



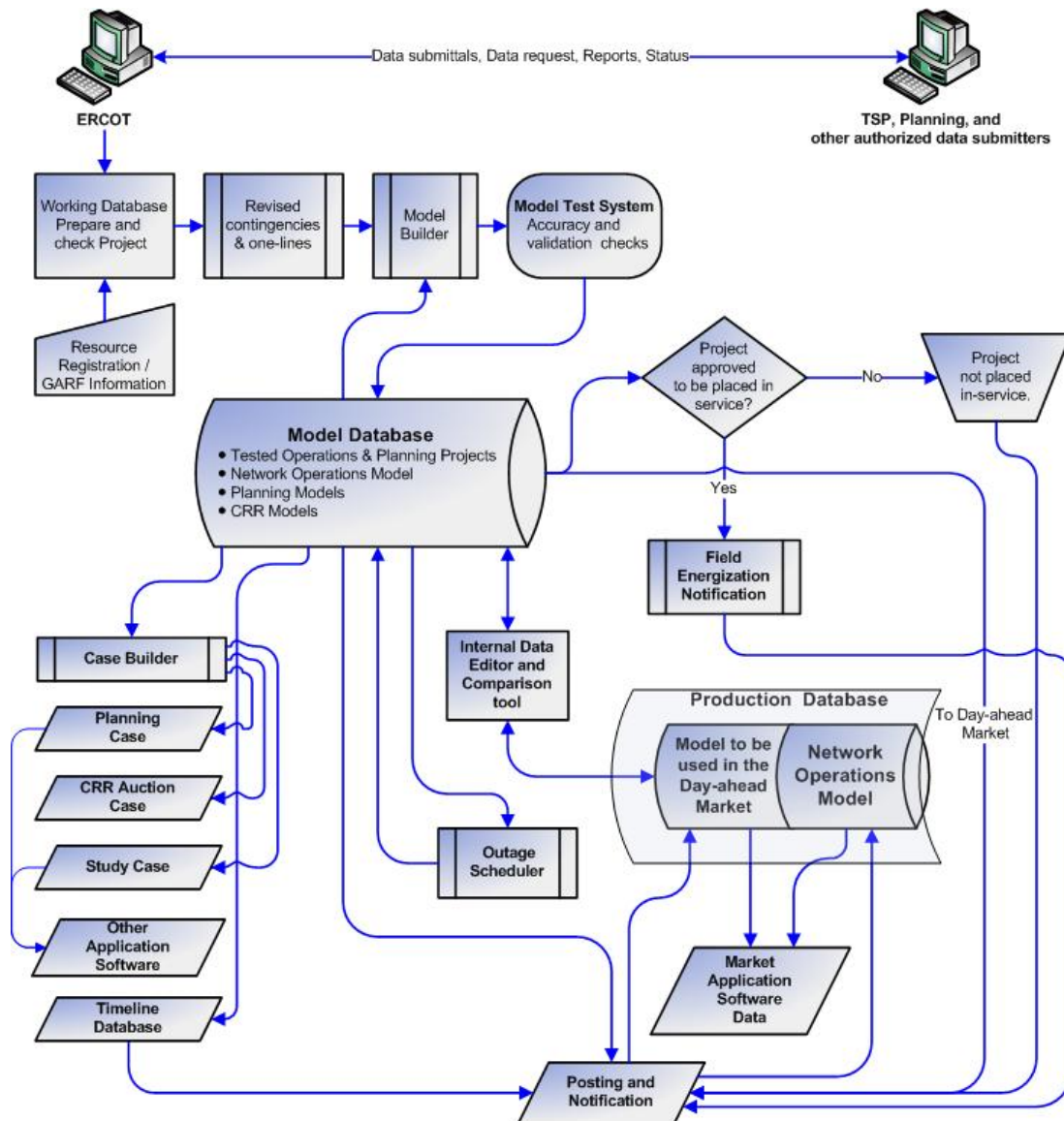
Texas Nodal

NMMS Overview

By John Moseley, ERCOT, Network Modeling Group

- **Goals:**
 - 1 Model Data Base
 - 1 Data Entry Point
 - 1 Tracking System
 - 1 Common Interface Language
 - Time-based Model on Demand

Initial Design Layout



Common Model Approach

- One common database to generate models for all processes
 - Energy Management System
 - Market Management System
 - System Planning
 - Outage Scheduling
 - Congestion Revenue Rights Auction

Common point of information entry

- Provide a interface robust enough to allow all model information to flow through.
- Decrease the amount manually transcribed data.
- Perform some pre-validation in the data submittal process.
- Allow Market participants to either submit or create a CIM compliant file.

