EA/Studio Business Modeler Edition 1.5 New Features Guide

Published: October 8, 2007

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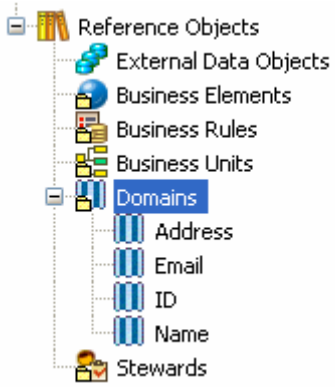
Major New Features/Improvements

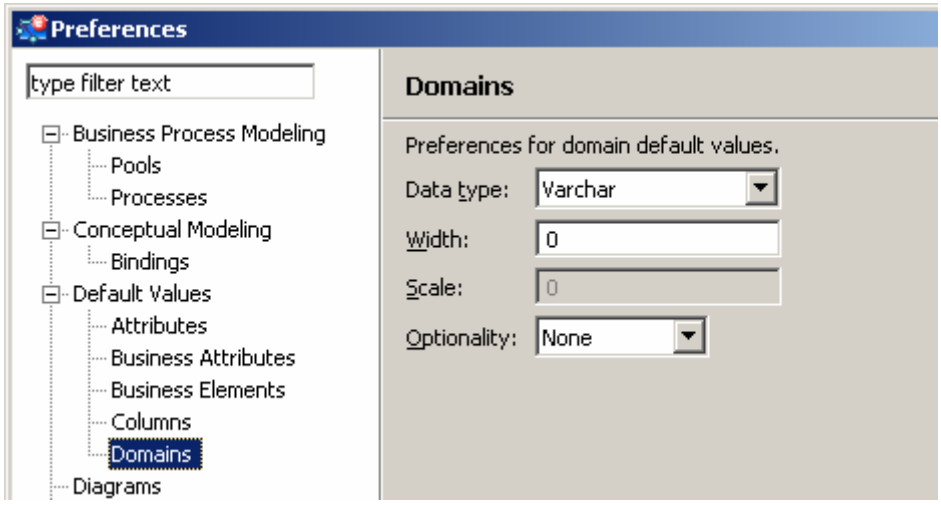
Domain Reference Objects

Domains now appear under the Reference Objects node in the Model View. Domains are similar to ER/Studio domains, which are simple attribute templates. Unlike other reference objects, domains appear only in the Model View and cannot be visualized on diagrams. So an icon does not appear in the palette or the toolbar.



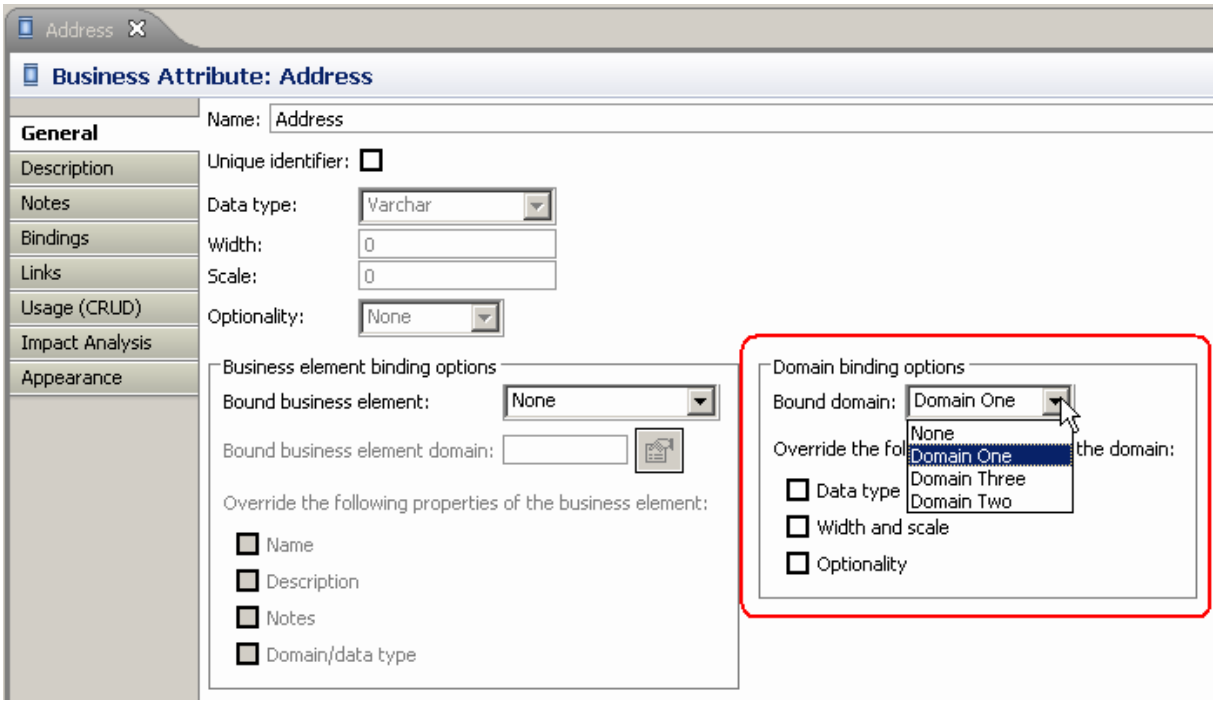
Domain properties closely follow ER/Studio and their properties include data type, width (where applicable), scale (where applicable), and optionality. Each of these properties can be enforced on any attribute created based on the domain.

Preferences were added where you can set the default data type, width, scale, and optionality of a domain.



