Relyence RBD

Reliability Block Diagram Analysis

KEY HIGHLIGHTS

- Complex system modeling
- Redundancy analysis
- Series, parallel, and standby support
- Spare pools
- Monte Carlo simulation
- 16 performance metrics
- 10 failure and 9 repair distributions
- 10 Plot types
- Path sets and Cut sets
- Diagram and Block Libraries
- Analytics Calculator
- Dashboard overviews
- Device independence

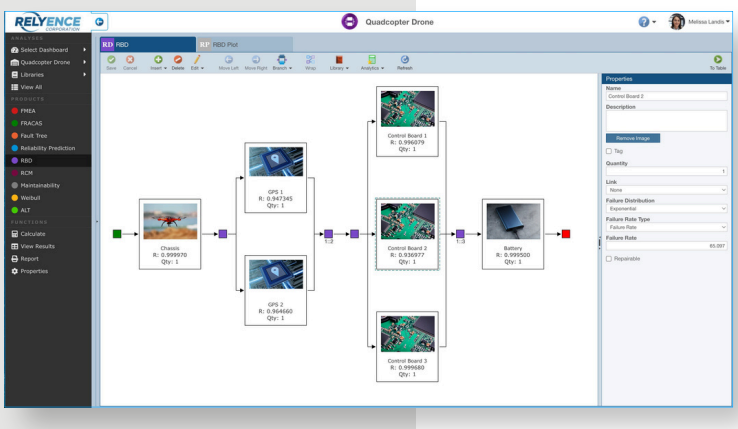
Relyence® RBD offers a comprehensive platform for modeling complex systems, including those incorporating redundancy and spare pools. Computing a wide range of metrics with its highly capable mathematical engine, Relyence RBD offers the finest in power and performance for your reliability block diagram analysis needs.

Complete System Modeling. Relyence RBD is a complete modeling tool for reliability block diagram (RBD) analysis. The intuitive, visual diagrammer provides an easy-to-use interface for creating impressive, organized graphical system models. The built-in ***smart layout*** feature expertly manages your diagram layout and connections. You can create series and parallel configurations, incorporate branches, and analyze standby redundancies with switch probabilities and delay factors, and model shared spare pools. For accurate modeling, Relyence RBD supports an array of failure and repair distributions, including Constant Time, Exponential, Gumbel, Lognormal, Normal, Rayleigh, Uniform, and Weibull.

Capable Calculation Engine. The heart of Relyence RBD is the highly intelligent mathematical calculation engine. First evaluating your diagram to determine the most efficient computational methods to employ, the calculation engine then computes a wide array of reliability and availability metrics. Utilizing both analytical and Monte Carlo simulation techniques, Relyence RBD can compute reliability, failure rate, availability, mean availability, hazard rate, total downtime, unreliability, equivalent failure rate, unavailability, mean unavailability, failure frequency, expected number of failures, and steady state values of MTTF, MTTR, MTBF, and availability. The calculation engine also can be used to evaluate cut sets and path sets for critical path identification. A range of Plot types aid in assessing lifetime performance. Additionally, the Analytics Calculator can be used to compute point-based metrics such as availability, bearing life (used to calculate B10 life), failure rate, mean life, reliability, warranty time, and more.

Robust RBD Package. Relyence RBD includes a host of additional capabilities for a best-in-class RBD package: support for sub-diagrams, Block and Diagram Libraries for efficient diagram and data management, Allocation and Optimal Replacement tools for system optimization, integration with Relyence Reliability Prediction, Relyence Maintainability Prediction, Relyence Weibull, API features, and much more!

Dashboard for RBD. The Relyence RBD Dashboard provides an at-a-glance overview of your reliability block diagram analyses. Combining all the data you need for quick assessment, the Dashboard offers the ability to monitor and manage your reliability and availability metrics with efficiency and effectiveness with a choice of customizable widgets. This focused overview enables you to quickly gauge system health, proactively maintain your reliability and availability objectives, and turn insight into action.



Deployment Choice. Relyence RBD is built on the Relyence platform - a highly adaptable, browser-based, mobile-friendly framework constructed with today's workplace in mind. Relyence RBD can be installed on-premise at your location, hosted in the Microsoft Cloud, or hosted in your own private secure cloud. All installations offer the same features and functions. The choice is yours!

Relyence RBD

TRY FOR FREE

Reliability Block Diagram Analysis

Combining an easy-to-use diagramming front end with powerful calculations.

