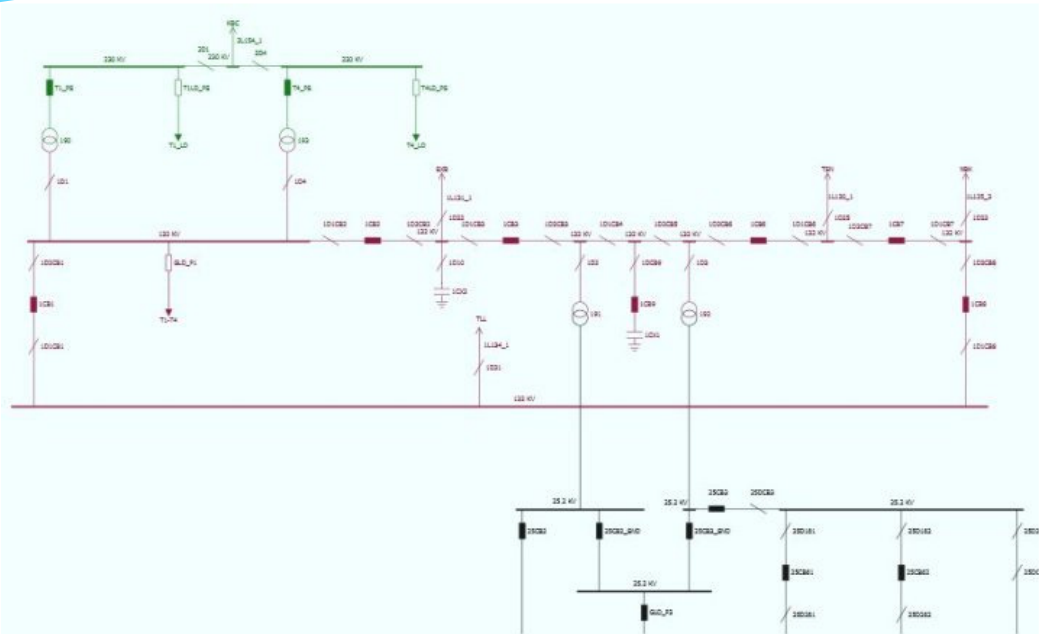


## Background

CIMSpy started as an open-source project in 2005. The early version, i.e. CIMSpy Standard Edition (CIMSpy SE), was originally designed to support EPRI's CIM InterOP (IOP) tests. Since the introduction, it has been widely used in the CIM communities, including the past EPRI and ENTSO-E CIM IOPs.

Driven by the key requirements of some CIM-related projects in North America and Europe, CIMSpy was rebuilt in 2008. The enhanced version, CIMSpy Enterprise Edition (CIMSpy EE), leverages the greatest and latest information technologies and delivers the industry leading performance and comprehensive features addressing a variety of common requirements of CIM-related projects.

Today, CIMSpy EE is being leveraged by electric utilities, ISOs/RTOs, grid coordination organizations, and EMS/MMS vendors in Europe and North America. In May 2011, US Department of Energy (DOE) awarded Power Info SBIR Phase I Grant in support of the continuous research on data-driven visualization of power grid, one of the key features of CIMSpy EE.



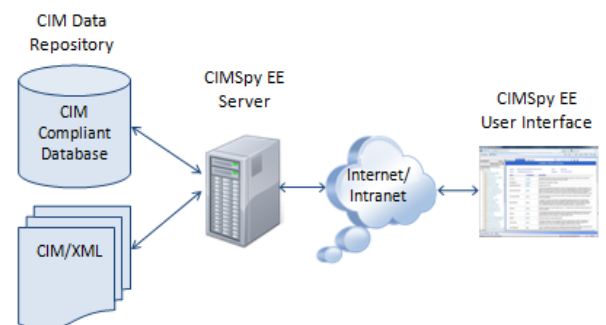
CIMSpy EE is a standard-based model exploratory tool designed to

address the emerging model exchange and information integration requirements in the power industry. Built upon Common Information Model (CIM) and its related IEC standards, CIMSpy EE provides comprehensive data engineering functions and rich user experience to help you understand and analyze your CIM-based power system models.

More specifically, CIMSpy EE is designed to provide an integrated data engineering environment in support of CIM-based model exchange, application integration, and information sharing. Users can load reality-based CIM/XML files

into the tool and perform a variety of data engineering functionalities, including model browsing, visualization, validation, editing, comparison, merging, partitioning, and incremental update. The engineered models can be further exported into various formats such as XML or CSV, ready to be consumed by other CIM-compliant information infrastructures

Built as a distributed Web-based application, CIMSpy EE provides a set of infrastructure and application modules that can be readily assembled or configured to meet various project needs, ranging from standard-based model exchange to exploratory data analysis.

