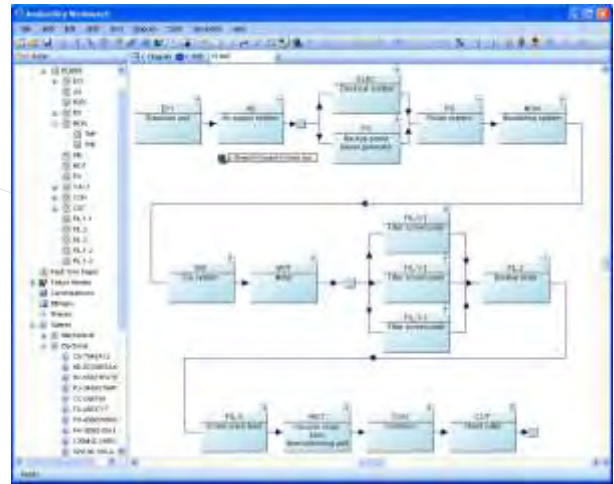# Availability Workbench

Powerful Simulation Software for Improving Asset Performance

The Availability Workbench software has been used in many maintenance intensive industries such as mining, mineral processing, oil & gas, pharmaceutical and manufacturing to make annual savings into six and seven figures by improving maintenance strategies, spares holdings and system availability. The latest version has enhanced analytical capabilities and direct links to corporate ERP systems, databases and CMMS software.

Availability Workbench is the latest software from Isograph that combines the previous enhanced RCM, availability simulation, failure data analysis and life cycle cost products into a single unit. Data is shared between the four elements of Availability Workbench eliminating the need to transfer information between them.

Availability Workbench is easily integrated with corporate ERP systems to provide the ideal method of releasing valuable asset performance data for analysis and optimization. Availability Workbench becomes an integral part of the corporate decision making process, not an isolated one-off application and contributes to continuous improvement.

