



The Aladon Network  
THINK AHEAD



## RELIABILITY CENTERED MAINTENANCE (RCM2™) TRAINING COURSES

Comprehensive, progressive and practical  
training solutions tailored to your organization

Over  
70,000  
people have  
attended Aladon  
Training Courses



## The World's Reliability Experts at Your Service

The Aladon Network is a global fraternity of reliability experts certified by Aladon in the training and application of Reliability-Centered Maintenance 2 (RCM2™). This advanced methodology offer a team-based approach to developing a reliability strategy for all key assets in an organization. The Aladon Network members have helped clients apply RCM2 and MTA™ across multiple industries in 80 countries delivered in 12 languages. More than 70,000 people have attended Aladon training courses worldwide over the past 25 years. What sets The Aladon Network apart from other reliability groups and RCM/FMEA methodologies is the depth of understanding in reliability-centered maintenance practices, as well as the completeness of our training materials and certification programs. Whether you receive training in North America, South America, Europe, Australia or Asia, the high quality of the training, coaching and facilitation delivered by our certified network members is consistent. This dedication to quality and consistency is evident in the further development of competent client facilitators and the direct delivery of facilitated analysis services.

The strength of The Aladon Network truly is our community of certified practitioners and facilitators and their ongoing commitment to excellence. Our standards are set high and as a result our customers benefit from our collective knowledge, our understanding of equipment across multiple industries and our consistent approach to reliability improvement.

### How Do I Get Started?

An Aladon Network professional can provide direction and guidance in defining a successful reliability training and implementation strategy focused on your asset management improvement objectives. The Aladon Network can bring real world experience to help you assess your current asset management performance and benchmark your company against others in your industry. They can also help you define a strategy for reliability improvement and assist you with the development of a financial business case for implementation. The Aladon Network also offers a series of hands-on reliability based training programs with practical ready to use ideas. These programs help determine where to focus your improvement efforts and how to select the risk appropriate strategy to bridge your asset performance issues. Contact your local Aladon Network member or Aladon to book an appointment.

### Take a Leadership Role in Your Organization

The application of Aladon reliability practices completely transforms the view that any organization has of its physical assets and how they should be maintained and operated. Participation in the development of technically valid reliability-centered maintenance programs will not only revolutionize the participant's view of asset management, but improve their understanding of how optimized asset performance supports the business goals of all departments across the organization. Whether you want a basic understanding of reliability principles or you want to become an Aladon Certified Facilitator, Aladon offers the training and competency development programs to meet your requirements. Individuals trained by The Aladon Network are typically selected for promotion and find opportunities within their company as leaders in asset management and reliability. The Aladon Network can help put your career on the path to reliability leadership.



## Training and Programs Available

Aladon offers a series of hands-on training courses filled with practical ideas, techniques and real world scenarios. No matter what your company's current level of reliability knowledge is, these training and development courses can help your maintenance and operations teams understand how to focus their improvement efforts and develop a culture of asset management.

- RCM2 Executive Overview
- RCM2 Introductory Course
- RCM2 Facilitator Course
- RCM2 Facilitator Certification
- Aladon Certified Practitioner Program

## Become an Aladon Certified Facilitator

### Aladon Certified Practitioner Program

Coaching - Analysis support & mentoring  
 Audit - Analysis review and feedback  
 Training - Provide training coaching  
 Aladon Network™ Membership

