

Reliability Assessment

**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.

Reliability
assessment

Make Confident Decisions with Reliable Results

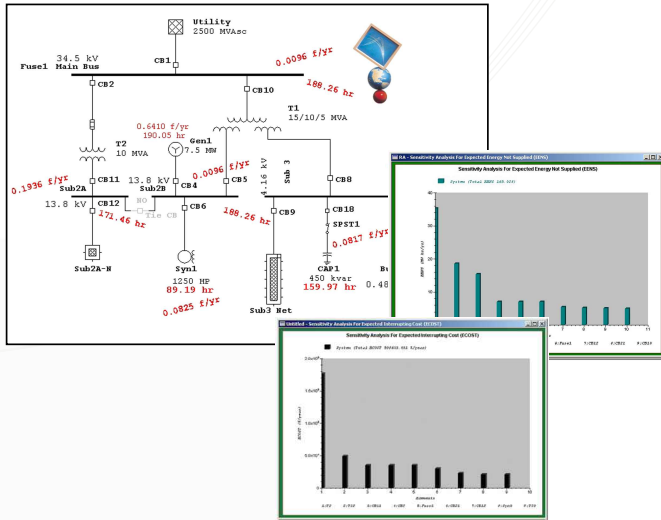
reliability assessment

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

*Maximum number of energized buses during calculations is license dependent.

Sensitivity Analysis

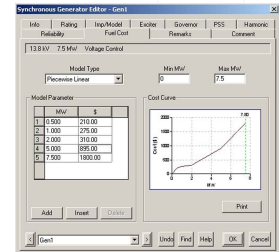
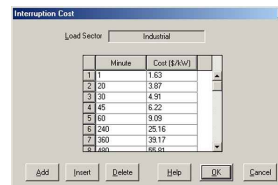
(of Load Points/Buses & System)

- 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

Bus	Component	Failure Rate	Outage Duration	Annual	EENS	ECOST	IEAR
Bus1	CB1	0.000	0.000	0.000	0.000	0.000	0.000
Bus2	CB2	0.000	0.000	0.000	0.000	0.000	0.000
Bus3	CB3	0.000	0.000	0.000	0.000	0.000	0.000
Bus4	CB4	0.000	0.000	0.000	0.000	0.000	0.000
Bus5	CB5	0.000	0.000	0.000	0.000	0.000	0.000
Bus6	CB6	0.000	0.000	0.000	0.000	0.000	0.000
Bus7	CB7	0.000	0.000	0.000	0.000	0.000	0.000
Bus8	CB8	0.000	0.000	0.000	0.000	0.000	0.000
Bus9	CB9	0.000	0.000	0.000	0.000	0.000	0.000
Bus10	CB10	0.000	0.000	0.000	0.000	0.000	0.000
Bus11	CB11	0.000	0.000	0.000	0.000	0.000	0.000
Bus12	CB12	0.000	0.000	0.000	0.000	0.000	0.000
Bus13	CB13	0.000	0.000	0.000	0.000	0.000	0.000
Bus14	CB14	0.000	0.000	0.000	0.000	0.000	0.000
Bus15	CB15	0.000	0.000	0.000	0.000	0.000	0.000
Bus16	CB16	0.000	0.000	0.000	0.000	0.000	0.000
Bus17	CB17	0.000	0.000	0.000	0.000	0.000	0.000
Bus18	CB18	0.000	0.000	0.000	0.000	0.000	0.000
Bus19	CB19	0.000	0.000	0.000	0.000	0.000	0.000
Bus20	CB20	0.000	0.000	0.000	0.000	0.000	0.000
Bus21	CB21	0.000	0.000	0.000	0.000	0.000	0.000
Bus22	CB22	0.000	0.000	0.000	0.000	0.000	0.000
Bus23	CB23	0.000	0.000	0.000	0.000	0.000	0.000
Bus24	CB24	0.000	0.000	0.000	0.000	0.000	0.000
Bus25	CB25	0.000	0.000	0.000	0.000	0.000	0.000
Bus26	CB26	0.000	0.000	0.000	0.000	0.000	0.000
Bus27	CB27	0.000	0.000	0.000	0.000	0.000	0.000
Bus28	CB28	0.000	0.000	0.000	0.000	0.000	0.000
Bus29	CB29	0.000	0.000	0.000	0.000	0.000	0.000
Bus30	CB30	0.000	0.000	0.000	0.000	0.000	0.000
Bus31	CB31	0.000	0.000	0.000	0.000	0.000	0.000
Bus32	CB32	0.000	0.000	0.000	0.000	0.000	0.000
Bus33	CB33	0.000	0.000	0.000	0.000	0.000	0.000
Bus34	CB34	0.000	0.000	0.000	0.000	0.000	0.000
Bus35	CB35	0.000	0.000	0.000	0.000	0.000	0.000
Bus36	CB36	0.000	0.000	0.000	0.000	0.000	0.000
Bus37	CB37	0.000	0.000	0.000	0.000	0.000	0.000
Bus38	CB38	0.000	0.000	0.000	0.000	0.000	0.000
Bus39	CB39	0.000	0.000	0.000	0.000	0.000	0.000
Bus40	CB40	0.000	0.000	0.000	0.000	0.000	0.000
Bus41	CB41	0.000	0.000	0.000	0.000	0.000	0.000
Bus42	CB42	0.000	0.000	0.000	0.000	0.000	0.000
Bus43	CB43	0.000	0.000	0.000	0.000	0.000	0.000
Bus44	CB44	0.000	0.000	0.000	0.000	0.000	0.000
Bus45	CB45	0.000	0.000	0.000	0.000	0.000	0.000
Bus46	CB46	0.000	0.000	0.000	0.000	0.000	0.000
Bus47	CB47	0.000	0.000	0.000	0.000	0.000	0.000
Bus48	CB48	0.000	0.000	0.000	0.000	0.000	0.000
Bus49	CB49	0.000	0.000	0.000	0.000	0.000	0.000
Bus50	CB50	0.000	0.000	0.000	0.000	0.000	0.000