A Business Attribute can be created in a Business Entity by dragging the Domain from the Model View to the Business Entity. When this occurs, the Business Attribute is 'bound' to the Domain. When you open the Property View of the Business Attribute you can see the bound condition. In Domain binding options, if Domain properties were enforced (data type, width and scale, and optionality), you can override the Domain properties on each attribute by selecting the appropriate checkbox in the Business Attribute's property view.

In the following scenario, a Business Attribute can be bound to a Domain, as shown in the property view below:



Bindings

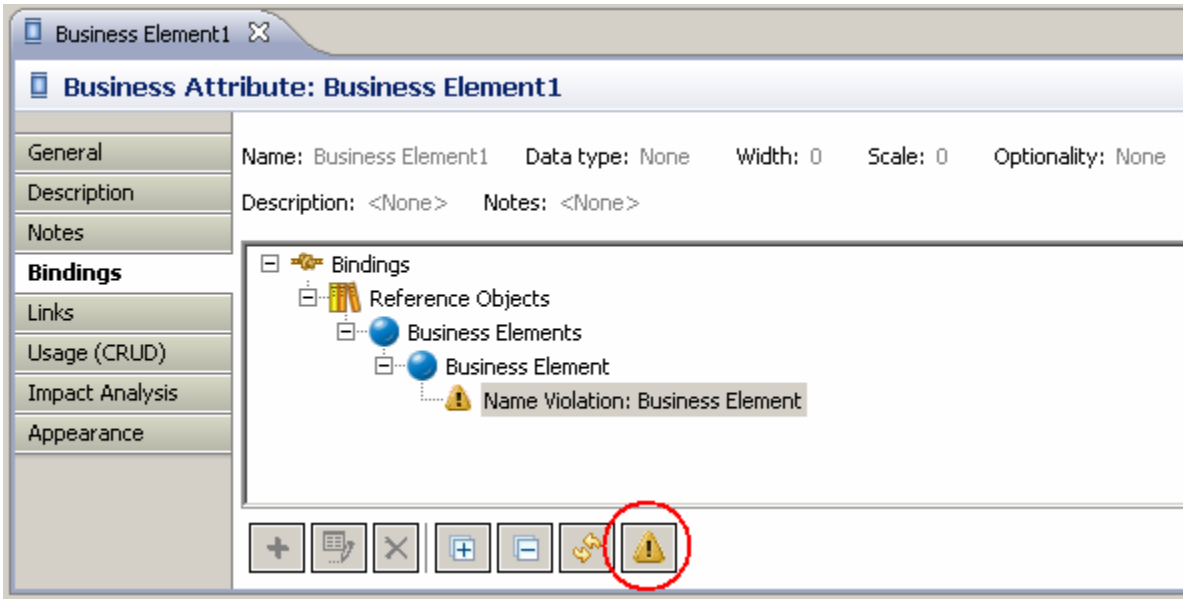
The entire bindings function has been reworked for EA/Studio 1.5 to more closely match that of ER/Studio. Business elements and domains can be thought of and used as templates for business attributes. However, in many cases during the modeling process, you may want to temporarily or permanently override specific settings of the template in your business attribute definition. In the past, it was difficult to quickly see where business elements or domains were overridden in the model. Correcting these discrepancies was 'busy work' as each attribute had to be located and fixed. The binding resolution feature solves this problem by showing a summary of any override 'violations' for a business element or domain, and allows you to resolve each violation from one place.

Business Elements enforce naming and common definitions. Domain reference objects, now also available, give you the option to specify a domain which enforces data types. Note: The data type field will still be available for Business Elements if you don't want to use a domain.

By default, a Business Attribute bound to a Business Element or Domain inherits the properties of the parent object. You have the option of overriding the inherited properties on the Business Element or Domain.

On the Property View Bindings tab for the Business Element, the Business Attribute. and the Domain you can:

- View which objects are bound
- View which objects have overridden the standard, and which properties have been overridden
- View violation notices that appear in the Bindings hierarchy. You can choose to resolve any property violation (i.e., enforce the standards) by clicking .



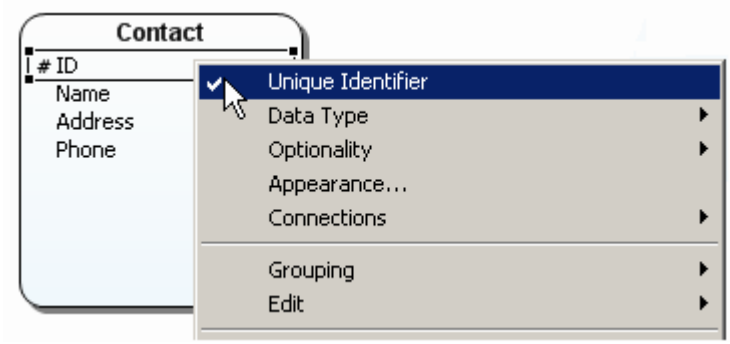
Conceptual Model Update from ER/Studio

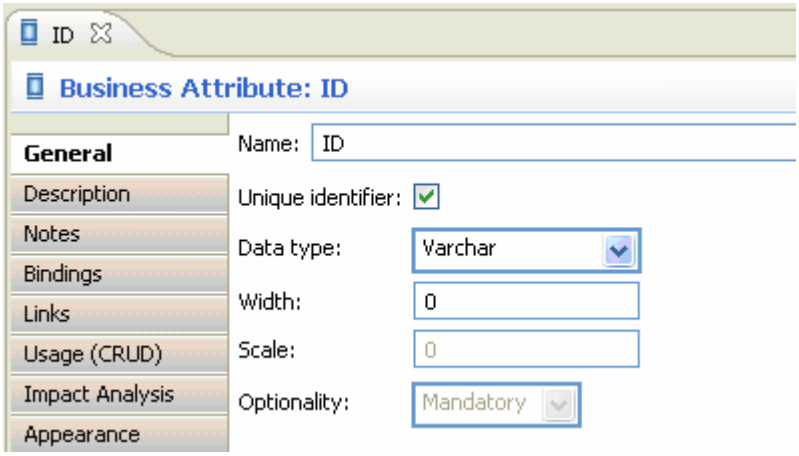
Often you may want to import an ER/Studio diagram model into EA/Studio model, and then update the EA model at a later time with changes made in the ER model. In previous releases of EA/Studio, element matching and synchronization was done by name. However, when you choose to rename elements there was no way to keep existing element synchronized. In this release, matching is now performed on a unique identifier associated with the element. Therefore, you can rename elements, and the ER/Studio-EA/Studio elements remain synchronized.