### RCM2 Facilitator Certification

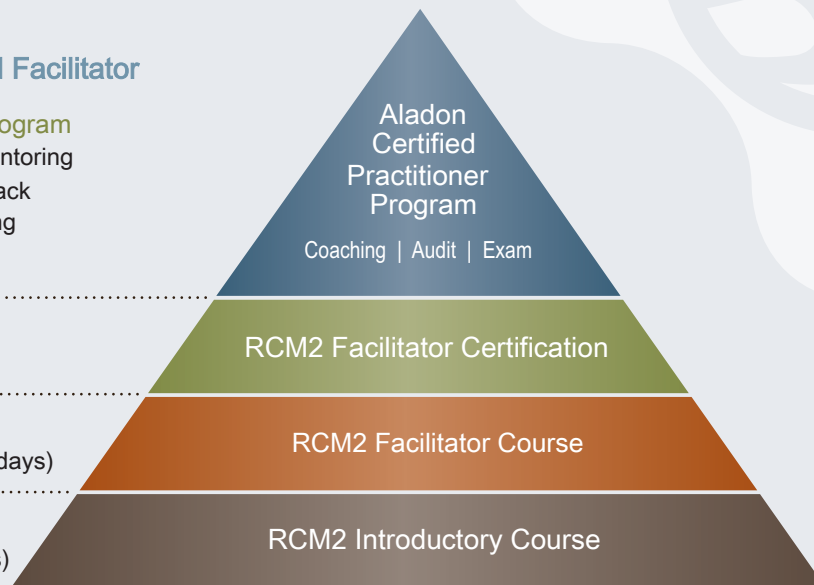
Apply facilitation skills (enabling)

### RCM2 Facilitator Course

Learn RCM2 facilitation skills (10 days)

### RCM2 Introductory Course

Learn the basics of RCM2 (3 days)



## Training Options

### Exclusive Course:

This is a training course held at your company facility for your internal participants only. The course fees are per course and instructor travel costs are extra.

### Hosted Course:

This is a training course held at your company facility for your internal participants and other external participants approved by your company. The course fees are per course and instructor travel costs are extra. All external participants are charged a per person fee which is used to proportionately reduce the host company course fee.

### Public Course:

This course is typically hosted by The Aladon Network at a location of their choice and is open to all participants. Public courses are held in locations around the world. The course fees are charged per person. Instructor travel costs and facility costs are included. Participant travel costs are not included.



## ► RCM2 Executive Overview

Maintenance management is often perceived as a cost center activity rather than one that leads to financial improvements. Leading organizations recognize that moving to an overall asset management approach using RCM2 principles can help drive optimal equipment performance which translates directly into bottom line business improvements.

This overview introduces executives to the intricacies of modern asset management so that they are best prepared to actively sponsor an asset performance improvement initiative. Roles and responsibilities within a reliability improvement initiative are examined and the keys to success are discussed along with the review of actual case studies.

RCM2, the standard in Reliability-Centered Maintenance, and its derivatives are introduced. Discussions revolve around how these provide the framework necessary to develop a sensible and defensible asset management program. Physical asset management through RCM2 also forms the framework for a successful culture change for management, maintenance, operations and engineering. Correctly applied, RCM2 achieves greater safety and environmental integrity, improved operating performance and profitability, higher maintenance cost-effectiveness, and longer useful life of physical assets.

### By Participating You Will

- Be introduced to the fundamental principles of Reliability-Centered Maintenance.
- Learn how reliability can contribute to your overall business success.
- Gain direction in how to best achieve improved and sustainable asset performance results.
- Have a better understanding of your role as an executive sponsor.
- Acquire knowledge to help make informed decisions in support of your asset management strategies.

#### COURSE LOGISTICS

- Exclusive course at your facility.
- Individual attendance at a public course hosted by The Aladon Network.

#### NUMBER OF PARTICIPANTS

Maximum 20

#### PREREQUISITES

Business interest in Reliability-Centered Maintenance

#### COURSE LENGTH

1 day

#### WHO SHOULD ATTEND

- Executive Management
- General Managers, Directors
- Plant Managers
- Operations Managers
- Maintenance Managers
- Engineering Managers

