

Integrated Power System Analysis Software

Generation•Transmission•Distribution•Industrial

Generation at the distribution level defines entirely new challenges for distribution engineers. Besides voltage drops and line loadings, various kinds of generator technologies, such as synchronous cogeneration units, PV-cells, fuel cells or micro-turbines have to be analyzed under various operating conditions. PowerFactory is the ideal tool for analyzing the impact of distributed generation to the network. It combines classical distribution system analysis functions, such as voltage drop calculation, unbalanced network modelling, selectivity analysis etc. with the power of a most modern power system analysis package featuring dynamic simulation functions, reliability analysis, Monte-Carlo simulation etc. integrated into an easy to use Windows-compliant graphical user interface.

Distributed Generation

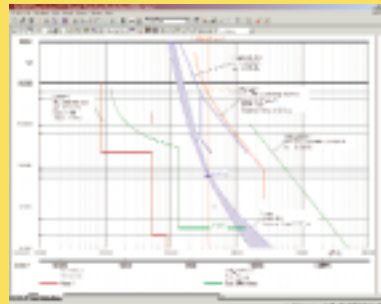
Generator Models

- Induction machines
- Doubly-fed induction generators
- Fuel Cells
- Micro-turbines
- PV-cells
- Wind-turbines
- Battery storage
- Single phase machines



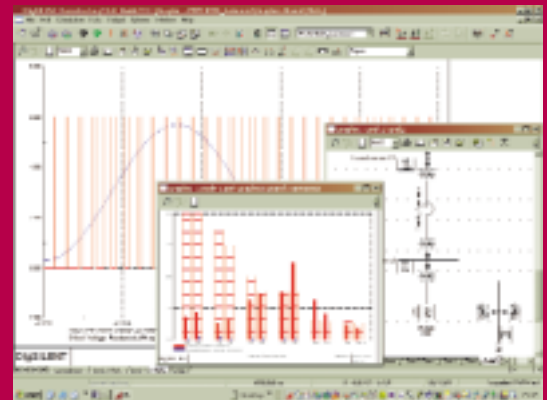
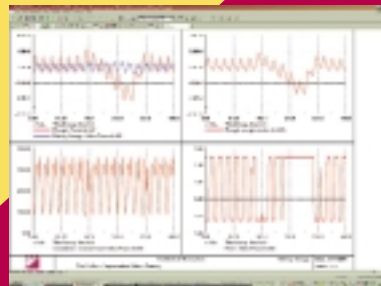
Enhanced Features

- Load flow analysis
- Short circuit analysis
- Unbalanced network modelling
- Single-, two and three phase network models
- Three-phase, four wire systems
- DC-system modelling
- Protection system analysis
- Monte-Carlo Simulation
- Dynamic and transient stability
- Electromagnetic transient simulation
- Protection simulation and co-ordination
- Protection selectivity analysis
- Harmonic Analysis
- Flicker Calculation
- Cable Sizing
- Probabilistic load flow calculation



User Interface/Data Management

- Single database concept
- Multi-user database server
- Incremental data storage (variant management)
- Project and case administration
- Fully integrated graphical editor
- Comprehensive input dialogue boxes
- Spreadsheets for input and output
- MS-office compatibility
- Built-in automation interface (DPL)
- ODBC driver
- Interfaces to GIS and SCADA systems



Supported PowerFactory Functions:

.... balanced and unbalanced power flow, fault analysis, harmonics, frequency scans, stability, EMT simulation for three-, two- and single phase AC systems and DC systems, explicit support of 3-phase/4-wire networks; protection simulation and co-ordination, distribution-, transmission- and generation reliability, small signal analysis (eigenvalues), static and dynamic voltage stability, active and reactive power dispatch, state estimation; open tie optimization, optimal capacitor placement, cable sizing; built-in automation interface (DPL), ODBC driver, interfaces for GIS and SCADA integration; PSS/E compatibility...

SILENT DIG

PowerFactory

Power System Planning,
Analysis and Optimization
for Windows

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