Modeling with Unique Attributes

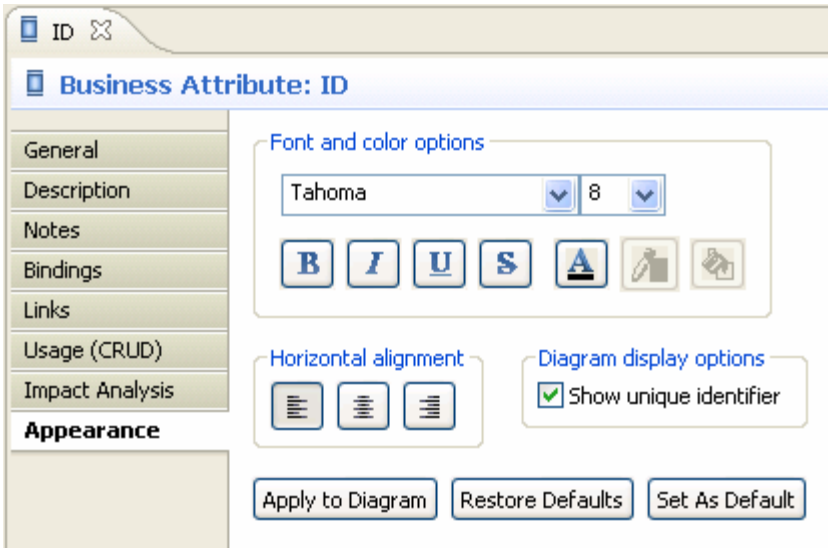
When building conceptual models, you now have a way to mark attributes in an entity as a primary identifier, which is similar to a primary key identifier in a physical model. EA/Studio uses the CASE notation, which is a “#” symbol before the attribute name.

To set a unique identifier on an attribute, you can either use the attributes diagram shortcut menu or the property view:





You can set a unique identifier property in data, but not show it on the diagram. To do this, unselect the “Show unique identifier’ option in the Appearance tab of the attribute’s property view.



Visio User-Defined Templates

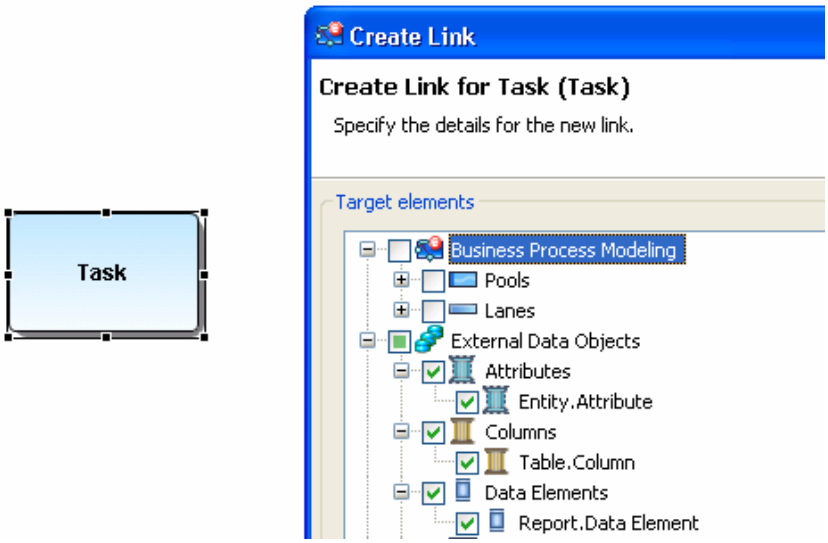
In previous releases of EA/Studio, you could define how a Visio object type would map to an EA/Studio object type, but you could not save this mapping for future use. The custom template feature solves this problem by allowing you to save and recall a custom mapping file.

When running the Visio import wizard, the mapping page has additional options allowing you to save a mapping to a file, recall a mapping from a saved file, and the option to restore default mappings ( ).

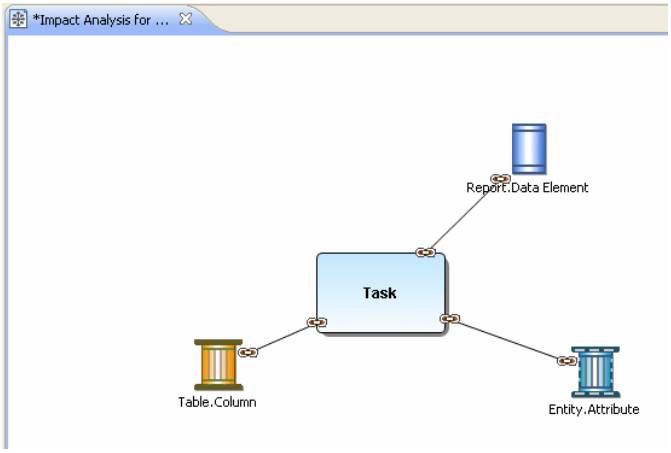
Note: You can also map each individual object in the Visio model to a specified EA/Studio object type. This instance-level mapping is useful for a one-time import since these mapping changes cannot be saved in a Custom Mappings file.

