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Bloomberg data integration

How to get started

Vitec Aloc/HB/PLAR
Version 1.0
This document is based on the underlying system PORTMAN 7.27

Contents

1. Background

With 'Bloomberg data integration' you can easily import a wide range of basic data, prices and similar from Bloomberg into PORTMAN.

Vitec Aloc has developed the 'Bloomberg data integration' module as a part of PORTMAN's Business Logic server. Data is retrieved via Bloomberg's Web Service in XML format, and PORTMAN processes and imports subsequent data. Calls are controlled from PORTMAN server batch, and you yourself control which instruments price data is retrieved for from PORTMAN's user interface.

1.1. Implementation

- You must have a Bloomberg data license to export data from Bloomberg.
- Bloomberg's Web Service is used.
- A Bloomberg certificate must be placed on the PORTMAN server, and credentials must be sent to Vitec Aloc. The certificate on the server must be installed by Vitec Aloc (or you may install the certificate yourself with guidance from Vitec Aloc).
- Vitec Aloc activates the integration solution via configuration in PORTMAN's server batch, including times for the import of prices.
- Vitec Aloc subsequently installs a new configuration package.

2. Contents

You can import two types of data. The following describes the scope of the opportunities.

2.1. Basic data

You can import that actual creation of basic data on shares, mutual funds and bonds. This can take place ad hoc at any time. Creation is done by filling in some of the fields in PORTMAN with data from Bloombergs web service, while some of the fields are completed by default values, such as loan type, calendar convention, etc.

Updates to the securities' basic data cannot yet be imported.

Basic data can be retrieved in two ways:

- Automatically via initiation from the XML trade transaction import, when registering trading in securities (sha., bon., mut.) that has not yet been registered in PORTMAN.
  - (See description in Bloombergs Basic Data Request (SWIFT))
- Call to PORTMAN API, e.g. through the POSTMAN tool, with FIGI code at exchange level as instrument-ID.
  - (See description in Bloombergs Basic Data Integration (API))

You can import basic data on the following instruments.

- Shares
- Mutual funds
- Bonds – bonds with cash flow
  - Basic data
  - Cash flow parameters
  - Suppl. basic data
  - Reference rates, if they are missing in the register
  - Presentation of cash flow (subsequently in PORTMAN

2.2. Prices

For all data of the 'prices' type, you must set the time for import of the individual data type using a parameter in the PORTMAN server's configuration file. Setup of this is done in collaboration with Vitec Aloc Support.

You can import prices/rates for the following:

