

OSI Spectra™ - Advanced Distribution Management System Solutions

The electrical distribution system operators of today are facing an increasing set of demands and pressures from customers, regulators and owners to efficiently and effectively manage the distribution system, as well as to expand system functionality and to increase reliability in multiple areas.

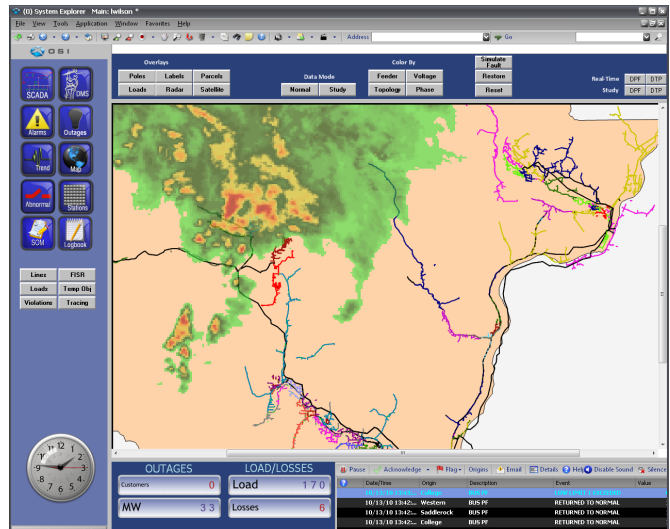
Specifically among the pressures and demands facing today's operators are:

- Customer service expectations to improve power quality and service reliability
- Increased pressures to avert outages—and in cases of unavoidable outages, to restore service more quickly
- More aggressive regulatory reliability requirements that may affect rates or result in penalties
- Owners demanding more cost-effective operations with higher returns on investment
- Tightening budgets forcing increased utilization of existing assets and delays in capital investments
- Ever-expanding power systems with shrinking relative reserve capacities, resulting in lowered margins for error

To meet these challenges and more, operators require a comprehensive toolset that allows them to:

- Anticipate heavy loading and potentially unacceptable voltage situations before they become critical
- Quickly analyze and respond to events with the best possible solutions
- Focus on and prioritize the most critical events
- Effectively manage and assign work throughout the organization

In an attempt by distribution system operators and utilities to address these issues, many have implemented disjointed automation tools and systems, targeted at each of these specific needs. These tools have been predominantly unable to properly or efficiently integrate with each other, resulting in disparate sets of architecturally isolated solutions that are neither operationally effective nor user-friendly. Tools used in these situations are also largely based on complex engineering tools that can be very difficult for operators to learn and use effectively.



To meet these and other challenges of today and of tomorrow, distribution system operators require a comprehensive and integrated set of tools that:

- Are based on a consistent, intuitive, singular and standardized Graphical User Interface (GUI)
- Provide a robust base level of functionality that can be easily upgraded to add various advanced features and more powerful solutions
- Can be implemented on an as-needed basis
- Perform to the highest industry standards for real-time efficiency and reliability
- Are easily scalable to the needs of any sized utility
- Are easy to maintain and are able to be upgraded in a matter of weeks, rather than months or years

OSI has responded to these needs with **OSI Spectra™**, a comprehensive suite of real-time distribution system and workforce management solutions that provide a fully integrated operational solution for any electrical distribution utility. The **OSI Spectra** suite of solutions includes the **Spectra DMS™** (Distribution Management System), **Spectra OMS™** (Outage Management System) and **Spectra WMS™** (Workforce Management System).

Advanced Distribution Management System - OSI Spectra

OSI Spectra is built upon OSI's trusted **monarch™** (Multi-platform **Open Network ARCHitecture**) automation platform, taking advantage of its field-proven stability, real-time performance and industry-acclaimed pedigree. **OSI Spectra** inherits from **monarch**, support for distributed client/server architecture, with data capable of residing on multiple host servers, including various distributions of UNIX®, Linux® and Windows®.

On the client/workstation side, **OSI Spectra** takes full advantage of the Microsoft® .NET Framework, featuring native support of Windows-based clients and other Microsoft applications, including the Office® suite and other graphical tools.

All **OSI Spectra** applications are accessed through OSI's next-generation Graphical User Interface (GUI), **OpenView™**. Established as the industry's friendliest and most functional user-interface, **OpenView** has thousands of installations in operation in mission-critical applications worldwide.

Salient features of **OpenView** include:

- Support for panning, zooming, layers and de-cluttering
- Multiple navigation tools, including alphanumeric display call-ups, main-menus, pull-down menus, a navigation window and more
- Support for data visualizations, including world maps, contouring and data profiles
- Support for multiple and different sized viewports
- Support for projection map-board view and remote-control
- Embedded graphs, gauges and bar chart visualizations
- Support for operator notes, help files and document attachments
- An extensive symbol library with standard or user-defined symbols and icons
- Designation of Action Objects for program executions and other linkages
- Ability to import graphical and network data from popular GIS systems



Spectra eMap™ - DMS Representation and Visualization

One of the major factors for successful implementation of a DMS or OMS system is its ease of use, a characteristic which is rooted in the design of its user-interface. At no place is this more critical, than where the user visualizes the distribution network. The foundation for OSI Spectra is its electronic mapping and visualization application: **Spectra eMap™**. A full-featured graphical viewer, **Spectra eMap** is designed to support both geographical and schematic views of the distribution system, distribution substations and transmission networks.