Impact Analysis Diagram – Showing Attributes, Columns, and Triggers

When creating links between objects, it is possible to link to individual attributes and columns of Reference Objects or Triggers, using the Link wizard. In the following example a link is created between the Task and the selected individual attributes: Entity.Attribute, Table.Column, and Report.Data Element.



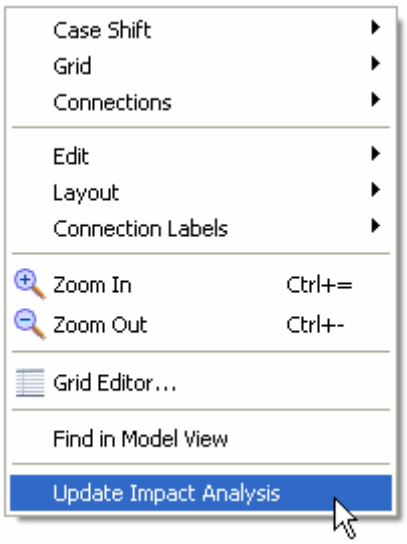
In the past, you could not visualize this linkage on a diagram. With this new feature, a visual representation of attributes, columns, and data elements is displayed when generating an Impact Analysis diagram.



Impact Analysis Diagram Update

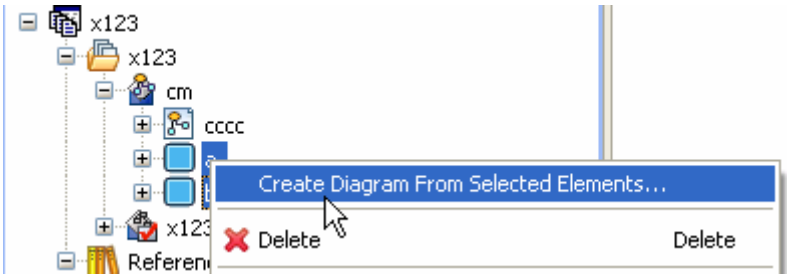
This feature allows an existing impact analysis diagram to be updated with any changes to the elements it represents. In past releases, you would have to generate a new impact analysis diagram to show any new link relationships associated with an element.

To update an impact analysis diagram, right click on a diagram in the diagram editor or model view, and select “Update Impact Analysis”.



Create a Diagram from Selected Elements

You can now create a new diagram from selected elements in the model view. From the model view you can multi-select the elements you want to create on the diagram, and then select the “Create Diagram from Selected Elements…” menu option.



Several business rules dictate what kinds of objects can be placed on any given diagram. The **Create Diagram from Selected** option is unavailable if an invalid selection combination is attempted.

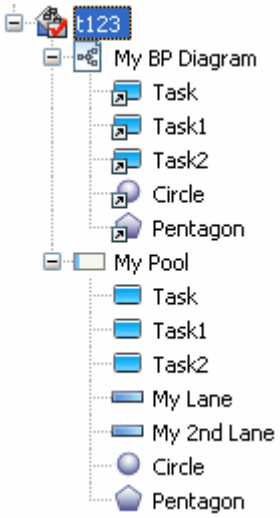
- For Business Process Diagrams, only one diagram can exist in a Business Process model that shows an abstract process (without pool/lanes). A new Business Process diagram can be created using the Create Diagram from Selected command when pools in the same model are selected, which create a new collaboration process diagram.

For Conceptual Models, new diagrams can be created from existing Entities and Subject Areas, assuming they are all in the same model. All Conceptual Model elements can be selected to create a new diagram, with the following clarifications:

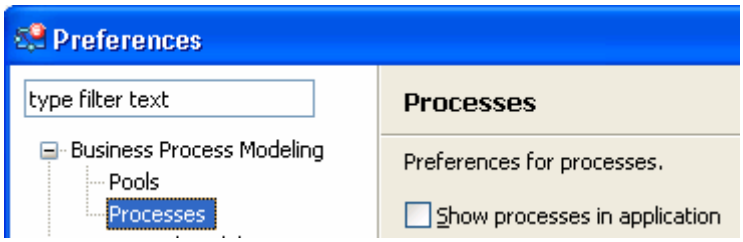
- If only Subject Areas, Business Entities, or Groups are selected, relationships are discovered and drawn.
- If Interactions and Relationships connecting objects are also selected, they will be included on diagram.
- If a connecting object is selected without a target or source element, the source and target element are discovered and included on the diagram.

Pool Process Reorganization

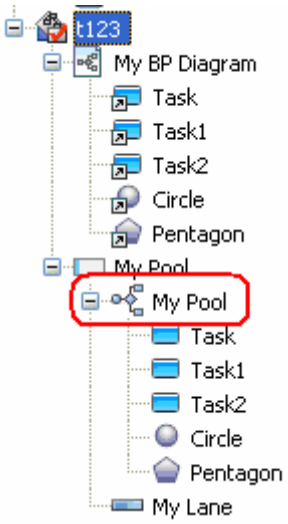
When creating a pool and lane, visible or invisible, and then dropping elements in the lane (or diagram), elements will appear at the same level as the lane in the model view. This more closely adheres to the Business Process Modeling Notation specification.