#### COURSE MATERIALS

Introduction to RCM2 Overview



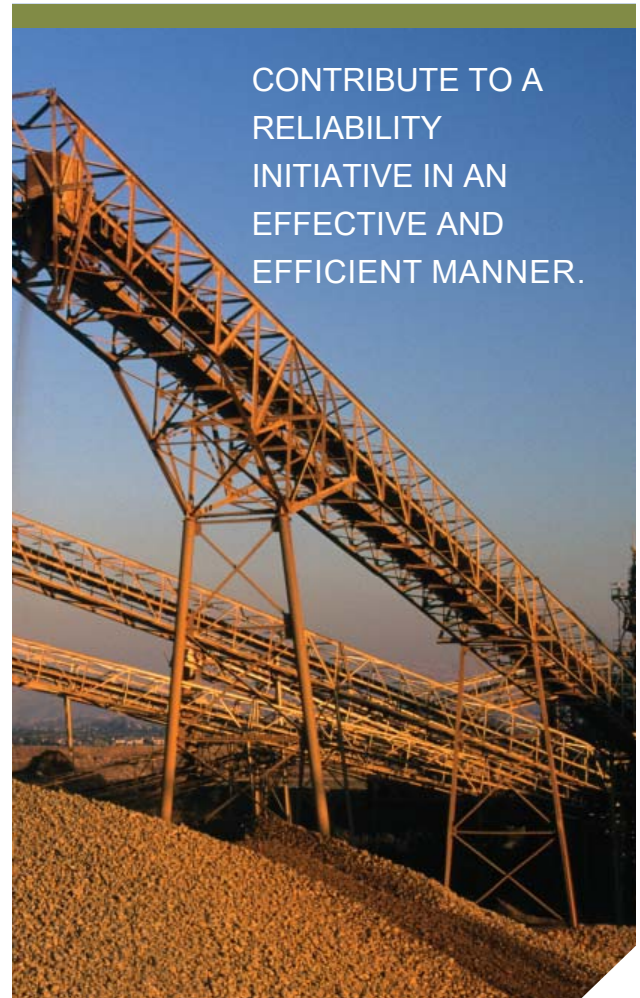


## ► RCM2 Introductory Course

This course provides a comprehensive introduction to RCM2 and its principles. It is intended for those who are interested in understanding what RCM2 is and how it can be applied to define technically based maintenance and reliability programs.

The application of RCM2 challenges the traditional approach to equipment maintenance by moving you from a breakdown and repair mentality to a culture of asset management. Not only does it revolutionize views about maintenance but also about how maintenance, operations and engineering should work together to drive asset performance. RCM2 leads to a far broader and deeper understanding of the organization's assets and provides a structured way to formally capture and transfer that knowledge to the rest of the asset stakeholders.

This introduction to RCM2 redefines your understanding of maintenance management and will completely transform the way that maintenance and operations people view the development of maintenance programs and their roles and responsibilities in that process. This course applies best practices in answering the seven questions of RCM2 using a real life, case study approach. The participants will explore the techniques required to define a maintenance program in a logical and structured way that recognizes the hidden, safety, environmental and operating consequences of failure.



### By Participating You Will

- Develop a greater awareness of the importance of asset failure consequences and how to manage them in an effective way.
- Learn the RCM2 language and its importance to maintenance, operations and engineering and their understanding of equipment operation and maintenance.
- Be able to evaluate maintenance and operational strategies that are technically feasible and worth doing while maximizing safety and environmental compliance.
- Be prepared to participate in an RCM2 analysis session as a subject matter expert.



LEADING THE WAY IN  
ASSET RELIABILITY  
IMPROVEMENT.

**AGENDA DAY 1 - MORNING**

- The business case for reliability
- Overview of the RCM2 process

**DAY 1 - AFTERNOON**

- Functions and functional failures - Applying the concepts to a case study

**DAY 2 - MORNING**

- Modes and effects – Applying the concepts to a case study

**DAY 2 - AFTERNOON**

- Consequences – Answering the worth doing question when selecting a strategy

**DAY 3 - MORNING**

- Predictive and preventive tasks
- Default actions – Detective tasks, modifications, procedures, or no scheduled maintenance

**DAY 3 - AFTERNOON**

- Applying and implementing the results

This course is a prerequisite for anyone who plans to attend the RCM2 Facilitator Course or participate in the Aladon Certified Facilitator Program.

**COURSE LOGISTICS**

- Exclusive course at your facility for your employees.
- Hosted course at your facility for your employees and participants from other companies.
- Individual attendance at a public course hosted by The Aladon Network.

