

## Global Format Registry Use Case: Find a migration path

Use Case ID	Penn-1
Description	Determine appropriate migration path for a digital object
Actors	<i>Curator</i> who manages digital repository content <i>Repository</i> of digital objects in various representation formats <i>Registry</i> of digital format registrations <i>Broker</i> of digital format services
Assumptions	We are trying to solve the MIT-1 use case (a digital object needs to be rendered in a suitable user representation) under its given conditions
Preconditions	Digital object representation format is registered Broker has information about, and access to, appropriate conversions Registry is aware of broker and its type system (including correspondences between its format names and the broker's, if different)
Triggers	Curator seeks a migration path for a platform known to support certain formats
Primary Scenario	Step 1 Curator queries Registry for migration paths.
	Step 2 Registry informs Curator of Broker that can handle the format, as well as the name of the format in Broker's notation.
	Step 3. Curator queries Broker for a migration path to one of the formats it desires
	Step 4. Broker gives details about appropriate migration(s).
	Step 5. Curator uses this information to put appropriate transformation instructions in the Repository.
Primary Result	Repository now has an appropriate migration path for the object.
Post-Conditions	Repository can now migrate object in ways that user needs.
Non-functional requirements	As given above, the repository needs a way of storing migration instructions. (But this could be as simple as "send conversion request R to type broker B, and let it worry about the details", which could also be done without the need to store any conversion information.)
Notes	Currently, TOM type brokers actually do the conversions, on behalf of clients. Though it would also be possible, given appropriate extensions, to instead give details on available conversions without actually performing them, or even provide code, if that were desired.
Issues	In this scenario, brokers and registries are different entities, though they have complementary functions. Division of labor can help each concentrate on what it does best (registries: information; brokers: services), and simplify each entity's design, but proper coordination may be tricky.