

User Manual e-Con Studio

e-Con 3.5

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Chapter 1 Introduction

1.1 Purpose

The e-Con Studio is one of the most important components of e-Con. You use the e-Con Studio to build and maintain your e-Con models. With the e-Con Studio, you can set up and maintain:

- **Projects.**
You can manage the creation and maintenance of your e-Con models in projects.
- **Models.**
A model is the central part of e-Con. So, if you want to work with e-Con and the e-Con Studio, you must create a model.
- **A model's structure.**
To get a working e-Con model, you must first set up the model's structure.
- **Interfaces between models.**
You can set up an interface to link two models to each other. In case of an interface, you always have a main-model and a sub-model. On both the main-model and the sub-model, setup is required.
- **Business rules.**
To build an intelligent model, you must add business intelligence to the model. Use rules to add the required intelligence to a model.
- **Columns.**
You can set up columns to determine the layout of your model's user interface.
- **Translations.**
If you want your model to support multiple languages, you must translate the model's labels.
- **The e-Con environment's settings.**
You can select another environment or maintain the current environment's settings.
- **Which libraries apply for a model.**
You can select which libraries apply for each model. You can also add custom libraries to the e-Con Studio.

The e-Con Studio also provides you with the functionality to:

- Directly enter the properties, for most of the model's elements, in a Properties view.
- Build projects or models.
- Browse a model for testing purposes only.
- Find and replace text.
- Import projects, models, templates or configurations.
- Export projects, models, templates or configurations.

Important

The focus of the e-Con Studio documentation is on the stand-alone situation. You can however also use (parts-of) the e-Con Studio documentation if you use e-Con based on Navision or Axapta. If you use e-Con based on Navision or Axapta, you usually set up the following parts of the e-Con Studio in Navision or Axapta:

- Projects
- Model
- Model structure
- Styles
- Translations
- Interfaces

Chapter 2 Projects

2.1 Creating New Projects

You can manage the creation and maintenance of your models in projects.

Note

You can have but one project open at a time. If you create a new project, the currently open project is closed. Also the open models that are related to the currently open project are closed. Open models, that are not related to a project, are not closed.

If not everything you worked on in the currently open project is saved, and you create a new project, you get a dialog box on which you can indicate which items you want to save.

To create a new project:

1. On the **e-Con Studio**, click **File, New, Project** (or click the **New Project**  button).
2. On the **Project Explorer**, select the newly created project.
3. Specify the project's properties.
4. Add models to the project. To add:
 - A new model, right-click the project, and click **Add New Model**.
 - An existing model, right-click the project, and click **Add Existing Model**.

2.2 Modifying Existing Projects

If you manage the maintenance of you models in projects, you can always modify the projects.

Note

You can have but one project open at a time. If you open another project, the currently open project is closed. Also the open models that are related to the currently open project are closed. Open models, that are not related to a project, are not closed.

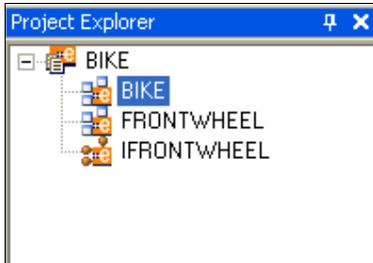
If not everything you worked on in the currently open project is saved, and you open another project, you get a dialog box on which you can indicate which items you want to save.

To modify an existing project:

1. On the **e-Con Studio**, click **File, Open, Project** (or click the **Open Project**  button).
2. On the **Project Explorer**, select the project.
3. You can modify the project's properties.
4. You can add models to the project. To add:
 - A new model, right-click the project, and click **Add New Model**.
 - An existing model, right-click the project, and click **Add Existing Model**.
5. You can remove models from the project. To do so, on the **Project Explorer**, right-click the model, and click **Delete**.

2.3 Using the Project Explorer

Use the Project Explorer if you want to manage your models in projects.



To use the Project explorer:

1. On the e-Con Studio, click **View, Project Explorer** (or click the **Project Explorer**  button).
2. On the **Project Explorer**, you can:
 - Create new projects.
 - Modify existing projects.
 - Open the models that are related to the project. To do so, double-click the models you want to open.

Note

To close a project, click **File, Close Project**.

Chapter 3 Models

3.1 Creating New Models

If you want to work with the **e-Con Studio**, you must create a model. Add to each model, at least the following:

- Model Structure
- Business rules

To create a new model:

1. On the **e-Con Studio**, click **File, New, Model**, or click the **New Model**  button.
2. Specify the model's name and other properties.
3. Set up the model's:
 - Structure
 - Rules
 - Columns
 - Interfaces
 - Translations

Note

- You can have several models open at the same time. Each model is displayed on a separate tab.
- You can also create models from the **Project Explorer**.

3.2 Modifying Existing Models

You can always modify existing models. If you modify an existing model, you can:

- Modify the model's current version.
- Create a new version of the model.

To modify an existing model:

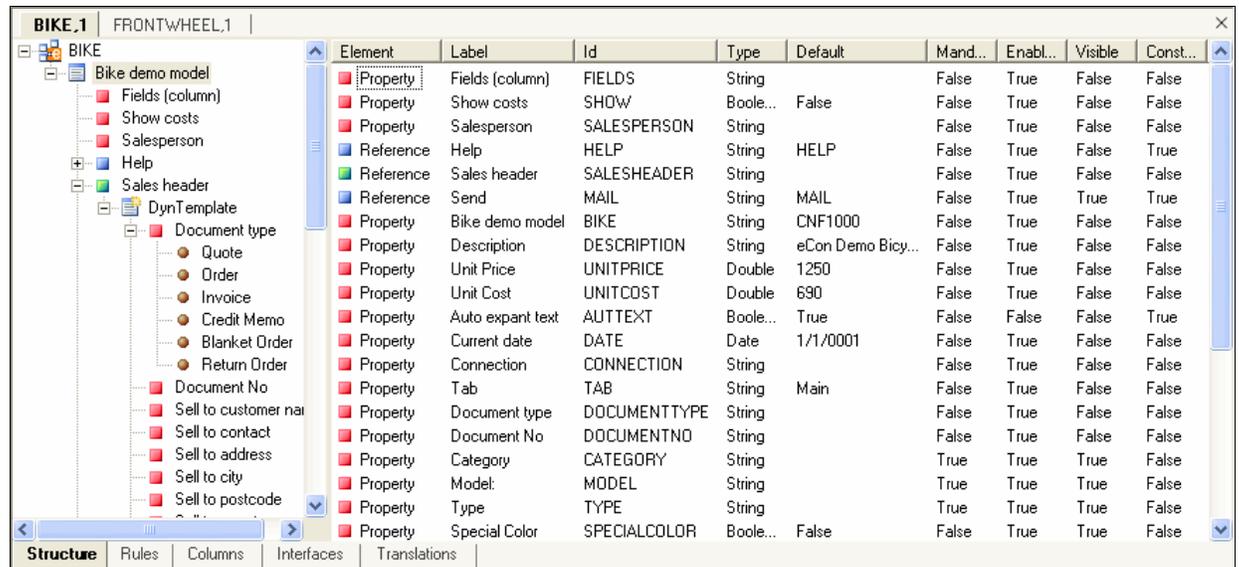
1. On the **e-Con Studio**, click **File, Open, Model** (or click the **Open Model**  button).
2. On the **Open Model** dialog box, select the model you want to open.
3. If you want to:
 - Modify the current version, click **Open**.
 - Create a new version, enter new version number, and click **Open**.
4. You can modify the model's:
 - Structure
 - Rules
 - Columns
 - Interfaces
 - Translations

Note

- You can have several models open at the same time. Each model is displayed on a separate tab.
- You can also open models from the **Project Explorer**.
- You can only open older versions of a model from the SQL repository.

3.3 Setting up a Model Structure

If you want to work with e-Con models, you must at least add a structure to the models.



