

INFORMATION SCIENCE CONSULTANTS LTD

Reliability-centred Maintenance Toolkit



for
RCM Facilitators

Professional Worksheets

The Toolkit replaces mountains of paper hand-written forms with a single easy-to-use database. It produces professional worksheets in the standard Aladon RCM 2 format that you can use without any copyright concerns. It implements additional worksheets to track failure mode and task details, analysis status, audit notes, data for protective systems and much more.

Get the Wider Picture

The Toolkit includes a full asset hierarchy linked to your RCM analyses, enabling you to take a view of the evolving RCM work package at any level from an individual item of equipment to the whole organisation.



Deploy RCM Faster

The Toolkit can package and group tasks within asset areas to simplify implementation. Task details can be exported in machine-readable form for review and subsequent transfer to your Computerised Maintenance Management System.



Secure your Investment

Protects your investment in data through multi-level password-protected access to RCM analyses and system functions. Your Toolkit administrator and analysis owners can decide who has access to what information and how they can modify it.

Work Together... or apart

The networked system provides full multi-user access capabilities, enabling your facilitators to work together effectively and profit from each other's experience. For mobile users, the Toolkit provides facilities for "checking out" an analysis from the main RCM database and synchronising any changes at a later date.

RCM in Perpetuity

Stores, organises and presents your RCM data in a consistent format that enables you to respond to changing business, safety and environmental requirements.

Buy with Confidence

The effectiveness of the Aladon Toolkit has been proven on over 250 sites around the world in almost every conceivable engineering organisation including oil and gas, petrochemicals, food production, manufacturing and military applications. Its standard 90-day warranty period means that your investment is effectively risk free.

DETAILED TOOLKIT DESCRIPTION

Worksheets

<i>Information Worksheet</i>	Functions, functional failures, failure modes and failure effects are entered in the same format as on the paper Information Worksheets. Functions, functional failures and failure modes may be inserted, deleted and renumbered.
<i>Decision Worksheet</i>	Records the answers to the consequence analysis and task selection questions, details of the selected task, initial interval and skills needed. Skills and intervals may be chosen from lists to ensure consistency between different analyses and facilitators. The Toolkit provides facilities for checking the consistency of task selection responses
<i>Failure Mode Review</i>	Provides a view of functions, functional failures, failure modes and failure effects together with decision logic and task selection. Relates Information Worksheet and Decision Worksheet information so that errors and inconsistencies are easily spotted.
<i>Notes</i>	Supporting notes may be recorded against individual decision diagram responses and against each failure mode
<i>Failure Mode Details</i>	Facilitators can record additional information about each failure mode which helps RCM auditors and supports future RCM reviews of the same or similar equipment. Details include: proposed modifications; formal task descriptions; mean time between failures; P-F intervals; component ages and lives; and task and failure costs
<i>Audit Information</i>	Provides a paper-free means for auditors to record questions about an analysis or an individual failure mode or task. Audit queries and RCM group responses are retained in the database, providing a complete analysis audit trail
<i>Asset hierarchy</i>	The Asset Hierarchy records the relationship between assets and equipment in terms of "parent" and "child" relationships. A correctly constructed hierarchy is essential to planning and breaking down an extensive RCM project.
<i>Operating Context</i>	An operating context may be entered for each asset recorded in the Asset Hierarchy. This provides a consistent statement of the context in which each asset functions.

Manipulating RCM Analyses

<i>Failure Mode Clipboard</i>	Enables the facilitator or secretary to copy groups of failure modes from one part of an analysis to another or from one analysis to another.
<i>Template Library</i>	Experienced facilitators can use the template library to maintain lists of failure modes for common items of equipment such as simple motors and pumps. Individual failure modes or groups of failure modes may be pasted into any information worksheet.
<i>Worksheet Organiser</i>	Enables facilitators to reorganise functions, functional failures and failure modes to improve worksheet presentation.

Validating RCM Analyses

<i>Spelling Checker</i>	A fully-featured spelling checker which can check single words, fields or an entire analysis. The standard system is supplied with British and American English dictionaries; other dictionaries are available at additional cost with multi-lingual systems
<i>Logic Validation</i>	Logic validation checks that Decision Worksheet consequence and task selection questions have been answered consistently.

