield: The gross yield per million
- DPCSpread: The total amount of skew resulting from Dynamic Price Control (DPC).

## Download report results

You can download the report as a [CSV](#) file.

1. Generate the report. See [Generate the report](#) on page 344.
2. Click the  Excel Download button to begin your browser's file download process. Depending on your browser, a popup window or infobar opens allowing you to open or save the file.

## Print report results

You can generate a printable version of your report results as a PDF file.

See [Work with PDF reports](#) on page 420 for more information about working with PDF files.

1. Generate the report. See [Generate the report](#) on page 344.
2. Click the  PDF Download button.

If you have a PDF viewer installed and configured for your browser, the PDF report is displayed.

Please refer to your PDF viewer's documentation for information about printing and saving your report.

If you do not have a PDF viewer for your browser, a File Download dialog opens. You can save the file for viewing and printing in another app.

### 6.8.4 Profit-Yields report

The Yields report shows the profit made as the result of all spreads defined in the system.

- [Report filter criteria](#) on page 346
- [Generate the report](#) on page 349
- [Download report results](#) on page 349
- [Print report results](#) on page 349

#### Report filter criteria

You can generate a Profit-Yields report according to the following criteria:

**Table 6-29 Profit-Yields report filter criteria**

<b>Group By</b> drop-down lists	Choose the data to group the report results. The results are grouped by your choices from left to right. For example, if you choose "CcyPair" in the leftmost list and "Cpty Name" in the middle list, the report results are grouped first by currency pair and then by counterparty. <ul style="list-style-type: none"> <li>• Book: Either "ABook" or "BBook"</li> <li>• Cpty ID: Counterparty organization ID</li> <li>• Cpty Name: Counterparty name</li> <li>• Cpty Group: Counterparty group, if any</li> <li>• Cpty Segment: Counterparty segment, for example "Retail Broker"</li> <li>• Cpty Real LP: Counterparty LP</li> <li>• Cpty Country: Counterparty country</li> <li>• Cpty Region: Counterparty geographic region</li> <li>• Cpty Account: Counterparty legal entity ID</li> <li>• Cpty Dealer: Counterparty's dealer user ID</li> <li>• Asset Class: Asset class, for example "CURRENCY"</li> <li>• Ccy Pair: Currency pair</li> <li>• Base Ccy: The base currency of the currency pair</li> <li>• Term Ccy: The base currency of the currency pair</li> <li>• Trade Type: The trade type</li> <li>• Date: Trade date</li> <li>• Week: Monday's date</li> <li>• Month</li> <li>• Quarter: The year plus Q1, Q2, Q3, or Q4</li> </ul>
<b>Cpty</b> field	Enter a counterparty ID to see a report of that counterparty's trading volume. When you start typing, a menu opens with a list of IDs that match your entry, as well as general categories, such as "All", "Takers", or "Takers-Brokers".
<b>Ccy Pair</b> field	Enter a currency pair (for example, "EUR/USD") in which you want to see report results. Leave empty or enter "All" to specify all currency pairs. The field also takes wildcard criteria using the asterisk (*). If you enter "EUR*" you get a report with all EUR/* currency pairs. If you enter "*USD*", your report includes all currency pairs with USD, such as EUR/USD and USD/JPY.
<b>FX Trade Type</b> and <b>Swap Leg</b> checkboxes	Choose one or more trade types: <ul style="list-style-type: none"> <li>• All (all trade types)</li> <li>• Spot</li> <li>• Outright</li> <li>• NDF (non-deliverable forward)</li> <li>• Swap (spot-forward and forward-forward swap)</li> <li>• SSP (single spot portfolio)</li> </ul> If you choose a swap trade type, you can further refine your report results by filtering by swap leg, <b>Near Leg</b> , <b>Far Leg</b> , or both.
<b>Period</b> drop-down list and <b>From/To</b> fields	Select a preset time period, such as "Today" or "WTD" (week-to-date). To specify a custom time period, select "Custom" and click the <b>From/To</b> fields to either enter the dates or choose dates from the pop-up calendars.
<b>Book</b> drop-down list	Either "A" or "B"
<b>Ccy Conversion</b>	Either "Period End" or "Today"
<b>Date</b> drop-down list	

**Table 6-29 Profit-Yields report filter criteria (continued)**

The following report filters are accessed by clicking the  More Filters button:

<b>Workflow Type</b> dropdown	The pricing workflow that originated the trade. Auto suggestions are listed as you type. Enter an asterisk (*) to see a list of all workflow types. <ul style="list-style-type: none"> <li>• ESP</li> <li>• Manual (manually entered trades)</li> <li>• NDF</li> <li>• Net (trades resulting from netting)</li> <li>• Order (fills of submitted orders)</li> <li>• RFS</li> </ul>
<b>Covered Cpty</b> field	The counterparty on covered trades
<b>Prime Broker</b> field and <b>Direct Trades Only</b> checkbox	A prime broker on the trade. Select the <b>Direct Trades Only</b> checkbox to disregard this field and show only direct trades between your organization and a counterparty. Clear to include all trades.
<b>Stream</b> field	The pricing stream that sourced the trade price
<b>Portfolio ID</b> field	The portfolio associated with the trade, if any (applicable to trades that result from portfolio processing/netting). Enter “[None]” to include only trades that do not have a portfolio ID. Enter “Any” to include only trades that have a portfolio ID.
<b>Client Tag</b> field and <b>Trade/Cpty</b> radio buttons	Client tags are a code that represents a customer anonymously to a liquidity provider when the customer trades through a broker. Click the <b>Trade</b> radio-button to filter results only for trades with the client tag. Click the <b>Cpty</b> radio button to filter results for trades with the client tag's associated customer whether or not the client tag is used.
<b>Cpty Account</b> field	The counterparty account (legal entity) that the trade was booked against
<b>Org Account</b> field	Your account (legal entity) that the trade was booked against
<b>CptyOrg Region</b> field	The counterparty's geographic region
<b>CptyOrg Country</b> field	The counterparty's country
<b>Broker Trades</b> dropdown	The type of trade in the broker trading workflow: <ul style="list-style-type: none"> <li>• Cover</li> <li>• Covered</li> <li>• NotCovered</li> <li>• DirectLP</li> </ul>
<b>DPC</b> dropdown	Whether or not dynamic price control (DPC) is enabled: <ul style="list-style-type: none"> <li>• Yes: DPC is enabled.</li> <li>• No: DPC is not enabled.</li> <li>• All: All counterparties regardless of DPC status.</li> </ul>

## Generate the report

1. Click **Reports** in the menu.

The Analytics window opens as a new tab in your browser.

2. Open a Profit-Yields report tab (**Reports > Profit > Profit-Yields**).

3. Specify the report criteria. To access additional criteria, click the  More Filters button.

The **Update** button turns red to indicate that you have changed the report criteria and that any results shown do not necessarily reflect the current criteria.

4. Click the **Update** button.

The Profit-Yields report shows the following data for the trades that match your filter criteria and organized according to your choice of grouping:

**Table 6-30** Profit-Yields report results

Open Position	Any open position amount
Realized P & L	Realized P & L
UnRealized P & L	Unrealized P & L
Total P & L	Realized P & L + Unrealized P & L
Volume	Total volume
Yield	Profit per million of volume

## Download report results

You can download the report as a [CSV](#) file.

1. Generate the report. See [Generate the report](#) on page 349.
2. Click the  Excel Download button to begin your browser's file download process. Depending on your browser, a popup window or infobar opens allowing you to open or save the file.

## Print report results

You can generate a printable version of your report results as a PDF file.

See [Work with PDF reports](#) on page 420 for more information about working with PDF files.

1. Generate the report. See [Generate the report](#) on page 349.
2. Click the  PDF Download button.

If you have a PDF viewer installed and configured for your browser, the PDF report is displayed.

Please refer to your PDF viewer's documentation for information about printing and saving your report.

If you do not have a PDF viewer for your browser, a File Download dialog opens. You can save the file for viewing and printing in another app.

## 6.9 Spot exposure reports

Analytics provides the following reports for spot exposure:

- [Spot-Exposure-YieldsPnl report](#) on page 350
- [Spot-Exposure-Yields-Detail report](#) on page 352

### 6.9.1 Spot-Exposure-YieldsPnl report

The Spot-Exposure-YieldsPnl report shows gross P&L and yields for all currency pairs by the trading event (for example, end-of-day or verified trade) and by the trading/pricing workflow.

- [Report filter criteria](#) on page 350
- [Generate the report](#) on page 351
- [Download report results](#) on page 352
- [Print report results](#) on page 352

#### Report filter criteria

You can generate a Spot-Exposure-YieldsPnl report according to the following criteria:

**Table 6-31** Spot-Exposure-YieldsPnl report filter criteria

<b>Group By</b>	Choose the data to group the report results. The results are grouped by your choices from left to right. For example, if you choose "Date" in the leftmost list and "Book" in the middle list, the report results are grouped first by currency pair and then by book. <ul style="list-style-type: none"> <li>• Ccy Pair: Currency pair</li> <li>• Trade Type: The trade type</li> <li>• Spot Event:</li> <li>• Spot Workflow:</li> <li>• Book: The book the trade was done in (A, B, All, None)</li> <li>• Date</li> </ul>
<b>Ccy Pair field</b>	Enter a currency pair (for example, "EUR/USD") in which you want to see report results. Leave empty or enter "All" to specify all currency pairs. The field also takes wildcard criteria using the asterisk (*). If you enter "EUR/*" you get a report with all EUR/* currency pairs. If you enter "*USD*", your report includes all currency pairs with USD, such as EUR/USD and USD/JPY.
<b>FX Trade Type and FX Swap Leg checkboxes</b>	Choose one or more trade types: <ul style="list-style-type: none"> <li>• All (all trade types)</li> <li>• Spot</li> <li>• Outright</li> <li>• NDF (non-deliverable forward)</li> <li>• Swap (spot-forward and forward-forward swap)</li> <li>• SSP (single spot portfolio)</li> </ul> If you choose a swap trade type, you can further refine your report results by filtering by swap leg, <b>Near Leg</b> , <b>Far Leg</b> , or both.

**Table 6-31** Spot-Exposure-YieldsPnl report filter criteria (continued)

<b>Period drop-down lists and From/To fields</b>	From the drop-down list, select a preset time period, such as "Today" or "WTD" (week-to-date). To specify a custom time period, select "Custom" and click the <b>From/To</b> fields to either enter the dates or choose dates from the pop-up calendars.
<b>Book drop-down list</b>	Either "A" or "B"
<b>Spot Event drop-down list</b>	<ul style="list-style-type: none"> <li>• All</li> <li>• Verify</li> <li>• EOD</li> <li>• Position Reset on Split</li> <li>• Position Split</li> </ul>
<b>Spot Workflow drop-down list</b>	<ul style="list-style-type: none"> <li>• All</li> <li>• ESP</li> <li>• ESP BASE LEG</li> <li>• ESP MAKER PRIMARY</li> <li>• ESP MAKER PRIMARY BASE LEG</li> <li>• ESP MAKER PRIMARY TERM LEG</li> <li>• ESP MAKER SECONDARY</li> <li>• ESP MAKER SECONDARY BASE LEG</li> <li>• ESP MAKER SECONDARY TERM LEG</li> <li>• ESP TERM LEG</li> <li>• POSITION SPLIT BASE LEG</li> <li>• POSITION SPLIT TERM LEG</li> <li>• RFS NET SPOT</li> <li>• RFS NET SPOT BASE LEG</li> <li>• RFS NET SPOT MAKER PRIMARY</li> <li>• RFS NET SPOT MAKER PRIMARY BASE LEG</li> <li>• RFS NET SPOT MAKER PRIMARY TERM LEG</li> <li>• RFS NET SPOT MAKER SECONDARY</li> <li>• RFS NET SPOT MAKER SECONDARY BASE LEG</li> <li>• RFS NET SPOT MAKER SECONDARY TERM LEG</li> <li>• RFS NET SPOT TERM LEG</li> </ul>

The following report filters are accessed by clicking the  More Filters button:

<b>Workflow Type field</b>	The pricing workflow that originated the trade. Auto suggestions are listed as you type. Enter an asterisk (*) to see a list of all workflow types.
<b>Reporting Ccy drop-down list</b>	<ul style="list-style-type: none"> <li>• All</li> <li>• AutoRoll</li> <li>• ESO</li> <li>• ESP</li> <li>• INFXSEF</li> <li>• Manual (manually entered trades)</li> <li>• MatchRequest</li> <li>• NDF</li> <li>• Net (trades resulting from netting)</li> <li>• OP</li> <li>• Order (fills of submitted orders)</li> <li>• RFS</li> <li>• Trade Entry for Credit</li> </ul>

## Generate the report

### To generate a Spot-Exposure-YieldsPnl report

1. Open a Spot-Exposure-YieldsPnl report tab (**Reports > Spot Exposure > Spot-Exposure-YieldsPnl**).
2. Specify the report criteria. To access additional criteria, click the  More Filters button.

The **Update** button turns red to indicate that you have changed the report criteria and that any results shown do not necessarily reflect the current criteria.

3. Click the **Update** button.

The Spot-Exposure-YieldsPnl report shows the following information for the trading activity that matches your filter criteria and organized according to your choice of grouping:

**Table 6-32** Spot-Exposure-YieldsPnl report results

CcyPair
Volume
Gross Realized P&L Daily
Gross Yield Daily

### Download report results

You can download the report as a [CSV](#) file.

1. Generate the report. See [Generate the report](#) on page 351.
2. Click the  Excel Download button to begin your browser's file download process. Depending on your browser, a popup window or infobar opens allowing you to open or save the file.

### Print report results

You can generate a printable version of your report results as a PDF file.

See [Work with PDF reports](#) on page 420 for more information about working with PDF files.

1. Generate the report. See [Generate the report](#) on page 351.
2. Click the  PDF Download button.

If you have a PDF viewer installed and configured for your browser, the PDF report is displayed.

Please refer to your PDF viewer's documentation for information about printing and saving your report.

If you do not have a PDF viewer for your browser, a File Download dialog opens. You can save the file for viewing and printing in another app.

## 6.9.2 Spot-Exposure-Yields-Detail report

The Spot-Exposure-Yields-Detail report shows trade details for all trading events that contribute to the gross P&L and yields by the trading event (for example, end-of-day or verified trade) and by the trading/pricing workflow.

- [Report filter criteria](#) on page 353
- [Generate the report](#) on page 354
- [Download report results](#) on page 355
- [Print report results](#) on page 355

## Report filter criteria

You can generate a Spot-Exposure-Yields-Detail report according to the following criteria:

**Table 6-33** Spot-Exposure-Yields-Detail report filter criteria

<b>Group By</b> drop-down lists	Choose the data to group the report results. The results are grouped by your choices from left to right. For example, if you choose "Date" in the leftmost list and "Book" in the middle list, the report results are grouped first by currency pair and then by book. <ul style="list-style-type: none"> <li>● Ccy Pair: Currency pair</li> <li>● Trade Type: The trade type</li> <li>● Spot Event:</li> <li>● Spot Workflow:</li> <li>● Book: The book the trade was done in (A, B, All, None)</li> <li>● Trade Date</li> </ul>
<b>Cpty</b> field	Enter a counterparty ID. When you start typing, a menu opens with a list of IDs that match your entry, as well as general categories, such as "All", "Takers", or "Takers-Brokers".
<b>Ccy Pair</b> field	Enter a currency pair (for example, "EUR/USD") in which you want to see report results. Leave empty or enter "All" to specify all currency pairs. The field also takes wildcard criteria using the asterisk (*). If you enter "EUR*" you get a report with all EUR/* currency pairs. If you enter "*USD*", your report includes all currency pairs with USD, such as EUR/USD and USD/JPY.
<b>FX Trade Type</b> and <b>FX Swap Leg</b> checkboxes	Choose one or more trade types: <ul style="list-style-type: none"> <li>● All (all trade types)</li> <li>● Spot</li> <li>● Outright</li> <li>● NDF (non-deliverable forward)</li> <li>● Swap (spot-forward and forward-forward swap)</li> <li>● SSP (single spot portfolio)</li> </ul> If you choose a swap trade type, you can further refine your report results by filtering by swap leg, <b>Near Leg</b> , <b>Far Leg</b> , or both.
<b>Period</b> drop-down lists and <b>From/To</b> fields	From the drop-down list, select a preset time period, such as "Today" or "WTD" (week-to-date). To specify a custom time period, select "Custom" and click the <b>From/To</b> fields to either enter the dates or choose dates from the pop-up calendars.
<b>Book</b> drop-down list	Either "A" or "B"
<b>Spot Event</b> drop-down list	<ul style="list-style-type: none"> <li>● All</li> <li>● Verify</li> <li>● EOD</li> <li>● Position Reset on Split</li> <li>● Position Split</li> </ul>

**Table 6-33** Spot-Exposure-Yields-Detail report filter criteria (continued)

<b>Spot Workflow</b> drop-down list	<ul style="list-style-type: none"> <li>● All</li> <li>● ESP</li> <li>● ESP BASE LEG</li> <li>● ESP MAKER PRIMARY</li> <li>● ESP MAKER PRIMARY BASE LEG</li> <li>● ESP MAKER PRIMARY TERM LEG</li> <li>● ESP MAKER SECONDARY</li> <li>● ESP MAKER SECONDARY BASE LEG</li> <li>● ESP MAKER SECONDARY TERM LEG</li> <li>● ESP TERM LEG</li> <li>● POSITION SPLIT BASE LEG</li> <li>● POSITION SPLIT TERM LEG</li> <li>● RFS NET SPOT</li> <li>● RFS NET SPOT BASE LEG</li> <li>● RFS NET SPOT MAKER PRIMARY</li> <li>● RFS NET SPOT MAKER PRIMARY BASE LEG</li> <li>● RFS NET SPOT MAKER PRIMARY TERM LEG</li> <li>● RFS NET SPOT MAKER SECONDARY</li> <li>● RFS NET SPOT MAKER SECONDARY BASE LEG</li> <li>● RFS NET SPOT MAKER SECONDARY TERM LEG</li> <li>● RFS NET SPOT TERM LEG</li> </ul>
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The following report filters are accessed by clicking the  More Filters button:

<b>Workflow Type</b> field	The pricing workflow that originated the trade. Auto suggestions are listed as you type. Enter an asterisk (*) to see a list of all workflow types. <ul style="list-style-type: none"> <li>● All</li> <li>● AutoRoll</li> <li>● ESO</li> <li>● ESP</li> <li>● INFXSEF</li> <li>● Manual (manually entered trades)</li> <li>● MatchRequest</li> <li>● NDF</li> <li>● Net (trades resulting from netting)</li> <li>● OP</li> <li>● Order (fills of submitted orders)</li> <li>● RFS</li> <li>● Trade Entry for Credit</li> </ul>
<b>Trade ID</b> field	The ID of a done trade. Enter a specific ID or use the asterisk character (*) to search for a range of IDs. For example, "4063*" can include IDs such as "4063" and "4063802". Entering "*12" can include IDs like "12" and "54412". Leave blank or enter "*" to choose all IDs.

### Generate the report

1. Open a Spot-Exposure-Yields-Detail report tab (**Reports > Spot Exposure > Spot-Exposure-Yields-Detail**).
2. Specify the report criteria. To access additional criteria, click the  More Filters button.

The **Update** button turns red to indicate that you have changed the report criteria and that any results shown do not necessarily reflect the current criteria.

3. Click the **Update** button.

The Spot-Exposure-Yields-Detail report shows the following information for the trading activity that matches your filter criteria and organized according to your choice of grouping:

**Table 6-34** Spot-Exposure-Yields-Detail report results

Spot Event
Trade ID
Trade Type
Spot Workflow

**Table 6-34** Spot-Exposure-Yields-Detail report results

(continued)

Trade Date
Value Date
Effective Date
Execution Time
Mkr/Tkr
B/S
Ccy Pair
Base Amt
Term Amt
Trade Rate
Org
Cpty
Book Name
Spot Position
Realized PNL
Realized PNL (Reporting)
Realized PNL (System)
Unrealized PNL
Reporting Amt
Reporting Currency

## Download report results

You can download the report as a [CSV](#) file.

1. Generate the report. See [Generate the report](#) on page 354.
2. Click the  Excel Download button to begin your browser's file download process. Depending on your browser, a popup window or infobar opens allowing you to open or save the file.

## Print report results

You can generate a printable version of your report results as a PDF file.

See [Work with PDF reports](#) on page 420 for more information about working with PDF files.

1. Generate the report. See [Generate the report](#) on page 354.

2. Click the  PDF Download button.

If you have a PDF viewer installed and configured for your browser, the PDF report is displayed.

Please refer to your PDF viewer's documentation for information about printing and saving your report.

If you do not have a PDF viewer for your browser, a File Download dialog opens. You can save the file for viewing and printing in another app.

## 6.10 Order reports

Analytics provides the following reports for order data:

- [Order-Summary report](#) on page 356
- [Order-Volume report](#) on page 358
- [Order-Statistics report](#) on page 361
- [Order-Details report](#) on page 365
- [Order-Reconciliation report](#) on page 370

### 6.10.1 Order-Summary report

The Order-Summary report provides a quick overview of order activity for your organization, including the top five currency pairs and volume according to the criteria you specify.

- [Report filter criteria](#) on page 356
- [Generate the report](#) on page 356

#### Report filter criteria

You can generate an Order-Summary report according to the following criteria:

**Table 6-35** Order-Summary report filter criteria

Customer field and <b>Enable</b> checkbox	Leave the <b>Enable</b> checkbox cleared to see a report of all order activity. Click the <b>Enable</b> checkbox and enter a customer ID in the field to see a report of that customer's orders. When you start typing, a menu opens with a list of IDs that match your entry, as well as general categories, such as "All", "Takers", or "Takers-Brokers".
Period drop-down list and <b>From/To</b> fields	Select a preset time period, such as "Today" or "WTD" (week-to-date). To specify a custom time period, select "Custom" and click the <b>From/To</b> fields to either enter the dates or choose dates from the pop-up calendars.

#### Generate the report

1. Click **Reports** in the menu.

The Analytics window opens as a new tab in your browser.

2. Open an Order-Summary report tab (**Reports > Orders > Order-Summary**).

3. Specify the report criteria.

The **Update** button turns red to indicate that you have changed the report criteria and that any results shown do not necessarily reflect the current criteria.

4. Click the **Update** button.

The Order-Summary report shows the following information for the orders activity that matches your filter criteria, grouped by currency pair, counterparty, or both:

**Table 6-36 Order-Summary report results**

Summary table	
Total Order Volume (USD)	Total volume of all orders in the report in USD
Number of Orders	Total number of orders
Limit Orders	Number of limit orders
Market Orders	Number of market orders
Stop Orders	Number of stop orders
Trailing Stop Orders	Number of trailing stop orders
Stop Limit Orders	Number of stop limit orders
RFQs	Number of requests for quote
IOC Orders	Number of immediate-or-cancel orders
GTD Orders	Number of good-til-duration orders
Filled Volume	Total volume of fills
Filled Orders	Number of filled orders
Active Orders	Number of orders that are active and unfilled at the time the report was generated
Cancelled Orders	Number of orders cancelled by your organization's users
Expired Orders	Number of orders allowed to expire unfilled or partially filled
Declined Orders	Number of orders/requests declined by providers
Partial Orders	Number of partially filled orders
Top five currency pairs by volume	
Number of Orders	Total number of orders for the currency pair
Order Amount (USD)	The total volume of orders in USD for the currency pair
Filled Amount (USD)	The total volume of fills in USD for the currency pair
Average Order Size	The average order size for the currency pair
Top five currency pairs by organization	
Number of Orders	Total number of orders for the organization
Order Amount (USD)	The total volume of orders in USD for the organization

**Table 6-36 Order-Summary report results (continued)**

Filled Amount (USD)	The total volume of fills in USD for the organization
Average Order Size	The average order size for the organization

## 6.10.2 Order-Volume report

The Order-Volume report shows order volume according to the criteria you specify.

- [Report filter criteria](#) on page 358
- [Generate the report](#) on page 360
- [Download report results](#) on page 360
- [Print report results](#) on page 361

### Report filter criteria

You can generate an Order-Volume report according to the following criteria:

**Table 6-37 Order-Volume report filter criteria**

<b>Group By</b> drop-down lists	Choose the data to group the report results. The results are grouped by your choices from left to right. For example, if you choose "Account" in the leftmost list and "CcyPair" in the middle list, the report results are grouped first by account and then by currency pair. <ul style="list-style-type: none"> <li>• Org Account: Your organization's account (<a href="#">legal entity</a>)</li> <li>• Org ID: Your organization's ID</li> <li>• Org Name: Your organization's name</li> <li>• Portfolio ID: The portfolio associated with the trade, if any (applicable to trades that result from portfolio processing/netting)</li> <li>• LEI: The organization's Legal Entity Identifier as assigned by the CFTC</li> <li>• Ccy Pair: Currency pair</li> <li>• Org Dealer: Your trader user</li> <li>• Date: Trade date</li> <li>• Week: Monday's date</li> <li>• Month: Grouped numerically by the first of day of the each month</li> <li>• Quarter: Q1, Q2, Q3, Q4</li> <li>• Contingency: Contingency type, such as OCO orders</li> <li>• Workflow Type: The workflow that originated the order</li> <li>• Trade Type: The trade type</li> <li>• Order Type: Order type</li> <li>• Order Status: Status (active, filled, cancelled, etc.)</li> <li>• Order TIF: Time in force</li> </ul>
<b>Customer field and Enable checkbox</b>	Leave the <b>Enable</b> checkbox cleared to see a report of all order activity. Click the <b>Enable</b> checkbox and enter a customer ID in the field to see a report of that customer's orders. When you start typing, a menu opens with a list of IDs that match your entry, as well as general categories, such as "All", "Takers", or "Takers-Brokers".
<b>Ccy Pair field</b>	Enter a currency pair (for example, "EUR/USD") in which you want to see report results. Leave empty or enter "All" to specify all currency pairs. The field also takes wildcard criteria using the asterisk (*). If you enter "EUR*" you get a report with all EUR/* currency pairs. If you enter "*USD*", your report includes all currency pairs with USD, such as EUR/USD and USD/JPY.

**Table 6-37** Order-Volume report filter criteria (continued)

<b>FX Trade Type</b>	Choose one or more trade types:
<b>Swap Leg checkboxes</b>	<ul style="list-style-type: none"> <li>• All (all trade types)</li> <li>• Spot</li> <li>• Outright</li> <li>• NDF (non-deliverable forward)</li> <li>• Swap (spot-forward and forward-forward swap)</li> </ul> <p>If you choose a swap trade type, you can further refine your report results by filtering by swap leg, <b>Near Leg</b>, <b>Far Leg</b>, or both.</p>
<b>Period dropdown list and From/To fields</b>	Select a preset time period, such as "Today" or "WTD" (week-to-date). To specify a custom time period, select "Custom" and click the <b>From/To</b> fields to either enter the dates or choose dates from the pop-up calendars.
The following report filters are accessed by clicking the  More Filters button:	
<b>Order Status checkboxes</b>	<p>Choose one or more order status conditions:</p> <ul style="list-style-type: none"> <li>• Active(A): Active and not completely filled</li> <li>• Filled(F): Completely filled</li> <li>• Partial(P): Partially filled</li> <li>• Cancelled(X): Cancelled by your organization</li> <li>• Expired(Z): Allowed to expire unfilled or partially filled</li> <li>• Declined(D): Declined by a provider</li> </ul>
<b>Order Type checkboxes</b>	The order type: <ul style="list-style-type: none"> <li>• LMT: Limit</li> <li>• MKT: Market</li> <li>• STOP: Stop</li> <li>• TLSTOP: Trailing stop</li> <li>• STOPLIMIT: Stop limit</li> <li>• RFQ/RFS: Request for quote or request for stream workflow</li> </ul>
<b>Time In Force checkboxes</b>	The order's time in force: <ul style="list-style-type: none"> <li>• IOC: Immediate or cancel</li> <li>• FOK: Fill or kill</li> <li>• GTC: Good-till-Cancelled</li> <li>• GTD: Good-till-Duration</li> <li>• GFS: Good for seconds</li> <li>• DAY: Day</li> <li>• RFS: Request for stream workflow</li> </ul>
<b>Workflow Type dropdown list</b>	The pricing workflow that originated the trade. Auto suggestions are listed as you type. Enter an asterisk (*) to see a list of all workflow types. <ul style="list-style-type: none"> <li>• All</li> <li>• AutoRoll</li> <li>• ESO</li> <li>• ESP</li> <li>• INFXSEF</li> <li>• Manual (manually entered trades)</li> <li>• MatchRequest</li> <li>• NDF</li> <li>• Net (trades resulting from netting)</li> <li>• OP</li> <li>• Order (fills of submitted orders)</li> <li>• RFS</li> <li>• Trade Entry for Credit</li> </ul>

**Table 6-37** Order-Volume report filter criteria (continued)

<b>Portfolio ID</b>	The portfolio associated with the trade, if any (applicable to trades that result from portfolio processing/netting). Enter “[None]” to include only orders that do not have a portfolio ID. Enter “Any” to include only orders that have a portfolio ID.
<b>Org Dealer</b>	Your trader user field
<b>Org Account</b>	Your account ( <a href="#">legal entity</a> ) that the trade was booked against
<b>Persistent</b>	Whether or not the order was submitted as a persistent order (an order that persists after the submitting user logs out)
<b>Contingency</b>	The type of contingency on the order:
drop-down list	<ul style="list-style-type: none"> <li>• OCO: One Cancels the Other</li> <li>• OUO_ABSOLUTE: One Updates the Other, Absolute Quantity Reduction</li> <li>• OUO_PROPORIONAL: One Updates the Other, Proportional Quantity Reduction</li> </ul>
<b>LEI field</b>	The Legal Entity Identifier

### Generate the report

1. Click **Reports** in the menu.  
The Analytics window opens as a new tab in your browser.
2. Open an Order-Volume report tab (**Reports > Orders > Order-Volume**).
3. Specify the report criteria. To access additional criteria, click the  More Filters button.

The **Update** button turns red to indicate that you have changed the report criteria and that any results shown do not necessarily reflect the current criteria.

4. Click the **Update** button.

The Order-Volume report shows the following information for the trading activity that matches your filter criteria and organized according to your choice of grouping:

**Table 6-38** Order-Volume report results

Number of Orders	Total number of orders
Avg. Order Size (USD)	Average order size in USD
Order Amount (USD)	Total amount of all orders in USD
Filled Amount (USD)	Total filled amount in USD
Filled Percent	Filled amount percentage of total order amount
PI PnL (USD)	The profit/loss as a result of price improvement

### Download report results

You can download the report as a [CSV](#) file.

1. Generate the report. See [Generate the report](#) on page 360.
2. Click the  Excel Download button to begin your browser's file download process. Depending on your browser, a popup window or infobar opens allowing you to open or save the file.

#### Print report results

You can generate a printable version of your report results as a PDF file.

See [Work with PDF reports](#) on page 420 for more information about working with PDF files.

1. Generate the report. See [Generate the report](#) on page 360.
2. Click the  PDF Download button.

If you have a PDF viewer installed and configured for your browser, the PDF report is displayed.

Please refer to your PDF viewer's documentation for information about printing and saving your report.

If you do not have a PDF viewer for your browser, a File Download dialog opens. You can save the file for viewing and printing in another app.

