SMART At a Glance

**On this page**

* [Activating the Bloomberg DataLicense Adapter](https://client-connect.iongroup.com/library/content/treasury-management/openlink/operations/smart-bb-security-master-adapter-users-guide/smart-at-a-glance/#Activating_the_Bloomberg_DataLicense_Adapter)
* [Bond Upload Source Tab](https://client-connect.iongroup.com/library/content/treasury-management/openlink/operations/smart-bb-security-master-adapter-users-guide/smart-at-a-glance/#Bond_Upload_Source_Tab)
* [The Mapping Definition Tab](https://client-connect.iongroup.com/library/content/treasury-management/openlink/operations/smart-bb-security-master-adapter-users-guide/smart-at-a-glance/#The_Mapping_Definition_Tab)
* [Lookup Tables Tab](https://client-connect.iongroup.com/library/content/treasury-management/openlink/operations/smart-bb-security-master-adapter-users-guide/smart-at-a-glance/#Lookup_Tables_Tab)
* [The Adapter Properties Tab](https://client-connect.iongroup.com/library/content/treasury-management/openlink/operations/smart-bb-security-master-adapter-users-guide/smart-at-a-glance/#The_Adapter_Properties_Tab)
* [The Returned Instrument Tab](https://client-connect.iongroup.com/library/content/treasury-management/openlink/operations/smart-bb-security-master-adapter-users-guide/smart-at-a-glance/#The_Returned_Instrument_Tab)

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The Default SMART Application

On starting up SMART for the first time, a window similar to Figure 8 displays.

**Legend**

1. Title Bar

Contains the current user name, DB server name, and DB name.

Administration Ribbon Group

A button to show the SMART Console. This opens a window displaying log messages output by the application during operations.

A **Style** combo box, which contains a list of Styles. Selecting a style affects the look and feel of the application.

A button to make all windows of the application visible if they are not currently visible.

A combo box containing a list of debug levels. Log Level **Debug** shows all created messages. Each higher level shows only that level and its parent level messages. For example, if the **Warn** level is selected, only warning, error, and fatal messages display.

Instrument Load Option Ribbon Group

A single button controls whether dropdown values for instruments are loaded. For instance, the list of issuers applicable to a specific bond instrument type for the current user. (To be deprecated).

Import/Export Ribbon Group

**Export All Configuration Items**

This button is used to export all SMART related files that are saved in the Directory Nodes of the OLF database. This is useful when ensuring that backups exist for current mappings and when moving relevant files between databases.

**Import All Configuration Items**

This button is used to import files that have been exported using the above Export button. This functionality expects to find a regular Windows directory structure with a directory named *user* at its root.

SMART Explorer Bar

This contains a list of adapters, in this case only the Bloomberg DataLicense Adapter is available. The bar can be closed by toggling the **pin** in the upper right-hand corner.

Administration Group

Contains some duplication of the functionalities described in the Administrative Ribbon Group above.

Activating the Bloomberg DataLicense Adapter

Click on the **Bloomberg Data License** button in the SMART Explorer Bar (see Figure 8). This activates the Bloomberg Mapping functionality of SMART. The image in Figure 9 below depicts the activated view.

Graphical user interface, text, application, Word

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Activated Bloomberg DataLicense Adapter

Bond Upload Source Tab

Once loaded, the Bloomberg Data License Adapter displays its default view where the *Bond Upload Source* tab is active.

The Ribbon is updated with a tab containing buttons that are applicable for this view. The *Instrument Import List* tab can be used to test the mappings created in the *Mapping Definition* tab.

**Legend**

1. **File**

A list of instrument ids, id types (CUSIP, ISIN, etc.) can be created, saved, and loaded on this tab.

**Manage Records**

Common editing features

**User Preferences**

A default Bloomberg market sector can be chosen here and is saved uniquely for each user of SMART.

**Process**

The user has the choice of using either the Bloomberg Data License service or the Bloomberg API service to communicate with Bloomberg. The BLAPI service is not available to customers at this point. Upon clicking the **Execute Bloomberg Import** button, the Bloomberg service is queried for the list of selected instruments on this tab.

**Current User Rights**

A view of the rights of the current user.

**Bond Upload Source**

A grid where the ids, id type, and market sectors can be entered. Additionally, and optionally, overrides are available to pre-set the issuer and the mapping to be used for each instrument.

**SMART Explorer Bar**

The Smart Explorer bar in minimized state.

**Bloomberg DataLicense Adapter Tab**

Each tab contains a view that encapsulates a specific functionality of this adapter. To be discussed in detail later.