**NUMBER OF PARTICIPANTS**

Maximum 20

**PREREQUISITES**

Understanding of equipment

**COURSE LENGTH**

3 days

**WHO SHOULD ATTEND**

- Plant Managers
- Operators
- Maintenance Trades
- Planners, Schedulers
- Operations Managers, Supervisors
- Maintenance Managers, Supervisors
- Engineering Managers
- Engineers

**COURSE MATERIALS**

- RCM2 textbook by John Moubray
- Case studies (Benzene or Conveyor)
- RCM2 Decision Diagram
- Exercises and solution sets



## ► RCM2 Facilitator Course

The RCM2 Facilitator Course is a 10 day course introducing the skills necessary to successfully lead an RCM2 analysis. An experienced Aladon Certified Practitioner will teach you to understand the 45 competencies of a facilitator through classroom application and coaching using real world case studies.

An RCM2 analysis conducted by a competent facilitator significantly increases asset performance while improving safety and environmental compliance and reducing unexpected costs. A qualified facilitator will maximize the quality and consistency of the asset reliability program and support the resulting cultural change. During the RCM2 Facilitator Course the concepts of RCM2 are reinforced and the participants apply these by practicing their facilitation skills in a controlled, coached environment.

### By Participating You Will

- Acquire the 45 competencies required to successfully lead an RCM2 analysis.
- Gain an in-depth understanding of the RCM2 concepts and methodology.
- Learn how to generate consensus regarding technical problems and their solutions.
- Apply the methodology through coached formal case studies and on real assets to ensure sensible and defensible results.
- Develop your facilitation skills in a controlled, coached environment.
- Understand how to use EXP Professional to facilitate an RCM analysis.
- Get a 30 day free trial of EXP Professional software.

### AGENDA

#### DAY 1

- RCM2 review
- The role of the facilitator, and the 45 facilitator competencies
- Managing an analysis, conducting facilitated meetings, applying the logic and RCM2 functions review
- Facilitating an RCM2 analysis and participative learning on a RCM2 case study

#### DAY 2

- Understanding functional failure analysis
- Understanding failure modes and effects analysis
- Handling complex failure modes
- Facilitating an RCM2 analysis and participative learning on a RCM2 case study

#### DAY 3

- Effective use of the RCM2 Decision Diagram
- Facilitating an RCM2 analysis and participative learning on a RCM2 case study



AGENDA CONT'D DAY 4

- Definition and how to prepare an operating context
- Predictive technologies
- Preparing for a zero-based analysis and writing the operating context
- Facilitating a RCM2 analysis on a zero based case study using EXP Professional software

DAY 5

- Facilitating functions and functional failure development of the zero based case study
- Setting analysis performance standards
- Feedback and coaching on analysis

DAY 6-8

- Facilitating failure modes and failure effects development of the zero based case study
- Evaluating failure consequences and describing tasks adequately using the RCM2 Decision Diagram
- Feedback and coaching on analysis

DAY 9

- Hidden failures and the determination of failure finding interval (FFI)

DAY 10

- Complete the zero based case study analysis
- Prepare a RCM2 analysis report and present to an RCM2 Practitioner
- Understanding change and change management

COURSE LOGISTICS

- Exclusive course at your facility for your employees
- Hosted course at your facility for your employees and participants from other companies.
- Individual attendance at a public course hosted by The Aladon Network.

NUMBER OF PARTICIPANTS

Maximum 10

PREREQUISITES

RCM2 Introductory Course

COURSE LENGTH

10 days

WHO SHOULD ATTEND

- Reliability Specialists//Engineers
- Reliability Change Leaders
- Maintenance Supervisors
- Core Team Members

COURSE MATERIALS

- EXP Professional software (30 day free trial)
- EXP training guide for RCM2
- RCM2 case study
- RCM2 Decision Diagram
- Exercises and solution sets
- RCM2 posters
- Facilitation reference guides





## ▶ Aladon Certified Facilitator Program

As an Aladon Certified Facilitator you will be eligible for 'Associate' membership in The Aladon Network where you can further develop your skills, share ideas and experiences with our Aladon Network members and Certified Aladon Practitioners.

The Aladon Certified Facilitator Program assists you in taking all of your classroom training in RCM2 to the next level in your organization. The program is designed to provide the appropriate amount of coaching and mentoring to build your competency to the quality levels expected by the Certified Practitioners in The Aladon Network itself. Once you pass the technical audits for RCM2, and the certification exam, you will be recognized as an Aladon Certified Facilitator and an 'Associate Member' in The Aladon Network. This certification not only elevates your credibility within your company but also with your peers in industry and academia around the world.