In Business Process models, all elements in a pool are owned by a process. The process is not shown by default in the model view tree, but can be displayed if you check the following preference:



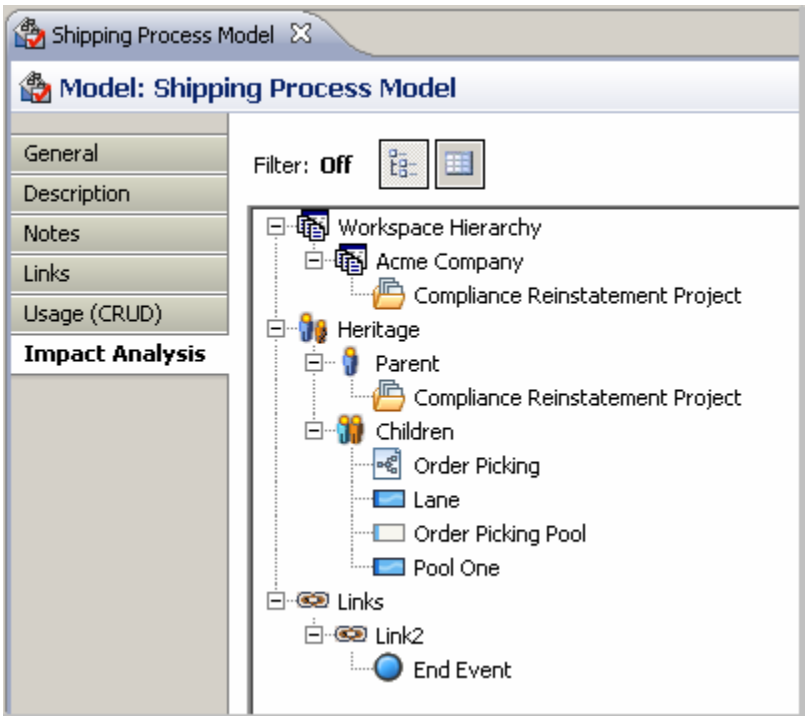
If the preference is checked, the model view now displays the elements under the Process node.



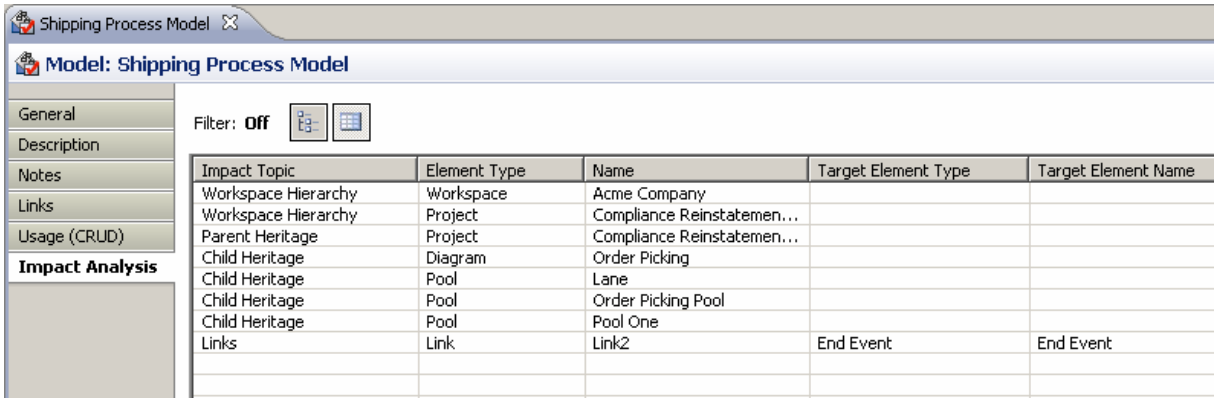
Other New Features/Improvements

Impact Analysis Report – Grid View Option

In EA/Studio, the Impact Analysis report has always been displayed in a hierarchical format.

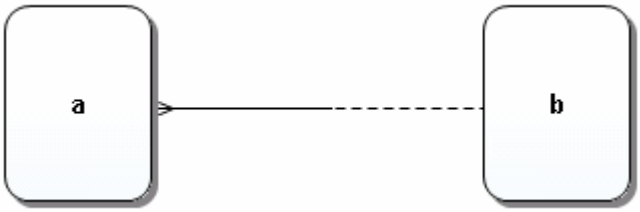


Now a grid view is also available which displays the report in a table format. The format of the report can be toggled by clicking either the hierarchy icon ( ) or the table icon ( ) above the tree/grid.



Split-Line Notation for Conceptual Models

Split-line notation now appears when you set source/target optionality on a Conceptual Model relationship.



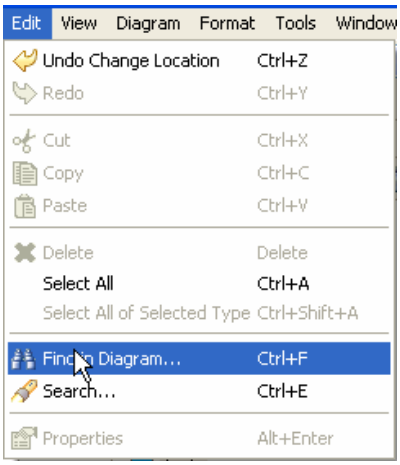
You can set the relationship type and the optionality. The example above has the relationship type of Many-to-One, with an optionality setting of Mandatory-to-Optional. The appearance of the relationship is not changed if the relationship type is set to “Generic”.

Find and Search

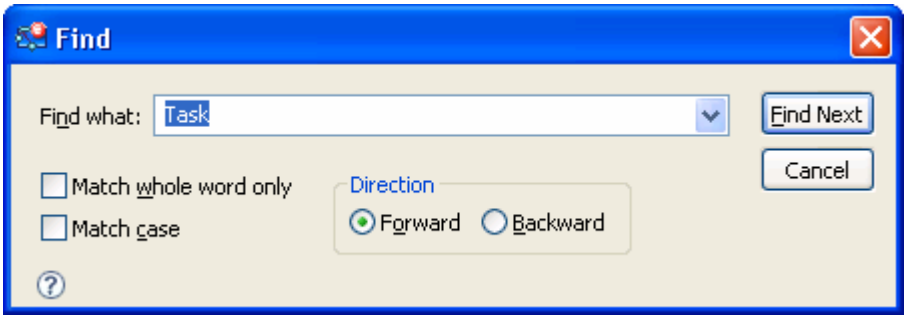
You can now search for objects in your diagrams as well as searching for elements in an entire workspace.

