



BI360 - Administration

User Guide v4.6

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Introduction

BI360 Administration is the application for users with administrative access to the BI360 Reporting product suite. *BI360 Administration* can be used to setup and manage the system settings, licenses, ERP integrations, staging, security features, and application assignments.

Who Should Read this Manual



This manual is designed for BI360 administrators, who are responsible for tasks such as repository setup, license, security, and application management.

What's Included in this Manual

This manual is designed to give an in-depth understanding of how to use the features of the BI360 Administration.

Symbols and Conventions

This manual uses the following symbols to make specific types of information stand out.

Symbol	Description
	The sunlight symbol indicates helpful tips, shortcuts, and suggestions.
	The warning symbol indicates situations we recommend to be aware of when completing tasks. Typically, this includes cautions about completing steps in their proper order or important reminders about how other information in BI360 may be affected.

Installation

Please consult the BI360 Installation Guide available on the Solver Support site for more information on installing this component and other components of the BI360 Product Suite.

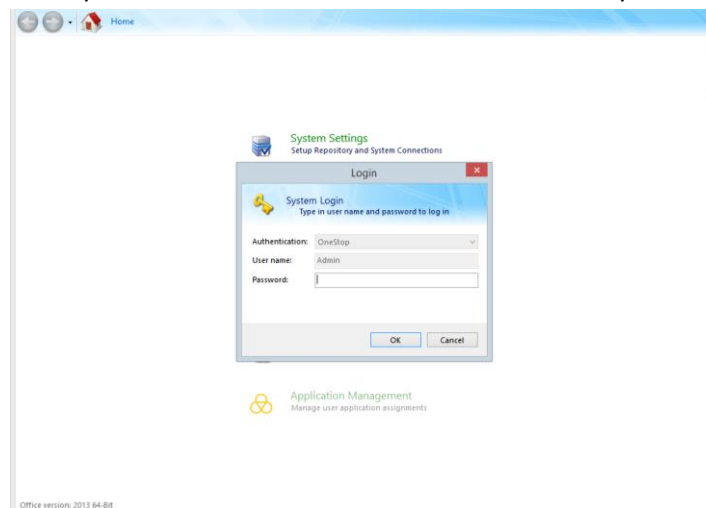
BI360 Administration Overview

How to use BI360 Administration

BI360 Administration allows the system administrator to set up, install, or manage repositories, licenses, integrations, data connections, security, staging and application assignments. After installation, *BI360 Administration* should be the first application opened - prior to attempting to use any other BI360 applications in order to ensure that all reporting applications are properly configured.

Login

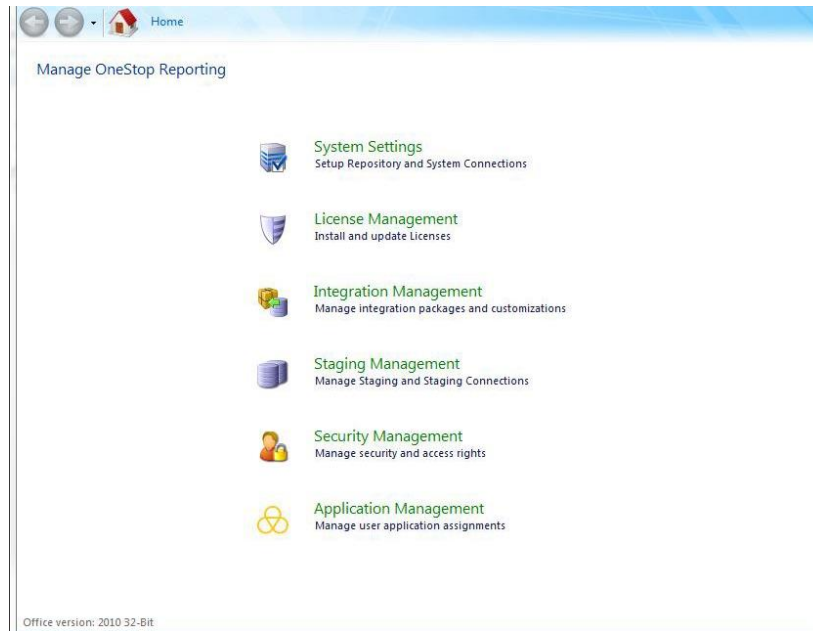
Anytime *BI360 Administration* is opened, the application will prompt the user for the *built-in Administrator* password. For first-time users, the default login user name and password is “**Admin**” and “**admin**” respectively. It is important to note that both the user name and password are case-sensitive.



After the initial login, follow the steps under Security Management on page 47 to create a more secure environment.

Home Page and BI360 Administration features

When logged in correctly, the user will be taken to the *BI360 Administration* Home page. From this page, the user will be able to access the six areas within *BI360 Administration*.



Menu Option	Function
System Settings	Allows administrators to configure the repository and database connection as well as customize additional settings.
License Management	Allows administrators to install, view, update, and delete licenses for BI360 Reporting applications.
Integration Management	Allows administrators to install, update, and uninstall the integration packages. Also, there is an option to customize the dimensions and attributes for integration packages.
Staging Management	Allows administrators to set up staging for improved performance.
Security Management	Allows administrators to change the built-in Administrator password and manage user access.
Application Management	Allows administrators to manage application assignments for different users on the network.

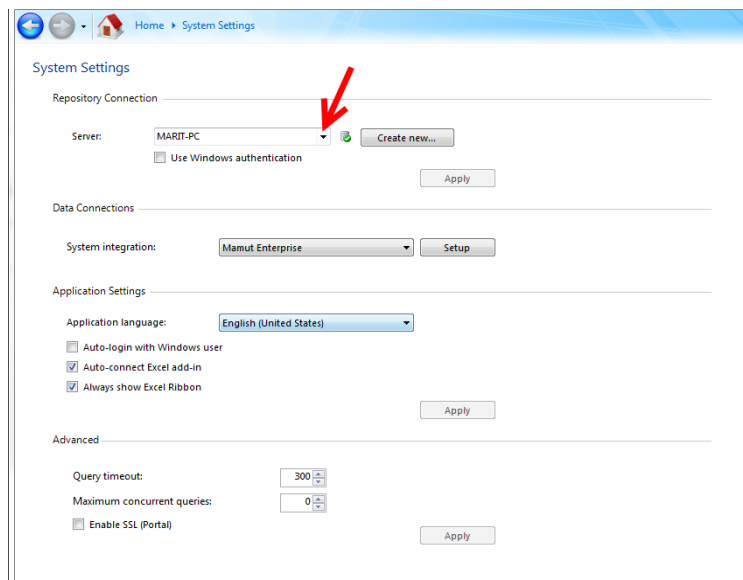
This user guide will explain how to setup and administer each of the functions listed above.

System Settings

From the System Settings menu, users will be able to configure connections for the repository and database for all integration systems that have been installed. In addition, some other settings that apply across all BI360 modules are configured here.

Repository Connection

The repository database holds metadata information so that the BI360 applications will have the correct references to the ERP database or the *BI360 Data Warehouse*. A repository must be set up in order to use any of the BI360 applications. If BI360 applications were previously installed, the existing repository and connection can be used.



The screenshot shows the 'System Settings' window with the following sections:

- Repository Connection:** A 'Server' dropdown menu with 'MARIT-PC' selected. A green checkmark is visible next to the dropdown. A 'Create new...' button is to the right. Below is a checkbox for 'Use Windows authentication' and an 'Apply' button.
- Data Connections:** A 'System integration' dropdown menu with 'Mamut Enterprise' selected and a 'Setup' button.
- Application Settings:** An 'Application language' dropdown menu with 'English (United States)' selected. Below are three checkboxes: 'Auto-login with Windows user' (unchecked), 'Auto-connect Excel add-in' (checked), and 'Always show Excel Ribbon' (checked). An 'Apply' button is at the bottom.
- Advanced:** 'Query timeout' set to 300, 'Maximum concurrent queries' set to 0, and an 'Enable SSL (Portal)' checkbox (unchecked). An 'Apply' button is at the bottom.

Server: Enter the server and instance information. The dropdown list will display available servers in the domain.



The server name will consist of the SQL server name and instance in the standard SQL Server format (i.e. ServerName\SQLInstance). If a green check mark appears next to the server dropdown box, a previously created database has been found. If a red 'x' appears, either the server name or the instance is misspelled, the SQL Server cannot be found, or the repository database does not exist in the specified SQL Server.

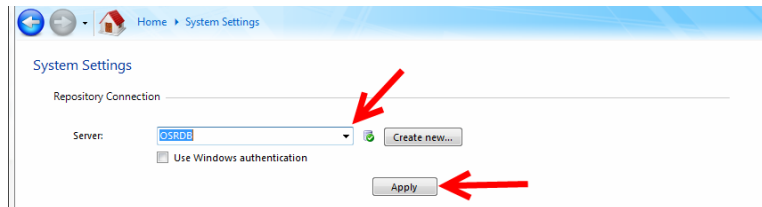
Create new...: Selecting this option will prompt the user for additional information regarding the server and authentication method. If the correct information was entered, a new repository will be created.

Use Windows Authentication:

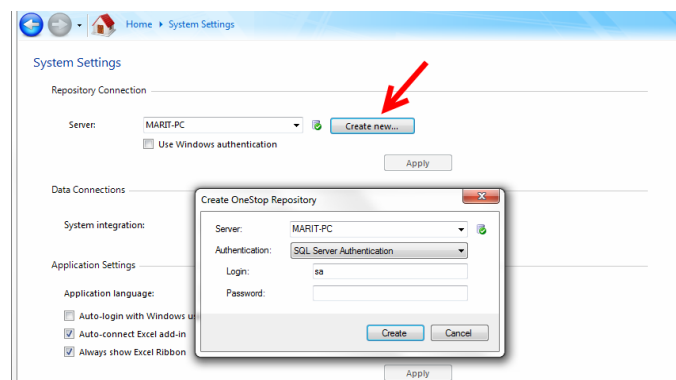
If the *Use Windows authentication* box is checked, BI360 Reporting will use the logged on Windows user to connect to the repository.

The steps below explain how to configure a brand new repository:

1. Create a new repository or connect to an existing repository from a prior installation.
2. An existing repository can be found in the dropdown box or manually entered into the text box.
If an existing repository is found, click *Apply* to save the repository connection information.



If the *Use Windows authentication* box is checked below the Server text box, BI360 Reporting will use the logged on Windows user to connect to the repository. Otherwise, BI360 Reporting will use the SQL user *osruser* login to connect to the repository. To create a new repository, click *Create New* and fill in the information for the SQL server. This will prompt a new window where users can enter server information, authentication method and credentials.



When choosing between *Windows Authentication* and *SQL Authentication*, it is important that the chosen user has rights to create a database. When choosing *Windows Authentication*, any user that will be using the BI360 Reporting applications will need to have *read and write permission* for their Active Directory profile against the *OSR_Repository* database. This can be managed via the SQL Server Management Studio.



It is recommended that the database reside on the same SQL server as the ERP system. This will reduce the time for reports to execute, as the communication delay between the repository and ERP databases is minimized.

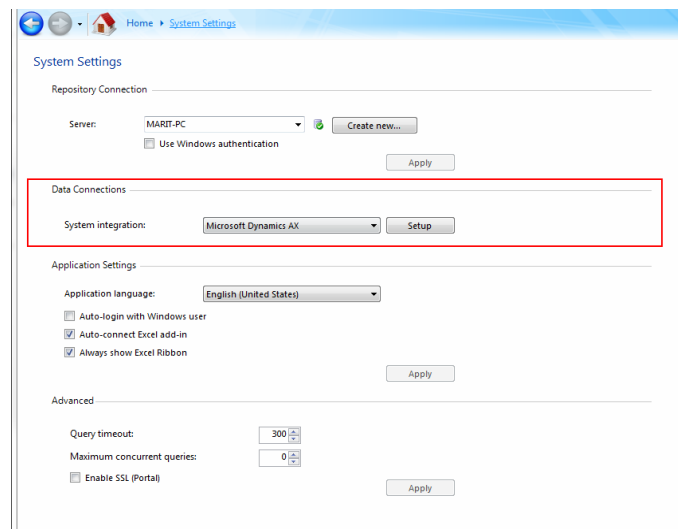
A new database called *OSR_Repository* is created on the specified SQL server.

Data Connections

Although data connection management is available in each reporting application of the BI360 suite, *BI360 Administration* also offers a data connection setup.

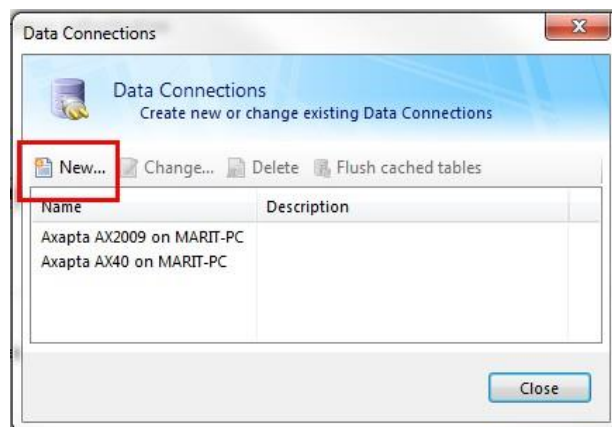
Setting up a New Data Connection

In the *Data Connections* section of the *System Settings* page there is a drop-down list containing integration packages that have previously been installed under *Integration Management* (see the *Integration Management* section for more details) and a *Setup* button to create and manage database connections).

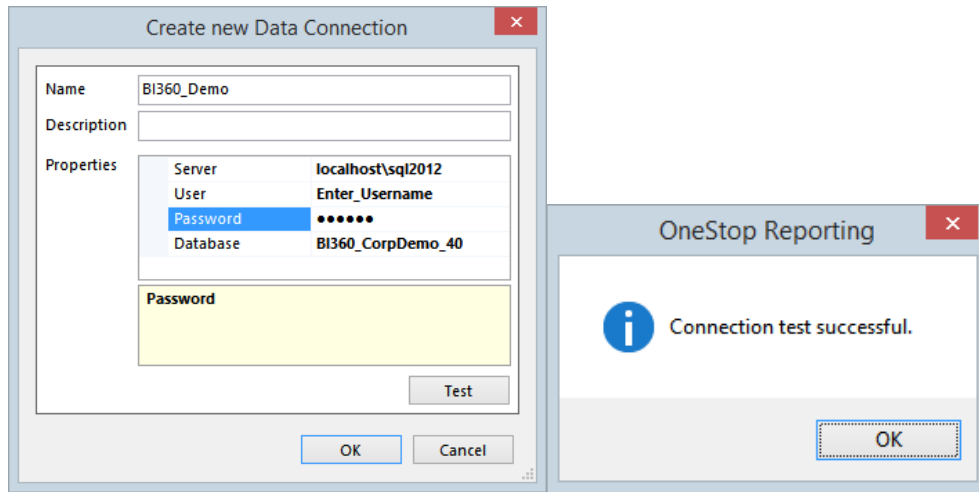


How to Set Up a Data Connection

1. In the *Data Connection* section of the *System Settings* page, click the *Setup* button.
2. On the *Data Connections* page, choose *New*.



3. Enter the information required to create a new connection and click *Test* to confirm access to the database. A new window will display the result of the test. The illustration below shows an example.

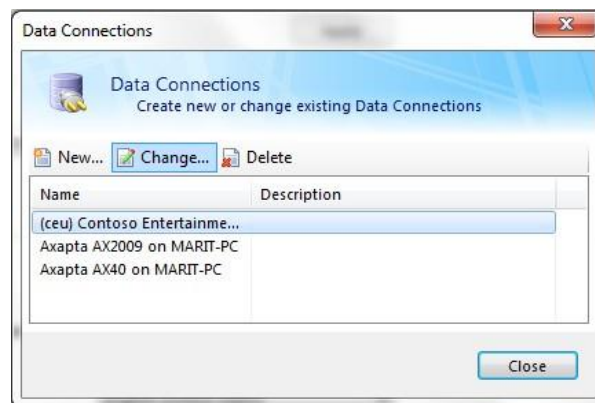


User and Password information is only required if a SQL Authentication was created. If the User and Password fields are left blank, Windows Authentication will be used.



If the connection test is unsuccessful, consult the organization's IT department for the correct server and database information.

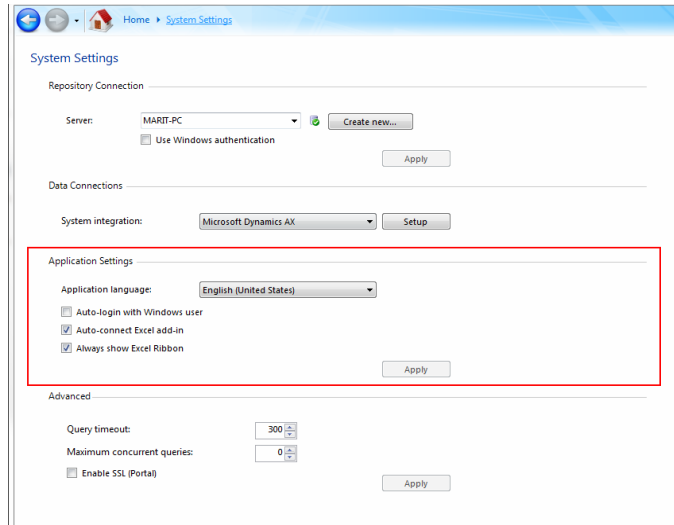
After the new connection has been created, click *OK* to close the window. In the *Data Connection* section, the newly created connection will be displayed in the drop-down list and can be modified or deleted using the *Change* and *Delete* options.



If a connection is modified or deleted in BI360 Administration, it will affect data connections across the entire application.