## Benefits of Certification

- Opportunity to benchmark the quality of your RCM2 analysis.
- Recognition of your status as an Aladon Certified Facilitator on the Aladon website.
- Discounts on Aladon training and events.
- Associate membership to The Aladon Network and online community where you can share ideas, tips, techniques and brainstorm about the future of reliability in the industrial world.
- Annual membership includes a technical audit every two years.

## Certification Requires and Includes:

- Successful completion of the RCM2 facilitator courses.
- Pass the technical audit of a recent RCM2 analysis.
- Pass the online facilitator exam.
- Certificate and letter of achievement.
- Associate membership in The Aladon Network (includes first year membership fees).

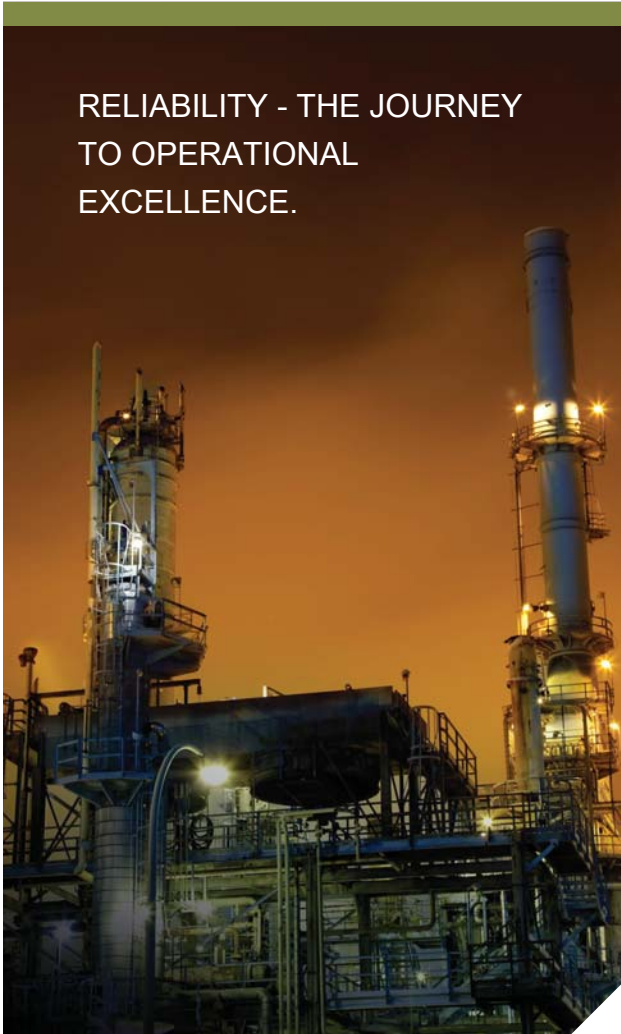
For those who already have experience as an RCM2 Facilitator, the certification process is as simple as booking your technical audits and writing the certification examination.

## Technical Audits

The technical audit of RCM2 analysis provides a means to validate that the RCM2 principles are being applied by the facilitator and that the quality of the analysis is up to the standards of The Aladon Network. The audit is performed by an experienced Aladon Certified Practitioner and is used as a tool to identify strengths and weaknesses in the facilitator's application of the concepts. The technical audit assures that the designation of Aladon Certified Facilitator is synonymous with quality and consistency.



RELIABILITY - THE JOURNEY  
TO OPERATIONAL  
EXCELLENCE.



### Performance Coaching

Competency in the application of RCM2 cannot be achieved with classroom training sessions alone. A combination of classroom theory and practical application is necessary to be capable of developing from awareness and knowledge to competency. This progression is essential in providing facilitators with the understanding and skills required to apply these practices efficiently and effectively.

It is highly recommended that facilitator candidates receive performance coaching on RCM analysis to prepare them for the technical audit and the certification examination. Performance coaching by a Certified Aladon Practitioner provides the feedback and continuous improvement required to develop competency and ensure the quality of delivery necessary to achieve certification status within Aladon. During an analysis, a Certified Aladon Practitioner participates in the analysis session providing ongoing feedback to the facilitator. Upon completion of the analysis the practitioner generates a formal written report of the facilitator's progress and performance, as well as a technical assessment of the analysis.





