Why DfRSoftware – Because it has Unlimited Problem Solving in Design Assurance

The DfRSoftware method just makes sense, we believe, you need a complete set of tools to solve most assurance problems. So our software provides a complete package for a very low cost ($285 for lifetime with one year updates, $385 with lifetime updates). For example, consider Reliability plotting like Weibull analysis. You can purchase a popular Weibull tool typically for over $1000, but we believe it will not help you solve your Weibull problem. You may also need help in the area of Physics of Failure, environmental profiling, thermal analysis, system reliability, accelerated test, availability, normality analysis, etc. With the DfRSoftware method, we not only help with exceptional Reliability Software for Weibull plotting (that we feel is better than any Weibull package in the market), but help in engineering that you truly need. We know that your job entails more than reliability plotting. Simply buying expensive software to do one task does not make sense. The DfRSoftware method is to help you do just about everything in design assurance. We include multiple powerful tools that you will need. Just look at all the tools you will have at your fingertip, they are listed upfront on our webpage and repeated below. All we ask is you give the DfRSoftware method a try with our free 21 day trial . Our software comes with Video and Pop Up instructions. Download our software; try our friendly Excel style modules, learn the DfRSoftware Method. Then take the DfRsoft Challenge, ask yourself, can I afford not to own DfRSoftware?

RELIABILITY SOFTWARE Included

·Reliability Plotting (Weibull etc.) ·Reliability Statistics ·Field Return Analysis
·System Reliability ·Software Reliability (G-O Model etc., New!)
·Acceleration Models ·Automated Qual Plans ·Accelerated Test Plans
·Design FMEA ·Parametric Reliability Analysis · HALT · Reliability Growth
·Environmental Profiling (CALT like analysis but easier to apply) ·MTBF Predictions
·Derating Guidelines · Engelmaier BGA Fatigue Life Model

QUALITY SOFTWARE Included

•SPC Control Charts •Normal & Lognormal Probability Plotting •Lot Sample Plans

•Cpk -Six Sigma Yield Analysis ·Field Return Analysis ·Availability & Sparing
Design of Experiments With Multiple Regression (DOE New!)

PHYSICS OF FAILURE & DfRQ LIBRARY Included

·A Library of Analysis Tools, PoF Knowledge, Design Guidelines, and DfRQ Tests

DfRQ ENGINEERING SOFTWARE Included

·Thermal Analysis • Electrical Analysis• Corrosion Prevention

• Misc Tools-DfRQ Cost Analysis • Engineering Conversions

• Electrostatic Discharge Design & Guidelines • Skin Depth Engineering

THERMAL ANALYSIS Included

· Engelmaier BGA Fatigue Life Model ·Junction Temperature Modeling · RF Power Efficiency
· Built in Thermal Library (CTEs, Resistances) · Fan Cooling Junction Assessment · Transient Thermal Heating

VIBRATION & SHOCK Included

· Vibration - Shock Analysis & Accelerated Test Plans · Isolator Design
· Steinberg Model· Random, Sine, Sine on Random · Drop Shock & ED Shock

We also specialize in this area see our sister site, VibrationShock.Com

With VIDEO & Pop-Up INSTRUCTIONS (easy to use & improves your work) - Click Here
DfRSoft Slide Overview

