Power Company Develops and Sustains Quality Data

Idaho Power

Efficient utility work processes often require the automated exchange of data between business systems. Getting systems to work with each other is often a data sharing challenge. Importing and exporting data between systems may require middleware that accommodates the application of business rules required to ensure data integrity between systems. Idaho Power needed to bring together its ArcGIS asset record system with its CES Centricity outage management system (OMS). It is important to Idaho Power that these systems interact smoothly for users to perform the tasks of building and operating the power company's electric distribution network.

Idaho Power is involved in the generation, purchase, transmission, distribution, and sale of electric energy in a 20,000-square-mile area

Before edit

After edit

in southern Idaho and eastern Oregon. Idaho Power supplies electricity to approximately 427,000 customers. It owns and operates 17 hydroelectric power plants and shares ownership in three coal-fired generating plants.

At the foundation of successful information sharing between business systems is quality data. The more timely and accurate the data, the better the information value and resulting decisions.

A common problem for utility companies is establishing and maintaining the high volume and extensive detail of their network asset data. Like many utilities, Idaho Power is working on an iterative process to improve its data quality. For example, as-built facilities data stored in the GIS did not contain all the data necessary for effective operations of its OMS. Full network connectivity is particularly critical for the OMS system to operate, and all the components were not available.

To solve this problem, Idaho Power contracted with JCMB Technology, a utilities-focused data intelligence company. The company offers software and services that provide high-quality, high-

fidelity data. Idaho Power gave JCMB the task of improving data integrity and connectivity so quality information could be exchanged between systems. JCMB performed an analysis, identifying all the necessary business rules for the information exchange between the GIS and OMS systems.

Using network analysis or quality assurance tools is a common practice among power companies to assist in improving the quality of their asset data. Based on the business rules JCMB defined for Idaho Power, JCMB developed a set of tools to support this process.

The tools provide the ability to run a network trace, produce reports or visual displays of discrepancies, and provide a means to correct or insert missing information. For example, the data may be missing elbows or switching devices that should be placed on each side of a padmount transformer—essential information needed for properly operating an OMS. Once technicians are able to verify that the electric network data is accurate, the data can be passed on for operation in the OMS. Idaho Power has strengthened its work processes and improved data accuracy, which increases confidence in and usability of data shared between systems.

Ensuring data integrity does not end when the existing data is accurate. Processes are needed for sustaining data quality as new construction is completed and added to the network. Idaho Power again used the expertise from JCMB to establish tools for this work flow. The tools provide the extraction of areas of interest from GIS into the engineering design environment. After the new work information is completed, it flows back into GIS using the aforementioned quality assurance work processes. Data quality is maintained and information is shared between business systems, completing the cycle.
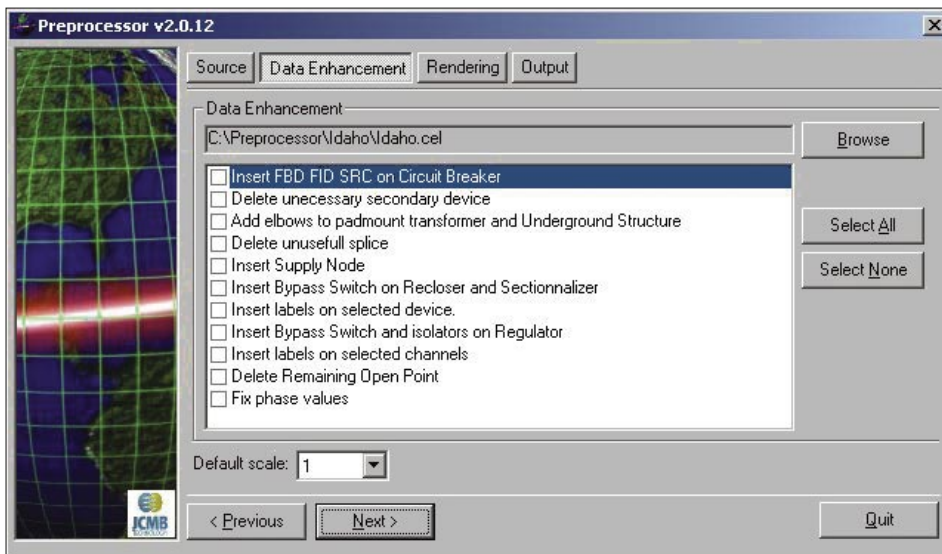
Learn more about JCMB at www.jcmb.com.
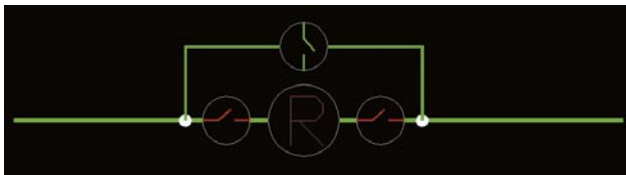
Business rules are applied for a recloser, adding different switches. Each added device is electrically connected.