



λ Predict

ReliaSoft Lambda Predict facilitates reliability prediction analysis based on the major published standards, including MIL-HDBK-217F (MIL-217), Bellcore/ Telcordia, FIDES, NSWC Mechanical and Siemens SN 29500.



Features

- Provides standard based reliability prediction.
- Facilitates failure rate and MTBF predictions based on the major reliability prediction standards.
- Supports MIL-HDBK-217F, Bellcore/Telcordia, FIDES, NSWC Mechanical and Siemens SN 29500 standards.
- Offers reliability allocation, derating analysis and a full set of supporting tools.
- Includes Reliability Allocation with five allocation models.

Benefits

- Obtain an initial indication of whether a design will be able to meet reliability objectives and identify potential problem areas early in development.
- Compare design alternatives and/or trade-off system design factors.
- Consider environmental and other stress factors that have a significant impact on system performance yet may otherwise be overlooked.
- Gain free access to built-in database of component libraries.

ReliaSoft



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Lambda Predict Software Highlights

Reliability prediction standards

- MIL-HDBK-217F
 - Part stress and parts count
 - Option to define failure rates for custom connection types
 - Option to calculate non-operational failure rates based on RADC-TR-85-91
- Bellcore/Telcordia
 - Telcordia SR-332 Issue 3
 - Telcordia SR-332 Issue 2
 - Telcordia SR-332 Issue 1
 - Bellcore TR-332 Issue 6
- FIDES
- NSWC (Mechanical)
 - 2007
 - 2011
- Siemens SN 29500
- For all standards, option to define failure rates for “external” components not addressed in the standard

Data management

- Easy to build system configurations
- Multiple views for data entry
 - Tree view
 - Pi Factor view
- Easy to find and reuse data
- Import/export and copy/paste

Supported calculations

- For all predictions:
 - Failure rate($t=\infty$)
 - MTBF
 - Contribution

- For Bellcore/Telcordia:
 - Early Life Factor
 - Standard deviation($t=\infty$)
 - Failure rate upper bound($t=\infty$)
- For MIL-217:
 - Connection failure rate
 - Non-Operational failure rate
 - Non-Operational MTBF
 - Non-Operational Contribution
- For blocks that use redundancy:
 - Mission time
 - Failure rate(t)
 - Unreliability(t)

Supported plot types

(depends on the prediction standard)

- Failure rate
- MTBF
- Unreliability
- Mission phase
- Temperature plots
 - Failure rate vs. Temperature
 - MTBF vs. Temperature
 - Unreliability vs. Temperature
- Environment plots
 - Failure rate vs. Environment
 - MTBF vs. Environment
 - Unreliability vs. Environment
- Stress plots (Current, Power or Voltage)
 - Failure rate vs. Stress
 - MTBF vs. Stress
 - Unreliability vs. Stress
 - Contribution
 - Factor contribution by component (Contribution vs. Acceleration Factor)
 - Failure rate per phase

Derating standards

- NAVSEA-TE000-AB-GTP-010
- MIL-STD-975M
- MIL-STD-1547A
- Naval Air System Command AS 4613
- ECSS-Q-30-11-A

Reliability allocation methods

- Equal
- AGREE
- Feasibility of objectives
- ARINC
- Repairable systems

Extensive parts libraries

- MIL-HDBK-217F Parts Count
- MIL-M-38510
- EPRD-97
- NPRD-95
- PartLibraries.org
 - 300,000+ commercial components
 - 140+ manufacturers

Import types

- Excel® or delimited text files
- Components from libraries

Reliability program integration

- Publish models based on the predicted failure rate
- Use system configuration and prediction data in BlockSim and XFMEA/RCM++

Available services

- Detailed user documentation
- Practical example files
- Training for theory + software
- Professional engineering services

For more λ Predict information visit: www.holisticam.com.au/reliasoft-lambda-predict

ReliaSoft

Holistic Asset Management is the Australia and New Zealand reseller of ReliaSoft Software from HBM Prencscia Inc. These expert analysis tools are benchmarks in the reliability industry and are widely used in various industry sectors to facilitate the practical application of reliability in maintenance, asset management, product development and after sales.



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