Application Settings

The *Application Settings* sections contains some options that apply across all BI360 applications.



Application Language

By default, the BI360 applications displays in the same language as the Windows operating system on the computer (if available). If the user wants to use another available language for the application, the language can be changed here.



The application language must not be confused with the integration language which is the language provided for a particular integration package for an ERP system (i.e. the names of the tables, fields etc. from the ERP system).

Auto-Login with Windows user

If checked, users will be prompted for *Windows Authentication* any time they open a BI360 application instead of the SQL authentication.

Auto-Connect Excel Add-in

If checked, BI360 Report Designer or BI360 Player will always connect when Excel is run. However, if unchecked, users will be required to manually connect BI360 Report Designer or BI360 Player before designing or running a report.

Always Show Excel Ribbon

If checked, the BI360 Reporting Excel ribbon is always displayed in Excel independent of the applications assigned to the user. If the user does not have access to BI360 Report Designer or BI360 Player, the ribbon will not display any buttons. However, if unchecked and the user is not assigned rights to BI360 Report Designer or BI360 Player, the BI360 Reporting Excel ribbon will not be displayed on the Excel interface.

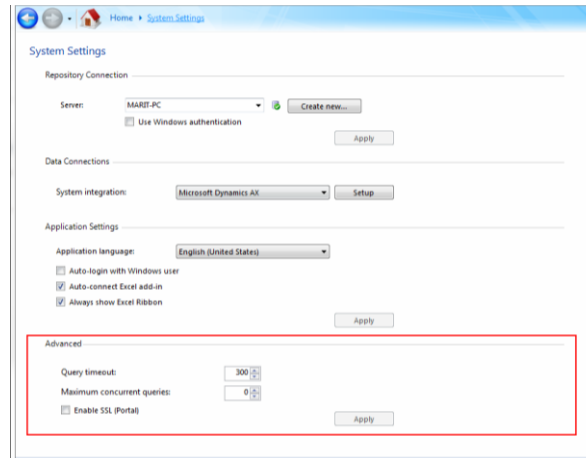
Select the options to be applied to all users and click *Apply* to store all settings.



If the BI360 application is in use when application settings are changed, the new settings will take place once the application or Excel has restarted.

Advanced

In the *Advanced* section, users can manage additional settings that will apply across all BI360 applications.



Query timeout

This setting sets the limit for how long to wait for a database query (when running a report/query) before ending the query with no result (timeout error). The default setting is 300 seconds (5 minutes). If there are complex reports that may take a long time to run, increasing this value may ensure that the reports do not timeout during execution.

Maximum Concurrent Queries

By default, *BI360 Report Designer*, *BI360 Player* and *BI360 Composer* do not perform parallel queries. However, users can enable this by setting the *Maximum Concurrent Queries* to a value other than 0. Executing queries in parallel normally optimizes performance when generating a report in the BI360 Reporting applications. When using this feature, it is recommended to start with the value 8 for *Maximum Concurrent Queries*. The optimal number of concurrent queries depends on a number of variables such as memory on the server running the SQL server, the number of processors on the server, and other SQL Server related options. For more details, please refer to the Microsoft documentation to learn more about optimizing parallel queries.



A high number does not automatically imply the best performance. Depending on the different variables mentioned above, a peak will be reached at a certain value. The peak could also be dependent on the nature of the report since the number of generated SQL Statements play an important role. When running a simple report that only generates one query, no performance improvements would be achieved using this option. The best way to find the peak is to simply test different values and different reports. If the desired results are not achieved, disable this feature by choosing the default value, 0.

Enable SSL (Portal)

Enables BI360 Portal to run using the HTTPS protocol.

License Management

After the initial setup, *license management* allows administrators to install additional licenses, update current licenses, view details of licenses, and delete licenses.



The information in this section builds on the assumptions that a license key has been provided and that the administrator is setting up the BI360 application for the first time.

Install License

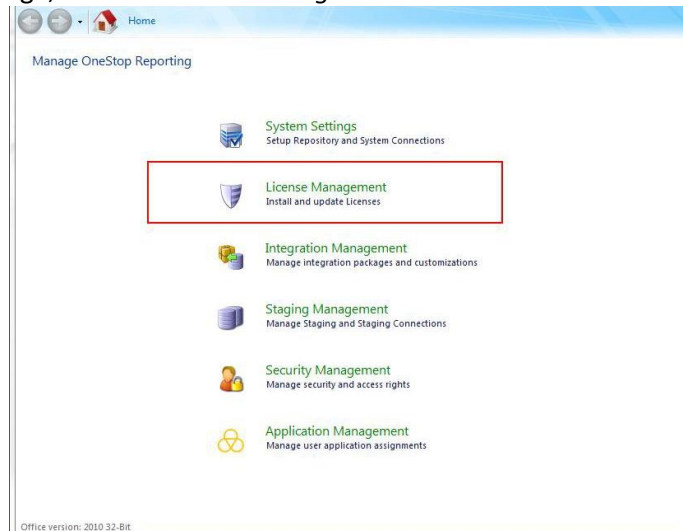
Prior to the use of any BI360 application, the proper license key must be installed through *BI360 Administration* and assigned to users. Assigning users to applications will be covered in the *Application Management* section.



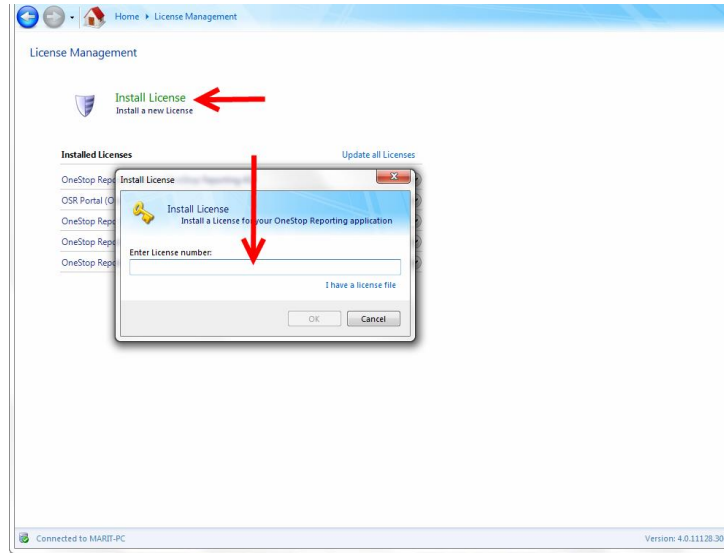
Remember that licenses are assigned to a specific repository and not to the local computer.

How to Install a License

1. Start BI360 Administration and enter the built-in Administrator login credentials.
2. On the Home page, choose *License Management*.



3. Choose Install License, and in the window that opens enter the license key for the BI360 application to be used.



If a license file (.lic) was provided, click *I have a license file* to import the license.

4. Click **OK** to install the license.
5. The list of installed licenses will be updated and the new license will be listed.

Managing Licenses

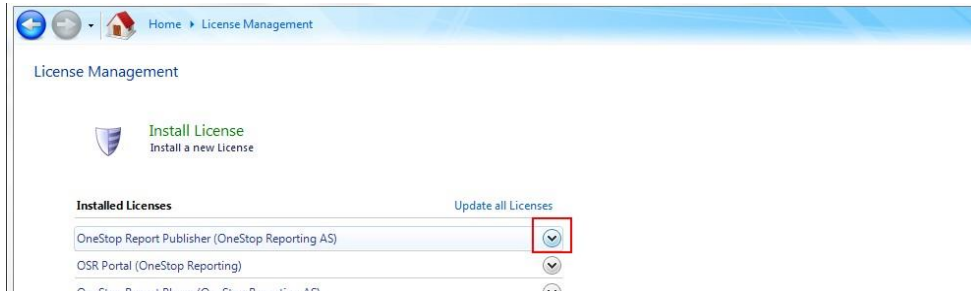
When installed, licenses can be viewed, updated and deleted.

View Licenses

Viewing the license will display the following:

- License Number.
- Expiry Date.
- Company licensed to.
- Number of users under the license.

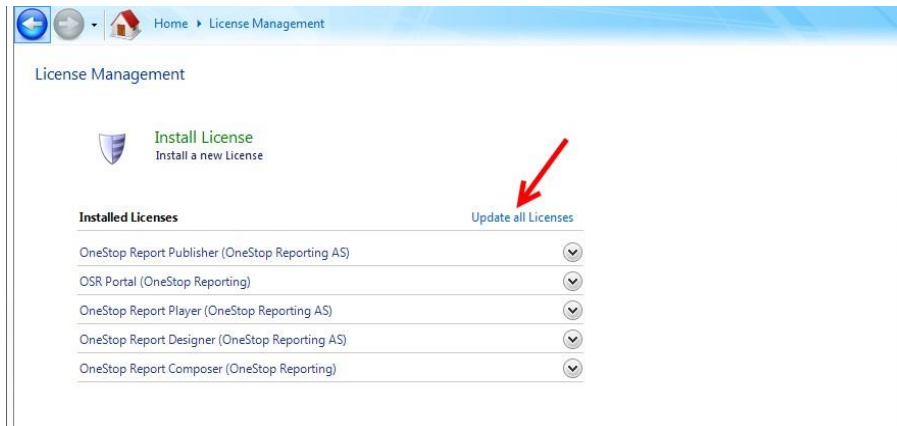
To view the license, click the dropdown arrow to the right of the license name:



Update Licenses

Licenses can be updated in one of two ways.

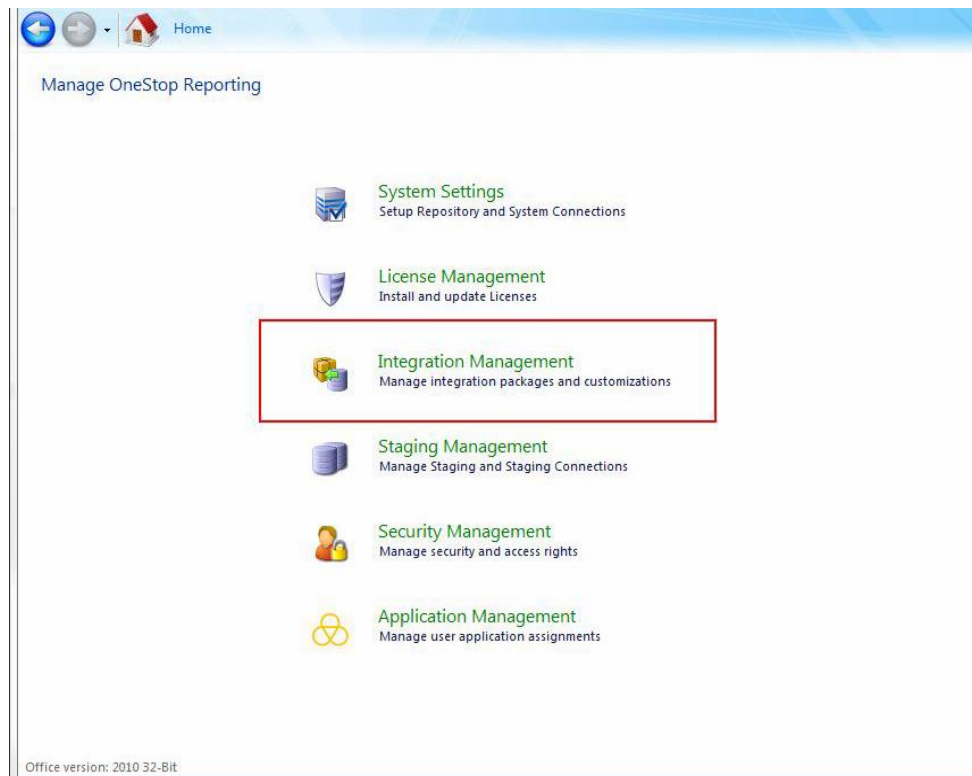
1. The first method is to update all licenses installed in the repository by clicking *Update all Licenses* and choosing *Yes* in the pop-up window.



2. The second method updates licenses for individual applications (see illustration below).
 - a. Click the dropdown arrow to the right of the license name for the application that should be updated.
 - b. Click **Update**. A confirmation window will be displayed.

Integration Management

On this page, users can manage integration packages and customization.

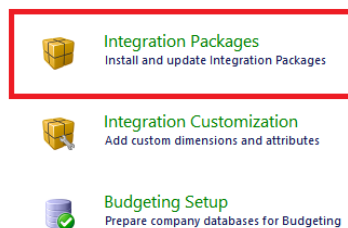


Integration Packages

Integration packages include the pre-built logic that integrates BI360 to the ERP systems and are essential for communication between the SQL server and BI360 applications.

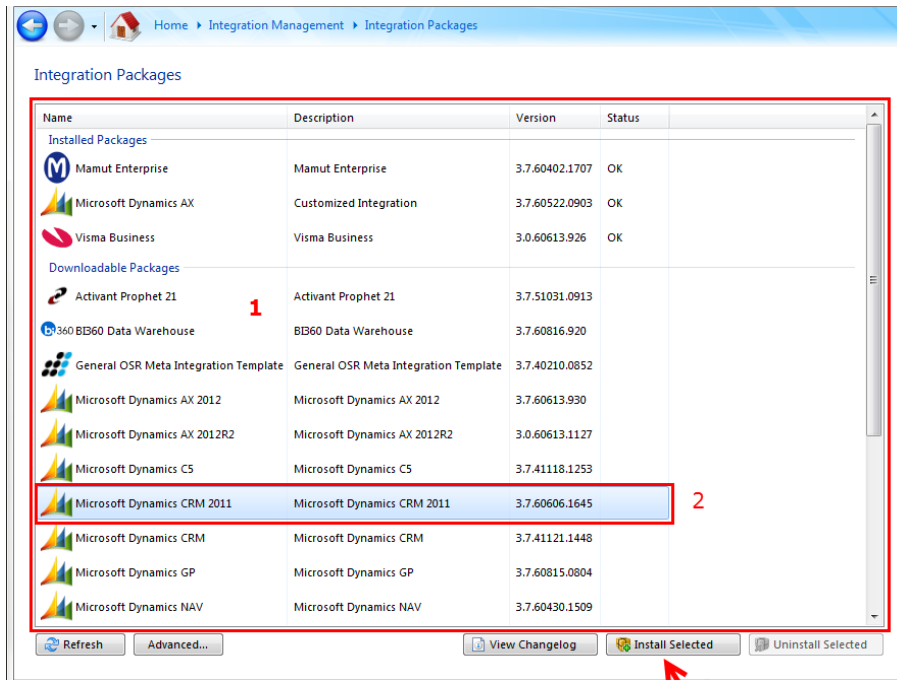
Installing an Integration Package

1. From the Home page in BI360 Administration, choose Integration Management and then Integration Packages.



2. A list of available integration packages will be generated.

3. Select and highlight the ERP system that is installed in the organization's environment.
4. Click **Install Selected** at the bottom of the page to finish installing the selected integration packages.



The illustration above shows how the window would look when choosing to install the Microsoft Dynamics CRM 2011 integration package.

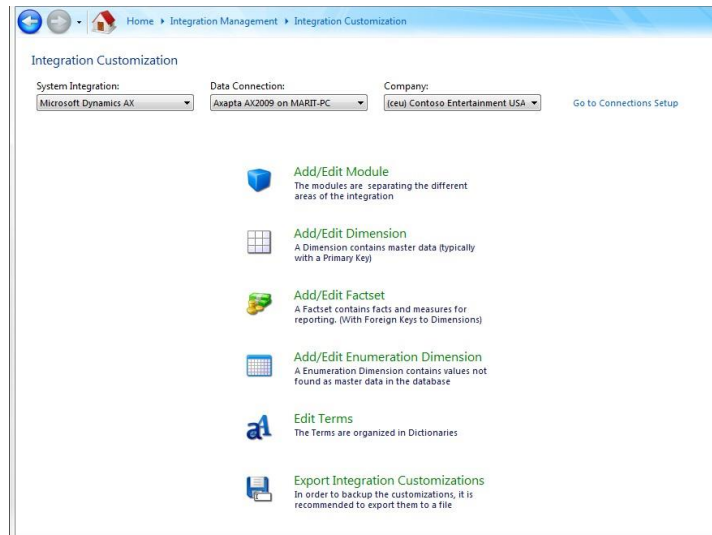
The buttons at the bottom of the window are explained in the following chart:

Button	Function
Refresh	Refreshes the list of <i>downloadable packages</i> and <i>installed packages</i> .
Advanced...	Allows the installation of a custom integration package.
View Changelog	Displays the <i>changelog</i> .
Install Selected	Installs the highlighted integration package. This option is inactive if a package is already installed, unless there are updates available for the integration package. In that case, this option is used to upgrade an already installed integration package.
Uninstall Selected	Uninstalls the highlighted integration package. This is inactive if a package is not installed.

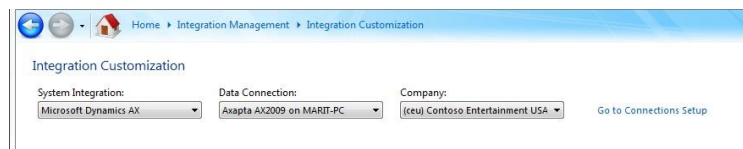
Integration Customization

Many customers have ERP systems that allow users to define user-defined tables and fields. These user-defined tables and fields can be included in BI360 via customized integration metadata. One way of creating such metadata is to use the *Integration Customization* feature in *BI360 Administration*.

From the Home page, select Integration Management and then Integration Customization. This opens the Integration Customization page.