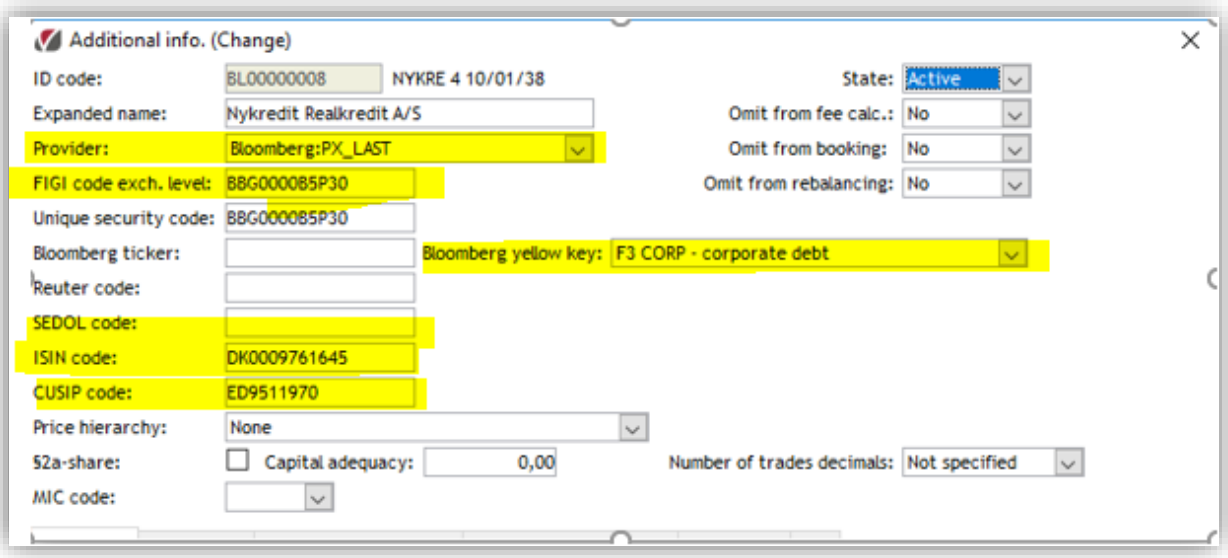
2.2.1. Securities rates

To fetch prices for securities (*), the following supplementary basic data must be entered.

1. The 'Provider' field, which consists of data provider, price type and price source.
   a. For price type you may choose from PX_ASK, PX_BID, PX_LAST, PX_MID, PX_YEST.
   b. For price source the options are BGN, BMRK, BVAL, CMPN, EXCH.

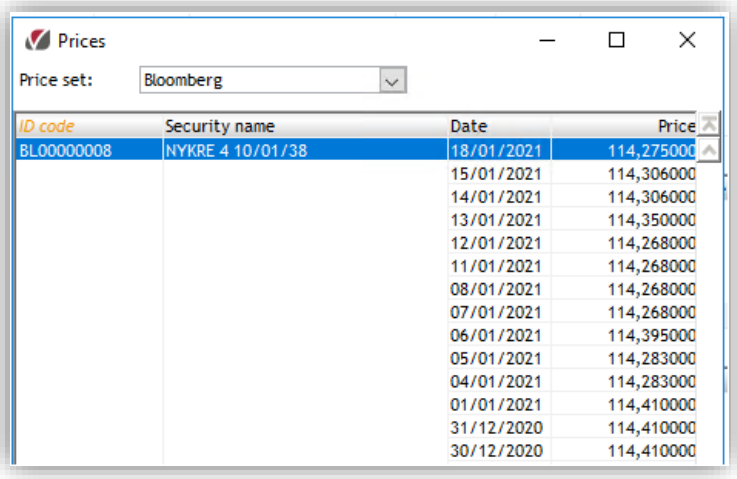
2. In order of priority, either a FIGI code exch. level, ISIN code, SEDOL code or CUSIP code registered as instrument ID.

3. Bloomberg Yellow key – not mandatory



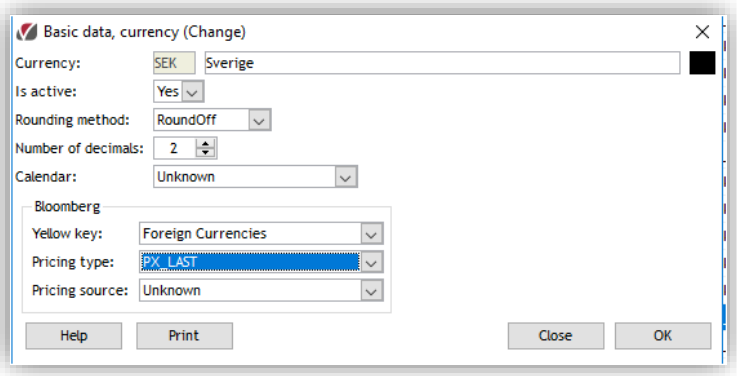
(*) only except for instrument type: loan

You find the imported prices under Modules -> Prices etc. -> Prices.