To set up a model structure:

1. On the **e-Con Studio**, create or open a model.
2. Click the **Structure** tab.
3. You can:
 - Add a new element to the structure.
 - Copy an element or (a part of) a structure from another model's structure or within the current model's structure.
 - Move an element or (a part of) a structure from another model's structure or within the current model's structure.
 - Drag an element or (a part of) a structure from another model's structure or within the current model's structure.
4. Specify the added element's properties. You can do so on the Properties view or for:
 - References on the **Reference Details** form.
 - Properties on the **Property Details** form.
 - Options on the **Option Details** form.

3.4 Model Structure Setup Possibilities

If you build a model structure, you can add:

- References to a class.
- Properties to a class.
- Classes to a reference.
- Options to a property.

3.4.1 New Element

To add a new:

- Reference to a class, right-click the class and click **New Reference**.
- Property to a class, right-click the class and click **New Property**.
- Class to a reference, right-click the reference and click **New Class**.
- Option to a property, right click the property and click **New Option**.

3.4.2 Copy Element or Structure

You can also copy (parts of) structures:

- From another model's structure to the current model's structure.
- To another position in the current model's structure.

To copy (parts of) structures, you can:

- Use the **Copy**  button and the **Paste**  button.
- Right-click the element and click **Copy** or **Paste**.

3.4.3 Move Element or Structure

You can also move (parts of) structures:

- From another model's structure to the current model's structure.
- To another position in the current model's structure.

To move (parts of) structures, you can:

- Use the **Cut**  button and the **Paste**  button.
- Right-click the element and click **Cut** or **Paste**.

3.4.4 Drag Element or Structure

You can also drag (parts of) structures between and within model structures. If you drag:

- (A part of) another model's structure to the current model's structure, the dragged part is copied. In this case, you can only drag from the Object Explorer.
- A part of the current model's structure to another position in the current model's structure, the dragged part is moved.

3.5 Setting up Columns

In the e-Con Studio, you can set up columns. You can use columns to determine the layout of your model's user interface. Before you add you model-specific columns, you must always set up the following columns:

- Questions
- Answers

Important
A column must always refer to a reference or a property. So, if you set up a column, only enter a reference Id or a property Id as the column's Id.

Element	Label	Id	Format	Width
Column	Fields	Fields	###,##0.00	175
Column	Description	DESCRIPTION	###,##0.00	250
Column	Unit cost	UNITCOST	\$ ###,##0.00	90
Column	Unit price	UNITPRICE	\$ ###,##0.00	90

Structure | Rules | **Columns** | Interfaces | Translations

To set up a column:

1. On the e-Con Studio, create or open a model.
2. Click the **Columns** tab.
3. On the **Columns** tab, right-click, and click **New Column**.
4. Select the newly added column.
5. Specify the column's properties. You can do so on the **Properties** view or on the **Column Details** form.

3.6 Entering Translations

If you want your model to support multiple languages, you must translate the labels of:

- References
- Properties
- Options
- Columns

Note

- If you select one of the translatable elements in your model, and you open the **Translations** tab, the element's label is displayed. You can translate the label or view the already existing translations for the label.
- For each label and language combination, you can enter but one translation. If you want to have several different translations for a specific label, you must use different labels.

BIKE.1 FRONTWHEEL.1

View: Per Language Language: German (Germany)

Only translated labels Only translated languages

	Id	Default Label	Translation
▶	bomheader	Production BOM	
	bomline	Production BOM Line	
	buom	Base Unit of Measurement	
	category	Category	Kategorie
	citybike	CITYBIKE	
	description	Description	Beschreibung
	frontwheel	Front Wheel	Vorderes Rad
	hub	HUB	
	item	Item	
	mountainbike	MOUNTAINBIKE	
	production	PRODUCTION	Fertigung
	quantity	Quantity	Anzahl
	quantityspokes	Number of Spokes	Anzahl Speichen
	rim	Rim	Rand

Structure | Rules | Columns | Interfaces | **Translations**

To enter translations:

1. On the **e-Con Studio**, create or open a model.
2. Click the **Translations** tab.
3. Enter translations.

You can determine the language in which you browse a model, in the following ways:

- If you use e-Con on Navision or Axapta, determine the language in Navision or Axapta.
- In the environment options, you can set the Configuration Language.
- If you use e-Con in a web environment, you can determine the language in the e-Con model startup URL.

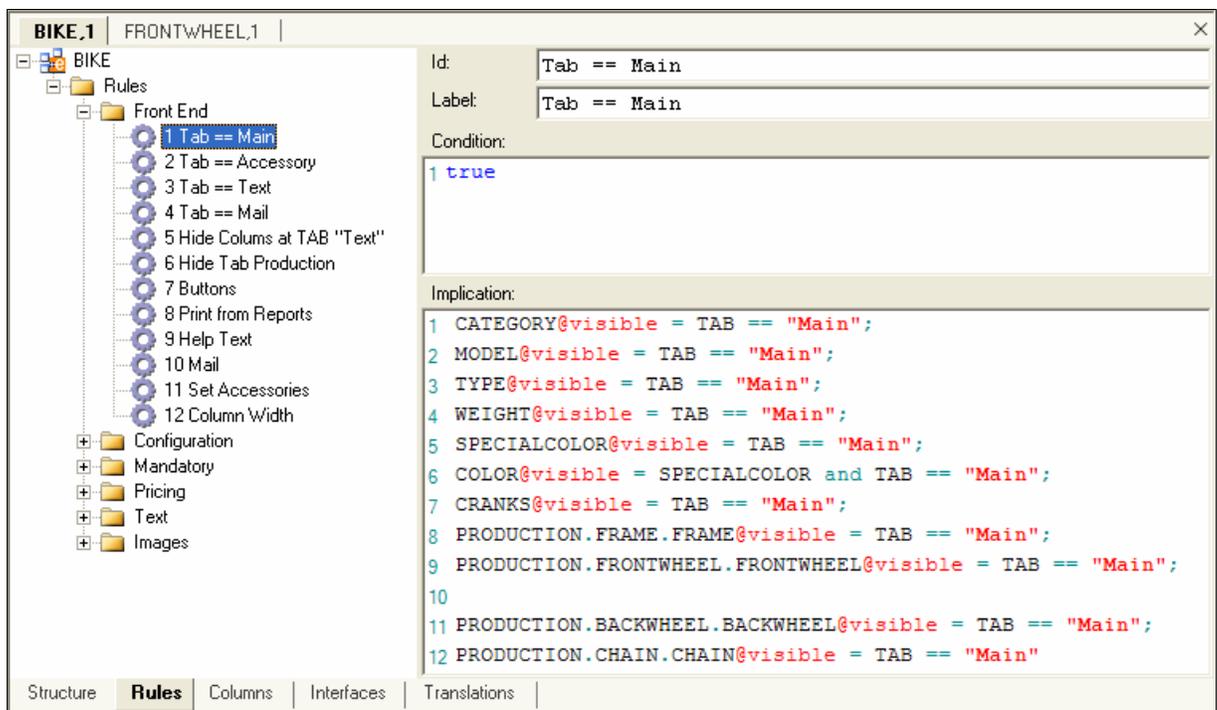
Chapter 4 Rules

4.1 Setting up Rules

To build an intelligent model, you must add business intelligence to the model. Use rules to add intelligence to a model.

You can, for example, add rules that determine:

- Determine which fields are displayed if a specific option is selected.
- Determine the default values of several fields if an item of a specific group is entered.
- Read information from a sub-model.
- Write data to a sub-model.



