



# OMDEC

## Maintenance and Management Training Programs

### Introduction:

OMDEC recognizes that maintenance processes and software tools are only as good as the skills of the people who use them. With this as an operating principle, we have developed a range of training programs that explain and practice the processes, and improve the usefulness of the software tools while at the same time making it fun to learn.

Maintenance Education is a critical part of our philosophy. Maintenance has to be able to compete for funds and for attention in the Executive suite. As Maintenance Managers, we therefore not only have to have a good grasp of our own body of knowledge, we have to understand and be comfortable using the language and techniques that are in common use among the organization's executives. Much of our training is targeted at filling this gap.

A key partner in our training programs is the University of Toronto. The UofT is the #1 ranked University in Canada, and is dedicated to extending high quality education into the workplace. Under the leadership of the Professional Development Centre, UofT Certificates of Accomplishment are available on the successful completion of many of our programs.

### Program Delivery

- Training is deliverable on-site
- Courses also available at planned events globally
- Custom and Specialty programs available

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**What they said:** *"the training was one of the best I've had so far. I really did enjoy it" (Habibollah); "I have been required to attend many different training courses in my career that I did not find very effective but Your training was both the most fun and most effective course I have taken. It was well worth the time and it has had a direct positive impact on my work" (Jassim)*

## Titles Offered

Among the many titles that we have to offer are the following – the durations offered are shown for each subject.

Subject	half day	1 day	2 day	3 day
• Reliability From Data (OMDEC Living Reliability)			Y	Y
• Physical Asset Management University of Toronto Certificate Program	*	*	*	*
• Maintenance Management Masterclass	*	*	*	*
• Maintenance Improvement for Managers and Supervisors of Maintenance and Operations	Y	Y	Y	Y
• Risk and Financial Management in Maintenance	Y	Y	Y	Y
• Reliability = Profitability	Y	Y	Y	Y
• Living RCM – Aligning CMMS, CBM, and RCM	Y	Y		
• Understanding and Managing RCM	Y	Y	Y	Y
• RCM Practitioners Course	Y			Y
• RCM Facilitators Course	Y	Y	Y	
• Effective Maintenance Outsourcing Techniques	Y	Y	Y	
• Machine Failure and Reliability	Y	Y	Y	
• Maintenance Planning & Scheduling	Y	Y	Y	
• KPI's and Performance Measurement for Maintenance Effectiveness and Reliability	Y	Y	Y	Y
• Developing Maintenance Best Practices	Y	Y	Y	
• Building Maintenance Strategy	Y	Y	Y	
• Managing Change in Maintenance	Y	Y	Y	
• Selecting your CMMS/EAM	Y	Y	Y	
• CMMS Planning and Implementation	Y	Y	Y	Y
• Extracting more Value from your CMMS	Y	Y	Y	Y
• Effective Project Management for Maintenance	Y	Y	Y	Y
• Effective Maintenance Procedures	Y	Y	Y	
• Optimizing Maintenance Tactics	Y	Y	Y	Y
• Total Productive Maintenance	Y	Y		
• Expert Systems in Maintenance	Y	Y		

### Notes:

1. Each program is designed to be flexible in terms of length and detail of the content. Half day programs cover the subject at a high and summary level with focussed discussions and workshops. 1, 2 and 3 day programs provide more depth, more discussion, and more workshops. In each case the focus is on delivering practical benefits to the attendee which can be readily transferred to the workplace.

2. OMDEC's Certificate of Accomplishment is offered to delegates who combine satisfactory attendance, active participation and ability to pass a multiple choice test. The Certificate of Accomplishment is voluntary.

\* The UofT Physical Asset Management Program is a 10 day program as described below. Maintenance Management Masterclasses are 5, 6, 8 or 10 days duration and are custom designed for the client to include any combination of the above subjects. They can be scheduled as one continuous block, two blocks separated by a weekend, or two blocks separated by a period of time.

**Remember – if you don't see it.... Ask for it! [info@omdec.com](mailto:info@omdec.com)**

## Reliability From Data: (OMDEC Living Reliability)

### Summary

The optimal CBM decision is seldom obvious from the raw data. Interpreting CBM data depends on an intimate understanding of failure behavior. Such knowledge derives from intensive information management and analysis. Key points addressed are Critical equipment functions and failures, the function of CBM and its role in Reliability, Sources and the importance of data. The training addresses the fact that CBM is the gathering, processing, and analyzing of *relevant* data in order to make good maintenance decisions on whether to:

- 1) Maintain immediately, 2) Maintain within a specified time, or 3) Defer the maintenance decision until the next CBM observation.