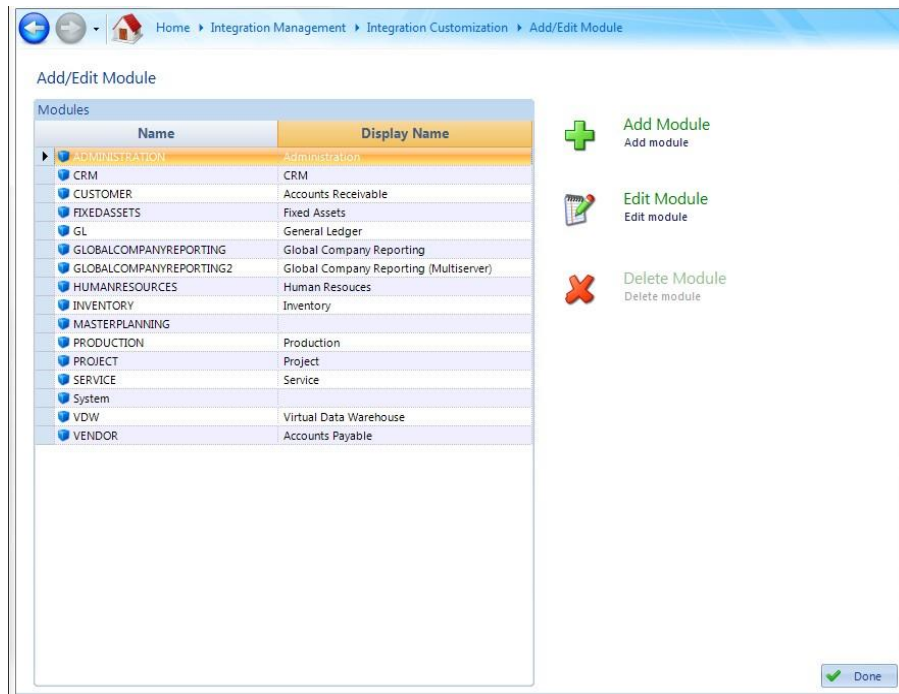
First, users need to specify the integration, database, and company they want to customize. The *Integration Customization* feature will use this connection for any custom settings the user creates.



If the desired connection has not been configured, users can choose *Go to Connections Setup* to create the data connection.

Add/Edit Module

This option allows users to view and edit existing modules and add new modules.



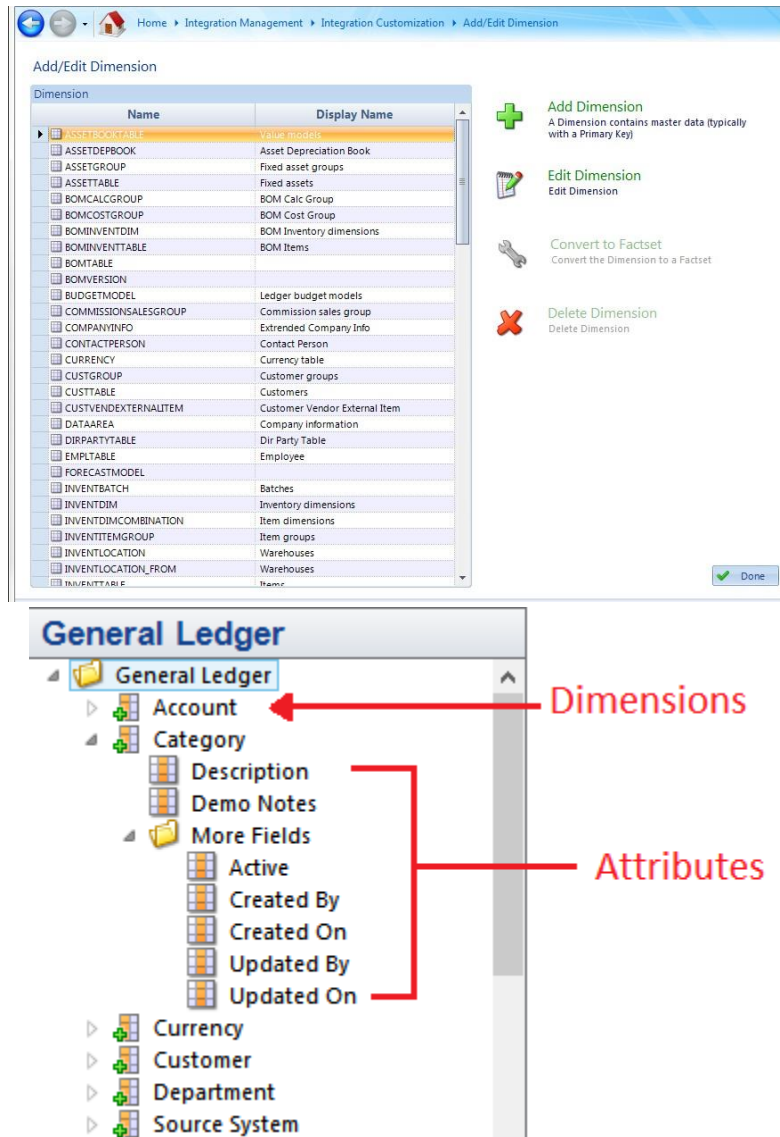
- **Add Module:** choosing this option will prompt the user to name the new module. The name entered for the module will be used for *Name* and *Display Name*. After the user has entered a name and confirmed by clicking *OK*, the new module will appear in the *Modules* list.
- **Edit Module:** choosing this option will prompt the user to rename the module that is highlighted in the *Modules* list. Note that it is only possible to rename the *Display Name* of the module, not the system name.
- **Delete Module:** choosing this option will delete the selected module from the *Modules* list. Users can only delete modules that have been created using this tool.



Changes made under Add/Edit Module are stored automatically. Users may use the link on top of the page to navigate back to the desired menu or press the **Done** button to return to the previous screen.

Add/Edit Dimension

This option allows users to view and edit existing modules and add new dimensions and to convert dimensions to a factset.



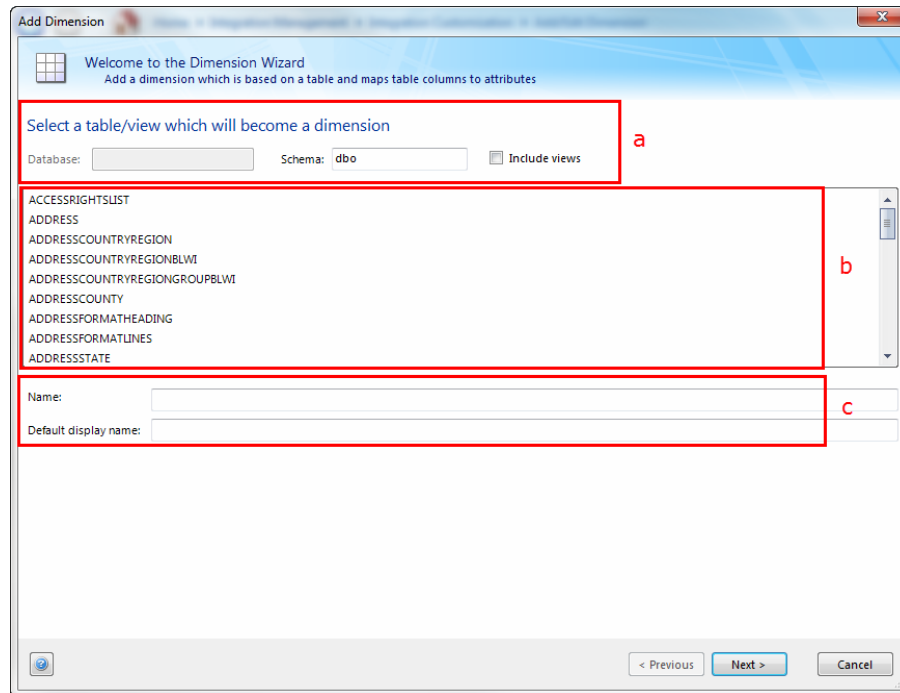
- **Add Dimension:** choosing this option will open the *Dimension Wizard*. Through the *Dimension Wizard*, users can create a new dimension from a table or a view that already exists in the database. The *Dimension Wizard* is explained in more detail below.
- **Edit Dimension:** choosing this option will open the Dimension Editor, which allows users to modify the attributes of the dimension and module associations. More details on the Dimension Editor can be found below.
- **Convert to Factset:** choosing this option will convert the dimension to a factset. This function should be used if an added dimension contains many transactions (measures) rather than master data. Alternatively, users may delete the dimension and re-add as a factset on the Add/Edit Factset page.

- **Delete Dimension:** clicking this button will delete the selected dimension from the *Dimensions* list. Users can only delete dimensions that have been created using this tool.

Dimension Wizard

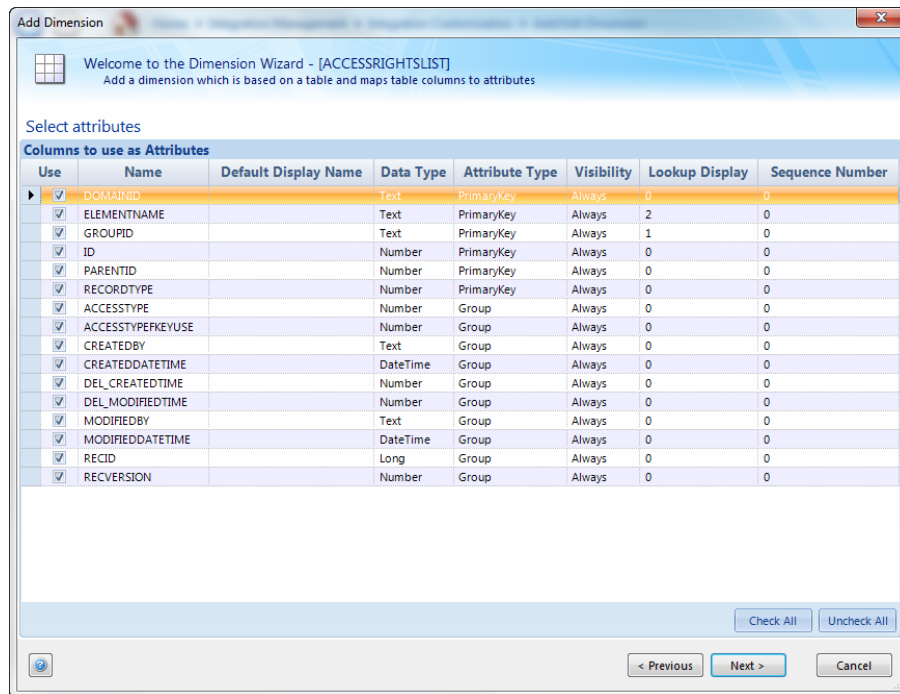
The *Dimension Wizard* assists in configuring a new dimension to be displayed for the end-user.

In the first page of the *Dimension Wizard*, users will be able to select the table or view that will be configured as a dimension.

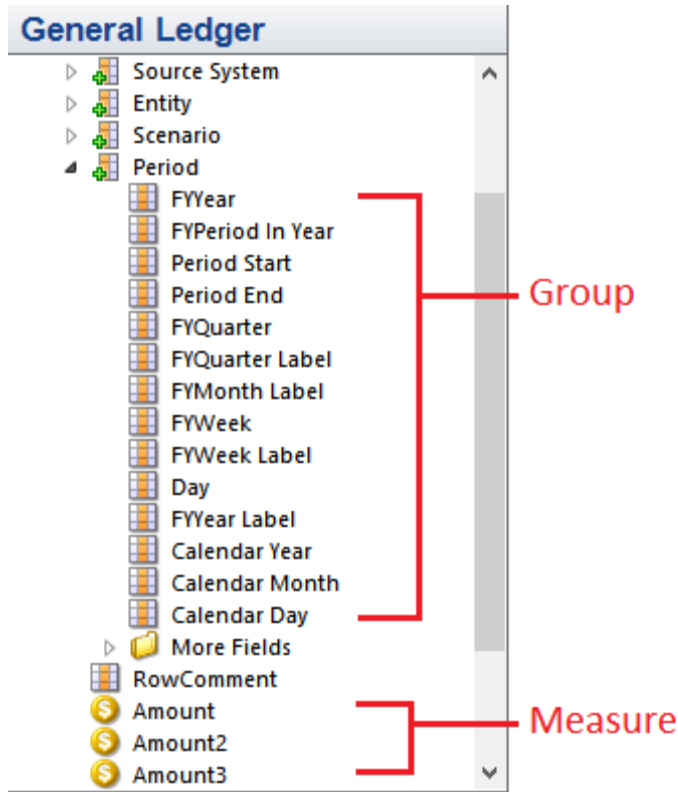


- In the top section of this page, users are able to filter tables by *schema* (leave the text box blank to see all tables/views) and determine if they want to only see *tables* or *tables and views*. (If the *Include views* box is checked the list will include both *tables* and *views*).
 - From the list, users can select the table or view that will be configured to become a dimension.
 - The *Name* text box will display the selected table/view. Users can customize the default *Display Name*, which will be displayed in the *Dimension* list on the Add/Edit Dimension page.

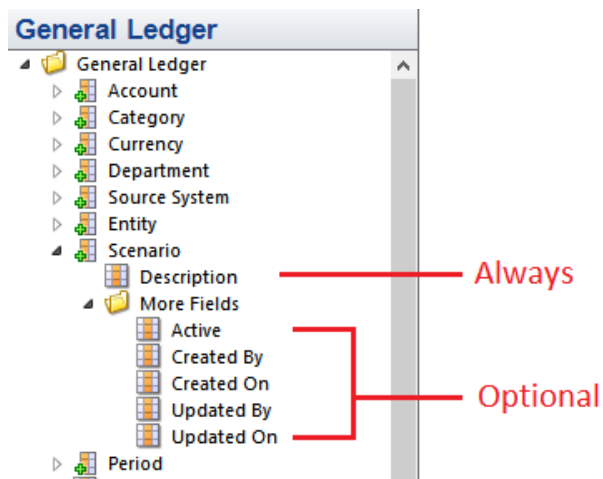
In the second page of the *Dimension Wizard* users will select the *attributes* for the new dimension. The main screen will display the columns of the table/view that was selected on the previous page of the *Dimension Wizard*.



- **Use:** If checked, the column will be used as an attribute for the dimension.
- **Name:** The system name of the column will be displayed here.
- **Default Display Name:** In this cell, users can enter a customized attribute name to be displayed in the BI360 application interface. If the Default Display Name field is left blank, the system name (as displayed in the Name column) will be used as the display name.
 - **Note:** However if a term has been defined in the Dictionary for this attribute, the Dictionary term will be used as display name, as Dictionary terms override both customized names and system names.
- **Data Type:** Shows the data type of the column. This is inherited from the columns in the table and cannot be changed.
 - All numeric SQL data types (int, float, double, numeric, decimal etc.) are mapped into the common *Number* type.
 - All string SQL types (nvarchar, varchar etc.) are mapped into the common *Text* type.
 - Other high level types are *Long* and *DateTime*.
- **Attribute Type:** The attribute type is also inherited from the table. If the column is a primary or foreign key, users will not be able to change the type. However, the attribute type can be changed if the column is not a key. Users can choose between a *Group* or *Measure*.
- **Group:** The attribute will be displayed as a light dimension in the BI360 application interface. An attribute that should not be summarized or aggregated should have the type *Group* (for example *Text*, *Integer data*, *Prices*, *Costs*).
- **Measure:** The attribute will be displayed as a measure in the BI360 application interface. Attributes that should be summarized or aggregated should have the type *Measure* (for example *Amounts* and *Quantities*).



- Visibility:** The visibility of an attribute can be changed between Always, Optional, and Never. If the visibility is set to Always, users will be able to see the attribute when the dimension is accessed in the BI360 application. If the visibility is Optional, the attribute will be placed in the More Fields folder. If visibility is set to Never, the end-user will never be able to see the attribute across the BI360 applications.



- **Lookup Display:** if a 0 is displayed in this setting, the attribute will not be displayed in the *Lookup* window for the dimension. If an integer value (beginning with 1) is inserted, the attribute will be displayed in the *Lookup* Window in the order of increasing value. The order can be modified on the *Edit Lookup* page, which will be the next page of the *Dimension Wizard*.

Use	Name	Default Display Name	Data Type	Attribute Typ	Visibility	Lookup Displ	Sequence Numbe
<input checked="" type="checkbox"/>	VENDORID	Vendor ID	Text	Group	Always	6	0
<input checked="" type="checkbox"/>	EMPLOYID	Employee ID	Text	Group	Always	5	0
<input checked="" type="checkbox"/>	SLPRSNFN	Salespersons First Name	Text	Group	Always	4	0
<input checked="" type="checkbox"/>	SPRSNSMN	Salespersons Middle Name	Text	Group	Always	3	0
<input checked="" type="checkbox"/>	SPRSNSLN	Salespersons Last Name	Text	Group	Always	2	0
<input checked="" type="checkbox"/>	SLPRSNID	Salesperson ID	Text	PrimaryKey	Always	1	0
<input checked="" type="checkbox"/>	DEX_ROW_...		Number	ForeignKe	Always	0	0

Lookup

List Parameter

Use ranges Include empty

Salesperson ID	Salespersons Last Name	Salespersons Middle Name	Salespersons First Name	Employee ID	Vendor ID
ERIN J.	Jensen		Lynn		JENSENSY0001
FRANCINE B.	Bergeron	Marie	Francine		BERGERON0001
GARY W.	Wood		Gary		WOODCONS0001
GREG E.	Erickson	J	Gregory	ERIC0001	



If an attribute has been set to 1 under the Lookup Display, it is this term that will be displayed in the parent factset/dimension.

