PSS™SINCAL – efficient planning software for electricity and pipe networks

Siemens PTI – Software Solutions

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PSS™SINCAL – efficient planning of utility & industry networks

Comprehensive network planning and analysis are essential for utility companies as well as industrial network operators, generating companies, and engineering consulting firms. Performing this can be a time-consuming business. To facilitate the planning and design of supply networks as much as possible, Siemens has designed PSS™SINCAL®, a high-performance tool for the planning of electricity, gas, water, and district heating networks.

In over 50 years of experience, Siemens has optimized PSS™SINCAL in close cooperation with the users and is proud to be one of the world's leading providers of system planning software. PSS™SINCAL is a highly versatile tool with standardized interfaces for easy data import and export, and offers the possibility to maintain various data in one single system. It is the perfectly suited and highly efficient tool for anyone who has to perform planning and analysis of utility and industrial networks.

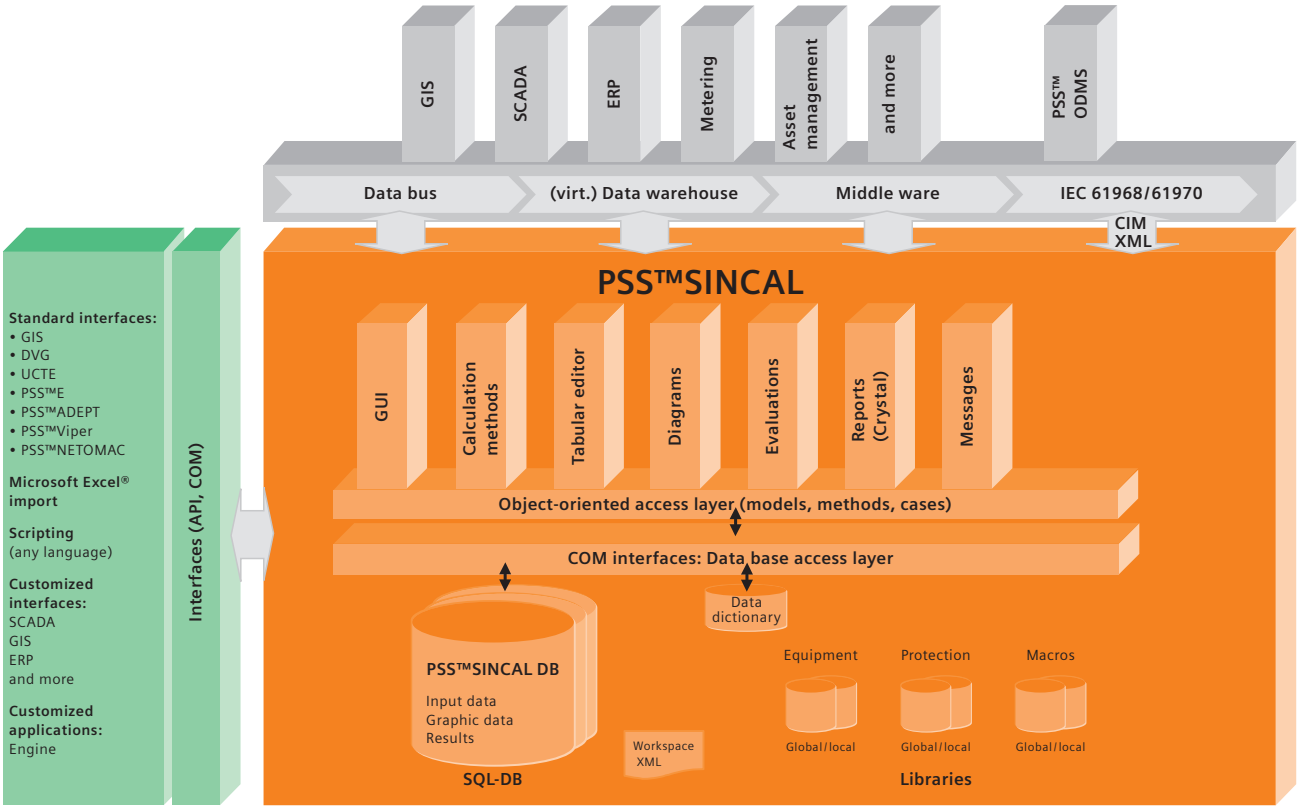
PSS™SINCAL architecture – fast and easy integration into any IT environment

PSS™SINCAL is equipped with numerous interfaces to allow simple integration into your IT environment. The use of open or commercial databases permits direct data exchange with other systems like:

- GIS
- SCADA
- ERP (e.g., SAP)
- Asset management
- Engine application

even by standard protocols such as CIM (IEC 61968).

The open architecture, based on COM servers, also allows the generation of custom applications using PSS™SINCAL as an engine.



PSS™SINCAL – advantages at a glance




User-friendly software ...

- simple and intuitive handling
- universal user interface for all fields – electricity, gas, water, district heating
- customizable to specific needs
- fully integrated modular structure and licensing
- Microsoft Windows® environment
- client-server architecture, internet ability
- multi-language user interface: English, German, Spanish, Chinese

... with high-level performance ...

- computation and evaluation of large networks
- efficient data management in a commercial database like Microsoft Access™ or Oracle®
- object-orientated modeling of all equipment
- macro and scripting functionality for efficient automatization
- combined analysis of separately modeled networks

... and a wide range of interfaces ...

- fully documented open database
- numerous and different interface types
- easy import and export of network models, e.g.:
  - standard interface to Microsoft Excel®
  - customizable interfaces to GIS and SCADA systems
- single data repository eliminates data redundancy across applications

... for accurate and reliable technical results ...

