

2009 Listing of Special Maintenance Application Software

2009 Listing of Special Maintenance Applications Software was compiled by Len Bradshaw, September 2009. The data given in this 2009 SMAS Listing is extracted, as received, from the respondents. The AMMJ does not therefore accept any liability for actions taken as a result of information given in this Listing.

apt Group (of Companies)

Email: info@aptgroup.com.au Web Page: www.aptgroup.com.au



Asset Performance Tools (Aptools)

Aptools is a modular software solution fundamental for optimum Enterprise Asset Management:

- Project Evaluation, Asset Replacement & Life Cycle Costing. Cost/benefit evaluation and prioritising of modifications, project screening, capex/opex trade-off, repair versus replacement, life extension & refurbishment options.

Operating, Maintenance & Inspection Strategies. Shutdown programming, inspection, test and maintenance intervals, optimization of reliability, performance and equipment lifespan, condition monitoring strategy.

Resourcing & Materials Strategies. Spares and materials stock levels, supply chain decisions, min/max policies, logistics and warehousing strategies.

Software Modules

Apt-Lifespan: Determine the best life cycle for assets; justify costs and benefits of alternative replacement, refurbishment and maintenance options. Capex/Opex combinations.

Apt-Project: Determine the variability of projects; Cost/benefit/risk screening & prioritizing of proposals, modifications, projects, safety, process or procedure changes.

Apt-Maintenance: Calculate maintenance intervals, deterioration management, reliability, performance and lifespan.

Apt-Inspection: Calculate the best inspection, monitoring or test intervals and quantify the economics of risk-based inspection methods.

Apt-Schedule: Optimise work content planning, shutdown scheduling frequencies, Identify cost/Risk/Performance plus impact and analysis of shuts, repairs & construction.

Apt-Spares & Stock: Justify min/max levels, re-order JIT. Compare vendors, evaluate pooling options.

ARMS Reliability

Country: Australia, North America, Europe, New Zealand

Email: info@globalreliability.com Web Page: www.globalreliability.com



Isograph - Availability Workbench

Availability Workbench is the latest software from the acknowledged world leaders in reliability software Isograph and is distributed, implemented and supported by ARMS Reliability Engineers around the world. Availability Workbench 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 optimisation. Availability Workbench becomes an integral part of the corporate decision making to contribute to continuous improvement.

Isograph - Availability Workbench – RCMCost

Many of the worlds leading companies are using Reliability Centered Maintenance Strategies as a means to decrease maintenance costs, increase operational performance, reduce risk and meet safety and environmental goals. Across the globe companies are turning to RCMCost to provide them with the full framework for building the RCM model to accurately represent data and analyse optimized maintenance alternatives. RCMCost is empowering users with a decision making tool to understand the contribution of their assets to business performance, and help optimize their maintenance decisions to further enhance productivity through increased reliability.

Isograph - Availability Workbench – AvSim+

A sophisticated Monte Carlo simulation package for analysing systems availability and reliability problems using fault trees or reliability block diagrams. These diagrams may be used to model failure and success or levels of throughput in the system. Consequences are then assigned to any level of the logical diagram to indicate the effects of failures (financial, operational, safety and environmental). Labour, spares and failure data may be imported or directly entered into the program together with any operational phase information and task group assignments. AvSim+ will then analyse your system using efficient Monte Carlo simulation algorithms to provide availability and reliability parameters, life cycle costs, importance rankings etc. You may also optimise spare holdings and planned maintenance intervals.

Isograph - Availability Workbench - LCC

Life cycle costing is a methodology for calculating the whole cost of a system from inception to disposal. The system will vary from industry to industry and could for instance be a building, a ship, a weapon system or a power station. Whatever the system, the life cycle costing technique will be the same; the major items of cost will be defined through its life. LCC allows you to build the tree interactively and create your own CBS. LCC allows you to create cost functions that will be used to calculate the value of a cost category. These cost functions can range from simple equations to more complex calculations based on Visual Basic compatible coding. You can easily assign the cost functions to the nodes on the cost tree so that LCC can calculate the individual cost values.

