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TOOLBUS Interface for AllFusion ERwin and Rational Rose Version 4

Data Sheet

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The TOOLBUS Interface for **AllFusion ERwin Data Modeler** and **Rational Rose** enables the bi-directional exchange of UML Class Models and Data Models from Rational Rose with Logical and Physical Data Models in AllFusionERwin. The TOOLBUS Interface fully supports the Rose Data Modeler.

With the TOOLBUS interface AllFusion ERwin and Rational Rose can supplement each other in a coexisting way.

Migration Paths:

1. Logical Data Models which were described in ERwin can be converted to UML Class Diagrams to populate new Rose Models.
2. Physical Data Models from ERwin can be imported into Rational Rose Data Modeler, from which UML Class Diagrams can be created by the Reverse Engineering function of Rational Rose. This function also enables the Reverse Engineering for Database Systems which are not supported by Rational Rose, but by ERwin.
3. Logical and Physical Models from AllFusion ERwin can be migrated to both UML Class Models and Data Models in Rational Rose, and the links between the UML objects (e.g. Classes) and the Data Model objects (e.g. Tables) are established.
4. UML Class Diagrams from Rational Rose are converted to Logical Data Models for ERwin, in order to facilitate using the database design and the SQL DDL generation functions of ERwin.
5. Data Models from Rational Rose can be converted to Physical Data Models for ERwin.

Mapping Overview:

1. Bi-directional Migration of Rose Class Models to ERwin Logical Data Models, and vice versa:
 - UML Class Diagrams are mapped to Subject Areas in ERwin, and vice versa.
 - UML Classes, Generalizations/Specializations, Associations, Attributes and Global Domains are mapped to Entities, Subtype Relationships, Relationships, Attributes and Domains in ERwin, and vice versa.
 - The Types which are used in Rose to describe type and length of Attributes are mapped to datatypes of Attributes in ERwin, and vice versa.
 - If Tables and Columns are assigned for Classes and Attributes in the Rose Data Modeler, the Table and Column names are assigned as physical names for Entities and Attributes in ERwin.

2. Bi-directional Migration of Rose Data Models to ERwin Physical Models, and vice versa:
 - Databases, Tablespace, Tables, Columns, Primary Keys, Foreign Keys, Indexes and Global Domains are migrated from Rose Data Models to Physical Models in ERwin, and vice versa.

3. Migration of ERwin Logical and Physical Models to Rose Class Models and Data Models, and vice versa:
 - Entities, Subtype Relationships, Relationships, Attributes and Domains in ERwin are mapped to UML Classes, Generalizations/Specializations, Associations, Attributes and Global Domains.
 - Databases, Tablespace, Tables, Columns, Domains, Primary Keys, Foreign Keys and Indexes are migrated from Physical Models in ERwin to Rose Data Models.
 - The links between Classes and Tables, Attributes and Columns, and between Associations and Foreign Keys are established.

Special Transformation Options: As an alternative to using Data Modeler, the TOOLBUS interface provides a number of special transformation options for the customization of the transformation rules according to the needs of the user:

- Stereotypes can be used in Rational Rose to mark identifying Attributes, mandatory Attributes and identifying Associations.
- For the mapping of Datatypes used in Rose (e.g. specified in C syntax) to the Datatypes which are defined for the database systems supported by ERwin, a mapping editor is provided, which allows to specify the mapping according to the standards of the user.

Interface Technology: The TOOLBUS Interface uses the methods provided by the Rose Extensibility Interface (REI) to read and update Rational Rose models. It reads and generates XML files for AllFusion ERwin 4.x, and ERX files for ERwin 3.5.2.

Platform: The TOOLBUS Interface for AllFusion ERwin and Rational Rose requires Microsoft Windows NT/2000/XP, and it supports AllFusion ERwin 3.5.2, 4.0, 4.1 and 4.1.4, and Rational Rose 98i, 2000, 2000e, 2001, 2001A, 2002 and 2003.



This TOOLBUS Interface is **ca smart** certified (Please visit <http://www.ca.com/casmart>).