# Clockwork Solutions

## VISUALSPAR™

The ***SPAR modeling platform*** is now even more powerful following the release of the ***VisualSPAR™.*** This platform implements Rapid Application Development (RAD) technology for use in creating and deploying SPAR™ simulation models. VisualSPAR™ is designed to streamline the entire modeling process, from model construction and verification, organization of scenario analysis studies and reporting and presenting model results. In addition, deploying customized SPAR™ based user applications, within the Windows OS or on the internet is now possible due to the .NET programming environment. ***VisualSPAR™*** simulation models can be easily integrated with Microsoft Office and VS.NET applications, and can utilize standard database formats such as Oracle, SQL, and Access, through commercially available programming techniques and tools.

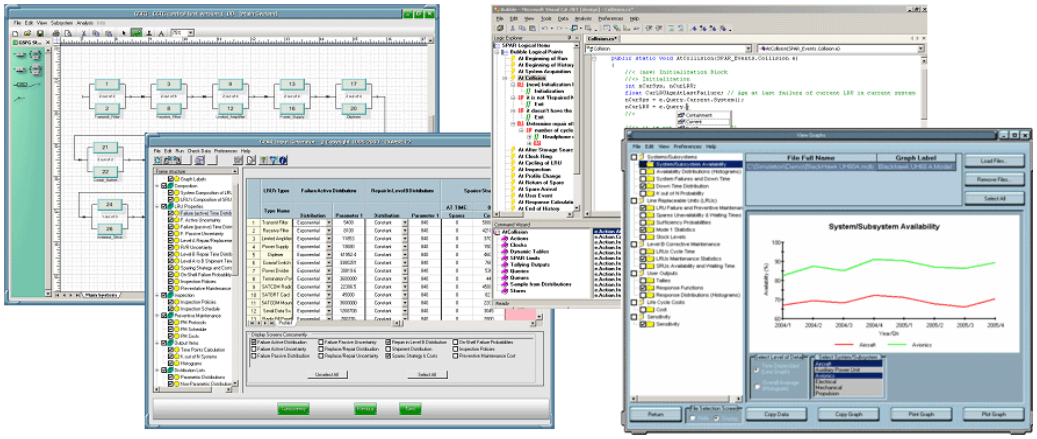



**Figure 1: The Latest SPAR modeling platform, VisualSPAR, provides a modeling environment that will facilate rapid application development, with the SPAR model as the core.**

**VisualSPAR™** is comprised of 5 primary modules;

- Reliability Diagram Module (RDM)
- Input Data Module (IDM)
- Bubble Logic Module (BLM)
- Output Analysis Module (OAM)
- Optimization Module (OM)

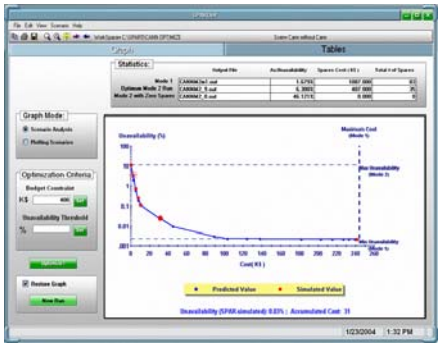
The **Reliability Diagram Module (RDM)** is designed as a Microsoft Visio-based application, thus encompassing all of MS Visio powerful diagram design and editing capabilities. Here, users quickly create Reliability Block Diagrams providing and export diagrams directly to reports. The system breakdown structure is contained in a separate window, providing for quick and easy access to any module/component of the system.

The **Input Date Module (IDM)** provides an intuitive and convenient navigation interface for entering and editing standard model data. The user is presented with the capability to

customize the contents of the table viewer, and can incorporate user defined data tables as well.

The **Bubble Logic Module (BLM)** provides the framework for incorporation of user defined rules and logic, describing the operations and maintenance domain under analysis. The BLM is constructed within the Microsoft VS.NET environment, provides a robust logic debugger and provides easy to use SPAR bubble logic syntax for users to select from. Modern code syntax proofing and programming assistance features include; include; *IntelliSense, Automatic code completion, Syntax highlighting, Errors check mode, Interactive help*. Developing in the .NET environment allows for linkages to the internet, databases, mathematical libraries and optimization algorithms.

The **Output Analysis Module (OAM)** provides several standard outputs, displaying simulation results in the form of time-dependent graphs, expected averages and risk distributions. Graph editing, zoom and data export capabilities are provided.



The **Optimization Module (OM)** provides a spares optimization technique where an objective function is used which consists of system availability, spares costs or both.

***VisualSPAR™*** introduces several benefits to the systems life cycle modeler, over traditional SPAR, to include:


- More Flexible Modeling Environment
- Ability to Deploy Model Applications to Users
- Efficient Debugging
- Database Connectivity
- Ability to integrate Microsoft-based Applications
- Capability to merge separately developed models

Affordable purchasing or annual lease options are available. Get your copy today!

## Contact

**Clockwork Solutions, Inc.**
115 Wild Basin Rd., Suite 301
Austin, TX 78746 USA
Tel (512) 338-1945 Fax (512) 338-1946

info@clockwork-solutions.com

www.clockwork-solutions.com