## Certification Examination

The certification exam is the final step in achieving Aladon Certified Facilitator status and is administered online by Aladon. The candidate will be tested on the fundamentals and application of RCM2 in a multiple choice/long answer format. The candidate must pass the technical audit portion of the program as a prerequisite to taking the exam.

## Onsite Coaching

Onsite coaching provides the greatest opportunity for competency development as an Aladon Certified Practitioner is able to impart his/her years of experience and expertise while interacting one-on-one with the facilitator. In this way the facilitator's skill development and learning curve is accelerated and results assured. Optimally, the practitioner participates in the following activities:

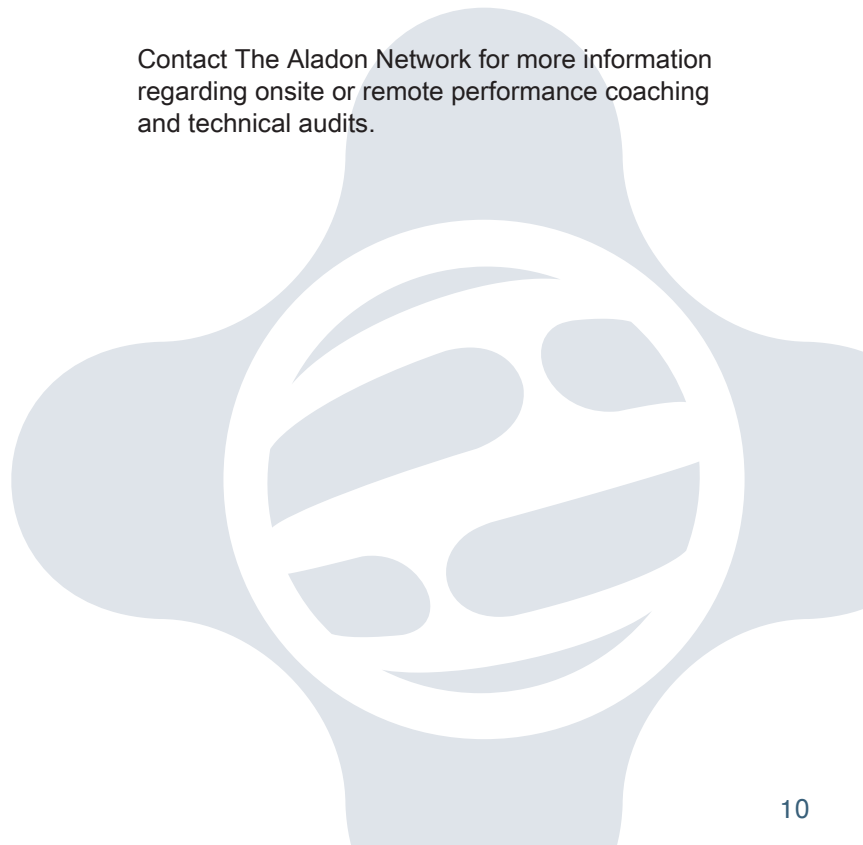
- In person for the duration of the first analysis,
- In person for part or all of the second and third analyses and any further analyses as required.
- A formal written assessment/feedback report is provided following each coached analysis.

## Remote Coaching

Although onsite coaching is always the preferred option, remote coaching is available when appropriate. This involves virtual attendance, as well as offsite coaching and auditing by the practitioner using technologies that are readily available. The facilitator and the client organization benefit from our expertise while minimizing costs. The remote coaching would typically include the following activities:

- An Aladon Certified Practitioner 'sits in' on the facilitation session using a web camera or views a recorded video and assesses the facilitator's skills against the 45 competencies.
- The practitioner conducts a 2 hour off site review and discussion of the day's results with the facilitator at the end of each session using online meeting technology.
- A formal written assessment/feedback report is provided following each coached analysis.

Contact The Aladon Network for more information regarding onsite or remote performance coaching and technical audits.





