

PowerCenter Mapping Template: Constraint Based Loading

Implementation Guidelines

Constraint-based load ordering is only implemented in a session for target tables that receive rows from the same active source. When target tables receive records from different active sources, the Informatica Server reverts to normal loading for those tables.

For example, a mapping contains three distinct data streams: the first two both contain a source, Source Qualifier, and target. Since these two targets receive data from different active sources, the Informatica Server reverts to normal loading for both targets. The third data stream contains a source, Normalizer, and two targets. Since these two targets share a single active source (the Normalizer), the Informatica Server performs constraint-based load ordering: loading the primary key table first, then the foreign key table.

When target tables have no key relationships, the Informatica Server does not perform constraint-based loading. Similarly, when target tables have circular key relationships, the Informatica Server reverts to a normal load. For example, you have one target containing a primary key and a foreign key related to the primary key in a second target. The second target also contains a foreign key that references the primary key in the first target. The Informatica Server cannot enforce constraint-based loading for these tables. It reverts to a normal load.

The key concepts illustrated in this mapping template can be found in the Router transformation (RTR_NEW_MANUFACTURERS_ALL_ITEMS) and the two target objects ITEMS and Manufacturers.

RTR_NEW_MANUFACTURERS_ALL_ITEMS is the last single active source of data for the two targets. The targets ITEMS and Manufacturers have a Primary Key -Foreign Key relationship. A manufacturer ID must exist in the Manufacturers table before a row containing the manufacturer ID, can be loaded into the ITEMS table.

Using a normal load for this mapping would result in a constraint error, as the PowerCenter server would attempt to load the tables in any order. In this example, this may result in attempt to load a row into the ITEMS table that does not have a corresponding manufacturer in the Manufacturers table

Use constraint-based load ordering only when the session option Treat Rows As is set to "Insert." When you select a different Treat Rows As option and you configure the session for constraint-based loading, the Workflow Manager displays a warning. A session can be configured for constraint-based load ordering by selecting the "Constraint-based load ordering" check box on the Configuration Parameter window of the Session Properties sheet. The Configuration Parameter window is accessed by selecting the button "Advanced Options" from the General Tab of the session properties window.