Isograph – Enterprise Reliability Portal – For SAP, Maximo, Oracle and Ellipse

The Enterprise Reliability Portal helps users analyse specific SAP notification data from their CMMS in order to identify areas where improvement projects should be focused. It then allows for seamless transfer of data into a reliability modeling environment. Any changes or additions to maintenance plans can be directly uploaded to your SAP, Maximo, Ellipse or Oracle systems using the users logon credentials, so as results can be efficient, effective and actioned every time an investment is made into a Reliability project.

The Enterprise Reliability Portal includes download and upload of CMMS Master data, uploading RCM studies outputs and if required generating and loading word document task lists. The Enterprise Reliability Portal is a SAP certified solution.

Isograph - FaultTree+

Isograph RAMS software suite has built its reputation on the efficiency, accuracy, stability and ruggedness of its FaultTree+ product. This is why there are thousands of FaultTree+ installations world-wide that are currently being used on major projects in industries as varied as aerospace, defence, automotive, nuclear, rail, chemical process plant, oil & gas and medical amongst many others. FaultTree+ can efficiently solve fault trees of the order of 20,000 gates and 20,000 basic events, using world class analytical methods. It is the most advanced, and flexible FaultTree application available on the market. FaultTree+ includes an event tree analysis option. The event tree model may be created independently of the fault tree model or may use fault tree analysis gate results as the source of event tree probabilities.

FaultTree+ also allows the user to construct Markov models for use as the source of basic event data. The Markov models may also be analysed independently of the fault tree analysis.

Isograph - RealityCharting

RealityCharting™, a program specifically designed to help conduct root cause analysis investigations using the Apollo Methodology. RealityCharting™ offers the perfect platform for collating and reporting an Apollo Root Cause Analysis investigation. RealityCharting™ is a tool that adds great value by expediting your analysis consistent with the rules of the Apollo method. When investigators use the same format, it's easier to add information to an analysis as well as communicate the results across the organization. RealityCharting™ guides the user through each step in the Apollo process, helping to ensure that relevant information is captured in a consistent format. RealityCharting™ uses drag and drop features that make creating and organizing the Apollo cause and effect chart extremely easy compared to other techniques. It ensures that solutions are directly attached to causes and provides a final report that lists action items and due dates.

Isograph - FRACAS

The Failure Reporting Analysis and Corrective Action System (FRACAS) can be used to collect record and analyse system failures. The failures are reviewed and corrective actions identified and verified. This powerful process can be used to greatly improve the through-life reliability of the target system. The recording of equipment or system failure is broken down by site and functional location in a hierarchical structure that can be easily understood. A major problem for many organisations stems from the fact that similar failures occur on many sites and are recorded by many individuals in many different ways. The use of a FRACAS system will solve this, as well as produce an accurate and accessible failure and corrective action history.

Isograph - Reliability Workbench

Reliability Workbench is an integrated visual environment in which failure rate prediction, FMECA, Reliability Block Diagram, Fault Tree, Event Tree and Markov analysis are combined. Failure rate predictions are calculated from the Bellcore standard for electronic parts, the MIL-HDBK-217 standard for electronic equipment, the IEC TR 62380 standard for electronic equipment (as well as the RDF 2000 standard for electronic equipment) and the NSWC-98/LE1 Handbook for mechanical parts. This comprehensive tool is sold as separate modules or as a complete package to allow users the flexibility of purchasing the part of the application that is most applicable to their needs. Other modules can be added at any time and there are cost benefits for purchasing multiple modules at the same time.

Isograph - Hazop+

The Hazard and Operability Study, known as Hazop, is a standard hazard analysis technique used in the preliminary safety assessment of new systems or modifications to existing ones. The Hazop study is a detailed examination, by a group of specialists, of components within a system to determine what would happen if that component were to operate outside its normal design mode. Hazop+ provides a familiar visual environment in which to design and use the study and action forms that are the basis for entering Hazop information. Extensive reporting facilities are available.

Isograph - NAP

The Network Availability Program (NAP) enables users to predict the availability and reliability of communication networks. The NAP network availability model utilises an extended Reliability Block Diagram (RBD) methodology that addresses the specific characteristics of network elements and their connections. In addition to predicting network availability, NAP also provides criticality rankings that identify weak spots in the network. Complex or simple networks may be modelled using NAP. One of the important features of NAP is that it allows the modelling of data flow in different directions along the same network path. This means that users need not be specific about the direction of data flow in selected parts of the network. NAP will then automatically determine the allowable paths between a source and target, and hence determine the minimal cut sets that determine the availability of the network.