- all technical analyses based on one network model
- interactive visualization of network models in schematic, geographic, and multi-layer plans
- direct viewing and editing of data in masks, tables, diagrams, network plans, reports, etc.
- toolbox for highlighting and enhanced processing of data
- advanced handling and analysis of planning scenarios

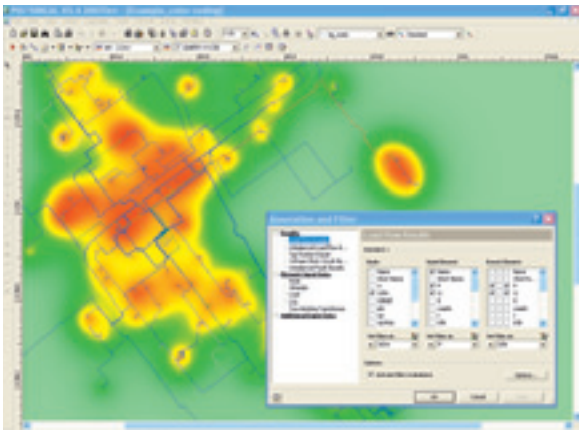
... to provide you measurable benefit!

- time and cost savings in network planning
- tailored training and individual support for specific network planning tasks
- simple integration with existing processes and workflows
- high data and documentation quality
- improvement of network performance and capital expenditure plans

PSS™SINCAL – a customizable solution

With PSS™SINCAL we offer a state-of-the-art full-range network analysis software solution that will greatly facilitate all your network planning tasks. PSS™SINCAL can handle the planning and analysis for electrical as well as pipe networks, i.e. water, gas, and district heating systems. This makes it an optimal solution for both industry and utilities.

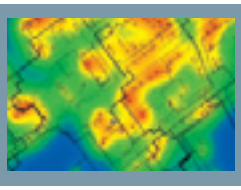
The modular and fully integrated structure of PSS™SINCAL allows for a high level of customization according to your individual needs. You can choose from a wide range of different modules and flexible license types.

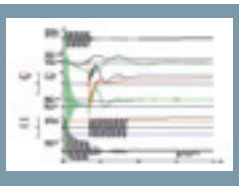
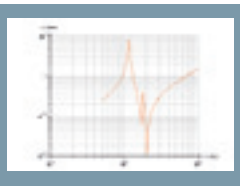


Color-coded evaluation of network conditions and weak points

Modules for electricity network planning

Basic Modules	Enhanced Modules	Time Domain	Frequency Domain	Protection	Strategy
Load Flow Balanced	Load Flow Unbalanced	Motor Start	Ripple Control	Distance Protection	Reliability
Short Circuit 3-phase IEC / VDE / ANSI / G74 or Preload	Multiple Fault	Stability	Harmonic Response	Overcurrent Time Protection	Cost Calculations
Short Circuit 2-phase IEC / VDE / ANSI / G74 or Preload	Dimensioning of LV Networks	Electromagnetic Transients EMT		Protection Simulation	Load Profile
Short Circuit 1-phase IEC / VDE / ANSI / G74 or Preload					
	Compensation Optimization	Optimal Branching	Eigenvalues	Graphical Model Builder BOSL / NETCAD	Load Development
	Contingency Analysis	Load Flow Optimization		Line Constants	Load Allocation (Trim)

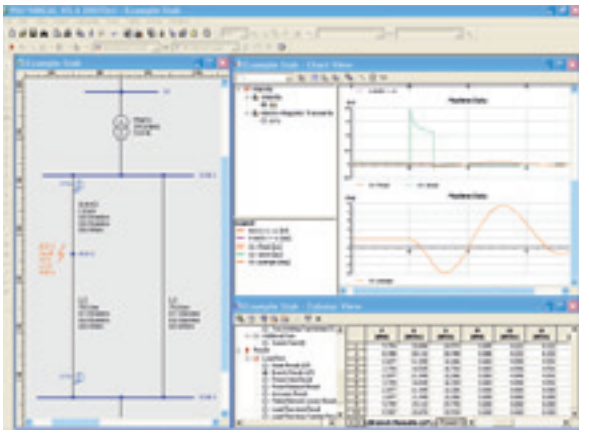


PSS™SINCAL – a certified high-quality product

PSS™SINCAL provides the capability to solve also exceptional tasks with its high-quality algorithms optimized for both accuracy and performance. User-defined applications can be easily developed with its object-oriented data model. Sophisticated case and data management facilitate the handling of complex projects.

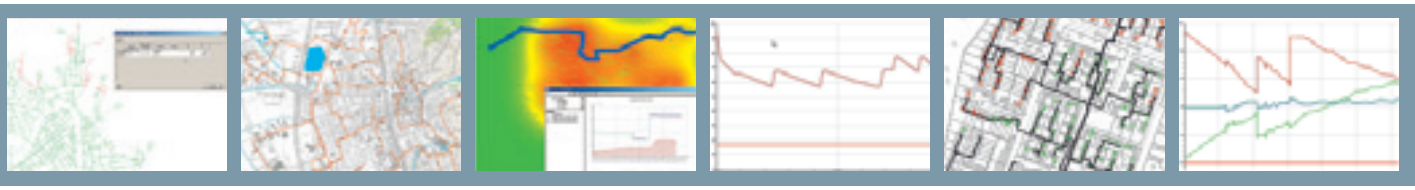
Backed by Siemens' commitment to product excellence and to provide efficient solutions as well as official certification, PSS™SINCAL meets the highest requirements of an international user base.



Stability study with results in diagram and spreadsheet view

Modules for pipe network planning

Gas	Water	District Heating
Gas Steady State	Water Steady State	District Heating Steady State
	Water Tower Filling	
Gas Dynamic	Water Dynamic	District Heating Dynamic
Gas Contingency Analysis	Water Contingency Analysis	District Heating Contingency Analysis



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