### 6.10.3 Order-Statistics report

The Order-Statistics report shows trading activity grouped by currency pair, counterparty, or both according to the criteria you specify.

- [Report filter criteria](#) on page 361
- [Generate the report](#) on page 363
- [Download report results](#) on page 364
- [Print report results](#) on page 364

#### Report filter criteria

You can generate an Order-Statistics report according to the following criteria:

**Table 6-39** Order-Statistics report filter criteria

<b>Group By</b> drop-down lists	Choose the data to group the report results. The results are grouped by your choices from left to right. For example, if you choose "Account" in the leftmost list and "CcyPair" in the middle list, the report results are grouped first by account and then by currency pair. <ul style="list-style-type: none"> <li>• Org Account: Your organization's account (<b>legal entity</b>)</li> <li>• LEI: The organization's Legal Entity Identifier as assigned by the CFTC</li> <li>• Ccy Pair: Currency pair</li> <li>• Org Dealer: Your organization's dealer</li> <li>• Date: Trade date</li> <li>• Week: Monday's date</li> <li>• Month</li> <li>• Contingency: Contingency type, such as OCO orders</li> <li>• Workflow Type: The workflow that originated the trade</li> <li>• Trade Type: The trade type</li> <li>• Order Type: Order type</li> <li>• Order Status: Status (active, filled, cancelled, etc.)</li> <li>• Order TIF: Time in force</li> </ul>
<b>Customer</b> field and <b>Enable</b> checkbox	Leave the <b>Enable</b> checkbox cleared to see a report of all order activity. Click the <b>Enable</b> checkbox and enter a customer ID in the field to see a report of that customer's orders. When you start typing, a menu opens with a list of IDs that match your entry, as well as general categories, such as "All", "Takers", or "Takers-Brokers".
<b>Ccy Pair</b> field	Enter a currency pair (for example, "EUR/USD") in which you want to see report results. Leave empty or enter "All" to specify all currency pairs. The field also takes wildcard criteria using the asterisk (*). If you enter "EUR*" you get a report with all EUR/* currency pairs. If you enter "*USD*", your report includes all currency pairs with USD, such as EUR/USD and USD/JPY.
<b>FX Trade</b> <b>Type</b> and <b>FX</b> <b>Swap Leg</b> checkboxes	Choose one or more trade types: <ul style="list-style-type: none"> <li>• All (all trade types)</li> <li>• Spot</li> <li>• Outright</li> <li>• NDF (non-deliverable forward)</li> <li>• Swap (spot-forward and forward-forward swap)</li> </ul> If you choose a swap trade type, you can further refine your report results by filtering by swap leg, <b>Near Leg</b> , <b>Far Leg</b> , or both.
<b>Period</b> drop- down list and <b>From/To</b> fields	Select a preset time period, such as "Today" or "WTD" (week-to-date). To specify a custom time period, select "Custom" and click the <b>From/To</b> fields to either enter the dates or choose dates from the pop-up calendars.
The following report filters are accessed by clicking the  More Filters button:	
<b>Order</b> <b>Status</b> checkboxes	Choose one or more order status conditions: <ul style="list-style-type: none"> <li>• Active(A): Active and not completely filled</li> <li>• Filled(F): Completely filled</li> <li>• Partial(P): Partially filled</li> <li>• Cancelled(X): Cancelled by your organization</li> <li>• Expired(Z): Allowed to expire unfilled or partially filled</li> <li>• Declined(D): Declined by a provider</li> </ul>

**Table 6-39** Order-Statistics report filter criteria (continued)

<b>Order Type</b> checkboxes	The order type: <ul style="list-style-type: none"> <li>• <b>LMT:</b> Limit</li> <li>• <b>MKT:</b> Market</li> <li>• <b>STOP:</b> Stop</li> <li>• <b>TLSTOP:</b> Trailing stop</li> <li>• <b>STOPLIMIT:</b> Stop limit</li> <li>• <b>RFQ/RFS:</b> Request for quote or request for stream workflow</li> </ul>
<b>Time In Force</b> checkboxes	The order's time in force: <ul style="list-style-type: none"> <li>• <b>IOC:</b> Immediate or cancel</li> <li>• <b>FOK:</b> Fill or kill</li> <li>• <b>GTC:</b> Good-till-Cancelled</li> <li>• <b>GTD:</b> Good-till-Duration</li> <li>• <b>GFS:</b> Good for seconds</li> <li>• <b>DAY:</b> Day</li> <li>• <b>RFS:</b> Request for stream workflow</li> </ul>
<b>Workflow Type</b> drop-down list	The pricing workflow that originated the trade. Auto suggestions are listed as you type. Enter an asterisk (*) to see a list of all workflow types. <ul style="list-style-type: none"> <li>• All</li> <li>• AutoRoll</li> <li>• ESO</li> <li>• ESP</li> <li>• INFXSEF</li> <li>• Manual (manually entered trades)</li> <li>• MatchRequest</li> <li>• NDF</li> <li>• Net (trades resulting from netting)</li> <li>• OP</li> <li>• Order (fills of submitted orders)</li> <li>• RFS</li> <li>• Trade Entry for Credit</li> </ul>
<b>Org Account</b> field	Your account ( <a href="#">legal entity</a> ) that submitted the order
<b>Persistent</b> drop-down list	Whether or not the order was submitted as a persistent order (an order that persists after the submitting user logs out)
<b>Contingency</b> drop-down list	The type of contingency on the order: <ul style="list-style-type: none"> <li>• <b>OCO:</b> One Cancels the Other</li> <li>• <b>OUO_ABSOLUTE:</b> One Updates the Other, Absolute Quantity Reduction</li> <li>• <b>OUO_PROPORIONAL:</b> One Updates the Other, Proportional Quantity Reduction</li> </ul>
<b>LEI</b> field	The Legal Entity Identifier

### Generate the report

1. Click **Reports** in the menu.

The Analytics window opens as a new tab in your browser.

2. Open an Order-Statistics report tab (**Reports > Orders > Order-Statistics**).
3. Specify the report criteria. To access additional criteria, click the  More Filters button.

The **Update** button turns red to indicate that you have changed the report criteria and that any results shown do not necessarily reflect the current criteria.

4. Click the **Update** button.

The Order-Statistics report shows the following information for the trading activity that matches your filter criteria and organized according to your choice of grouping:

**Table 6-40 Order-Statistics report results**

Account	The organization account ( <a href="#">legal entity</a> ) on the orders
Number of Orders	Total number of orders
Avg Order Size (USD)	Average order size in USD
Order Amount (USD)	Total amount of all orders in USD
Filled Amount (USD)	Total filled amount in USD
Filled Percent	Filled amount percentage of total order amount
Limit	Number of limit orders
Market	Number of market orders
Stop	Number of stop orders
Trailing Stop	Number of trailing stop orders
Stop Limit	Number of stop limit orders
RFQ	Number of RFQs
Active	Number of active orders
Filled	Number of completely filled orders
Cancelled	Number of orders cancelled by your organization
Expired	Number of orders allowed to expire unfilled or partially filled
Declined	Number of orders/requests declined by a provider
Partial	Number of partially filled orders
GTD	Number of orders with GTD time in force
IOC	Number of orders with IOC time in force
GTC	Number of orders with GTC time in force
FOK	Number of orders with FOK time in force

### Download report results

You can download the report as a [CSV](#) file.

1. Generate the report. See [Generate the report](#) on page 363.
2. Click the  Excel Download button to begin your browser's file download process. Depending on your browser, a popup window or infobar opens allowing you to open or save the file.

### Print report results

You can generate a printable version of your report results as a PDF file.

See [Work with PDF reports](#) on page 420 for more information about working with PDF files.

1. Generate the report. See [Generate the report](#) on page 363.
2. Click the  PDF Download button.

If you have a PDF viewer installed and configured for your browser, the PDF report is displayed.

Please refer to your PDF viewer's documentation for information about printing and saving your report.

If you do not have a PDF viewer for your browser, a File Download dialog opens. You can save the file for viewing and printing in another app.

#### 6.10.4 Order-Details report

The Order-Details report shows the orders submitted by your organization according to the criteria you specify.

**IMPORTANT:** Order-Details reports often involve very large amounts of data and can adversely affect system performance. Be sure to use the filter criteria to limit your report results.

You can also view the details of a trade or order by clicking the ID in the report results. See [Order and request ticket details](#) on page 407.

- [Report filter criteria](#) on page 365
- [Generate the report](#) on page 368
- [Download report results](#) on page 370
- [Print report results](#) on page 370

##### Report filter criteria

You can generate an Order-Details report according to the following criteria:

**Table 6-41 Order-Details report filter criteria**

<b>Group By</b> drop-down lists	Choose the data to group the report results. The results are grouped by your choices from left to right. For example, if you choose "Account" in the leftmost list and "CcyPair" in the middle list, the report results are grouped first by account and then by currency pair. <ul style="list-style-type: none"><li>• Portfolio ID: The portfolio associated with the trade, if any (applicable to trades that result from portfolio processing/netting)</li><li>• Ccy Pair: Currency pair</li><li>• Created Date: The timestamp when the order was created</li><li>• Order Type: Order type</li><li>• Order Status: Status (active, filled, cancelled, etc.)</li><li>• Contingency: Contingency type, such as OCO orders</li><li>• Workflow Type: The workflow that originated the trade</li><li>• Trade Type: The trade type</li></ul>
<b>Customer</b> field and <b>Enable</b> checkbox	Leave the <b>Enable</b> checkbox cleared to see a report of all order activity. Click the <b>Enable</b> checkbox and enter a customer ID in the field to see a report of that customer's orders. When you start typing, a menu opens with a list of IDs that match your entry, as well as general categories, such as "All", "Takers", or "Takers-Brokers".

**Table 6-41 Order-Details report filter criteria (continued)**

Ccy Pair field	Enter a currency pair (for example, "EUR/USD") in which you want to see report results. Leave empty or enter "All" to specify all currency pairs. The field also takes wildcard criteria using the asterisk (*). If you enter "EUR*" you get a report with all EUR/* currency pairs. If you enter "*USD*", your report includes all currency pairs with USD, such as EUR/USD and USD/JPY.
FX Trade Type and FX Swap Leg checkboxes	<p>Choose one or more trade types:</p> <ul style="list-style-type: none"> <li>• All (all trade types)</li> <li>• Spot</li> <li>• Outright</li> <li>• NDF (non-deliverable forward)</li> <li>• Swap (spot-forward and forward-forward swap)</li> </ul> <p>If you choose a swap trade type, you can further refine your report results by filtering by swap leg, <b>Near Leg</b>, <b>Far Leg</b>, or both.</p>
Period drop-down list and From/To fields	Select a preset time period, such as "Today" or "WTD" (week-to-date). To specify a custom time period, select "Custom" and click the <b>From/To</b> fields to either enter the dates or choose dates from the pop-up calendars.
Execution Period drop-down list, Enable checkbox, and From/To fields	A time period to filter orders for a specific event on the order. Currently, you can choose "Submitted" and "LastEvent" from the drop-down list. Select the checkbox to enable the criteria. Select a preset time period, such as "Today" or "WTD" (week-to-date). To specify a custom time period, select "Custom" and click the <b>From/To</b> fields to either enter the dates or choose dates from the pop-up calendars.

The following report filters are accessed by clicking the  More Filters button:

Order ID field	The ID of an order or request. Enter a specific ID or use the asterisk character (*) to search for a range of IDs. For example, "4063*" can include IDs such as "4063" and "4063802". Entering "*12" can include IDs like "12" and "54412". Leave blank or enter "*" to choose all IDs.
Client Order ID field	The ID of a client order or request. Enter a specific ID or use the asterisk character (*) to search for a range of IDs. For example, "4063*" can include IDs such as "4063" and "4063802". Entering "*12" can include IDs like "12" and "54412". Leave blank or enter "*" to choose all IDs.
Order Status checkboxes	Choose one or more order status conditions: <ul style="list-style-type: none"> <li>• Active(A): Active and not completely filled</li> <li>• Filled(F): Completely filled</li> <li>• Partial(P): Partially filled</li> <li>• Cancelled(X): Cancelled by your organization</li> <li>• Expired(Z): Allowed to expire unfilled or partially filled</li> <li>• Declined(D): Declined by a provider</li> </ul>
Order Type checkboxes	The order type: <ul style="list-style-type: none"> <li>• LMT: Limit</li> <li>• MKT: Market</li> <li>• STOP: Stop</li> <li>• TLSTOP: Trailing stop</li> <li>• STOPLIMIT: Stop limit</li> <li>• RFQ/RFS: Request for quote or request for stream workflow</li> </ul>

**Table 6-41 Order-Details report filter criteria (continued)**

<b>Time In Force</b> checkboxes	The order's time in force: <ul style="list-style-type: none"> <li>• IOC: Immediate or cancel</li> <li>• FOK: Fill or kill</li> <li>• GTC: Good-till-Cancelled</li> <li>• GTD: Good-till-Duration</li> <li>• GFS: Good for seconds</li> <li>• DAY: Day</li> <li>• RFS: Request for stream workflow</li> </ul>
<b>Workflow Type</b> drop-down list	The pricing workflow that originated the trade. Auto suggestions are listed as you type. Enter an asterisk (*) to see a list of all workflow types. <ul style="list-style-type: none"> <li>• All</li> <li>• AutoRoll</li> <li>• ESO</li> <li>• ESP</li> <li>• INFXSEF</li> <li>• Manual (manually entered trades)</li> <li>• MatchRequest</li> <li>• NDF</li> <li>• Net (trades resulting from netting)</li> <li>• OP</li> <li>• Order (fills of submitted orders)</li> <li>• RFS</li> <li>• Trade Entry for Credit</li> </ul>
<b>Portfolio ID</b> field	The portfolio associated with the trade, if any (applicable to trades that result from portfolio processing/netting). Enter “[None]” to include only orders that do not have a portfolio ID. Enter “Any” to include only orders that have a portfolio ID.
<b>Dealt</b> drop-down list	Whether the base currency (Base Ccy) or term currency (Term Ccy) of the currency pair was dealt
<b>Org Dealer</b> field	User ID that submitted the order
<b>Org Account</b> field	Your account ( <a href="#">legal entity</a> ) that submitted the order
<b>Persistent</b> drop-down list	Whether or not the order was submitted as a persistent order (an order that persists after the submitting user logs out)
<b>Contingency</b> drop-down list	The type of contingency on the order: <ul style="list-style-type: none"> <li>• OCO: One Cancels the Other</li> <li>• OUO_ABSOLUTE: One Updates the Other, Absolute Quantity Reduction</li> <li>• OUO_PROPORIONAL: One Updates the Other, Proportional Quantity Reduction</li> </ul>
<b>Order Metrics</b> tools	Enter a value range to filter the results of the report. You can filter by the following trade attributes: <ul style="list-style-type: none"> <li>• Order Amount (dealt currency)</li> <li>• Order Amount (USD)</li> <li>• Filled Amount (dealt currency)</li> <li>• Filled Amount (USD)</li> <li>• Filled Percent</li> <li>• Fill Rate</li> <li>• PI (price improvement)</li> <li>• PI PnL (profit/loss as a result of price improvement)</li> </ul>
<b>Strategy Params</b> tools	Enter strategy parameters to filter the results of the report. You can filter by the following parameters: <ul style="list-style-type: none"> <li>• Name (strategy name)</li> <li>• TWAP Slice Interval</li> </ul>

## Generate the report

1. Click **Reports** in the menu.

The Analytics window opens as a new tab in your browser.

2. Open an Order-Details report tab (**Reports > Orders > Order-Details**).

3. Specify the report criteria. To access additional criteria, click the  More Filters button.

The **Update** button turns red to indicate that you have changed the report criteria and that any results shown do not necessarily reflect the current criteria.

4. Click the **Update** button.

The Order-Details report shows the following information for the done trades that match your filter criteria and organized according to your choice of grouping:

**Table 6-42** Order-Details report results

Status	The order's status: <ul style="list-style-type: none"> <li>• A: Active and not completely filled</li> <li>• F: Completely filled</li> <li>• P: Partially filled</li> <li>• X: Cancelled by your organization</li> <li>• Z: Allowed to expire unfilled or partially filled</li> <li>• D: Declined by a provider</li> </ul>
Persistent	Y: Submitted as persistent (saved and active when the user logs out) N: Not submitted as persistent (cancelled when the user logs out)
Order ID	The ID of the order or request. Click the ID to see the details of the order. See <a href="#">Order and request ticket details</a> on page 407.
Client Order ID	The ID of the client order or request, if any. Click the ID to see the details of the order. See <a href="#">Order and request ticket details</a> on page 407.
Business Date	The business date when the order was submitted
Tenor	The order's tenor, if any. See <a href="#">Tenors</a> on page 451.
Value Date	The order's value date
Created	The date and time that the order was created
Last Event	The date and time of the last event on the order, such as a fill
Org	The organization that submitted the order
Account	The account ( <a href="#">legal entity</a> ) that submitted the order
Dealer	The dealer user who submitted the order
B/S	Whether the order is a buy or sell in the base currency from your organization's perspective
Ccy Pair	The currency pair of the order
Dealt	The dealt currency of the currency pair

**Table 6-42 Order-Details report results (continued)**

Order Type	The order type: <ul style="list-style-type: none"> <li>● LMT: Limit</li> <li>● MKT: Market</li> <li>● STOP: Stop</li> <li>● TLSTOP: Trailing stop</li> <li>● STOPLIMIT: Stop limit</li> <li>● RFQ/RFS: Request for quote or request for stream workflow</li> </ul>
Contingency	The type of contingency on the order: <ul style="list-style-type: none"> <li>● OCO: One Cancels the Other</li> <li>● QUO_ABSOLUTE: One Updates the Other, Absolute Quantity Reduction</li> <li>● QUO_PROPORIONAL: One Updates the Other, Proportional Quantity Reduction</li> </ul>
TIF/Time	The order's time in force: <ul style="list-style-type: none"> <li>● IOC: Immediate or cancel</li> <li>● FOK: Fill or kill</li> <li>● GTC: Good-till-Cancelled</li> <li>● GTD: Good-till-Duration</li> <li>● GFS: Good for seconds</li> <li>● DAY: Day</li> <li>● RFS: Request for stream workflow</li> </ul>
Order Amt	The size of the order
Order Amt (USD)	The size of the order in USD
Filled Amt	The filled amount
Filled Amt (USD)	The filled amount in USD
Filled Percent	The percentage of filled amount to the total size of the order
Order Rate	The rate at which the order was submitted. Include the range for market orders.
Fill Rate	The rate at which the order was filled
PI	The price improvement between the order rate and the fill rate, if any
PI PnL	The profit/loss as a result of the price improvement
Trade Type	<ul style="list-style-type: none"> <li>● FXSPOT: Spot</li> <li>● FXOUTRIGHT: Outright</li> <li>● FXNDF: Non-deliverable forward</li> <li>● FXSWAP: Swap (spot-forward)</li> <li>● FXFWDFWD: Forward-forward swap</li> </ul>

**Table 6-42** Order-Details report results (continued)

Workflow	The pricing workflow that originated the order:
	<ul style="list-style-type: none"> <li>• All</li> <li>• AutoRoll</li> <li>• ESO</li> <li>• ESP</li> <li>• INFXSEF</li> <li>• Manual (manually entered trades)</li> <li>• MatchRequest</li> <li>• NDF</li> <li>• Net (trades resulting from netting)</li> <li>• OP</li> <li>• Order (fills of submitted orders)</li> <li>• RFS</li> <li>• Trade Entry for Credit</li> </ul>

## Download report results

You can download the report as a [CSV](#) file.

1. Generate the report. See [Generate the report](#) on page 368.
2. Click the  Excel Download button to begin your browser's file download process. Depending on your browser, a popup window or infobar opens allowing you to open or save the file.

## Print report results

You can generate a printable version of your report results as a PDF file.

See [Work with PDF reports](#) on page 420 for more information about working with PDF files.

1. Generate the report. See [Generate the report](#) on page 368.
2. Click the  PDF Download button.

If you have a PDF viewer installed and configured for your browser, the PDF report is displayed.

Please refer to your PDF viewer's documentation for information about printing and saving your report.

If you do not have a PDF viewer for your browser, a File Download dialog opens. You can save the file for viewing and printing in another app.

## 6.10.5 Order-Reconciliation report

The Order-Reconciliation report shows the covered counterparty for an order. The covered counterparty may or may not be an exclusive customer of the broker. In cases where the counterparty is not an exclusive customer, the broker can see how much they matched and how much they filled.

**IMPORTANT:** Order-Reconciliation reports often involve very large amounts of data and can adversely affect system performance. Be sure to use the filter criteria to limit your report results.

You can also view the details of a trade or order by clicking the ID in the report results. See [Order and request ticket details](#) on page 407.

- [Report filter criteria](#) on page 371
- [Generate the report](#) on page 373

- [Download report results on page 375](#)
- [Print report results on page 375](#)

### Report filter criteria

You can generate an Order-Reconciliation report according to the following criteria:

**Table 6-43** Order-Reconciliation report filter criteria

<b>Group By</b> drop-down lists	Choose the data to group the report results. The results are grouped by your choices from left to right. For example, if you choose "Account" in the leftmost list and "CcyPair" in the middle list, the report results are grouped first by account and then by currency pair. <ul style="list-style-type: none"> <li>• Portfolio ID: The portfolio associated with the trade, if any (applicable to trades that result from portfolio processing/netting)</li> <li>• Ccy Pair: Currency pair</li> <li>• Created Date: The timestamp when the order was created</li> <li>• Order Type: Order type</li> <li>• Order Status: Status (active, filled, cancelled, etc.)</li> <li>• Contingency: Contingency type, such as OCO orders</li> <li>• Workflow Type: The workflow that originated the trade</li> <li>• Trade Type: The trade type</li> </ul>
<b>Customer</b> field and <b>Enable</b> checkbox	Leave the <b>Enable</b> checkbox cleared to see a report of all order activity. Click the <b>Enable</b> checkbox and enter a customer ID in the field to see a report of that customer's orders. When you start typing, a menu opens with a list of IDs that match your entry, as well as general categories, such as "All", "Takers", or "Takers-Brokers".
<b>Ccy Pair</b> field	Enter a currency pair (for example, "EUR/USD") in which you want to see report results. Leave empty or enter "All" to specify all currency pairs. The field also takes wildcard criteria using the asterisk (*). If you enter "EUR*" you get a report with all EUR/* currency pairs. If you enter "*USD*", your report includes all currency pairs with USD, such as EUR/USD and USD/JPY.
<b>FX Trade Type</b> and <b>FX Swap</b> <b>Leg</b> checkboxes	Choose one or more trade types: <ul style="list-style-type: none"> <li>• All (all trade types)</li> <li>• Spot</li> <li>• Outright</li> <li>• NDF (non-deliverable forward)</li> <li>• Swap (spot-forward and forward-forward swap)</li> </ul> If you choose a swap trade type, you can further refine your report results by filtering by swap leg, <b>Near Leg</b> , <b>Far Leg</b> , or both.
<b>Period</b> drop-down list and <b>From/To</b> fields	Select a preset time period, such as "Today" or "WTD" (week-to-date). To specify a custom time period, select "Custom" and click the <b>From/To</b> fields to either enter the dates or choose dates from the pop-up calendars.
<b>Execution Period</b> drop-down list, <b>Enable</b> checkbox, and <b>From/To</b> fields	A time period to filter orders for a specific event on the order. Currently, you can choose "Submitted" and "LastEvent" from the drop-down list. Select the checkbox to enable the criteria. Select a preset time period, such as "Today" or "WTD" (week-to-date). To specify a custom time period, select "Custom" and click the <b>From/To</b> fields to either enter the dates or choose dates from the pop-up calendars.

The following report filters are accessed by clicking the  More Filters button:

**Table 6-43** Order-Reconciliation report filter criteria (continued)

<b>Order ID</b> field	The ID of an order or request. Enter a specific ID or use the asterisk character (*) to search for a range of IDs. For example, "4063*" can include IDs such as "4063" and "4063802". Entering "*12" can include IDs like "12" and "54412". Leave blank or enter "*" to choose all IDs.
<b>Client Order ID</b> field	The ID of a client order or request. Enter a specific ID or use the asterisk character (*) to search for a range of IDs. For example, "4063*" can include IDs such as "4063" and "4063802". Entering "*12" can include IDs like "12" and "54412". Leave blank or enter "*" to choose all IDs.
<b>Order Status</b> checkboxes	Choose one or more order status conditions: <ul style="list-style-type: none"> <li>• <b>Active(A)</b>: Active and not completely filled</li> <li>• <b>Filled(F)</b>: Completely filled</li> <li>• <b>Partial(P)</b>: Partially filled</li> <li>• <b>Cancelled(X)</b>: Cancelled by your organization</li> <li>• <b>Expired(Z)</b>: Allowed to expire unfilled or partially filled</li> <li>• <b>Declined(D)</b>: Declined by a provider</li> </ul>
<b>Order Type</b> checkboxes	The order type: <ul style="list-style-type: none"> <li>• <b>LMT</b>: Limit</li> <li>• <b>MKT</b>: Market</li> <li>• <b>STOP</b>: Stop</li> <li>• <b>TLSTOP</b>: Trailing stop</li> <li>• <b>STOPLIMIT</b>: Stop limit</li> <li>• <b>RFQ/RFS</b>: Request for quote or request for stream workflow</li> </ul>
<b>Time In Force</b> checkboxes	The order's time in force: <ul style="list-style-type: none"> <li>• <b>IOC</b>: Immediate or cancel</li> <li>• <b>FOK</b>: Fill or kill</li> <li>• <b>GTC</b>: Good-till-Cancelled</li> <li>• <b>GTD</b>: Good-till-Duration</li> <li>• <b>GFS</b>: Good for seconds</li> <li>• <b>DAY</b>: Day</li> <li>• <b>RFS</b>: Request for stream workflow</li> </ul>
<b>Workflow Type</b> drop-down list	The pricing workflow that originated the trade. Auto suggestions are listed as you type. Enter an asterisk (*) to see a list of all workflow types. <ul style="list-style-type: none"> <li>• All</li> <li>• AutoRoll</li> <li>• ESO</li> <li>• ESP</li> <li>• INFXSEF</li> <li>• Manual (manually entered trades)</li> <li>• MatchRequest</li> <li>• NDF</li> <li>• Net (trades resulting from netting)</li> <li>• OP</li> <li>• Order (fills of submitted orders)</li> <li>• RFS</li> <li>• Trade Entry for Credit</li> </ul>
<b>Portfolio ID</b> field	The portfolio associated with the trade, if any (applicable to trades that result from portfolio processing/netting). Enter "[None]" to include only orders that do not have a portfolio ID. Enter "Any" to include only orders that have a portfolio ID.
<b>Dealt</b> drop-down list	Whether the base currency (Base Ccy) or term currency (Term Ccy) of the currency pair was dealt
<b>Org Dealer</b> field	User ID that submitted the order
<b>Org Account</b> field	Your account ( <a href="#">legal entity</a> ) that submitted the order

**Table 6-43** Order-Reconciliation report filter criteria (continued)

<b>Persistent</b> drop-down list	Whether or not the order was submitted as a persistent order (an order that persists after the submitting user logs out)
<b>Contingency</b> drop-down list	The type of contingency on the order: <ul style="list-style-type: none"> <li>● OCO: One Cancels the Other</li> <li>● OUO_ABSOLUTE: One Updates the Other, Absolute Quantity Reduction</li> <li>● OUO_PROPORIONAL: One Updates the Other, Proportional Quantity Reduction</li> </ul>
<b>Order Metrics</b> tools	Enter a value range to filter the results of the report. You can filter by the following trade attributes: <ul style="list-style-type: none"> <li>● Order Amount (dealt currency)</li> <li>● Order Amount (USD)</li> <li>● Filled Amount (dealt currency)</li> <li>● Filled Amount (USD)</li> <li>● Filled Percent</li> <li>● Fill Rate</li> <li>● PI (price improvement)</li> <li>● PI PnL (profit/loss as a result of price improvement)</li> </ul>
<b>Strategy Params</b> tools	Enter strategy parameters to filter the results of the report. You can filter by the following parameters: <ul style="list-style-type: none"> <li>● Name (strategy name)</li> <li>● TWAP Slice Interval</li> </ul>

### Generate the report

1. Click **Reports** in the menu.

The Analytics window opens as a new tab in your browser.

2. Open an Order Details report tab (**Reports > Orders > Order-Reconciliation**).
3. Specify the report criteria. To access additional criteria, click the  More Filters button.

The **Update** button turns red to indicate that you have changed the report criteria and that any results shown do not necessarily reflect the current criteria.

4. Click the **Update** button.

The Order Details report shows the following information for the done trades that match your filter criteria and organized according to your choice of grouping:

**Table 6-44** Order-Reconciliation report results

<b>Status</b>	The order's status: <ul style="list-style-type: none"> <li>● A: Active and not completely filled</li> <li>● F: Completely filled</li> <li>● P: Partially filled</li> <li>● X: Cancelled by your organization</li> <li>● Z: Allowed to expire unfilled or partially filled</li> <li>● D: Declined by a provider</li> </ul>
<b>Persistent</b>	Y: Submitted as persistent (saved and active when the user logs out) N: Not submitted as persistent (cancelled when the user logs out)

**Table 6-44 Order-Reconciliation report results (continued)**

Order ID	The ID of the order or request. Click the ID to see the details of the order. See <a href="#">Order and request ticket details</a> on page 407.
Client Order ID	The ID of the client order or request, if any. Click the ID to see the details of the order. See <a href="#">Order and request ticket details</a> on page 407.
Covered Order ID	The ID of the order covered by this order, if any. Click the ID to see the details of the order. See <a href="#">Order and request ticket details</a> on page 407.
Business Date	The business date when the order was submitted
Tenor	The order's tenor, if any. See <a href="#">Tenors</a> on page 451.
Value Date	The order's value date
Created	The date and time that the order was created
Last Event	The date and time of the last event on the order, such as a fill
Covered Org	The organization that submitted the order covered by this order, if any
Org	The organization that submitted the order
Account	The account ( <a href="#">legal entity</a> ) that submitted the order
Dealer	The dealer user who submitted the order
B/S	Whether the order is a buy or sell in the base currency from your organization's perspective
Ccy Pair	The currency pair of the order
Dealt	The dealt currency of the currency pair
Order Type	The order type: <ul style="list-style-type: none"> <li>• LMT: Limit</li> <li>• MKT: Market</li> <li>• STOP: Stop</li> <li>• TLSTOP: Trailing stop</li> <li>• STOPLIMIT: Stop limit</li> <li>• RFQ/RFS: Request for quote or request for stream workflow</li> </ul>
Contingency	The type of contingency on the order: <ul style="list-style-type: none"> <li>• OCO: One Cancels the Other</li> <li>• OUO_ABSOLUTE: One Updates the Other, Absolute Quantity Reduction</li> <li>• OUO_PROPORIONAL: One Updates the Other, Proportional Quantity Reduction</li> </ul>
TIF/Time	The order's time in force: <ul style="list-style-type: none"> <li>• IOC: Immediate or cancel</li> <li>• FOK: Fill or kill</li> <li>• GTC: Good-till-Cancelled</li> <li>• GTD: Good-till-Duration</li> <li>• GFS: Good for seconds</li> <li>• DAY: Day</li> <li>• RFS: Request for stream workflow</li> </ul>
Order Amt	The size of the order

**Table 6-44 Order-Reconciliation report results (continued)**

Order Amt (USD)	The size of the order in USD		
Filled Amt	The filled amount		
Filled Amt (USD)	The filled amount in USD		
FilledPercent	The percentage of filled amount to the total size of the order		
Order Rate	The rate at which the order was submitted. Include the range for market orders.		
Fill Rate	The rate at which the order was filled		
PI	The price improvement between the order rate and the fill rate, if any		
PI PnL	The profit/loss as a result of the price improvement		
Trade Type	<ul style="list-style-type: none"> <li>• FXSPOT: Spot</li> <li>• FXOUTRIGHT: Outright</li> <li>• FXNDF: Non-deliverable forward</li> <li>• FXSWAP: Swap (spot-forward)</li> <li>• FXFWDFWD: Forward-forward swap</li> </ul>		
Workflow	<p>The pricing workflow that originated the order:</p> <table style="width: 100%; border: none;"> <tr> <td style="width: 50%; vertical-align: top;"> <ul style="list-style-type: none"> <li>• All</li> <li>• AutoRoll</li> <li>• ESO</li> <li>• ESP</li> <li>• INFXSEF</li> <li>• Manual (manually entered trades)</li> <li>• MatchRequest</li> </ul> </td> <td style="width: 50%; vertical-align: top;"> <ul style="list-style-type: none"> <li>• NDF</li> <li>• Net (trades resulting from netting)</li> <li>• OP</li> <li>• Order (fills of submitted orders)</li> <li>• RFS</li> <li>• Trade Entry for Credit</li> </ul> </td> </tr> </table>	<ul style="list-style-type: none"> <li>• All</li> <li>• AutoRoll</li> <li>• ESO</li> <li>• ESP</li> <li>• INFXSEF</li> <li>• Manual (manually entered trades)</li> <li>• MatchRequest</li> </ul>	<ul style="list-style-type: none"> <li>• NDF</li> <li>• Net (trades resulting from netting)</li> <li>• OP</li> <li>• Order (fills of submitted orders)</li> <li>• RFS</li> <li>• Trade Entry for Credit</li> </ul>
<ul style="list-style-type: none"> <li>• All</li> <li>• AutoRoll</li> <li>• ESO</li> <li>• ESP</li> <li>• INFXSEF</li> <li>• Manual (manually entered trades)</li> <li>• MatchRequest</li> </ul>	<ul style="list-style-type: none"> <li>• NDF</li> <li>• Net (trades resulting from netting)</li> <li>• OP</li> <li>• Order (fills of submitted orders)</li> <li>• RFS</li> <li>• Trade Entry for Credit</li> </ul>		

## Download report results

You can download the report as a [CSV](#) file.