Isograph - RiskVu

Fault and event tree analysis methods are widely applied to system availability and reliability problems in most engineering disciplines. They may be used to predict the performance of a system at various stages of the design process and indicate reliability weak spots in the design.

RiskVu is designed to provide a high level interface to the FaultTree+ program. This allows it to be used as a 'Living PSA' (PSA stands for Probabilistic Safety Assessment) tool or as a risk monitor. It may also be used as a management tool to allow users to try out 'what-if' scenarios without knowing anything about the underlying fault and event tree models created in FaultTree+.

Isograph - AttackTree+

Attack trees allow threats against system security to be modelled concisely in a graphical format. The effectiveness of internet security, network security, banking system security, installation and personnel security may all be modelled using attack trees. With the increased risk of terrorist attacks on homeland security, hacking attacks on computer systems and computer-based fraud on banking systems, AttackTree+ is an invaluable tool to system designers and security personnel. AttackTree+ provides a method to model the threats against a system in a graphical easy-to-understand manner. If we understand the ways in which a system can be attacked, we can develop countermeasures to prevent those attacks achieving their goal.

Isograph - Isolib Parts Library

The IsoLib Parts Libraries contain many thousands of modern electronic and non-electronic parts and provide a comprehensive source of failure data for users of Isograph's reliability products. The libraries have been constructed by electronic and reliability engineers from

manufacturers' datasheets and other sources, or taken directly from existing public sources. IsoLib's ever-growing Electronic Parts Library currently contains many thousands of parts and can be imported directly into other Isograph analysis tools to produce system failure data quickly. IsoLib also contains two existing non-electronic libraries: the NPRD-95 library for mechanical component failure data and the IAEA-TECDOC-508 library for component reliability data. Again, the data can be swiftly imported into other Isograph tools.

Isograph - Isolib Project Management

The IsoLib Project Management program is a powerful tool that can be used to manage all the project files associated with Isograph software. It provides full project control and historical tracking to those using the software in a corporate or enterprise situation. The product maintains the project files from all Isograph products and stores them in a SQL Server database. The IsoLib Project Management program controls access to these projects, using a checkin/checkout methodology, preventing multiple users from working on an individual project at the same time. An audit log is maintained so that details of who created, modified and deleted a project can be determined.

AssetFuture Pty Ltd

Email: Planning@assetfuture.com Web Page: www.assetfuture.com



AssetFuture

AssetFuture is a Whole of Life asset planning system with a real life modeling capability that produces future infrastructure, plant and equipment asset budgets upto 100 years and detail maintenance plans upto 5 years. It can be applied to existing assets and future assets still on the drawing board. It has powerful scenario planning capabilities applying asset risk, asset importance, prescribed budget limits, asset renewal & replacement strategies to optimise future budgets and plans. Scenario plans once 'approved' can be downloaded into your CMMS. AssetFuture operates in a Microsoft SQL Dot Net environment.

Dyadem

Email: sdamico@dyadem.com Web Page: www.dyadem.com



Stature

Stature is a web-based, Quality Risk Management platform that helps organizations standardize their quality processes across plants and geographies, ensuring that knowledge is shared and issues are visible and linked back into the design improvement process. Using a life cycle approach to manage risk and quality, Stature addresses the issues in processes associated with getting a product to market. Stature allows an organization to automate the identification and measurement of quality issues (e.g. design failures and manufacturing defects), while addressing the challenge of communicating information across teams in a global setting. Companies save tremendous costs by reducing design defects, product recalls and production downtime.

LMA Projects Pty Ltd

Email: sales@lmap.com.au Web Page: www.lmap.com.au



Prediction+

Developed by practitioners for use by practitioners, Prediction+ is a collaborative tool that delivers full control of shutdowns and outages. It integrates with corporate business systems solutions and provides up to the minute outage management information. Not only are outages better controlled but efficient data handling systems reduce errors and free up scarce resources to carry out productive tasks. With a comprehensive suite of automated report structures, Prediction+ seamlessly integrates with Primavera and MS Project and controls cost, resources and time, scope, risk, procurement and contract management.

