Integrated Power System Analysis Software

Generation·Transmission·Distribution·Industrial

PowerFactory incorporates extensive modelling capabilities with advanced solution algorithms, to provide the analyst with tools to carry out the most complex of power system studies. There are practically no limitations in the analysis of both steady state and transient behaviour observed in modern power systems. Based on a mixed 1-, 2- and 3-phase AC/DC kernel for arbitrarily meshed systems, PowerFactory provides an integrated system representation for applications in Transmission & Distribution Systems, Industrial Systems, Power Plants as well as Marine and Aerospace Industries.
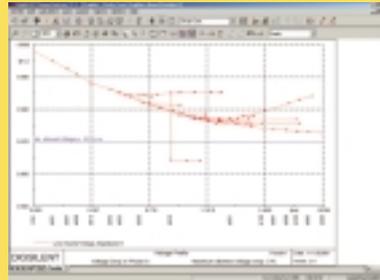
Power Distribution

Low Voltage Network Analysis

- Line loads and load unbalances
- Consideration of simultaneity factors
- Voltage drop and cable loading analysis
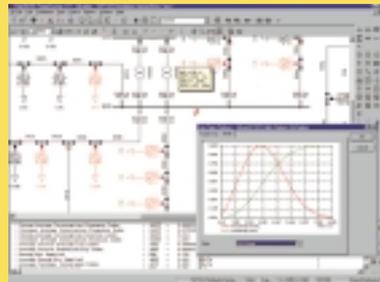- Feeder plots and feeder scaling

Distribution Network Optimisation

- Optimal capacitor placement
- Open tie optimisation
- Cable reinforcement optimisation

Reliability Analysis

- Interruption cost assessment
- Realistic power restoration
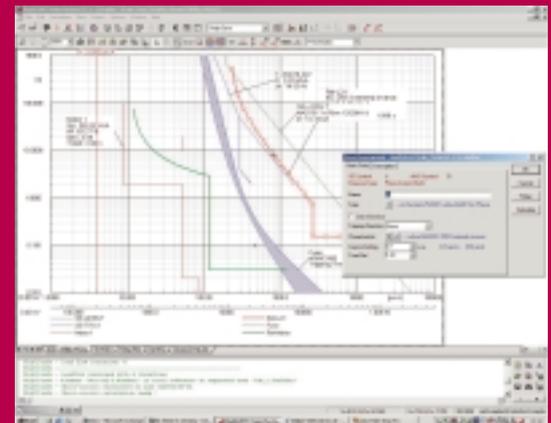- Meshed and non-meshed networks

Protection Co-ordination

- Overcurrent-time relays
- Differential relays
- Directional units
- Fuses
- Low voltage circuit breakers
- Cable/transformer damage curves
- Motor starting characteristics
- CT saturation
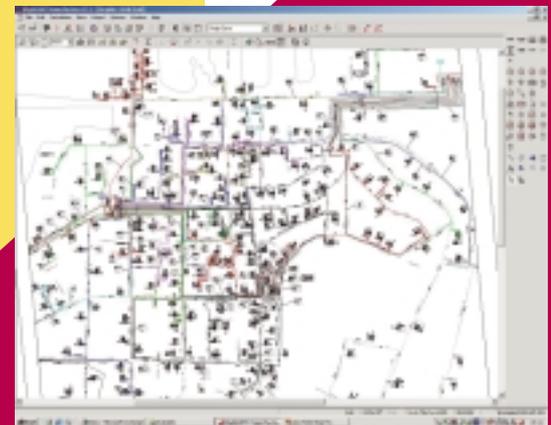
Enhanced Features

- Power quality analysis
- Dispersed generation
- Transients
- GIS and SCADA interface

Supported PowerFactory Functions:

… balanced and un-balanced 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….