

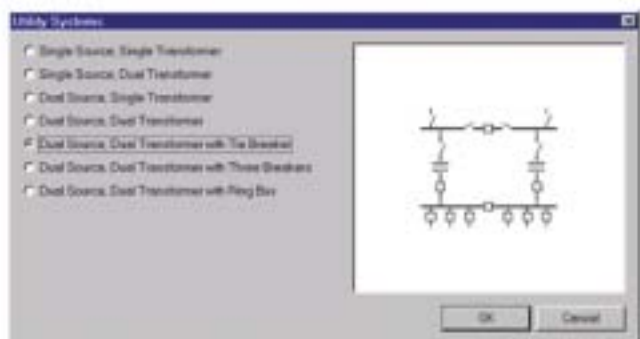
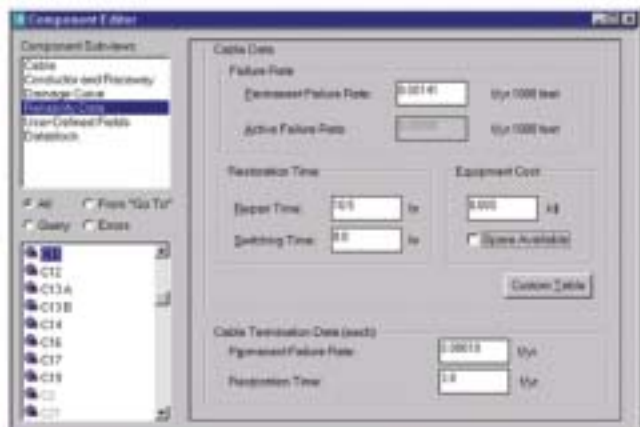
PTW Reliability

Reliability Studies

PTW Reliability Program calculates reliability indices and cost effects for alternative system designs. Calculations include alternative supplies, alternative network configurations, spare equipment, time to repair, and cost impact of lost production. Libraries for time-adjusted component failure rates and costs are provided to save time and simplify system modeling.

Benefits

- Design more reliable power systems.
- Save costs by identifying and correcting system weaknesses efficiently and systematically.
- Save time by using standard libraries of time-adjusted failure rates and costs.
- Communicate designs more easily with professional reports and graphs.
- Evaluate alternatives quickly and easily to establish an optimal design.
- Save time with pre-defined utility system configuration selections.



Interface Options

- Shares common interface with balanced DAPPER studies, harmonic analysis, transient stability, equipment evaluation, reliability, and CAPTOR protective coordination modules.
- Expanding tree structure to manage and compare multiple cases.
- User-defined time-based cost function for each load lost in outage.
- Repair time specification for each system component.
- Replace time and cost of spare specification for each system component.
- Permanent, active and temporary failure rates for each transformer.
- Permanent and active failure rates for each cable and cable termination.
- User-definable library of standard component reliability data.
- User-definable library for default cost function for loads lost in outage.

Study Options

- Repair, replace and switching options automatically evaluated.
- Reliability indices reported at each load and each bus.
- IEEE indices reported at each protective device.
- Options to include or exclude switches, fuses and load reliability in calculations.
- Option to repair or replace transformers.
- Cost evaluations for standard utility supply configuration alternatives.
- User-defined weighting preferences for operation, reliability, maintenance, recovery and cost factors.
- Reliability reports include MTTF, Failure Rate, MTTR, Annual Outage, ENNS, ECOST.
- Cost evaluation reports include equipment lists and costs for utility and distribution systems.
- Cost evaluation reports include summary value based on user-defined weighting factors.