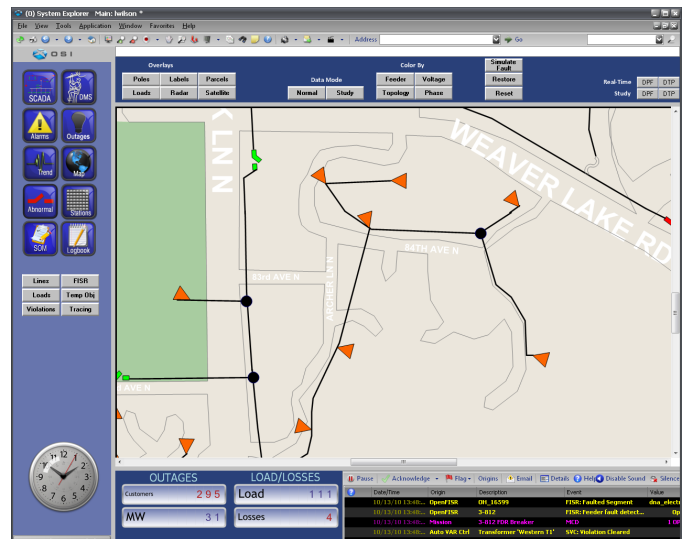
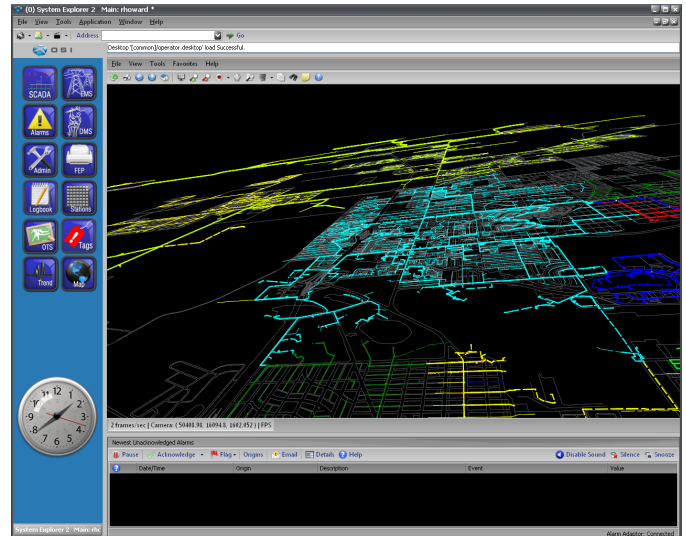
Distribution and outage management systems have been historically plagued by the challenges associated with maintaining a fully accurate and up-to-date model of the system. **Spectra eMap** comprehensively solves these issues and offers an accessible and full-featured system administration by providing:

- An intuitive equipment, customer and connectivity model that can scale with the system
- GIS Integration, supporting daily incremental updates for the system and customer additions, removals and modifications
- Offline data imports with validation shielding of the online system from interruptions
- Simultaneous support between the model and the field for commissioning new facilities and for system reconfigurations

OSI Spectra - Advanced Distribution Management System

Spectra eMap is an industry leading tool for distribution operators to achieve the requirements of improved customer service, reduced operating costs and effective response to contingency situations. Made possible in part, by some of the following available features:

- A graphical desktop for the distribution operator, providing an accurate and realistic view of the distribution network, viably replacing traditional distribution map-boards/green-boards
- A fully interactive system map that reflects the current system status and automatically updates in real-time with operator-entered data, operational and maintenance tags, as well as real-time data acquired from the field, meters, outage records and more
- A high-performance Distribution Topology Processor (DTP) that supports unbalanced, three-phase topology processing and connectivity analysis that analyzes system energization in real time
- Support for device operations in the model to reflect the “as-switched” state of the system
- System model operational changes that reflect temporary changes made in the field; circuit cuts; installation of jumpers; installation of mobile transformers and substations; and more
- A powerful tracing tool that allows operators to easily determine a device’s connected source, adjacent switches or connected loads
- A quick-hover tool to view specific device details directly from the one-line map
- Full integration with OSI’s monarch, or third-party SCADA systems, allowing real-time telemetry updates and seamless control, data-entry and tagging operations
- Powerful tabular displays that provide summary and detailed information of things such as outaged devices, abnormal conditions and further operationally important information
- A full-featured study mode that allows operators to perform “what-if” scenarios based on historical, current or forecasted system configurations and loadings



To learn more about **OSI Spectra**, its featured solutions and how they can assist in transforming your distribution management system and associated business processes into a world-class operation prepared for the challenges of tomorrow, please contact sales@osii.com.

Advanced Distribution Management System - OSI Spectra

What **OSI Spectra™** can do for you!

Improve Customer Service

Improve Operational Performance

Reduce Operating Costs

Improve Reliability

Reduce Outage Durations

Improve Capacity Utilization



OSI

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OSI Spectra Overview

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