Integrated Power System Analysis Software

Generation•Transmission•Distribution•Industrial

PowerFactory comes with fully integrated reliability assessment for calculating all relevant reliability indices of distribution, transmission and industrial systems. The reliability functions feature realistic, fast, flexible and transparent risk assessment for all types of networks. The algorithms are extremely efficient, produce precise results and are sufficiently flexible for addressing a wide range of reliability assessment problems.

Reliability

DIGSILENT

PowerFactory

Power System Planning, Analysis and Optimization for Windows

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Failure Models

- Failure models based on Weibull-Markov approach
- Line failures
- Transformer failures
- Bus bar failures
- Common mode failures
- Double earth faults
- Circuit breaker failures
- Protection failures

Failure Effect Analysis

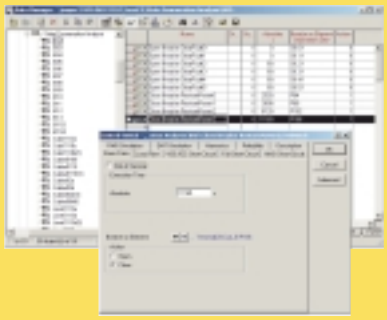
- Consideration of basic protection settings
- Realistic fault isolation
- Automatic and user defined system restoration
- Optimal load shedding
- Realistic load shedding with priority tables

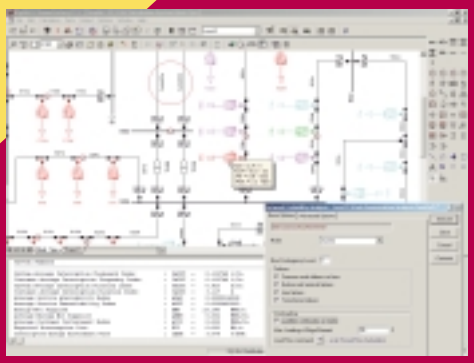
Algorithms

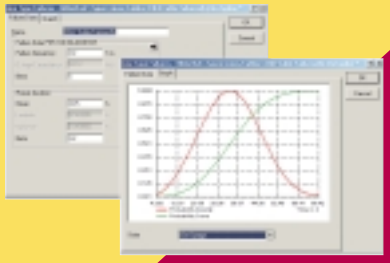
- Analytical state enumeration
- Monte Carlo simulation
- Fast connectivity analysis
- Fast, linear load flow analysis
- Detailed AC load flow

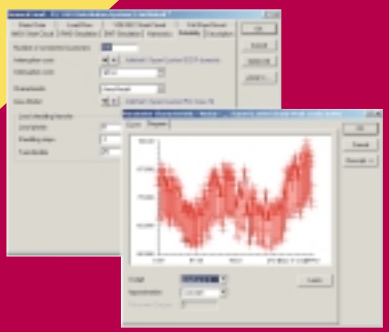
Additional Features

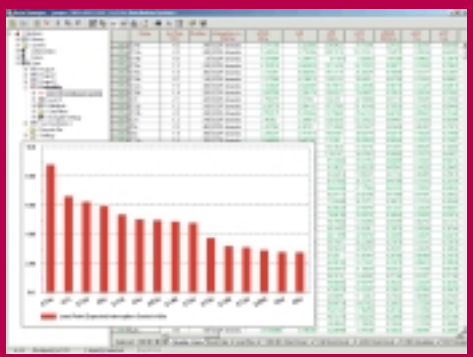
- Integrated cost assessment
- Contingency screening
- Automatic recording of severe cases
- Stand-alone fault effect analysis
- Powerful graphical outputs











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.; 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...