1. Generate the report. See [Generate the report](#) on page 373.
2. Click the  Excel Download button to begin your browser's file download process. Depending on your browser, a popup window or infobar opens allowing you to open or save the file.

## Print report results

You can generate a printable version of your report results as a PDF file.

See [Work with PDF reports](#) on page 420 for more information about working with PDF files.

1. Generate the report. See [Generate the report](#) on page 373.
2. Click the  PDF Download button.

If you have a PDF viewer installed and configured for your browser, the PDF report is displayed.

Please refer to your PDF viewer's documentation for information about printing and saving your report.

If you do not have a PDF viewer for your browser, a File Download dialog opens. You can save the file for viewing and printing in another app.

## 6.10.6 Order-RFSQuotes report

The Order-RFSQuotes report shows RFS quotes received by your organization.

- [Report filter criteria](#) on page 376
- [Generate the report](#) on page 376
- [Download report results](#) on page 378

### Report filter criteria

You can generate an Order-RFSQuotes report according to the following criteria:

**Table 6-45 Order-RFSQuotes report filter criteria**

Ccy Pair field	Enter a currency pair (for example, "EUR/USD") in which you want to see report results. Leave empty or enter "All" to specify all currency pairs. The field also takes wildcard criteria using the asterisk (*). If you enter "EUR*" you get a report with all EUR/* currency pairs. If you enter "*USD*", your report includes all currency pairs with USD, such as EUR/USD and USD/JPY.
Transaction ID field	The ID of the originating RFS request
Period dropdown list and From/To fields	Select a preset time period, such as "WTD" (week-to-date). To specify a custom time period, select "Custom" and click the <b>From/To</b> fields to either enter the dates or choose dates from the pop-up calendars.
Execution Period: Enable checkbox and From/To fields	A time period to filter quotes. Select the checkbox to enable the criteria. Select a preset time period, such as "Today" or "WTD" (week-to-date). To specify a custom time period, select "Custom" and click the <b>From/To</b> fields to either enter the dates or choose dates from the pop-up calendars.

### Generate the report

1. Click **Reports** in the menu.

The Analytics window opens as a new tab in your browser.

2. Open an Order-RFSQuotes report tab (**Reports > Orders > Order-RFSQuotes**).

3. Specify the report criteria.

The **Update** button turns red to indicate that you have changed the report criteria and that any results shown do not necessarily reflect the current criteria.

4. Click the **Update** button.

The Order-RFSQuotes report shows the following information for the quote responses to RFS requests that match your filter criteria:

**Table 6-46 Order-RFSQuotes report results**

Transaction ID	The ID of the originating RFS request
Effective Date	The effective date of the quote response
Time To Live	The remaining number of seconds before the request expires at the time of the response. Expired quote responses have a time to live of 0 (zero).
Quote Date	The timestamp of the response
Stream	The source price stream
Leg GUID	The GUID of the leg
State	The state of the quote: <ul style="list-style-type: none"> <li>• QSACTIVE: Active and tradable</li> <li>• QSACCEPTED: Accepted for trade execution</li> <li>• QSExpired: Expired</li> </ul>
Business Date	The business date of the response
Price Org	The organization providing the quote price
Org LE	Your organization's legal entity ( <a href="#">legal entity</a> )
CcyPair	The currency pair of the quote
Leg Name	The name of the quote's trade leg
Amount	The amount of the quote
Buy/Sell	Whether the quote is a buy or sell price
Currency	The dealt currency of the quote
Bid Spot Rate	The quote's bid spot rate
Bid Fwd Points	The quote's bid forward points
Bid Rate	The quote's all-in rate
Offer Spot Rate	The quote's offer spot rate
Offer Fwd Points	The quote's offer forward points
Offer Rate	The quote's offer all-in rate
Mid Spot Rate	The quote's mid spot rate

**Table 6-46** Order-RFSQuotes report results (continued)

Mid Fwd Points	The quote's mid forward points
Mid Rate	The quote's all-in mid rate
Tenor	The quote's tenor
Value Date	The quote's value date
Fixing Date	The quote's fixing date
Notes	Any notes sent with the quote response
MiFID	Linked to open a window with MiFID Regulatory Fields

### Download report results

You can download the report as a [CSV](#) file.

1. Generate the report. See [Generate the report](#) on page 376.
2. Click the  Excel Download button to begin your browser's file download process. Depending on your browser, a popup window or infobar opens allowing you to open or save the file.

### 6.10.7 Order-RFSQuotesMaker report

The Order-RFSQuotesMaker report shows RFS quotes sent by your organization.

- [Report filter criteria](#) on page 378
- [Generate the report](#) on page 379
- [Download report results](#) on page 380

#### Report filter criteria

You can generate an Order-RFSQuotesMaker report according to the following criteria:

**Table 6-47** Order-RFSQuotesMaker report filter criteria

Ccy Pair field	Enter a currency pair (for example, "EUR/USD") in which you want to see report results. Leave empty or enter "All" to specify all currency pairs. The field also takes wildcard criteria using the asterisk (*). If you enter "EUR*" you get a report with all EUR/* currency pairs. If you enter "**USD*", your report includes all currency pairs with USD, such as EUR/USD and USD/JPY.
Transaction ID field	The ID of the originating RFS request
Period dropdown list and From/To fields	Select a preset time period, such as "WTD" (week-to-date). To specify a custom time period, select "Custom" and click the <b>From/To</b> fields to either enter the dates or choose dates from the pop-up calendars.

**Table 6-47** Order-RFSQuotesMaker report filter criteria (continued)

<b>Execution Period:</b>	A time period to filter quotes. Select the checkbox to enable the criteria. Select a preset time period, such as "Today" or "WTD" (week-to-date). To specify a custom time period, select "Custom" and click the <b>From/To</b> fields to either enter the dates or choose dates from the pop-up calendars.
<b>Enable checkbox and From/To fields</b>	

### Generate the report

1. Click **Reports** in the menu.

The Analytics window opens as a new tab in your browser.

2. Open an Order-RFSQuotesMaker report tab (**Reports > Orders > Order-RFSQuotesMaker**).
3. Specify the report criteria.

The **Update** button turns red to indicate that you have changed the report criteria and that any results shown do not necessarily reflect the current criteria.

4. Click the **Update** button.

The Order-RFSQuotesMaker report shows the following information for the quote responses to RFS requests that match your filter criteria:

**Table 6-48** Order-RFSQuotesMaker report results

<b>Transaction ID</b>	The ID of the originating RFS request
<b>Effective Date</b>	The effective date of the quote response
<b>Time To Live</b>	The remaining number of seconds before the request expires at the time of the response. Expired quote responses have a time to live of 0 (zero).
<b>Quote Date</b>	The timestamp of the response
<b>Stream</b>	The source price stream
<b>Leg GUID</b>	The GUID of the leg
<b>State</b>	The state of the quote: <ul style="list-style-type: none"> <li>• QSACTIVE: Active and tradable</li> <li>• QSACCEPTED: Accepted for trade execution</li> <li>• QSExpired: Expired</li> </ul>
<b>Business Date</b>	The business date of the response
<b>Price Org</b>	The organization providing the quote price
<b>Org LE</b>	Your organization's legal entity ( <a href="#">legal entity</a> )
<b>CcyPair</b>	The currency pair of the quote

**Table 6-48** Order-RFSQuotesMaker report results (continued)

Leg Name	The name of the quote's trade leg
Amount	The amount of the quote
Buy/Sell	Whether the quote is a buy or sell price
Currency	The dealt currency of the quote
Bid Spot Rate	The quote's bid spot rate
Bid Fwd Points	The quote's bid forward points
Bid Rate	The quote's all-in rate
Offer Spot Rate	The quote's offer spot rate
Offer Fwd Points	The quote's offer forward points
Offer Rate	The quote's offer all-in rate
Mid Spot Rate	The quote's mid spot rate
Mid Fwd Points	The quote's mid forward points
Mid Rate	The quote's all-in mid rate
Tenor	The quote's tenor
Value Date	The quote's value date
Fixing Date	The quote's fixing date
Notes	Any notes sent with the quote response
MiFID	Linked to open a window with MiFID Regulatory Fields

### Download report results

You can download the report as a [CSV](#) file.

1. Generate the report. See [Generate the report](#) on page 379.
2. Click the  Excel Download button to begin your browser's file download process. Depending on your browser, a popup window or infobar opens allowing you to open or save the file.

## 6.11 Portfolio reports

Analytics provides the following reports for portfolios.

## 6.11.1 Portfolio-Details report

The Portfolio-Details report shows trade portfolios that have been uploaded and processed.

Additionally, you can run reports on the trades associated with individual portfolios, such as running a Trade Details report to see all the trades associated with processing the portfolio or a Trade Volume report to see volume statistics on the portfolio.

- [Report filter criteria](#) on page 381
- [Generate the report](#) on page 381
- [Download report results](#) on page 382
- [Print report results](#) on page 382

### Report filter criteria

You can generate a Portfolio-Details report according to the following criteria:

**Table 6-49** Portfolio-Details report filter criteria

Period drop-down list and From/To fields	Select a preset time period, such as "Today" or "WTD" (week-to-date). To specify a custom time period, select "Custom" and click the <b>From/To</b> fields to either enter the dates or choose dates from the pop-up calendars.
Portfolio ID field	The ID of the portfolio that was processed. Enter a specific ID or use the asterisk character (*) to search for a range of IDs. For example, "4063*" can include IDs such as "4063" and "4063802". Entering "*12" can include IDs like "12" and "54412". Leave blank or enter "*" to choose all IDs.
Credit Cpty field	Enter a counterparty ID to filter reports by the credit counterparty selected when the portfolio was processed. When you start typing, a menu opens with a list of IDs that match your entry, as well as general categories, such as "All", "Takers", or "Takers-Brokers".

### Generate the report

1. Click **Reports** in the menu.

The Analytics window opens as a new tab in your browser.

2. Open a Portfolio-Details report tab (**Portfolio > Portfolio-Details**).
3. Specify the report criteria.

The **Update** button turns red to indicate that you have changed the report criteria and that any results shown do not necessarily reflect the current criteria.

4. Click the **Update** button.

The Portfolio-Details report shows the following information for the done trades that match your filter criteria and organized according to your choice of grouping:

**Table 6-50 Portfolio-Details report results**

Portfolio ID	The ID of the portfolio that was processed. Hover your mouse pointer over the ID to see a list of reports that you can run to drill down into the portfolio. See <a href="#">Drill down through report results</a> on page 282.
Portfolio Name	The name of the portfolio that was processed
Org	The organization that uploaded the portfolio for processing
User	The ID of the user who uploaded the portfolio for processing
Credit Cpty	The ID of the credit counterparty organization that was selected when the portfolio was processed
Created Date	The date that the portfolio was uploaded
Modified Date	The timestamp of the last event on the portfolio
Execution Plan	<p>The netting execution plan that was selected when the portfolio was processed:</p> <ul style="list-style-type: none"> <li>• Simple netting: Netting base amounts and term amounts separately</li> <li>• Base/term netting: Netting base and term amounts together</li> <li>• Base/term + XCCY netting: Netting base, term, and cross currency amounts together using the vehicle currencies specified for the cross currencies</li> </ul>

## Download report results

You can download the report as a [CSV](#) file.

1. Generate the report. See [Generate the report](#) on page 381.
2. Click the  Excel Download button to begin your browser's file download process. Depending on your browser, a popup window or infobar opens allowing you to open or save the file.

## Print report results

You can generate a printable version of your report results as a PDF file.

See [Work with PDF reports](#) on page 420 for more information about working with PDF files.

1. Generate the report. See [Generate the report](#) on page 381.
2. Click the  PDF Download button.

If you have a PDF viewer installed and configured for your browser, the PDF report is displayed. Please refer to your PDF viewer's documentation for information about printing and saving your report.

If you do not have a PDF viewer for your browser, a File Download dialog opens. You can save the file for viewing and printing in another app.

## 6.12 Analysis reports

Analytics provides the following reports for general analysis of data:

- [Analysis-Compare report](#) on page 383
- [Analysis-Trends report](#) on page 385
- [ProviderRank-Cpty report](#) on page 389
- [EventTimes-Templates report](#) on page 391
- [EventTimes-Details report](#) on page 393

### 6.12.1 Analysis-Compare report

The Analysis-Compare report generates a table of trading activity by counterparty and date, allowing you examine the data and quickly recognize trends.

- [Report filter criteria](#) on page 383
- [Generate the report](#) on page 384
- [Print report results](#) on page 385

#### Report filter criteria

You can generate an Analysis-Compare report according to the following criteria:

**Table 6-51** Analysis-Compare report filter criteria

<b>Compare</b> drop-down list	Choose the data with which to compare counterparties and dates: <ul style="list-style-type: none"><li>• Trade Volume: The notional volume of all done trades</li><li>• Done Trades: The number of done trades</li><li>• Rejected Trades: The number of rejected trades</li><li>• Rejected Percent: The percentage of rejected trades in relation to the total number of trade requests</li><li>• Average Trade Size: The average size of done trades</li></ul>
<b>Group By</b> drop-down lists	Choose the data to group the report results: <ul style="list-style-type: none"><li>• Cpty ID: Counterparty ID</li><li>• Cpty Name: Counterparty name</li><li>• Org Account: Your organization's account (<a href="#">legal entity</a>)</li><li>• Cpty Account: Counterparty's account (<a href="#">legal entity</a>)</li><li>• Ccy Pair: Currency pair</li><li>• Maker/Taker: Maker organization and taker organization</li><li>• Org Dealer: Your organization's dealer</li><li>• Workflow Type: The originating workflow of the volume (for example, ESP, RFS, Manual, Order)</li><li>• Trade Type</li></ul>
<b>Cpty</b> field	Enter a counterparty ID to see a report of that counterparty's trading volume. When you start typing, a menu opens with a list of IDs that match your entry, as well as general categories, such as "All", "Takers", or "Takers-Brokers".

**Table 6-51** Analysis-Compare report filter criteria (continued)

<b>Ccy Pair field</b>	Enter a currency pair (for example, "EUR/USD") in which you want to see report results. Leave empty or enter "All" to specify all currency pairs. The field also takes wildcard criteria using the asterisk (*). If you enter "EUR*" you get a report with all EUR/* currency pairs. If you enter "*USD*", your report includes all currency pairs with USD, such as EUR/USD and USD/JPY.
<b>FX Trade Type and FX Swap Leg checkboxes</b>	<p>Choose one or more trade types:</p> <ul style="list-style-type: none"> <li>• All (all trade types)</li> <li>• Spot</li> <li>• Outright</li> <li>• NDF (non-deliverable forward)</li> <li>• Swap (spot-forward and forward-forward swap)</li> </ul> <p>If you choose a swap trade type, you can further refine your report results by filtering by swap leg, <b>Near Leg</b>, <b>Far Leg</b>, or both.</p>
<b>Period drop-down lists and From/To fields</b>	Select a preset time period, such as "Today" or "WTD" (week-to-date). To specify a custom time period, select "Custom" and click the <b>From/To</b> fields to either enter the dates or choose dates from the pop-up calendars.
<b>Maker/Taker drop-down list</b>	Whether your organization is a maker or a taker on trades

The following report filters are accessed by clicking the  More Filters button:

<b>Workflow Type dropdown list</b>	The pricing workflow that originated the trade. Auto suggestions are listed as you type. Enter an asterisk (*) to see a list of all workflow types. <ul style="list-style-type: none"> <li>• All</li> <li>• AutoRoll</li> <li>• ESO</li> <li>• ESP</li> <li>• INFXSEF</li> <li>• Manual (manually entered trades)</li> <li>• MatchRequest</li> <li>• NDF</li> <li>• Net (trades resulting from netting)</li> <li>• OP</li> <li>• Order (fills of submitted orders)</li> <li>• RFS</li> <li>• Trade Entry for Credit</li> </ul>
<b>Segment drop-down list</b>	The business segment source of the volume: <ul style="list-style-type: none"> <li>• All</li> <li>• Asset Manager</li> <li>• Bank</li> <li>• Institution</li> <li>• Margin FX</li> </ul>
<b>Top/Bottom Select tools</b>	Choose the rows of ranked data to show in the results table, "The [Top/Bottom] [number] by [ranking measure] during Period 1" for example "The [Top] [10] by [Average Trade Size] during Period 1". You can choose from the following ranking measures: <ul style="list-style-type: none"> <li>• Trade Volume</li> <li>• Done Trades</li> <li>• Rejected Trades</li> <li>• Rejected Percent</li> <li>• Average Trade Size</li> </ul>

## Generate the report

1. Click **Reports** in the menu.

The Analytics window opens as a new tab in your browser.

2. Open an Analysis-Compare report tab (**Reports > Analysis > Analysis-Compare**).
3. Specify the report criteria.

The **Update** button turns red to indicate that you have changed the report criteria and that any results shown do not necessarily reflect the current criteria.

4. Click the **Update** button.

In addition to the period columns that you configured in the report criteria, the Analysis-Compare report shows the following information:

**Table 6-52** Analysis-Compare report results

Delta	The difference of period 1 and period 2
Delta %	The percentage of the total volume for the two periods represented by the delta amount

#### Print report results

You can generate a printable version of your report results as a PDF file.

See [Work with PDF reports](#) on page 420 for more information about working with PDF files.

1. Generate the report. See [Generate the report](#) on page 384.
2. Click the  PDF Download button.

If you have a PDF viewer installed and configured for your browser, the PDF report is displayed.

Please refer to your PDF viewer's documentation for information about printing and saving your report.

If you do not have a PDF viewer for your browser, a File Download dialog opens. You can save the file for viewing and printing in another app.

#### 6.12.2 Analysis-Trends report

The Analysis-Trends report generates charts of trading activity, allowing you examine the data and quickly recognize trends.

- [Report filter criteria](#) on page 385
- [Generate the report](#) on page 387
- [Print report results](#) on page 388

#### Report filter criteria

You can generate an Analysis-Trends report according to the following criteria:

**Table 6-53** Analysis-Trends report filter criteria

<b>Data drop-down list</b>	Choose the data with which to generate the graph: <ul style="list-style-type: none"> <li>● Trade Volume: The notional volume of all done trades</li> <li>● Incremental Volume: The incremental change in notional volume from one interval to the next as set by the <b>Group By</b> drop-down list. The first data point on the chart is 0 (zero). Subsequent data points indicate the amount of change from the previous data point.</li> <li>● Done Trades: The number of done trades</li> <li>● Rejected Trades: The number of rejected trades</li> </ul>
<b>Chart drop-down list</b>	Choose the chart type: <ul style="list-style-type: none"> <li>● Bar: Bar chart</li> <li>● Line: Line chart</li> <li>● Pie: Pie chart. The combination of the graph's period and interval may result in more than one pie chart.</li> </ul>
<b>Group By drop-down lists</b>	Choose the data to group the report results: <ul style="list-style-type: none"> <li>● Date</li> <li>● Week</li> <li>● Month</li> <li>● Quarter (1st, 2nd, 3rd, 4th)</li> <li>● Year</li> <li>● Account: Your organization's account (<a href="#">legal entity</a>)</li> <li>● Dealer: Your organization's dealer</li> <li>● Cpty Region: Counterparty geographical region, such as America, Asia-Pacific, or Europe</li> <li>● Cpty Country: Counterparty country</li> <li>● Cpty Org Type: Organization type, such as Maker or Taker</li> <li>● Cpty Org Group: Organization group</li> <li>● Cpty: Counterparty</li> <li>● Cpty Account: Counterparty's account (<a href="#">legal entity</a>)</li> <li>● Cpty Dealer: Counterparty's dealer user</li> <li>● Ccy Pair: Currency pair</li> <li>● Trade Type</li> <li>● Maker/Taker: Maker organization and taker organization</li> </ul>
<b>Cpty field</b>	Enter a counterparty ID to see a report of that counterparty's trading volume. When you start typing, a menu opens with a list of IDs that match your entry, as well as general categories, such as "All", "Takers", or "Takers-Brokers".
<b>Ccy Pair field</b>	Enter a currency pair (for example, "EUR/USD") in which you want to see report results. Leave empty or enter "All" to specify all currency pairs. The field also takes wildcard criteria using the asterisk (*). If you enter "EUR*" you get a report with all EUR/* currency pairs. If you enter "*USD*", your report includes all currency pairs with USD, such as EUR/USD and USD/JPY.
<b>FX Trade Type and FX Swap Leg checkboxes</b>	Choose one or more trade types: <ul style="list-style-type: none"> <li>● All (all trade types)</li> <li>● Spot</li> <li>● Outright</li> <li>● NDF (non-deliverable forward)</li> <li>● Swap (spot-forward and forward-forward swap)</li> </ul> <p>If you choose a swap trade type, you can further refine your report results by filtering by swap leg, <b>Near Leg</b>, <b>Far Leg</b>, or both.</p>

**Table 6-53** Analysis-Trends report filter criteria (continued)

<b>Period</b>	Select a preset time period, such as "Today" or "WTD" (week-to-date). To specify a custom time period, select "Custom" and click the <b>From/To</b> fields to either enter the dates or choose dates from the pop-up calendars.
<b>From/To fields</b>	

### Generate the report

1. Click **Reports** in the menu.

The Analytics window opens as a new tab in your browser.

2. Open an Analysis-Trends report tab (**Reports > Analysis > Analysis-Trends**).
3. Specify the report criteria.

The **Update** button turns red to indicate that you have changed the report criteria and that any results shown do not necessarily reflect the current criteria.

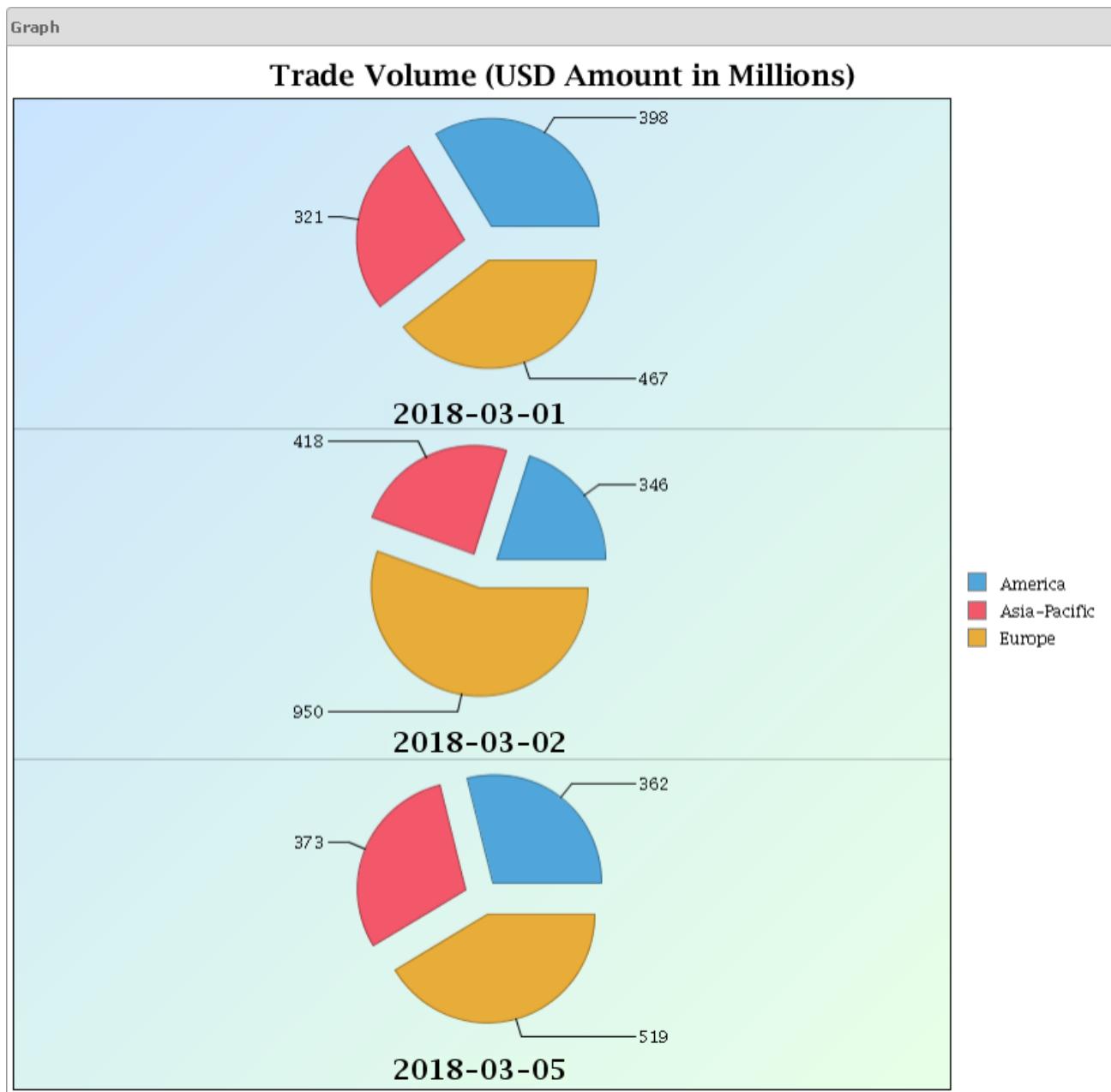
4. Click the **Update** button.

The chart is rendered according to your criteria.

The following example was generated with the following criteria:

**Table 6-54** Example filter criteria

<b>Data</b>	"Trade Volume"
<b>Group By</b>	"Date" and "Cpty Region"
<b>Cpty</b>	"All"
<b>Ccy Pair</b>	"All"
<b>Trade Type</b>	All selected
<b>Period</b>	"WTD"
<b>Chart</b>	"Pie"



**Figure 6-1 Example chart**

#### Print report results

You can generate a printable version of your report results as a PDF file.

See [Work with PDF reports](#) on page 420 for more information about working with PDF files.

1. Generate the report. See [Generate the report](#) on page 387.
2. Click the PDF Download button.

If you have a PDF viewer installed and configured for your browser, the PDF report is displayed.

Please refer to your PDF viewer's documentation for information about printing and saving your report.

If you do not have a PDF viewer for your browser, a File Download dialog opens. You can save the file for viewing and printing in another app.

### 6.12.3 ProviderRank-Cpty report

The ProviderRank-Cpty report shows providers ranked by volume according to the criteria you specify.

- [Report filter criteria](#) on page 389
- [Generate the report](#) on page 390
- [Download report results](#) on page 390
- [Print report results](#) on page 390

#### Report filter criteria

You can generate a ProviderRank-Cpty report according to the following criteria:

**Table 6-55** ProviderRank-Cpty report filter criteria

<b>Group By</b> drop-down lists	Choose the data to group the report results. The results are grouped by your choices from left to right. For example, if you choose "Ccy Pair" in the leftmost list and "Client Tag" in the next list, the report results are grouped first by currency pair and then by client tag. <ul style="list-style-type: none"> <li>• Ccy Pair: Currency pair</li> <li>• Date: Trade date</li> <li>• Week: Monday's date</li> <li>• Month</li> <li>• Stream: The stream that sourced the price</li> <li>• Client Tag: Anonymous code for customers trading through a broker</li> </ul>
<b>Provider</b> field	The provider ID. When you start typing, a menu opens with a list of IDs that match your entry, as well as general categories, such as "All", "Providers", "Takers", or "Takers-Brokers".
<b>Ccy Pair</b> field	Enter a currency pair (for example, "EUR/USD") in which you want to see report results. Leave empty or enter "All" to specify all currency pairs. The field also takes wildcard criteria using the asterisk (*). If you enter "EUR*" you get a report with all EUR/* currency pairs. If you enter "*USD*", your report includes all currency pairs with USD, such as EUR/USD and USD/JPY.
<b>FX Trade</b> <b>Type and</b> <b>FX Swap</b> <b>Leg</b> checkboxes	Choose one or more trade types: <ul style="list-style-type: none"> <li>• All (all trade types)</li> <li>• Spot</li> <li>• Outright</li> <li>• NDF (non-deliverable forward)</li> <li>• Swap (spot-forward and forward-forward swap)</li> </ul> If you choose a swap trade type, you can further refine your report results by filtering by swap leg, <b>Near Leg</b> , <b>Far Leg</b> , or both.

**Table 6-55** ProviderRank-Cpty report filter criteria (continued)

<b>Period drop-down list and From/To fields</b>	Select a preset time period, such as "Today" or "WTD" (week-to-date). To specify a custom time period, select "Custom" and click the <b>From/To</b> fields to either enter the dates or choose dates from the pop-up calendars.
---	---

## Generate the report

1. Click **Reports** in the menu.

The Analytics window opens as a new tab in your browser.

2. Open a ProviderRank-Cpty report tab (**Reports > Analysis > ProviderRank > ProviderRank-Cpty**).
3. Specify the report criteria.

The **Update** button turns red to indicate that you have changed the report criteria and that any results shown do not necessarily reflect the current criteria.