KEY FEATURES

- Powered by the Isograph Simulation Engine

- Improve profitability

- Justify your maintenance strategy and costs

- Improve use of your maintenance budget

- Increase uptime

- Optimize spares holdings

- Meet safety, quality and operational targets

- Improve quality & service

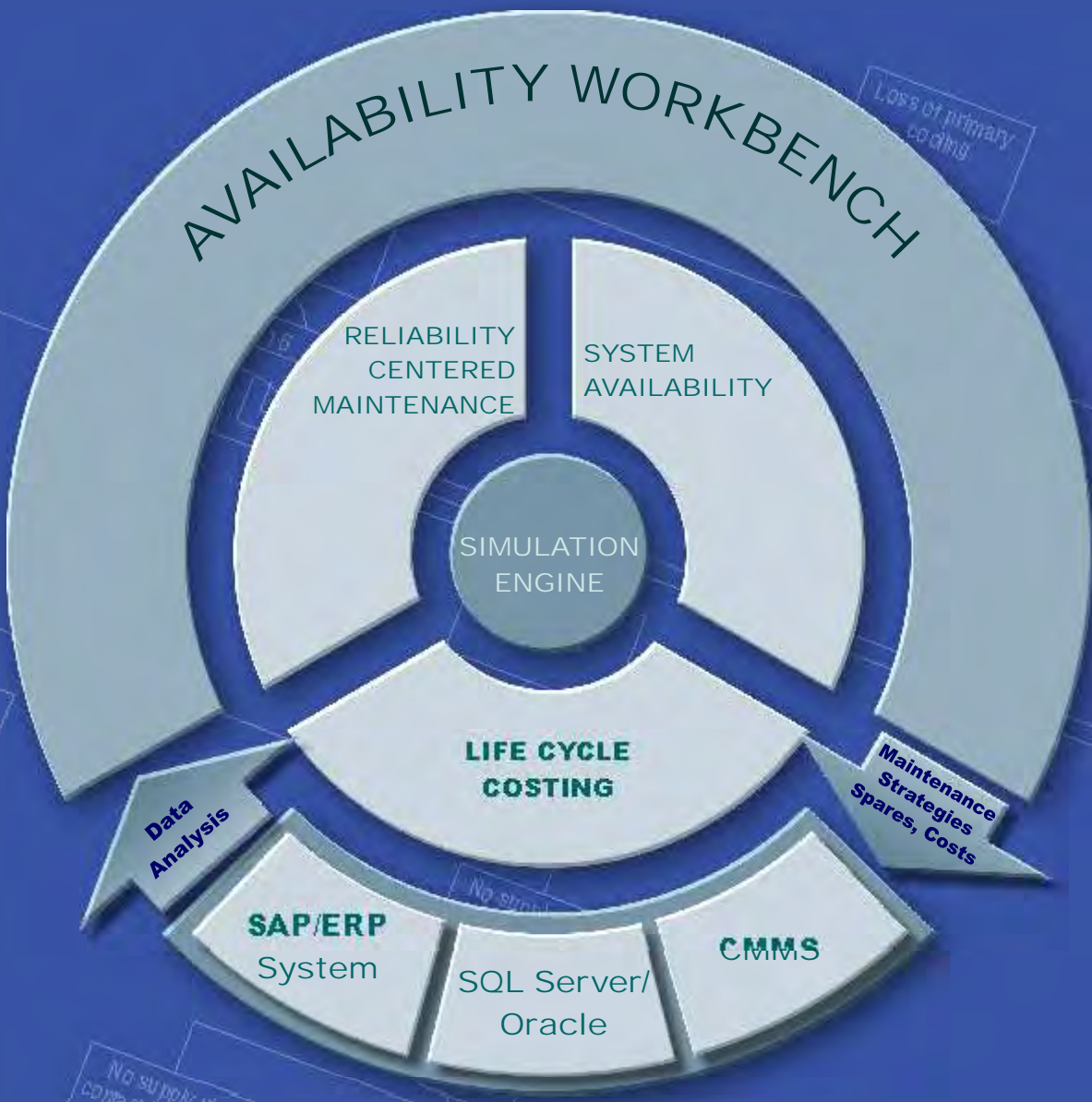- Empower employees to ensure continuous improvement in the future

Release Valuable Asset Performance Data for Analysis and Optimization

isograph

The Future Assured

AVAILABILITY WORKBENCH

RELIABILITY CENTERED MAINTENANCE

SYSTEM AVAILABILITY

SIMULATION ENGINE

LIFE CYCLE COSTING

Data Analysis

Maintenance Strategies Spares, Costs

SAP/ERP System

SQL Server/ Oracle

CMMS

The RCM Process - Intelligent Decision Making
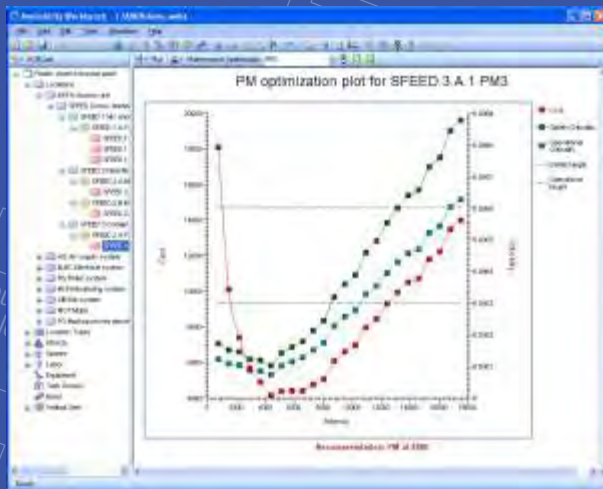
Powered by the Isograph Simulation Engine.

Use Failure Modes and Effects Analysis (FMEA) to identify critical failure modes.

Use Weibull analysis to characterize failure and repair data from your ERP/CMMS.

Analyze each critical failure mode to optimize maintenance strategies and minimize severity of failure.

Use simulation to analyze life cycle costs and resource usage.

Ensure strategy meets safety, environmental & operational goals.