The screenshot shows the 'BIKE_1' model editor with the 'FRONTWHEEL_1' rule selected. The left pane shows a tree view of the model structure, including 'Rules' and 'Front End'. The right pane displays the rule configuration:

- Id:** Tab == Main
- Label:** Tab == Main
- Condition:**

```
1 true
```
- Implication:**

```
1 CATEGORY@visible = TAB == "Main";
2 MODEL@visible = TAB == "Main";
3 TYPE@visible = TAB == "Main";
4 WEIGHT@visible = TAB == "Main";
5 SPECIALCOLOR@visible = TAB == "Main";
6 COLOR@visible = SPECIALCOLOR and TAB == "Main";
7 CRANKS@visible = TAB == "Main";
8 PRODUCTION.FRAME.FRAME@visible = TAB == "Main";
9 PRODUCTION.FRONTWHEEL.FRONTWHEEL@visible = TAB == "Main";
10
11 PRODUCTION.BACKWHEEL.BACKWHEEL@visible = TAB == "Main";
12 PRODUCTION.CHAIN.CHAIN@visible = TAB == "Main"
```

The bottom of the window has tabs for 'Structure', 'Rules', 'Columns', 'Interfaces', and 'Translations', with 'Rules' currently selected.

To set up rules:

1. On the **e-Con Studio**, create or open a model.
2. Click the **Rules** tab.
3. You can:
 - Add a new rule or group to the model.
 - Copy a rule or group of rules from another model or within the current model.
 - Move a rule or group of rules from another model or within the current model.
 - Drag a rule or group of rules from another model or within the current model.
4. Select the added rule and specify the rule's properties. You can do so on the **Rules** tab or on the **Properties** view.
5. To specify the rule's condition and implication, you can use the:
 - **External Data Wizard**
 - **Expression Builder**

4.2 Rules Setup Possibilities

- Groups to group rules.
- Rules to groups.

4.2.1 New Rule or Group

To manually add a new:

- Group, right-click on the group to which you want to add it, and click **New Group**.
- Rule, right-click on the group to which you want to add it, and click **New Rule**.

4.2.2 Copy Rules or Groups

You can copy (groups of) rules:

- From another model to the current model.
- To another group in the current model.

To copy (groups of) rules, you can:

- Use the **Copy**  button and the **Paste**  button.
- Right-click the rule or group and click **Copy** or **Paste**.

4.2.3 Move Rules or Groups

You can move (groups of) rules:

- From another model to the current model.
- To another group in the current model.

To move (groups of) rules, you can:

- Use the **Cut**  button and the **Paste**  button.
- Right-click the rule or group and click **Cut** or **Paste**.

4.2.4 Drag Rules or Groups

You can drag (groups of) rules between and within models. If you drag:

- (A group of) rules from another model to the current model, the dragged part is copied. In this case, you can only drag from the Object Explorer.
- (A group of) rules from a group in the current model to another group in the current model, the dragged part is moved.

4.2.5 Rule Condition and Implication

To make the setup of a rule's condition and implication easier, you can use the:

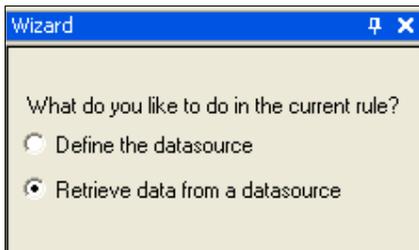
- External Data Wizard
- Expression Builder

4.3 Using the External Data Wizard

You can use the **External Data Wizard** as your guide to build rules with data functions. As a result, both the condition and implication of the rule are filled.

Note

In the **External Data Wizard**, you can enter properties or options manually or by dragging them from the **Object Explorer**.



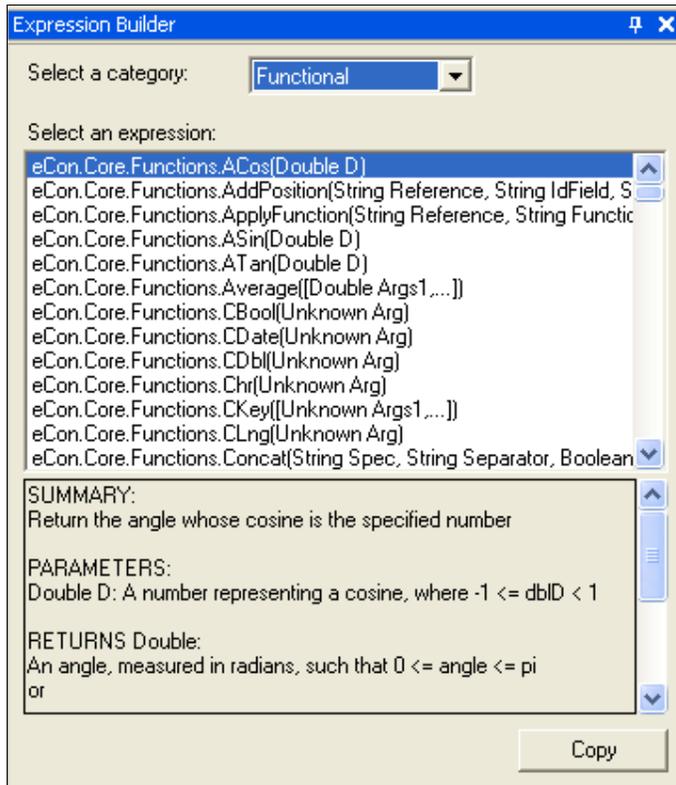
To use the **External Data Wizard**:

1. On the **e-Con Studio**, create or open a model.
2. Click the **Rules** tab.
3. Select a rule.
4. On the **Properties** view, click **External Data Wizard**.

4.4 Using the Expression Builder

You can use the **Expression Builder** to easily enter expressions in a rule's condition or implication.

All expression categories and the related expressions are standard available, except for the expressions in the Functional category. In the Functional category, only the eCon Core expressions are standard available. You can, however, for each model, add functional expressions. To add functional expressions to a model, select the appropriate library.



To build expressions:

1. On the **e-Con Studio**, create or open a model.
2. On the **Rules** tab, select the rule to which you want an expression.
3. Select, in the condition or implication, the position where you want to add the expression.
4. Click **View, Expression Builder** (or click the **Expression Builder**  button).
5. On the **Expression Builder**, select a category.
6. Select an expression from the selected category.
7. Click **Copy**.

As a result the expression is added to the selected position in the condition or implication.

Chapter 5 Interfaces

5.1 Setting up Interfaces

You can set up an interface to link two models to each other. In case of an interface, you always have a main-model and a sub-model. On both the main-model and the sub-model, setup is required.

You can set up interfaces to:

- Read data from the sub-model in the main model.
- Write data from the main-model to the sub-model.

Set up rules to determine whether the interface reads or writes data.

To set up an interface:

1. On the **e-Con Studio**, create or open a main-model and a sub-model.
2. In the sub-model, specify which references and properties must be part of the interface. To do so, on the **Properties** view, set the value of the **Part of interface** field to **True**.
3. Generate the interface model for the sub-model.
4. Build the generated interface model.
5. Add the interface model to the sub-model's interfaces.
6. Build the sub-model.
7. In the main-model, create a reference that links to the interface model. To do so, on the **Properties** view, enter the interface model's:
 - Id in the **Interface Model** field.
 - Version in the **Interface Version** field.
8. Build the main-model.

5.2 Generating Interface Models

If you want to use a model as sub-model of another model, you must create an interface between these models. To be able to set up the interface, you must generate an interface model from the sub-model.

If you generate an interface model from a model, all the model's references and properties, for which the value of the **Part of interface** field is **True**, are added to the interface model.

To generate an interface model:

1. On the **e-Con Studio**, open the model from which you want to (re)generate an interface model. Make sure the tab of the right model is displayed.
2. Click **Tools, Generate Interface** (or click the **Generate Interface**  button).
3. On the **Generate Interface** dialog box, you can:
 - Regenerate an existing interface model. To do so, select the interface model. In the **Version** field, you can specify whether you want to regenerate another version of the interface model.
 - Generate a new interface model. To do so, in the **Model** field, you can change the interface model's default Id.
4. Click **Generate**.

Tip

Use for interface models the same name as for the models from which you generate the interface models, but preceded with an I. For example, if you generate an interface model from the Customer model, the interface model's Id is ICustomer.

