Much of the computer software used in the design, operation and maintenance of electric utilities’ systems, store data within computer files and databases that are not easily shared across applications or between companies. This lack of data portability has become a major roadblock to the seamless integration of applications and the information exchange required for operations efficiency. Common Information Model (CIM) initiatives have been organized as a solution to these and other problems.

**Common Information Model**

CIM allows for representation of the power system model as objects, their attributes and the associations of the objects, which can exist as physical or abstract objects used to represent power system components.

Utilization of CIM facilitates the integration of independently developed applications between vendor-specific EMS systems or between EMS and other systems that are concerned with separate aspects of power system operations, such as generation or distribution management.

**OpenCIM™** provides a platform for the bi-directional transfer of data between **monarch™** systems and CIM-compliant databases and XML/RDF data formats. Zero additional effort is required to integrate **monarch** products with existing applications that support CIM standards. RDF (Resource Description Framework) and XML (Extensible Markup Language) are the obvious solutions for data exchange between different applications.

Used to exchange data, XML is a subset of the international text-processing SGML (Standard Generalized Markup Language). Data converted to XML can be easily shared, eliminating the need to develop a separate interface for each new/existing application.

RDF enables the encoding of the shared structured metadata, providing the syntax, semantic and structure that is necessary to process exchangeable data between different applications. RDF is an application of XML that provides clear methods of expressing semantics by imposing the necessary structural constraints.

Use of CIM XML/RDF offers the following benefits:

- **Ease of upgrade**
- **New application integration with less effort**
- **Data exchange across the enterprise and with outside entities**