Three principal data sources will drive reliability analysis. They are:

- 1) Age (“life”, “life cycle”, “event”) data. These are Failure Mode occurrences with the attributes: a) Event type (PF, FF, S, ...) b) RCM reference c) working age
- 2) Condition monitoring data relevant to the failure modes of interest, and
- 3) RCM knowledge of the relevant failure modes

### Attendees

Physical Asset Managers and Supervisors, Reliability Engineers, Materials Managers and Supervisors, senior maintenance technical staff

### Course Content

These training sessions will provide not only the specific steps and methods that will make the right information available, but will also guide personnel, with hands on exercises, through important maintenance analysis and modeling methodologies.

#### Day 1

##### Basics

1. Internal and external variables
  2. Two dimensional maintenance decisions
  3. Adding dimensions to the decision process
  4. Condition Based Maintenance (CBM)
  5. The preferred maintenance
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2. Reliability and software
    1. Function and viewpoint
    2. Work order information
    3. RCM knowledge management
    4. Continuous Process Improvement
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3. P-F Interval and RULE
    1. Meaning and use of the P-F Curve

2. NAVAIR 00-25-403 approach
  3. RCM II special cases
  4. Tracking and increasing predictive confidence
4. Reliability theory
    1. The meaning of the six failure patterns
    2. Weibull analysis
    3. Suspensions
    4. Economic model for optimization
    5. Weibayes
    6. RCM

**Day 2**

Reliability from data

7. The nature of data.
  8. A sample
  9. Data extraction and transformation
  10. Managing the work order - RCM relationship
  11. Sample generation
  12. Reliability analysis
    1. Age
    2. CBM
    3. Simulation
    4. Simulation and CBM
5. Illustrative Exercises
  6. Familiarization by the consultant with Client maintenance information processes - Brainstorming, suggestions for improvements

**Optional Day 3 Workshop**

- a. Conduct meetings and discussions with key personnel to understand the status and operation of selected assets
- b. Review current maintenance practices and processes including the decision-making framework for asset maintenance and rehabilitation
- c. Suggest improvement methods through Living Reliability

## Physical Asset Management Certificate Program:

Carrying the University of Toronto Certificate of Accomplishment, this is staged in two five-day parts which may be completed back to back or with a gap between the sessions. Course Leaders are Dr Andrew Jardine or Dr Ali Zuashkiani from the University of Toronto, and Ben Stevens, President of OMDEC.

The Attendee of this course is typically an engineer, manager of plant operations, facility manager or maintenance professional who is responsible for maintaining and managing the physical equipment assets of your plant. He typically represents large facilities and plants from industries such as mining, oil and gas, pulp and paper, utilities, primary metals, heavy manufacturing and large sophisticated facilities.

The program is designed as a participative workshop, blending lectures, group discussions, mini-case studies and self-tests. It covers a broad spectrum of Physical Asset Management topics; a sample of these topics follows:

### **Part 1: Optimizing Maintenance & Replacement Decisions - Andrew Jardine – 5 days**

#### **Basic Statistics, Risk Assessment and Economics**

- Analysis of component failure data
- Probability density, reliability, and hazard functions
- Definition of failure: Weibull analysis
- Where do you place your maintenance efforts?
- Present-value calculations
- Calculating the optimum replacement point

#### **Optimizing Maintenance and Replacement Decisions**

- Reliability improvement through preventive replacement
- Use of OREST for optimizing preventive replacement strategies
- Forecasting spare parts requirements including capital spares
- Reliability improvement through inspection – Establishing optimal frequency and depth

- Reliability improvement through asset replacement
- Use of AGE/CON and PERDEC software for capital equipment replacement

#### **Optimizing Condition Based Maintenance Decisions;**

- Condition-based maintenance from first principles
- Data acquisition, signal processing and decision-making
- A CBM information strategy
- Using “intelligent agents” in CBM
- Refining CBM inspection intervals – “the elusive P-F Curve”
- Determining the ‘significant’ condition indicators
- Optimally interpreting condition data