Tracking

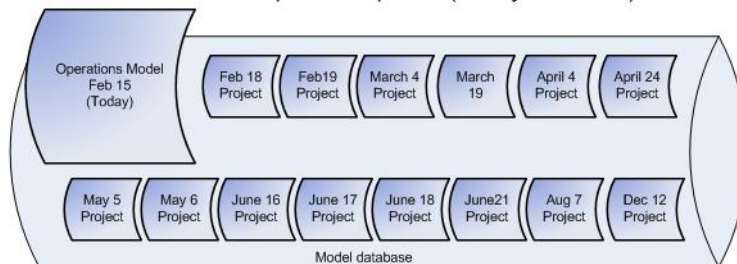
- Every data entry into the database will be tracked.
- The entry log will be readily accessible, and provide the who, what, when, and where of how any piece of data found its way into the data base.

Time based Model on Demand

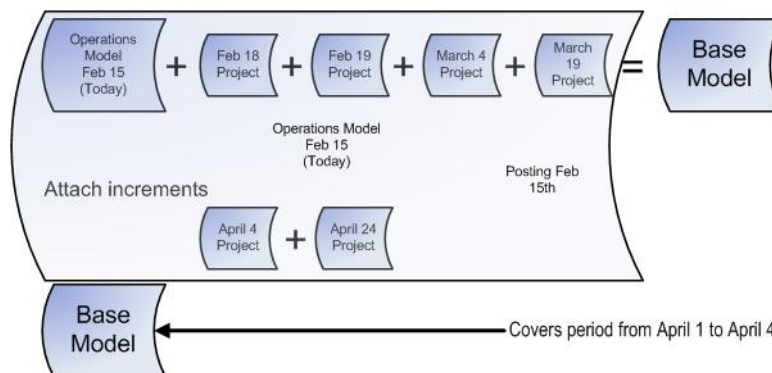
- Produce, package, and track incremental time based model changes.
- Provide an interface that allows users to produce a model with the incremental changes applied.
- Realize both effects and dependencies of incremental model changes.

Timeline Database Build

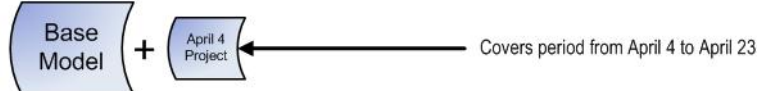
Desired model: April 1 to April 30 (Today is Feb 15)



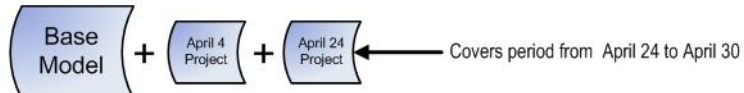
Build Base model



Add increment



Add increment



Goals in Design Integration

- **Standardize to the extent practical all interfaces by employing CIM or XML files for data transfer.**
- **Goal is for all applications using NMMS data to receive data by reading a ERCOT CIM file.**
- **Would be nice, but in the real world may need a CIM→X Converter**

Why Converters are necessary

- **EMS-AREVA-AREVA CSV Format**
- **MMS-ABB-CIM XML**
- **Planning-PTI-RAWD**
- **Outage Scheduling-ABB-XML**
- **Congestion Revenue Rights Auction-Nexant-RAWD**

Finally:

- **Provide the model output to the market participants in commonly used formats.**
 - ERCOT CIM (Common information Model)
 - RAWD (Planning Standard Format)

Questions?