Importing CA ERwin® data modeler projects

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The Cameo Data Modeler Plugin for MagicDraw provides import functionality for data models created using the CA ERwin® Data Modeler (henceforth will be referred as ERwin). ERwin is one of the leaders in the data modeling tools market.

Data models produced in ERwin have a two-layer structure, consisting of tightly synchronized logical and physical layers. The physical layer semantically corresponds to the SQL modeling / diagramming / generation functionality in MagicDraw. The logical layer corresponds to ER diagrams implemented by the Cameo Data Modeler Plugin.

The import functionality only imports logical layer data from ERwin into ER diagrams / data models in MagicDraw. The Cameo Data Modeler Plugin does not yet support importing physical layer data.

Importing data models

Cameo Data Modeler supports model files produced in ERwin version 7.x. It is recommended that you use the newest v7.3 since it has been heavily tested. Data models in ERwin must be saved in the *.xml format (choose the **XML Standard File** option in the **Save As** dialog).

To import an ERwin model

1. Start MagicDraw.
2. Click **File** > **Import From** > **CA ERwin Data Modeler v7.x**. The **Open file** dialog will open.
3. Select an ERwin model file (*.xml). A new MagicDraw project will be created and a logical model will be imported from the ERwin model file into that project.

After a successful import, you can proceed to edit or manage the model using MagicDraw features.

If you want to include the ER model as part of a larger project in MagicDraw, you can use either module linking functionality (click **File** > **Use Module**) to attach the ER model to your main project model or project import functionality (click **File** > **Import From** > **Another MagicDraw Project**) to transfer the contents of this ER model to your main project model.

If you want to update an imported and edited ER model (for example, you made changes to the ERwin model and want to import those changes into MagicDraw again), you can use the merge functionality (click **Tools** > **Project Merge**) to import the ERwin model into a new ER model and merge it with the model you have imported earlier.

Imported elements

Import mapping reviews and notes are in the following table.

ERwin	Cameo Data Modeler	Comments
Any element	Any Element	- For each element, its name, definition, and notes are imported. - Definitions are imported as MagicDraw documentation (special UML comments). Notes are imported as UML comments.
Entity	Entity	
Attribute	Attribute	- The **Null** / **Not Null** setting is imported as UML multiplicities [0..1] / [1]. - Attribute constraints and default value information is imported. - Domain information is not imported because domains are not supported. - Attribute type information is imported - the standard primitive types are mapped to the UML primitive types. - Other types (those not found in the model) are created on the fly.
Key	Key Marking on Attributes	There is no separate standalone model element for a key in the Cameo Data Modeler ER diagrams. Instead, attributes belonging to a key are marked by applying a stereotype to them (PK, AK, or IE) as necessary.

Relationship	Association relationship	- Simple relationships are mapped to UML associations. - Verb phrases are mapped to role names. - Cardinality and null / not null settings are mapped to UML multiplicities ([0..1], [1], [0..*], [1..*]). - Referential integrity information is stored in a special stereotype / tag. - Key information is not imported since the current ER diagrams do not support FK modeling.
	Generalization relationship	- ERwin relationships participating in the generalization tree are mapped to UML generalizations. - Generalizations are joined into generalization trees. - Complete / incomplete and overlapping / exclusive settings are imported / supported. - Discriminating columns are imported / supported. - Referential integrity information is stored in a special stereotype / tag. - Verb phrase information is not imported.
Default Value	Instance Specification	A standalone UML instance specification is created to hold value definition. This instance specification is (or can be) then referenced from attributes, default value fields.
Domain	-	Domains are not yet supported in Cameo Data Modeler.
Validation Rule	Constraint	The Validation rule is stored as constraint body text.
Display	ER diagram	- Due to geometric constraints and element size changes, the diagram layout will be slightly different. - Paths between elements can be re-routed.
User Defined Properties Dictionary	Profile / Stereotypes / Tags	A custom UML profile is created for the user's property definitions.
User Defined Properties	Tag Values	A custom profile generated from the UDP dictionary is applied and user property information is stored in the tag values of the applied custom stereotypes.