

DIgSILENT Power Factory Software

Integrated Power System Analysis Software



GENERATION, TRANSMISSION,
DISTRIBUTION, AND INDUSTRIAL



The development of DIgSILENT (Digital SIMulator for Electrical Network) software began in 1976, and utilized the talent of many experienced power system engineers and software developers directly involved with the planning, operation and maintenance of power systems. Since the inception of DIgSILENT, the program has grown to incorporate a vast array of analysis features that are required to plan, operate and maintain any aspect of the power system. The new DIgSILENT PowerFactory software is an integrated power system analysis tool that combines reliable and flexible system modeling capabilities, with state-of-the-art solution algorithms and a unique database management concept. The PowerFactory concept was initiated in 1993 when the decision was made to reengineer the already successful DIgSILENT Version 10.31 with improved solution algorithms and advanced software technology incorporating an object-oriented database.

PowerFactory - the new generation power system analysis software was first released in 1997 providing the required product stability to guarantee efficiency in your daily application.

Until today, some 10 000 licenses are in operation in over 110 countries. Some of the key references are National Grid (UK), ESKOM (South Africa), Swissgrid, Tennet, ETRA, Dong, Terna, EON, EDF, etc.

There are many commercial packages available that can address most power system analysis problems. However, these packages differ considerably in their integration, result validity and computational efficiency. DIgSILENT PowerFactory is the leading product with respect to integrated modeling capabilities and solution algorithms. It provides all required models and techniques of modern power systems.

PowerFactory incorporates an impressive and continuously growing list of simulation functionality including:

- Load Flow and Fault Analysis of complete AC/DC network representation.
- Low Voltage Network Analysis
- Distribution Network Optimization
- IEC Cable Sizing
- Dynamic Simulation
- EMT Simulation
- Eigen value Analysis
- System Identification
- Protection Analysis
- Harmonic Analysis
- Reliability Analysis
- Voltage Stability Analysis
- Contingency Analysis
- Power Electronic Device Modeling
- A/D Interfacing
- Interface for SCADA/GIS/NIS
- Compatibility with other software systems such as PSS/E & PSS/U
- Multi-User Database and User Accounting
- OPF including economic dispatch.