RELIABILITY SOFTWARE **Included**

Reliability Plotting: With or without suspensions, (group data option), Weibull MLE & regression, lognormal, exponential, normal*, Conf. bounds,* Weibull-Bayesian, mixed modes, superior Excel type graphics.
Field Return MTBF Analysis: MTBF analysis of monthly data with confidence bonds**.**
System Reliability & Complex Redundancy: Series or parallel (20 subsystems, 600 entries) block diagram format. Redundancy N of K, different MTBFs and repair rates, standby and active, imperfect switching.
Software Reliability: G-O model, Duane, Crow/AMSAA models, logarithmic model, and polynomial fit model.
Environmental Profiling: Profile most field stresses to one stress and time to make predictions and accelerated test plans.
Availability & Sparing: Optimally estimate spares using MTBFs, MTTRs, predict spares with binomial conf. and detail availability.
Reliability Statistics and Confidence: Exponential, normal, Weibull, and lognormal, confidence, chi-squared, Poisson, binomial.
MTBF Predictions: MIL HDBK 217+M/Notice 2, Telcordia (SRS 332 Issue 1), detailed stress & parts count, global parameters part failure rates library from companies like Analog devices, National Semiconductor, TI etc.
Acceleration Models: Arrhenius temperature, temp.-humidity (Peck), temp.-cycle (Coffin-Manson & Norris-Lanzburg), vibration fatigue X, Y, Z, Arrhenius least squares fit for activation energy, electromigration, dielectric breakdown E-model.
Accelerated Test Planning: Optimal sample size for multiple chi-squared test plans (i.e. temp., temp. cy, vibration, humidity).
Automated Qualification Accelerated Test Plans: For assemblies, hybrids, and semiconductors, specific tests plans with a step-by-step process qualification, minimum sample sizes needed for failure rate objective.
Accelerated Reliability Growth: Chi-squared multi-test as well as the traditional Crow/AMSAA-Duane reliability growth.
Design FMEA: Look up table of the most common failure modes for components/failure mechanisms and design controls.
Derating Guidelines: Parts derating guidelines - incorporating industry standards (NASA, MIL STD 1547A, RAC, JPL).
Parametric Reliability Analysis: Higher accuracy & confidence with less test samples in your predictions.

QUALITY SOFTWARE Included

Design of Experiments (DOE) with Multiple Regression: Full and fractional designs, ANOVA, mult. Reg., optimize processes etc.
Lot Sampling Plans: Hypergeometric (N, n, c) and binomial method (n, c) giving AQL, LTPD, OC curves, lot % defective.
SPC Control Charts: SPC control chart, variable lot sampling, obtain X-bar & R-charts with S-charts as well.
Six Sigma & Cpk Analysis: Full, upper, or lower Cpk for specification resulting yield, 6-sigma, defects per million opportunities etc.
Normality Lognormal Analysis: Bell shape, histogram, and/or linear type cum. probability plot w/confidences.
Field Return MTBF Analysis: MTBF analysis of monthly data with confidence bonds**.**

ENGINEERING SOFTWARE Included

Electrical Analysis: Conversions, insertion loss, VSWR, American wire gauge, fusing, circuit traces analysis, electromigration, breakdown, capacitor lifetime, and more
Corrosion Control: Corrosion, rate of metals, oxidation rate, Hydrogen poisoning, forms of corrosion table.
Engineering Conversions: Reliability, mechanical, electrical, temp., length, energy, torque, power, humidity- vapor pressure, local versus ambient relative humidity, temp at die surface, etc.
Other Tools: DfR cost analysis, skin depth analysis, and extensive help with ESD guidelines, advanced auditing, fixtures.

VIBRATION & SHOCK SOFTWARE Included

We also specialize in this area (see sister website VibrationShock.Com)

Sine, random PSD, sine-on-ran., accelerated testing, const. acc., ED & drop shock, Steinberg model,isolation design, Q, field data, Circuit Board and Plate resonances, etc.

DESIGN FOR RELIABILITY & QUALITY AND PHYSICS OF FAILURE LIBRARY Included

Design for Reliability & Quality Library: *Potential problems, inspection guides, derating, 6-sigma, Poka-Yoke, best practices, etc.*
Physics of Failure: *Warnings, finishes, corrosion, ESD, CTE mismatch, junc. temp., electromigration, embrittlement, fatigue, etc.*

Thermal Analysis Included

Thermal Analysis Tools: Engelmaier solder life (BGAs), thermal res., junc. temp. models, Fan cooling assessment, RF Power efficiency, CTE mismatch, transient thermal heating, Built in thermal library.