Security

The RCM Toolkit includes a comprehensive security system which enables facilitators to define levels of access for individual users and for groups of users. Security settings are maintained even when analyses are transferred between RCM databases.

Importing and Exporting Analyses

<i>Exchanging Analyses</i>	RCM Analyses (Information Worksheets, Decision Worksheets and Notes) can be exchanged between RCM Databases, enabling facilitators and project managers to build up libraries of templates which can be applied to common equipment.
<i>Synchronisation</i>	Allows RCM Toolkit users, within certain limits, to work on the same analysis in different databases and to reconcile changes when required. Ideal for laptop users who work separately from their organisation's network RCM database.

Printed Reports

<i>Worksheets</i>	The Toolkit prints information and decision worksheets in the same format as the standard Aladon worksheets without infringing Aladon's copyright
<i>Filtered Worksheets</i>	The user may limit printed tasks to specific types or those falling into specified consequence categories. This enables you to identify, for example, all condition monitoring tasks or all safety-related tasks.
<i>Work Package</i>	As well as printing tasks on the standard Decision Worksheets, the Toolkit enables users to group them into Work Packages. Work packages are lists of tasks grouped by skillset (operators, fitters, electricians and so on) and by interval. Work packages can be printed at any level in the asset hierarchy, providing a consolidated list of tasks for any level from a single asset to the entire department or company
<i>Modifications</i>	A list of modifications proposed by the RCM review group
<i>Failure mode Details</i>	A summary of the notes, reliability and cost information entered against each failure mode

<i>Asset Hierarchy</i>	A list of assets showing relationships between "parents" and "children"
<i>Operating Context</i>	The Toolkit prints the operating context of any asset together with those of its immediate parents, grandparents and so on to the top of the hierarchy
<i>Analysis Statistics</i>	Provides a breakdown of failure modes into consequence categories and task selection at any level of the hierarchy

Failure-Finding Interval Library

The Failure-Finding Interval (FFI) Library is an optional module which automates calculation of failure-finding intervals using the formulae taught on Aladon's facilitator course. Failure-finding intervals may be based on:

- Desired availability of the protective device
- Acceptable risk of multiple failure
- Lowest business cost (economic criteria)

Use of the Failure-finding Library allows facilitators to concentrate their efforts on obtaining the data needed to calculate test intervals rather than on the mechanics of the calculation itself. The library is an optional addition to either the single-user or multi-user version of the Toolkit.

RCM TOOLKIT OPTIONS

Network and Single User

Single user	Designed for one user working on one personal computer
Networked	Designed for several users sharing a common RCM database over a network.

The standard network edition allows up to five simultaneous users. Additional user licences may be purchased as required.

Failure-Finding Library

An optional module available for single user and networked systems that simplifies the calculation of failure-finding intervals for protective devices.

Software Support

The renewable software support contract provides full peace of mind, giving you free helpline support, software bug fixes and updates for a period of one year.

HARDWARE AND OPERATING SYSTEM REQUIREMENTS

Parameter	Requirement
<i>Operating System</i>	Windows 95, 98 or Me Windows NT version 3.51 SP4; NT 4.0 SP4 Windows 2000 SP1, Windows XP
<i>Memory (RAM)</i>	32 MB minimum; 64 MB recommended
<i>Media available</i>	CD-ROM or 3.5 inch floppy discs
<i>Hard disc space</i>	35 MB minimum
<i>Network</i>	Windows NT Server 3.51, 4.0 or 2000 Novell 3.x or 4.x



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IMPORTANT NOTE

Conditions of Sale

The Aladon RCM Toolkit is only available to organisations where it will be used by RCM Facilitators trained by ISC, Aladon or an Aladon licensee. The facilitators must also be working with groups trained in the basic principles of RCM 2 by ISC, Aladon or one of Aladon's licensees.

Available From

Information Science Consultants Ltd in the UK, and from our agents in the following areas.

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