Sales Order

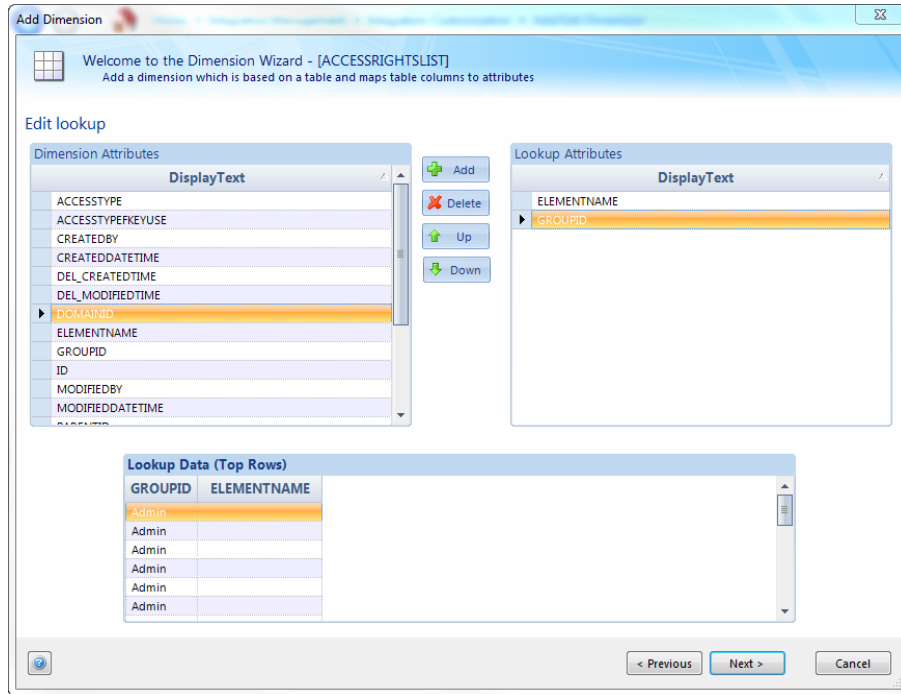
- [-] Salesperson ID
 - [+] Note
 - DEX_ROW_ID
 - Address 1
 - Address 2
 - Address 3

- **Sequence Number:** Values entered for this property will affect the display order for the attributes in the navigation pane of the BI360 applications. The display order will be from the lowest to the highest *sequence number*. Attributes that have the value 0 for this property will be displayed after the attribute with the highest sequence number in alphabetical order.



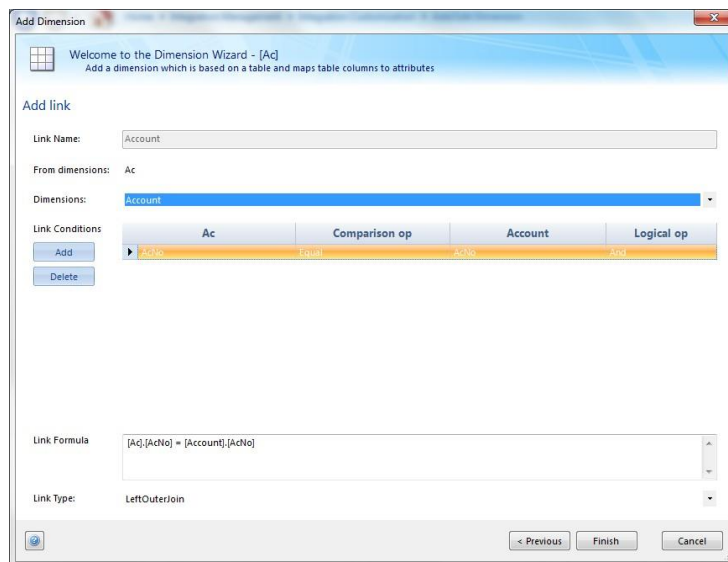
Note that data fields are always organized by data field types in the following order: foreign Key (i.e. Dimension), Group and Measure. The sequence number will only affect the order with the data field type. Therefore, a measure cannot be displayed before a dimension.

The next page of the *Dimension Wizard* configures the *Lookup* window. Users will be able to specify which dimension attributes should be displayed in the *Lookup* window and in what order.



All attributes with the *Use* box checked on the previous page will be displayed in the *Dimension Attributes* list. From this list, users can highlight and press *Add* to add the attribute in the *Lookup Attributes* list. The *Lookup Attributes* list can be sorted using the *Up* and *Down* buttons. *Lookup attributes* can be removed by using the *Delete* button.

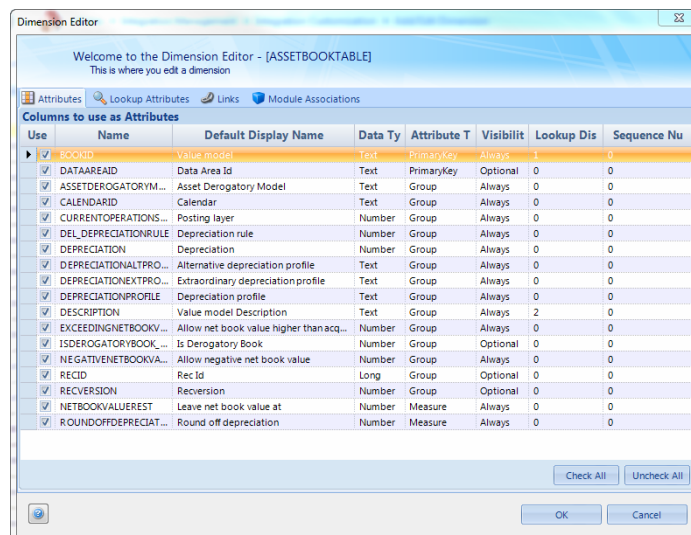
The final page allows users to *Add Links* to join tables in order to link one *dimension* to another dimension. Note that only one link can be created initially. However, choosing *Links* in the *Edit Dimension* page users can create additional links between different attributes.



- **Link Name:** This field automatically displays the *To Dimension*.
- **From dimensions:** This field automatically displays the system name of the table chosen from the first page of the Factset Wizard.
- **Dimensions:** Select the dimension configured in the integration that should be linked to this factset.
- **Link Conditions:** The link condition is normally setup on a Primary Key to Foreign Key relation between a dimension and a factset. If necessary, the condition can involve more than a one-to-one relation between the dimension and factset. To add multiple conditions, use the Add button.
 - The first column always displays the *factset* and its attributes in the drop-down box. The second column is the operator used to relate the *dimension* and *factset* to each other. The third column displays the *dimension* and its attributes in a drop-down box. *Logical op*, the fourth column, allows users to specify a logical operator (*And/Or*) between multiple rows in the *link condition*.
- **Link Formula:** This field allows users to show the link condition as it is defined in the *Link Condition*. Often, users will not need to modify the link *formula*. However, if desired, users can to enter their own custom *link formula* in this text box.
- **Link Type:** users may choose between the link types *InnerJoin*, *LeftOuterJoin*, *RightOuterJoin*, *FullOuterJoin*. For a definition of the different join types, consult a SQL resource.

Dimension Editor

The *Dimension Editor* offers similar functionality to the *Dimension Wizard*. The major difference is that the user is not able to select the table or view associated with the dimension. However, there is an additional function that allows users to associate the dimension with multiple modules.



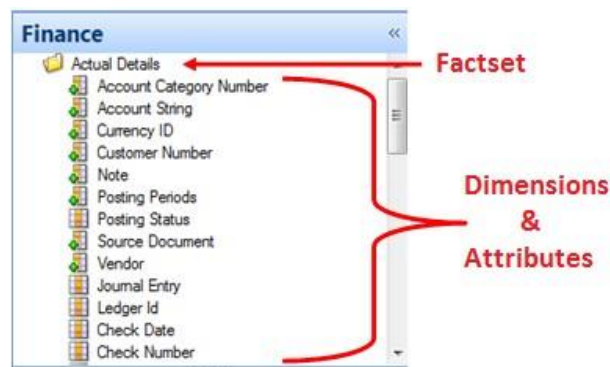
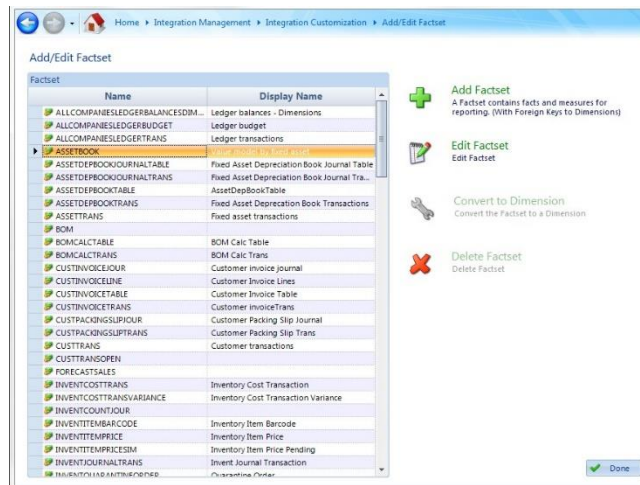
- **Attributes:** In this tab, users can modify the dimension attributes similar to the second page of the *Dimension Wizard*.
- **Lookup Attributes:** In this tab, users can modify the Lookup Attributes similar to the last page of the *Dimension Wizard*.
- **Links:** In this tab, users can modify and add links between dimensions and the factset similar to

the third screen of the Factset Wizard.

- *Module Associations*: This tab allows users to assign the Dimension to one of the defined Modules. Normally, dimensions are not assigned directly to a module. Rather, the dimension will be available indirectly via a *Factset* in the *Module*. For instance, *Financial GL Accounts* will be available through the *GL Transactions Factset* as a foreign key lookup to the *Accounts*. Dimensions can be associated with a module by placing a check mark in the box, and the dimension will be displayed as a folder in the module similar to how *Factsets* are displayed.

Add/Edit Factset

Factsets contain facts and measure for reporting. Most often, factsets contain foreign keys to dimensions so that the proper transactions can be found in the database.



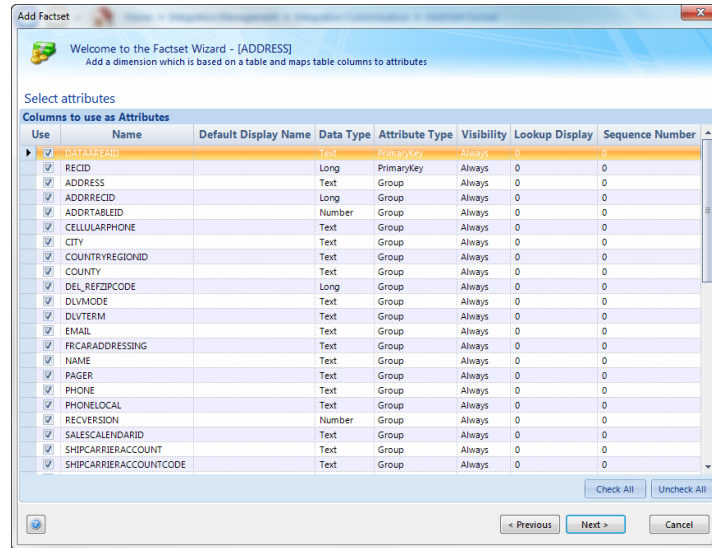
- **Add Factset:** Choosing this option will open the *Factset Wizard*. Through the *Factset Wizard*, users can configure a new factset from a table or a view that already exists in the database. The *Factset Wizard* is explained in more detail below.
- **Edit Factset:** Choosing this option will open the Factset Editor which will allow users to modify the attributes of the factset and module associations. More details on the Factset Editor can be found below.
- **Convert to Dimension:** Choosing this option will convert the factset to a dimension. This function should be used if an added factset contains master data rather than measures. Alternatively, users may delete the factset and re-add as a dimension in the *Add/Edit Dimension* menu.
- **Delete Factset:** Choosing this option will delete the selected factset from the *Factset* list. Users can only delete factsets that have been created using this tool.

Factset Wizard

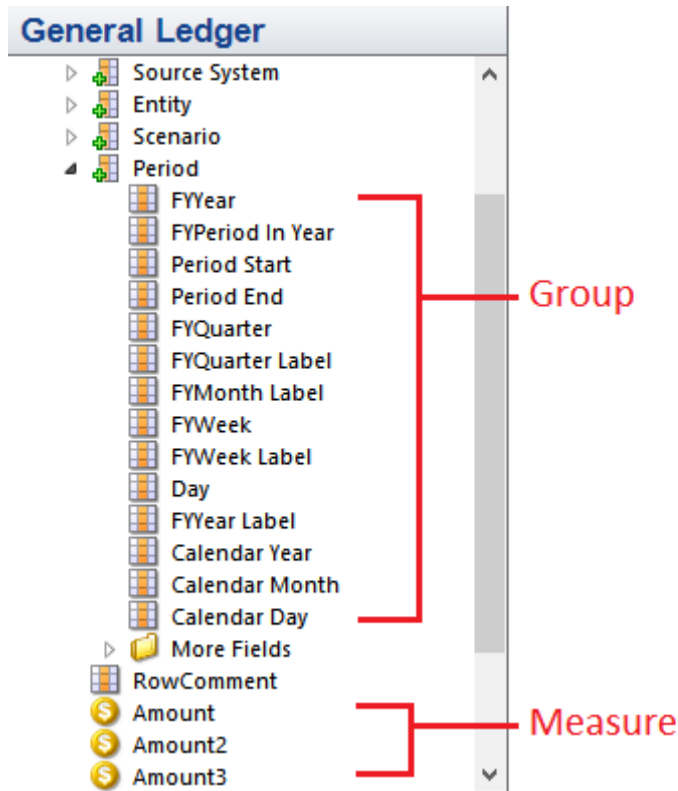
The *Factset Wizard* assists users in configuring a new dimension to be displayed for the end-user. In the first page of the Factset Wizard, users will be able to select the table or view that will be configured as a factset.

The screenshot shows the 'Add Factset' wizard interface. At the top, it says 'Welcome to the Factset Wizard' and 'Add a dimension which is based on a table and maps table columns to attributes'. The main section is titled 'Select a table/view which will become a dimension' (labeled 'a'). It includes a 'Database:' text box, a 'Schema: dbo' dropdown, and an 'Include views' checkbox. Below this is a list of tables/views (labeled 'b') with a scroll bar: ACCESSRIGHTSLIST, ADDRESS, ADDRESSCOUNTRYREGION, ADDRESSCOUNTRYREGIONBLWI, ADDRESSCOUNTRYREGIONGROUPBLWI, ADDRESSCOUNTRY, ADDRESSFORMATHEADING, ADDRESSFORMATLINES, and ADDRESSSTATE. At the bottom of this section are 'Name:' and 'Default display name:' text boxes (labeled 'c'). The bottom of the window has '< Previous', 'Next >', and 'Cancel' buttons.

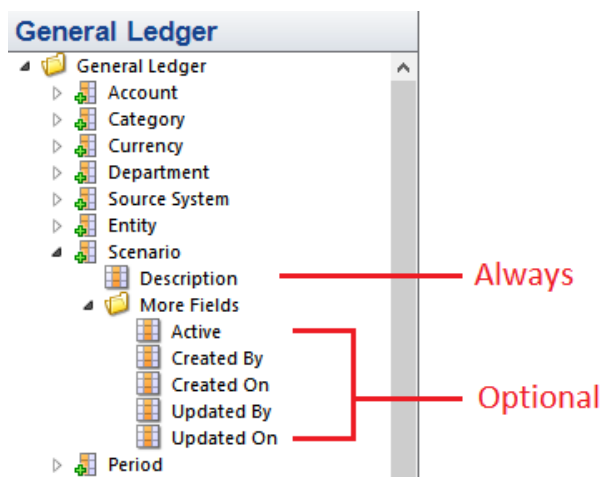
- In the top section of this page, users are able to filter tables by *schema* (leave the text box blank to see all tables/views) and determine if they want to only see *tables* or *tables and views*. (If the *Include views* box is checked the list will include both *tables* and *views*).
 - From the list displayed, users can select the table or view that will be configured to become a *Factset*.
- The *Name* textbox will display the selected table/view. Users can customize the default *Display Name*, which will be displayed in the *Factset* list on the *Add/Edit Factset* page.
- In the second page of the *Factset Wizard*, users will select the *attributes* for the new factset. The main screen will display the columns of the table/view that was selected on the previous page of the *Factset Wizard*.



- **Use:** If checked, the column will be used as an attribute for the factset.
- **Name:** The system name of the column will be displayed here.
- **Default Display Name:** In this cell, users can enter a customized attribute name to be displayed in the BI360 application interface. If the *Default Display Name* field is left blank, the system name (as displayed in the *Name* column) will be used as the display name.
 - Note however that if a term has been defined in the Dictionary for this attribute, the Dictionary term will be used as display name, as Dictionary terms override both customized names and system names.*
- **Data Type:** Shows the data type of the column. This is inherited from the columns in the table and cannot be changed.
 - All numeric SQL data types (int, float, double, numeric, decimal etc.) are mapped into the common *Number* type.
 - All string SQL types (nvarchar, varchar, char, varchar etc.) are mapped into the common *Text* type.
- Other high level types are *Long* and *DateTime*.
 - **Attribute Type:** The attribute type is also inherited from the table. If the column is a primary or foreign key, users will not be able to change the type. However, the attribute type can be changed if the column is not a key. Users can choose between *Group* or *Measure*.
 - **Group:** The attribute will be displayed as a light dimension in the BI360 application interface. An attribute that should not be summarized or aggregated should have the type *Group* (for example *Text*, *Integer data*, *Prices*, *Costs*).
 - **Measure:** The attribute will be displayed as a measure in the BI360 application interface. Attributes that should be summarized or aggregated should have the type *Measure* (for example *Amounts* and *Quantities*).