4. Click the **Update** button.

The ProviderRank-Cpty report shows the following information for the volume that matches your filter criteria and organized according to your choice of grouping:

**Table 6-56** ProviderRank-Cpty report results

Cpty	The counterparty on the volume
Provider	The provider on the volume
USD Amount	The volume in USD
Percentage Volume	The percentage of the total volume. This column is only included in reports for non-provider organizations.
Rank	The provider's ranking among all providers

## Download report results

You can download the report as a [CSV](#) file.

1. Generate the report. See [Generate the report](#) on page 390.
2. Click the  Excel Download button to begin your browser's file download process. Depending on your browser, a popup window or infobar opens allowing you to open or save the file.

## Print report results

You can generate a printable version of your report results as a PDF file.

See [Work with PDF reports](#) on page 420 for more information about working with PDF files.

1. Generate the report. See [Generate the report](#) on page 390.

2. Click the  PDF Download button.

If you have a PDF viewer installed and configured for your browser, the PDF report is displayed. Please refer to your PDF viewer's documentation for information about printing and saving your report.

If you do not have a PDF viewer for your browser, a File Download dialog opens. You can save the file for viewing and printing in another app.

#### 6.12.4 EventTimes-Templates report

The EventTimes-Templates report provides tools that allow you to analyze aggregate event times data.

- [Report filter criteria](#) on page 391
- [Generate the report](#) on page 392
- [Download report results](#) on page 393
- [Print report results](#) on page 393

##### Report filter criteria

You can generate an EventTimes-Templates report according to the following criteria:

**Table 6-57** EventTimes-Templates report filter criteria

<b>report</b> drop-down list	Choose the data for the report. Your choices here will depend on your installation. For example, common report templates are "LPResponseTime_Verified" and "LPResponseTime_Rejected".
<b>Group By</b> drop-down lists	Choose the data to group the report results. The results are grouped by your choices from left to right. For example, if you choose "Ccy Pair" in the leftmost list and "Client Tag" in the next list, the report results are grouped first by currency pair and then by client tag. <ul style="list-style-type: none"><li>• Cpty ID: Counterparty organization ID</li><li>• Cpty Name: Counterparty name</li><li>• Org Account: Your organization's legal entity ID</li><li>• Cpty Account: Counterparty legal entity ID</li><li>• Ccy Pair: Currency pair</li><li>• Maker/Taker: Liquidity maker and liquidity taker</li><li>• Org Dealer: Your organization's dealer user ID</li><li>• Date: Trade date</li><li>• Workflow Type: The workflow that originated the trade</li><li>• Trade Type: The trade type</li><li>• Stream: The stream that sourced the trade price</li></ul>
<b>Cpty</b> field	Enter a counterparty ID to see a report of that counterparty's trading volume. When you start typing, a menu opens with a list of IDs that match your entry, as well as general categories, such as "All", "Takers", or "Takers-Brokers".
<b>Ccy Pair</b> field	Enter a currency pair (for example, "EUR/USD") in which you want to see report results. Leave empty or enter "All" to specify all currency pairs. The field also takes wildcard criteria using the asterisk (*). If you enter "EUR*" you get a report with all EUR/* currency pairs. If you enter "*USD*", your report includes all currency pairs with USD, such as EUR/USD and USD/JPY.

**Table 6-57** EventTimes-Templates report filter criteria (continued)

<b>FX Trade Type and FX Swap Leg checkboxes</b>	Choose one or more trade types: <ul style="list-style-type: none"> <li>• All (all trade types)</li> <li>• Spot</li> <li>• Outright</li> <li>• NDF (non-deliverable forward)</li> <li>• Swap (spot-forward and forward-forward swap)</li> </ul> <p>If you choose a swap trade type, you can further refine your report results by filtering by swap leg, <b>Near Leg</b>, <b>Far Leg</b>, or both.</p>
<b>Period drop-down list and From/To fields</b>	Select a preset time period, such as "Today" or "WTD" (week-to-date). To specify a custom time period, select "Custom" and click the <b>From/To</b> fields to either enter the dates or choose dates from the pop-up calendars.
The following report filters are accessed by clicking the  More Filters button:	
<b>Workflow Type drop-down list</b>	The pricing workflow that originated the trade. Auto suggestions are listed as you type. Enter an asterisk (*) to see a list of all workflow types. <ul style="list-style-type: none"> <li>• All</li> <li>• AutoRoll</li> <li>• ESO</li> <li>• ESP</li> <li>• INFXSEF</li> <li>• Manual (manually entered trades)</li> <li>• MatchRequest</li> <li>• NDF</li> <li>• Net (trades resulting from netting)</li> <li>• OP</li> <li>• Order (fills of submitted orders)</li> <li>• RFS</li> <li>• Trade Entry for Credit</li> </ul>
<b>Stream field</b>	The ID of the price stream that sourced the trade price
<b>Cpty Account field</b>	The counterparty account ( <a href="#">legal entity</a> ) for which the event was logged
<b>Org Account field</b>	Your account ( <a href="#">legal entity</a> ) for which the event was logged

### Generate the report

1. Click **Reports** in the menu.

The Analytics window opens as a new tab in your browser.

2. Open an EventTimes-Templates report tab (**Reports > Analysis > Event Times > EventTimes-Templates**).

3. Specify the report criteria.

The **Update** button turns red to indicate that you have changed the report criteria and that any results shown do not necessarily reflect the current criteria.

4. Click the **Update** button.

The EventTimes-Templates report shows the following information for the event times that match your filter criteria and organized according to your choice of grouping:

**Table 6-58 EventTimes-Templates report results**

Cpty	The counterparty for which the event times have been reported
Verified Trades/Rejected Trades	The number of trades included in the report. The trade state depends on the report template that you chose in the <b>report</b> drop-down list in the report criteria.
Max LP Resp Time	The maximum time recorded for a provider response
Avg LP Resp Time	The average provider response time for all events included in the report
Min LP Resp Time	The minimum time recorded for a provider response

In addition, the following statistical information is given for each column:

- Mean
- Median
- Standard Deviation
- Third Quartile
- 85th Percentile

#### Download report results

You can download the report as a [CSV](#) file.

1. Generate the report. See [Generate the report](#) on page 392.
2. Click the  Excel Download button to begin your browser's file download process. Depending on your browser, a popup window or infobar opens allowing you to open or save the file.

#### Print report results

You can generate a printable version of your report results as a PDF file.

See [Work with PDF reports](#) on page 420 for more information about working with PDF files.

1. Generate the report. See [Generate the report](#) on page 392.
2. Click the  PDF Download button.

If you have a PDF viewer installed and configured for your browser, the PDF report is displayed.

Please refer to your PDF viewer's documentation for information about printing and saving your report.

If you do not have a PDF viewer for your browser, a File Download dialog opens. You can save the file for viewing and printing in another app.

#### 6.12.5 EventTimes-Details report

The EventTimes-Details report allows you to drill down into aggregate event times data.

- [Report filter criteria](#) on page 394
- [Generate the report](#) on page 396
- [Download report results](#) on page 397
- [Print report results](#) on page 397

## Report filter criteria

You can generate an EventTimes-Details report according to the following criteria:

**Table 6-59** EventTimes-Details report filter criteria

<b>Group By</b>	Choose the data to group the report results. The results are grouped by your choices from left to right. For example, if you choose "CcyPair" in the leftmost list and "Cpty" in the middle list, the report results are grouped first by currency pair and then by counterparty. <ul style="list-style-type: none"> <li>● Org Account: Your organization's legal entity ID</li> <li>● Portfolio ID: The portfolio associated with the trade, if any (applicable to trades that result from portfolio processing/netting)</li> <li>● Covered Cpty: Counterparty on covered trade</li> <li>● Client Tag: Anonymous code for customers trading through a broker</li> <li>● Cpty ID: Counterparty organization ID</li> <li>● Cpty Name: Counterparty name</li> <li>● Cpty Account: Counterparty legal entity ID</li> <li>● Ccy Pair: Currency pair</li> <li>● Maker/Taker: Liquidity maker and liquidity taker</li> <li>● Org Dealer: Your organization's dealer user ID</li> <li>● Workflow Type: The workflow that originated the trade</li> <li>● Trade Date: Trade date</li> <li>● Trade Type: The trade type</li> </ul>
<b>Cpty</b> field	Enter a counterparty ID to see a report of that counterparty's event times. When you start typing, a menu opens with a list of IDs that match your entry, as well as general categories, such as "All", "Takers", or "Takers-Brokers".
<b>Ccy Pair</b> field	Enter a currency pair (for example, "EUR/USD") in which you want to see report results. Leave empty or enter "All" to specify all currency pairs. The field also takes wildcard criteria using the asterisk (*). If you enter "EUR*" you get a report with all EUR/* currency pairs. If you enter "*USD*", your report includes all currency pairs with USD, such as EUR/USD and USD/JPY.
<b>FX Trade Type</b> and <b>Swap Leg</b> checkboxes	Choose one or more trade types: <ul style="list-style-type: none"> <li>● All (all trade types)</li> <li>● Spot</li> <li>● Outright</li> <li>● NDF (non-deliverable forward)</li> <li>● Swap (spot-forward and forward-forward swap)</li> </ul> If you choose a swap trade type, you can further refine your report results by filtering by swap leg, <b>Near Leg</b> , <b>Far Leg</b> , or both.
<b>Period</b> drop-down lists and <b>From/To</b> fields	From the drop-down list on the left, select the date to filter: <ul style="list-style-type: none"> <li>● Trade Date: The contractual trade date</li> <li>● Value Date: The value date of the trade</li> <li>● Exec Date: The date the trade was executed in the system</li> </ul> From the drop-down list on the right, select a preset time period, such as "Today" or "WTD" (week-to-date). To specify a custom time period, select "Custom" and click the <b>From/To</b> fields to either enter the dates or choose dates from the pop-up calendars.

**Table 6-59** EventTimes-Details report filter criteria (continued)

<b>Execution Period:</b>	To filter report results for a specific time period in which the trades were executed, select the <b>Enable</b> checkbox and click the <b>From/To</b> fields to either enter the dates/times or chose dates/times from the pop-up calendars.
<b>Enable From/To fields</b>	
The following report filters are accessed by clicking the  More Filters button:	
<b>Order ID field</b>	The ID of an order or request that originated done trades. Enter a specific ID or use the asterisk character (*) to search for a range of IDs. For example, "4063*" can include IDs such as "4063" and "4063802". Entering "*12" can include IDs like "12" and "54412". Leave blank or enter "*" to choose all IDs.
<b>Trade ID field</b>	The ID of a done trade. Enter a specific ID or use the asterisk character (*) to search for a range of IDs. For example, "4063*" can include IDs such as "4063" and "4063802". Entering "*12" can include IDs like "12" and "54412". Leave blank or enter "*" to choose all IDs.
<b>Trade Status drop-down list</b>	Choose the trade status: <ul style="list-style-type: none"><li>● Active: Trades with a status of "Net", "Confirmed", or "Verified"</li><li>● All Done: All done trades (not failed, rejected, or pending)</li><li>● Verified: Verified by the liquidity provider</li><li>● Confirmed: Confirmed by the requesting counterparty</li><li>● Verified + Confirmed: Both verified by the liquidity provider and confirmed by the requesting counterparty</li><li>● Failed + Rejected: Both failed and rejected trades</li><li>● Manual: Trades entered manually by an admin user</li><li>● Net: Trades that have been executed to net a number of other trades</li><li>● Netted: Trades that have been netted</li><li>● Cancelled: Trades that have been cancelled</li><li>● Any: Trades with any status</li></ul>
<b>Price Type drop-down list</b>	The source of the pricing: <ul style="list-style-type: none"><li>● Quote</li><li>● Order</li><li>● Venue</li></ul>
<b>Workflow Type drop-down list</b>	The pricing workflow that originated the trade. Auto suggestions are listed as you type. Enter an asterisk (*) to see a list of all workflow types. <ul style="list-style-type: none"><li>● All</li><li>● AutoRoll</li><li>● ESO</li><li>● ESP</li><li>● INFXSEF</li><li>● Manual (manually entered trades)</li><li>● MatchRequest</li><li>● NDF</li><li>● Net (trades resulting from netting)</li><li>● OP</li><li>● Order (fills of submitted orders)</li><li>● RFS</li><li>● Trade Entry for Credit</li></ul>
<b>Stream field</b>	The ID of the price stream that sourced the trade price
<b>Dealt drop-down list</b>	Whether the base currency (Base Ccy) or term currency (Term Ccy) of the currency pair was dealt

**Table 6-59** EventTimes-Details report filter criteria (continued)

<b>Cpty Dealer</b>	The counterparty dealing user on the trade field
<b>Org Dealer</b>	Your dealing user on the trade field
<b>Cpty Account</b>	The counterparty account ( <a href="#">legal entity</a> ) that the trade was booked against field
<b>Org Account</b>	Your account ( <a href="#">legal entity</a> ) that the trade was booked against field
<b>Trade Metrics tools</b>	Enter a range of values to filter the results of the report. You can filter by the following trade attributes: <ul style="list-style-type: none"> <li>• USD Amount</li> <li>• Dealt Amt</li> <li>• Base Amt</li> <li>• Term Amt</li> <li>• Rate</li> <li>• USD Rate</li> <li>• Cover Profit</li> </ul>

### Generate the report

1. Click **Reports** in the menu.

The Analytics window opens as a new tab in your browser.

2. Open an EventTimes-Details report tab (**Reports > Analysis > Event Times > EventTimes-Details**).
3. Specify the report criteria.

The **Update** button turns red to indicate that you have changed the report criteria and that any results shown do not necessarily reflect the current criteria.

4. Click the **Update** button.

The EventTimes-Details report shows the following information for the volume that matches your filter criteria and organized according to your choice of grouping:

**Table 6-60** EventTimes-Details report results

<b>Status</b>	The trade's status: <ul style="list-style-type: none"> <li>• V: Verified by the liquidity provider</li> <li>• C: Confirmed by the requesting counterparty</li> <li>• M: Trades entered manually by an admin user</li> <li>• N: Trades that have been executed to net a number of other trades</li> <li>• NX: Trades that have been netted</li> <li>• F: Failed</li> <li>• R: Rejected</li> </ul>
<b>Order ID</b>	The ID of the order or request that originated the trade. Click the ID to see the details of the order. See <a href="#">Order and request ticket details</a> on page 407.
<b>Trade ID</b>	The trade ID. Click the ID to see the details of the trade. See <a href="#">Trade ticket details</a> on page 414.

**Table 6-60** EventTimes-Details report results (continued)

Trade Date	The trade date
Execution Time	The time the trade was done
Measurement	The measurement type selected from the <b>Measurement</b> drop-down list in the report criteria
Ccy Pair	The currency pair of the trade
Dealt	The dealt currency of the currency pair
Fwd Points	The forward points of the price with which the trade was executed. Applicable to outright and swap trades.
Org	The organization on the trade
Account	Your legal entity that did the trade. For prime brokers, this is Counterparty A's legal entity.
Cpty	The trading party with which the trade was done (the counterparty's organization and legal entity). For prime brokers, this is Counterparty A's legal entity.
Dealer	Your organization's dealer user on the trade. For prime brokers, this is Counterparty A's user.
Covered Trade ID	The ID of the trade that this trade covers, if any.
Stream	The ID of the price stream that sourced the trade price

## Download report results

You can download the report as a [CSV](#) file.

1. Generate the report. See [Generate the report](#) on page 396.
2. Click the  Excel Download button to begin your browser's file download process. Depending on your browser, a popup window or infobar opens allowing you to open or save the file.

## Print report results

You can generate a printable version of your report results as a PDF file.

See [Work with PDF reports](#) on page 420 for more information about working with PDF files.

1. Generate the report. See [Generate the report](#) on page 396.
2. Click the  PDF Download button.

If you have a PDF viewer installed and configured for your browser, the PDF report is displayed. Please refer to your PDF viewer's documentation for information about printing and saving your report.

If you do not have a PDF viewer for your browser, a File Download dialog opens. You can save the file for viewing and printing in another app.

## 6.13 Reference reports

Analytics provides the following reports for reference data:

- [Reference-TradingParties report](#) on page 399
- [Reference-EoDRates report](#) on page 401
- [Users-LoginDetail report](#) on page 403
- [Users-LegalEntities report](#) on page 404

### 6.13.1 Reference-CustomerStreams report

The Reference-CustomerStreams report describes the relationship between customers and stream assignment to aid you in your reporting and analysis.

- [Report filter criteria](#) on page 398
- [Generate the report](#) on page 398
- [Download report results](#) on page 399

#### Report filter criteria

You can generate a Reference-CustomerStreams report according to the following criteria:

**Table 6-61** Reference-CustomerStreams report filter criteria

<b>Group By</b>	Choose the data to group the report results. The results are grouped by your choices from left to right. For example, if you choose "Org ID" in the leftmost list and "Stream" in the second list, the report results are grouped first by organization ID and then by price stream.
<b>drop-down lists</b>	<ul style="list-style-type: none"><li>• Org ID: Your organization's ID</li><li>• Cpty ID: Counterparty organization ID</li><li>• Stream: The price stream that the counterparty receives</li></ul>
<b>Cpty field</b>	Enter a counterparty ID to see a report of that counterparty's stream information. When you start typing, a menu opens with a list of IDs that match your entry, as well as general categories, such as "All", "Takers", or "Takers-Brokers".

#### Generate the report

1. Click **Reports** in the menu.

The Analytics window opens as a new tab in your browser.

2. Open a Reference-CustomerStreams report tab (**Reports > Reference > Reference-CustomerStreams**).

3. Specify the report criteria.

The **Update** button turns red to indicate that you have changed the report criteria and that any results shown do not necessarily reflect the current criteria.

4. Click the **Update** button.

The Reference-CustomerStreams report shows the following information for the trading activity that matches your filter criteria and organized according to your choice of grouping:

**Table 6-62 Reference-CustomerStreams report results**

Org	Your organization ID
Cpty	The counterparty ID
Cpty Long Name	The counterparty organization's name
Cpty Description	Additional description, if any. "NA" if empty.
Cpty OrgGroup	The organization group to which the counterparty belongs, if any. "NA" if empty.
Cpty Country	The counterparty country, if any. "NA" if empty.
Cpty Region	The counterparty geographic region, if any. "NA" if empty.
Stream	The price stream received by the counterparty
Status	The stream's status: <ul style="list-style-type: none"> <li>• A: Active</li> <li>• P: Paused (inactive)</li> </ul>

### Download report results

You can download the report as a [CSV](#) file.

1. Generate the report. See [Generate the report](#) on page 398.
2. Click the  Excel Download button to begin your browser's file download process. Depending on your browser, a popup window or infobar opens allowing you to open or save the file.

### Print report results

You can generate a printable version of your report results as a PDF file.

See [Work with PDF reports](#) on page 420 for more information about working with PDF files.

1. Generate the report. See [Generate the report](#) on page 398.
2. Click the  PDF Download button.

If you have a PDF viewer installed and configured for your browser, the PDF report is displayed.

Please refer to your PDF viewer's documentation for information about printing and saving your report.

If you do not have a PDF viewer for your browser, a File Download dialog opens. You can save the file for viewing and printing in another app.

## 6.13.2 Reference-TradingParties report

The Reference-TradingParties report shows a snapshot of the rates for currency pairs as they were at the end of the previous trading day.

- [Report filter criteria](#) on page 400
- [Generate the report](#) on page 400

- [Download report results on page 401](#)

### Report filter criteria

You can generate a Reference-TradingParties report according to the following criteria:

**Table 6-63** Reference-TradingParties report filter criteria

<b>Group By</b> drop-down lists	Choose the data to group the report results. The results are grouped by your choices from left to right. For example, if you choose "Org ID" in the leftmost list and "Org Stream" in the second list, the report results are grouped first by organization ID and then by price stream. <ul style="list-style-type: none"> <li>• Org ID: Your organization's ID</li> <li>• Cpty ID: Counterparty organization ID</li> <li>• Stream: The price stream that the counterparty receives</li> </ul>
<b>Cpty</b> field	Enter a counterparty ID to see a report of that counterparty's trading party information. When you start typing, a menu opens with a list of IDs that match your entry, as well as general categories, such as "All", "Takers", or "Takers-Brokers".

The following report filters are accessed by clicking the  More Filters button:

<b>Show Inactive Trading Parties</b> checkbox	Select the checkbox to show only inactive trading parties in the report results.
--	--

### Generate the report

1. Click **Reports** in the menu.

The Analytics window opens as a new tab in your browser.

2. Open a Reference-TradingParties report tab (**Reports > Reference > Reference-TradingParties**).
3. Specify the report criteria.

The **Update** button turns red to indicate that you have changed the report criteria and that any results shown do not necessarily reflect the current criteria.

4. Click the **Update** button.

The Reference-TradingParties report shows the following information for the trading activity that matches your filter criteria and organized according to your choice of grouping:

**Table 6-64** Reference-TradingParties report results

Org	Your organization ID
Cpty	The counterparty ID
Cpty Long Name	The counterparty organization's name
Trading Party	The trading party ID
Stream	The price stream received by the trading party
Trading Party Status	The trading party's status

**Table 6-64 Reference-TradingParties report results (continued)**

PB	The prime broker, if any
PB TP	The prime broker trading party, if any
PB Credit	Whether or not the prime broker provides credit
Credit PB Org	The credit prime broker organization ID
Credit PB TP	The credit prime broker organization trading party
Settlement Code	Settlement code for the trading party, if any

### Download report results

You can download the report as a [CSV](#) file.

1. Generate the report. See [Generate the report](#) on page 400.
2. Click the  Excel Download button to begin your browser's file download process. Depending on your browser, a popup window or infobar opens allowing you to open or save the file.

### Print report results

You can generate a printable version of your report results as a PDF file.

See [Work with PDF reports](#) on page 420 for more information about working with PDF files.

1. Generate the report. See [Generate the report](#) on page 400.
2. Click the  PDF Download button.

If you have a PDF viewer installed and configured for your browser, the PDF report is displayed.

Please refer to your PDF viewer's documentation for information about printing and saving your report.

If you do not have a PDF viewer for your browser, a File Download dialog opens. You can save the file for viewing and printing in another app.

### 6.13.3 Reference-EoDRates report

The Reference-EoDRates report shows a snapshot of the rates for currency pairs as they were at the end of the previous trading day.

- [Report filter criteria](#) on page 401
- [Generate the report](#) on page 402
- [Download report results](#) on page 402

#### Report filter criteria

You can generate a Reference-EoDRates report according to the following criteria:

**Table 6-65** Reference-EoDRates report filter criteria

<b>Trade Date field</b>	Click the field to either enter the date or choose a date from the pop-up calendars.
<b>Ccy Pair field</b>	<p>Enter a currency pair (for example, "EUR/USD") in which you want to see report results. Leave empty or enter "All" to specify all currency pairs. The field also takes wildcard criteria using the asterisk (*).</p> <p>If you enter "EUR*" you get a report with all EUR/* currency pairs.</p> <p>If you enter "*USD*", your report includes all currency pairs with USD, such as EUR/USD and USD/JPY.</p>

### Generate the report

1. Click **Reports** in the menu.

The Analytics window opens as a new tab in your browser.

2. Open a Reference-EoDRates report tab (**Reports > Reference > Reference-EoDRates**).

3. Specify the report criteria.

The **Update** button turns red to indicate that you have changed the report criteria and that any results shown do not necessarily reflect the current criteria.

4. Click the **Update** button.

The Reference-EoDRates report shows the following information for the trading activity that matches your filter criteria and organized according to your choice of grouping:

**Table 6-66** Reference-EoDRates report results

Date	The trade date
Ccy Pair	The currency pair
Bid	The bid price
Mid	The mid price
Offer	The offer price

### Download report results

You can download the report as a [CSV](#) file.

1. Generate the report. See [Generate the report](#) on page 402.
2. Click the  Excel Download button to begin your browser's file download process. Depending on your browser, a popup window or infobar opens allowing you to open or save the file.

### 6.13.4 Users-LoginDetail report

The Users-LoginDetail report shows the current status for users in your organization and in customer organizations.

- [Report filter criteria](#) on page 403
- [Generate the report](#) on page 403
- [Download report results](#) on page 403
- [Print report results](#) on page 404

#### Report filter criteria

You can generate a Users-LoginDetail report according to the following criteria:

**Table 6-67** Users-LoginDetail report filter criteria

Customer	Leave the <b>Enable</b> checkbox cleared to see a report of users in your organization. Click the <b>Enable</b> field and checkbox and enter a customer ID in the field to see a report of that customer's users. When you <b>Enable</b> start typing, a menu opens with a list of IDs that match your entry, as well as general categories, checkbox such as "All", "Takers", or "Takers-Brokers".
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#### Generate the report

1. Click **Reports** in the menu.

The Analytics window opens as a new tab in your browser.

2. Open a Users-LoginDetail report tab (**Reports > Reference > Users > Users-LoginDetail**).
3. Specify the report criteria.

The **Update** button turns red to indicate that you have changed the report criteria and that any results shown do not necessarily reflect the current criteria.

4. Click the **Update** button.

The Users-LoginDetail report shows the following information for the users that match your filter criteria and organized according to your choice of grouping:

**Table 6-68** Users-LoginDetail report results

Org	The user's organization
LE Name	The user's legal entity
User Name	The user's ID
Status	The user's current status: <ul style="list-style-type: none"><li>• A: Active</li><li>• P: Passive (inactivated and not allowed to log in)</li></ul>

#### Download report results

You can download the report as a [CSV](#) file.

1. Generate the report. See [Generate the report](#) on page 403.
2. Click the  Excel Download button to begin your browser's file download process. Depending on your browser, a popup window or infobar opens allowing you to open or save the file.

#### Print report results

You can generate a printable version of your report results as a PDF file.

See [Work with PDF reports](#) on page 420 for more information about working with PDF files.

1. Generate the report. See [Generate the report](#) on page 403.
2. Click the  PDF Download button.

If you have a PDF viewer installed and configured for your browser, the PDF report is displayed.

Please refer to your PDF viewer's documentation for information about printing and saving your report.

If you do not have a PDF viewer for your browser, a File Download dialog opens. You can save the file for viewing and printing in another app.

### 6.13.5 Users-LegalEntities report

The Users-LoginDetail report shows the current status for users in your organization and in customer organizations.

- [Report filter criteria](#) on page 404
- [Generate the report](#) on page 404
- [Download report results](#) on page 405
- [Print report results](#) on page 405

#### Report filter criteria

You can generate a Users-LegalEntities report according to the following criteria:

**Table 6-69** Users-LegalEntities report filter criteria

Customer field	Leave the <b>Enable</b> checkbox cleared to see a report of users in your organization. Click the <b>Enable</b> checkbox and enter a customer ID in the field to see a report of that customer's users. When you start typing, a menu opens with a list of IDs that match your entry, as well as general categories, such as "All", "Takers", or "Takers-Brokers".
Org Status field	Choose the status to filter: "All", "Active", "Inactive".

#### Generate the report

1. Click **Reports** in the menu.

The Analytics window opens as a new tab in your browser.

2. Open a Users-LegalEntities report tab (**Reports > Reference > Users > Users-LegalEntities**).
3. Specify the report criteria.

The **Update** button turns red to indicate that you have changed the report criteria and that any results shown do not necessarily reflect the current criteria.

4. Click the **Update** button.

The Users-LegalEntities report shows the following information for the users that match your filter criteria and organized according to your choice of grouping:

**Table 6-70** Users-LegalEntities report results

Org	The user's organization
LE Name	The user's legal entity
User Name	The user's ID
Status	The user's current status: <ul style="list-style-type: none"><li>• A: Active</li><li>• P: Passive (inactivated and not allowed to log in)</li></ul>

## Download report results

You can download the report as a [CSV](#) file.

1. Generate the report. See [Generate the report](#) on page 404.
2. Click the  Excel Download button to begin your browser's file download process. Depending on your browser, a popup window or infobar opens allowing you to open or save the file.

## Print report results

You can generate a printable version of your report results as a PDF file.

See [Work with PDF reports](#) on page 420 for more information about working with PDF files.

1. Generate the report. See [Generate the report](#) on page 404.
2. Click the  PDF Download button.

If you have a PDF viewer installed and configured for your browser, the PDF report is displayed.

Please refer to your PDF viewer's documentation for information about printing and saving your report.

If you do not have a PDF viewer for your browser, a File Download dialog opens. You can save the file for viewing and printing in another app.

## 6.13.6 Customers

The Customers management screen ([Reference > CptyGroups > Customers](#)) allows permissioned broker users to map users to counterparty groups and collect counterparties into counterparty groups. Users can then only see the data in Analytics for their mapped counterparties.

Double click a counterparty group to open the Cpty Group - Update window and edit the counterparties and users.

Contact your Integral Business Support to do the following:

- Enable the functionality
- Grant specific users access to the Customers management screen
- Define counterparty groups

## 6.14 Archives

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**NOTE:** Your organization must be configured to access archives. Contact your Technical Account Manager to enable archiving.

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You can download a [CSV](#) file of orders and trading activity by day and by monthly summary.

The Trade Details report and Trade Reconciliation report also provide a button that allows you to quickly download a day of data. See [Download a trade archive for a single day](#) on page 298 and [Download a reconciliation archive for a single day](#) on page 317.

***To download an archive of an organization's activity:***

1. Click **Archives** in the navigation pane.  
A pop-up window opens showing the years of archived data.
2. Click a year.  
The window shows the archived months.
3. Click a month.  
The window shows a list of all archived dates and monthly summary reports.
4. Click a monthly summary report. Refer to the equivalent report for information about the report results:
  - Reconciliation ([Trade-Reconciliation report](#) on page 314)
  - Done Trades ([Trade-Details report](#) on page 295)
  - Orders ([Order-Details report](#) on page 365)
  - Orders Reconciliation
  - Regulatory fields-Makers
  - Regulatory fields-Takers
  - Spot-Exposure-DetailsA pop-up window opens showing a list of counterparty organizations.
5. Click a counterparty ID.

Your browser's file download process begins. Depending on your browser, a popup window or infobar opens allowing you to open or save the file.

### 6.14.1 Mid mark archive download file format

Mid mark archives are downloaded as [CSV](#) files with the following columns of data.

**Table 6-71** Mid mark archives CSV columns

Column	Description
Org	The source of the mid price
OrgGroup	The group to which the source org belongs
Stream	The ID of the stream on which the mid price was sourced
TID	The transaction ID of the mid price's originating request
USI	Can be the same as the TID
CcyPair	The currency pair of the mid price
AcceptedQuoteID	The provider's quote ID that was accepted
MidSpotRate	The mid price spot rate
MidFwdPoints	The mid price forward points
MidRate	The all-in mid rate
Stream	The ID of the price stream that sourced the trade price

### 6.15 Order and request ticket details

When you click an order ID in a report or Trade Detail window, a window opens showing the details of the order or request that originated the trade.

You can generate a printable PDF file of the details by clicking the  PDF Download button. See

[Work with PDF reports](#) on page 420 for more information about working with PDF files.