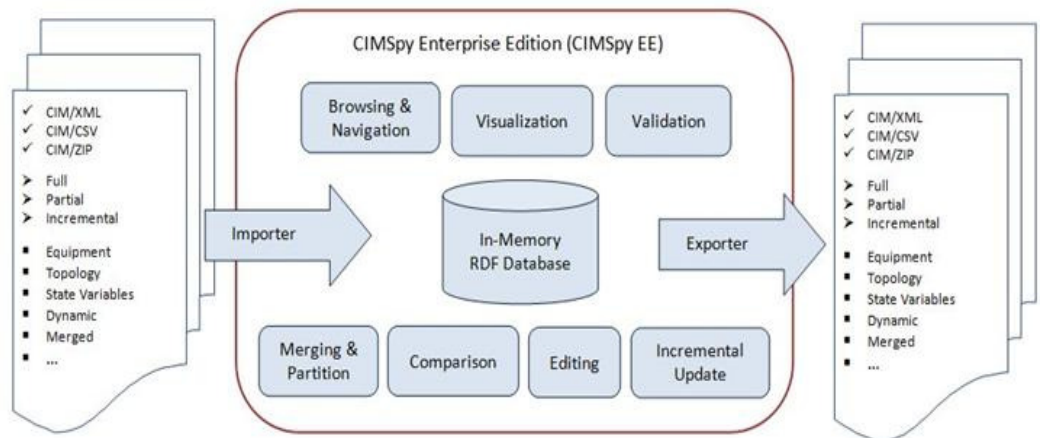


## Methodologies

Exploratory data analysis requires a human analyst tightly in the loop to seek useful information from large volume of data. Traditional designer-driven tools provide little help for intuitive information exploration, because these tools restrict the information exploration process to follow a limited number of pre-defined presentation patterns created by human designers, thus hindering users' ability to discover.

CIMSpy EE leverages various data-driven techniques, such as pattern-recognition, data mining, etc., aimed to unleash the power of exploratory data analysis and foster the scientific understanding and insight. Data-driven approaches rely on developing powerful data analysis and manipulation algorithms to create displays based on the characteristics of empirically or mathematically derived data.

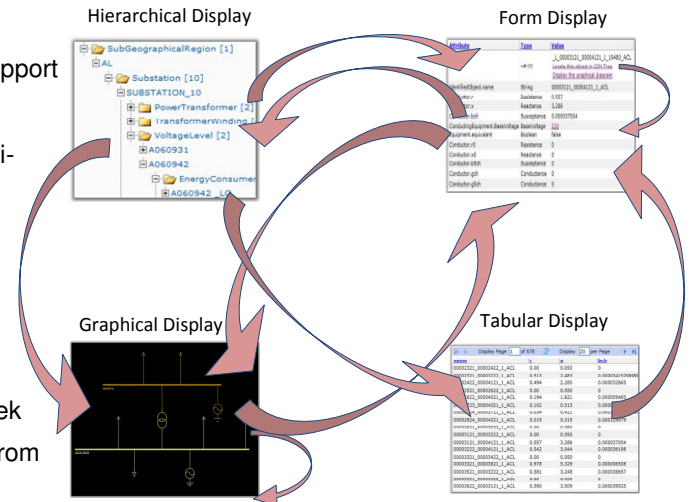
For example, behind CIMSpy EE visualization is a technique called query-driven visualization, which combines the data management technology with the interactive visualization technique and enables users to limit the visualization to the "interesting" data. It is well suited for performing analysis and visualization on datasets which are both large and highly complex.



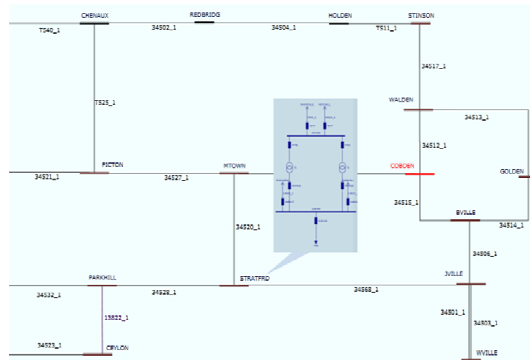
## Key Features :

- ✓ Capability of importing and exporting reality-based large CIM-compliant models (full/partial/incremental) in various formats including XML/CSV/Zip.

- ✓ Comprehensive model browsing features in support of exploratory data analysis, including multi-view data-driven presentations, smart navigations, intelligent information searching, and visual data mining, aimed to help users seek the useful information from large volume of data



- ✓ Powerful model validators, schema-driven and rule-based, ensuring you receive the right data in the right format
- ✓ Standard-based model merging capabilities, including profile-based data group merging and Model Authority Set (MAS) based regional model assembling
- ✓ Ability to compare two models based on the Master Resource ID (MRID) concept



- ✓ State-of-the-art model visualization capability, enabling users to explore the model intuitively and interactively
- ✓ Rich look-and-feel user experience

## Contact Info

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