- **Visibility:** The visibility of an attribute can be changed between *Always*, *Optional*, and *Never*. If the visibility is set to *Always*, users will be able to see the attribute when the factset is accessed in the BI360 application. If the visibility is *Optional*, the attribute will be placed in the *More Fields* folder. If visibility is set to *Never*, the end-user will never be able to see the attribute through across the BI360 applications.



- **Lookup Display:** Normally, the *Lookup* function is not used for *factsets*. Filters are commonly applied to *Dimensions* and it is therefore unnecessary to specify the *Lookup Display* values for *factsets*. Users may leave all values as 0.
- **Sequence Number:** Values entered for this property will affect the display order for the attributes in the navigation pane of the BI360 applications. The display order will be from the

lowest to the highest *sequence number*. Attributes that have the value 0 for this property will be displayed after the attribute with the highest sequence number in alphabetical order.



Note that data fields are always organized by data field types in the following order: foreign Key (i.e. Dimension), Group and Measure. The sequence number will only affect the order with the data field type. Therefore, a measure cannot be displayed before a dimension.

The third page allows users to *Add Links* to join tables so that the proper *dimensions* are associated with the *factset*. Note that only 1 link can be created initially. However, choosing *Links* on the *Edit Factset* page users can create additional links between different attributes.

- *Link Name*: This field automatically displays the *To Dimension*.
- *From dimensions*: This field automatically displays the system name of the table chosen from the first page of the *Factset Wizard*.
 - *Dimensions*: Select the dimension configured in the integration that should be linked to this factset.
- *Link Conditions*: The *link condition* is normally setup on a *Primary Key to Foreign Key* relation between a *dimension* and a *factset*. If necessary, the condition can involve more than a one-to-one relation between the *dimension* and *factset*. To add multiple conditions, use the *Add* button.

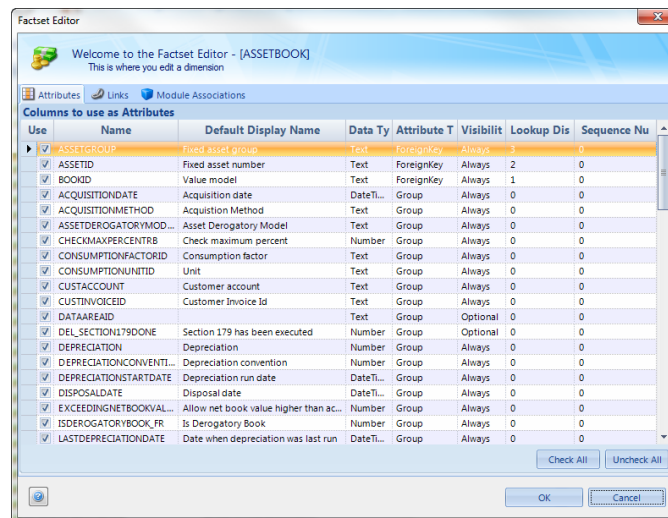
The first column always displays the *factset* and its attributes in the drop-down box. The second column is the operator used to relate the *dimension* and *factset* to each other. The third column displays the *dimension* and its attributes in a drop-down box. *Logical op*, the fourth column, allows users to specify a logical operator (*And/Or*) between multiple rows in the *link condition*.

- **Link Formula:** This field allows users to show the link condition as it is defined in the *Link Condition*. Often, users will not need to modify the link *formula*. However, if desired, users can enter their own custom *link formula* in this text box.
- **Link Type:** users may choose between the link types *InnerJoin*, *LeftOuterJoin*, *RightOuterJoin* and *FullOuterJoin*. For a definition of the different join types, consult a SQL resource.

The final page of the *Factset Wizard* is the *Associate with modules* page. On this page, users can assign the *factset* to a module defined under *Add/Edit Module*. Place a checkmark next to the module that the *factset* will be associated with.

Factset Editor

The *Factset Editor* offers the same functionality as the *Factset Wizard*. The major difference is that the user is not able to select the table or view associated with the dimension as this was already defined when the *factset* was created.



- **Attributes:** In this tab, users can modify the dimension attributes similar to the second screen of the *Factset Wizard*.
- **Links:** In this tab, users can modify and add links between dimensions and the factset similar to the third screen of the *Factset Wizard*.
- **Module Associations:** This tab allows users to assign the *factset* to one of the defined *Modules* similar to the last screen of the *Factset Wizard*.

Add/Edit Enumeration Dimension

An *enumeration dimension* contains values not found as master data in the database. For instance, data such as *Account Type* and *ID* can be used to make data in reports more readable. Use the add/edit enumeration dimension functions to create or edit such data.

Id	Name	English (US)	Norwegian	Danish	Swedish	Finnish	German	Russian	French	Spanish
0	Ledger	Ledger	Ledger	Ledger	Ledger	Ledger	Ledger	Ledger	Ledger	Ledger
1	Customer	Customer	Customer	Customer	Customer	Customer	Customer	Customer	Customer	Customer
2	Vendor	Vendor	Vendor	Vendor	Vendor	Vendor	Vendor	Vendor	Vendor	Vendor
3	Project	Project	Project	Project	Project	Project	Project	Project	Project	Project
5	Fixed Assets	Fixed Assets	Fixed Assets	Fixed Assets	Fixed Assets	Fixed Assets	Fixed Assets	Fixed Assets	Fixed Assets	Fixed Assets
6	Bank	Bank	Bank	Bank	Bank	Bank	Bank	Bank	Bank	Bank
*										

All Enumeration Dimensions

Existing *enumeration dimensions* will be listed in the drop-down box next to the *Select dimension*. The default display name and system name can be modified and will be reflected on the *Add/Edit Dimension* page and in the *dictionary* of terms.

Add New Enumeration Dimension

If users want to create a new *enumeration dimension*, they can simply enter the name of the new *enumeration dimension* on the right-hand side of the window and click *Add New*. The newly created dimension will be available for selection under the *All Enumeration Dimensions* option.

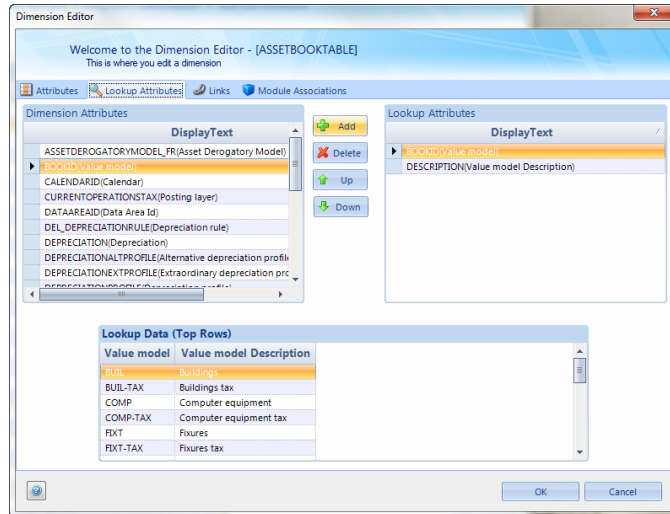
Row Editor

The row editor allows users to create an *Id* field (enumerator index) and a name corresponding to the *Id* field. If multiple *dictionaries* are available, users will be able to specify the term for the row names.



Note that the *Id* field does not have to be a numerical value.

After an *enumeration dimension* has been created it will become available on the *Add/Edit Dimensions* page. From that page, users can configure the dimension to fit their specific use.



Edit Terms

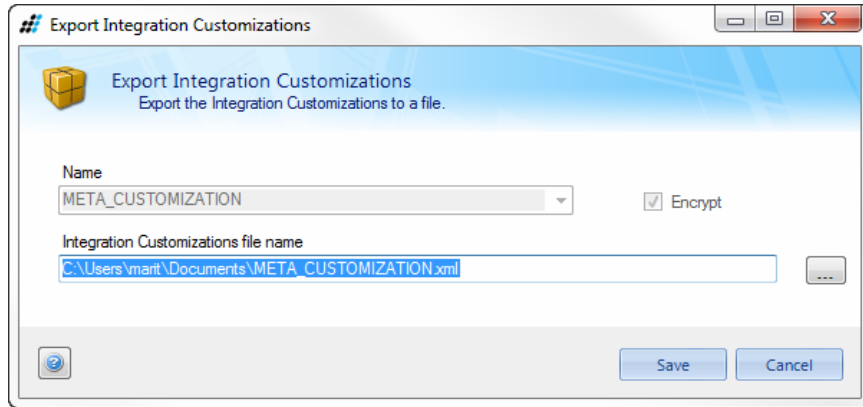
The *Edit Terms* page allows users to edit all dictionaries for all different terms in the integration. This includes names for *Dimensions*, *Factsets*, *Attributes*, *Enumerated Dimensions*, and *Modules*. If a new dictionary needs to be added to the integration, please contact the BI360 administrator. The purpose of terms is to define a user-friendly display name so that end-users will be able to interact with the data fields without memorizing the system names.

- *Dictionary*: This option allows users to filter on *dictionaries*. (Decide which dictionaries should be displayed in the term editor.)
- *Selection* options: These options allow users to filter terms by characteristics to find them more quickly.
- *Terms*: In this section the user is able to use filters to find the desired term and enter a name for each dictionary listed in the columns displayed on the right-hand side of the page. If the *Name* field is left blank, the BI360 applications will automatically display the *DefaultDisplayName*.

Export Integration Customizations

After creating custom configurations for the integration, users need to export the custom model. The exported custom model can be installed on the *Integration Packages* page. Once the custom model has been exported and installed, end-users will see the changes to the integration package in the BI360 application interfaces.







By exporting integration customizations users will be able to create a backup file of the customization. Note that customizations will be deleted if a user uninstalls the integration from the *Integration Packages* page. Therefore, it is extremely important to create a backup of the customization.









- *Name*: In this tool, the *Name* field is always disabled, as the tool automatically creates a name. The default name for all customizations made in this tool will be added to the identifier *META_CUSTOMIZATION*.
- *Integration Customizations file name*: In this text box, users can specify the folder location for saving the custom model and the file name.

Support for Multiple Extensions

It is possible to import more than one Integration Extension. If the extensions are created using BI360 Meta Designer, the names of the Extensions are listed in the Description column in the list, as shown in the illustration below.

 Mamut Enterprise	Mamut Enterprise	3.0.41017.1125	OK
 Microsoft Dynamics AX	AXFB,NFO	3.0.41028.1220	OK
 Microsoft Dynamics AX 2012	Microsoft Dynamics AX 2012	3.0.41018.0838	OK
 Microsoft Dynamics C5	Microsoft Dynamics C5	3.0.40615.1351	OK
 Microsoft Dynamics CRM	Microsoft Dynamics CRM	3.0.40615.1352	OK
 Microsoft Dynamics GP	Microsoft Dynamics GP	3.1.41026.0605	OK

If the *Integration Customization* functionality in BI360 Administration has been used to create an extension, the *Description* column displays the default name *Customized Integration* to indicate that the customization was created using *Integration Customization*.

 Microsoft Dynamics C5	Microsoft Dynamics C5	3.0.40615.1351	OK
 Microsoft Dynamics CRM	Microsoft Dynamics CRM	3.0.40615.1352	OK
 Microsoft Dynamics GP	PEView	3.1.41026.0605	OK
 Microsoft Dynamics NAV	Customized Integration	3.0.41021.1419	Update available
 Microsoft Dynamics SL	Microsoft Dynamics SL	3.0.41102.1132	OK
 Microsoft Enterprise Reporting	Microsoft Enterprise Reporting	3.0.40615.1419	OK

Customizing the Default Drilldown View

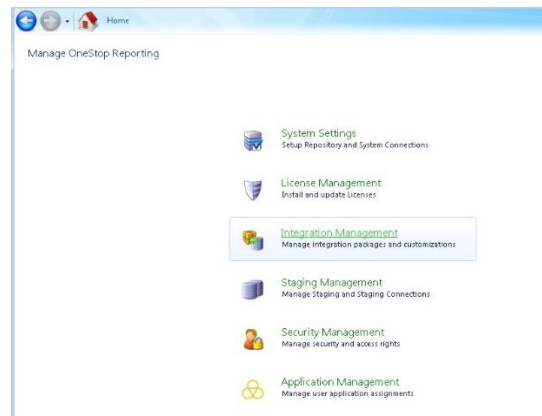
Users can customize the default drilldown view to display fields of their choice and in a desired order.

There are some constraints to be aware of:

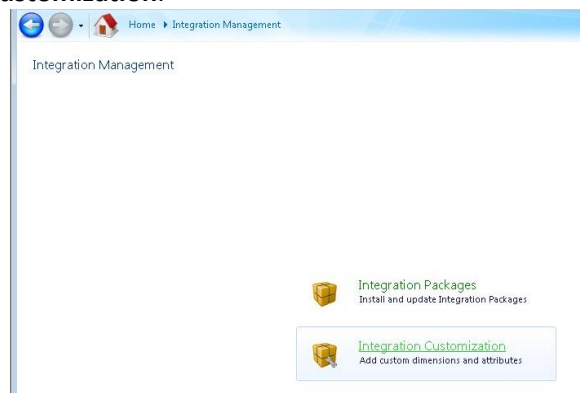
- This feature is only available for ERPs. It is not available for the BI360 Data Warehouse integration.
- The drilldown view you specify is global. So for example, the drill down to GL transactions will look the same in all reports.
- *Dimensions* are displayed by default. Users can disable the display of a dimension by setting the value 0 in the Drilldown Order column for the dimension. In the factset editor, dimensions have the attribute type *ForeignKey*.
- If the user chooses to display a *dimension* it will be added with both its code/ID and its name attribute.
- *Free dimensions* and *segments* are automatically added to the drilldown view. It is not possible to disable these from showing up.

How to Edit the Default Drilldown View

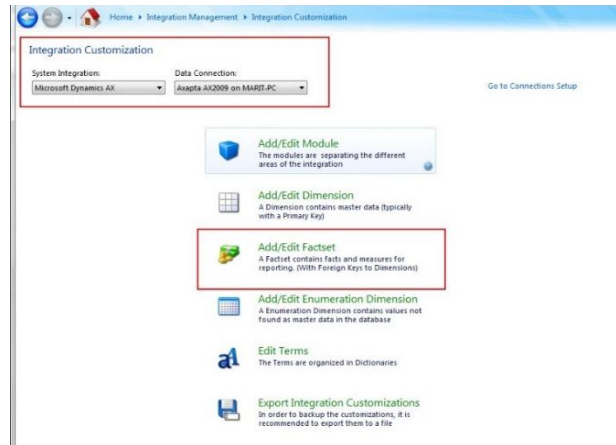
1. From the Home page choose **Integration Management**.



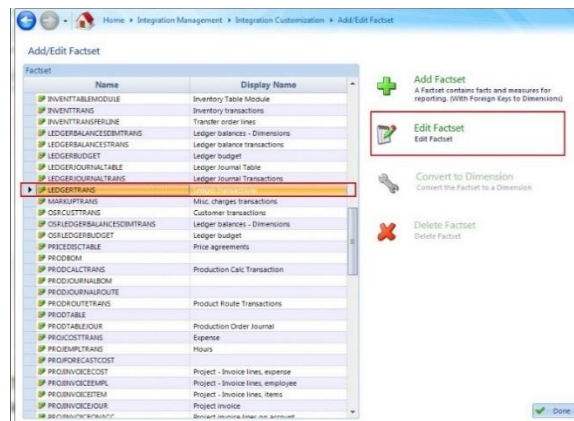
2. Choose **Integration Customization**.



3. Make sure to be connected to the correct integration and data source and choose **Add/Edit Factset**.



4. Find the transaction table (or factset) where the drilldown view should be customized and choose **Edit Factset**.



5. To include an attribute in the customized drilldown view, assign a value for the attribute in the *Drilldown Order* column. The fields in the customized drilldown view will be sorted in ascending order according to the index values under *Drilldown Order*. (The attribute with the lowest value will be displayed first (leftmost) and then the fields will follow to the right according to their drilldown order values.)



When assigning values, it is recommended to not use consecutive numbers but to leave “spaces” for example to use 1,3,5 etc. that way, the user can still add other attributes (fields) to the drilldown view in between the other fields without having to change all of the drill down order values.



The value -1 (default value) in the Drilldown Order column means that the attribute will be displayed unless it is located under *More fields* in the BI360 Report Designer. The display order is “random”, according to the database order. (If the user wants to display a fields that is located under more fields, it must be assigned a positive numeric value in

the Drilldown Order column). The value 0 in the drill down order columns means the attribute will not be displayed in the drilldown view.

Free dimensions or *segments* will automatically be assigned the value **2**. This cannot be changed.

Example:

In the example below the user wants to create a customized drilldown view with five fields (attributes) and display them in a certain order, defined by the value for each attribute.