- [Order details](#) on page 407
- [Associated orders](#) on page 410
- [Portfolio](#) on page 411
- [Trade details](#) on page 412
- [RFS quotes](#) on page 413

### 6.15.1 Order details

**Table 6-72** Order and request ticket details

Order ID	The ID of the order that originated the trade
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**Table 6-72 Order and request ticket details (continued)**

Client Order ID	The client ID of the order that originated the trade, if any
Business Date	The business date of the order submission
Value Date	The value date. For NDF trades, this is the trade's fixing date.
Persistent	Whether or not the order was submitted as a persistent order
Contingency	<p>The type of contingency on the order:</p> <ul style="list-style-type: none"> <li>• OCO: One Cancels the Other</li> <li>• OUO_ABSOLUTE: One Updates the Other, Absolute Quantity Reduction</li> <li>• OUO_PROPOROTIONAL: One Updates the Other, Proportional Quantity Reduction</li> </ul>
Submitted	The date and time the order was submitted
Last Event	The date and time the order was last updated
Status	The current workflow state of the order
Organization	The organization that submitted the order
Channel	The user-interface component or app that originated the order
Account	The account ( <a href="#">legal entity</a> ) that submitted the order
Dealer	The dealer user who submitted the order
Ccy Pair	The currency pair of the order
Dealt	The dealt currency of the currency pair
Buy/Sell	Whether the order was a buy or sell
Order Amount	The amount of the order
Max Show Amount	The show amount of a displayed order
Order Type	<p>The order type:</p> <ul style="list-style-type: none"> <li>• LIMIT</li> <li>• MARKET</li> <li>• STOP: Stop</li> <li>• TLSTOP: Trailing stop</li> <li>• STOPLIMIT: Stop limit</li> <li>• RFQ/RFS: Request for quote or request for stream workflow</li> </ul>
Trade Type	<ul style="list-style-type: none"> <li>• FXSPOT: Spot</li> <li>• FXOUTRIGHT: Outright</li> <li>• FXNDF: Non-deliverable forward</li> <li>• FXSWAP: Swap (spot-forward)</li> <li>• FXFWD: Forward-forward swap</li> </ul>
Expiration	The date and time of the order expiration, if any

**Table 6-72 Order and request ticket details (continued)**

TIF/Time	The order's time in force: <ul style="list-style-type: none"> <li>• IOC: Immediate or cancel</li> <li>• FOK: Fill or kill</li> <li>• GTC: Good-till-Cancelled</li> <li>• GTD: Good-till-Duration</li> <li>• DAY: Day</li> <li>• RFS: Request for stream workflow</li> </ul>
Order Rate	The limit rate of the order
Filled Amount	The filled amount in the dealt currency as of the last update
Fill Rate	The rate at which the order was filled
Price Improvement	The price improvement between the order rate and the fill rate. Not included if there is no price improvement.
PI PnL	The profit/loss as a result of the price improvement. Not included if there is no price improvement.
Order Execution Strategy Name	The name of the strategy employed by the order. The value of this field is not validated and has no effect on strategy functionality.
Order Execution Start Time	Relative time at which the strategy should start execution specified in the format HH:MM:SS [sss]. If not specified, the strategy starts executing immediately.
Order Execution End Time	Absolute time in GMT at which the strategy should stop executing. If not specified, the order expires based on the value of its time in force.
Peg Type	Indicates that the strategy is a pegged order and specifies the peg offset type: <ul style="list-style-type: none"> <li>• Primary: Bid if buying, offer if selling</li> <li>• Market: Bid if selling, offer if buying</li> <li>• Mid: Midpoint between the bid and the offer</li> <li>• Primary to Market: First pegged to primary, then over the offset increment interval, moves to the market peg in increments by the offset increment.</li> </ul>
Peg Time	Peg time in seconds. For example, ten and a half seconds is represented as "10.5".
Peg Offset	The amount in pips that is added to the price of the peg. Can be positive or negative.
Peg Offset Incr	The fixed amount in pips used to adjust the price offset for primary-to-market pegged orders
Peg Offset Incr Interval	The interval at which the offset increment is applied for primary-to-market pegged orders. Specified in milliseconds.
Peg Offset Incr Flag	Whether or not (T/F) the offset increment is randomized for primary-to-market pegged orders. When the offset increment is randomized, the increment value is a random value between zero and the offset increment.
TWAP Slice Interval	Relative time between two slices specified in milliseconds.

**Table 6-72 Order and request ticket details (continued)**

TWAP Slice Min Interval	Minimum slice interval in the milliseconds. Applicable if "TWAP Slice Interval Randomization Flag" is true.
TWAP Slice Interval Randomization Flag	Randomization enabled (true) or disabled (false). If enabled, the order management system randomly selects a slice interval between "Twap Slice Interval" and "Twap Slice Min Interval".
TWAP Slice Size	Size of each slice. If the slice size is not specified, the size is chosen based on the "TWAP Slice Size TopOfBook Percent" value.
TWAP Slice Size Top Of Book Percent	Determines how the slice size varies, calculated as a percentage of the top-of-book (TOB) size. For example, a value of 0.5 indicates 50% of TOB size. A value of 1.2 indicates 120% of TOB size. If "TWAP Slice Size Randomization Flag" is true, then the slice size varies between "TWAP Slice Regular Size" and the size calculated with the value of this parameter. If this parameter is not specified, the slice size is fixed.
TWAP Slice Size Randomization Flag	Randomization enabled (Y)/disabled (N) flag. If enabled, the order management system randomizes the slice size between "TWAP Slice Regular Size" and "TWAP Slice Size" or, if "TWAP Slice Size TopOfBook Percent" is specified, between the calculated top-of-book amount and "TWAP Slice Size".
TWAP Slice Regular Size	If this parameter is specified, the slice size is rounded to a multiple of this value. If not specified, the behavior defaults to the system configuration. Contact your Solutions Manager to configure the default slice size.
Action On Order Expiration	Action to be taken at the expiration of the order. If this tag is not specified, the order is cancelled at expiration. <ul style="list-style-type: none"><li>• Fill @ Market</li><li>• Cancel Order</li></ul>

### 6.15.2 Associated orders

The Order Detail window also includes information about other orders associated with this order in the following expandable tables:

- **Contingent Orders:** Orders submitted with a link to this order, such as OCO and OUO orders
- **Cover Orders:** Orders submitted to cover this order
- **Covered Orders:** Orders that have been covered by this order

Click the  Expand button in a table heading to see the following information about associated orders:

Status	The current workflow state of the order: <ul style="list-style-type: none"><li>• Active(A): Active and not completely filled</li><li>• Filled(F): Completely filled</li><li>• Partial(P): Partially filled</li><li>• Cancelled(X): Cancelled by your organization</li><li>• Expired(Z): Allowed to expire unfilled or partially filled</li><li>• Declined(D): Declined by a provider</li></ul>
Order ID	The ID of the order that originated the trade

Covered Order ID	The ID of the order that is covered by this order, if any
Client Order ID	The client ID of the order that originated the trade, if any
Submitted	The date and time the order was submitted
Last Event	The date and time the order was last updated
Org	The organization on the trade
Account	The account ( <a href="#">legal entity</a> ) that submitted the order
Dealer	The dealer user who submitted the order
B/S	Whether the order was a buy or sell
Order Type	<p>The order type:</p> <ul style="list-style-type: none"> <li>• LMT: Limit</li> <li>• MKT: Market</li> <li>• STOP: Stop</li> <li>• TLSTOP: Trailing stop</li> <li>• STOPLIMIT: Stop limit</li> <li>• RFQ/RFS: Request for quote or request for stream workflow</li> </ul>
Order Amount	The amount of the order
Filled Amount	The filled amount in the dealt currency as of the last update
Order Rate	The limit rate of the order
Fill Rate	The rate at which the order was filled

### 6.15.3 Portfolio

The Order Detail window includes the Portfolio with information about any associated portfolio.

**Table 6-73** Portfolio information

Portfolio ID	The ID of the portfolio that was processed
Portfolio Name	The name of the portfolio that was processed
Org	The organization that uploaded the portfolio for processing
User	The ID of the user who uploaded the portfolio for processing
Credit Cpty	The ID of the credit counterparty organization that was selected when the portfolio was processed
Created Date	The date that the portfolio was uploaded
Modified Date	The timestamp of the last event on the portfolio

**Table 6-73 Portfolio information (continued)**

Execution Plan	The netting execution plan that was selected when the portfolio was processed: <ul style="list-style-type: none"> <li>• Simple netting: Netting base amounts and term amounts separately</li> <li>• Base/term netting: Netting base and term amounts together</li> <li>• Base/term + XCCY netting: Netting base, term, and cross currency amounts together using the vehicle currencies specified for the cross currencies</li> </ul>
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## 6.15.4 Trade details

The Order Detail window also includes the following information about any done trades executed against the order in the Verified Trades, Rejected Trades, and Cancelled Trades tables:

**Table 6-74 Trade details**

Status	The trade's status: <ul style="list-style-type: none"> <li>• V: Verified by the liquidity provider</li> <li>• C: Confirmed by the requesting counterparty</li> <li>• M: Trades entered manually by an admin user</li> <li>• N: Trades that have been executed to net a number of other trades</li> <li>• X: Trades that have been netted</li> </ul>
Order ID	The ID of the order that originated the trade
Trade ID	The trade ID. Click the ID to see the details of the trade. See <a href="#">Trade ticket details</a> on page 414.
Covered Trade ID	The ID of the trade that this trade covers, if any.
Trade Date	The trade date
Value Date	The trade's value date
Execution Time	The time the trade was done
Mkr/Tkr	Whether your organization was a maker or taker on the trade. For prime brokers, this field is empty.
B/S	Whether the trade was a buy or sell in the base currency from your organization's perspective
Ccy Pair	The currency pair of the trade
Base Amt	The amount of the trade in the base currency
Term Amt	The amount of the trade in the term currency
USD Amt	The notional amount of the trade in USD
Rate	The rate at which the trade was done
Org	The organization on the trade
Account	The legal entity on the trade
Dealer	The counterparty's dealer user

**Table 6-74 Trade details (continued)**

Cpty	The counterparty organization that did the trade
CptyAccount	The counterparty's legal entity

## 6.15.5 RFS quotes

For trades executed in the RFS workflow, the RFS Quotes table lists all the spreads on the trade. For more information about spreads, see [Profit-Spreads report](#) on page 341.

**Table 6-75 RFS quote details**

Transaction ID	The ID of the originating RFS request
Quote Date	The date the quote was made
Stream	The pricing stream that sourced the quote
State	The state of the quote: <ul style="list-style-type: none"> <li>• QSACTIVE: Active and tradable</li> <li>• QSACCEPTED: Accepted for trade execution</li> </ul>
Price Org	The organization that provided the quote
OrgLE	The taker's account ( <a href="#">legal entity</a> )
CcyPair	The currency pair of the quote
Leg Name	The trade leg of the quote: <ul style="list-style-type: none"> <li>• singleLeg</li> <li>• nearLeg</li> <li>• farLeg</li> </ul>
Amount	The amount of the quote
Currency	The dealt currency
Buy/Sell	Whether the quote was buy, sell, or two way
Bid Spot Rate	The bid spot rate of the quote
Bid Fwd Points	The bid forward points of the quote
Bid Rate	The all-in bid rate of the quote
Offer Spot Rate	The offer spot rate of the quote
Offer Fwd Points	The offer forward points of the quote
Offer Rate	The all-in offer rate of the quote
Mid Spot Rate	The mid spot rate of the quote
Mid Fwd Points	The mid forward points of the quote
Mid Rate	The all-in mid rate of the quote

**Table 6-75 RFS quote details (continued)**

Tenor	The tenor of the quote, if any
Value Date	The value date of the quote

## 6.16 Trade ticket details

When you click a trade ID in a report or Order Details window, the Trade Detail window opens showing the details of the trade and a snapshot of market prices at the time the trade was executed ([Market snapshot](#) on page 418).

The details of any associated trades are displayed as well:

- [Details of cover trades and covered trades](#) on page 416
- [Details of net trades and netted trades](#) on page 417
- [Details of cover trades and covered trades](#) on page 416
- [Portfolio](#) on page 417
- [Market snapshot](#) on page 418
- [Spreads](#) on page 418
- [RFS quotes](#) on page 419

**Table 6-76 Trade ticket details**

Trade ID	The trade ID
UTI	(SEF) The trade's Unique Trade Identifier
Order ID	The ID of the order or request that originated the trade
Trade Date	The trade date
ISIN	The International Securities Identification Number
Spot Date	The spot date
Fixing Date	For NDF trades: the trade's fixing date
Value Date	The trade's value date. For swaps, both the near and far value dates are shown in the format "nearValueDate / farValueDate".
Execution Date/Time	The date and time the trade was done
Spot Rate	The spot rate
Taker	The taker's user ID/legal entity ID/organization ID
Maker	The maker's user ID/legal entity ID/organization ID
Taker Buys/Sells	Buys if the taker buys the base currency and Sells if the taker sells the base currency, along with the base currency and amount.
Taker Sells/Buys	Buys if the taker buys the term currency and Sells if the taker sells the term currency, along with the term currency and amount.

**Table 6-76 Trade ticket details (continued)**

Ccy Pair	The currency pair of the trade
UPI	The trade's Unique Product Identifier
Prime Broker	The prime broker on the trade
SD Account	The sales dealer's account ( <a href="#">legal entity</a> ) if the trade was executed as part of the sales dealer workflow
Comment	Any comment on the trade
MTF	T(true)/F(false): Whether or not the trade was executed in an MTF under the MiFID II regulatory regime
Pricing Type	The pricing type that resulted in the trade price
USI	The trade's Unique Swap Identifier
UTI Namespace	The UTI generator's prefix
Trade Type	<ul style="list-style-type: none"> <li>• FXSPOT: Spot</li> <li>• FXOUTRIGHT: Outright</li> <li>• FXNDF: Non-deliverable forward</li> <li>• FXSWAP: Swap (spot-forward)</li> <li>• FFWDFWD: Forward-forward swap</li> </ul>
Status	<p>The current workflow state of the trade:</p> <ul style="list-style-type: none"> <li>• TSCONFIRMED: Confirmed by the counterparty that requested the trade</li> <li>• TSVERIFIED: Verified by the liquidity provider</li> </ul>
Request Channel	The user-interface component or app that originated the trade's order
Stream	The ID of the price stream that sourced the trade price
Rate	Depending on the trade type of the trade: <ul style="list-style-type: none"> <li>• Spot: Spot rate</li> <li>• Outright: Outright rate</li> <li>• Swap: Near leg rate / far leg rate / swap points</li> </ul>
Cover Rate	Depending on the trade type of the trade: <ul style="list-style-type: none"> <li>• Spot: Spot rate</li> <li>• Outright: Outright rate</li> <li>• Swap: Near leg rate / far leg rate / swap points</li> </ul>
Taker Reference ID	The taker's ID for the request, if any
Maker Reference ID	The maker's ID for the quote, if any
Dealt Ccy	The dealt currency of the trade
LEI	The Legal Entity Identifier of the taker's account
SD User	The ID of the sales dealer user who executed the trade

**Table 6-76 Trade ticket details (continued)**

Execution Venue	The execution venue if the trade was executed in an MTF under the MiFID II regulatory regime
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### 6.16.1 Details of cover trades and covered trades

The Trade Detail window includes information about any trades executed to cover this trade in the Cover Trades table and any trades that have been covered by this trade in the Covered Trades table:

**Table 6-77 Cover/covered trade details**

Status	The current workflow state of the trade: <ul style="list-style-type: none"> <li>• TSCONFIRMED: Confirmed by the counterparty that requested the trade</li> <li>• TSVERIFIED: Verified by the liquidity provider</li> </ul>
Order ID	The ID of the order or request that originated the trade. Click the ID to see the details of the order. See <a href="#">Order and request ticket details</a> on page 407. May be empty.
Trade ID	The trade ID. Click the ID to see the details of the trade.
Cover/Covered Trade ID	The ID of the trade that covers this trade or is covered by this trade. Click the ID to see the details of the trade.
Trade Date	The trade date
Value Date	The trade's value date
Execution Time	The time the trade was done
Mkr/Tkr	Whether your organization was a maker or taker on the trade. For prime brokers, this field is empty.
B/S	Whether the trade was a buy or sell in the base currency from your organization's perspective
Ccy Pair	The currency pair of the trade
Base Amt	The amount of the trade in the base currency
Term Amt	The amount of the trade in the term currency
USD Amt	The notional amount of the trade in USD according to the previous day's end-of-day rates
Rate	The rate at which the trade was done
Org	The organization on the trade
Account	The your legal entity
Dealer	The counterparty's dealer user
Cpty	The counterparty organization that did the trade
CptyAccount	The counterparty's legal entity

## 6.16.2 Details of net trades and netted trades

The Trade Detail window includes information about any trades executed to net this trade in the Net Trades table and any trades that have been netted by this trade in the Netted Trades table. See [Net your positions](#) on page 430 for more information about net trades.

**Table 6-78** Net/netted trade details

Status	The current workflow state of the trade: <ul style="list-style-type: none"> <li>• TSCONFIRMED: Confirmed by the counterparty that requested the trade</li> <li>• TSVERIFIED: Verified by the liquidity provider</li> </ul>
Order ID	The ID of the order or request that originated the trade. Click the ID to see the details of the order. See <a href="#">Order and request ticket details</a> on page 407. May be empty.
Trade ID	The trade ID. Click the ID to see the details of the trade.
Covered Trade ID	The ID of the trade that is covered by this trade. Click the ID to see the details of the trade.
Trade Date	The trade date
Value Date	The trade's value date
Execution Time	The time the trade was done
Mkr/Tkr	Whether your organization was a maker or taker on the trade. For prime brokers, this field is empty.
B/S	Whether the trade was a buy or sell in the base currency from your organization's perspective
Ccy Pair	The currency pair of the trade
Base Amt	The amount of the trade in the base currency
Term Amt	The amount of the trade in the term currency
USD Amt	The notional amount of the trade in USD according to the previous day's end-of-day rates
Rate	The rate at which the trade was done
Org	The organization on the trade
Account	The your legal entity
Dealer	The counterparty's dealer user
Cpty	The counterparty organization that did the trade
CptyAccount	The counterparty's legal entity

## 6.16.3 Portfolio

The Trade Detail window includes the Portfolio with information about any associated portfolio.

**Table 6-79 Portfolio information**

Portfolio ID	The ID of the portfolio that was processed
Portfolio Name	The name of the portfolio that was processed
Org	The organization that uploaded the portfolio for processing
User	The ID of the user who uploaded the portfolio for processing
Credit Cpty	The ID of the credit counterparty organization that was selected when the portfolio was processed
Created Date	The date that the portfolio was uploaded
Modified Date	The timestamp of the last event on the portfolio
Execution Plan	The netting execution plan that was selected when the portfolio was processed: <ul style="list-style-type: none"> <li>• Simple netting: Netting base amounts and term amounts separately</li> <li>• Base/term netting: Netting base and term amounts together</li> <li>• Base/term + XCCY netting: Netting base, term, and cross currency amounts together using the vehicle currencies specified for the cross currencies</li> </ul>

## 6.16.4 Market snapshot

The Trade Detail window includes the Market Snapshot table with representative prices from the market at the time the trade was executed. Bid prices are on the left of the table and offer prices are on the right.

**Table 6-80 Market snapshot**

Timestamp	The timestamp on the price
Provider	The liquidity provider of the price
Size	The size of the price
Tier	The tier of the price, if any
Rate	The rate of the price

## 6.16.5 MiFID II

The Spreads table lists information for trades done in an MTF under the MiFID II regulatory regime.

## 6.16.6 Spreads

The Spreads table lists all the spreads on the trade. For more information about spreads, see [Profit-Spreads report](#) on page 341.

## 6.16.7 RFS quotes

For trades executed in the RFS workflow, the RFS Quotes table lists all the spreads on the trade. For more information about spreads, see [Profit-Spreads report](#) on page 341.

**Table 6-81 RFS quote details**

Transaction ID	The ID of the originating RFS request
Quote Date	The date the quote was made
Stream	The pricing stream that sourced the quote
State	The state of the quote: <ul style="list-style-type: none"> <li>• QSACTIVE: Active and tradable</li> <li>• QSACCEPTED: Accepted for trade execution</li> </ul>
Price Org	The organization that provided the quote
OrgLE	The taker's account ( <a href="#">legal entity</a> )
CcyPair	The currency pair of the quote
Leg Name	The trade leg of the quote: <ul style="list-style-type: none"> <li>• singleLeg</li> <li>• nearLeg</li> <li>• farLeg</li> </ul>
Amount	The amount of the quote
Currency	The dealt currency
Buy/Sell	Whether the quote was buy, sell, or two way
Bid Spot Rate	The bid spot rate of the quote
Bid Fwd Points	The bid forward points of the quote
Bid Rate	The all-in bid rate of the quote
Offer Spot Rate	The offer spot rate of the quote
Offer Fwd Points	The offer forward points of the quote
Offer Rate	The all-in offer rate of the quote
Mid Spot Rate	The mid spot rate of the quote
Mid Fwd Points	The mid forward points of the quote
Mid Rate	The all-in mid rate of the quote
Tenor	The tenor of the quote, if any
Value Date	The value date of the quote

## 6.17 Work with PDF reports

You must have a PDF viewer, such as Adobe Acrobat Reader installed and configured, so that you can view and print the PDF files generated from the various reports and detail screens.

The Admin Portal provider and developer assume no responsibility or liability for third-party software, hardware, or services.

## CHAPTER 7

# Manual intervention (amendments)

## 7.1 Introduction

Trades can require manual intervention through pricing rules or workflow exceptions.

You intervene with the screens and tools in the **Amendments** section of the Admin Portal.

- [Verify or reject pending trades](#) on page 421
- [Confirm unconfirmed trades](#) on page 422
- [Confirm trading exceptions](#) on page 422
- [Manual trades](#) on page 422
- [Net your positions](#) on page 430
- [Roll open positions](#) on page 433
- [Rebook trades](#) on page 438
- [Cancel trades](#) on page 439
- [Download manual intervention trades](#) on page 440

## 7.2 Verify or reject pending trades

Trades that have not been verified by the server after the trade request has been sent are considering pending trades.

You can choose to verify or reject pending trades.

### *To verify pending trades:*

1. Navigate to the Pending Trades screen (**Amendments > Pending Trades**).
2. Select a time period in which the trade was flagged pending from the **Period** drop-down list.
3. Select the checkboxes of the pending trades that you want to verify.
4. Enter the rates of any trades whose trade fields are blank.
5. Enter value dates for any trades whose value date fields are blank.
6. Click the **Verify Trade** button.

### *To reject pending trades:*

1. Navigate to the Pending Trades screen (**Amendments > Pending Trades**).
2. Select a time period in which the trade was flagged pending from the **Period** drop-down list.
3. Select the checkboxes of the pending trades that you want to reject.
4. *(Optional)* Enter a reason for the rejection in the trade's **Reject Reason** field.
5. Click the **Reject Trades** button.

## 7.3 Confirm unconfirmed trades

After a trade has been verified by the server, the trading app adds the verified trade to the Trade Blotter and sends a confirmation to the server that the trade has been successfully added to the Trade Blotter.

If the server does not receive a confirmation for a verified trade, the trade is considered unconfirmed and is added to the Unconfirmed Trades screen ([Amendments > Unconfirmed](#)).

You can then manually confirm the trade after communicating with the trader.

1. Navigate to the Unconfirmed Trades screen ([Amendments > Unconfirmed](#)).
2. Select a time period in which the trade was flagged unconfirmed from the **Period** drop-down list.
3. Select the checkboxes of the unconfirmed trades that you want to confirm.
4. Click **Confirm** button.

## 7.4 Confirm trading exceptions

If the server is unable to verify the counterparty of a trade with an exchange, it flags the trade as an exception.

You can specify the counterparty and confirm exceptions.

1. Navigate to the Exceptions screen ([Amendments > Exceptions](#)).
2. Select a time period in which the exception occurred from the **Period** drop-down list.
3. Select the checkboxes of the unconfirmed trades that you want to confirm.
4. Enter the correct counterparty or choose the counterparty with the chooser. The Admin Portal automatically populates the Counterparty field with your organization's default legal entity. See [Set your organization's default legal entity](#) on page 52.
5. Click **Confirm** button.

## 7.5 Manual trades

The Admin Portal allows you to enter trades manually into the system to:

- Enter trades done on other platforms
- Allocate credit
- Manage positions
- Roll positions
- Consolidate STP

You can enter individual trades in the UI or upload a batch of trades using a [CSV](#) file.

If you are a liquidity provider or prime broker, you can upload your counterparties' trades as well as your own. All uploaded trades are available for reporting and position management. Also, these trades are included in any credit calculations, subject to the credit limit rules in use.

You enter and upload trades from the taker's perspective.

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**NOTE:** Manual trades do not automatically appear in trading apps. You must refresh the trade blotter in the app or reconnect to see manual trades.

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The execution date and time of a manual trade is the date and time the trade was added to the system.

- [Create individual manual trades on page 423](#)
- [Upload a batch of manual trades on page 425](#)
- [CSV format for manual trade uploads on page 426](#)
- [Review manual trades on page 429](#)

### 7.5.1 Create individual manual trades

You can enter trades with the Manual Trade screen.

You enter trades from the taker's perspective.

1. Navigate to the Manual Trade screen (**Amendments > Manual Trades > Create Trade**).
2. Enter the business details of the trade in the fields provided. The fields change depending on the trade type you select from the **Trade Type** drop-down list. Items marked with an asterisk are required.
3. Click **Save**.

**Table 7-1** Manual trade entry fields

Name	Req'd	Description
Organization (Taker)	Y	The ID of the taker organization of the trade
Organization Account	N	The ID of the taker's <a href="#">legal entity</a> that did the trade
Counterparty Organization	Y	The ID of the maker organization ID (the liquidity provider or prime broker).
Counterparty Account	N	The ID of the maker's <a href="#">legal entity</a> that did the trade
Trade Type	Y	The trade type. The trade entry fields change depending on the trade type you select.
Currency Pair	Y	The base and term currencies of the trade's currency pair (base/term)
Dealt Currency	Y	The dealt currency of the trade
Organization Buy/Sell	Y	Whether the trade is a buy or a sell from the taker's perspective (the organization that entered the manual trade in the system)
Base Amount	Y	The amount of base currency. If you enter the term amount and the rate, the base amount is calculated for you automatically.
Term Amount	N	The amount of term currency. If you enter the base amount and rate, the term amount is calculated for you automatically.

**Table 7-1 Manual trade entry fields (continued)**

Name	Req'd	Description
Spot Rate	Y (outright)	The spot rate of the trade. Applies only to outright and NDF trades (select "Outright" or "NDF" from the <b>Trade Type</b> drop-down list).
Forward Points	Y (outright)	The forward points of the trade. Applies only to outright and NDF trades (select "Outright" or "NDF" from the <b>Trade Type</b> drop-down list).
Rate	N	The rate of the trade. For outright trades, this rate is the spot rate plus the forward points. If you enter the base and term amounts, the rate is calculated for you automatically. The rate precision is determined by the trade type and by the applicable <a href="#">quote convention</a> .
Trade Date	Y	The date the trade was done. Enter the date or click the calendar to choose a date: 
Value Date	<ul style="list-style-type: none"> <li>• N (spot)</li> <li>• Y (outright)</li> </ul>	<p>The value date of the trade. Enter the date or click the calendar to choose a date: </p> <p>For outright trades, you can enter the following shortcuts: TOM, TOD, 1M, Jan, Feb, Mar, Apr, May, Jun, Jul, Aug, Sep, Oct, Nov, Dec</p> <p>A month shortcut indicates the last business date of the month.</p> <p>For NDF trades, this date must be after spot.</p>
Fixing Date	N	<p>The fixing date for NDF trades. If not specified, the system calculates a date. If specified, the date must be before the value date and after the trade date. Enter the date or click the calendar to choose a date: </p> <p>You can enter the following shortcuts: 4D, 1W, 1M, Jan, Feb, Mar, Apr, May, Jun, Jul, Aug, Sep, Oct, Nov, Dec</p> <p>A month shortcut indicates the last business date of the month.</p>
Organization Reference ID	N	The taker organization's reference ID for the trade
Counterparty Reference ID	N	The maker organization's reference ID for the trade
Cover Trade IDs ( ; )	N	IDs of trades that cover this trade, if any. Separate multiple IDs with a semicolon ( ; ). The cover trades and covered trade must have the same trade date, value date, currency pair, and trade type.
Covered Trade ID	N	ID of trade that covered, fully or partially, by this trade, if any. The cover trades and covered trade must have the same trade date, value date, currency pair, and trade type.
Organization User	Y	The ID of taker organization's user who did the trade
Counterparty User	Y	The ID of the make organization's user who did the trade

**Table 7-1 Manual trade entry fields (continued)**

Name	Req'd	Description
Enable STP Download	N	A flag indicating whether the trade should be sent via STP download or not. You would enable STP if, for example, the trade is not already accounted for in your organization's back-office systems. Select the checkbox to make the trade entry eligible for STP download. Clear the checkbox if you do not want the trade to be sent via STP download.

## 7.5.2 Upload a batch of manual trades

If you have a large batch of manual trades, you can upload the trades using a [CSV file](#). For the details of the trade-upload CSV file, see [CSV format for manual trade uploads](#) on page 426.

### Trade perspective

You upload trades from the taker's perspective. Each trade entry specifies a maker and a taker, and whether the trade is a buy or a sell from the taker's perspective.

### Uploaded trades in trading apps

Manual trades do not automatically appear in trading apps. You must refresh the trade blotter in the app or reconnect to see manual trades.

### Trade dates

Trades with future dates do not appear in trading apps until the current business date matches the future trade date. Trades with past trade dates are only displayed when the user configures blotters and reports with a time period that includes the past date.

### File format

For the details of the trade-upload CSV file, see [CSV format for manual trade uploads](#) on page 426.

### Roll positions

You can use manual trade upload to roll your counterparties' positions from day to day.

To roll a position, enter two trades, one to offset the net spot position and then one for the next day's spot position.

Depending on the settlement process used, the counterparty's open position may be rolled at the end-of-day market price or similar.

For an extensive description of the process, see [Roll open positions](#) on page 433.

### Upload trades

1. Navigate to the Manual Trade screen (**Amendments > Manual Trades > CSV Upload**).
2. Choose how uploaded trades are handled by the system's STP download workflow from the **STP Download** radio buttons:
  - Click the **Enabled** radio button to send all trades in the batch through the STP download workflow, ignoring the STP setting specified for each trade in the CSV file.
  - Click the **Disabled** radio button to disable STP download for all trades in the batch, ignoring the STP setting specified for each trade in the CSV file.
  - Select the **Use values from CSV file** if you have specified an STP download setting for each trade in the batch.
3. Enter the path and filename in the **CSV file** field or select the file by clicking the **Browse...** button.
4. Click **Start Upload**.

### 7.5.3 CSV format for manual trade uploads

You can upload a batch of manual trades using a [CSV](#) file.

Each trade is represented by a line of comma-separated data in the file.

Your upload must include a header line exactly as shown in the examples below to specify the order of the data in the file and the format of the various dates.

The order of your data must be the same as specified in the header.

You cannot omit any field in the upload file that is specified in the header. If a specified field is null, you must indicate the empty field with adjacent commas (" ,") in the CSV file as shown in the examples.

Depending on the trade type, some header columns can be omitted. For example, if all trades in your upload file are spot trades, you can omit the ForwardPoints and SpotRate columns.

You enter and upload trades from the taker's perspective.

The date format you specify can be any combination of the following indicators:

- Day: DD
- Month: MM (numeric) or MMM (abbreviation)
- Year: YY or YYYY
- Separators: You must separate the format indicators with all hyphens (-) or all slashes/strokes (/).

