

Data Modeling with IBM Rational Rose: Things to Remember

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Rational Rose is the market leader for object oriented modeling and design. It is powerful and reasonably intuitive when used for that purpose. It is clear that the use of Rose for data modeling is an after thought, and the people responsible did not have proper oversight.

1. Getting started

- a. There is a license server that must be accessed. Detailed instructions on the class web site.
- b. The initial tool bars do not include undirected associations. Customize your tool bar first thing.
 - Add the relevant associations by right click on toolbox →Customize.

2. In the beginning

- a. Right click works for most 'new' operations
- b. Right click is where most things you can't find quickly can be found

3. In the beginning and always

- a. All classes must belong to a package in the Logical View
- b. Choose logical data types when drawing the object model, not physical
- c. Only persistent classes make it to the schema:
 - Check off 'persistent' in class properties, or they won't be compiled into physical schema models.

4. Compiling the models

- a. HOWTO: Transform to Data Model
 - Tree View →Logical View →Right click on the *package* →Data Modeler → Transform to Data Model
 - Check Schemas for the generated schema, if something is missing, see 3.
- b. HOWTO: Generate SQL
 - Right click on the schema → Forward Engineer → Save as .ddl file
 - Automatically saves in <Installation Folder>/Rose/

5. Loose connection between diagrams and models: Does not draw automatically or delete automatically

- a. Delete from Tree View. Deleting an association from the diagram does *not* remove it from your model.
- b. Drag drop from Tree View to Diagram to draw.
- c. The diagram is not gospel truth – the Tree View is.

6. Hard to find detailed specifications

- a. To designate your own Primary key
 - Rational generates a PK for each persistent class. To designate an attribute, or set of attributes that you have put in the model as the primary key you must declare them as "*part of object identify*"
Tree View → right click on the attribute → Data Modeler → Part of Object Identity

- b. Identifying Relationship
 - Object Model: Properties → Role A/B → check 'by value'
 - Data Model: Rose uses the UML aggregation diamond for an identifying relationship

- c. Many:Many relationship
 - 1..n : 1..n
 - Make sure Detail → 'by value' is NOT checked (must be a non-identifying relationship)
 - Default: generates a default third class
 - a. Specify your own third class: Attach a ---- symbol to the association, and add a new class to it.