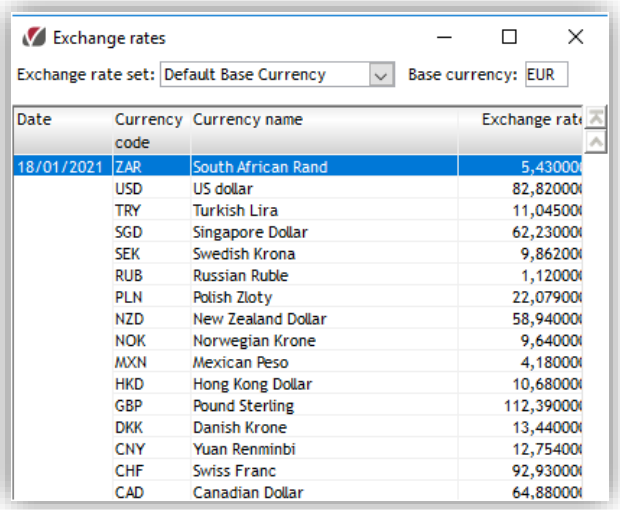


2.2.2. Currency rates

Setup of import for exchange rates occurs via basic data on the currency, and the Yellow key, Pricing type and possibly Pricing Source fields are filled in via:

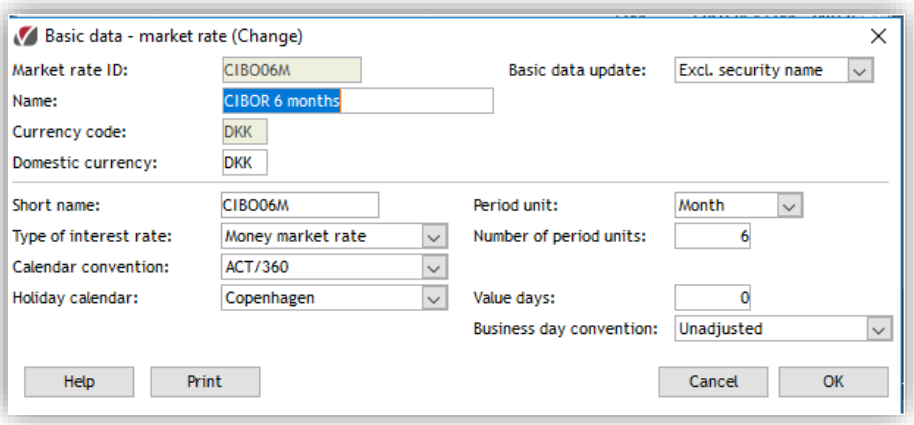


The imported exchange rates are found under Modules -> Currency/Country information -> Exchange rates.

