

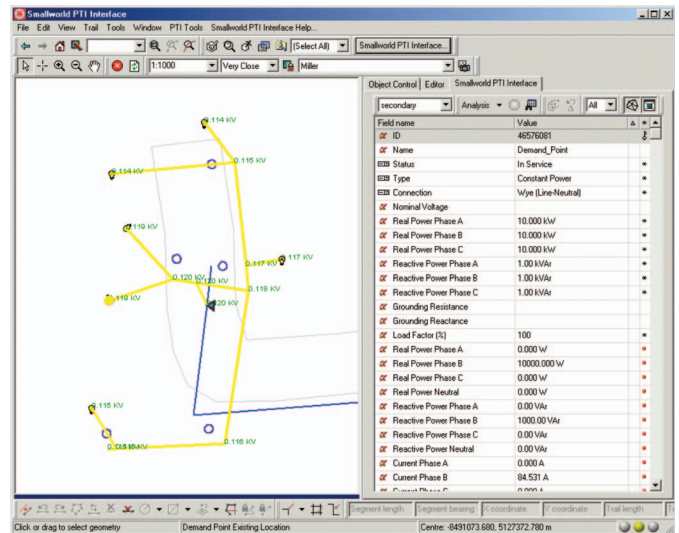
Product Description

In today's utility environment, companies are moving from stand-alone analysis applications to integrated enterprise-wide solutions. These systems provide designers, planners, operation engineers, and managers with intuitive, easy-to-use support for analyzing network issues ranging from provision of service to long-range system expansion. While GE Energy's Smallworld Core Spatial Technology* software provides the tools to model and maintain the real world assets and physical network for the enterprise, power systems technology is essential to deliver the complex mathematical algorithms for electrical network analysis.

As a result, the Smallworld PTI Interface* application was developed by GE Energy to integrate with PSS Engines™ from Siemens Power Technology International, LLC, a leader in power systems technology. PSS Engines is a suite of network simulation libraries that helps users solve a wide range of electric network analysis problems. These libraries seamlessly embed the power of Siemens PTI's network analysis capabilities into enterprise-wide information systems.

Embedding these libraries within the Smallworld PTI Interface* application allows basic analysis functions such as load flow, short circuit, and motor start calculations to be performed within the geospatial environment. In addition, more advanced analysis is available through optional PSS Engines, including Capacitor Placement Optimization (CAPO) and Tie Open Point Optimization (TOPO). For more advanced capabilities, the electric network maintained in the Smallworld environment can be exported via PSS Engines "hub" files for use in other Siemens PTI products such as PSS Adept™.

This release of the Smallworld PTI Interface* application leverages the Smallworld Core Spatial Technology 4 application, providing enhancements to the user interface and display environment through support for the Smallworld Application Framework* (SWAF) product line. The interface also supports version 7.2 of PSS Engines.



Features

- **Powerflow.** Calculates voltage level, load current, real and reactive power and loss
- **Short Circuit.** Analyzes single faults at a device or all faults on the selected circuit
- **Motor Start.** Calculates voltage, current and power results from starting motors of synchronous and induction machines, including "virtual" motors at any node on the network
- **Capacitor Placement Optimization (CAPO).** Finds the optimal placement for new capacitors to optimize the real/reactive loss of circuits
- **Tie Open Point Optimization (TOPO).** Optimizes switch positions to minimize the real/reactive loss of circuits
- **PSS Engines Hub File Export.** Exports network data to PTI's PSS Adept standalone package for further analysis
- **Improved Results Manipulation.** Enhanced results display using standard Smallworld editors and the Smallworld Explorer application



Benefits

- **Single source of data.** Eliminates the need to recapture network assets and maintain redundant data sets in order to develop new power analysis studies/scenarios. The ability to use a single data source reduces data entry time and cost (up to \$70,000 per year for large networks) and helps avoid data integrity and update issues.
- **Integrated network analysis.** The advanced analysis tools in PSS Engines provide information to optimize the network during the design and network planning process. Integrating network planning with the design process reduces engineering time and minimizes network overbuild.
- **Multiple design scenarios.** With the Smallworld PTI Interface 4 application, multiple design scenarios can be analyzed, compared and contrasted. The performance of one network configuration against another using profile graphs provides for graphical selection of the optimum network plan.
- **Spatial representation of data.** Thematic mapping, profile graphs, and results presented in correlation with the facility network or schematic representation provide power tools for the decision-making process.

Licensing

The Smallworld PTI Interface 4 application is licensed per single user. Licensing for PSS Engines and PSS Adept is not covered by the Smallworld PTI Interface 4 license. Customers should contact Siemens PTI directly for the purchase, licensing, installation and support of these products. PSS Engines and PSS Adept are trademarks of Siemens Power Technologies International, LLC.

System Requirements

- **Core Product Compatibility**
 - Smallworld Core Spatial Technology 4.
 - PSS Engines 7.2. The PSS Engines product is a prerequisite for using the Smallworld PTI Interface 4. As a minimum prerequisite, the pssapi.dll is needed.
- **Operating System Support**
 - Windows® 2000
 - Windows XP®
- **Memory Requirements**
 - 256 MB
- **Disk Space Requirements**
 - 20 MB



For more information about this product, contact your GE Energy sales representative, visit gepower.com or email us at energy.tdsolutions@ge.com.

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