

PROCESS

**Database design objectives (a successful Catalog Database design will...):**

- Contain efficiently constructed table structures that have a minimum amount of redundancies (duplicate data entries).
- Have built-in checks for data integrity (data is valid, consistent, and accurate).
- Properly reflect the “business” rules identified in the requirements analysis.
- Be robust and stable (can be easily modified or expanded as needed and supports ad hoc information retrieval).
- Provide useful information in an efficient manner.

**Overall procedure – There will be three phases of designing the Catalog Database.**

1. Requirements analysis. This is the assessment of the needs of the users of the database (how RTO West and Scheduling Coordinators will use the data). Team members will brainstorm (acting as RTO West and Scheduling Coordinators) to identify how the data will be used and what functionality will be needed for the various activities. The products produced in this phase will be a Mission Statement (describes the overall objective of the database) and the Database Functional Objectives (functional objectives are simply descriptions of general tasks that will be supported by the database, each functional objective describes a single task).
2. Data modeling. Using the requirements assessment, the Team will set up the data structure for the database, the interrelationship between fields and tables (linkages), and the filters for data verification. The products produced in this phase will be an initial database structure, a description (or diagram) of all relationships between fields and tables, and a list of validation filters.
3. Data normalization. The Team will attempt to break down the data into smaller tables to eliminate redundancy. The Team will also test that the final structure is sound. The products produced in this phase will be the final database structure that will be recommended to the Catalog Template Work Group.

**Draft Mission Statement (to remind us of the objective of the catalog database):**

The purpose of the RTO West Catalog Database is to standardize the accounting of the widely diverse transmission rights issued to the PTO’s transmission customer and provide useful, timely information to RTO West and Scheduling Coordinators for the purpose of testing the sufficiency of the Catalog, scheduling pre-existing contract rights, and for billing of congestion management charges.

**Draft Database Functional Objectives (general tasks that will be supported by the database):**

- RTO West needs to test the sufficiency of each PTO’s catalog of obligations and Congestion Management Assets.
- RTO West needs to estimate the range of unencumbered transmission capacity.
- RTO West needs to estimate what FTO may be sold.
- RTO West needs to identify CTR credits to be applied against congestion clearing charges for actual schedules (integrates with billing and settlements process).
- RTO West needs to check that an FTO converted from a CTR is within the bounds of the CTR.
- Scheduling Coordinators need to verify that a customer’s schedule is within the bounds of the CTR.
- PTOs need to update their catalog of obligations to reflect changes in contract rights (e.g. load growth).
- Users need to know what CTRs are effective for a particular date.
- PTOs need to describe contract rights in standardized terms.
- PTOs need to be assured that confidential data is protected but still useable.
- Transmission customers need to have easy access to all the information required to convert their existing rights into FTOs.

**Open Issues:**

- Are there any other credits against RTO West charges that will stem from existing rights and need to be incorporated into the catalog database?

SUBSTANCE (DRAFT SUGGESTIONS FOR PHASE 1)

# Relationship for Catalog

Monday, July 01, 2002