The Mapping Definition Tab

A screenshot of a computer

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Mapping Definition Tab

*The Mapping Definition* tab is used to maintain the mappings between Findur Holding Instrument Templates and Bloomberg Fields. This tab contains five grids that can be organized in any way the user requires, it can be torn off, tabbed with other grids etc. Upon exiting the program, the last settings are automatically saved so when that specific user logs on again, his/her last layout is displayed again.

Each grid contains the data for a specific set of data that play a role in the creation of a set of mappings.

The Ribbon contains buttons that provide editing, user options, and other enriching features to this view.

**Legend**

1. **Mapping File:**facilities to import, export, load, and save mapping files. The mapping files are saved in the database, thus the need for import/export features.

**Manage Mappings:** common editing facilities specific to the *Mapping* grid (9).

**Manage Markers:**common editing facilities specific to the *Markers* grid (10).

**Actions**

**Redo/Undo Facility**

A button to refresh the set of loaded instrument and leg info fields. The application validates the list of info fields that are in a mapping and warns the user if a specific field does not exist in a specific database. This can happen when migrating a mapping from one DB to another DB The user can then create the info field to match what already exists in the mapping. After creating the info field, it is necessary to use this **Refresh** button.

**Auto Sort Options:**Findur maintains a database table that contains, by toolset, the order in which fields should be processed. This sorting is integrated into this application:

1. **Allow Auto Sorting:** defaults to True, however, it may be necessary to override the default system sorting, in which case the button can be toggled.

**Reset Processing Order:** for all mappings currently loaded, refresh the values in the processing order column.

**Sort by Processing Order:** sorts the fields in the loaded mapping by processing order.

**Current User Rights:**the Bloomberg DataLicense Adapter specific rights allocated to the current user.

**Field Selector Grid:** this grid contains the fields of the currently selected Holding Instrument template that is used to define the Findur side of the mapping.

**Template Selector Grid:** this grid contains a list of available templates organized by toolset and instrument class.

**Mapping Grid:** this grid contains the actual mapping of a specific template’s fields to a set of Bloomberg fields.

**Marker Grid:** this grid contains the rules that allow the application to dynamically apply a specific mapping to a set of returned Bloomberg data based on the contents of the data.

**Bloomberg Fields:** this grid contains the list of all known Bloomberg fields.

Lookup Tables Tab

Graphical user interface, text

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Lookup Tables

This tab contains a grid where lookups can be defined and maintained.

**Legend**

1. **File:** allows the current lookups to be saved or reloaded form the database

Since the data is saved in the DB, there are also facilities for importing and exporting data.

**Manage Records:** common editing features.

A Lookup table named **Calendar**.

The Bloomberg and Findur values for fixed and float.

The Adapter Properties Tab

The Properties Ribbon

Graphical user interface

Description automatically generated

Properties Ribbon

**Legend**

1. **Properties**

This ribbon group contains buttons for saving the current properties, refreshing the properties from the database, and importing and exporting properties as XML to and from the database.

**Certificate**

The Bloomberg web service requires a client to have access to a digital certificate that is issued by Bloomberg. This certificate is imported into the database where the application can retrieve it and attach its contents to every query to Bloomberg that is created.

**Fields**

Bloomberg supplies a CSV file called **Fields.csv**. This file needs to be available to this application.

**Mapping File**

Any mapping file can be imported or exported using the buttons in this group.

**Lookup File**

The lookup file can be imported or exported using the buttons in this group.

**Current User Rights**

A display of the current user’s application-specific rights.

The Bloomberg Data License Tab

Graphical user interface, application, email

Description automatically generated

The Bloomberg Data License Tab

The Bloomberg Security Master Adapter internally makes use of the Bloomberg DataLicense web-service ‘s *GetData* method.

**Bloomberg Connection**

This grouping contains the following settings:

1. **Certificate file name**: Normally the certificate is named DLWSCert.p12. The button on the right can be used to find the file in the database file system. If the file does not exist, import the file using the import feature described in 4.1.5.1 above.

**Password:** The certificate requires a password to fully authenticate the user to the Bloomberg service (password is also supplied by Bloomberg).

**Timeout:** Each query to the Bloomberg DL service relies on placing a query and then periodically checking whether a reply is available. During peak times, a query may take as much as 5 minutes to execute. The timeout value provides a way to terminate a query in case the execution time becomes excessive.

**Web Service URL:** The Web Service URL for the Bloomberg Data Service. This allows the user to change the URL either due to changes from Bloomberg or to run in the UAT environment.

