Integrated Power System Analysis Software
Generation·Transmission·Distribution·Industrial

PowerFactory provides an excellent support of all functions required to design and optimise industrial systems. The easy-to-use system stage management, extensive device libraries and an unmet accuracy in component modelling and algorithm precision, makes PowerFactory the preferred tool for efficient and cost effective design work. Modern plant concepts incorporate more and more special power electronic components with complex control structures. However, there is practically no aspect that the integrated PowerFactory software can not handle with the required level of detail.

DIgSILENT

Industrial Applications

PowerFactory

Power System Planning,
Analysis and Optimization
for Windows

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Load Flow Analysis

- Robust load flow for AC and DC systems
- Generator and network control features
- Consideration of motor characteristics
- Parametric studies via DPL scripts
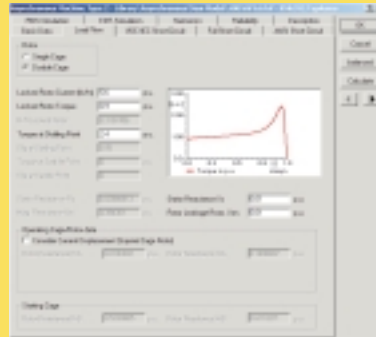
Fault Calculation

- IEC 909, VDE 0102/0103, ANSI C37
- Complete DIgSILENT method
- General, multiple fault analysis

Stability Analysis and EMT

- Large scale model validity
- Fast, adaptive step-size algorithm
- Comprehensive model library
- Flexible DSL-modelling
- Block diagrams
- Electromagnetic Transients (EMT)
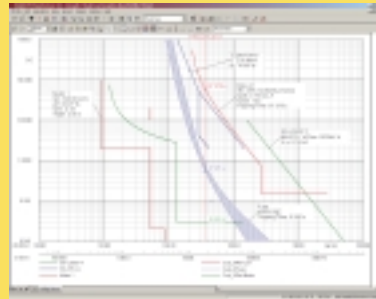
Enhanced Features

- Variable speed drives (VSD)
- Load controlled inverter (LCI)
- Softstarter
- Time delayed motor restarting (TDMR)
- Electronic motor restart devices (EMR)
- Centralised load shedding (f, u)
- User-defined protection modelling
- Highly accurate motor models
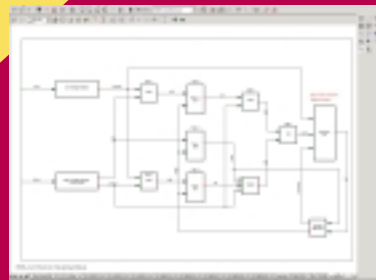
Additional Functions

- Harmonic analysis and filter sizing
- Protection modelling and co-ordination
- IEC cable sizing
- Transformer sizing
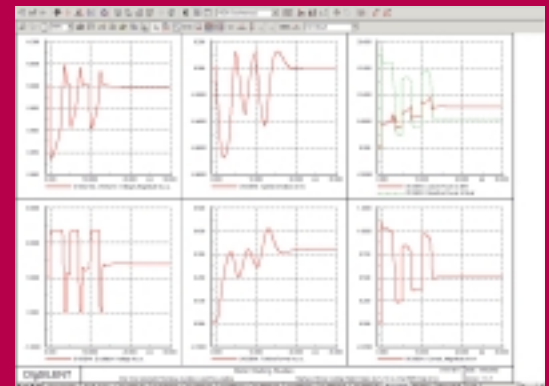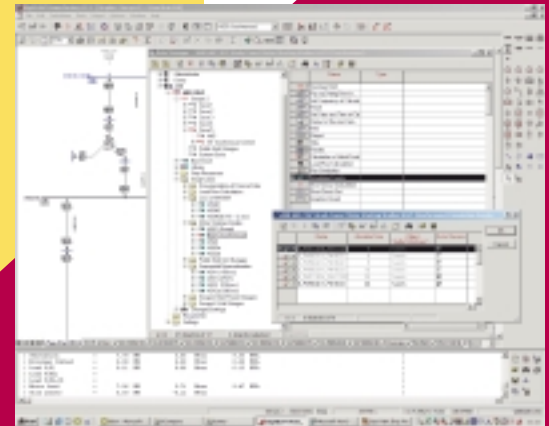
Supported PowerFactory Functions:

… balanced and unbalanced power flow, fault analysis, harmonic calculations, stability and EMT transients for arbitrarily meshed AC/DC systems with 1-, 2- and/or 3-phases; protection co-ordination with all levels of device response tests, level I-III reliability, eigenvalue analysis, network reduction, DPL script language, DOLE interface for GIS and SCADA links, interface to PowerFactory Monitor, ATC calculation, open-tie optimisation, capacitor placement, generic optimisation procedures, enhanced PSS/E compatibility…