BQR's E2E engineering support solution

Products failures pose both safety and financial risks. BQR offers innovative tools to ensure minimum product failures, enhance safety and reduce your financial risks. Reliability modeling and simulation tools at the design stage for optimizing assemblies and electrical circuits without jeopardizing performance and saving time and money.

The challenge	Our Solution	Feature	Your Benefit
How to define an efficient logistic concept based on your design?	**APM optimizer™** Asset Performance & Maintenance Optimization	**LCC** (Life Cycle Cost)	Boost Revenue without sacrificing performance, optimize spare parts and minimize LCC
Want to know your system Reliability and Availability? To analyze failure criticality and severity?	**CARE®** Computer Aided Reliability Engineering	**RBD** (Reliability Block Diagram)	Enhance operational Availability by redundancy Modeling
		FTA (Fault Tree Analysis)	Mitigate Hazards to Enhance Safety
		FMECA (Failure Mode Effect Criticality Analysis) & **TA** (Testability Analysis)	Define critical components to Enhance Reliability
Want to improve the MTBF and life prediction? Want to eliminate your product product design failure failures?	**fiXtress®** Realistic MTBF based on part Stress Circuit analysis by simulation	**MTBF + Life** with Realistic Parts Stress	Grow Reliability with Real Stresses
		Stress Simulation & Derating for Electronic Bords	Identify and mitigate design errors before layout Eliminating Defects by detecting design errors

Why Choose BQR?

- **Save time and money by detecting design errors with**
  CircuitHawk: Test Net level and Physical Simulation- current & voltage, power and temperature
  fiXtress: Test stresses and MTBF in advance
- **Enhance product reliability safety and life prediction with CARE**
- **Reduce LCC (keep low spare parts costs) with apmOptimizer**
- **Maximize traceability and reuse of data with BQR software**

BQR has more than 30 years of experience in providing end-to-end patented engineering solutions (software and professional services) for mission critical systems for more than 3,500 projects around the world.

Want to learn more?
www.bqr.com

RAMS analyses with BQR made easy

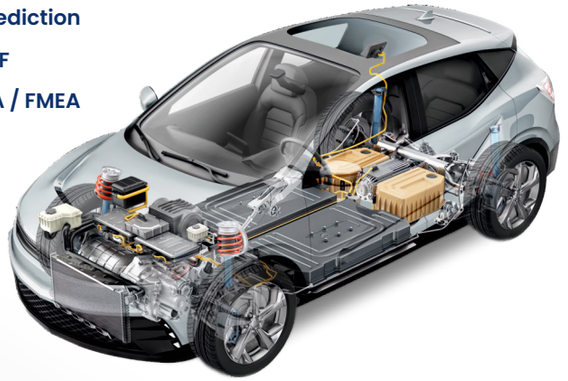
BQR
Leading Engineering Excellence

From component to system

Prepare automatically product data from any CAD system and save 75% of your time

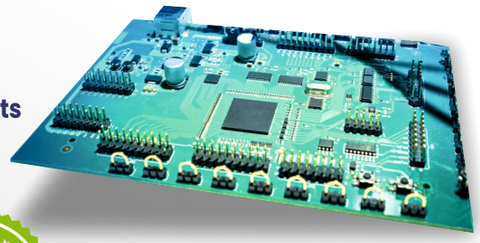
Analysis Software

- LCC
- LORA
- LSA
- FTA
- MSG-3
- Safety
- RBD
- RCM
- Realistic MTBF Prediction
- Life Prediction
- MTTR/F
- FMECA / FMEA



Analysis software for electronic products

- Electrical Stress Derating
- Design Errors Detection
- Built In Test Analysis

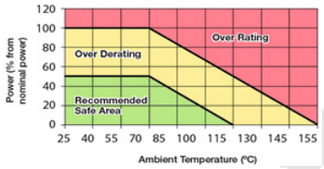


★ Since ★ EXPERT 1989

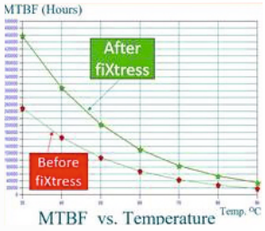
Fully integrated software solutions in the design process

BQR's DFR (Design For Reliability) Model is a built layer upon layer to provide robust and bugs free electrical circuits for safe and reliable products.

Want to detect electronic design errors in time?



Eliminate electrical and stress errors during the schematic design stage by simulating components stresses (i.e. P, V, I, Tj). Conduct Stress & Derating Analysis on any circuit schematic size (i.e. from hundreds of pads to tens of thousands of pads) & any type of electrical circuit (e.g. Analog, Digital, RF, or Power) at the schematic level before layout and production. Improve the design with lower costs than fixing product defects before First Article Tests.



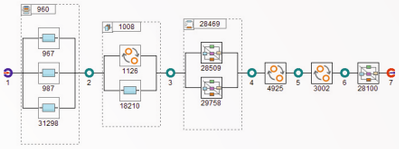
Need to improve your life prediction and MTBF?

By using MTBF Part Stress based on real stresses you can calculate realistic MTBF predictions thus enabling to root out the weakest links of the design that cause deficient performance and high failure rates.

Want to analyze the failure criticality and severity?

FMECA & TA (Testability Analysis), enhance the electrical circuit reliability by identifying critical failure modes in advanced thus mitigating technical risks discovered by FMECA, followed by Testability Analysis for failure detection coverage and isolation.

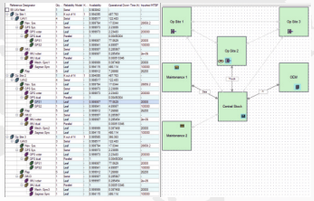
Want to improve your product's reliability and safety?



Reliability Block Diagram (RBD)

FTA (Fault Tree Analysis) and RBD (Reliability Block Diagram), analyze the effects of redundancies and stand-by units on system safety and mission reliability.

Reduce cost and logistic support based on your design, failure rate, spare parts, transportation time and LCC



optimize the system logistics and maintenance concept to minimize LCC (Life Cycle Cost) while achieving high product availability and reliability.

The BQR DFR tools can work individually and self-contained, or via one common core database that enables the tools to interact with each other allowing for seamless integration. The tools allow for the reuse of the results from one simulation to other analyses providing better accuracy and saving significant time.

Thus, it is a simple way to allow for design modifications to be updated instantaneously for all simulations and analyses results.

Case studies show that logistic and maintenance optimization for fleets, reduce the Life Cycle Cost by at least 34%