Features

- Simulate the effectiveness of planned maintenance policies

- Simulate the effect of alternative predictive maintenance strategies

- Identification of critical failure modes

- Redundancy modeling

- Automatic analysis of work order data

- Optimization plots for alternative maintenance strategies

- Group maintenance modeling

- Graphical time profiles for costs and resources

- Flexible reporting providing customized worksheet

- Library facilities

- Direct import from ERP/CMMS systems

- Import/Export to databases and spreadsheets

The Availability Process - Whole System Performance Simulation

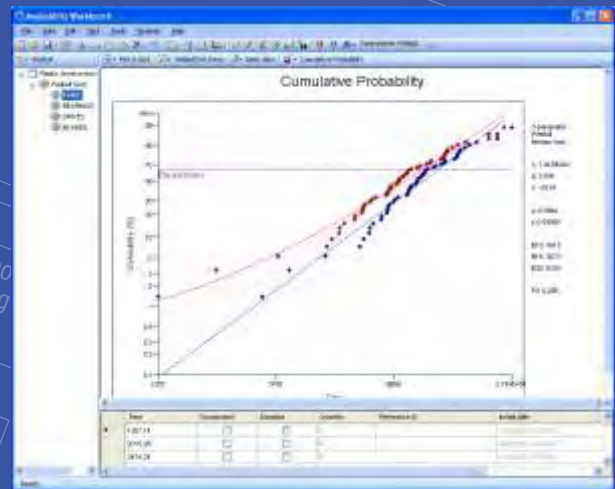Powered by the Isograph Simulation Engine.

Create a Reliability Block Diagram (RBD) or Fault Tree to represent the system logic.

Use Weibull analysis to characterize failure and repair data from your ERP/CMMS.

Use simulation to model system performance and optimize spare holdings.

Simulate the effects of design and operational changes.

Results include plant capacity, availability and costs.

Features

- Fast system construction using either fault trees or RBDs

- Swift and reliable Monte Carlo simulation

- Analysis of historical data using Weibull analysis

- Simulation of production capacity levels with target cost penalties

- Sub-system blocks allowing RBD pagination

- Calculate financial, safety, operational and environmental consequences

- Modeling of spares dependencies and stock levels

- Spares optimization facilities provided

- Model switching delays and buffering

- Opportunistic maintenance and 'hold for repair' modeling

- Models changing configurations during different phases

- Import and Export facilities to databases and spreadsheets

Comprehensive Reports

One of the most important aspects of your reliability or safety studies is the creation of professional reports that will enable you to present the results in a clear and understandable form to colleagues, management, customers and regulatory bodies.

The Availability Workbench Report Designer provides customizable quality reports allowing you to preview, filter, sort and print data precisely in the format you require. Tabular and diagram reports may be exported directly to Word.

Communication with External Applications

Availability Workbench has an extensive Application Programming Interface (API) which allows access to the data held within the software and provides a powerful data interchange link to other applications.

It includes the standard Isograph import and export facilities which allow data transfer between Availability Workbench and Oracle, SQL Server, Access, Excel and text files.

Other Related Isograph Products

Reliability Workbench offers component failure rate prediction to several international standards, FMECA, Reliability Block Diagram, fault tree, event tree and Markov analysis in an single integrated software product.

Isograph

Isograph was founded in 1986 and is now one of the world's leading companies in the development and provision of integrated Reliability, Availability, Maintainability and Safety software products. The company headquarters is near Manchester, UK and there is also an office in Irvine, California.

The Isograph software products are well proven in use at over 7000 sites worldwide where they are used on many high profile projects. All of the Isograph software products are fully maintained and supported by a group of industry specialists. Training in the use of the software products is available at regular public courses or private on-site courses. Enhancements to the software products are largely driven by our user group community and associations with consultants and universities in the safety and reliability field.

Isograph works with partners who can offer training on Availability Workbench, software implementation and project services so that our clients obtain the maximum benefit from the software.

Fault Tree Analysis - Availability Simulation - Prediction - FMECA - Reliability Block Diagrams

Life Cycle Costing - Markov Analysis - Hazop - Weibull - FRACAS - Network Availability

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