Connecting Mapping Objects

After you add and configure source, target, and transformation objects in a mapping, complete the mapping by connecting the mapping objects. You connect mapping objects through the ports. Data passes into and out of a transformation through the following ports:

- **Input ports.** Receive data.
- **Output ports.** Pass data.
- **Input/output ports.** Receive data and pass it unchanged.

Every source instance, target instance, mapplet, and transformation contains a collection of ports. Each port represents a column of data:

- Sources provide data, so they contain only output ports.
- Targets receive data, so they contain only input ports.
- Mapplets contain only input ports and output ports.
- Transformations contain a mix of input, output, and input/output ports, depending on the transformation and its application.

Rules and Guidelines for Connecting Mapping Objects

Use the following rules and guidelines when you connect mapping objects:

- If the Designer detects an error when you try to link ports between two mapping objects, it displays a symbol indicating that you cannot link the ports.
- Follow logic of data flow in the mapping. You can link the following types of ports:
  - The receiving port must be an input or input/output port.
  - The originating port must be an output or input/output port.
  - You cannot link input ports to input ports or output ports to output ports.
  - You must link at least one port of an input group to an upstream transformation.
  - You must link at least one port of an output group to a downstream transformation.
  - You can link ports from one active transformation or one output group of an active transformation to an input group of another transformation.
  - You cannot connect an active transformation and a passive transformation to the same downstream transformation or transformation input group.
  - You cannot connect more than one active transformation to the same downstream transformation or transformation input group.
  - You can connect any number of passive transformations to the same downstream transformation, transformation input group, or target.
  - You can link ports from two output groups in the same transformation to one Joiner transformation configured for sorted data if the data from both output groups is sorted.

Manually Linking Ports