For all the fields that should *not* be included in the drilldown view, the user has entered the value 0 in the *Drilldown Order* column:

Columns to use as Attributes								
Use	Name	Default Display Na	Data Ty	Attribute T	Visibilit	Lookup Dis	Sequence Nu	Drilldown O
<input checked="" type="checkbox"/>	CREDITING	Crediting	Number	Group	Always	0	0	0
<input checked="" type="checkbox"/>	CUSTOMERID	Customer Id	Dynamic	Group	Always	0	0	0
<input checked="" type="checkbox"/>	DOCUMENTDATE	Document date	DateTime	Group	Always	0	0	5
<input checked="" type="checkbox"/>	DOCUMENTNUM	Document	Text	Group	Always	0	0	6
<input checked="" type="checkbox"/>	EUOTRIANGULATION	Triangulation	Number	Group	Optional	0	0	0
<input checked="" type="checkbox"/>	FURTHERPOSTINGTYPE	Bridging posting	Number	Group	Optional	0	0	0
<input checked="" type="checkbox"/>	INVOICE	Vendor Invoice	Dynamic	Group	Always	0	0	0
<input checked="" type="checkbox"/>	JOURNALIZENUM	Journal	Text	Group	Optional	0	0	0
<input checked="" type="checkbox"/>	JOURNALIZESEQNUM	Journal sequence num...	Number	Group	Optional	0	0	0
<input checked="" type="checkbox"/>	JOURNALNUM	Journal number	Text	Group	Always	0	0	0
<input checked="" type="checkbox"/>	LEDGERPOSTINGJOURNALID	Journal	Text	Group	Optional	0	0	0
<input checked="" type="checkbox"/>	LEDGERVOUCHER2	Ledger Voucher	Dynamic	Group	Always	0	0	0
<input checked="" type="checkbox"/>	OPERATIONSTAX	Posting layer	Number	Group	Optional	0	0	0
<input checked="" type="checkbox"/>	PAYMMODE	Method of payment	Text	Group	Optional	0	0	0
<input checked="" type="checkbox"/>	PAYMREFERENCE	Payment reference	Text	Group	Optional	0	0	0
<input checked="" type="checkbox"/>	POCOMMENT	Purchase Order Comm...	Dynamic	Group	Always	0	0	0
<input checked="" type="checkbox"/>	PONUMBER	Purchase Order	Dynamic	Group	Always	0	0	0
<input checked="" type="checkbox"/>	RECID	Record ID	Long	Group	Optional	0	0	0
<input checked="" type="checkbox"/>	RECVERSION	Record Version	Number	Group	Optional	0	0	0
<input checked="" type="checkbox"/>	SETTLED	Settle Id	Number	Group	Always	0	0	0
<input checked="" type="checkbox"/>	TAXREFID	Ledger/Sales tax refere...	Number	Group	Optional	0	0	0
<input checked="" type="checkbox"/>	THIRDPARTYBANKACCOUNTID	Third party bank accou...	Text	Group	Optional	0	0	0
<input checked="" type="checkbox"/>	TRANSDATE_1	Trans Date	Dynamic	Group	Always	0	0	0
<input checked="" type="checkbox"/>	TRANSDATE2	Date	DateTime	Group	Always	0	0	4
<input checked="" type="checkbox"/>	TXT	Transaction text	Text	Group	Always	0	0	7
<input checked="" type="checkbox"/>	VENDNAME2	Vendor Name	Dynamic	Group	Always	0	0	0
<input checked="" type="checkbox"/>	VENDOR2	Vendor	Dynamic	Group	Always	0	0	0
<input checked="" type="checkbox"/>	VOUCHER	Voucher	Text	Group	Always	1	0	0
<input checked="" type="checkbox"/>	AMOUNTCUR	Amount currency	Number	Measure	Always	0	0	0
<input checked="" type="checkbox"/>	AMOUNTMST	Amount MST	Number	Measure	Always	0	0	50
<input checked="" type="checkbox"/>	AmountMSTBalance	Amount MST Balance	Number	Measure	Always	0	0	0

The result looks like this:

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P
1	Ledger transactions															
2																
3																
4	Ledger account	Account name	Cost Center	Cost Center D	Department	Department	Purpose	Purpose D	Currency	Currency Name	Date	Document date	Document	Transaction text	Amount MS1	
5	130100	Accounts Receivable - US			30	Sales			USD	US Dollar	2007-02-02	2007-02-02			-1456	
6	130100	Accounts Receivable - US			30	Sales			USD	US Dollar	2007-02-02	2007-02-02			-8500	
7	130100	Accounts Receivable - US			30	Sales			USD	US Dollar	2007-02-02	2007-02-02			-2201,6	
8	130100	Accounts Receivable - US			30	Sales			USD	US Dollar	2007-02-02	2007-02-02			-2455	
9	130100	Accounts Receivable - US			30	Sales			USD	US Dollar	2007-02-02	2007-02-02			-853,9	
10	130100	Accounts Receivable - US			30	Sales			USD	US Dollar	2007-02-02	2007-02-02			-650	
11	130100	Accounts Receivable - US			30	Sales			USD	US Dollar	2007-02-02	2007-02-02			-1965	
12	130100	Accounts Receivable - US			90	Retail			USD	US Dollar	2007-02-02	2007-02-02			-4992	
13	130100	Accounts Receivable - US			90	Retail			USD	US Dollar	2007-02-02	2007-02-02			-11246,4	
14	130100	Accounts Receivable - US			90	Retail			USD	US Dollar	2007-02-02	2007-02-02			-4790,54	
15	130100	Accounts Receivable - US			30	Sales			USD	US Dollar	2007-02-02	2007-02-02	100026	Sales credit note 100026	-520	
16	130100	Accounts Receivable - US			30	Sales			USD	US Dollar	2007-02-02	2007-02-02	100027	Sales credit note 100027	-112,78	
17	130100	Accounts Receivable - US			90	Retail			USD	US Dollar	2007-02-02	2007-02-02	100028	Sales credit note 100028	-2440	
18	130100	Accounts Receivable - US			30	Sales			USD	US Dollar	2007-02-02	2007-02-02	100329	Sales invoice 100329	100	
19	130100	Accounts Receivable - US			30	Sales			USD	US Dollar	2007-02-02	2007-02-02	100330	Sales invoice 100330	1925,7	
20	130100	Accounts Receivable - US			30	Sales			USD	US Dollar	2007-02-02	2007-02-02	100331	Sales invoice 100331	4768,84	
21	130100	Accounts Receivable - US			30	Sales			USD	US Dollar	2007-02-02	2007-02-02	100332	Sales invoice 100332	10180,36	
22	130100	Accounts Receivable - US			30	Sales			USD	US Dollar	2007-02-02	2007-02-02	100333	Sales invoice 100333	9889	
23	130100	Accounts Receivable - US			30	Sales			USD	US Dollar	2007-02-02	2007-02-02	100334	Sales invoice 100334	5868	
24	130100	Accounts Receivable - US			30	Sales			USD	US Dollar	2007-02-02	2007-02-02	100335	Sales invoice 100335	16344,9	
25	130100	Accounts Receivable - US			30	Sales			USD	US Dollar	2007-02-09	2007-02-09			-5200	
26	130100	Accounts Receivable - US			30	Sales			USD	US Dollar	2007-02-09	2007-02-09			-522,1	
27	130100	Accounts Receivable - US			30	Sales			USD	US Dollar	2007-02-09	2007-02-09			-7127,06	
28	130100	Accounts Receivable - US			30	Sales			USD	US Dollar	2007-02-09	2007-02-09			-33206,02	
29	130100	Accounts Receivable - US			30	Sales			USD	US Dollar	2007-02-09	2007-02-09			-536,48	
30	130100	Accounts Receivable - US			30	Sales			USD	US Dollar	2007-02-09	2007-02-09	100336	Sales invoice 100336	1456	
31	130100	Accounts Receivable - US			30	Sales			USD	US Dollar	2007-02-09	2007-02-09	100337	Sales invoice 100337	261,06	
32	130100	Accounts Receivable - US			30	Sales			USD	US Dollar	2007-02-09	2007-02-09	100338	Sales invoice 100338	6470,81	
33	130100	Accounts Receivable - US			30	Sales			USD	US Dollar	2007-02-09	2007-02-09	100339	Sales invoice 100339	250	



The fields to the left of the first customized field (Date) are dimensions and have not been disabled and are therefore displayed with code/ID and name.

Budgeting Setup

In order to prepare your ERP database for the direct write-back budgeting functionality which is supported as of version 4.5 of OSR, you will have to run through the Budgeting Setup procedure. This procedure will install OSR Extension tables into your ERP system’s database. These tables are designed to extend the ERP system’s following Dimensions: Account, Employee and Budget version. In addition, a table to enable budgeting Line Item Detail entries will be installed.

Many of the ERP systems lack sufficient properties in the Account and Employee master data (dimensions) to construct a full budgeting model which may include expense and payroll budgeting. The additional tables installed will provide storage capabilities for these situations. Please refer to the OSR Budgeting User Guide for an overview of the different components of the OSR Budgeting product offering.

Note 1: The Budgeting Setup will only be available if a Budgeting license has been purchased.

Note 2: This procedure does not change any of the original ERP systems’ tables or data. It only adds additional tables into the database.



Note 3: This Budgeting Setup page in the BI360 Administration should be visited each time a new version of BI360 is installed. This will ensure that any enhancements/changes to the BI360 Budgeting table’s structures with the latest version will also be applied. Further down in the “Upgrading the extra Budgeting tables” section, there is a picture illustrating when an upgrade is needed.


License for Budgeting


In order to get access to the budgeting functionality, the organization will need a Budgeting License. Once enabled, users need to be assigned to the Budgeting module in Application Management module in the BI360 Administration tool. The picture below shows the new column for Budgeting that appears when the license is installed:


Player (20)	Report Designer (29)	Composer (23)	Publisher (13)	ETL (23)	Dashboard Designer (23)	Budgeting (18)
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Prepare the ERP System Database with Additional Tables for Budgeting

From the Home page in BI360 Administration, choose Integration Management -> *Budgeting Setup*.

 **Integration Packages**
 Install and update Integration Packages

 **Integration Customization**
 Add custom dimensions and attributes

 **Budgeting Setup**
 Prepare company databases for Budgeting

Select the System Integration and Data Connection that Web Budgeting will be setup for. A list of companies will show up:

Budgeting Setup

System Integration: Data Connection:

Companies:

<input type="checkbox"/>	Company	Status
<input type="checkbox"/>	(cec) Contoso Entertainment Consolidation	Not installed
<input type="checkbox"/>	(cee) Contoso Entertainment Europe	Not installed
<input type="checkbox"/>	(ceu) Contoso Entertainment USA	Not installed
<input type="checkbox"/>	(dat) Company accounts data	Not installed

Select the companies that should be prepared for Budgeting and click *Apply*. The user will be asked to provide the credentials of a SQL user having administrative rights for inserting tables into the ERP database.

System Integration: Data Connection:

Companies:

<input checked="" type="checkbox"/>	Company	Status
<input checked="" type="checkbox"/>	(cec) Contoso Entertainment Consolidation	Not installed
<input checked="" type="checkbox"/>	(cee) Contoso Entertainment Europe	Not installed
<input checked="" type="checkbox"/>	(ceu) Contoso Entertainment USA	Not installed
<input checked="" type="checkbox"/>	(dat) Company accounts data	Not installed

Enter credentials

Server:

Authentication:

Login:

Password:

After clicking *OK* in the *Enter credentials* dialog, the tables will be inserted and ready for entering additional properties to some of the master data dimensions. Please refer to the *BI360 Web Budgeting User Guide* and *BI360 Portal User Guide* on how to enter data into the additional tables.

System Integration: Microsoft Dynamics AX | Data Connection: AxDB on OSRDB

Companies:

Company	Status
(cec) Contoso Entertainment Consolidation	OK
(cee) Contoso Entertainment Europe	OK
(ceu) Contoso Entertainment USA	OK
(dat) Company accounts data	OK

The picture below shows the additional tables in the SQL Server ERP system database:

- dbo.NUMBERSEQUENCEGROUPREF
- dbo.NUMBERSEQUENCEHISTORY
- dbo.NUMBERSEQUENCELIST
- dbo.NUMBERSEQUENCEREERENCE
- dbo.NUMBERSEQUENCETABLE
- dbo.NUMBERSEQUENCETTS
- dbo.OLAPENUM
- dbo.OSRAccountExt
- dbo.OSRBudgetModelExt
- dbo.OSREmployeeExt
- dbo.OSRLinItemDetail
- dbo.OUTLOOKSYNCPARAMETERS
- dbo.PAYMDAY
- dbo.PAYMDAYLINE
- dbo.PAYMINSTRUCTION
- dbo.PAYMMANSTEPSCHEDULE
- dbo.PAYMSCHED
- dbo.PAYMSCHEDLINE
- dbo.PAYMTERM
- dbo.PBABOMROUTE OCCURRENCE
- dbo.PBACUSTGROUP
- dbo.PBADEFAULT

Upgrading the Extra Budgeting tables

The picture below illustrates a situation where an upgrade is needed. This would typically happen after an installation of a new version of BI360. The Budgeting Setup tool should be visited for “Update required” each time a new version of BI360 is installed.

System Integration: Microsoft Dynamics AX | Data Connection: AxDB on OSRDB

Companies:

Company	Status
(cec) Contoso Entertainment Consolidation	Update required
(cee) Contoso Entertainment Europe	Update required
(ceu) Contoso Entertainment USA	Update required
(dat) Company accounts data	Update required

Deleting the Extra Budgeting tables

It is not possible to delete the tables from the OSR Administration Tool. If it is necessary to remove these tables, it must be performed from SQL Server Management Studio.

Staging Management

The purpose of staging is to improve performance during report execution and remove load from the ERP production databases. When running large, complex reports, staging is an option that is available in order to improve the speed of the report(s).

With staging, the user is creating a smaller, optimized database for a defined set of reports. Using the staging database, the user does not have a live connection to the ERP database, but the staging database can easily be updated, either through scheduling or just before executing reports.

When creating a staging definition, the user creates one database per company for a defined set of reports. The result is a limited dataset that consists of only the data (accounts, etc.) that is relevant for the set of reports.

It is also possible to limit the dataset to a certain time period. This is especially useful if the ERP database contains data going back many years.



If the reports in the staging dataset contain period functions that relate to data that goes further back in time, than the time period selected when the staging definition is created, the data displayed in the reports will not be correct. Therefore, make sure to include the necessary time periods in the staging definition.

Staging is created per company, so the process must be repeated for each company in your setup. Staging across companies is not available in this version of BI360 Reporting.

In the staging database, data will be aggregated on the highest level possible for the reports that the staging definition is based on. This means that transactions within the same dimension (for example account or period) are aggregated into one transaction per dimension. The purpose of this is to limit the number of transactions in order to improve performance.



Note that the aggregation of transactions means that drilldown is only available to the lowest aggregated level. It is possible to choose data that should not be aggregated as explained under *Starting Staging Process*.

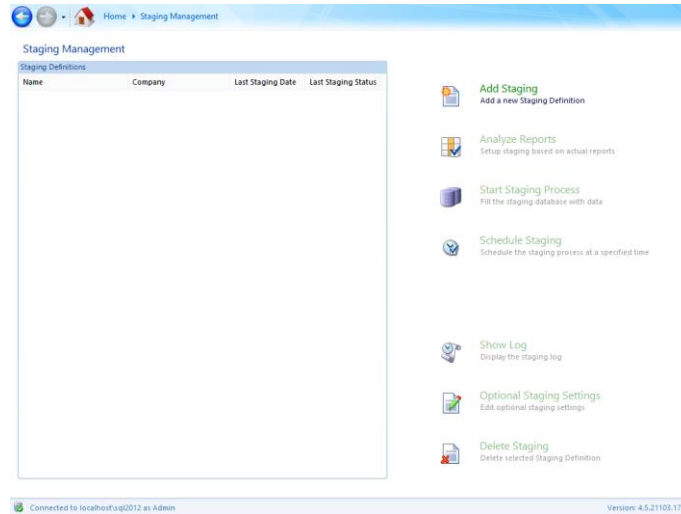
Creating a staging definition

To set up staging, choose *Staging Management* from the *Home* page of *BI360 Administration*.



The first step in Staging Management creates a database on the SQL server where the ERP database is located (could be a different location than the Repository database). It is necessary to be a SYSADMIN in order to create this database.

Additional information can be found [here](#).



Setting up staging consists of 4 steps:

1. Add Staging
2. Analyze Reports
3. Start Staging Process
4. *Schedule Staging*

The first 3 steps are mandatory. Scheduling is optional.

Add Staging

1. On the Staging Management page choose Add Staging.
2. Select the system integration (normally you will have only one), the relevant data connection and the company that a staging database will be created for.
3. The system will suggest a staging name and staging database, based on the name of the company that has been selected, adding STAGED at the end. These names can be edited. Add a description of the staging definition (optional).
4. Click **OK**. In the dialog that opens, enter the user name and password of a user with sysadmin rights to the SQL Server and click *Create*.
5. A staging database is created on the selected server and will be listed under Staging Definitions.



Some default indexes on primary and foreign keys will be automatically created in the staging database. If these indexes are to be changed or if additional ones are desired, a SQL database tool must be used.

Analyze Reports

1. On the *Staging Management* page, select the staging definition you want to work with and choose *Analyze Reports*.
2. Choose *Select Folder* and navigate to the folder containing the reports to be added to the staging definition and click *OK*.



If more than one person will be creating staging definitions, all reports must be stored in a place that everyone who will be creating staging definitions has access to.

3. Select the reports to be included in the staging database.
4. If aggregation of data is not desired, check the *No Aggregation of Data (needed to get proper drilldown)* box. Check this option if drilldown to the lowest level of data is needed.



Leaving *No Aggregation of Data (needed to get proper drilldown)* unchecked, the data in the staging database will be aggregated to the highest level of the dimensions present in the reports included in the analysis.

For example: if the analysis contains a number of accounts, all amounts will be aggregated per account. If the analysis contains accounts and periods, data is aggregated to each combination of account and period.

5. Click **Analyze** to start the analysis.
6. The selected reports will be analyzed and a dialog showing the result of the analysis will be displayed. Choose *Close* to exit this dialog.



If another set of reports from another folder, choose *Delete* and navigate to the relevant folder. Select the required reports.



The information in the *Select Reports to Analyze* page will be available until the next time *Staging Analysis* is ran. If in the meantime, reports have been deleted from the folder, they will be marked in red in the selection list. New reports in the folder will be included in the list, but make sure to mark them for inclusion in the staging.