**Example 7-1 FX spot with no specified value date (ForwardPoints and SpotRate columns omitted)**

```
TradeDate(mm/dd/yyyy),ValueDate(mm/dd/yyyy),CurrencyPair,TradeType,  
OrganizationBuySell,BaseAmount,TermAmount,Rate,  
TakerOrganization,CounterpartyOrganization,OrganizationAccount,  
CounterpartyAccount,EnableSTPDownload,OrganizationReferenceID,  
CounterpartyReferenceID,OrganizationUser,CounterpartyUser,DealtCurrency,  
CoverTradeIds,CoveredTradeId,FixingDate(mm/dd/yyyy)  
10/14/2014,,EUR/USD,FXSPOT,B,1000000,1645678,1.645678,BankA,Broker5,  
BankA-LE1,Broker5-LE1,F,133,af346,BankAUser1,Broker5User3,EURO,,,
```

**Example 7-2 FX spot with no specified value date (ForwardPoints and SpotRate columns included with null values)**

```
TradeDate(mm/dd/yyyy),ValueDate(mm/dd/yyyy),CurrencyPair,TradeType,  
OrganizationBuySell,BaseAmount,TermAmount,ForwardPoints,SpotRate,Rate,  
TakerOrganization,CounterpartyOrganization,OrganizationAccount,
```

```

CounterpartyAccount,EnableSTPDownload,OrganizationReferenceID,
CounterpartyReferenceID,OrganizationUser,CounterpartyUser,DealtCurrency,
CoverTradeIds,CoveredTradeId,FixingDate(mm/dd/yyyy)
10/14/2014,,EUR/USD,FXSPOT,B,1000000,1645678,,,1.645678,BankA,Broker5,
BankA-LE1,Broker5-LE1,F,133,af346,BankAUser1,Broker5User3,EUROUR,,,

```

**Example 7-3 FX outright (null columns omitted)**

```

TradeDate(mm/dd/yyyy),ValueDate(mm/dd/yyyy),CurrencyPair,TradeType,
OrganizationBuySell,BaseAmount,TermAmount,ForwardPoints,SpotRate,Rate,
TakerOrganization,CounterpartyOrganization,OrganizationAccount,
CounterpartyAccount,EnableSTPDownload,OrganizationReferenceID,
CounterpartyReferenceID,OrganizationUser,CounterpartyUser,DealtCurrency
04/23/2008,5/23/2008,EUR/USD,FXOUTRIGHT,B,1000000,1645678,.000078,
1.645600,1.645678,BankA,Broker5,BankA-LE1,Broker5-LE1,F,133,af346,
BankAUser1,Broker5User3,EUROUR,,,

```

**Example 7-4 FX outright (columns included with null values)**

```

TradeDate(mm/dd/yyyy),ValueDate(mm/dd/yyyy),CurrencyPair,TradeType,
OrganizationBuySell,BaseAmount,TermAmount,ForwardPoints,SpotRate,Rate,
TakerOrganization,CounterpartyOrganization,OrganizationAccount,
CounterpartyAccount,EnableSTPDownload,OrganizationReferenceID,
CounterpartyReferenceID,OrganizationUser,CounterpartyUser,DealtCurrency,
CoverTradeIds,CoveredTradeId,FixingDate(mm/dd/yyyy)
04/23/2008,5/23/2008,EUR/USD,FXOUTRIGHT,B,1000000,1645678,.000078,
1.645600,1.645678,BankA,Broker5,BankA-LE1,Broker5-LE1,F,133,af346,
BankAUser1,Broker5User3,EUROUR,,,

```

**Example 7-5 NDF (ValueDate not specified, FixingDate specified instead)**

```

TradeDate(mm/dd/yyyy),ValueDate(mm/dd/yyyy),CurrencyPair,TradeType,
OrganizationBuySell,BaseAmount,TermAmount,ForwardPoints,SpotRate,Rate,
TakerOrganization,CounterpartyOrganization,OrganizationAccount,
CounterpartyAccount,EnableSTPDownload,OrganizationReferenceID,
CounterpartyReferenceID,OrganizationUser,CounterpartyUser,DealtCurrency,
CoverTradeIds,CoveredTradeId,FixingDate(MM/dd/yyyy)
10/15/2014,,USD/INR,FXNDF,B,1000000,1188630,0.00003,1.1886,1.18863,
TakerOrg,LPOrg,TakerOrg2,LPOrgLE,T,,,TakerOrgUser,LPOrgQuoter,USD,,,1/30/2015

```

**Table 7-2 Manual trade CSV format**

CSV Header Label	Req'd	Description	Example Values
TradeDate( <i>date format</i> )	Y	The trade date was done. You specify the date format in the file header between the parentheses.	12/13/2008
ValueDate( <i>date format</i> )	N (if null, column must be included with "")	Value date of the trade. You specify the date format in the file header between the parentheses. Can be null. If null, then the value date is computed by the system.	Dec/16/2008
CurrencyPair	Y	The currency pair of the trade	EUR/USD
TradeType	Y	The trade type	<ul style="list-style-type: none"> <li>• FXSPOT</li> <li>• FXOUTRIGHT</li> <li>• FXNDF</li> </ul>

**Table 7-2 Manual trade CSV format (continued)**

CSV Header Label	Req'd	Description	Example Values
OrganizationBuySell	Y	Whether the trade is a buy or a sell from your organization's perspective (the organization that entered the manual trade in the system).	<ul style="list-style-type: none"> <li>• B</li> <li>• S</li> </ul>
BaseAmount	Y	The amount of base currency. Do not use thousands separator characters to format the amount. You must use a period to indicate decimal amounts, not a comma.	20000000
TermAmount	Y	The amount of term currency. Do not use thousands separator characters to format the amount. You must use a period to indicate decimal amounts, not a comma.	29690000
ForwardPoints	<ul style="list-style-type: none"> <li>• N (spot, column can be omitted)</li> <li>• Y (outright)</li> </ul>	The forward points of the trade. Applies only to outright trades. This column can be omitted for spot trade upload.	.000078
SpotRate	<ul style="list-style-type: none"> <li>• N (spot, column can be omitted)</li> <li>• Y (outright)</li> </ul>	The spot rate of the trade. Applies only to outright trades. This column can be omitted for spot trade upload.	1.645600
Rate	N (if null, column must be included with "")	The rate of the trade. If the rate is left null, it is calculated according to the base and term amounts to the precision specified by the <a href="#">quote convention</a>	1.4845
TakerOrganization	Y	The ID (short name) of the taker organization	BankA
CounterpartyOrganization	Y	The ID (short name) of the maker organization (the liquidity provider or prime broker)	Broker5
OrganizationAccount	N (if null, column must be included with "")	The ID (short name) of the taker's <a href="#">legal entity</a> that did the trade.	BankA-LE1
CounterpartyAccount	N (if null, column must be included with "")	The ID (short name) of the maker's <a href="#">legal entity</a> that did the trade.	Broker5-LE1
EnableSTPDownload	Y	A flag, true or false, indicating whether the trade should be sent via STP download or not. If left null and you choose to use the settings in the file when you upload, false is assumed. See <a href="#">Upload a batch of manual trades</a> on page 425.	<ul style="list-style-type: none"> <li>• T</li> <li>• F</li> <li>• null</li> </ul>

**Table 7-2 Manual trade CSV format (continued)**

CSV Header Label	Req'd	Description	Example Values
OrganizationReferenceID	N (if null, column must be included with ",")	The taker's reference ID for the trade. Can be null.	133
CounterpartyReferenceID	N (if null, column must be included with ",")	The maker's reference ID for the trade. Can be null.	af346
OrganizationUser	Y	The ID of your organization's user who did the trade	BankAUser1
CounterpartyUser	Y	The ID of the counterparty's user who did the trade	Broker5User3
DealtCurrency	Y	The dealt currency of the trade	EUR
CoverTradeIDs	N (column can be omitted)	IDs of trades that cover this trade, if any. Separate multiple IDs with a semicolon (;). The cover trades and covered trade must have the same trade date, value date, currency pair, and trade type. If null, this column can be omitted.	N/A
CoveredTradeID	N (column can be omitted)	ID of trade that covered, fully or partially, by this trade, if any. The cover trades and covered trade must have the same trade date, value date, currency pair, and trade type. If null, this column can be omitted.	N/A
FixingDate(MM/dd/yyyy)	N (column can be omitted)	The fixing date for NDF trades. Can be null. If null, then the value date is computed by the system and this column can be omitted. If specified, the date must be before the value date and after the trade date.	4d

## 7.5.4 Review manual trades

You can review the trades that have been added to the system.

The system displays manual trades from your perspective.

1. Navigate to the Manual Trades screen (**Amendments > Manual Trades > View Trades**).
2. Choose a time period of manual trades to view from the **Period** drop-down list. Trades are displayed according to their execution date/time (the date/time they were added to the system).

The table updates to display the manual trades you have selected. Only trades for which you are the user or the counterparty user are displayed. Trades are always displayed from the perspective of the user logged into the Admin Portal.

## 7.6 Net your positions

The system allows you to replace like trades by a single net trade that represents the same financial effect.

By consolidating your trading activity, you can benefit from the efficiencies brought by fewer trade tickets to process.

If you have the proper permissions, you can choose how trades are grouped for netting. See [Configure netting](#) on page 16.

### 7.6.1 Criteria for nettable trades

You can net only confirmed spot trades with a trade date of today or yesterday.

In addition, nettable trades must necessarily have the same characteristics:

- Trade type (currently you can only net spot trades)
- Currency pair
- Trade date
- Value date (currently you can only net spot trades)
- Buy/sell direction
- Counterparty

Trades with the same values for these criteria share a *netting signature*. The system uses this netting signature to group trades into positions.

### 7.6.2 Effects of netting

The trades that you replace are cancelled by the system.

The new trade is booked at the average rate and total size of all the netted trades. The rate implied by the exchanged amounts of the new trade may include more decimal places than the standard quote convention for the currency pair.

The system establishes a relationship between the new trade and the cancelled trades that is shown in reports, audit records, and STP downloads.

### 7.6.3 The netting screen and actions

The Netting screen ([Amendments > Netting](#)) shows all of your positions grouped by their netting signature into rows.

The rate displayed for each position is implied by the exchanged amounts of the trades and may include more decimal places than the standard quote convention for the currency pair.

You can perform the following actions on the trades in the Netting screen:

- [Net all trades in a position](#) on page 431
- [Net some trades in a position](#) on page 431

- [Search and sort your nettable positions](#) on page 432

#### 7.6.4 Net all trades in a position

The system allows you to net all the trades in a position with a single click.

1. Navigate to the Netting screen (**Amendments > Netting**).  
The system retrieves your positions. This may take a few seconds.
2. *(Optional)* Search for the position that you want to net. See [Search and sort your nettable positions](#) on page 432 for details.
3. Select the **Enable STP Download** checkbox to send STP messages for the cancelled trades and the new net trade. If you want to disable STP for netting, clear the checkbox.
4. Click the **Net All** button of the position that you want to net.

The Netting screen changes to show the trade-by-trade progress as the system works its way through the position, canceling trades and preparing the net trade. You can click **Stop** to cancel the netting process and do a net trade for the trades that have been cancelled. Any remaining uncancelled trades remain in effect in the system.

5. When the netting process is complete, click **OK**. To see the latest remaining positions, refresh the screen by clicking the **Netting** navigation link.

The system books the net trade at the average rate and total size of all the cancelled trades. The rate implied by the exchanged amounts of the net trade may include more decimal places than the standard quote convention for the currency pair.

#### 7.6.5 Net some trades in a position

The system allows you to net individual trades in a position.

1. Navigate to the Netting screen (**Amendments > Netting**).  
The system retrieves your positions. This may take a few seconds.
2. *(Optional)* Search for the position that includes the trades you want to net. See [Search and sort your nettable positions](#) on page 432 for details.
3. Click the **Net Some** button of the position that you want to net.  
The Net Some screen appears showing the trades that make up the position.
4. Select the checkboxes of the individual trades that you want to net.
5. Select the **Enable STP Download** checkbox to send STP messages for the cancelled trades and the new net trade. If you want to disable STP for netting, clear the checkbox.
6. Click the **Net These** button.

The Netting screen changes to show the trade-by-trade progress as the system works its way through the trades you chose, canceling the trades and preparing the net trade. You can click **Stop** to cancel the netting process and do a net trade for the trades that have been cancelled. Any remaining uncancelled trades remain in effect in the system.

7. When the netting process is complete, click **OK**.

The system books the net trade at the average rate and total size of the cancelled trades. The rate implied by the exchanged amounts of the net trade may include more decimal places than the standard quote convention for the currency pair.

## 7.6.6 Search and sort your nettable positions

The Netting screen provides tools that you can use to quickly find trades to net.

- [Search](#) on page 432
- [Sort](#) on page 432

### Search

You can use the following criteria to search your positions:

- Trade Date: Show trades with trade dates of today or yesterday using the **Nettable Positions** drop-down list.
- Currency or Currency Pair: Enter a currency or currency pair in the field above the "CcyPair" column.
- Your organization account: Enter your organization's trading party ID in the field above the "Account" column

You can search by partial matches. For example, if you enter "EUR" in the CcyPair column's field, you will find all positions that include EUR in the currency pair, either as base or term currency.

The search is also case insensitive. If you enter "broker", your search results in "BrokerB" and "brokerbund".

#### **To search your positions:**

1. Navigate to the Netting screen (**Amendments > Netting**).  
The system retrieves your positions. This may take a few seconds.
2. By default, the Netting screen shows nettable positions for today. If you want to show nettable positions from yesterday, select "Yesterday" from the **Nettable Positions** drop-down list. It may take a few seconds for the screen to display your positions.
3. Enter your search criteria in the fields.
4. Click **Search**.

The screen updates to show the positions that match your search.

To clear your search and display all positions for the trade date, click **Clear**.

### Sort

You can also sort the positions by the following columns:

- Trades
- Buy/Sell
- CcyPair
- Base Amount

- Rate
- Term Amount
- Account (if trades are grouped by LE only or both LE and TP, see [Configure netting](#) on page 16)
- Organization (if trades are grouped by TP only or not grouped at all, see [Configure netting](#) on page 16)

Click the column header to alternate between ascending and descending sort.

## 7.7 Roll open positions

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**NOTE:** The following procedures assume that you have permission to save files to your workstation and that you have a working knowledge of Microsoft Excel.

---

The following sections describe how to roll open counterparty positions.

This document describes how to roll open counterparty positions.

Rollover is the process of extending the settlement/maturity date on an open position by moving it out to a future settlement date. The newly created position has a later value date allowing it to be held without taking delivery. Because a rollover is an artificial closing of the open position for a certain value date and opening a simultaneous position for a future value date, the roll can be achieved with a swap operation. The customer then maintains the position without settling.

Roll operations in the system are performed by entering manual trades for open positions in each currency pair at the end of day on the positions' value date.

Positions that are not in your home currency are handled separately as residual trades.

The rollover process consists of the following general steps.

1. [Generate and download a positions report](#) on page 433
2. [Calculate open positions in Excel](#) on page 435
3. [Prepare upload files to roll positions](#) on page 435
  - [Roll short and long positions separately](#) on page 436
  - [Roll net positions](#) on page 436
4. [Prepare upload files to convert residuals](#) on page 437
5. [Upload CSV file to roll positions](#) on page 437

### 7.7.1 Generate and download a positions report

The first step of rolling positions is to generate a report of positions and downloading the report as a CSV file for further processing.

1. Navigate to the Currency Pair Positions Report screen (**Reports > Positions > Positions-CcyPair**)
2. Specify the report criteria.

The **Update** button turns red to indicate that you have changed the report criteria and that any results shown do not necessarily reflect the current criteria.

3. Click the **Update** button.

Open positions are displayed in the Position reports and are calculated on a per currency pair across value dates. The position report displays Buy Amount Base, Sell Amount Base, Net Base, Average Buy and Average Sell rates across all transactions performed for a currency pair.

Org	Ccy Pair	Net Base	Net Term	Buy Amount Base	Sell Amount Term	Sell Amount Base	Buy Amount Term	Avg Buy Rate	Avg Sell Rate	Net USD
<b>AUD/CAD</b>										
		66,282,250.03	(78,856,555.39)	135,775,324.78	157,475,604.16	69,493,074.75	78,619,048.77	1.15982491	1.13132206	(8,143,232.28)
<b>Ccy Pair Summary:</b>		<b>66,282,250.03</b>	<b>(78,856,555.39)</b>	<b>135,775,324.78</b>	<b>157,475,604.16</b>	<b>69,493,074.75</b>	<b>78,619,048.77</b>	<b>1.15982491</b>	<b>1.13132206</b>	<b>(8,143,232.28)</b>
<b>AUD/USD</b>										
		(999,616.91)	2,440,076.28	6,000,383.09	4,479,133.72	7,000,000.00	6,919,210.00	0.74647463	0.98845857	1,389,628.85
<b>Ccy Pair Summary:</b>		<b>(999,616.91)</b>	<b>2,440,076.28</b>	<b>6,000,383.09</b>	<b>4,479,133.72</b>	<b>7,000,000.00</b>	<b>6,919,210.00</b>	<b>0.74647463</b>	<b>0.98845857</b>	<b>1,389,628.85</b>
<b>CAD/CHF</b>										
		(13,336.00)	19,406.84	1,000,000.00	1,794,500.00	1,013,336.00	1,813,906.84	1.79450000	1.79003493	7,768.79
<b>Ccy Pair Summary:</b>		<b>(13,336.00)</b>	<b>19,406.84</b>	<b>1,000,000.00</b>	<b>1,794,500.00</b>	<b>1,013,336.00</b>	<b>1,813,906.84</b>	<b>1.79450000</b>	<b>1.79003493</b>	<b>7,768.79</b>
<b>EUR/CAD</b>										
		7.23	(9.43)	7.23	9.43	0.00	0.00	1.30428769	0.00000000	0.18
<b>Ccy Pair Summary:</b>		<b>7.23</b>	<b>(9.43)</b>	<b>7.23</b>	<b>9.43</b>	<b>0.00</b>	<b>0.00</b>	<b>1.30428769</b>	<b>0.00000000</b>	<b>0.18</b>
<b>EUR/CHF</b>										
		(0.03)	93,194.04	8,000,000.00	9,470,952.90	8,000,000.03	9,564,146.94	1.18386911	1.19551836	100,486.43
<b>Ccy Pair Summary:</b>		<b>(0.03)</b>	<b>93,194.04</b>	<b>8,000,000.00</b>	<b>9,470,952.90</b>	<b>8,000,000.03</b>	<b>9,564,146.94</b>	<b>1.18386911</b>	<b>1.19551836</b>	<b>100,486.43</b>
<b>EUR/GBP</b>										
		14,209,342.61	(8,628,399.25)	317,431,310.19	257,659,508.75	303,221,967.58	249,031,109.50	0.81170162	0.82128321	5,392,737.06
<b>Ccy Pair Summary:</b>		<b>14,209,342.61</b>	<b>(8,628,399.25)</b>	<b>317,431,310.19</b>	<b>257,659,508.75</b>	<b>303,221,967.58</b>	<b>249,031,109.50</b>	<b>0.81170162</b>	<b>0.82128321</b>	<b>5,392,737.06</b>
<b>EUR/JPY</b>										
		0.00	0.00	8,500,000.00	1,083,836,000.00	8,500,000.00	1,083,836,000.00	127.51011765	127.51011765	0.00
<b>Ccy Pair Summary:</b>		<b>0.00</b>	<b>0.00</b>	<b>8,500,000.00</b>	<b>1,083,836,000.00</b>	<b>8,500,000.00</b>	<b>1,083,836,000.00</b>	<b>127.51011765</b>	<b>127.51011765</b>	<b>0.00</b>
<b>EUR/USD</b>										
		(23,856,909.73)	37,352,099.13	457,456,529.04	590,129,074.87	481,313,438.77	627,481,174.00	1.29002219	1.30368513	6,070,919.09
<b>Ccy Pair Summary:</b>		<b>(23,856,909.73)</b>	<b>37,352,099.13</b>	<b>457,456,529.04</b>	<b>590,129,074.87</b>	<b>481,313,438.77</b>	<b>627,481,174.00</b>	<b>1.29002219</b>	<b>1.30368513</b>	<b>6,070,919.09</b>
<b>GBP/AUD</b>										
		(9,000,006.35)	13,251,960.02	0.00	0.00	9,000,006.35	13,251,960.02	0.00000000	1.47243896	117,112.44

**Figure 7-1** Currency pair positions report

- Click the Excel Download button.

A File Download dialog opens.

- Click Save.

A Save As dialog opens.

- Choose the location to which you want to save the file.

- If you want to change the file's default name, enter it in the **File name:** field.

- Click the **Save** button.

The file is saved as a **CSV** file.

## 7.7.2 Calculate open positions in Excel

After downloading and saving the CSV file, open the CSV in Microsoft Excel. Filter the worksheet for a currency pair that has open positions that need to be rolled (EUR/USD in this example).

A	B	C	D	E	F	G	H	I	J	
1	Ccy Pair	Value Date	Net Base	Net Term	Buy Amount Base	Sell Amount Term	Sell Amount Base	Buy Amount Term	Avg Buy Rate	Avg Sell Rate
2	EUR/GBP	22-Feb-08	0	0	3000000	2093100	3000000	2093100	0.6977	0.6977
3	EUR/JPY	22-Feb-08	0	49000	1000000	1139000	1000000	1188000	1.139	1.188
4	EUR/USD	30-May-08	0	0	2000000	2376001.2	2000000	2376001.2	1.1880006	1.1880006
5	EUR/USD	31-Mar-08	0	0	4000000	5030501.4	4000000	5030501.4	1.25762535	1.25762535
6	EUR/USD	24-Mar-08	6072.900358	0	841325.505	1000000	835252.6046	1000000	1.1886006	1.1972426
7	EUR/USD	29-Feb-08	-18531.99868	-0.6	7512283.699	8958688.5	7530815.698	8958687.9	1.192538629	1.189603923
8	EUR/USD	28-Feb-08	-0.141565769	0.1	2841325.576	3377200.2	2841325.717	3377200.3	1.188600218	1.188600194
9	EUR/USD	27-Feb-08	5.818815698	224.7343	5003841.326	5969800.6	5003835.507	5970025.334	1.193043546	1.193089846
10	EUR/USD	25-Feb-08	-6.88699E-05	12.5328742	2839809.808	3375305.967	2839809.808	3375318.5	1.188567614	1.188572027
11	EUR/USD	22-Feb-08	-28777393.36	3.45E+07	279367646.8	332038554.2	308145040.1	366538470.3	1.188536175	1.189499822
12	EUR/USD	21-Feb-08	0	0	1000000	1188000.1	1000000	1188000.1	1.1880001	1.1880001
13	GBP/USD	22-Feb-08	-3.73E-09	300	29604872.34	53098877.21	29604872.34	53099177.21	1.793585752	1.793595885
14	USD/CAD	23-Feb-09	0	20835	3000000	3053045	3000000	3073880	1.017681667	1.024626667
15	USD/CAD	31-Dec-08	0	0	2000000	2782400.8	2000000	2782400.8	1.3912004	1.3912004
16	USD/CAD	22-Apr-08	0	864	1000000	1172424	1000000	1173288	1.172424	1.173288
17	USD/CAD	21-Apr-08	0	0	3000000	4723567.8	3000000	4723567.8	1.5745226	1.5745226
18	USD/CAD	31-Mar-08	0	218600	5437607.526	7345601.4	5437607.526	7564201.4	1.350888486	1.39108999
19	USD/CAD	24-Mar-08	0	73124.8	10000000	12460194.6	10000000	12533319.4	1.24601946	1.25333194
20	USD/CAD	29-Feb-08	0	23.427	3001000	3975592.3	3001000	3975615.727	1.324755848	1.324763654
21	USD/CAD	27-Feb-08	0	0	15000000	16721426	15000000	16721426	1.114761733	1.114761733
22	USD/CAD	22-Feb-08	61403895.26	-7.83E+07	75721648.94	97341854.2	14317753.68	19060545.7	1.285522114	1.331252522
23	USD/CAD	21-Feb-08	-62404895.26	8.68E+07	24628577.35	33861381.8	87033472.6	120652981.8	1.374881761	1.386282521
24	USD/CHF	22-Feb-08	0	0	2000000	2600400	2000000	2600400	1.3002	1.3002
25	USD/JPY	27-Feb-08	0	0	1000000	104944040	1000000	104944040	104.94404	104.94404
26	USD/JPY	22-Feb-08	0	1.08E+08	9002100	856464852	9002100	964501852	95.14056187	107.1418727
27	USD/JPY	21-Feb-08	0	0	2000	230240	2000	230240	115.12	115.12
...					305406232.66	334196079.4		1.189609	1.190362	

Figure 7-1 CSV file opened in Microsoft Excel and showing open positions for EUR/USD

Calculate the Total Buy Amount Base and Sell Amount Base across the value dates. Also, calculate the Average Buy Rate and Average Sell Rate (these are weighted averages) across the corresponding values dates.

A	B	C	D	E	F	G	H	I	J
Ccy Pair	Value Date	Net Base	Net Term	Buy Amount Base	Sell Amount Term	Sell Amount Base	Buy Amount Term	Avg Buy Rate	Avg Sell Rate
EUR/USD	30-May-08	0	0	2000000.00	2376001.20	2000000	2376001.2	1.188001	1.188001
EUR/USD	31-Mar-08	0	0	4000000.00	5030501.40	4000000	5030501.4	1.257625	1.257625
EUR/USD	24-Mar-08	6072.900358	0	841325.50	1000000.00	835252.6046	1000000	1.188601	1.197243
EUR/USD	29-Feb-08	-18531.99868	-0.6	7512283.70	8958688.50	7530815.698	8958687.9	1.192539	1.189604
EUR/USD	28-Feb-08	-0.141565769	0.1	2841325.58	3377200.20	2841325.717	3377200.3	1.188600	1.188600
EUR/USD	27-Feb-08	5.818815698	224.7343	5003841.33	5969800.60	5003835.507	5970025.334	1.193044	1.193090
EUR/USD	25-Feb-08	-6.88699E-05	12.5328742	2839809.81	3375305.97	2839809.808	3375318.5	1.188568	1.188572
EUR/USD	22-Feb-08	-28777393.36	3.45E+07	279367646.75	332038554.24	308145040.1	366538470.3	1.188536	1.189500
EUR/USD	21-Feb-08	0	0	1000000.00	1188000.10	1000000	1188000.1	1.188000	1.188000
				305406232.66		334196079.4		1.189609	1.190362

Figure 7-2 Calculation of amounts and average rates in Microsoft Excel

## 7.7.3 Prepare upload files to roll positions

Using the calculations from your Excel worksheet, you then create CSV files to upload into the system as manual trades.

For positions in your home currency (accounting currency), you have two options for rollovers:

- [Roll short and long positions separately](#) on page 436: You roll each position for currency pair separately with four manual trades, two opposite trades to offset and roll the long position and two opposite trades to offset and roll the short position. If no long or short position exists, then a rollover is not required.
- [Roll net positions](#) on page 436: You roll the net position for the currency pair with two manual trades, one to offset the net spot position for a currency pair and the other for the next day's spot position.

### Roll short and long positions separately

For a currency pair, a long and short position can be rolled over by executing two manual trades per position (a total of four manual trades).

In the following example, the position is long EUR 305,406,232.66 and short USD 334,196,079.40.

A set of trades will be executed to roll the long EUR 305,406,232.66 and another set of two trades will be executed to roll the short USD 334,196,079.40. The rate used is computed from the Average Buy Rate and Average Sell Rate (EUR/USD 1.18961/1.9036).

For the long EUR 305,406,232.66 position, the two manual trades to be uploaded to the system are:

- Sell EUR 305,406,232.66 @ EUR/USD 1.18961 (value date is the current position date)
- Buy EUR 305,406,232.66 @ EUR/USD 1.9036 (value date is the current position date + 1)

For the short USD 334,196,079.40 position, the two manual trades to be uploaded to the system are:

- Buy USD 334,196,079.40 @ EUR/USD 1.18961 (value date is the current position date)
- Sell USD 334,196,079.40 @ EUR/USD 1.9036 (value date is the current position date + 1)

The CSV file that you would then upload to the system would look like the following:

```
TradeDate(MM/dd/yyyy),ValueDate(MM/dd/yyyy),CurrencyPair,TradeType,  
OrganizationBuySell,BaseAmount,TermAmount,Rate,  
TakerOrganization,CounterpartyOrganization,OrganizationAccount,  
CounterpartyAccount,EnableSTPDownload,OrganizationReferenceID,  
CounterpartyReferenceID,OrganizationUser,CounterpartyUser,DealtCurrency,  
CoverTradeIds,CoveredTradeId  
22-Feb-  
10,,EUR/USD,FXSpot,S,305406232.66,363314308.43466,1.18961,Bank1,Broker1,,,F,OrgTrade1,  
Broker1Trade1,OrgUser1,BrokerUser1,EUROur,,  
23-Feb-  
10,,EUR/USD,FXSpot,B,305406232.66,363314308.43466,1.19036,Bank1,Broker1,,,F,OrgTrade2,  
Broker1Trade2,OrgUser1,BrokerUser1,EUROur,,  
22-Feb-  
10,,EUR/USD,FXSpot,B,280752108.10175,334196079.40,1.19036,Bank1,Broker1,,,F,OrgTrade3,  
Broker1Trade3,OrgUser1,BrokerUser1,EUROur,,  
23-Feb-  
10,,EUR/USD,FXSpot,S,280752108.10775,334196079.40,1.18961,Bank1,Broker1,,,F,OrgTrade4,  
Broker1Trade4,OrgUser1,BrokerUser1,EUROur,,
```

For the details of the CSV upload format, see [CSV format for manual trade uploads](#) on page 426.

### Roll net positions

Rollovers can also be accomplished by executing two trades for the net open position: one trade to offset the net spot position of a currency pair and another trade to represent the future date's net spot position.

In this example, the net open position is short EUR 28,789,846.78

To roll this net open position, a swap can be executed to buy EUR in the near leg (spot) and to sell EUR in the far leg (fwd). To represent this swap, two manual trades are uploaded to the system:

- Buy EUR 28,789,846.78 (near leg: spot)
- Sell EUR 28,789,846.78 (far leg: fwd)

The CSV file that you would then upload to the system would look like the following:

```
TradeDate(MM/dd/yyyy),ValueDate(MM/dd/yyyy),CurrencyPair,TradeType,  
OrganizationBuySell,BaseAmount,TermAmount,Rate,  
TakerOrganization,CounterpartyOrganization,OrganizationAccount,  
CounterpartyAccount,EnableSTPDownload,OrganizationReferenceID,  
CounterpartyReferenceID,OrganizationUser,CounterpartyUser,DealtCurrency,  
CoverTradeIds,CoveredTradeId  
22-Feb-10,,EUR/USD,FXSpot,B,28789846.78,  
363314308.43466,1.18961,Bank1,Broker1,,,F,OrgTrade1,Broker1Trade1,OrgUser1,BrokerUser1,  
EUR,,  
23-Feb-10,,EUR/USD,FXSpot,B,28789846.78,  
363314308.43466,1.19036,Bank1,Broker1,,,F,OrgTrade2,Broker1Trade2,OrgUser1,BrokerUser1,  
EUR,,
```

For the details of the CSV upload format, see [CSV format for manual trade uploads on page 426](#).