Table

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DataLicense Categories on the Bloomberg Fields Grid

**DataLicense Categories**

This grouping contains check boxes corresponding to Bloomberg defined DataLicense categories. By default, only **Security Master** is selected. Other categories should be selected if fields from those categories need to be requested. Please refer to Bloomberg documentation for specifics regarding which data categories need to be selected for which data items.

From Bloomberg’s *Data License Web Service* document:

The header options CLOSINGVALUES, DERIVED, QUOTECOMPOSITE, SECMASTER or HISTORICAL must be selected for getdata requests from their respective categories, otherwise, N.S. (Not Subscribed) will be returned instead of data. They need not be selected if data from the category type they represent is not requested

**Note**: HISTORICAL must be selected if any of the following fields are requested:

MTG\_HIST\_WAC

MTG\_HIST\_COLLAT\_BAL

MTG\_HIST\_DLQ30

MTG\_HIST\_CPN

MTG\_HIST\_DLQ60

MTG\_HIST\_DLQ90

MTG\_HIST\_FORECL

MTG\_HIST\_REO

MTG\_HIST\_WAM

MTG\_HIST\_ORIG\_AMT

MTG\_HIST\_REM\_AMT

MTG\_HIST\_FACT

MTG\_HIST\_NUM\_LOANS

MTG\_HIST\_PREPAY

MTG\_HIST\_PREPAY\_FRCST\_BMED

FACTOR\_SCHEDULE

EQY\_DVD\_HIST

EQY\_DVD\_HIST\_ALL

EQY\_DVD\_HIST\_SPLITS

EQY\_DVD\_HIST\_GROSS

EQY\_DVD\_ADJUST\_FACT

EQY\_DVD\_ADJ\_FUND

**Available Bloomberg Date Formats**

DataLicense allows the format of dates to be specified as part of the request. Several different formats are available from the dropdown list on this tab. Please select the format applicable to the specific geographical region where the application is deployed.

**Note**: Even though 14 different formats are available, only a subset is typically utilized.

In general, format mmddyyyy should be chosen for the USA and ddmmyyyy for most other regions. The formats with only 2 digits for the year should be avoided, (e.g., 20-Jan-45 is ambiguous; the result set returned might return either 20-Jan-2045 or 20-Jan-1945).

Bloomberg SAPI Settings

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SAPI Settings

**Bloomberg BLAPI Settings**

The BLAPI/SAPI Bloomberg service is integrated into this product; however, it is not usually active for clients due to Bloomberg contractual restrictions.

Bloomberg Terminal Settings

Graphical user interface, text, application, email

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Bloomberg Terminal Settings

The options on this tab can be used to enable Bloomberg Terminal settings to be attached to each web-service call on a global basis for those clients that make use of a shared Bloomberg terminal. To enable this feature, the **Use Terminal Settings** checkbox should be selected.

1. **Bloomberg User Number**

This is the user number of the BLOOMBERG PROFESSIONAL service login. To find the USERNUMBER, type IAM <GO> on the terminal; the user number is located after USER: in the upper left-hand side of the screen. This allows customers to link their personal Bloomberg terminal defaults (e.g., fixed income pricing sources) to an account on a per request basis. The value entered here is saved by user, so each person with such a number will not be sharing that number.

**Bloomberg Workstation & Serial Number (Optional)**

These are the serial and workstation numbers of the BLOOMBERG PROFESSIONAL service. This information can be found by entering IAM <GO> on the terminal. There are two numbers separated by a “-” after “S/N:” The first number (preceding the hyphen) is the serial number. The second number (following the hyphen) is the workstation number. These options are available to customers to link their terminal permissions (e.g., real-time exchange pricing) to an account on a per request basis. The value entered here is saved by user, so each person with such a number will not be sharing that number.

Network Settings

Graphical user interface, text, application, email

Description automatically generated

Network Settings

**Network Settings**

If the internet security policy of the client requires proxy server and port, then populate these fields with the required values, else they should be blank.

General Adapter Settings

Graphical user interface, text, application, email

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General Adapter Settings

1. Database File System
2. **Dir Nodes Path:** this is a read-only indication of where this adapter’s files are stored in the database.
3. **Mapping Filename (Optional):** the user can select the default Mapping file; this setting is useful if an EOD batch process is used to import instruments.
4. **Lookup File Name:** indicate the default lookup file.