Advanced Setup

Under *Advanced Setup* users can override or edit the analysis that was done by choosing *Analyze*. Users can include or exclude dimensions and factsets and choose grouping and aggregation levels for the different attributes.



Re-running the analysis (by choosing the *Analyze* button) after the user has selected or deselected items under *Advanced Setup* overrides the changes made in the *Advanced Setup* Dialog.

Start Staging Process

Starting the staging process means that a new staging database is created with the dataset based on the selections from the *Add Staging* and *Analyze Reports* steps.

1. On the Staging Management page choose **Start Staging Process**.
2. Choose the first and last period that data should be selected from.
3. If *First period id* is left empty, data will be collected from the earliest period with data in the database and onwards.
4. If *Last period id* is left empty, data will be collected up to the present period.
5. Choose **Update mode** for the database.
6. *Update data*: Updates an existing database. All transactions/data for the selected time span are deleted and reinserted to the dataset. Indexes that have been added manually are kept. This is the default value.
7. *Recreate database*: A new database is created. If there is an existing database with the same name, this database is replaced and all custom indexes will be deleted and must be manually recreated.
8. If the staging process should not aggregate data to the highest possible level (see the explanation in the introduction of the Staging Management chapter), choose the "No aggregation" option. This means that all transactions that are relevant for the selected reports are included as is, and drill-down is available down to the lowest level.
9. Choose **Start Staging**. The database is created/updated and data is transferred to the staging database according to the selections made.
10. Use the *Back* arrow or the link on top of the screen to navigate back to *Staging Management* or the *BI360 Administration Home* page.



In the BI360 Reporting application, an option will be available for setting a permission that allows other users to start a staging to update the staging database.

Schedule Staging

With *Schedule Staging* you can define that the staging database should be updated at certain interval. The scheduling applies to the selected staging and is optional.

1. On the Staging Management page, choose **Schedule Staging**.
2. Choose **Set date and time** and select the desired interval.
3. Click **OK** and in the dialog that opens, enter the password for the user you are logged in as to authenticate the creation of the schedule.
4. The schedule is defined and is listed in the Schedule Overview. The Schedule Staging feature utilizes Windows Task Scheduler. To manually edit scheduled tasks, you can open Windows Task Scheduler, either by choosing the Windows Task Scheduler option in the Schedule Staging window or by opening it from the Control Panel under Administrative Tools.



Using Windows Task Scheduler also allows you to see all selections for an existing staging definition, whereas the *Set date and time* dialog always opens with the standard selections, not with the values you selected for the current schedule.

Show Log

Choose *Show Log* to display a log of all staging processes that have been undertaken.

Optional Staging Settings

Under *Optional Staging Settings* the user can define that an SQL script should be executed before or after a staging process – or both. The settings defined here, apply to the active (selected) staging definition.

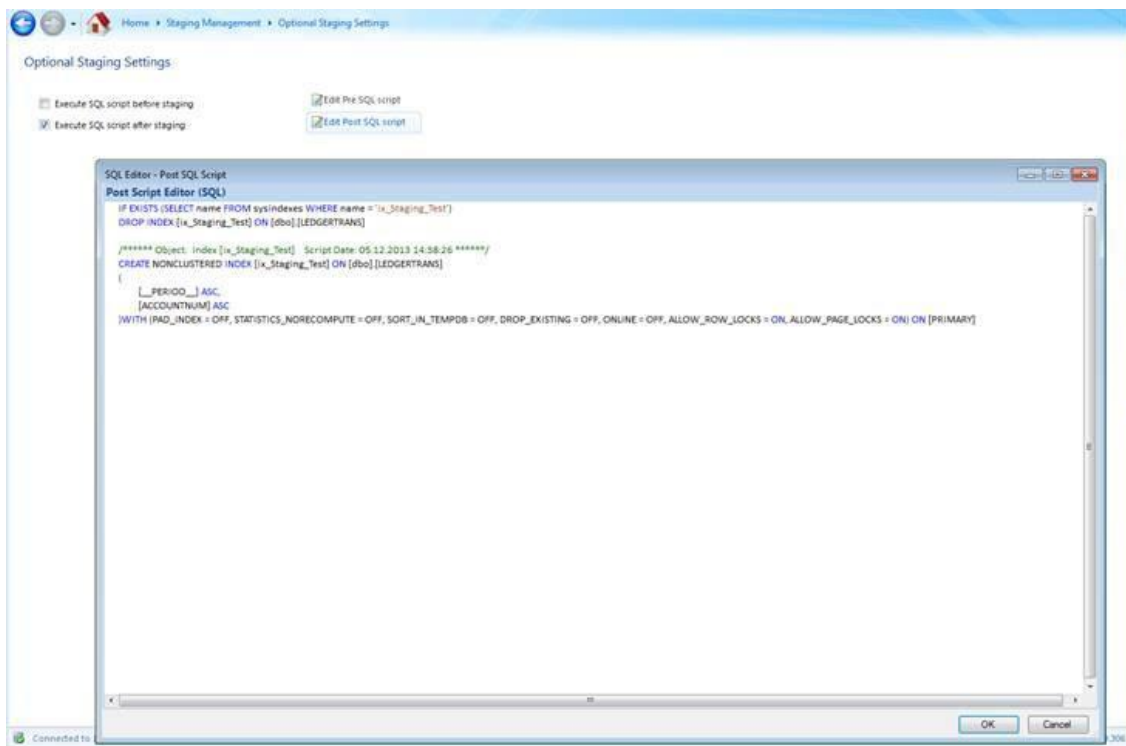
For example, this functionality can be used to apply preferred indexes if the staging database is set to be recreated automatically.



The script feature should be used with caution as it offers direct SQL access. If the user has access to other databases on the server, any script may be executed against those databases.

To execute an SQL script before or after a staging process, check the box in front of the applicable option (*Execute SQL script before staging/ Execute SQL script after staging*). Then click the *Edit Pre SQL script* or *Edit Post SQL script* and create the script to be executed. Click **OK** after the user has typed in the script to save the script.

The illustration below shows an example where an index should be applied to after the staging process has finished.



Delete Staging

To delete a scheduled staging, choose *Delete*.

Using the Staging Database

When executing reports in *BI360 Report Designer* or *BI360 Portal* or queries in *BI360 Composer* the user can choose to either run reports and queries live from the database or use the staging database. Naturally, this option only applies to reports or queries that are part of a staging definition.

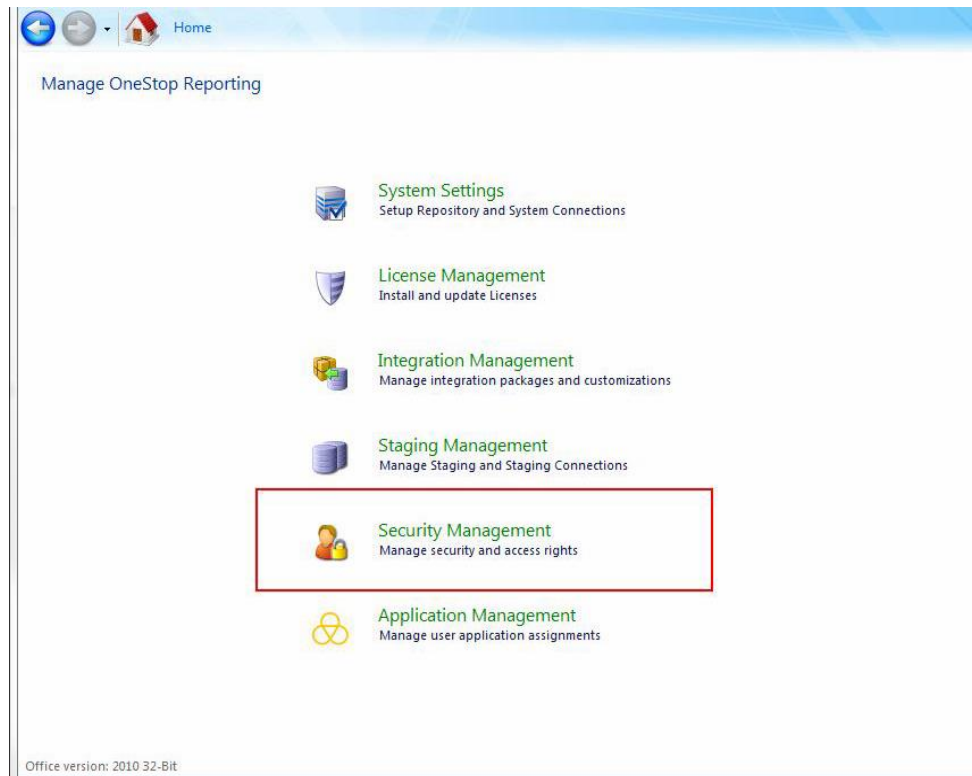
This is further explained in the user manuals for the relevant modules (*BI360 Report Designer*, *BI360 Portal* and *BI360 Composer*).

Security Management

BI360 has a robust set of features that allow the administrators of the BI360 applications to establish security settings across the reporting environment. These settings enable the assignment of security rights associated with user logins that will grant or restrict access to data and modules based on each user's area of responsibility, their role in the reporting process, and other factors that should be taken into consideration regarding their access to financial and operational information.

The *Security Management* section in *BI360 Administration* centralizes data access management for all BI360 applications. From version 3.8, Security Management also includes BI360 Portal security and content administration.

Security Management can be accessed from the Home page of BI360 Administration.



User Management

The User Management interface is used for maintaining all users in the system. The users created and managed here are used both for logging in to the BI360 desktop applications and to BI360 Portal.

There are three types of users:

1. The built-in Administrator user
2. Active Directory users
3. BI360 users

The Admin User and Admin password

When first installed, BI360 has a *built-in Administrator* role and a default password established for this user. The *built-in Administrator* has access to *everything* across the BI360 Reporting environment and is the only user with access to *BI360 Administration*. This administrator is unique and remains intact even if another admin-level user, who has access to all modules and data, is created. The difference is that only the *built-in Administrator* has rights to access *BI360 Administration*.

Since this *built-in Administrator* comes with a default password, which is the same across all BI360 installations, it should be changed for greater security to your installation.

Default built-in Administrator credentials:

- Login = Admin
- Password = admin (case sensitive)



Make sure to remember the new build-in administrator password, as this is the only way to gain access to BI360 Administration and all of its functions. If the password is forgotten or lost, please contact Solver Support who can assist in resetting the password to the default.

Adding Active Directory users or BI360 users

The application has two types of users, Active Directory (AD) users and OSR users.

Active Directory (AD) users are users that are registered in the domain they are logged on to on their computers. If Active Directory users is to be used, they will be able to log on to the BI360 applications using the AD user they are logged on to their computers with. In the login dialog this login mode is referred to as Authentication type *Windows*.



The BI360 Administrator can also add a type of users called OSR users. These users are referred to as *OneStop* users in the login dialog box. OSR users have the same rights and constraints as Active Directory users.

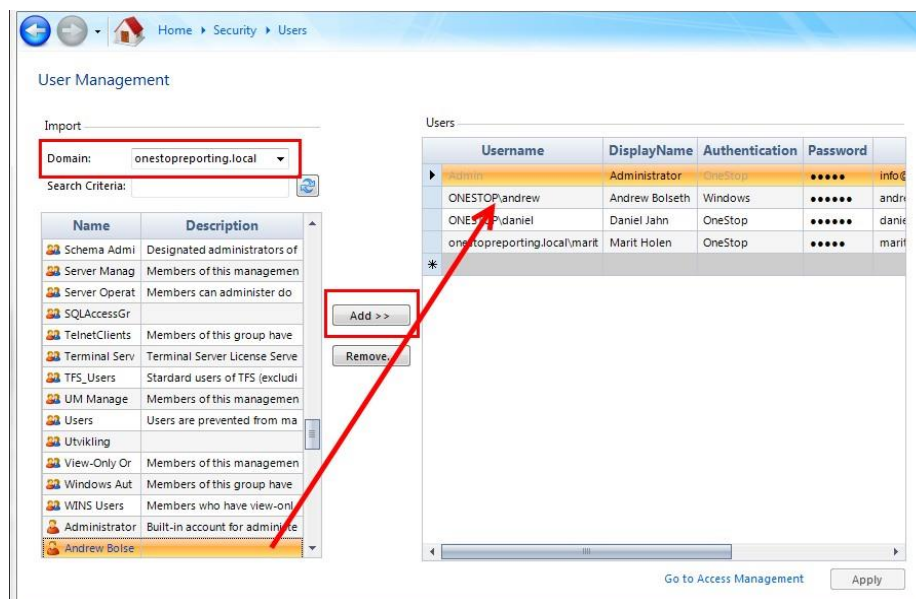
If single sign-on (using the same login for their computer and BI360 Reporting) is desired, you must choose AD users. AD users will not be prompted for a password when starting BI360 Reporting applications.



Users must be assigned to at least one role before they can access an application in the BI360 Suite or be a subscriber to BI360 Publisher.

How to Add an AD User to the List of Authorized Users

1. Choose Security Management -> Users Management.



2. Select a domain in the dropdown list for Domain in the upper left area in the User Management dialog. If you don't see any users in the list, click the Refresh icon to the right of Search Criteria to populate the list.
3. *Select (click) a user in the list of AD users and groups and click the Add button to add the user to the list of authorized users. Repeat this operation for all AD users that should be added to the list of authorized users.*



If an AD group is selected, a prompt will appear informing the user that the users of the selected AD group will be added individually to the application. Click **Yes** to confirm.

How to Add OSR Users to the List of Authorized Users

OSR users are created directly in the *Users* table. To add an OSR user, simply click in an empty row in the user table and enter the appropriate information.

	Username	DisplayName	Authentication	Password	
	Admin	Administrator	OneStop	•••••	info@
	User 1	User1 Name	Windows	••••••	andri
	User 2	DanieUser 2 Na	OneStop	••••••	danie
	MARIT-PC\marit	Marit Holen	OneStop	•••••	marit
	User 3	User3 Name	OneStop		
	*				

OSR users have the same rights and constraints as Active Directory users.

Access Management

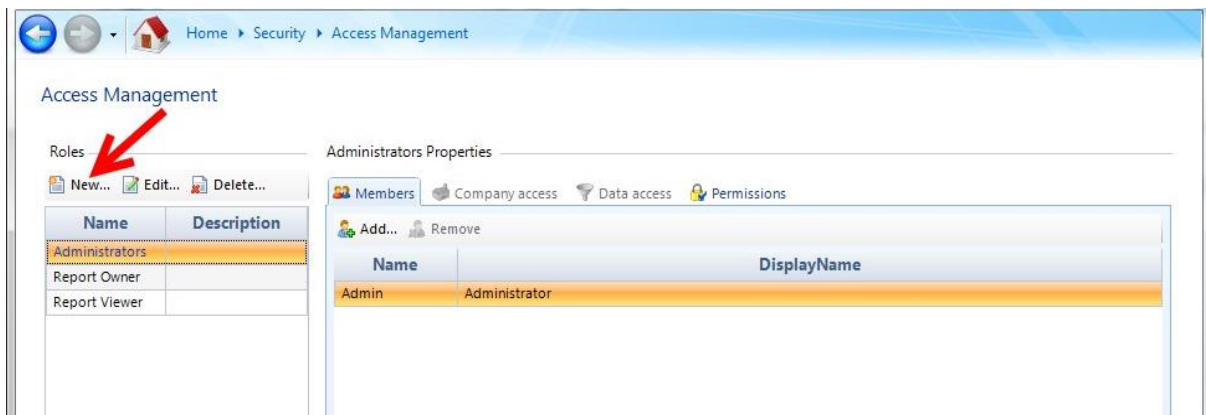
The *Access Management* functionality provides features for defining what each user will have access to across the BI360 Reporting applications.

Access rights are defined per *role*, and each *user* must belong to at least one role.

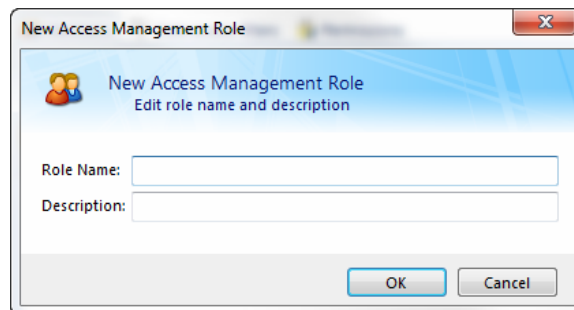
The built-in administrator *Admin* is by default added to the *Administrators* role and cannot be removed from this role. By default, the *Administrators* role has all rights and permissions.

Creating a Role

1. From the BI360 Administration Home page choose Security Management >> Access Management.
2. Under *Roles* click the **New** button.



3. In the window that is displayed, enter the name of the *role*. You may also add a description of the role.



4. Click **OK** to create the new role.
5. Repeat this process for any other roles that should be created.
6. Click the **Apply** button to save the role settings.



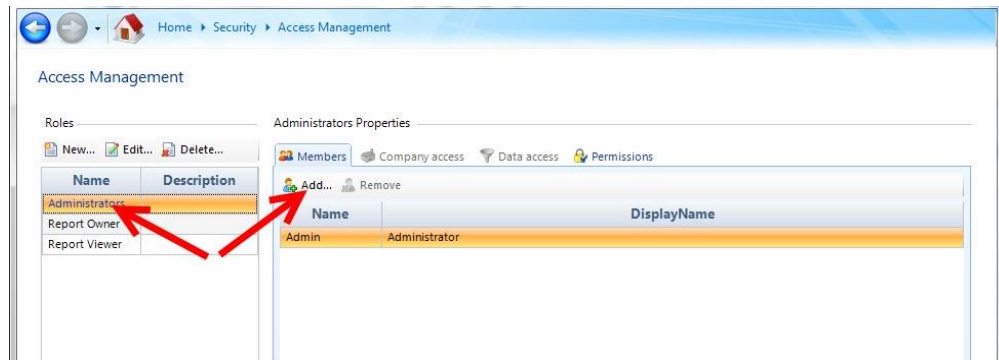
To edit the name and/or description of an existing role, select it and click **Edit**. To delete a role, select the role and click **Delete**.