5.3 Setting up Supported Interfaces

On the **Interfaces** tab, you can set up the interfaces that are supported by a model. To set up an interface, you must link an interface model. The model, to which you link the interface model, serves as sub-model.

You can specify several supported interface models for each sub-model. If you do so, make sure that the interface models do not overlap. So, the interface models must have different references and properties.



To set up a supported interface:

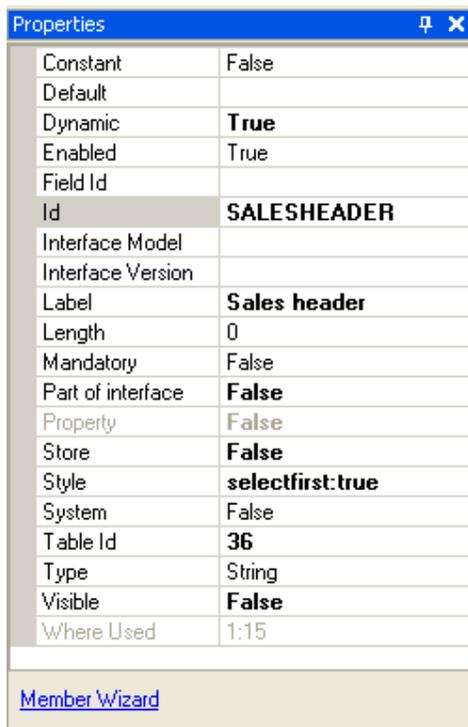
1. On the **e-Con Studio**, open the model to which you want to add an interface model.
2. Click the **Interfaces** tab.
3. On the **Interfaces** tab, right-click, and click **New Interface**.
4. Select the newly added interface.
5. In the interface's properties, specify the interface model's Id and version.

Chapter 6 Properties

6.1 Using the Properties View

You can use the properties view to enter the properties for each:

- Model
- Class
- Reference
- Property
- Option
- Rule
- Group
- Column
- Interface
- Project



Properties	
Constant	False
Default	
Dynamic	True
Enabled	True
Field Id	
Id	SALESHEADER
Interface Model	
Interface Version	
Label	Sales header
Length	0
Mandatory	False
Part of interface	False
Property	False
Store	False
Style	selectfirst:true
System	False
Table Id	36
Type	String
Visible	False
Where Used	1:15

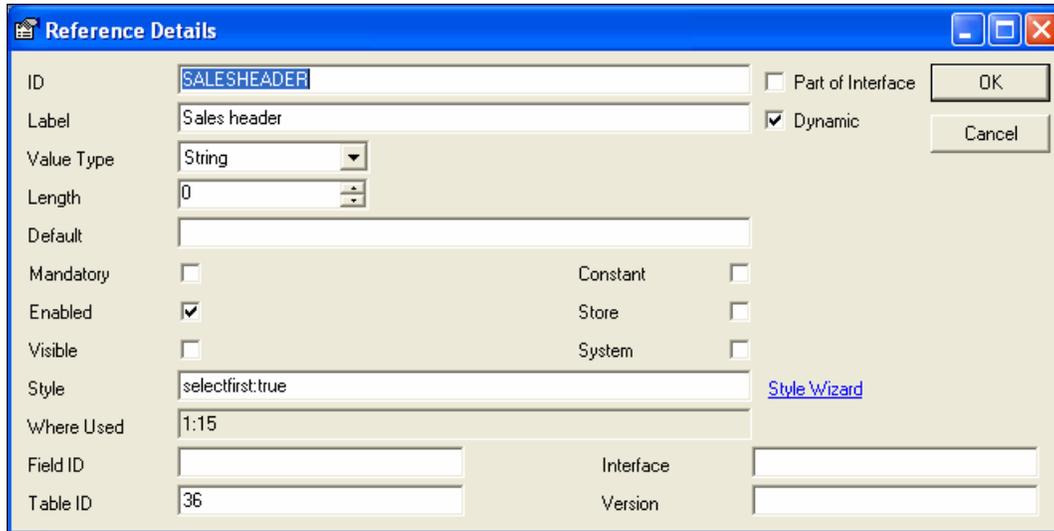
[Member Wizard](#)

To use the **Properties** view:

1. On the e-Con Studio, create or open a model.
2. Click **View, Properties** (or click the **Properties**  button).
3. On the **Properties** view, specify the properties.

6.2 Using the Reference Details

The **Reference Details** form provides you with an alternative way to specify properties for references.



Reference Details

ID: SALESHEADER Part of Interface

Label: Sales header Dynamic

Value Type: String

Length: 0

Default:

Mandatory: Constant:

Enabled: Store:

Visible: System:

Style: selectfirst:true [Style Wizard](#)

Where Used: 1:15

Field ID: Interface:

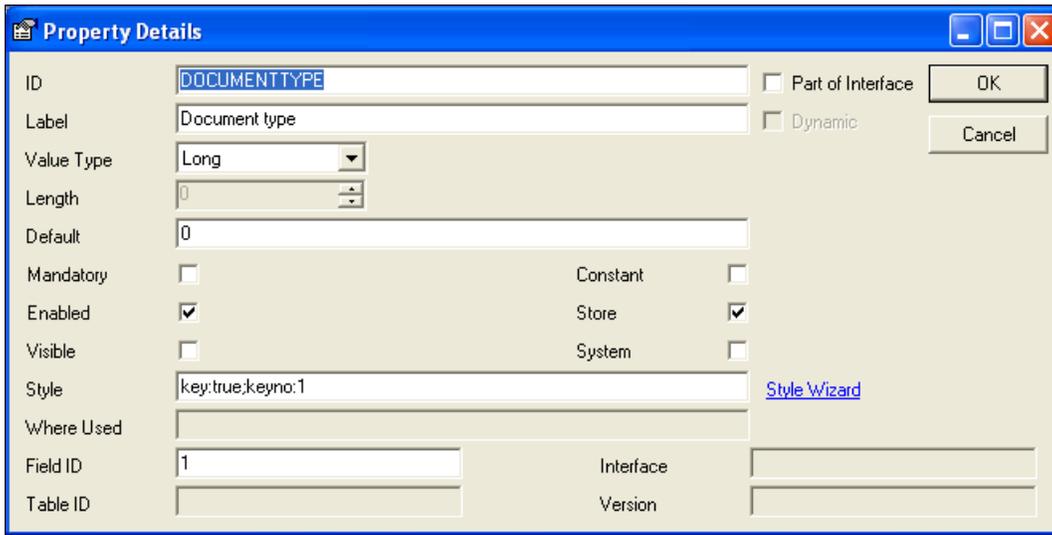
Table ID: 36 Version:

To use the **Reference Details**:

1. On the **e-Con Studio**, create or open a model.
2. Click the **Structure** tab.
3. To open the **Reference Details** form, on the **Structure** tab:
 - Select a reference, and at the bottom of the **Properties** view, click **Member Wizard**.
 - Right-click a reference and click **Edit Member**.
4. On the **Reference Details** form, specify the reference's properties.

6.3 Using the Property Details

The **Property Details** form provides you with an alternative way to specify properties for properties.

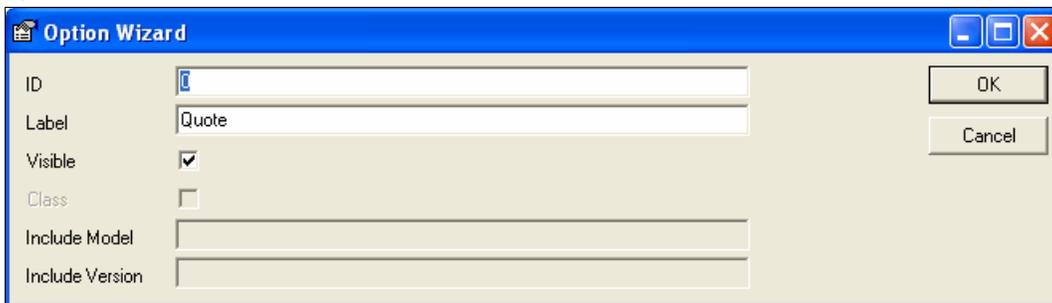


To use the **Properties Details**:

1. On the **e-Con Studio**, create or open a model.
2. Click the **Structure** tab.
3. To open the **Property Details** form, on the **Structure** tab:
 - Select a property, and at the bottom of the **Properties** view, click **Member Wizard**.
 - Right-click a property and click **Edit Member**.
4. On the **Property Details** form, specify the property's properties.