Complex System Modeling

Array of Plot Types

Extensive Help including Videos

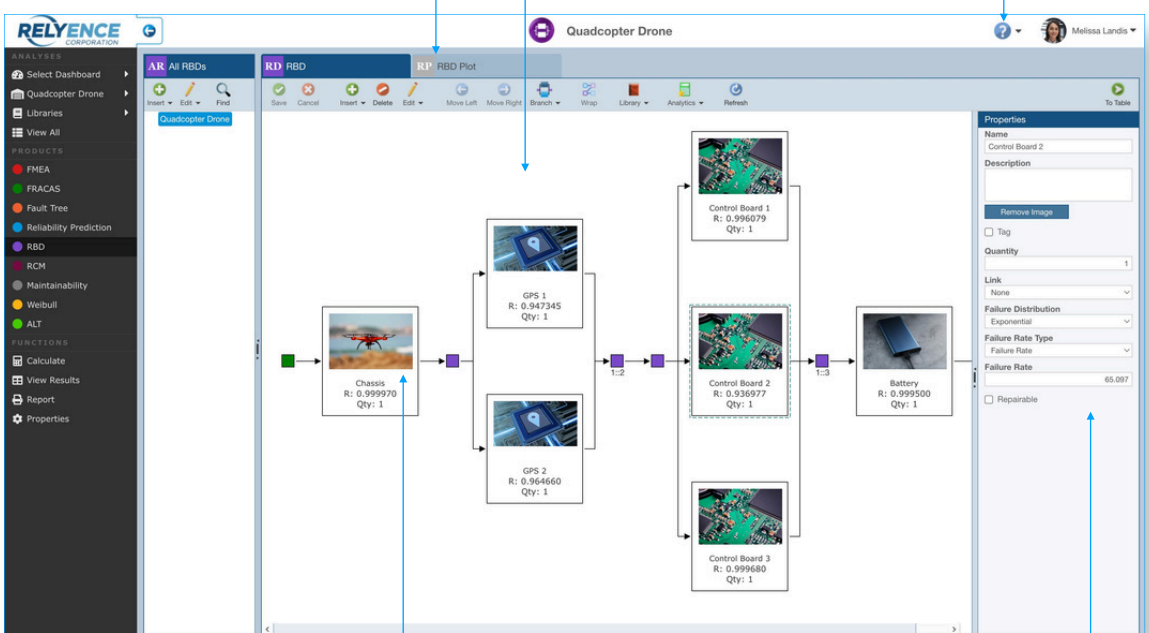
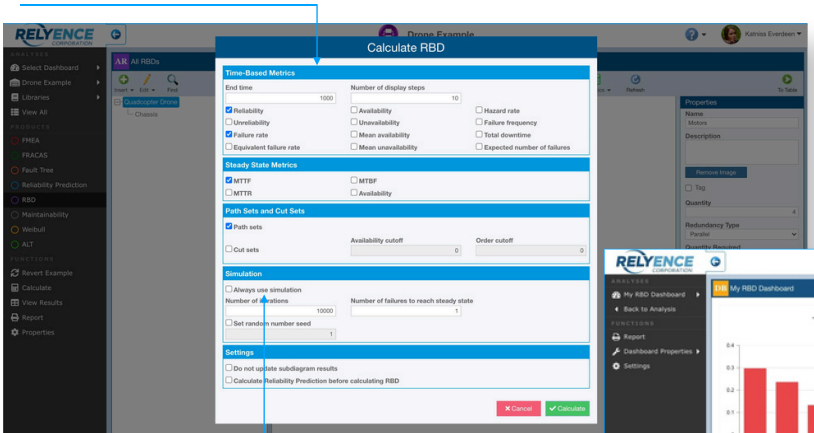


Image Support for Impressive Diagrams

RBD Diagram

Extensive Failure & Repair Modeling

Comprehensive Calculations

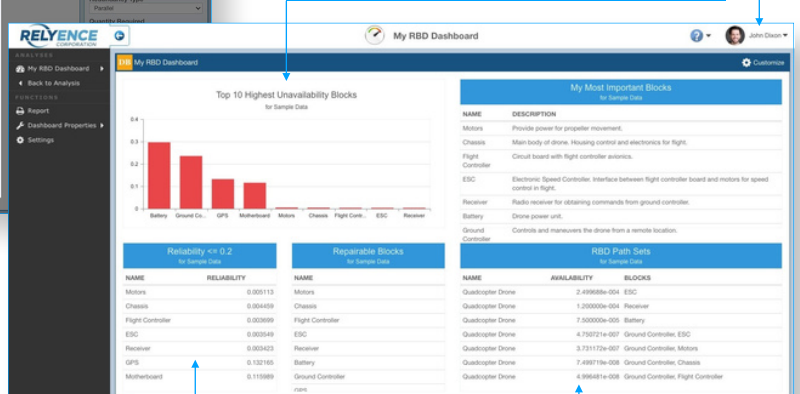


Calculation Options

Analytical & Simulation Methods

Account Management

Top Ten Blocks with Highest Unavailability



Example RBD Dashboard

List of Blocks with Low Reliability

Path Set Listing

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