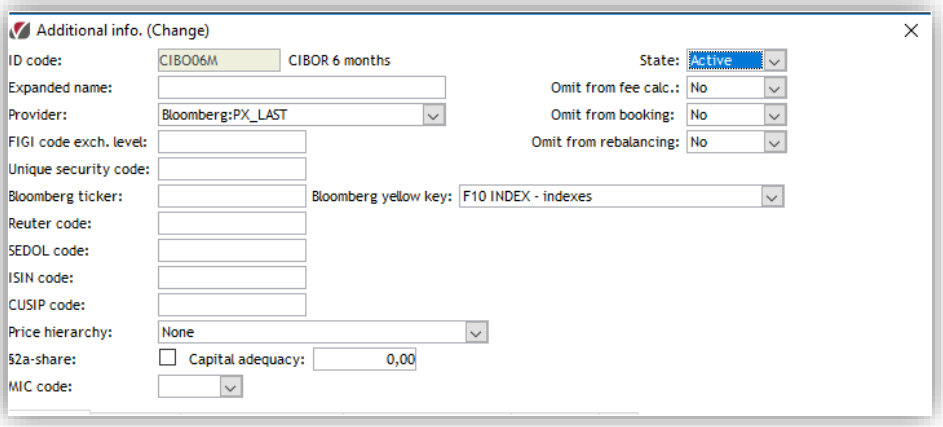


2.2.3. Market rates

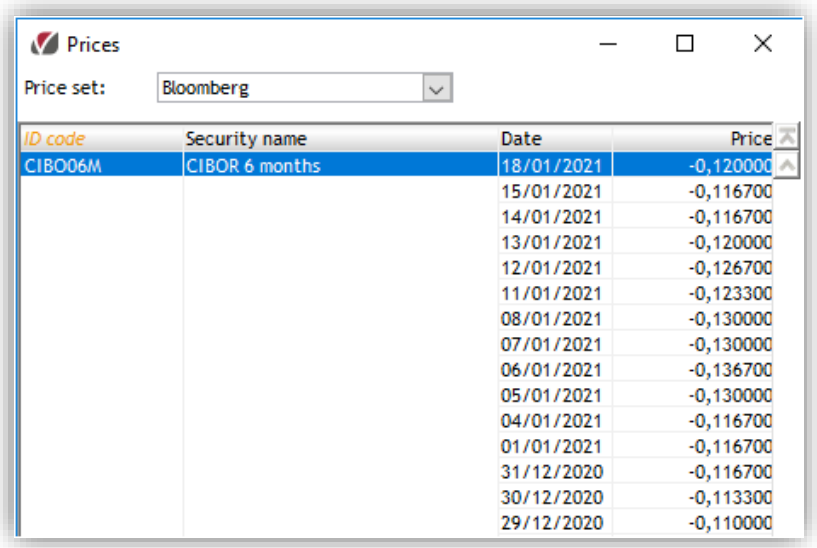
You can import rates on indices such as CIBOR6M via Bloomberg.



Here you must also enter supplementary basic data with Provider and Bloomberg Yellow Key. ID Code must be Bloomberg's instrument id.

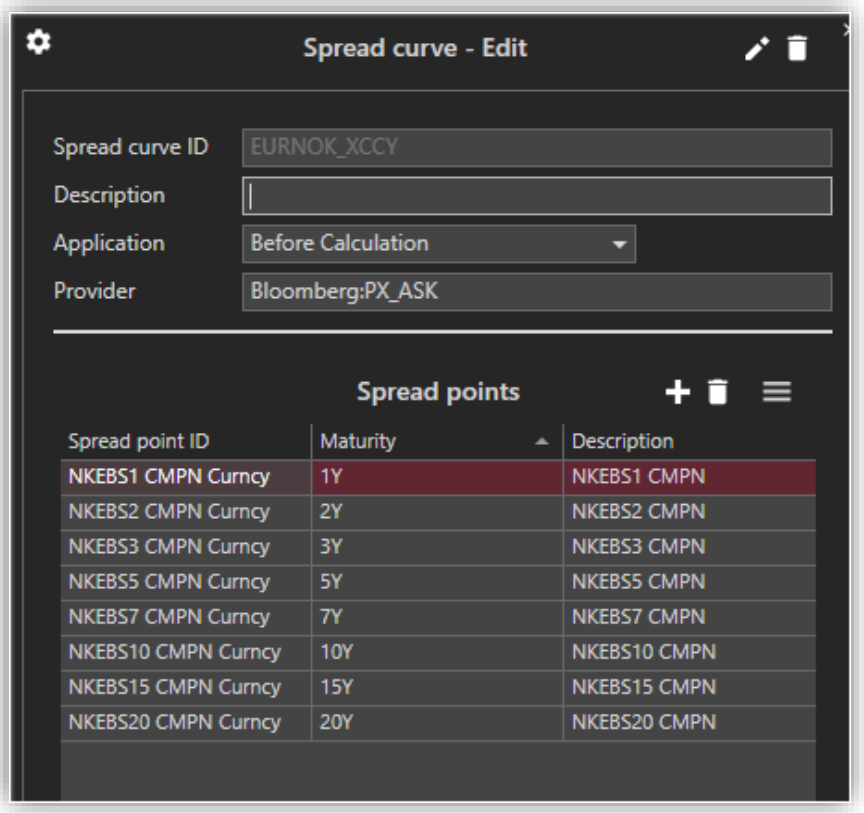


The imported market rates are found in the price table via Modules -> Prices etc. -> Prices.