## ► Consulting Services from The Aladon Network

### RCM2 Facilitation Services

If you are experiencing asset performance issues that are impacting your business and you don't have time to train your own resources to facilitate RCM2, The Aladon Network can help get your improvement program started. Our Aladon Certified Practitioners can help reduce the time it takes to thoroughly analyze, develop and implement proactive reliability strategies on your mission critical assets. Whether you have an immediate need in advance of your planned training program or you are not able to free up resources at this time, The Aladon Network can work with you and your company to define the right reliability approach to meet your needs now.

### Asset Management Strategy Development and Program Management

Although RCM2 is an important practice that will assist you and the organization in the development of a technically based maintenance and reliability program, it is only part of the solution.

The Aladon Network can help you develop a comprehensive plan to implement and sustain a reliability-based asset management program. Our Network members can help you align your business goals and objectives to your assets and work with your management teams to develop asset management policies and risk based strategies. They can further help you define business processes with detailed tasks for asset management including roles and responsibilities for your maintenance and operations teams. Most of our Network professionals can also help you with other strategies such as Root Cause Analysis (RCA), Reliability-Centered Design (RCD), Reliability-Centered Spares (RCS), planning and scheduling training and other practices to maximize asset efficiency and effectiveness. From asset management assessments and audits to business plans and overall project management, The Aladon Network

members can help you define, implement and manage your reliability program successfully while training your people to become competent reliability professionals in their own right.

Many of our Network members are affiliated with reliability organizations such as the Society for Maintenance and Reliability Professionals (SMRP), the Institute of Asset Management (IAM) and other reliability associations and academia. Many of our members are capable of providing PAS 55 training and audit services and are engaged in the development of the ISO 55000 standard for Asset Management. The Aladon Network takes asset management and reliability seriously and we continue to develop our practices and capabilities as the asset management community evolves.

## ► EXP Professional Software-Enabling Technology for Reliability

EXP Professional is the leading reliability strategy development software. First and foremost, EXP Professional enables the documentation of an RCM2 analysis thereby speeding up the overall facilitation process and eliminating the paperwork. EXP goes a step further than other RCM software toolkits by offering complementary functionality to support a risk based approach to determining where to focus your efforts across your entire equipment base. Understanding the business risk of safety, environmental, operating and non-operating consequences helps you determine where RCM2 is most appropriate and helps you develop a roadmap for improvement that is technically based and defensible. Your analysis will not end up in a binder sitting on a shelf or charts hanging on the wall. EXP eliminates the paperwork and allows you to show your analysis, results and action plans to your management team immediately after the facilitation session.

EXP Professional goes beyond traditional RCM toolkits. EXP Pro supports a full suite of integrated modules to help you define a complete reliability improvement strategy.



Designed with input from The Aladon Network Practitioners, and developed by the leading enterprise software developers at Bentley (previously Ivara), EXP Professional includes modules for:

- **Asset Hierarchy** - EXP Pro supports an unlimited multi-level hierarchy of assets and asset information. Use your existing CMMS/EAM structure to align your reliability results with your work management system or use EXP Pro to build the hierarchy to your requirements.
- **Asset Prioritization** - EXP Pro provides all the tools required to facilitate an effective asset prioritization to help determine where to focus your efforts. Let Ivara EXP Pro do the calculations to assess the risk and consequences of failure to determine the assets that should be tackled first for reliability improvement
- **Reliability Strategy Selection** - This decision support tool uses a risk-based methodology build into a wizard like application in EXP Professional to objectively determine which assets require RCM2 and which are suitable for MTA, enabling a balance between these two approaches.
- **RCM2** - EXP Pro provides the tools that allow an RCM2 facilitator to quickly and easily document an RCM analysis-speeding up the overall RCM process. With EXP, the facilitator will not be distracted from the facilitation role as the software guides them through the process. EXP Pro also supports complex calculations for failure finding interval (FFI) and incorporates a graphical, fully integrated RCM2 decision diagram to determine the appropriate action plan for each failure mode.