#### 7.7.4 Prepare upload files to convert residuals

Trades used to convert non-home (i.e., non-accounting) currency open positions to the home currency are called Residual trades. Manual trade uploads are used in FX Inside to enter the Residual trades. The rate will always be provided by the user and will be equal to the market rate used to convert non-home currency open position to the home currency.

For example, consider an open position of long CAD 2,000,000.00 with a home currency of USD. To convert this non-limit open position to an open position in the home currency, you upload a residual trade to the system that sells CAD 2,000,000.00 and buys USD @ USD/CAD 1.0127/1.0132.

The CSV file that you would then upload to the system would look like the following:

```
TradeDate(MM/dd/yyyy),ValueDate(MM/dd/yyyy),CurrencyPair,TradeType,  
OrganizationBuySell,BaseAmount,TermAmount,ForwardPoints,SpotRate,Rate,  
TakerOrganization,CounterpartyOrganization,OrganizationAccount,  
CounterpartyAccount,EnableSTPDownload,OrganizationReferenceID,  
CounterpartyReferenceID,OrganizationUser,CounterpartyUser,DealtCurrency,  
CoverTradeIds,CoveredTradeId  
22-Feb-10,,USD/CAD,FXSpot,S,1974918.53,2000000,1.0127,Bank1,Broker1,,,F,OrgTrade1,  
Broker1Trade1,OrgUser1,BrokerUser1,USD,,
```

For the details of the CSV upload format, see [CSV format for manual trade uploads on page 426](#).

#### 7.7.5 Upload CSV file to roll positions

After you have prepared the CSV files, the final step is to upload the files to the system.

1. Navigate to the Manual Trade screen ([Amendments > Manual Trades > CSV Upload](#)).
2. Choose how the uploaded trades should be handled by the system's STP download workflow from the **STP Download** radio buttons:
  - Click the **Enabled** radio button to send all trades in the batch through the STP download workflow, ignoring the STP setting specified for each trade in the CSV file.
  - Click the **Disabled** radio button to disable STP download for all trades in the batch, ignoring the STP setting specified for each trade in the CSV file.
  - Select the **Use values from CSV file** if you have specified an STP download setting for each trade in the batch.
3. Enter the path and filename in the **CSV file** field or select the file by clicking the **Browse...** button.
4. Click **Start Upload**.

## 7.8 Rebook trades

If you have the appropriate permissions, you can rebook a trade, changing the [legal entity](#) of the trade. Rebooking a trade is useful to traders who trade on behalf of different accounts where each account is represented as a different legal entity.

For more information about user permissions, see [User permission groups](#) on page 28.

### 7.8.1 Workflow

When you rebook a trade, the system updates all trading and monitoring apps, and sends an STP message with the trade's changed legal entity to all participants in the trade.

1. A customer does a trade using the default legal entity.
2. The customer, customer representative, or liquidity provider rebooks the trade in the Admin Portal.
3. After verifying the cancellation request, the system updates the legal entity on the trade.
4. All apps and services are updated with the trade's new legal entity.
5. The system sends an STP message.

### 7.8.2 Credit

The status of the Credit Service when the trade is rebooked determines how credit is affected. If the credit is enabled at the organization level, no change is necessary. If credit is enabled at the counterparty level, then credit is given back to the original legal entity and used for the new legal entity. For more information about enabling and disabling the Credit Service, see [Enable or disable credit checking](#) on page 236 and [Enable or disable credit checking for a specific counterparty](#) on page 252.

### 7.8.3 Procedure

1. Navigate to the Cancel Trade screen ([Amendments > Rebook](#)).
2. Filter the list in the table for the trades that you want to rebook:
  - Select a time period in which the trade was done from the **Period** drop-down list.

- Enter a date range in the **Trade Date From** and **To** fields or choose dates with the  Calendar buttons.
  - Click the **Display Maker Trades** radio button to show liquidity provider trades (broker users only).
  - Click the **Display Customer Trades** radio button to show customer trades (broker users only).
  - If you have the appropriate permission, select a user from the **Dealer** drop-down list.
  - Select a legal entity from the **Account** drop-down list.
3. Change select new legal entities for the trades with the drop-down lists in the Account column.
  4. Click the **Submit** button.

## 7.9 Cancel trades

If you have the appropriate permissions, you can cancel trades. See [User permission groups](#) on page 28 for more information about user permissions.

### 7.9.1 Unsettled and settled trades

By default, you can cancel unsettled trades. If you want to be able to cancel settled trades, you must configure your organization ([Allow users to cancel settled trades](#) on page 18).

### 7.9.2 Workflow

When you cancel a trade, the system updates all trading and monitoring apps, and sends an STP message with the trade's change of status to all participants in the trade.

1. A customer does a trade and the trade is verified by the broker.
2. The broker cancels the trade in the Admin Portal.
3. After verifying the cancellation request, the system updates the state of the trade to TSCANCELLED.
4. All apps and services are updated with the trade's new status.
5. The system sends an STP message.

### 7.9.3 Credit

The status of the Credit Service when the trade was originally done determines whether or not the Credit Service is notified when the trade is cancelled. If the trade was done with credit enabled, the service is called. If credit was disabled, the service is not called. For more information about enabling and disabling the Credit Service, see [Enable or disable credit checking](#) on page 236.

The system uses the credit methodology in effect when the trade is cancelled to determine the cancelled trade's effect on credit. See [Credit methodologies and examples](#) on page 209.

## 7.9.4 Procedure

**CAUTION:** You cannot undo trade cancellation. Cancelled trades are removed from the system and cannot be recovered.

**To cancel trades:**

1. Navigate to the Cancel Trade screen (**Amendments > Cancel Trade**).
2. Filter the list in the table for the trades that you want to cancel:
  - Select a time period in which the trade was done from the **Period** drop-down list.
  - Enter a date range in the **Trade Date From** and **To** fields or choose dates with the  Calendar buttons.
  - Enter a date range in the **Value Date From** and **To** fields or choose dates with the  Calendar buttons.
  - Select a taker organization from the **Taker Org** drop-down list to narrow your search by counterparty.
3. Click the **Refresh** button to update the table with the trades that match your filter criteria.
4. Select the checkboxes of the trades that you want to cancel.
5. Click the **Cancel Trade** button.  
A dialog opens asking you to confirm the trade cancellation.
6. Click **OK**.

## 7.10 Download manual intervention trades

You can download trades from the Amendments screens as a **CSV** file or as an Excel file.

In the top right corner of the following Amendments screens, the  CSV button and an  Excel button allows you download trades:

- Pending Trades ([Verify or reject pending trades](#) on page 421)
- Unconfirmed Trades ([Confirm unconfirmed trades](#) on page 422)
- Exceptions ([Confirm trading exceptions](#) on page 422)

Both file formats include the following fields of trade information:

Unconfirmed and Pending: Trade Id,Trade Date,Execution Date/Time,LP,Customer,User,Ccy Pair,Buy/Sell,Base Amount,Term Amount,Trade Type,Rate,Value Date,Far Value Date

Exceptions: Trade Id,Trade Date,Execution Date/Time,Customer,User,Ccy Pair,Buy/Sell,Base Amount,Term Amount,Trade Type,Rate,Value Date,Far Value Date,Exchange,Counterparty

**Table 7-3** Manual intervention trade CSV format

Column Heading	Description
Trade Ids	ID of the trade
Trade Date	The date the trade was done

**Table 7-3** Manual intervention trade CSV format (continued)

Column Heading	Description
Execution Date/Time	The timestamp the trade execution
LP	Applicable to pending and unconfirmed trades only. The ID of the maker organization (the liquidity provider or prime broker)
Customer	The ID of the taker organization
User	The ID of the user in taker organization who initiated the trade
Ccy Pair	The currency pair of the trade
Buy/Sell	Whether the trade is a buy or a sell from the LP's perspective
Base Amount	The amount of base currency
Term Amount	The amount of term currency
Trade Type	The trade type, currently only FX spot is supported
Rate	The rate of the trade. If the rate is left null, it is calculated according to the base and term amounts to the precision specified by the <a href="#">quote convention</a>
Value Date	The value date of the trade
Far Value Date	The value date of the forward component of the trade, if any
Exchange	—
Counterparty	—
EnableSTPDownload	A flag, true or false, indicating whether the trade should be sent via STP download or not. If left null and you choose to use the settings in the file when you upload, false is assumed. See <a href="#">Upload a batch of manual trades</a> on page 425.
OrganizationReferenceID	The taker's reference ID for the trade. Can be null.
CounterpartyReferenceID	The maker's reference ID for the trade. Can be null.
OrganizationUser	The ID of your organization's user who did the trade
CounterpartyUser	The ID of the counterparty's user who did the trade
DealtCurrency	The dealt currency of the trade
CoverTradeIDs	IDs of trades that cover this trade, if any. Separate multiple IDs with a semicolon (;). The cover trades and covered trade must have the same trade date, value date, currency pair, and trade type.
CoveredTradeID	ID of trade that covered, fully or partially, by this trade, if any. The cover trades and covered trade must have the same trade date, value date, currency pair, and trade type.
FixingDate(MM/dd/yyyy)	The fixing date for NDF trades. Can be null. If null, then the value date is computed by the system. If specified, the date must be before the value date and after the trade date.

# CHAPTER 8

# Preferences

## 8.1 Introduction

The Admin Portal allows you to set your display preferences and manage your static password from the following screens:

- [Display preferences](#) on page 442: language, time, amounts, and alerts
- [Static password maintenance](#) on page 443

## 8.2 Display preferences

The Display Preferences screen ([Preferences > Display Preferences](#)) allows you to change how the Admin Portal displays information. The **User** read-only field displays the short name of the user to which the preferences apply.

- [Language](#) on page 442
- [Time and date display](#) on page 442
- [Amount formatting](#) on page 443
- [Alerts](#) on page 443

### 8.2.1 Language

The **Language** drop-down list allows you to choose the language in which the app screens are displayed.

To change your language preference, select a language from the drop-down list and click **Save**. The system now displays user interface elements in the selected language.

### 8.2.2 Time and date display

The following drop-down lists allow you to choose how dates and times are formatted:

---

<b>Date Format</b>	Select the format in which you want the Admin Portal to display dates. The formats consist of the following elements: <ul style="list-style-type: none"><li>• dd: Days</li><li>• MM: Months</li><li>• yy: Years</li></ul>
--------------------	---

---

---

<b>Time Format</b>	Select the format in which you want the Admin Portal to display times. The formats consist of the following elements: <ul style="list-style-type: none"><li>• hh: Hours</li><li>• mm: Minutes</li><li>• ss: Seconds</li><li>• aa: 12-hour time (AM/PM). A format without this element denotes 24-hour time.</li><li>• zzz: The time zone (EST, BST, CEST, etc)</li></ul>
<b>Time Zone</b>	Select the time zone that you want the Admin Portal to display for trading, reporting, and logging. The format you choose is denoted as an offset from Greenwich Mean Time (GMT) and is displayed as your local abbreviation (EST, BST, CEST, etc)

---

### 8.2.3 Amount formatting

The following drop-down lists allow you to choose how amounts are displayed:

---

<b>Negative Indicator</b>	Select the convention for indicating negative amounts.
<b>Thousands and decimal separator</b>	Select the convention for separating thousands and decimals in amounts.

---

### 8.2.4 Alerts

You can configure how the Admin Portal alerts you about important events, such as a new request for manual pricing.

***To change how you are notified of important system events:***

1. Navigate to the Display Preferences screen (**Preferences > Display Preferences**).
2. To open a popup window with each alert, select the **Show Trading Alert** checkbox.
3. To play a sound with each alert, select the **Enable Sound Alerts** checkbox and choose a sound from the **Select Sound Alert** drop-down list.
4. Click **Save**.

---

**NOTE:** Users who access the Admin Portal with modern browsers can take advantage of push notification technology so that Manual Pricer alerts always appear on top of all tabs and windows. You must ensure that your browser is configured to allow notifications from your Admin app site. Please refer to your browser's documentation about allowing notifications. Push notification alerts are not supported by legacy browsers like Internet Explorer.

---

## 8.3 Static password maintenance

The Password Maintenance screen (**Preferences > Password Maintenance**) allows you to change your static password. You may change your password a maximum of once a day. You may not reuse a password until after six (6) consecutive password changes.

### 8.3.1 Static password guidelines

The Admin Portal requires that you change your password every 90 days and after your first log in. If your password has expired, the Admin Portal prevents you from logging in until you change it.

---

**NOTE:** After four (4) failed log-in attempts in one 24-hour period, your account will be disabled. If your password is disabled, please contact Integral Business Support for help.

---

The password you choose must:

- Be a minimum of ten (10) characters long.
- Not contain your user ID or any part of your full name.
- Have no leading or trailing spaces.
- Contain no more than two consecutive, identical characters.
- Contain all of the following character classes:
  - English uppercase letters (A, B, C, ..., Z)
  - English lowercase letters (a, b, c, ..., z)
  - Westernized Arabic numbers (0, 1, 2, ..., 9)
  - Non-alphanumeric special characters, such as !, , ?, and \*.

---

**NOTE:** Admin Portal will not allow you to use a password that does not meet these minimum requirements.

---

Examples of invalid passwords:

- bumblebees – Enough characters, but not enough character classes (only lower-case letters).
- rQ1z! – Enough character classes (lower-case, upper-case, numbers, non-alpha characters), but not enough characters (only 5, minimum 10).
- gooo4Team! – Enough character classes (lower-case, upper-case, numbers, non-alpha characters), enough characters (10), but too many consecutive, identical characters ("ooo").

Examples of valid passwords:

---

**CAUTION:** Do not use these examples as your password.

---

- nmbr1To34! – Enough characters and all character classes.
- Adw\*wlii72 – Enough characters and all character classes.

### 8.3.2 Change your static password

To change your password:

1. Navigate to the Password Maintenance screen (**Preferences > Password Maintenance**).
2. Enter your current password in the **Password** field.
3. Enter your new password in the **New Password** field.
4. Re-enter your new password in the **Re-type New Password** field.
5. Click **Save**.

Your password has been changed. You must use this new password when you next log in to the system.

### 8.3.3 Static password tips

If you have difficulty when logging in to the Admin Portal with your static password, make sure that the Caps Lock key is not on.

## CHAPTER 9

# The user interface

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## 9.1 Introduction

The Admin Portal user interface includes tools and processes that allow you to work efficiently with your organization's data.

- [Active and inactive items](#) on page 446
- [Search and navigate tables](#) on page 447
- [Filter lists of data](#) on page 449
- [Enter amounts](#) on page 449
- [Enter a date with a calendar](#) on page 449
- [Enter data with a chooser](#) on page 450
- [Tenors](#) on page 451
- [Manage changes \(maker/checker\)](#) on page 452

You can also access searchable online help from the Admin Portal. See [How to use the help](#) on page 456 for details about how to find the information you need in the help.

## 9.2 Active and inactive items

Items that can be recorded as part of a trade, such as users and legal entities, cannot be deleted from the system in order to preserve record keeping and auditing data.

However, if an item is no longer applicable to your business, you can deactivate it.

For example, if an employee leaves your organization, you can deactivate their user account so that they cannot log in to the system and their user ID does not appear in the trading app. However, their user ID is still associated with other items that already refer to it.

You can reactivate an item and reinstate it to the system.

---

**NOTE:** If you deactivate a legal entity, all orders associated with the legal entity are cancelled. If you deactivate a user, orders submitted by the user may be cancelled depending on how you have configured the organization. See [Cancel orders on user inactivation](#) on page 18.

---

The following items can be deactivated and reactivated:

- Users ([Users](#) on page 19)
- Legal Entities ([Legal entities](#) on page 51)
- Trading Parties ([Trading parties](#) on page 82)
- Market Data ([Work with market data](#) on page 171)

### 9.2.1 Display the list of active or inactive items

The screens in the Admin Portal show active items by default.

Click the **Show Inactive** link to display the list of inactive items.

When a screen displays inactive items, click the **Show Active** link to display the list of active items.

### 9.2.2 Deactivate an item

1. In the item's list page, select the checkbox next to the ID (short name) of the item you want to deactivate.
2. Click the **Inactivate** button.

The selected item is inactive and is no longer available from user interface.

### 9.2.3 Reactivate an item

1. Click the **Show Inactive List** link in the item's list page.
2. On the list of inactive items, select the checkboxes of the items you want to reactivate.
3. Click the **Activate** button.

The selected items are reinstated in the system.

## 9.3 Search and navigate tables

Most of data in the system is presented in tables. The following sections describe the user-interface components that allow you to navigate and search tables.

### 9.3.1 Navigate numbered sets of items in a table

If a table contains too many items to be displayed at one time, numbered hyperlinks are generated that, when clicked, cause the table to display that particular set of items.

1-20 [21-40](#) [41-60](#) [61-80](#) [81-100](#) «Previous [Next >](#)

**Figure 9-1** Table navigation links

For example, suppose a table can only display 20 items at a time. If the table contains over 20 items, hyperlinks are generated labeled **1-20**, **21-40**, **41-60** and so on. If you click the **21-40** hyperlink, the table displays items 21-40. If you click the **41-60** hyperlink, the table displays items 41-60, and so on. If the table contains more than 100 items, use the **Next** and **Previous** links to access groups of hyperlinks in 100-item increments.

### 9.3.2 Search tables

Some tables allow you to search a table for specific items.

**NOTE:** Not all tables provide search.

The search is case insensitive. You can broaden your search results by truncating the search value with a wildcard. The system recognizes two wildcards:

- The asterisk wildcard \* stands for zero or more characters.
- The question mark wildcard ? stands for one character.

The table below contains examples of truncated search values:

**Table 9-1** Search value examples

Search Value	The System Finds	The System Does Not Find
*AI*	Ukraine, Spain	Australia
?AN*	Canada	France
*RU*	Peru	Russia
*Z*L	Brazil	Switzerland

#### To search a table:

1. Navigate to the page containing the table you want to search.
2. In the drop-down list, select an attribute to restrict the search, for example "ID".
3. In the field, enter the search string.
4. Click the **Search** button.

The results of the search appear in the table.

To clear the search parameter field and display all items in the table, click **Clear**.

Many tables include a collection of search shortcut links that allow you to view all the items in a table that begin with the link's character:

[A](#) [B](#) [C](#) [D](#) [E](#) [F](#) [G](#) [H](#) [I](#) [J](#) [K](#) [L](#) [M](#) [N](#) [O](#) [P](#) [Q](#) [R](#) [S](#) [T](#) [U](#) [V](#) [W](#) [X](#) [Y](#) [Z](#) [0](#) [1](#) [2](#) [3](#) [4](#) [5](#) [6](#) [7](#) [8](#) [9](#) [All](#)

**Figure 9-2** Table search shortcut links

The search is performed on the IDs (short names) of the items. For example, to view all the currency pairs in a table that begin with the letter B, click the **B** link. This performs a search with "B\*" as the search value.

## 9.4 Filter lists of data

Where lists and tables of data grow long and difficult to work with, the Admin Portal allows you to filter the list to focus on specific items.

Filter expressions are case-sensitive and are based on JavaScript regular expressions with the following simplifications:

- “\*” is a wildcard that matches zero or more characters. For example, “A\*D” matches “AD”, “AUD”, “AED”, and “APPLIED”.
- “?” is a wildcard that matches exactly one character. For example, “C?P” matches “CYP” and “CLP” but not “CPset”.
- “,” matches one expression or another inclusively. For example, “AUD,USD” matches both “AUD” and “USD”.
- To match a special character in your filter expression, escape it with backslash character “\”. For example, “AUD\,USD” matches “AUD,USD” not both “AUD” and “USD”.

## 9.5 Enter amounts

The sizes you enter must be a number of up to three digits followed by one of the following unit indicators:

- “K” or “k” for thousands
- “M” or “m” for millions
- “B” or “b” for billions

For example, “34.5K”, “10M”, and “2b” are all valid entries.

## 9.6 Enter a date with a calendar

Where you can enter dates in the report criteria, you can select those dates with a calendar pop-up window.



Figure 9-1 Calendar popup window

1. Click inside the date field or click the  Calendar button next to the date field.

The calendar opens displaying the current month and date.

2. Navigate to the desired month using month and year arrows.

3. Click a date in the calendar.

The calendar closes and the date that you selected is entered in the date field.

## 9.7 Enter data with a chooser

Where you can enter counterparty IDs in the reports criteria, the Admin Portal provides a popup window called a *chooser* that allows you select the ID by picking items from a table rather than typing them into the field.

1. Click the  Chooser button.

The chooser drop-down list opens.

2. Select "Search" from the list.

The chooser window opens.

3. Click the ID of the counterparty you want.

The chooser closes and the ID that you selected is entered in the field.



**Figure 9-1** A typical chooser

## 9.8 Tenors

You can use date shortcuts to enter dates more rapidly and accurately.

The system calculates the applicable business day according to date-roll rules, lag rules, and business calendars defined in the system.

The tenor shortcuts are case insensitive and can be used in any date field in the system.

**Table 9-2** Tenor shortcuts

Shortcut	Value
Today, TOD, ON	Today (equivalent to "overnight")
Tomorrow, TN, TM, TOM	Tomorrow (equivalent to "tomorrow next")
SP, SPOT	Spot
SN	Spot next
S <sub>term</sub>	A number of days (D), weeks (W), months (M), or years (Y) after spot. For example, S10D means "spot + ten days".
T <sub>term</sub>	A number of days (D), weeks (W), months (M), or years (Y) after tomorrow. For example, T3M means "tomorrow + three months".
nIMM	International Monetary Market (IMM) settlement dates. IMM dates are the third Wednesday of the last month of every quarter (March, June, September, December). Entering IMM results in the next IMM date on or after the spot date. Entering 2IMM results in two IMM dates after the spot date. The shortcuts S <sub>n</sub> IMM (spot + IMM) and T <sub>n</sub> IMM (tomorrow + IMM) are also supported for ease of use when entering swap requests.
nD	<i>n</i> number of days
nW	<i>n</i> number of weeks
nM	<i>n</i> number of months
nY	<i>n</i> number of years

## 9.9 Manage changes (maker/checker)

The Admin Portal allows you to divide access between creation permission (maker users) and validation permission (checker users) to ensure proper separation of duties for important administrative functions.

This means that one user (a maker) has permission to make changes to the system but another user (a checker) must validate the changes before they are put into effect.

Even if a user has both creation and validation permissions, that user cannot validate their own changes.

---

**NOTE:** The maker/checker workflow is not enabled by default. Please contact your Integral Solutions Manager if you want to enable the maker/checker workflow.

---

The maker/checker workflow applies to changes made to your organization as well as customer organizations.

- [Changes that require approval](#) on page 453
- [Maker/checker workflow overview](#) on page 453
- [Submit changes for validation](#) on page 454
- [Review changes](#) on page 454
- [Approve changes made by other users](#) on page 455

## 9.9.1 Changes that require approval

If the maker/checker workflow is enabled, the following changes requires another user with checker permission to approve before they take effect in the system:

- Changing your organization's name (see [Edit organization details](#) on page 15)
- Adding a user (see [Add new users](#) on page 19)
- Changing a user's permissions (see [Edit a user's permissions](#) on page 26)
- Changing a user's name (see [Edit a user's details](#) on page 21)
- Adding a legal entity (see [Add a new legal entity](#) on page 52)
- Changing the business center associated with a legal entity (see [Edit the details of a legal entity](#) on page 53)
- Changing a legal entity's name (see [Edit the details of a legal entity](#) on page 53)

---

**NOTE:** The maker/checker workflow is not enabled by default. Please contact your Integral Solutions Manager if you want to enable the maker/checker workflow.

---

## 9.9.2 Maker/checker workflow overview

The changes that apply to this workflow are listed in [Changes that require approval](#) on page 453.

For a more detailed description of organization states, see [Review changes](#) on page 454.

---

**NOTE:** The maker/checker workflow is not enabled by default. Please contact your Integral Solutions Manager if you want to enable the maker/checker workflow.

---

**Table 9-3 Maker/checker workflow**

Step	User Type	Organization State Transition	Action
1	Maker	Create: Not applicable > Draft Edit: Approved > Modified Edit, previously declined: Declined > Modified	Create/edit object and save changes. The organization is locked when changes are saved. Only the maker user who made the changes can edit the organization and submit the changes for approval by a checker user.
2	Maker	Create: Draft > PendingApproval Edit: Modified > PendingApproval	Submit organization for approval. The organization is still locked. See <a href="#">Submit changes for validation</a> on page 454.
3	Taker	Approved: PendingApproval > Approved Declined: PendingApproval > Declined	Approve or decline the change. See <a href="#">Approve changes made by other users</a> on page 455. If approved, the change goes into effect in the system and the organization is unlocked for editing. If declined, the organization is still locked and the maker user must edit and submit the organization again starting with Step 1.

### 9.9.3 Submit changes for validation

If you make certain changes to the system and the maker/checker workflow is enabled, you must submit your changes for validation by another admin user. If your changes are declined, you may resubmit your modifications for approval.

---

**NOTE:** The maker/checker workflow is not enabled by default. Please contact your Integral Solutions Manager if you want to enable the maker/checker workflow.

---

See [Changes that require approval](#) on page 453 for actions that require creation permission to perform and validation permission to put into effect in the system.

1. Navigate to the Organization List screen (**Organizations > Organization List**) or the Counterparty List screen (**Counterparty > Customers**).
2. Click **Show Modification List**.  
The Organization Modification List screen appears.
3. Select the checkbox of the new organization.
4. Click **Submit For Approval**.

Your changes do not take effect in the system until another user approves them. See [Approve changes made by other users](#) on page 455.

### 9.9.4 Review changes

You can review the changes to the system by you and by others.

See [Changes that require approval](#) on page 453 for the changes that you can review.

You can quickly review the status of the change-controlled objects in the system from their list screens:

- Organization (**Organization > Organization List**)
- User (**Organization > User > User List**)
- Legal Entity (**Organization > Legal Entities**)
- Customer Organization (**Counterparty > Customers**)
- Customer Business Centers (**Counterparty > Customers > user ID > Business Centers**)
- Customer User (**Counterparty > Customers > user ID > Users**)
- Customer Legal Entity (**Counterparty > Customers > user ID > Legal Entities**)

The State column of the table indicates the object's current status:

- Draft: The object is newly created and the originating maker user has saved the object for later completion or the new object has been rejected by another checker user. The object is locked and can only be modified by the originating user.
- Modified: The object has been changed and locked by a maker user. Only the maker user who modified the object can further modify it or submit it for approval.
- PendingApproval: The new or modified object has been submitted for approval by the maker user who created or modified it. The object is locked and cannot be modified until after a checker user either accepts or rejects the change.

- Declined: The new or modified object has been rejected by a checker. The status of the changed object is now Draft. The object is locked. The maker user who modified the object can make changes and submit the object again for approval.
- Approved: A checker user has approved the changes to the object and the changes are in effect in the system. The object is unlocked and can be modified by any maker user.

#### **To review the changes made to an object:**

1. Navigate to the object's list screen:
  - Organization (**Organization > Organization List**)
  - User (**Organization > User > User List**)
  - Legal Entity (**Organization > Legal Entities**)
  - Customer Organization (**Counterparty > Customers**)
  - Customer Business Centers (**Counterparty > Customers > user ID > Business Centers**)
  - Customer User (**Counterparty > Customers > user ID > Users**)
  - Customer Legal Entity (**Counterparty > Customers > user ID > Legal Entities**)
2. Click **Show Modification List**.  
The Organization Modification List screen appears. Any organizations that contain changes that have been submitted for approval show "PendingApproval" in their State column.
3. Click the ID (short name) of the modified organization that you want to review.  
The Organization Detail screen appears.
4. Click **Modification report** link.  
The organization's Modification Report screen appears showing a report of the changes made to the organization object. If the report is empty, the changes have been made to users or legal entities of the organization. Repeat this procedure for users and legal entities.

#### **9.9.5 Approve changes made by other users**

If the maker/checker workflow is enabled, you can approve or decline the changes made to the system by other admin users.

---

**NOTE:** The maker/checker workflow is not enabled by default. Please contact your Integral Solutions Manager if you want to enable the maker/checker workflow.

---

All changes are approved at the organization level. For example, if a maker user changes a legal entity and submits the changes for approval, a checker user approves the changes to the organization that contains the legal entity.

See [Changes that require approval](#) on page 453 for actions that require creation permission to perform and validation permission to put into effect in the system.

Checker users should review the changes made to the organization before approving them.

1. Navigate to the Organization List screen (**Organizations > Organization List**) or the Counterparty List screen (**Counterparty > Customers**).  
Any organizations that contain changes that have been submitted for approval show "PendingApproval" in their State column.

## 2. Click **Show Authorization List**.

The Organization Authorization List screen appears showing a table of the organizations that are pending approval.

## 3. Select the checkbox of the organization whose changes you want to approve or decline.

## 4. Click either **Approve** or **Decline** to approve or decline the changes.

If you approve the changes, they take effect in the system and the organization's status is now "Approved". The organization is unlocked for any maker user to edit.

If you decline the changes, the organization is returned to the Organization Modification List screen and its status is changed to "Declined". The organization is still locked. Only the maker user who made the changes and submitted them for approval can edit the organization.

## 9.10 How to use the help

To find the information you need, the help system provides the following tools:

- [How the help system is organized](#) on page 456
- [Use the table of contents](#) on page 456
- [Use the index](#) on page 456
- [Search the help](#) on page 457

### 9.10.1 How the help system is organized

The help window is divided into two browser frames:

- Navigation Frame

This frame on the left of the help window contains the table of contents, index, and full-text search. By default, the navigation frame displays the table of contents when you first open the help system.

- Content Frame

The large frame on the right of the help window displays the help topics that you choose in the navigation frame and link to from other topics.

### 9.10.2 Use the table of contents

The table of contents groups help topics by the functional areas in the system.

For example, if you want to view topics related to user preferences, click **Contents** in the navigation frame and then click the **Preferences** item in the table of contents.

### 9.10.3 Use the index

The index contains a list of keywords that are linked to help topics.

1. Click the **Index** tab.
2. Either type the word you are looking for in the field or scroll through the index list.

3. Click the index keyword.

If only one topic contains the keyword, that topic appears in the content frame. If more than one topic contains the keyword, a pop-up list opens with the topics. Click a topic in the pop-up list and it appears in the content frame.

#### 9.10.4 Search the help

The help system allows you to search the text of all topics in the system for a particular word.

1. Click **Search** in the navigation frame.
2. Type the word or phrase you are looking for in the field.
3. Press the Enter key.

If topics containing your search criteria are found, those topics are listed and ranked by relevance in the navigation frame. Click a topic and it appears in the content frame.

##### Root word searches

The search function looks for the word you entered and any variants. For example, if you search for trader, the search results include all topics that contain the grammatical variations trader, trade, trades, and trading.

To search for a specific keyword, enclose the keyword in double quotes. For example, to search for topics containing the word trades and not the many grammatical variations, you would enter “trades” (including quotes).

##### Search operators

Or

To look for topics that contain any of your search keywords, use either spaces, the vertical bar character, or the **or** operator.

For example, to find topics that contain the word pop-up or the word trade, you would enter one of the following:

- pop-up trade
- pop-up | trade
- pop-up or trade

And

To look for topics that contain all your search keywords, use the addition sign (+) or the **and** operator.

For example, to find topics that contain both the words pop-up and trade, you would enter one of the following:

- pop-up + trade
- pop-up and trade

### Exclusion

To exclude keywords from your search, use the subtraction sign (-).