File System

1. **Instrument List Filename (Optional)**: the list of instruments to import in case the user requires an EOD batch upload process.
2. **Installation Directory**: a read-only indication of where the application is installed.
3. **Adapter Directory**: a read-only indication of where the current adapter is installed.
4. **Plugin Directory**: a read-only indication of where any plugins containing user defined methods are installed.
5. **Plugin Filename**: the name of the dll containing the user defined functionalities.
6. **Fields Filename**: the name of the Bloomberg supplied file containing the list of Bloomberg fields for which a user can query, usually named fields.csv

Global Defaults

1. **Default Market Sector:** the user can choose which market sector shall be the default. This setting is saved by individual user.
2. File and Directory Names to be excluded during an export: The *Administration Tab* contains a button in the *Import/Export* ribbon group where the user may choose to export all SMART related files from the db to the file system. The comma delimited list in this field is excluded during this process. Defaults are **Archive**, **Hospital**, and **DLWSCert.p12**.
3. **Plugin to save Pool Factors:** (DEPRECATED This property is no longer used, the GUI property will be removed in a later version)
4. **Display Format for Decimals**: enter a formatting symbol that causes decimal numbers to display using a specific format. The link opens a Microsoft web page containing the allowed symbols and description thereof.
5. **Internal Format for Dates**: enter a formatting symbol that causes dates to save in the **ProcessedValue** columns in the desired format. This format must be unambiguous in relation to what represents the different parts of a date. It is suggested that the default supplied format be used.

User Setup for Private Terminal Settings

Graphical user interface

Description automatically generated

The User Setup Tab

The *User Setup* tab can be used if a client needs to have all or some of its traders use their private terminal settings. Thus, this feature can be used in conjunction with the previously discussed Shared Bloomberg Terminal Settings. An administrator can add a user by pressing the **Add User** button. The user’s Windows user name is entered and the **Uses Private Terminal Settings** is checked or not depending on whether the user will be using Shared or Private Bloomberg Terminal Settings. The child row that is created for the user is populated with the specific Bloomberg settings of the target user.

**Note**: Only those using private Terminal settings need to be entered here. All other users are assumed to either not need Terminal settings or use the shared terminal settings.

The Returned Instrument Tab

A screenshot of a computer

Description automatically generated

The Returned Instrument Tab

This tab displays the results of a query initiated form the *Bond Upload Source* tab.

**Legend**

1. **Actions**
2. **Set Values:** click this button to case the application to attempt to set all the values in the **Processed Value** columns into the **System Value** columns. In effect it is setting these values on an actual Findur holding instrument that exists in memory.
3. **Import Object**: the application attempts to import the currently selected instruments in this tab to the Findur DB.

**View Options**

1. **Popup Object:** this causes the application to request Findur to pop up a regular Holding Instrument input form containing the data that was just retrieved from Bloomberg.
2. **Show All Fields:** by default, and for performance reasons, only the fields that were mapped are actually shown in the return view. This button enables the user to view all fields of the current instrument (This functionality is currently disabled).
3. **Export to Excel:** all the instruments in the current view can be exported to Excel for analysis purposes.

**Instrument Hospital**

1. **Load Failed Imports:** this application comes with a component that can be associated with a button on a regular trading screen. It allows a trader to import an instrument without exposing all the administrative details of the application to this trader.). If an import fails, that instrument is not imported, but its state is saved as XML in the DB file system where it can be retrieved using this button and its errors fixed, so that it can be imported.
2. **Move File to Archive:** once fixings have been applied to an instrument, its file can be moved from the *Hospital* to the *Archive* where the XML equivalent of all successfully imported instruments are stored.
3. **Debug Save Instrument:** it is possible to save any instrument that is currently in this tab to the database.

For further information, please see

* [Fundamental Concepts](https://client-connect.iongroup.com/library/content/treasury-management/openlink/operations/smart-bb-security-master-adapter-users-guide/smart-at-a-glance/fundamental-concepts/)
* [Creating Mappings](https://client-connect.iongroup.com/library/content/treasury-management/openlink/operations/smart-bb-security-master-adapter-users-guide/smart-at-a-glance/creating-mappings/)
* [Processing Bloomberg Bulk Data](https://client-connect.iongroup.com/library/content/treasury-management/openlink/operations/smart-bb-security-master-adapter-users-guide/smart-at-a-glance/processing-bloomberg-bulk-data/)
* [Using the SMART Ad-Hoc Security Master Import (ASI)](https://client-connect.iongroup.com/library/content/treasury-management/openlink/operations/smart-bb-security-master-adapter-users-guide/smart-at-a-glance/using-the-smart-ad-hoc-security-master-import-asi/)
* [Using the SMART Batch Security Master Import (BSI)](https://client-connect.iongroup.com/library/content/treasury-management/openlink/operations/smart-bb-security-master-adapter-users-guide/smart-at-a-glance/using-the-smart-batch-security-master-import-bsi/)