### **Part 2 Reliability Improvement and Maintenance Excellence – Ben Stevens – 5 days**

#### **Leadership and Control**

- The Physical Asset Excellence Cube as used for best practices
- Maintenance assessments as the starting point
- Benchmarking benefits and pitfalls
- Exploring the basics of financial management
- Performance measures – executive, asset management and maintenance operations

- Balanced scorecards in physical asset management

#### **Risk and Reliability**

- Risk defined as the cost of failure and the probability of failure
- Risk impact upon decision-making
- Best practices in maintenance
- Tools and techniques to evaluate the probability of failure

**Implementing Maintenance Optimization**

- Improving CMMS value
- Maintenance improvement and its impact on ROI
- Increasing the returns from Physical Asset management
- Using CMMS to introduce and improve cost control
- Future directions for CMMS

**Reliability Management**

- Failure management – the diagnosis, reporting and analysis of failures

- The role of engineering and statistical analysis
- The role and optimization of Condition Based Maintenance.
- RCM - failure modes, failure effects and consequences
- Implementing and managing the RCM project
- RCM benefits and pitfalls
- Tying RCM into CMMS and CBM

**Maintenance Management Masterclass:**

**Summary:** This is a very successful five day program targeted at Physical Asset Managers and Supervisors who want to better manage their function. It is designed as a Management Program, and allows ample time for discussions and case studies

**Duration:** Five days

**Attendees:** Physical Asset Managers and Supervisors, Materials Managers and Supervisors, senior maintenance technical staff

**Format:** Workshop format, blending lectures, group discussions, mini-case studies and self-tests. Participation is a key element of this program

**Course Content: (Sample)**

- Introduction to Reliability
- Financial Management of Physical Assets
- Best Practice Tools In Asset Management
- Asset Management Strategy
- Performance Improvement
- Computerized Maintenance Management Systems (CMMS) And Enterprise Asset Management systems(EAM)
- Reliability Centred Maintenance (RCM)
- Failure Management
- Total Productive Maintenance (TPM)
- Expert Systems

**What they said:** *“Thank you for the great training.”*

*“Thank you for a most thought provoking week”*

*“Thank you for the excellent informative practical training course.”*

## Improving the Value from your CMMS/EAM:

**Summary:** Computerized Maintenance Management Systems are the most important tools to have been adopted by maintenance organisations around the world in the last 20 years. Huge amounts of money have been spent on them, yet their success rate still remains low. This workshop will show you how to increase value from your current system and improve equipment reliability – or through the successful implementation of a new CMMS or by updating your existing CMMS.

**Duration:** See Table pages 1 & 2

**Attendees:** Maintenance and Materials Managers and Supervisors, Maintenance Engineers and Maintenance Planners with responsibility for CMMS effectiveness

**Format:** A combination of lectures, workshops, exercises, discussions

### Course Content:

- History and structure of CMMS
- CMMS vs. EAM
- Objectives and values of CMMS
- CMMS in facilities and production maintenance – is there a difference?
- Best practice in CMMS – how does your CMMS match up?
- Using CMMS to improve the materials supply chain
- Key CMMS reports to run your business
- Increasing the ROI from your CMMS
- CMMS and RCM – enhance each other
- Using CMMS for maintenance improvement
- Beyond CMMS – building a maintenance knowledge base with CMMS
- CMMS – where next?

**What they said:** *"It was one of the best workshops I have ever attended- many thanks. Very useful and full of good knowledge"*

## Selecting your CMMS/EAM:

**Summary:** This program is designed specifically for those clients who are tackling the problem of selecting and acquiring a CMMS or EAM. This program lays out the very simple and practical steps that users should go through in order to buy the system that is right for them.

**Duration:** See Table pages 1 & 2.

**Attendees:** Maintenance and Materials Managers and Supervisors; staff who are involved in the selection and implementation of CMMS's

**Format:** This is a practical workshop program where attendees will be expected to actively participate in case studies and discussions.

**Course Content:**

- Setting the project objectives
- The team and the team leader
- Initial training
- Requirements specifications
- Request for Information
- Validating bidders
- Request for Proposal
- Scoring the Responses
- Preparing the short list
- Staging the demonstrations
- Scripts and demos
- Final selection
- Reference checking
- What happens next?