6.4 Using the Option Details

The **Option Details** form provides you with an alternative way to specify properties for options.



To use the **Option Details**:

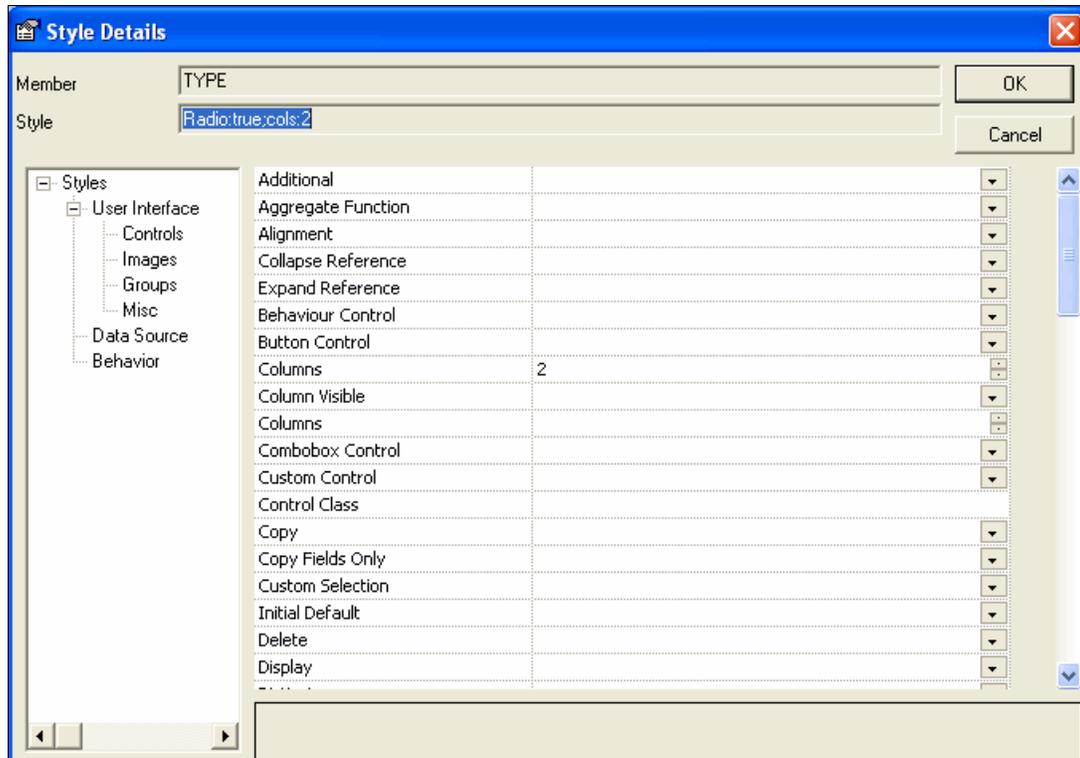
1. On the **e-Con Studio**, create or open a model.
2. Click the **Structure** tab.
3. To open the **Option Details** form, on the **Structure** tab:
 - Select an option, and at the bottom of the **Properties** view, click **Option Details**.
 - Right-click an option and click **Edit Option**.
4. On the **Option Details** form, specify the option's properties.

6.5 Using the Style Details

You can use the **Style Details** form to specify the style in which a reference or property appears on the model's resulting user interface.

Note

For references and properties that are derived from Navision or Axapta, the style, as determined in Navision or Axapta, is automatically applied.

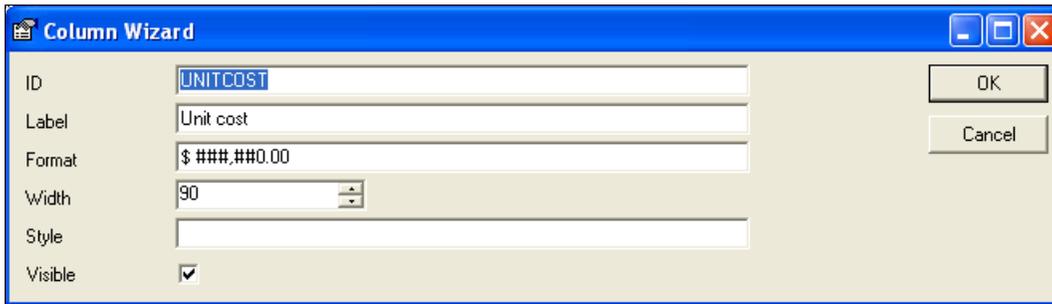


To use the **Style Details**:

1. On the **e-Con Studio**, create or open a model.
2. Click the **Structure** tab.
3. Select a reference or a property.
4. Open the **Style Details** form. To do so, you can:
 - On the **Properties** view, in the **Style** field, click the assist edit  button.
 - On the **Reference Details** form or **Property Details** form, click **Style Wizard**.
5. On the **Style Details** form, specify which styles apply to the selected reference or property. Also specify the style's behavior, if applicable.

6.6 Using the Column Details

The **Column Details** form provides you with an alternative way to specify properties for properties.



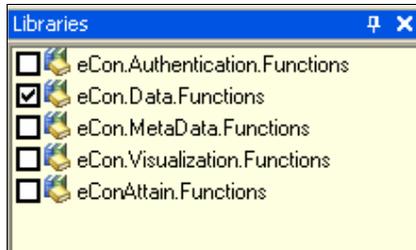
To use the **Properties Details**:

1. On the **e-Con Studio**, create or open a model.
2. Click the **Columns** tab.
3. Select a column, and at the bottom of the **Properties** view, click **Column Wizard**.
4. On the **Column Details** form, specify the column's properties.

Chapter 7 Libraries

7.1 Selecting Libraries for Models

A library is a special Visual Basic DLL that contains one or more functional expressions. To be able to use these functional expressions for a model, you must select the library for your model. The expressions, as specified for a selected library, are added to the **Functional** category in the **Expression Builder**.



To select a library for a model:

1. On the **e-Con Studio**, create or open a model.
2. Click **View, Libraries** (or click the **Libraries**  button).
3. On the **Libraries** view, select the libraries that you want to link to the model.

Note

If you want to use a self-defined library, you can add a custom library to the libraries list.

7.2 Adding Custom Libraries

You can add custom libraries to the e-Con Studio.

For more information on how to build a custom library, refer to the 'e-Con 3.5 SDK' document.

To add a custom library:

1. On the e-Con client, open the e-Con 3.5 program folder.
2. In the **Web** folder, right-click the `eCon.Modeler.exe.config` file and open it in a text editor (for example **Notepad**).
3. Increment the library count with one. The count must match the number of libraries available (between brackets [] what you must enter): `<add key="LibraryCount" value="[new count]" />`
4. Add a line for the library (between brackets [] what you must enter): `<add key="Library[new number]" value="[library dll name without extension .dll].[class in library dll that contains the functions, usually called Functions]" />`

Chapter 8 Views

8.1 Using the Project Explorer

Use the Project Explorer if you want to manage your models in projects.

To use the Project explorer:

1. On the e-Con Studio, click **View, Project Explorer** (or click the **Project Explorer**  button).
2. On the **Project Explorer**, you can:
 - Create new projects.
 - Modify existing projects.
 - Open the models that are related to the project. To do so, double-click the models you want to open.