Find in Diagram

When a diagram is active and open, a command appears under the Edit menu called “Find in Diagram”.



Once selected, a Find dialog opens allowing you to enter the name of an element to find on the diagram.

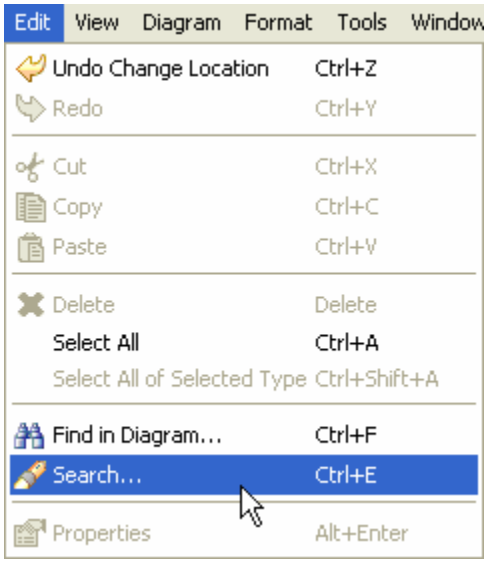


The Find mechanism only searches for element names on the active diagram. When an element is found on the diagram, it is selected on the diagram. Direction controls allow you to navigate throughout the list of matching names on the diagram.

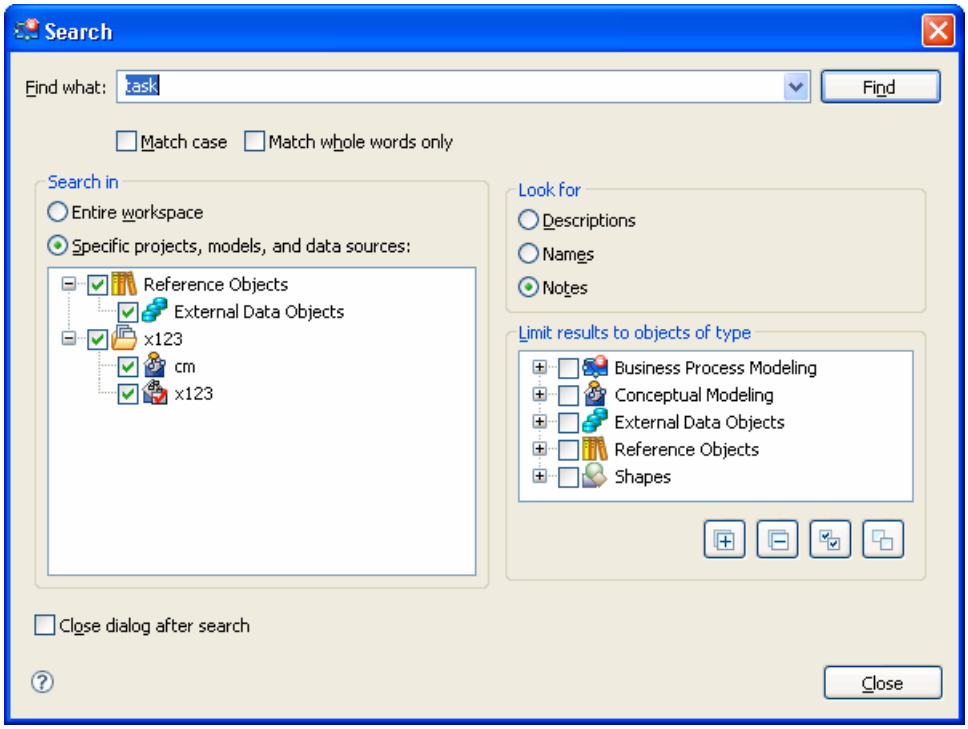
Search

The Search function works differently than Find in Diagram, as it searches the entire workspace and then provides a list of the objects that were found. It searches the data itself, not the diagram.

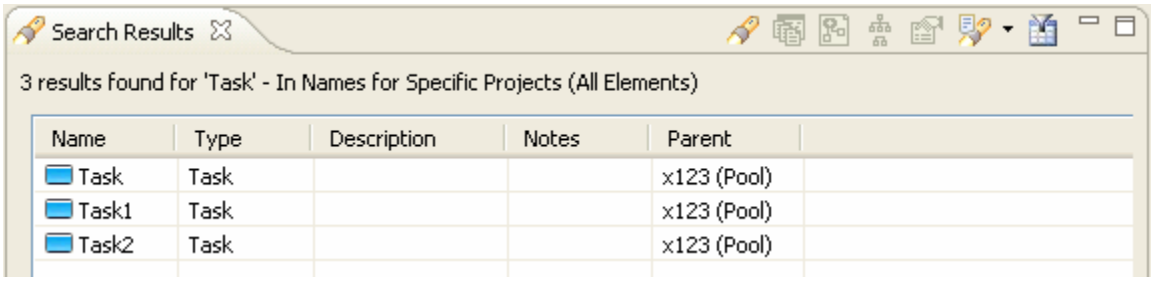
To perform a search, select the 'Search…' menu under Edit:



You can search an entire workspace, or specific projects and models. You can also search on Names, Descriptions, or Notes. The search can be limited to specific types of objects, and you can match case and whole words.



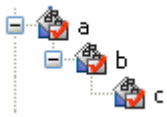
After you click the Find button, a Search view appears with all the elements that matched the search criteria. From this view, there are several toolbar buttons available which assists you in locating the element in an active diagram, all diagrams, or the model view. There are also toolbar buttons to modify the search and filter out the results.