**Effective Project Management For Maintenance:**

**Summary:** The focus of this program is to apply project management based best practices to the maintenance environment. Attendees will be exposed to best practice project management and have the opportunity to practice key techniques. The emphasis throughout will be on acquiring a capability that can be readily adapted to the practical work environment.

**Duration:** See Table pages 1 & 2

**Attendees:** Maintenance and Materials Managers and Supervisors; Maintenance Project Managers and senior staff involved in project management, project control and project execution.

**Format:** A series of presentations and discussions, case studies and group discussions

**Course Content:**

- The Basic Building Blocks
- Managing Project Scope
- On Time, On Cost, On Quality
- The Human Dimension – building and managing the project team
- Keeping Track – project reporting
- The Administration Process

**What they said:** *“It was really great three days as we got a lot of useful information”.*

**Effective Maintenance Procedures:**

**Summary:** Effective equipment and facility maintenance depends upon having effective maintenance procedures. This course is focused squarely at those organizations who want to improve the quality of their maintenance procedures and therefore the quality of their maintenance.

**Duration:** See Table pages 1 & 2

**Attendees:** All Maintenance and materials managers, supervisors and planners who are involved in the planning and writing of work orders and maintenance

procedures.

**Format:** Through a series of discussions, demonstrations and workshops, attendees will explore the format and content of maintenance procedures, work through many examples and build a template which can be adapted directly to their work place.

**Course Content:**

- The Basics Of Maintenance Procedures
- Establishing Standard Formats And Data
- Work Orders
  - Safety and Environment
  - Tools, Tasks and Materials
  - Extensions, Add-On's and data collection
  - Quality Control
- Standard Operating Procedures
- Administration of Procedures

### Maintenance Outsourcing:

**Summary:** With many organizations seeking outside help for their maintenance work, the pressures are increasing to make sure that the outsourcing contract is a win-win-win deal. This course walks through all the steps required to establish a contract in which the owner, the customer and the supplier all win.

**Duration:** See Table pages 1 & 2

**Attendees:** Maintenance and Materials Managers and Supervisors, plus buyers and technical specialists involved outsourcing

**Format:** Combination of lecture, workshops case study and discussions.

**Course Content:**

- Why Outsource?
- The Steps in Outsourcing
- What to Outsource
- The Deal
- Performance management
- Service Levels
- Pricing

### RCM – Overview and Structure:

**Summary:** This Management course focuses on RCM – Reliability Centred Maintenance, its process and benefits as well as its pitfalls and requirements. Placing RCM in the broader context of reliability management is a key element that underpins RCM. Attendees will concentrate on understanding and managing these tools, defining how to bring financial returns to the organizations which implement them, and how to avoid the problem areas.

**Duration:** See Table pages 1 & 2

**Attendees:** Maintenance Managers and Supervisors, Reliability Engineers plus Maintenance Professionals involved in reliability.

**Format:** Combination of lecture, workshops, case studies and discussions.

**Course Content:**

- Background and Benefits
- Critical Equipment and selecting target equipment for RCM
- Primary, Secondary and Protective Functions
- Functional Failures and Potential Failures
- Failure Modes
- Analyzing Failure Effects
- Selecting Tasks and Schedules
- Implementing Tasks
- Analysis and Feedback
- How RCM fits within Reliability and Asset Management
- The importance of Data Integrity

**What they said:** *“The course went super and the written feedback form the participants were fantastic.”*

### RCM Practitioners Course:

**Summary:** This is an intensely practical course using both simple and complex equipment examples; it covers the engineering principles and practices behind RCM and provides the practitioners with the confidence to use the RCM methodology

**Duration:** Five days

**Attendees:** Maintenance Managers and Supervisors, Reliability Engineers, Senior Maintenance Practitioners and other members of the RCM team

**Format:** Combination of workshops, practice, case studies and discussions.

**Course Content:**

- Overview of FMEA (Failure modes and effects analysis) and how it relates to SAE JA1011
- The new reality of maintenance – how RCM fits into the broader Reliability Knowledge base.
- The use of software systems in RCM
- The elements of reliability and the impact of unreliability
- Selecting target equipment for applying RCM
- Analysis of the functions of a physical asset and the required performance standards of these assets
- Defining and identifying failures
- Failure modes, deciding depth and scope
- Failure effects, description methodology
- Failure consequences, the RCM algorithm

- Failure management, doing the right job
- Refining the maintenance plan
- Relating RCM to CMMS and EAM
- The importance of data quality
- Creating a Living RCM program via data feedback and database update
- Monitoring results through a performance tracking process

### RCM Facilitators Course:

**Summary:** The Facilitator's course recognises that the role of the Facilitator in the RCM process is not to be a content expert – that is the role of the client's maintenance and engineering team. Instead, the role of the Facilitator is to ensure that the RCM process is followed according to the meticulous requirements of the discipline. This training program therefore concentrates on the RCM process and how the Facilitator can best play his role to elicit the best knowledge of the content specialists. A pre-requisite of this program is that the facilitator shall have successfully completed the RCM Practitioners course.