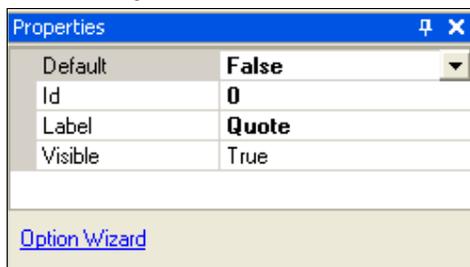
Note

To close a project, click **File, Close Project**.

8.2 Using the Properties View

You can use the properties view to enter the properties for each:

- Model
- Class
- Reference
- Property
- Option
- Rule
- Group
- Column
- Interface
- Project



To use the **Properties** view:

1. On the e-Con Studio, create or open a model.
2. Click **View, Properties** (or click the **Properties**  button).
3. On the **Properties** view, specify the properties.

8.3 Using the Object Explorer

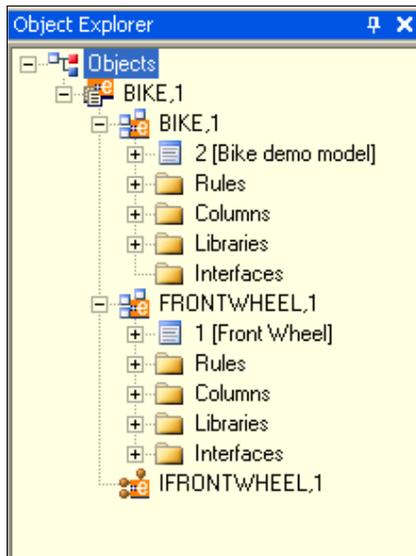
You can use the **Object Explorer** to display the structure and elements of all open models.

You can also use the **Object Explorer** to drag (groups of) elements from one model to another model. You can drag the following from the **Object Explorer** to the active model in the **Models** pane:

- Parts of the model structure
- Rules
- Columns
- Interfaces

Note

If you drag elements from the **Object Explorer** to the active model, make sure that the corresponding tab of the active model is displayed.



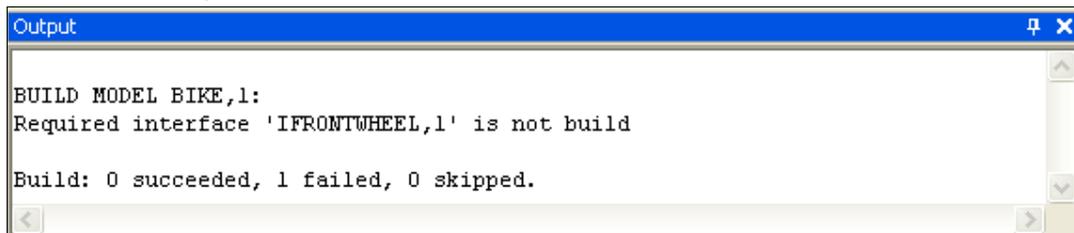
To use the **Object Explorer**:

1. On the **e-Con Studio**, create or open a model.
2. Click **View, Object Explorer** (or click the **Object Explorer**  button).

8.4 Using the Output View

Use the **Output** view to view the:

- Errors that you make if you set up rules.
- Result if you build a model.



The following type of errors that you can make if you set up a rule are directly displayed in the **Output** view:

- Syntax errors.
- Functions that are not known in the rule's context.
- Variables that are not known in the rule's context.

If you build a model, the following is displayed in the **Output** view:

- The output of the compiler (including errors if applicable).
- The build conclusions.

If errors are displayed, you can use the **Source** view to analyse the error.

8.5 Using the Source View

If you build a model, C# code is generated. Use the **Source** view to browse to C# code that is generated for the model.

To use the **Source** view:

1. On the **e-Con Studio**, build a model.
2. If in the **Output** view errors are displayed, double-click on an error. The **Source** view is opened at the position in the C# code where the error occurred.
3. If you double click on the C# code line in the **Source** view, the concerned rule on the **Rules** tab is displayed.
4. Solve the error.

Chapter 9 Tools

9.1 Building Models

To be able to browse or use the model, you must build it. If you build a model, the model's XML file is converted to a DLL file in C# code.

To build a model:

1. On the **e-Con Studio**, open the model or click the model's tab.
2. Click **Tools, Build** (or click the **Build**  button).

As a result, the **Output** view is opened. In the **Output** view you can see whether the model is build successfully.

9.2 Building Projects

You can build all models, that are linked to a project, at once. If you build a model, the model's XML file is converted to a DLL file in C# code.

To build a project:

1. On the **e-Con Studio**, open the project.
2. Click **Tools, Build Project** (or click the **Build Project**  button).

As a result, the **Output** view is opened. In the **Output** view you can see whether all models, that are linked to the project, are build successfully.

9.3 Browsing Models

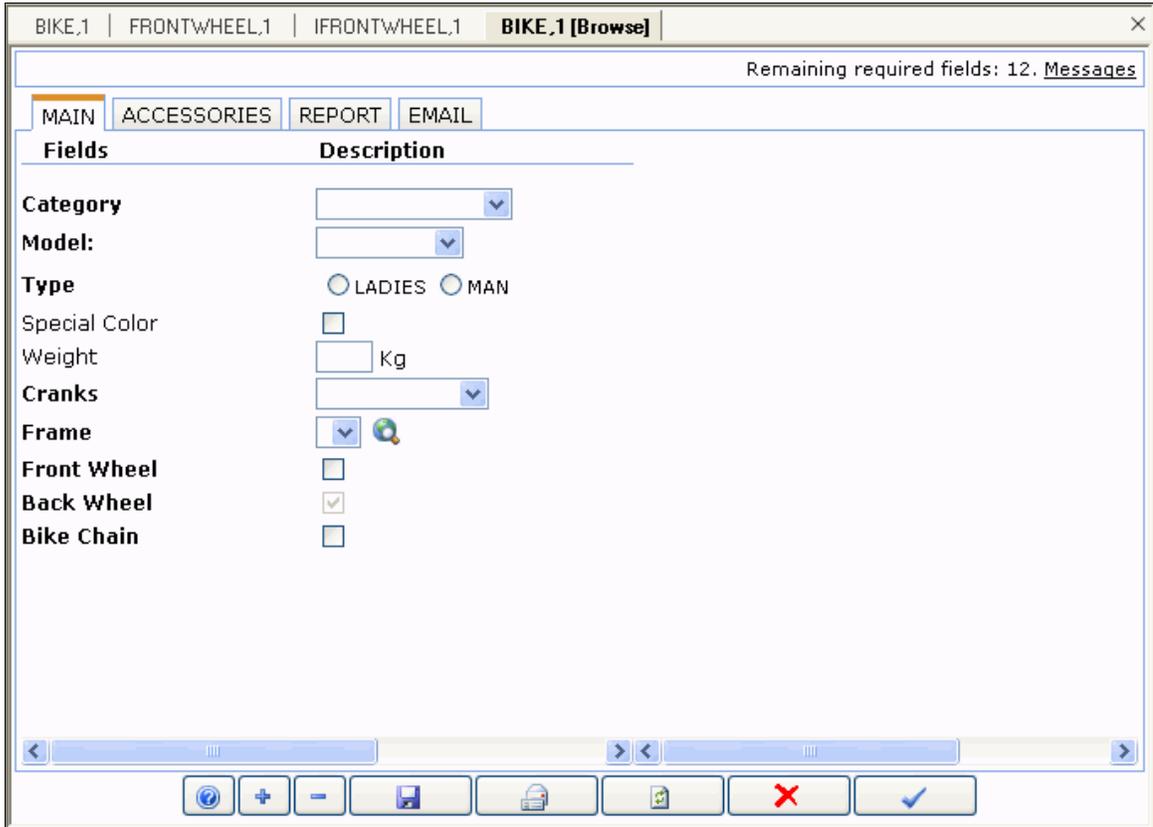
You can browse the currently active model to test whether the model is working properly.