Reparenting Models

You can reparent a project within a workspace by dragging and dropping the project from one location to another in the Model View. Basically you will be removing the project from the current workspace location and immediately reinserting the project into the workspace at another location. When you reparent the project, all associated files including models, diagrams, and elements are also reparented.

In the tree shown below the following rules apply:

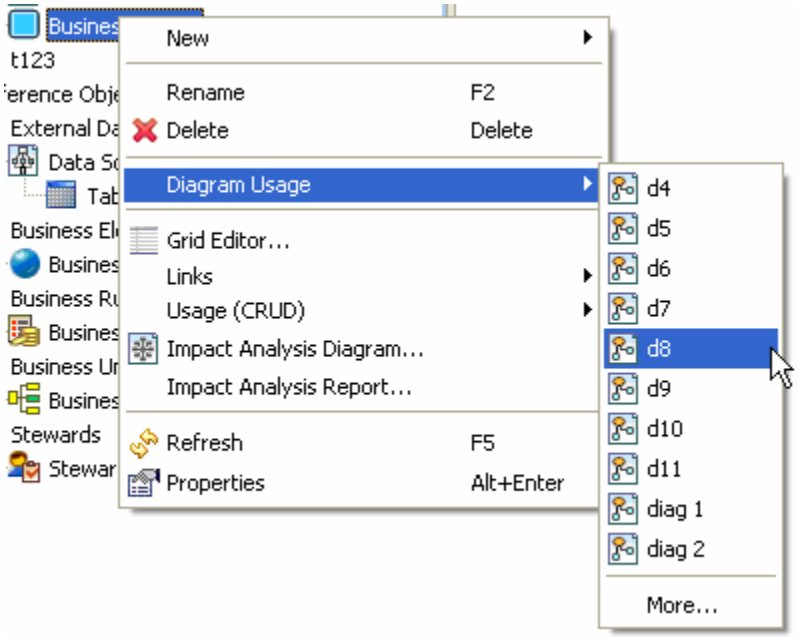


- Model C can be moved under A
- Model A can be moved under another model, but not B or C
- Model A cannot be moved under model B or C
- Model B cannot be moved under model C

You will get a warning dialog if your workspace is not saved before you start the reparenting process.

Diagram Usage

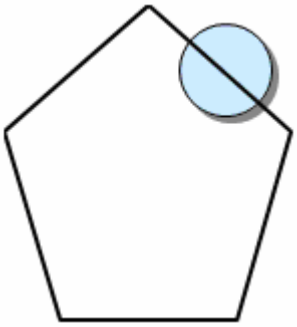
A Diagram Usage menu is available on elements in the Model View tree, which allows you to quickly locate and open the diagrams where the elements appear.



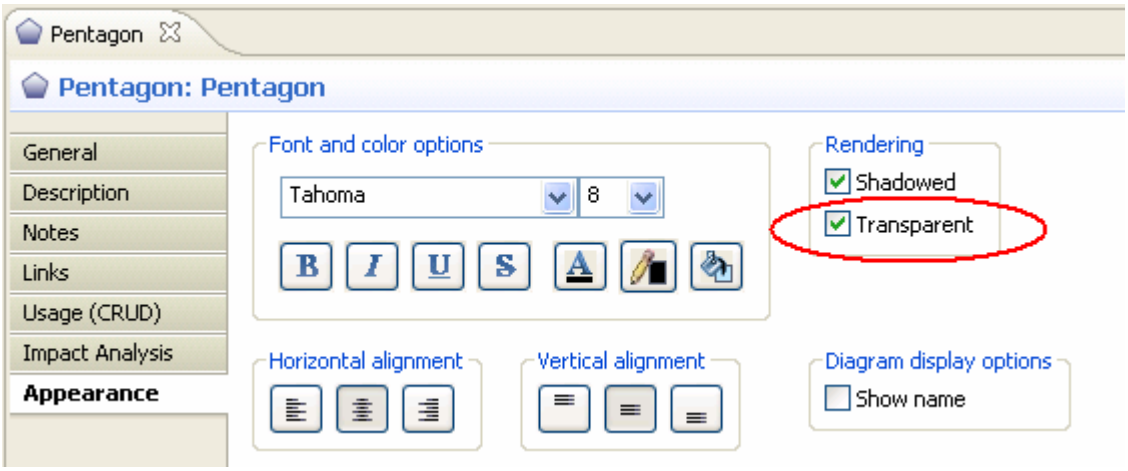
If the element appears on more than ten diagrams, a 'More…' menu option appears opening a dialog listing all diagrams.

Transparent Shapes

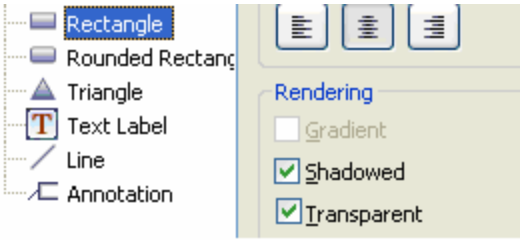
You can now set a shape to have transparent background.



The transparency can be set using the Property View.

