Simplify substation management

Foxboro Substation Automation Configuration

Product at a glance

Customers turn to Foxboro® Substation Automation Configuration for automated power management and monitoring, field service protection and line sectionalizing, asset management, and fault localizing to ensure safe, secure and robust operation of distribution substations.

- Simplify your automation projects
- Reduce engineering time and costs
- Provide a consistent approach to design
- Reduce capital and operational costs
- Enhance operational efficiencies
- Reduce and shorten outages
- Improve customer service

Next generation power distribution

Substation networking technology within the electrical power distribution industry has been experiencing tremendous growth in the last few decades. Electrical substations of today are becoming more sophisticated, complex and automated. Utilities spend millions of dollars and significant engineering time to configure, integrate, and manage the many disparate devices that use different proprietary protocols.

To reduce the costs associated to generation and distribution of electricity and to improve electrical distribution reliability, governments and industries have been moving toward a standardization of communications and interoperability using high speed digital, rather than hardwired interconnections.

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The IEC 61850 standard for communications in substations allows the development of multifunctional intelligent electronic devices (IEDs) for substation protection, monitoring and control systems.

Leading the way to IEC

Managing a series of substations requires overseeing a complex set of solutions including local and remote user interfaces, engineering configuration tools, integration to legacy IEDs with multiple protocols, hardware, and application services.

Foxboro Substation Automation Configuration software extends the capabilities of the development environment of Wonderware™ System Platform providing an integrated solution to easily create, configure, and maintain the configuration of IEC 61850 devices and substations.

Foxboro Substation Automation Configuration software allows system engineers to design, configure, and maintain an IEC 61850 IED configuration. In combination with Wonderware System Platform, an entire SCADA system of IEDs can be easily designed, configured and managed.

Customers turn to our substation automation configuration solution for automated power management and monitoring, field service protection and line sectionalizing, asset management, fault localizing, and other applications to ensure safe, secure, and robust operation of your distribution station.

The right tools make all the difference

Foxboro Substation Automation Configuration consists of extensions and IEC 61850 specific objects within the Wonderware System Platform IDE development environment, providing a wealth of sophisticated time saving features:

- Windows-based graphical user interface providing user-friendly data entry and editing
- Optimization for SCADA network and communication
- Ability to manage large collections of ICD files at a central location
- Intuitive techniques, such as tree-view, list-view, copy and paste, drag and drop, and pulldown/pop-up menus
- Efficient ICD file management, which converts a CID file created by other tools into an ICD file
- Easy IED configuration of services, a data object instance (DOI), a generic object oriented substation event (GOOSE), a generic substation status event (GSSE), a report control block, datasets, logical devices, logical nodes, and data types
- Capability to design ICD files that represent RTUs as a IEC 61850 server device
- Capability to map RTU points to data object attributes in the logical node

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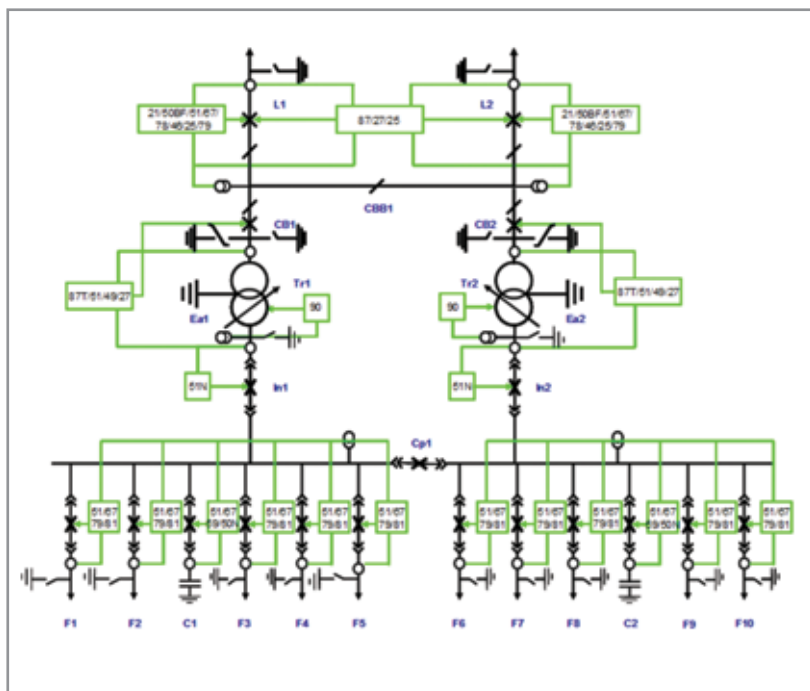
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- Capability to generate single line diagrams (SLD) for the substations within the simple design environment compatible with the popular Microsoft Visio®

- Extensibility and easy maintainence using template-based and object oriented structures

- Standard ICD, CID and SCD file production. The SCD file can be uploaded to the System Configurator for the creation of the SCD5200 configuration file.

Foxboro SCD5200 RTU — engineered specifically for IEC 61850

Because Foxboro Substation Automation Configuration supports the IEC61850 standards, it can be used with any IEC compliant RTU. In addition, it can communicate with RTUs through other common protocols such as DNP, Modbus, TCP/IP, and IEC-1131. But for new and replacement installations, you will want to look at the Foxboro SCD5200 RTU, also IEC 61850 compliant, and designed to seamlessly work with Foxboro substation automation configuration objects.

The Foxboro SCD5200 RTU is highly engineered for the power transmission industry and a millennium era station computing device (SCD) specifically designed for use with substations meeting all IEEE and IEC surge withstand requirements and supports the IEC 61850 standards. The SCD5200 supports all of the programmability functions of a PLC, including graphical and structured text configuration using the ISAGraf IEC 61131 configuration tool. But the SCD5200 is a true RTU guaranteeing critical communications and control functions are processed in an orderly fashion demanded by substation automation applications.

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