Trustworthy
Consistent
Dependable

Advanced distribution reliability assessment provides engineers with an efficient and effective tool for estimating the performance of power systems. Using flexible input parameters, results can be quickly obtained for both radial and looped systems. Powerful calculation techniques allow engineers to choose the depth of system design and the associated results.

etap
Thinking Power
for Power Engineers

Make Confident Decisions with Reliable Results

Key Features

System Reliability
Customer Oriented Indices
Energy (Cost) Indices
Sensitivity Analysis
Single & Double Contingency

Flexible Operation

- Availability & quality of power assessment
- Long-term planning & redundancy
- Model reliability characteristics of each component
- Implement user-defined parameters & settings
- Calculate load point reliability indices
- Calculate bus reliability indices
- Calculate system reliability indices
- Calculate reliability energy (cost) indices
- Rank element contributions to energy (cost) indices
- Single & double contingency studies
- Calculate effect of simultaneous faults
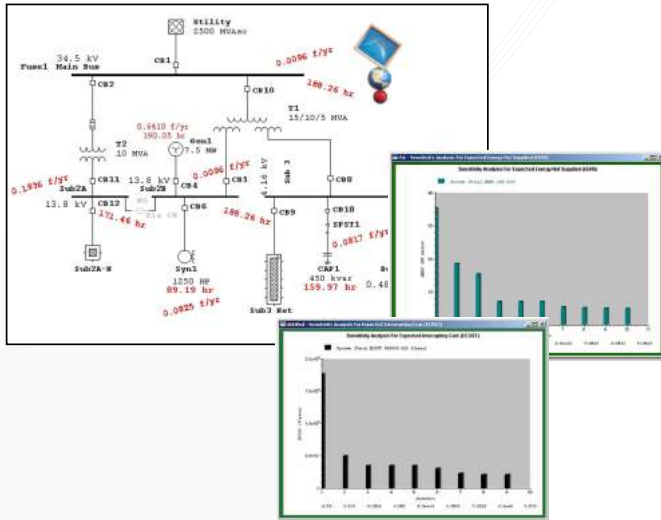
Energy Assessment & Planning

Unlimited Buses* & Elements
No Voltage Limitations
Looped & Radial Systems
Integrated 1-Phase, 3-Phase
Multiple Generators & Grid Connections
Multiple Isolated Sub-Systems
Customizable Libraries
Graphical Display of Results on One-Line Diagrams
Customizable Font Types, Sizes, Styles, & Colors
Customizable Display of Ratings & Results
Automatic Error Checking

Sensitivity Analysis
(of Load Points/Buses & System)

- Element contributions to the EENS & their rankings
- Element contributions to the ECOST & their rankings
- Order of most contributing components to EENS & ECOST

Energy (Cost) Indices
(for Load Points/Buses & System)

- Interrupted Energy Assessment Rate [IEAR]
- Expected Energy Not Supplied [EENS]
- Expected Interruption Cost [ECOST]
- Interruption cost library
- Component parameter library
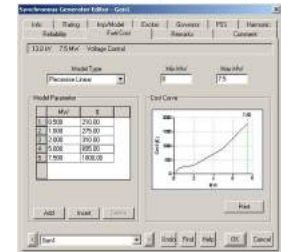
System Reliability Indices

- Average failure rate [λ]
- Average outage duration [r]
- Annual outage duration [U]

Customer Oriented Indices

- System Average Interruption Frequency Index [SAIFI]
- System Average Interruption Duration Index [SAIDI]
- Customer Average Interruption Duration Index [CAIDI]
- Average Service Availability Index [ASAI]
- Average Service Unavailability Index [ASUI]
- Sector interruption cost estimates [CDF]
  (Customer Damage Function)

Plotting

- Select types of components for plotting
- EENS sensitivity analysis
- ECOST sensitivity analysis

Reporting

- Graphical display of reliability results
- Load point/bus reliability indices
- System reliability indices
- EENS & ECOST sensitivity analysis
- Access databases of output results
- Export output reports to your favorite word processor
- Export one-line diagrams with results to third party CAD systems
- Use Crystal Reports® for full color, customizable reports

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