OMCS International

Email: rob@omcsinternational.com Web Page: <http://www.reliabilityassurance.com/>



PMO2000® Enterprise Reliability Assurance Software:

PMO2000® is an enterprise maintenance and failure analysis software system designed for optimizing maintenance requirements and undertaking Reliability Assurance Programs for industrial plants. PMO2000® stores the optimized maintenance strategies and outputs the strategies into user formatted maintenance schedules (normally Microsoft Word or PDF). PMO2000® is a rapid implementation system that delivers the same maintenance program as SAE JA1011 RCM in one sixth of the time with one sixth of the resource requirements. Typical results of implementation include a downtime reduction of 50% and maintenance productivity improvements of 20-40%. PMO2000® is now SAP® Certified and can seamlessly integrate with your SAP® application.

PMO2000® SAP® Interface:

The PMO2000® SAP® Interface is an SAP® Certified integration interface that allows a seamless integration between SAP® and PMO2000® as well as all of the other modules of our full suite of Reliability Assurance software packages. The PMO2000® SAP® Interface uses a data bridge that connects both PMO2000® and your SAP® solution. Information is sent and received via the SAP® Exchange Infrastructure (SAP®-XI). Changes to the PM Program are processed using existing PMO2000® approval and implementation functionality. Once this is done, PMO2000® maintenance schedules can be loaded directly into SAP® as Task Lists and Operations via the interface. The PMO2000® SAP® Interface creates a SAP Document for each maintenance schedule and automatically attaches the corresponding pdf and prn files for the schedule to the SAP® Document. The interface can also be used as a tool to migrate RCM strategies developed in Microsoft Excel directly to SAP®.

PM Builder:

PM Builder is an entry-level maintenance and failure analysis software program designed for creating comprehensive maintenance strategies from scratch or building on existing maintenance plans. PM Builder is geared towards the creation of common sense maintenance strategies but for advanced users, it conforms to internationally recognized systems such as FMEA, PMO2000® and RCM. PM Builder also has an inbuilt module full of flexibility that conforms to RCM Standard SAE JA 1011. PM Builder is a cut down version of PMO2000® software designed as a PMO2000® starter pack.

RIMSys®

Reliability Investigation Management System: RIMSys® is an investigation management system that allows organisations to allocate responsibilities, make better use of their time, control minor projects effectively and regain production time being lost to equipment and plant failures. It is specifically designed to record and manage the investigation of equipment failures or incidents which cause unexpected downtime or operational loss and therefore require further investigation to prevent these failures from recurring. Once implemented, it will quickly break your cycle of repeated failure instances and regain the production you are losing through frequent failures.

EDA - Enterprise Data Analytics:

EDA is a software program used to measure and report on the gaps between Inherent Capability and Inherent Performance of production assets whilst highlighting opportunities for continuous improvement. EDA supports the recognized Overall Equipment Effectiveness (OEE) model and allows for any variation of the measures to be utilized. The design output of EDA includes business improvement, performance and asset health reports as well as reliability investigation progress reports. EDA is configurable by the users to suit a variety of industries including: Food and Beverage, Mining and Minerals processing, Petrochemical, Oil and Gas and Manufacturing.

ICR® - Inventory Cash Release®:

The ICR® software program is tool that guides users through the Inventory Cash Release® Process to identify, record and track inventory optimization actions and outcomes. Users can import inventory data and then apply the Inventory Cash Release® Process to sort the data and apply the '7 Actions for Inventory Reduction'. They can then allocate the 'what', 'who', 'when' and 'how' for all of the actions used to optimize and reduce their inventory. This creates an audit trail for actions, responsibilities and outcomes and tracks the implementation of the Inventory Cash Release® process.

OMDEC

Email: claudia@omdec.com

Web Page: www.omdec.com



EXAKT: EXAKT is a decision support tool for predicting reliability and optimizing condition based maintenance .

SMS: Spares Management Software that answers the important question: "How many critical spares should be stocked?"

AGE/CON: AGE/CON - Economic Life Decisions for Fleets and Mobile Equipment

OREST: Optimal replacement in the short term - OREST software is designed to help managers analyze their reliability data and obtain optimal replacement policies based on the data available.

Perdec: Optimising Economic Life Decisions for Machinery and Fixed Equipment

LRCM-Living RCM: RCM (Living RCM) focuses directly on condition monitoring, reliability data, and related diagnostics and prognostics.