Assigning Users to Roles

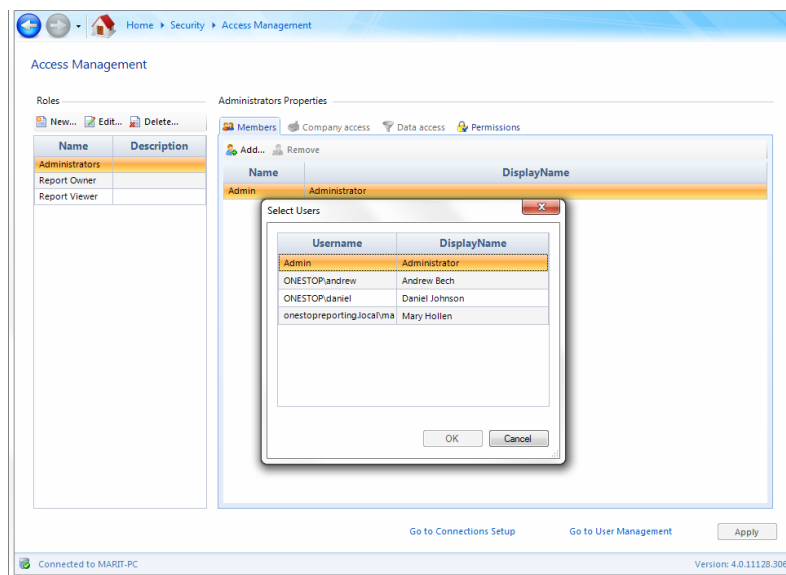
After a role has been created, the next step is to assign *users* as members of the role.

1. In the *Roles* section to the left, select an exist role.

- Choose the *Members* tab on the right and click *Add*.



- This will open the *Select Users* window.
- Select a user and assign the user to the role by clicking *OK*.



- If required, repeat step 3 to add more users to the role.
- Once all applicable users have been assigned, click *Apply* to save the assignments.
- Repeat this process to assign members (users) to any other roles.



Note that a single user can be assigned to multiple roles. When a user is assigned to multiple roles, the user will be able access data that is available for either of the roles the user is a member of.

Defining Access to Companies for User/Roles

The BI360 Administrator can define which companies a user should be able to see data for by assigning company access rights to a role. The settings will apply for all users who belong to that role.

To set access rights to companies, follow the steps below.

1. Select a role.
2. Click the Company access tab.



Note that the Administrator role has access to all companies and is not editable.

3. Choose **Add**.
4. In the window that opens, choose the system integration. (Normally, there will only be one possible option).
5. Choose the data connection.
6. Select the companies that this role should be able to see.
7. Click **OK** to save.
8. Repeat this process for all roles.



If there are multiple data connections, the process must be repeated for each connection.

When users are asked to select company within the BI360 Reporting applications, they will only see those companies that they have access to according to the setup described above.

Setting Data Access Filters for Roles

In addition to defining which companies each role should be able to see data for, the BI360 Administrator must define which modules and dimensions the role should have access to for the selected company.



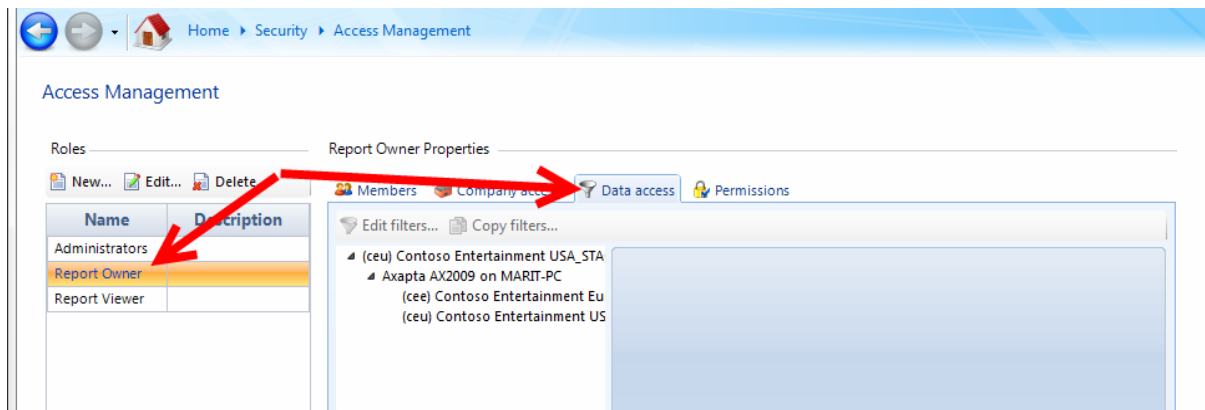
By default, the administrator has access to all data.



You must define at least one data access filter. If there are no filters, the user will not be able to access any module/data. You can set filters on modules or dimensions or a combination of the two.

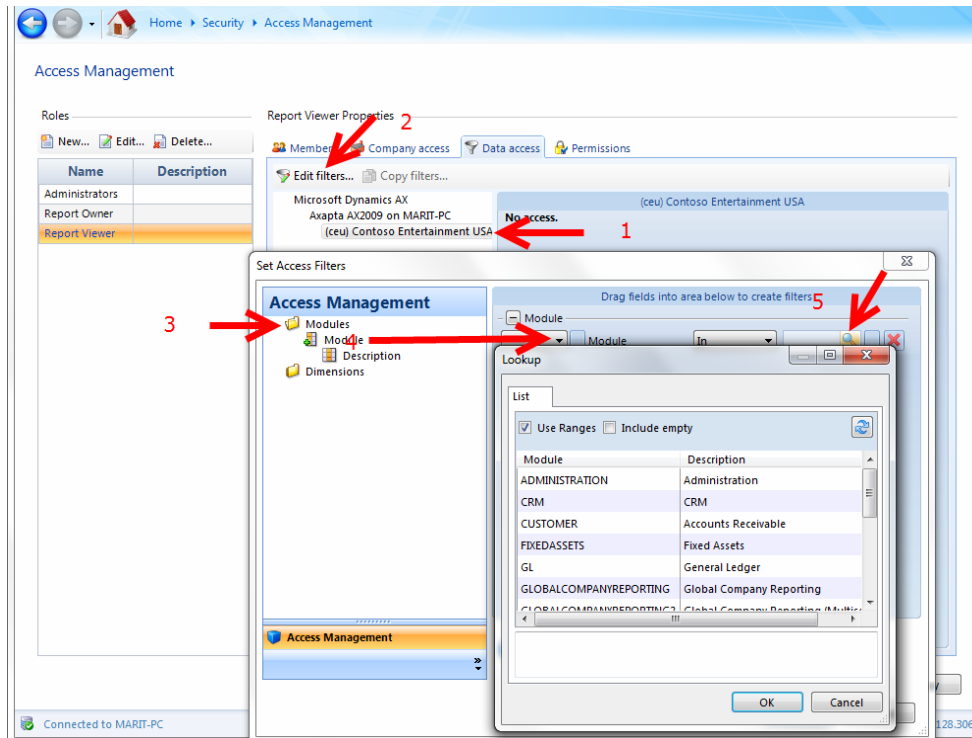
Follow the procedure below to set the data access filters:

1. Click the role name of the applicable role to select it.
2. Click the *Data access* tab. In the window that opens, the company/companies the role has access to, will be displayed to the left.



3. Click the company that data access filters for should be setup for.
4. Select *Edit filters*.
5. If data access is to be defined by modules, expand the *Modules* folder and drag the *Module* filter into the filter area (the area below the heading *Drag fields into area below to create filters*).

The *Module* dimension is added to the filters area and you may now specify restrictions through the filter.

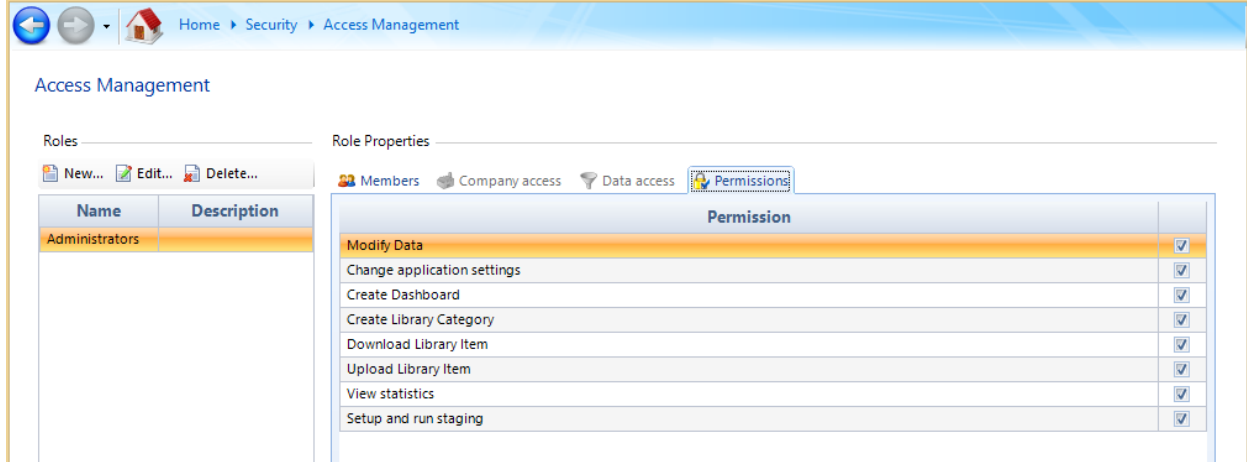


6. Click the Lookup button to display a list of available modules and select the module or modules the selected role should be able to access. If the role should have access to all modules choose "In" and enter * (asterisk) in the box to the left of the lookup symbol.
7. If the role should be restricted to specific dimensions, expand the Dimensions folder and drag the dimension to restrict users by.
8. Click the Lookup button to display a list of available dimensions and select which items within the dimension the selected role should be able to access. If the role should have access to all items within the dimension, choose "In" and enter * (asterisk) in the box to the left of the lookup symbol.
9. If required, repeat the process for multiple dimensions.
10. Click **OK** to save and close the *Lookup* window.
11. Click **Apply** to save the role settings.

Setting Permissions for a Role

To be able to perform certain operations, roles must also be granted *permissions*.

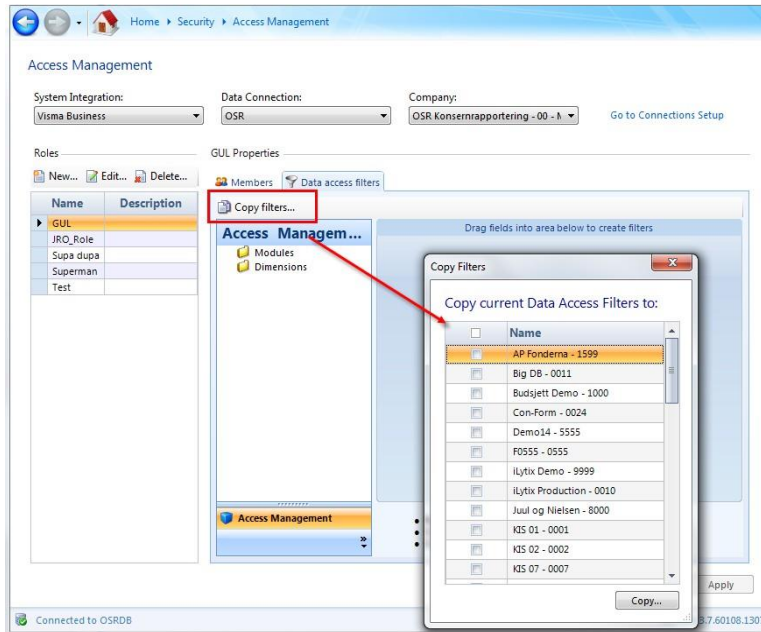
1. From the Administration Home page choose Security Management >> Access Management.
2. In the Roles section to the left of the page, select the applicable role.
3. Click the Permissions tab to the right.
4. Click on the applicable check boxes to grant permissions to the role.
5. Click **Apply** to save changes.
6. Repeat the operation for all roles.



Permission	Description
Modify data	Available for the Web Portal, granting this permission will allow the users of this role to view and modify data from the Data Manager within the Web Portal
Change application settings	User can change the ORS Portal view (colors, background effects, etc.)
Create Library Categories	User can create categories in the BI360 Portal library.
Upload Library Item	User can upload reports and dashboards.
View Statistics	User can run statistics for reports (number of times run, etc.).
Setup and run staging	Allows the user to refresh a staging.

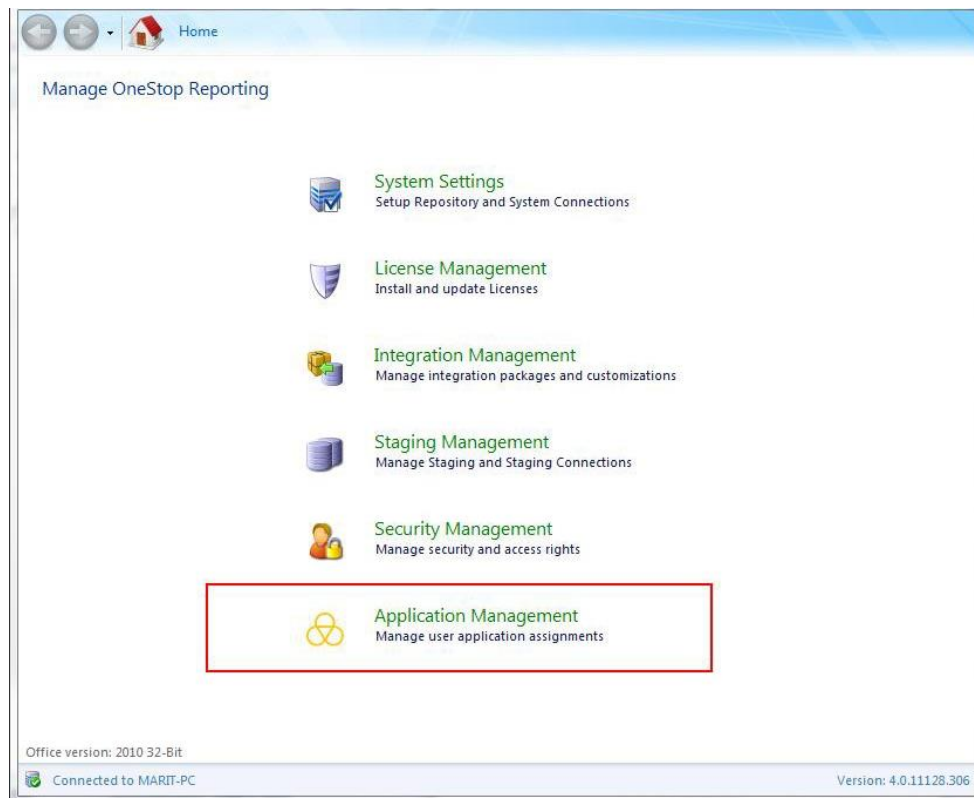
Copy Filters from One Company to Another

It is possible to copy Access Management (security) settings from one company to another. On the *Access Management* page choose *Copy filters* and select the companies that the access filters should be copied to.



Application Management

From the *Application Management* page, administrators can grant or deny access to the different applications in the BI360 Reporting suite for individual users in their network. Before access can be granted, the proper license must be installed for each application. For instructions on installing licenses, see the *Install License* section on page 12.



The function of Application Management is similar to that of assigning roles. However, whereas roles limit access to data, Application Management restricts usages of the application to only those that have been assigned a license.



Unlike the Roles, where groups of users can be assigned to the same role, groups may not be assigned in Application Management. Application Management is granted on a per user basis.

The Application Management page

Name	DisplayName	Player (20)	Designer (33)	Composer (17)	Publisher (17)
onestop\andrew	Andrew Bolseth	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
onestop\daniel	Daniel Jahn	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
onestopreporting.local\espen	Espen Kringstad	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
onestopreporting.local\marit	Marit Holen	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

The *Application Management* page is used for granting users rights to applications. You simply check the applications a specific user should have access to.



If a username is manually edited under Security Management -> User Management, all access rights will be removed and must be re-assigned to the new username.



If the BI360 application is in use when access rights are changed, the new settings will take effect once the application or Excel is restarted.

Additional Information

Solver Support Center

The Solver Support Center (support.solverusa.com) is the centralized location for users to learn more about the BI360 Suite. From opening and managing your support tickets to reading knowledgebase articles about the product, the Solver Support Center has everything a user will need.

Users may contact Solver Support if they have questions about the BI360 Suite. One of our technical support consultants will gladly assist you.

Users can access the Solver Knowledgebase for more information about the entire BI360 Suite. From user guides, white papers, training manuals and much more, the Solver Support Center has everything a user will need to get started with the application.

Solver Forum

The Solver Forum (solverusa.com/forum) is a great resource for users to ask questions about the software. Other users or one of the many Solver employees frequently check the boards and can quickly answer your questions.

Solver Feedback

Solver invites customers to participate in providing feature requests for future versions of BI360 on a site just for user feedback, feedback.solverusa.com. On the Solver Feedback site, users may suggest features for updates and upgrades to BI360 – and/or vote on existing feature submissions from fellow customers to really push for feature(s) that would make BI360 even more powerful, dynamic, and intuitive.