For example, to find topics that contain the word pop-up but not trade, you would enter:

pop-up -trade

## APPENDIX A

# Glossary

## CFD

A contract for difference (CFD) is an agreement between two parties to exchange the difference between the opening price and closing price of a contract. CFDs provide investors with all the benefits and risks of owning a security without actually owning it.

The system implements CFDs like currency pair, where the base is the underlying exchange and the term is the home currency of the exchange.

For non-USD denominated CFDs (for example, FTS/GBP), there is no available USD cross rate for credit and position calculations so the USD cross rate is derived via triangulation. For example, to derive FTS/USD, the price is triangulated from FTS/GBP (the CFD price) and GBP/USD (the FX rate from the market).

**Table A-1 Supported CFDs**

Underlying Exchange	RIC Trading Hours & Timezone	Integral Code	Integral Currency Pair
Europe			
FTSE 100 Index	GBPFTSE = 08:00:00-16:30:00,Europe/London	FTS	FTS/GBP
CAC 40 Index	EURFCHI = 09:00:00-17:30:00,Europe/Paris	F40	F40/EUR
AEX - Amsterdam Exchange Index	EURAEX = 09:00:00-17:30:00,Europe/Amsterdam	AEX	AEX/EUR
DAX 30 - Deutscher Atien Index	EURGDAXI = 09:00:00-17:30:00,Europe/Berlin	DAX	DAX/EUR
Euro Stoxx 50 Index	EURSX5E = 09:00:00-17:30:00,Europe/Berlin	STX	STX/EUR
FTSE MIB Index	EURFTMIB = 09:00:00-17:30:00,Europe/Rome	IT4	IT4/EUR
IBEX 35 Index	EURIBEX = 09:00:00-17:30:00,Europe/Madrid	IBX	IBX/EUR
SSMI - Swiss Market Index	EURSSMI = 09:00:00-17:30:00,Europe/Zurich	SSM	SSM/CHF
New York			
S&P 500 Index	USDSPX = 09:30:00-16:00:00,America/New_York	SPX	SPX/USD

**Table A-1 Supported CFDs (continued)**

Underlying Exchange	RIC Trading Hours & Timezone	Integral Code	Integral Currency Pair
DJIA - Dow Jones Industrial Average	USDDJI = 09:30:00-16:00:00,America/New_York	DJI	DJI/USD
Russell 2000 Index	USD.RUT = 09:30:00-16:00,America/New_York	RUT	RUT/USD
NASDAQ 100 Index	USD.NDX = 09:30:00-16:00,America/New_York	NDX	NDX/USD
<b>Asia</b>			
S&P/ASX 200 Index	AUDAXJO = 10:00:00-16:00:00,Australia/Sydney	AXJ	AXJ/AUD
Nikkei 225 Index	JPYN225 = 09:00:00-15:10:00,Asia/Tokyo	JPX	JPX/JPY
Hang Seng Index	HKD.HSI = 09:30:00-16:00:00,Asia/Hong_Kong	HSI	HSI/HKD
HSCE - Hang Seng China Enterprises Index	HKD.HSCE = 09:30:00-16:00:00,Asia/Hong_Kong	CHI	CHI/HKD
SiMSCI - Singapore MSCI Index	SGDSIMSCI = 09:00:00 - 17:00:00,Asia/Singapore	SGI	SGI/SGD

## credit horizon

The *credit horizon* is the period of time in which value dates are considered by the credit process. Aggregate credit methodologies consider all future value dates. Daily credit methodologies consider discrete days within a certain range, usually three days for spot trades and one year for forwards.

## credit methodology

A credit methodology encompasses the conventions, procedures, and calculations used to determine a counterparty's credit utilization.

The *credit horizon* is the period of time in which value dates are considered by the credit process. Aggregate credit methodologies consider all future value dates. Daily credit methodologies consider discrete days within a certain range, usually three days for spot trades and one year for forwards.

## CSV

### Comma Separated Values

A CSV file is a plain-text file that is a portable, tabular representation of data. Each line in the file is one entry or record. Columns are separated by commas. Typically the first line of the file is a header of column labels.

Spreadsheet apps like Microsoft Excel are commonly used to access CSV files.

## **currency aggregation**

A part of all credit methodologies, *currency aggregation* is the process by which currency amounts are summed prior to conversion to the credit currency to determine credit utilization. See also [currency pair decomposition](#) on page 461 and [directional determination](#) on page 461.

## **currency pair decomposition**

Net credit methodologies consider the direction of trades (either buy or sell) and the amounts of both the base and term currencies to arrive at net receivable and net payable amounts. *Currency pair decomposition* is the process by which the currency pairs of trades are decomposed into their separate currencies so that they can then be determined to be payable or receivable. See also [directional determination](#) on page 461.

## **directional determination**

Net methodologies consider the direction of trades (either buy or sell) and the amounts of both the base and term currencies to arrive at net receivable and net payable amounts. *Directional determination* is the process by which the currencies of a currency pair are determined to be payable or receivable. See also [currency pair decomposition](#) on page 461.

## **legal entity**

A *legal entity* (LE) is a sub-organization within a company. Specifically, legal entities represent a hierarchical grouping of trading companies whose parent company is a head office organization. Typically, foreign branches within an organization can be considered legal entities. For example, a head-office organization called Integral Bank might have legal entities called IntegralNY, IntegralLON, and so forth. Legal entities are normally regarded as having a unique legal existence. They produce balance sheets and report to the central authorities.

Trading relationships are established between the legal entities of organizations.

## **quote convention**

A *quote convention* defines the list of valid currency pairs and embodies the market conventions that are associated with the currency pairs that are traded in the system.

Typical market conventions for a currency pair include:

- The base and term currencies of the pair
- The precision to which the currency pair is quoted and displayed
- The settlement and holiday calendars that apply to trades in the currency pair
- The fixing conventions (for non-deliverable forwards)

## **sales dealer group**

FX providers structure their organizations to reflect their counterparty market segments, assigning sales dealers to market segments so that they can better service their counterparties.

A *sales dealer group* replicates this structure, allowing you to define a market segment of customers and the sales dealers who can trade on behalf of them.

## **vehicle currency**

A *vehicle currency* is a common currency that crosses the two side currency pairs of a synthetic cross currency pair. Liquidity for the synthetic currency pair is generated from the side pairs with the vehicle currency splitting the cross.

## APPENDIX B

# Changes

## B.1 Changes

The following sections introduce the new features in recent releases of the system and provide links for more information.

### Release 7.1.37

Upload client account groups ([Upload accounts and account groups](#) on page 207) and CSV format enhanced ([Account and account group upload CSV format](#) on page 207).

### Release 7.1.35

- Pricing: full amount synthetic full book (multi-tier FOK) aggregation:

Full-amount multi-tier fill-or-kill (FOK) pricing is now available for synthetic full-book aggregation. In previous releases, synthetic full-book aggregation could create full-book price streams from multi-tier prices, but full-amount FOK pricing was not available.  
Now with full-amount FOK you can improve the quality of full-book liquidity you stream to your customers with even faster execution and reliable pricing for complete fills.

  - **Synthetic Full Book (Multi Tier FOK)** has been added as an aggregation type to the **Aggregation Method** drop-down list in the **Aggregation** panel of the Aggregation screen ([Organization > Liquidity Rules > Price Making](#)) ([Aggregation](#) on page 71).  
When you choose **Synthetic Full Book (Multi Tier FOK)**, the panel expands with a table so that you can define tier sizes for aggregation.
  - **Synthetic Full Book (Multi-Price Tiers)** has been added as an aggregation type to the **Price Making Method** drop-down list in the **ESP** panel of the Price Making Configuration screen ([Counterparty > Price Making > Streams > stream name > synthetic ccy pair config name](#)) ([Price making and execution \(ESP rules\)](#) on page 132 and [Price making aggregation methods](#) on page 112).
- Renamed MT4 account and MT4 group labels:

This is a UI change with no functionality change ([Add a new sales dealer group](#) on page 76 and [Edit a sales dealer group](#) on page 77).

The following **Mapping Level** radio buttons have been relabeled in the Sales Dealer Group Details screen ([Organization > Sales Dealer Groups > group ID](#)):

**Table B-1 New labels**

Old label	New label
MT4 Account	Client Account
MT4 Account Group	Client Account Group

- Pricing: spread upload support for multi-tier prices: In previous releases, the spread upload CSV format supported only single-tier prices. In this release, the format has been enhanced to support multi-tier prices.

The format for single-tier prices has not changed. You can mix single-tier and multi-tier updates in the same upload file. See [Upload spreads for currency pair configurations](#) on page 127.

## Release 7.1.32

- In the previous release (7.1.31), the new permission "Admin Price Making Master Control Read Only" controlled read-only access to the Price Making Status screen (**Counterparty > Price Making > Status**). In this release, the same permission also controls read-only access to the tools in the Emergency System Switches screen (**Emergency**) ([User permission groups for all users](#) on page 29).
- You can now create and update price stream configurations by copying and modifying an existing configuration with a CSV upload ([Upload spreads for currency pair configurations](#) on page 127). The CSV file includes references to the source configuration to copy and ESP spread information for the new and updated configurations. RFS spreads are copied from the source configuration.
- The price-making audit logs (**Counterparty > Price Making > Audit**) have been enhanced to include changes to rate filters ([Review audited changes to price making](#) on page 168).

## Release 7.1.31

New user permission: the "Admin Price Making Master Control Read Only" permission grants read-only access to Price Making Status screen (**Counterparty > Price Making > Status**) in the Admin app. Users with the permission can access the screens but all buttons in all sections are disabled (Master Control, Liquidity Providers, Status).

## Release 7.1.30

Added partial cover pricing workflow ([Partial covers](#) on page 101 and [Step 2f of Price making and execution \(ESP rules\)](#) on page 132).

## Release 7.1.27

- SWIFT MT 300 tag 72 added to legal entity details ([Edit SWIFT MT 300 tag 72 for a legal entity](#) on page 54): The **MT300Field72 Details** panel has been added to the Legal Entity Detail Edit (**Organization > Legal Entities > legal entity ID**) and Customer Legal Entity screen (**Counterparty > Customers > List > customer org ID > Legal Entities > legal entity ID**). This value is sent on JSON STP messages in the MT300Field72 field.

- To support the new JSON format for APIs and better represent our current configurations, the following settings have been added to STP Download Configuration and Detail Edit screens (**Organization > STP Download Configuration**) and the **STP Configuration** panel of legal entity detail screens:
  - **Transport Mechanism** radio buttons:
    - Web Socket: Only active for the JSON format.
    - REST: Only active for the JSON format.
    - RabbitMQ: Planned to be the default for all non-JSON formats.
    - MQSeries: Used by few customers.
    - JNDI: Equivalent of SonicMQ. All orgs using SonicMQ should be migrated to JNDI automatically. Formats that currently go over SonicMQ (like FIX) should be set to this for now.
  - **Downloading User**: Only active for the JSON format. Must be the org user with API permissions.

## Release 7.1.26

- Price making: new parameters for Market Maker ESP: min/max spread, hourglass spread ([ESP: pricing](#) on page 155).
- The **Spread Priority** drop-down list has been moved into the common **Market Making Configuration** panel.  
You must click the  Expand button to expand the panel and access the drop-down list.
- The Accounts screen (**Counterparty > Accounts**) has been added to the Admin app so that you can manage MT4 accounts ([Client accounts](#) on page 205).

## Release 7.1.25

- Added [Enable periodic market data sets for guaranteed rates](#) on page 126.

## Release 7.1.15

The following panels are now collapsible so that you can better focus on and navigate through the Price Making Configuration screen (**Counterparty > Price Making > Streams > stream name > ccy pair configuration name**):

- Currency Pair Group: Collapsed shows **Quote Convention** and **Current Currency Pairs**. Expands to show tools for selecting currency pairs.
- ESP Providers: Collapsed shows current aggregation and order execution providers. Expands to show tools for selecting providers.

The panels are shown collapsed by default.

Click the  Expand/Collapse button to expand and collapse the panels.

## Release 7.1.12

- You can now configure RFS execution rules to reject requests ([RFS execution method settings](#) on page 104). Please contact your Integral Technical Account Manager to enable this new feature.

- You can now enable liquidity regeneration for a counterparty organization in the sales dealer workflow ([Configure regeneration for specific counterparties](#) on page 199).

## Release 7.1.1

Added **Swap Point Providers** panel for Spot+Swap pricing to improve pricing performance ([Swap point providers](#) on page 138)

## Release 7.1.0

- New credit methodology ([Net settlement-receivable only](#) on page 222).
- Separate forward spread profiles for swaps ([Set swap spreads](#) on page 183).
- Tenor-based spreads for synthetic cross currencies ([RFS Spreads](#) on page 152).
- Updated trade channels in [Choose the price stream channels to support \(ESP/RFS\)](#) on page 15.

## Release 7.1.9

You can now apply different PFE profiles for daily and aggregate methodologies to credit counterparties to better manage your credit utilization ([Assign a profile to a counterparty](#) on page 261).

## Release 7.1.8

Updated password requirements applied to new users and changed passwords ([Static password maintenance](#) on page 443).

## Release 7.1.4

Added example for applying PFE ([PFE example: net receivable](#) on page 229).

## Release 7.1.2

Added MT4 accounts and groups to sales dealer group configuration ([Add a new sales dealer group](#) on page 76 and [Edit a sales dealer group](#) on page 77).

## Release 7.1.0

Pricing: tenor-based spreads for streaming outrights

In previous releases, tenor-based spreads were not applied to trades done with streaming outright prices and the spread was expected to be built in the spot spreads.

In this release, tenor-based spreads are applied to streaming outright trades in direct currency pairs. The spreads are included in STP messages sent to counterparties who applied the spreads.

---

**NOTE:** You must define spreads on the underlying currency pair to apply spreads to streaming outright. For example, for the streaming outright currency pair EUR/ILS\_TOD, you must define TOD forward spreads for the underlying EUR/ILS currency pair.

---

You define tenor-based spreads in the **Tenor Based Spreads** section of the **RFS Spreads** panel Price Making Configuration screen (**Counterparty > Price Making > Streams > stream name > ccy pair config name**).

This feature is applicable to price streams whether or not they have the **Use Market Data Set for Streaming Outright points** checkbox selected in the **Price Making and Execution** panel of the Price Making and Execution screen (**Counterparty > Price Making > Streams > stream name > ccy pair config name**).

#### Pricing: spread profiles for swaps

In previous releases, the same price-provisioning spread profiles were used to price both forwards and swaps.

In this release, you can define and apply separate spread profiles for swap pricing, both spot-forward and forward-forward swaps. This enhancement is helpful in the cases where you need to apply lesser spreads on swap trades.

Enhancements have been made to both the UI and import/export CSV format.

Please contact your Integral Technical Account Manager to enable this functionality.

#### UI Change

The **Swap Spread** column has been added to the Counterparties Price Provisioning screen (**Counterparty > Price Provisioning > Counterparties**).

Use the drop-down lists in the new column to assign swap spread profiles to counterparties.

#### CSV Change

The **SwapSpreadProfile** column has been added to the CSV format for importing and exporting spread profiles from the Counterparties Price Provisioning screen (**Counterparty > Price Provisioning > Counterparties**).

#### *Example B-1 CSV Header with New SwapSpreadProfile Column*

```
CptyOrganization,CcyPair,SpreadEnabled,SpreadModel,BidSpread,OfferSpread,CalculationType,BidLimit,  
OfferLimit,BidLimitCcy,OfferLimitCcy,BidForwardPoints,OfferForwardPoints,ForwardCalculationType,  
ForwardSpreadProfile,SwapSpreadProfile
```

#### Pricing: dealer invention (manual RFQ) for synthetic cross and market maker stream configurations

In previous releases, Dealer Intervention for manually pricing RFQs was available only for stream configurations for direct currency pairs.

In this release, Dealer Intervention is now available for synthetic cross currency pairs and market maker configurations.

The DI checkbox has been added to:

- The execution rules of the RFS with Spot and MDS section for synthetic cross currency pairs (**Counterparty > Price Making > Streams > stream name > synthetic ccy pair config name**).
- The Execution Rules section, Execution column, of the RFS tab for Market Maker configurations (**Counterparty > Price Making > Streams > stream name > market maker config name**).

## Release 7.1.0 (Analytics)

### SSP requests in orders archives

In previous releases, RFS requests for SSP pricing were not added to orders archives for reporting and reconciliation.

In this release, SSP RFS requests are added to orders archives.

### Positions-CcyPair report: contract multiplier average buy/sell rates

In previous releases, the contract multiplier was introduced to support trading in index instruments such as CFDs. The average buy and sell rates shown in the Positions-CcyPair report (**Positions > Positions-CcyPair**) did not consider the multiplier value.

In this release, the rates shown in the **Ave Buy Rate** and **Avg Sell Rate** columns of the report results now include the contract multiplier in their calculation.

## Release 7.0.27

The Spot & Swap functionality from the 7.0.16 release now supports the following trade types beyond the initial FX Outright and FX SSP:

- FX Swap
- FX Fwd Fwd
- FX Window FWD

The new trade types have been added to the RFS Rules section of the Price Making and Execution panel of the Price Making Configuration screen (**Counterparty > Price Making > Streams > stream name > ccy pair config name**).

- The **Swap Risk** column has been added.
- When you choose one the following trade types from the **Trade Type** column, the **Spot & Swap** checkbox appears in the Pricing column:
  - FX Outright
  - FX Swap
  - FX Fwd Fwd

- FX SSP
- FX Window FWD
- When you check the **Spot & Swap** checkbox and choose an execution rule from the **Spot Risk** column other than "Manual", a drop-down list appears in the **Swap Points** column so you can choose between "Cover" and "No Cover".

## Release 7.0.26

For price provisioning admin, you can now restrict the salesperson's view to only the customer organizations that have been assigned to them.

Contact your Technical Account Manager to enable this new functionality.

When enabled, the salesperson sees only assigned organizations in the price provisioning Counterparties screen (**Counterparty > Price Provisioning > Counterparties**).

There are no defaults. If no customers are assigned, the salesperson sees an empty list.

### Permission

Added the new manager-role permission group "Admin Price Provision All Customer View Edit".

### Manager users

Manager users assigned the "Admin Price Provision All Customer View Edit" permission group can see all customer organizations.

### Spread upload

Only Manager users can upload spreads from the Spread Profiles screen (**Counterparty > Price Provisioning > Spread Profiles**). Salespersons users do not see CSV upload tools in the screen.

### Salesperson customer assignment

You manage a salesperson's customer assignments with *sales dealer groups* in the Sales Dealer Group Details screen (**Organization > Sales Dealer Groups > sales dealer group ID**).

Each sales dealer group includes a list of salespeople (sales dealers) that belong to the group and a list of customer organizations (counterparties) assigned to the group. A salesperson can belong to multiple groups.

When this new functionality is enabled, a salesperson can see all the customers in all of their groups.

## Release 7.0.21

In previous releases, the Price Provisioning Counterparties screen included a drop-down list with all spread profiles for each counterparty. This resulted in long load times for organizations with a large number of spread profiles.

In this release, the Counterparties screen can be configured with different UI components to improve the performance. The drop-down lists in the Forward Spread column are replaced with search fields. Instead of clicking to open a list, you type in a field and a list opens with spread profiles that match your typing. Only the filtering drop-down list at the top of the Forward Spread column contains all of the spread profiles.

This new functionality applies to Price Provisioning Counterparties screens for both broker admin users and MAIN admin users:

- Broker admin screen (**Counterparty > Price Provisioning > Counterparties**)
- MAIN admin screen: **Organization > Organization > organization ID > Price Provisioning > Counterparties**

Please contact your Integral Technical Account Manager to enable this feature.

## Release 7.0.20

The Credit Setup screen (**Counterparty > Credit > Setup**) has been enhanced so that you can sort the organizations in the Counterparties list by whether or not they have external credit enabled.

Click the **External Credit Check** column heading to sort the list.

## Release 7.0.19 (Analytics)

In previous releases, netted RFS requests and trades for the SSP workflow were not shown in Analytics reports though they were shown in the Monitor in the Canceled state.

In this release, the requests and resulting trades are shown in report results and can be searched for by request ID and trade ID in the Order/Trade ID search at the top of the screen.

## Release 7.0.16

You now have two methodologies for sourcing forward points when pricing your customers' RFS requests:

- Spot & MDS: (previous releases) You upload a market data set of forward-point data to price requests.
- Spot & Swap: (new functionality) Real-time swap points from liquidity providers are used to price requests.

---

**NOTE:** Contact your Integral Technical Account Manager to configure Spot & Swap pricing.

---

## UI tools

New tools have been added to the **RFS Rules** section of the **Price Making and Execution** panel of the Price Making Configuration screen (**Counterparty > Price Making > Streams > stream name > ccy pair config name**).

- The **Swap Risk** column has been added.

- When you choose one the following trade types from the **Trade Type** column, the **Spot & Swap** checkbox appears in the Pricing column:
  - FX Outright
  - FX Swap
  - FX Fwd Fwd
  - FX SSP
  - FX Window FWD
- When you check the **Spot & Swap** checkbox and choose an execution rule from the **Spot Risk** column other than "Manual", a drop-down list appears in the **Swap Points** column so you can choose between "Cover" and "No Cover".

### Request pricing workflow

- The customer requests pricing for the following SSP:

**Table B-2 Customer SSP request**

Currency Pair	Tenor	Buy/Sell	Size	Dealt Currency
EUR/USD	1W	BUY	1M	EUR
EUR/USD	1M	BUY	1M	EUR
EUR/USD	3M	BUY	1M	EUR

- The pricing engine makes three equivalent swap RFS requests, one for each tenor, and submits them for pricing:

**Table B-3 Equivalent swaps for pricing**

	Currency Pair	Tenor	Near Buy/Sell	Far Buy/Sell	Size	Dealt Currency
Swap 1	EUR/USD	SP/1W	SELL	BUY	1M	EUR
Swap 2	EUR/USD	SP/1M	SELL	BUY	1M	EUR
Swap 3	EUR/USD	SP/3M	SELL	BUY	1M	EUR

**Table B-4 Cashflows**

	Your Cashflow IN	You Cashflow OUT	Your Cashflow OUT to customer	Your Net
SPOT	+3 Million (Net Spot)	-3 Million (Swaps 1,2,3)	0	0
1 Wk	+1 Million (Swap 1)	0	-1 Million	0
1 Month	+1 Million (Swap 2)	0	-1 Million	0
3 Month	+1 Million (Swap 3)	0	-1 Million	0

- The pricing engine generates prices:

- Get a spot rate from the ESP stream for the corresponding tier (the net spot amount of all outright in the SSP).

- 3b. Get swap points from the RFS swap requests.
- 3c. Aggregate spot from ESP and swap points from the swap.
4. Return the price to the customer.

The pricing engine repeats price generation ([Step 3](#)) with each aggregation interval so the customer gets the latest applicable rates.

---

**NOTE:** The customer is priced only after pricing is received for all the swap value dates.

---

## Execution

The spot-component cover trade is attempted first.

Swap cover trades are attempted in parallel.

- Swap execution uses execution rules defined for the originating trade type.
- Swap matching logic for cover trades is the same as for regular swap trades.

Once the spot component is filled, the customer trade is verified. Full-fill functionality works as well.

---

**NOTE:** The customer will not be rejected if the spot is filled but swaps are not filled. Forward Risk Notification emails are generated to alert the traders of the swap risk.

---

## Risk Email

As soon as all swaps are covered or at the end of the time-in-force as defined on the stream, Integral notifies you of any risk position in swaps with risk emails for the spot and forward components as applicable.

The spot risk email is sent if the spot component is not covered.

The forward risk email is sent if:

- If the swap request is not matched with a price.
- The liquidity provider rejects the swap.
- The provider does not respond in time.
- If the swaps are done but customer trade allocation fails.

## Risk Email Scenarios

### Customer Trade Verified

Customer trade is verified and one or more swap cover trades are not covered.

The SSP Cover Risk Email includes the following “Swap Cover Details” section showing the details of uncovered forward risk.

**Table B-5 Customer trade verified**

Trade ID	Currency Pair	Dealt Currency	Value Date	Dealt Buy/Sell	Dealt Amount	Settled Amount	Rate	Status
FXI90547620 34	GBP/USD	USD	Apr 28, 2020/ May 05 ,2020	BUY/SELL	2,000,000.00/2,000,00 0.00	1,678,373.32/1,678,51 4.18	-0.000100	Not Covered
FXI9054762 039	GBP/USD	USD	Apr 28,2020/ May 28,2020	SELL/BUY	1,000,000.00/1,000,00 0.00	841,226.85/841,226.46	0.000000 55	Covered
FXI90547620 040	GBP/USD	USD	Apr 28,2020/J ul 28,2020	SELL/BUY	3,000,000.00/3,000,00 0.00	2,523,680.54/2,523,679.37	0.000000 55	Covered
FXI90547620 37	GBP/USD	USD	Apr 24, 2020/ Apr 28, 2020	SELL/BUY	2,000,000.00/2,000,00 0.00	1,682,453.38/1,682,452.91	0.0000003 3	Not Covered

#### Customer Trade Not Verified

Customer trade is not verified and one or more swap cover trade are covered.

The SSP Cover Risk Email includes the following “Swap Cover Details” section showing the details of undesired cover of forward risk.

**Table B-6 Customer trade not verified**

Trade ID	Currency Pair	Dealt Currency	Value Date	Dealt Buy/Sell	Dealt Amount	Settled Amount	Rate	Status
FXI90547620 04	GBP/USD	USD	Apr 28,2020/M ay 05,2020	BUY/SELL	3,000,000.00/3,000,00 0.00	2,517,559.98/2,517,712.7	-0.000100	Not Covered
FXI90547620 06	GBP/USD	USD	Apr 28,2020/J ul 28,2020	BUY/SELL	2,000,000.00/2,000,00 0.00	1,678,373.32/1,678,514.18	-0.000100	Not Covered
FXI90547620 08	GBP/USD	USD	Apr 28, 2020/ May 28, 2020	SELL/BUY	1,000,000.00/1,000,000.00 0	841,226.85/841,226.46	0.000000 55	Covered

## Release 7.0.16 (Analytics)

- New report [Reference-CustomerStreams report](#) on page 398.

- Added new trade channels ([Trade request channels on page 58](#)):

**Table B-7 New trade channels**

Channel Code	Client App	Workflow	Analytics/Monitor Display
ANDROID/ESP/BOARD	OCX	ESP	Android Device ESP Board
Android/ESP/BOARD	OCX	ESP	Android Device ESP Board
BA/ESP/UncoveredRisk	BA	ESP	Uncovered Risk
iOS/ESP/BOARD	iOS	ESP	FXI iOS Device ESP Board
OCX/DT/OE/RISKNET	OCX	Order	OCX Desktop Order Entry RiskNet
OCX/SL/OE/DS	OCX	Order	OCX Silverlight Order Entry Dark Switch
OCX/SL/OE/LS	OCX	Order	OCX Silverlight Order Entry Lit Switch
OCX/SL/OE/RISKNET	OCX	Order	OCX Silverlight Order Entry RiskNet
REACT/ESP/FXB	FXI	ESP	FXI React ESP FX Board
REACT/ESP/FXB/FA	FXI	ESP	FXI React ESP FX Board Full Amount
REACT/ESP/FXFB	FXI	ESP	FXI React ESP FX Full Book
REACT/ESP/FXL	FXI	ESP	FXI React ESP FX Ladder
REACT/ESP/FXL/FA	FXI	ESP	FXI React ESP FX Ladder Full Amount
REACT/ESP/OP	FXI	Order	FXI React ESP Orders Panel
REACT/ESP/OP/FM	FXI	Order	Fill at Market, FXI React ESP Orders Panel
REACT/ESP/PB	FXI	ESP	FXI React ESP Position Blotter
REACT/OP/TWAP	FXI	Order	FXI React ESP Orders Panel TWAP
REACT/OP/TWAPPLUS	FXI	Order	FXI React ESP Orders Panel TWAP+ (Dark Switch)
REACT/RFS/TOB	FXI	RFS	FXI React RFS TOB Panel
SD/RFS/Manual	RFS	Manual	Sales Dealer RFS Manual Amend

## Release 7.0.12

You can now apply basis point of spot (BPS) spreads to your ESP price streams and streams pricing RFS requests.

The **ESP Tiers and Spreads** and **RFS Spreads** panels in the Price Making Configuration screen (**Counterparty > Price Making > Streams > stream name > ccy pair config name**) have been enhanced with tools that allow you to specify BPS on your pricing streams ([ESP tiers and spreads on page 138](#) and [RFS spreads on page 140](#)).

BPS spreads are also available for synthetic cross currency pairs ([ESP Tiers and Spreads on page 150](#)).

## Release 7.0.11

Added **Fixed Spreads** panel to the **RFS** tab of the market maker configuration (**Counterparty > Price Making > Streams > stream name > market maker config name**). ([Edit or create a market making configuration in a stream](#) on page 154)

## Release 7.0.9

Enhancements to the RFS pricing rules in the Price Making Configuration screen (**Counterparty > Price Making > Streams > stream name > ccy pair config name**):

- **Net Spot Amt** column added ([Price making and execution \(RFS rules\)](#) on page 134).
- If configured, you now have the option of pricing SSPs with forward points from RFS responses by checking the **Spot & Swap** checkbox in the **Pricing** column ([Single spot portfolio \(SSP\) pricing](#) on page 99).

## Release 7.0.7

Removed maximum value caps on tenors *nD, nW, nM* in [Tenors](#) on page 451.

## Release 7.0.2

Basis Point of Spot (BPS) spreads have been added to price making:

- [Basis point of spot \(BPS\) spreads](#) on page 108
- [Step 1 of RFS spreads](#) on page 140

## Release 7.0.1

- Grouping and filtering criteria for the Positions screen (**Positions > Positions**) have been changed ([Group and filter criteria](#) on page 268).
- Added the **Long/Short** column to the Positions screen (**Positions > Positions**) and to the CSV export file to capture whether a position is long or short. The positions are still shown in color, green for long and red for short.

## Release 7.0

- Removed all reference to “captive” customers.
- Permission group renamed:
  - Old name: FXIHTM Hide Time In Force End At
  - New name: FXIHTM Orders Allow Day Only
- Added new trade channels ([Trade request channels](#) on page 58):

**Table B-8 New trade channels for streaming outrights**

Channel Code	Client App	Workflow	Analytics/Monitor Display
OCX/DT/BD/LMT/NDF/QO	OCX	Order	OCX Desktop Board Limit NDF Quick Order
OCX/DT/BD/LMT/OR/QO	OCX	Order	OCX Desktop Board Limit Outright Quick Order
OCX/DT/BD/LMT/SPOT/QO	OCX	Order	OCX Desktop Board Limit Spot Quick Order
OCX/DT/BD/NDF	OCX	ESP	OCX Desktop Board NDF
OCX/DT/BD/NDF/FA	OCX	ESP	OCX Desktop Board NDF Full Amount
OCX/DT/BD/OR	OCX	ESP	OCX Desktop Board Outright
OCX/DT/BD/OR/FA	OCX	ESP	OCX Desktop Board Outright Full Amount
OCX/DT/BD/SPOT	OCX	ESP	OCX Desktop Board Spot
OCX/DT/BD/SPOT/FA	OCX	ESP	OCX Desktop Board Spot Full Amount

## Release 6.7.14

- Permission group changes:
  - “FXIHTM Disable Range” so that all orders are submitted as limit orders with range 0 (zero) ([User permission groups for all users](#) on page 29).