

Use component data to analyze system **Reliability**, **Maintainability** and **Availability** with a reliability block diagram (RBD) approach.



## Complete Reliability Analyses based on Exact Algebraic Solutions

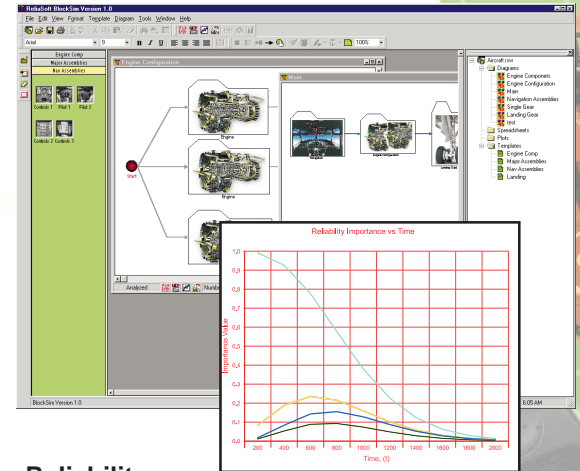
Using an exclusive algorithm pioneered by ReliaSoft, BlockSim algebraically computes the exact system reliability function for complex systems. Use this analysis to obtain exact system reliability results from component data.

## Reliability Allocation Using Cost-Based Optimization

Use BlockSim to determine the most cost-effective component reliability allocation strategy to meet a system reliability goal.

## Analysis of Repairable Systems

BlockSim's simulation utility provides system maintainability and availability analysis for repairable systems. Also, quick and easy calculation of optimum replacement times.



- ▶ System Reliability
- ▶ System Probability of Failure
- ▶ System Failure Rate
- ▶ System Mean Time to Failure
- ▶ System Warranty Time
- ▶ System B(X) Life
- ▶ Reliability Importance Measures
- ▶ Probability, pdf and other plots

**Block Properties** (Block Name: Ford Drive 1)

**Quick Calculation Pad (QCP)**

Required Input From User:

Mission End Time: 500  
Reliability Goal: .85  
Iterations: 50

**ReliaSoft Results Panel**

Block Name	RS(0)	R <sub>goal</sub> (500)	N.E.P.U.*
Block 1	0.8825	0.9439	1.9454
Block 2	0.7022	0.9346	2.2497
Block 4	0.8365	0.8531	3.8522
System Reliability	0.3757	0.85	

\* N.E.P.U.: Number of Equivalent Parallel Units indicates the number of blocks that would be required in a parallel configuration for this particular block, in lieu of increasing the block's reliability.

**Optimum Replacement**

Required Input From User:

Planned Replacement Cost: 1  
Unplanned Replacement Cost: 2

Results:

Replacement Time: 1087.3208  
Cost Per Unit Time: 0.0044

- ▶ Uptime
- ▶ Downtime
- ▶ Mean Availability
- ▶ Point Availability
- ▶ System Reliability
- ▶ Expected Number of Failures
- ▶ Preventive Maintenance Downtime
- ▶ Expected Preventive Maintenance Actions
- ▶ Spare Parts Predictions
- ▶ Optimum Replacement Times

**Minimum System Requirements:** Windows 95, 98, Me, NT, 2000 or XP. Pentium class processor with 32 MB RAM, SVGA display and at least 28 MB of hard disk space.

**Documentation:** Complete and detailed on-line help files, as well as printed product documentation and a reference book that presents system reliability analysis principles and theory.

**Support:** Support includes free telephone, fax and e-mail support and free minor version updates.

**Integration:** Integrated with ReliaSoft's Weibull++ software and the failure rate database from the Reliability Analysis Center (RAC) PRISM software.

**Price: \$1,995** for a single user.



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