You can test whether the:

- Layout of the user interface appears correctly.
- Rules work properly.

Note

- If you browse a model, it is automatically built.
- If you browse a model from the **e-Con Studio**, you can not configure the model.



To browse a model:

1. On the **e-Con Studio**, open the model or click the model's tab.
2. Click **Tools, Browse** (or click the **Browse**  button).
3. Test the model.
4. To close the browser, close the tab on which the browser is displayed.

9.4 Generating Interface Models

If you want to use a model as sub-model of another model, you must create an interface between these models. To be able to set up the interface, you must generate an interface model from the sub-model.

If you generate an interface model from a model, all the model's references and properties, for which the value of the **Part of interface** field is **True**, are added to the interface model.

To generate an interface model:

1. On the **e-Con Studio**, open the model from which you want to (re)generate an interface model. Make sure the tab of the right model is displayed.
2. Click **Tools, Generate Interface** (or click the **Generate Interface**  button).
3. On the **Generate Interface** dialog box, you can:
 - Regenerate an existing interface model. To do so, select the interface model. In the **Version** field, you can specify whether you want to regenerate another version of the interface model.
 - Generate a new interface model. To do so, in the **Model** field, you can change the interface model's default Id.
4. Click **Generate**.

Tip

Use for interface models the same name as for the models from which you generate the interface models, but preceded with an I. For example, if you generate an interface model from the Customer model, the interface model's Id is ICustomer.

9.5 Import

9.5.1 Importing Projects

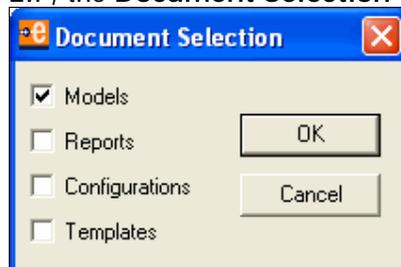
You can import all models, that are part of a project, at once.

Note

You can only import project files of type EPJ or ZIP.

To import a project:

1. On the **e-Con Studio**, click **Tools, Import, Project**.
2. On the **Import Project** dialog box, search for and select the project that you want to import.
3. Click **Open**.
4. If the import file is of type:
 - EPJ, the project is totally imported.
 - ZIP, the **Document Selection** dialog box appears.



5. Select which parts of the project you want to import and click **OK**.

9.5.2 Importing Models

You can easily import models that are exported from another e-Con environment.

Note

You can only import model files of type XML.

To import a model:

1. On the **e-Con Studio**, click **Tools, Import, Model**.
2. On the **Import Model** dialog box, search for and select the model that you want to import.
3. Click **Open**.

9.5.3 Importing Templates

You can easily import templates that are exported from another e-Con environment. A template is a configuration, with several fields filled, which you use as a default configuration for a model.

Templates are separately stored from configurations. If you use a:

- SQL database, templates are stored with a different document type.
- File repository, templates are stored in the Templates folder.

Note

- You can only import template files of type XML.
- You can not configure a template from the **e-Con Studio**.

To import a template:

1. On the **e-Con Studio**, click **Tools, Import, Template**.
2. On the **Import Template** dialog box, search for and select the template that you want to import.
3. Click **Open**.

9.5.4 Importing Configurations

You can easily import configurations that are exported from another e-Con environment.

Note

You can only import configuration files of type XML.

To import a configuration:

1. On the **e-Con Studio**, click **Tools, Import, Configuration**.
2. On the **Import Configuration** dialog box, search for and select the configuration that you want to import.
3. Click **Open**.

9.6 Export

9.6.1 Exporting Projects

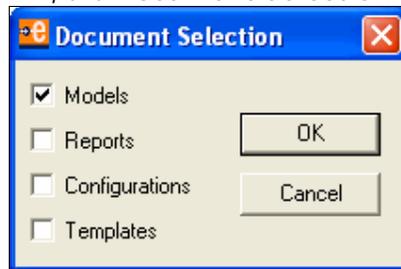
You can export all models, that are part of a project, at once.

Note

You can only export projects to files of type EPJ or ZIP.

To export a project:

1. On the **e-Con Studio**, click **Tools, Export, Project**.
2. On the **Export Project** dialog box:
 - Search for the folder in which you want to save the project file.
 - Specify the project file's name and type in the **File name** field (you can also keep the default name).
3. Click **Save**. If the project file's type is:
 - **EPJ**, the project is directly exported and saved in the specified folder.
 - **ZIP**, the **Document Selection** dialog box appears.



4. In the **Document Selection** dialog box, select which parts of the project you want to export, and click **OK**. A message appears that indicates that and where the file is created.

9.6.2 Exporting Models

You can easily export models to use them in another e-Con environment.

Note

You can only export models to files of type XML.

To export a model:

1. On the **e-Con Studio**, click **Tools, Export, Model**.
2. On the **Export Model** dialog box:
 - Search for the folder in which you want to save the model file.
 - Specify the model file's name (you can also keep the default name).
3. Click **Save**.

9.6.3 Exporting Templates

You can easily export templates that are you want to use in another e-Con environment. A template is a configuration, with several fields filled, which you want to use as a kind of default configuration for a model.

Templates are separately stored from configurations. If you use a:

- SQL database, templates are stored with a different document type.
- File repository, templates are stored in the Templates folder.

Note

- You can only export template files of type XML.
- You can not configure a template from the e-Con Studio.

To export a template:

1. On the e-Con Studio, click **Tools, Export, Template**.
2. On the **Export Template** dialog box, select the template that you want to export.
3. Click **Export**.

9.6.4 Exporting Configurations

You can easily export configurations that you want to use in another e-Con environment.

Note

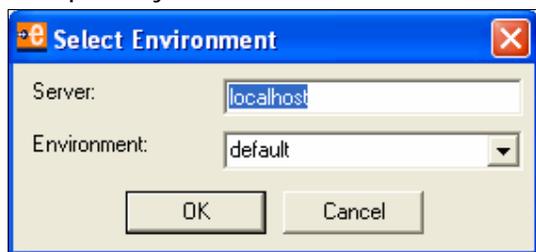
You can only export configuration files of type XML.

To export a configuration:

1. On the e-Con Studio, click **Tools, Export, Configuration**.
2. On the **Export Configuration** dialog box, search for and select the configuration that you want to export.
3. Click **Export**.

9.7 Selecting Environments

If required, you can switch to another environment from the e-Con Studio.



To select an(other) environment:

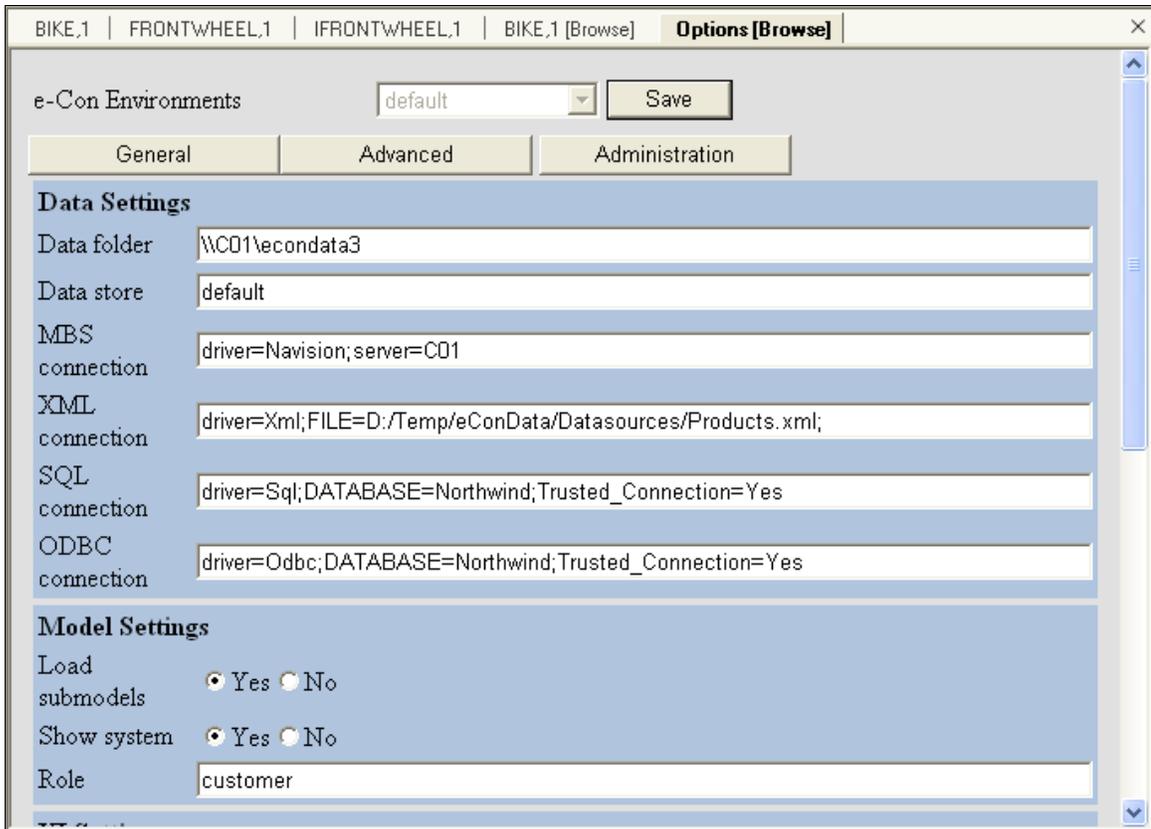
1. On the e-Con Studio, click **Tools, Environment** (or click the **Environment**  button).
2. On the **Select Environment** dialog box specify the:
 - **Server**
 - **Environment**
3. Click **OK**.

Note

If not everything you worked on in the current environment is saved, and you select another environment, you get a dialog box on which you can indicate which items you want to save.

9.8 Modifying Environment Options

You can use the **Options (Browse)** tab, to modify the settings for each environment.



BIKE,1 | FRONTWHEEL,1 | IFRONTWHEEL,1 | BIKE,1 [Browse] | **Options [Browse]**

e-Con Environments

General | **Advanced** | Administration

Data Settings

Data folder

Data store

MBS connection

XML connection

SQL connection

ODBC connection

Model Settings

Load submodels Yes No

Show system Yes No

Role

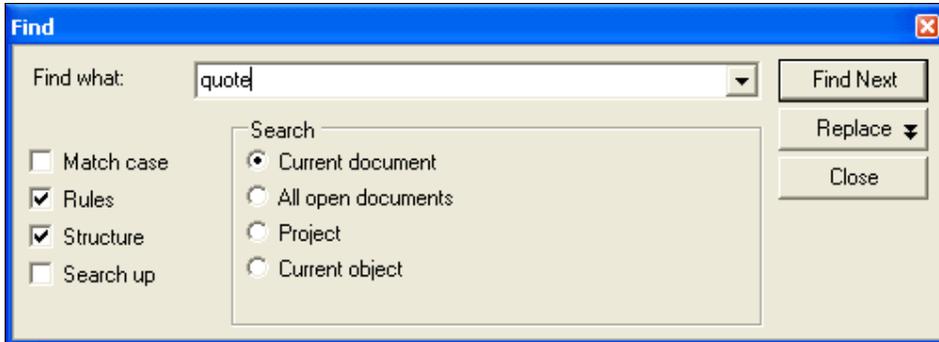
To modify an environment's options:

1. On the **e-Con Studio**, select the environment for which you want to modify the options.
2. Click **Tools, Options** (or click the **Options**  button).
3. You can modify the following types of settings:
 - General
 - Advanced
 - Administration

For more information on the options, refer to the 'e-Con 3.5 - Settings Description' document.

9.9 Finding Text

You can search for occurrences of a specified text.

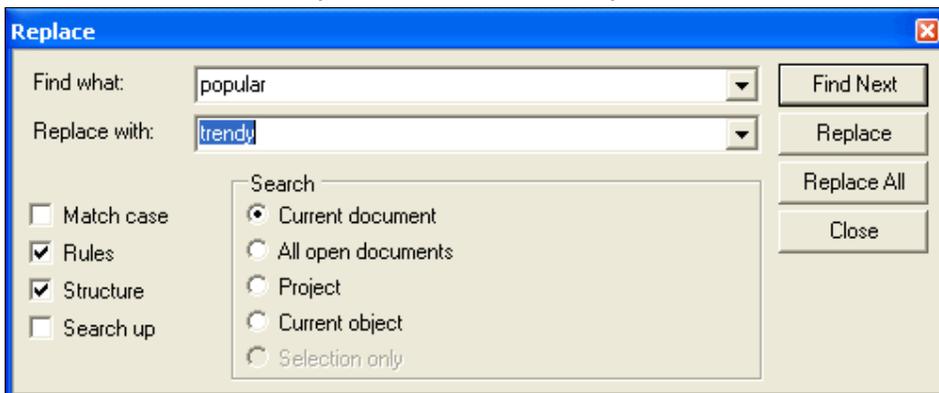


To find text:

1. On the e-Con Studio, click **Edit, Find** (or click the **Find**  button).
2. On the **Find** dialog box, specify what, how and, where you want to search.
3. Click **Find Next**.

9.10 Replacing Text

You can search for and replace occurrences of a specified text.



To replace text:

1. On the e-Con Studio, click **Edit, Replace** (or click the **Replace**  button).
2. On the **Replace** dialog box, specify what, how and, where you want to replace.
3. Click:
 - **Find Next** if you do not want to replace the found text.
 - **Replace** if you want to replace the found text.
 - **Replace All** if you want to replace all matching texts at once.

9.11 Hiding Views

You can hide the following views of the e-Con Studio:

- Object Explorer
- Libraries
- Properties
- Project Explorer
- Source
- Output

To hide a view:

1. Open the view.
2. On the view's title bar, click the **Hide**  button. The view is hidden at the side where it was displayed on the e-Con Studio.
3. To display a hidden view, click the corresponding button at one of the sides of the e-Con Studio.

Note

To unhide a view, display the view, and click the **Unhide**  button at the view's title bar.

9.12 e-Con Studio Shortcuts

Shortcut	Description
CTRL+A	Select All: selects everything in a selected text or multi-line text field that is editable.
CTRL+B	Build Model: builds the currently active model.
CTRL+C	Copy: copies the selection.
CTRL+E	Expression Builder: opens (or activates) the Expression Builder .
CTRL+F	Find: opens the Find dialog box on which you can specify what, how and, where you want to search.
CTRL+H	Replace: opens the Replace dialog box on which you can specify what, how, and where you want to replace.
CTRL+N	New Model: creates a new model.
CTRL+O	Open Model: opens the Open Model dialog box from which you can select and open a model.
CTRL+S	Save: saves only the contents of the currently active pane or view. The active pane or view is the one in which the cursor is located.
CTRL+V	Past: pasts the copied or cut selection to the selected position.
CTRL+X	Cut: cuts the selection.
CTRL+Z	Undo: cancels the latest change.
CTRL+SHIFT+B	Build Project: builds all (also the not open) models of the currently active project.
CTRL+SHIFT+N	New Project: creates a new project.
CTRL+SHIFT+O	Open Project: opens the Open Project dialog box from which you can select and open a project.
CTRL+SHIFT+S	Save All: saves the contents of all panes and views.
Del	Delete: deletes the selected element.
F4	Properties: opens the Properties view.
F5	Browse: builds and opens the currently active model in the model browser.
F8	Activate Object Explorer
F9	Activate Project Explorer
F11	Options: opens the e-Con environment's options.