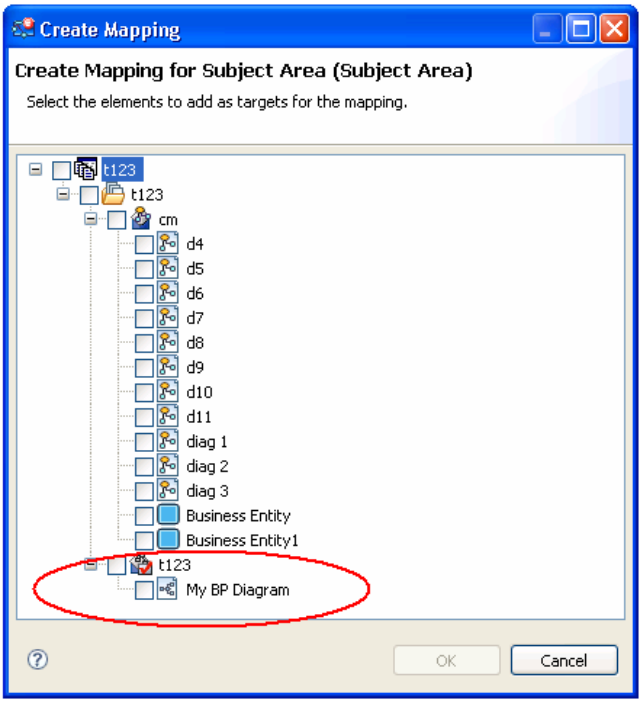


Or you can set it as the default in Preferences.



Mapping to a Business Process Diagram

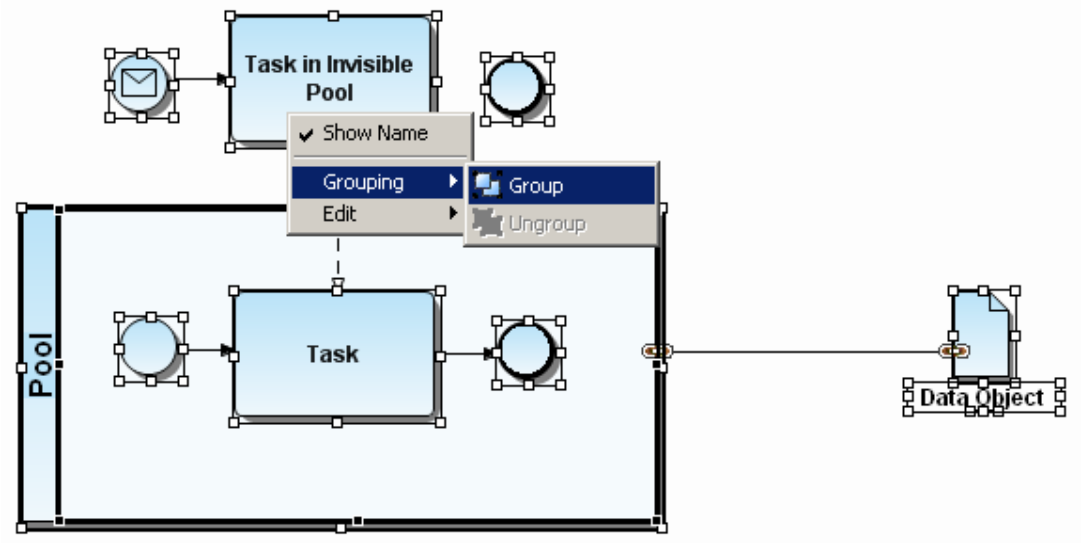
You can now map a Subject Area to a Business Process diagram, as well as a Conceptual Model diagram and Business Entity. You can also map interactions to Business Process diagrams.



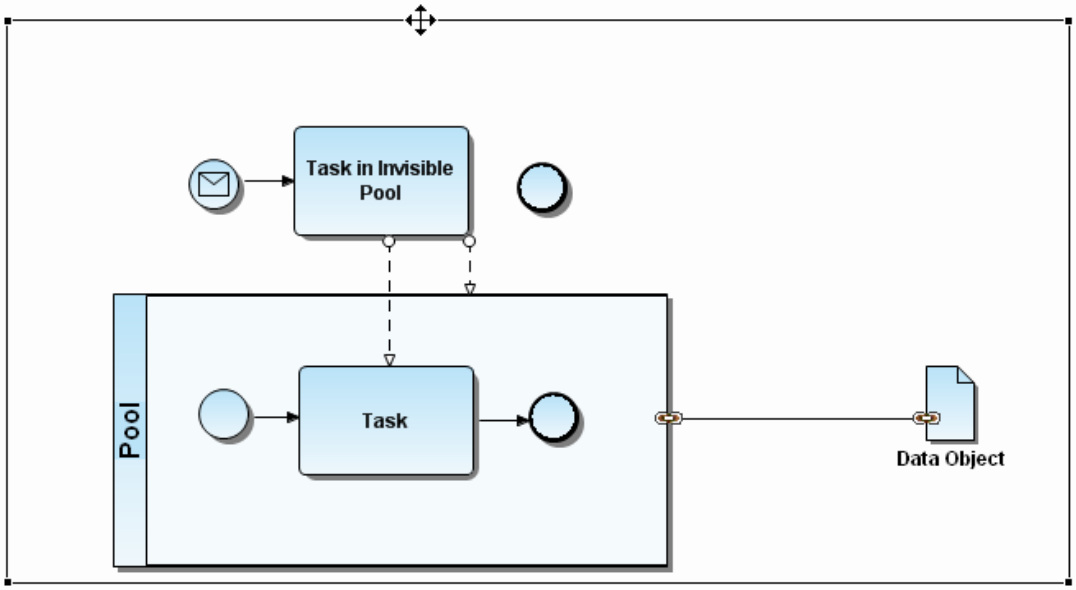
Element Grouping Feature

You now have the ability to group elements together into a single entity that can be moved around a diagram in the Diagram View. Once items are grouped, a bounding box appears around the group items. The Ungroup feature removes the grouping and allows the elements to be moved separately again.

Grouping is done by selecting two or more elements and clicking **Grouping>Group** from the shortcut menu. This command is also available on the Alignment and Layout toolbar and on the Format main menu.



A bounding box is placed around the selected elements. When you place the cursor on this bounding box, it changes to the move cursor ( ). You can then move the grouped items in the Diagram View area.



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- Discussion Groups
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