RCA Rt Pty Ltd

Email: rca2go@rca2go.com

Web Page: www.rca2go.com

**rca2go – online problem solving tool**

www.rca2go.com is cost effective web based software that makes failure analysis and process improvement easy and accessible.

Rca2go is the most cost effective and simple incident analysis and documentation tool available! A single registration is less than the cost of a cup of coffee a week! So instead of losing all that good work with finding the Root Cause of Problems then forgetting the analysis, log it and use the information to do things better!

Effective defect elimination will provide an edge in today's competitive markets. A major challenge facing organizations is their ability to engage people at all levels in identifying, properly understanding and eliminating failures, defects and all forms of waste. The RCA Rt process and supporting software provides a framework that brings the shop floor together with technical resources to achieve results.

The RCA Rt incident management and root cause analysis software helps manage and document incidents, failure analysis, defect elimination and removal of all forms of waste across one site or multiple sites. It is vital that understanding is followed by action so the software includes a powerful action management system. Simple reports help track progress of actions against forecast dates to focus efforts on the essential tasks and promote communication.

There are many approaches to problem solving that are valuable and appropriate in different circumstances. The framework provided by the RCA Rt software is flexible so that these different approaches may be brought together to produce the desired outcome.

The software features:

- An incident management system with reporting facilities.
- A root cause analysis tool complete with an easy intuitive fault tree building process.
- An analysis tool to assist in identifying repeating faults and causes across the database of incidents.
- An action management tool to track actions and close the loop, so that recommendations become results.
- Ability to link to the computerised maintenance management systems and other databases.
- New: Risk Assessment and priority tool. How do you know which problem/project to tackle first? This new feature will help to prioritize RCA investigations.
- New: Reliability Centered Maintenance/Preventative Maintenance Optimisation Tool. To make the most of your failure history link it to your preventative maintenance tasks and review how to optimize your PM tasks for the most efficient and effective maintenance strategies.

Rca2go – Reliability Centered Maintenance Module

Tap into the biggest resource available....The knowledge your personnel have about the maintenance activities they are performing onsite. The new Reliability Centered Maintenance/Preventative Maintenance Optimisation Tool enables a graphic understanding of the preventative

maintenance tasks and the failures they are supposed to prevent to be quickly built using the knowhow of your shop floor personnel. The tool will help to make the most of your failure history and link it to your preventative maintenance tasks. With this knowledge in hand you can review how to optimize your PM tasks for the most efficient and effective maintenance strategies. Build an understanding of your plant and equipment and the strategies that maintain it for less than the cost of a cup of coffee a week.

Rylson Group

Email: admin@rylson.com.au

Web Page: www.rylson.com.au Rylson8



International Engineering & Consultancy Services

Rylson8

The Rylson8 system is a next generation software solution offering a comprehensive approach to Total Lifecycle Planning in an enterprise grade system. The Rylson8 system enables the optimisation of :

- Total Cost of Ownership
- Operating Budget Forecasting
- Capital Replacement Forecasting
- Asset Economic Life Determination
- Asset Life Cycle Planning

Rylson8 key modules:

- System Capability Analysis
- Criticality Analysis
- Maintenance Strategy Optimisation
- Spares Analysis
- Lifecycle Analysis

Rylson8 is designed and built around proven methodologies to enable an organisation to maximise the life of its assets and ultimately the bottom line.

The Asset Partnership

Email: stuart.hylton@assetpartnership.com

Web Page: www.assetpartnership.com



Ivara EXP Professional

Ivara EXP Professional is an RCM Analysis and Failure / Risk Analysis software providing a risk-based approach to prioritize and develop the right asset reliability strategy. Gain a clear understanding of the consequences and risks associated with equipment failing, and determine which assets are the priority to achieve maximum return. Meeting the SAE JA1011/1012 standard, RCM2 is the leading methodology used to determine the maintenance requirements of any physical asset in its operating context. MTA draws from the strengths of RCM2 thinking, but provides an accelerated FMEA approach, used when the rigor of full RCM2 may not be required.

Ivara EXP Enterprise fits into the following survey categories:

RCM ANALYSIS SOFTWARE; FAILURE AND RISK ANALYSIS SOFTWARE