

SmartPlant® Electrical



INCREASED ELECTRICAL EFFICIENCY FOR THE PROJECT AND PLANT LIFE CYCLE

SmartPlant® Electrical helps you increase efficiency in electrical design, construction, operation, and maintenance. SmartPlant Electrical stands up to today's rigorous demands of compressed schedules and operating budgets, fixed price contracts, and concurrent engineering.

SmartPlant Electrical delivers clear benefits by:

- Offering a life cycle solution – from conceptualization to detailed design to operations, maintenance, and decommissioning
- Saving time and cost through automation, such as batch load balancing, automatic drawings and diagrams, and report generation
- Maintaining and enforcing standards, such as corporate rules and plant-specific dictates

SMART SOLUTION

The data generated from the combined knowledge foundation of your engineers is one of your company's greatest assets. SmartPlant Electrical helps define, maintain, and preserve the value of your corporate knowledge and data assets throughout the life cycle of a project and plant. Industry, government regulatory, corporate, client, or plant-specific standards can be applied to your design to ensure compliance, consistency, accuracy, and efficiency, reducing the chance of mistakes and costly overruns.

Mainstay electrical deliverables such as single-line diagrams and schematics are labor-intensive tasks, but SmartPlant Electrical generates these deliverables automatically, creating graphical reports based on the data provided by the engineers. Drawings and diagrams are results of the design, not the origin of the design.

LIFE CYCLE SOLUTION

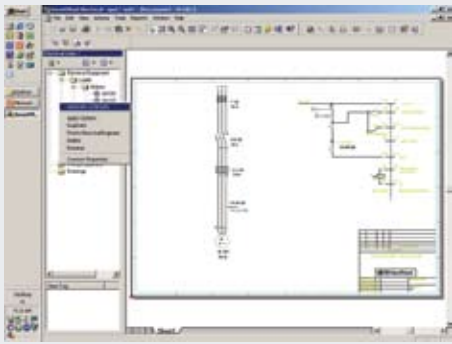
The backbone of plant design, operations, and maintenance is an easily maintainable electrical distribution system with up-to-date information. SmartPlant Electrical addresses the electrical needs of the entire life cycle of the plant, from concept to detailed design through operations and maintenance, including start-up, continuous operation, emergencies, and shutdowns.

Early in the life cycle, SmartPlant Electrical helps you develop fast and accurate conceptual data for the bid process. Conceptual data is used to continue the design and engineering process. Nothing is discarded; there is no need to start over. Then, the same tool is used to maintain system data during operations, maintenance, and upgrades.

AUTOMATED SCHEMATIC AND SINGLE-LINE DIAGRAM GENERATION

Automatic generation of diagrams and schematics provides engineers with a new freedom to expand and optimize the electrical system using "what-if" scenarios without worrying about the high cost of drawing generation or which CAD package the project uses. Expensive last-minute redraws due to equipment changes or vendor updates are things of the past. Simply update the data; the drawings will take care of themselves.

Automatic single-line diagram generation keeps your diagrams up to date. The schematics generation provides you with not only the automatic creation of schematic diagrams, but also printing and a save-to-disk capability for the schematics in a selected set of loads. Completely configurable, you can customize symbols to suit your standards or your customers' standards. And with document association, any document or file with a selected set of tags can be associated and you will be able to view the documents.



Automatic schematic generation gives you the capability to generate schematics in any of several formats, or generate your own template.

STANDARDS AND DATA REUSE

SmartPlant Electrical actually helps your company make the best use of assets the company already possesses. Features within SmartPlant Electrical provide defaults that you can use to increase quality and efficiency during plant design, operations, and maintenance. Default data and values can be entered to maintain design integrity.

Along with standardized equipment type specifications, other knowledge base capabilities are provided, such as Look-Up Tables (reference data matrix) and equipment profiles. Not only do these features provide default data, but they supply typical graphical symbology and schematics as well. Speed your current work practices and improve your competitiveness in the market with increased consistency in saving and reusing reference data sets for different projects and other customers.

FLEXIBLE OPERATIONS

SmartPlant Electrical supports quantity operations for a timesaving workflow process. SmartPlant Electrical can create, organize, and maintain large quantities of data or entities, or manipulate data on a "one-by-one" basis. The Apply Options feature adds tremendous flexibility, such as dynamically associating and creating power cables and control stations and their control cables (implied components) along with their default data for selected electrical equipment.

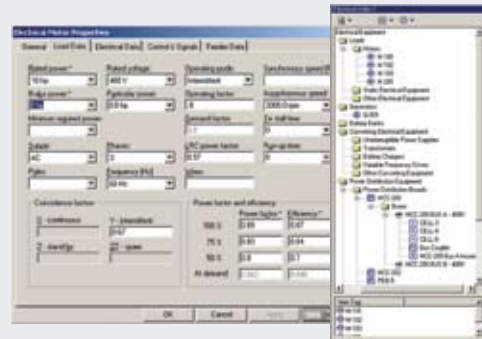
Additionally, you can accommodate project changes by replacing any equipment, including implied components, with new sets.

REPORT GENERATION

SmartPlant Electrical provides two different types of reports: graphical reports and tabular reports. Graphical reports include schematic drawings, single-line diagrams, wiring diagrams, and cable block diagrams. Once the design is complete, these graphical reports can be generated and saved to any of the major commercial CAD formats (SmartSketch®, AutoCAD, and MicroStation). Tabular reports using the standard Microsoft® Excel report mechanism link to the project database.

SmartPlant Electrical provides you with standard reports that can be customized or used as a baseline for new custom reports, such as:

- Electrical equipment indices
- Cable schedules
- Cable take-offs (BOM)
- Electrical load lists
- Load per MCC
- Power Distribution Board (PDB) schedules



SmartPlant Electrical provides complete component information to make your electrical engineering workflow truly intelligent.

ABOUT INTERGRAPH

Intergraph Corporation is the leading global provider of spatial information management (SIM) software. Security organizations, businesses and governments in more than 60 countries rely on the company's spatial technology and services to make better and faster operational decisions. Intergraph's customers organize vast amounts of complex data into understandable visual representations, creating intelligent maps, managing assets, building and operating better

plants and ships, and protecting critical infrastructure and millions of people around the world.

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