2.2.4. Spread points – for building Pricing curves

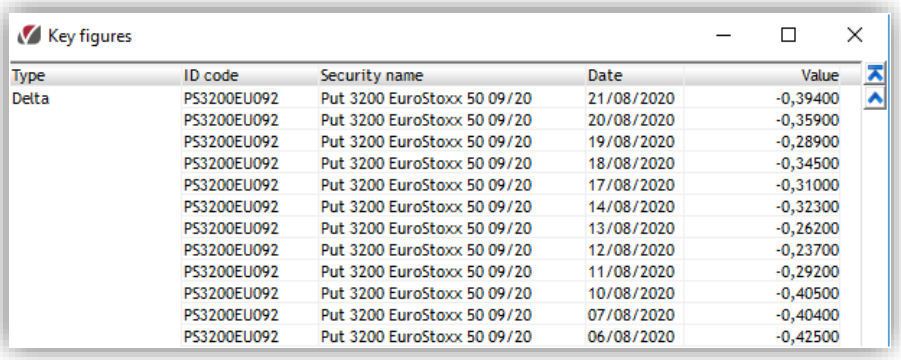
PORTMAN Pricing curves are used for pricing and calculations on instruments and on simulations of interest scenarios. For this you import spreads from Bloomberg, and they are set up in the Pricing Curve module. (see PORTMAN Pricing Curves – how to get started – for a more detailed review of the module).



2.2.5. Key figures

- Delta

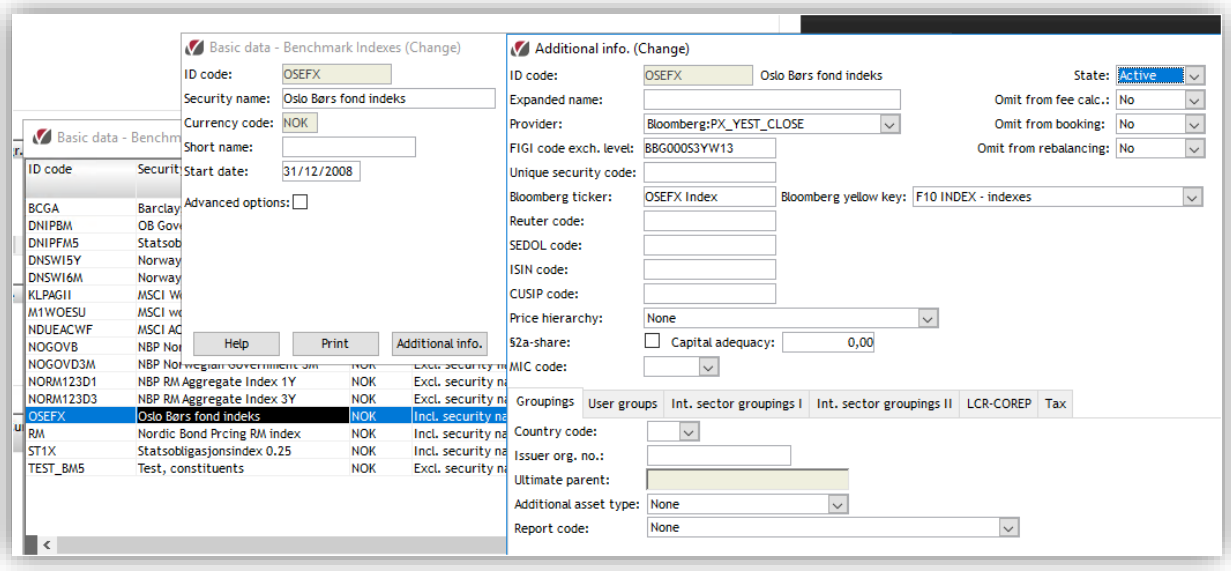
With regard to key figures, Delta may be imported. This is used e.g. on derivatives.