#### Technology Features:

- Available in English, French, Portuguese, and Spanish.
- Single user or multi user versions.
- Built on SQL Server and included with the software (no more MS-Access).
- Easy to install and administer.
- Easy to use – Intuitive user interface, easy to navigate, short-cuts, spell check, powerful reporting and presentation capabilities.
- Enhanced security – easy to set up at module, object, field, function levels.
- Import/export analysis – import from the old Aladon RCM toolkit, export to Excel. Talk to an Aladon representative for more information about potential upgrade credit for certain RCM toolkits.

We also offer the ability to upgrade to Ivara's EXP Enterprise APM (Asset Performance Management) software when you are ready to move to the next level in reliability implementation. Ivara offers an upgrade path to EXP Enterprise that seamlessly maintains your data and your investment in EXP Professional. Talk to an Ivara representative to understand what EXP Enterprise can do for your organization.

Free trial – When you attend the RCM2 Facilitator Course, you will receive a 30 day free trial version of Ivara EXP Professional.

For more information about these services, please contact your nearest Aladon Network Member, or contact The Aladon Network at (910) 399-3867 or via email at [info@aladon.com](mailto:info@aladon.com).



The Aladon Network  
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## INTRODUCING THE NEXT GENERATION RCM3™

Extending Asset Management  
beyond Reliability



The Aladon Network  
THINK AHEAD

## INTRODUCING RCM3™

**RCM3™**  
Extending asset  
management  
beyond reliability

With the publication of ISO 55000, Asset Management Standard in early 2014, it quickly became clear that a new approach for asset management is required if companies want to stay competitive. To optimize available resources and increase bottom line, while at the same time maintain acceptable levels of safety and environmental integrity, it becomes increasingly important to manage the risks associated with operating assets. The petroleum and petrochemical industry has adopted a risk based approach for managing asset integrity in the early 1990s through Risk Based Inspection (RBI). Today, it is an industry norm. RCM3™ will become the new standard and foundation for analysing all assets (rotating and static).

### RCM3 Training

- 3-Day Introductory Course
- 10-Day Facilitator Course
- On-site Mentoring
- Aladon Facilitator Certification
- Aladon Practitioner Certification

### Features of RCM3

RCM2™ is the industry's most adopted RCM methodology, being used on more than 2000 sites worldwide. RCM3 is extending this very robust methodology to move reliability mainstream with emerging standards and new technologies. It is the most efficient failure management program for complex assets and processes. Management of such programs becomes increasingly important to achieve the required safety and reliability capabilities of assets as defined in the organisation's risk and asset management systems.

#### RCM3 Highlights:

RCM3 builds on the core principles of RCM2 (and SAE JA1011) and improves the way in which risk and reliability is directly impacted by the Operating Context.

Management of protected functions/systems is dealt with as a first priority instead of relying on the availability of protection/protective devices, making the outcomes of RCM3 even more defensible than any previous versions of RCM.

RCM3 also incorporates the principles of qualitative and quantitative risk management as defined in the most commonly internationally recognised Risk Management Standards like ISO 31000, IEC 31010, and the ISO Guide 73:2009-Risk Management Vocabulary.

The new risk based RCM3 and architectural structure of the methodology allows for seamless integration with other processes like RCD™ and functional FMECA, HAZOP, and RBI. RCM3 addresses the requirements for asset reliability and performance directly as defined in the ISO 55000 Asset Management Standard.

In addition to managing consequences, RCM3 has a strong focus on managing business risk while optimizing resources. In this regard, RCM3 surpasses traditional RCM and the SAE JA1011 and SAE JA1012 standards.

RCM3 is supported by a comprehensive software tool which includes the RCM2 capability to allow current Aladon clients to import existing RCM2 analyses and migrate to RCM3 when it is convenient for them to do so. The RCM3 software is also fully user definable and could accommodate customer risk matrix and criteria for qualitative and quantitative risk based decisions.

For more information please visit our website or contact us.

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# The Aladon Network

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Members of The Aladon Network are located across the globe including North, Central & South America, Europe, the Middle East, Africa, Asia, and Australia.

For more information on services or courses offered by The Aladon Network:

email: [info@aladon.com](mailto:info@aladon.com)  
[www.thealadonnetwork.com](http://www.thealadonnetwork.com)