Type	ID code	Security name	Date	Value
Delta	PS3200EU092	Put 3200 EuroStoxx 50 09/20	21/08/2020	-0,39400
	PS3200EU092	Put 3200 EuroStoxx 50 09/20	20/08/2020	-0,35900
	PS3200EU092	Put 3200 EuroStoxx 50 09/20	19/08/2020	-0,28900
	PS3200EU092	Put 3200 EuroStoxx 50 09/20	18/08/2020	-0,34500
	PS3200EU092	Put 3200 EuroStoxx 50 09/20	17/08/2020	-0,31000
	PS3200EU092	Put 3200 EuroStoxx 50 09/20	14/08/2020	-0,32300
	PS3200EU092	Put 3200 EuroStoxx 50 09/20	13/08/2020	-0,26200
	PS3200EU092	Put 3200 EuroStoxx 50 09/20	12/08/2020	-0,23700
	PS3200EU092	Put 3200 EuroStoxx 50 09/20	11/08/2020	-0,29200
	PS3200EU092	Put 3200 EuroStoxx 50 09/20	10/08/2020	-0,40500
	PS3200EU092	Put 3200 EuroStoxx 50 09/20	07/08/2020	-0,40400
	PS3200EU092	Put 3200 EuroStoxx 50 09/20	06/08/2020	-0,42500

2.2.6. Benchmarks

You can also import Benchmarks (index) from Bloomberg. On supplementary basic data the ID code must match Bloomberg Ticker, and the Provider and Bloomberg Yellow Key must be filled in.



3. Practice

When data has been collected from Bloomberg's web service, import and registration takes only minutes.

The greatest time consumption is thus in the built-in delay in the customer's Bloomberg data license, which typically is 5-6 minutes (50 sec. delay in processing query and 5 minute delay in sending return response). In reality we experience shorter response times on Vitec Aloc's own Test Account.

You must also be aware that there may be different delays on certain types of data, for example some pricing information requires that you have a real-time license with Bloomberg to avoid experiencing very long delays. For example, market rates such as PX Last (last bid/offer) have a 15 minute response delay unless you have a real-time license.

3.1. Flow

When the server batch with one of the four applications is started, the following occurs:

1. The batch sends a transaction (with the type) to the server.
    a. Spreads
    b. Prices
    c. MarketRates
    d. ExchangeRates

2. The PORTMAN server sends an order/request to Bloomberg, which responds with a response ID.

3. PORTMAN queries Bloomberg every xx seconds (configurable) whether a response to the response ID has arrived.

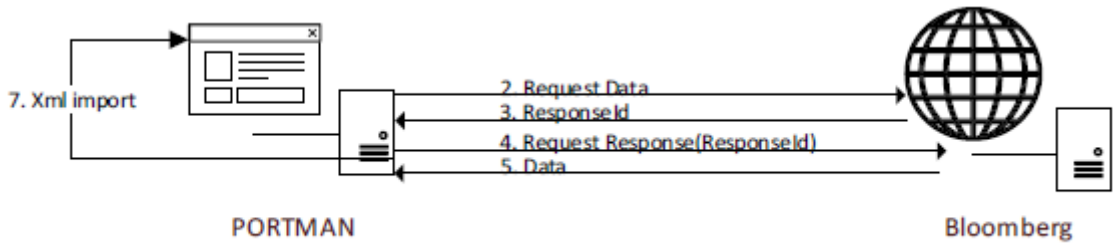
4. Response returned from Bloomberg with data.

5. When there is a response to the response ID, the PORTMAN server generates an XML file and a sem file. These are placed in the import folder.

6. The XML file is imported to PORTMAN.

7. The XML file is renamed to <filename>.1.

8. The batch point changes status to done.



3.2. Technology

Because 'Bloomberg data integration module' is an integrated part of PORTMAN BL server, the application will be available in both PROD and TEST environment. This means that if certificates are installed on both environments, it will also be possible to retrieve data from Bloomberg in both

environments.

4. Control of import

In the PORTMAN ‘Import Manager’ module all imports are managed, which come in XML format. Here you can monitor the individual import and make any required corrections.

A typical error is that a security has expired and that there therefore no longer are prices for the security. In this case you open the security on supplementary basic data and remove ‘Provider’.