Because of the demanding role of the Facilitator, included in the course is two full days of follow-up discussion, trouble-shooting, mentoring and guidance. This can be done on-site or by phone, web conference, email or on-site with the RCM team.

**Duration:** Two days plus two days of follow-up

**Attendees:** RCM Facilitator

**Format:** Combination of workshops, practice, case studies, discussions and process review. Typically one on one.

### Reliability = Profitability: Financial Management in Maintenance

**Summary:** The emergence of the Maintenance Manager as a Business Manager requires familiarity with basic financial concepts. This course provide a solid introduction to the application of finance techniques to the maintenance function. The key benefits for the attendees will be:

- to prepare for the evolving role from maintenance management to Business Management.
- securing a fair share of resources to do the maintenance job properly
- developing and understanding the Financial KPI's that Executives demand
- applying ROI, LCC, cash flow, payback and other measures to maintenance
- building ways of showing how the maintenance bottom line contributes to the company's results
- to demonstrate the increased value provided by higher reliability
- practicing developing a sound basis for proposing capital projects
- an exposure to the new concepts of life cycle costing
- basing maintenance decisions on good financial business sense

**Duration:** See Table pages 1 & 2

**Attendees:** This program will benefit all senior levels of maintenance personnel, especially those who currently manage maintenance staff and maintenance activities and projects, budgets etc plus those who aspire to do so – specifically Managers, Superintendents, Supervisors, Engineers, and Senior Technicians in Operations, Maintenance, Reliability and Physical Asset Management

**Format:** Combination of presentations, workshops, practice, case studies, discussions and process review.

**Course Content: Session 1: Impact of Reliability on Profitability**

- Looking at Reliability through Executive eyes – defining it, measuring it
- Exploring Financial KPI's and their use in Maintenance
- How companies build unreliability into their business – and at what cost
- Using Financial KPI's to measure the cost of downtime, failures, breakdowns and slowdowns
- Risk and the Maintenance Manager
  - understanding and measuring risk
  - forecasting future risk
  - creating the best response to risk
- Using risk management to decide the “shutdown or continue to run” argument

**Session 2: Maintenance Projects large and small**

- Using Project Proposals to gain the resources needed to do the job
- Preparing Maintenance proposals – core components of a smart proposal
- Identifying and valuing the costs and benefits of projects
- Financial KPI's for Projects
- How to deal with time horizons, inflation, depreciation, cost of capital etc
- Presenting your proposal
- Back-up data and supporting documentation

**Session 3: Maintenance Financial Reporting**

- Maintenance as a Value-centre – not a cost centre, not a profit centre.
- Basic reports for managing Maintenance costs – defining and locating them
- Using cost reports to manage the Maintenance business
- Turning cost reports into Budgets for Maintenance that make sense
- Measuring and reporting Maintenance value and bottom line contribution.

**Session 4: Life Cycle Costing**

- What is Life Cycle Costing and why do we need it?
- The value of LCC in decision-making
- Costs to include, costs to exclude – and where this data is coming from
- Planning and implementing LCC - what is the process
- Problems along the way – understanding them and avoiding them
- Lessons to be learned from LCC
- Benefits and costs of LCC – should we proceed?

## Performance Management, KPI's and Benchmarking

**Summary:** KPI's and Benchmarking are a very popular way to measure an organization's performance. This course examines the various types of performance measures and the way they are applied – which are successful and which are not. This enables Attendees to draw conclusions about which processes and measures can derive the most benefit for their organization. Many examples will be explored during the two days, with opportunity to address the benefits and drawbacks. Attendees will:

- define Performance Management, Key Performance Indicators and Benchmarking
- understand how each can contribute to continuous maintenance improvement
- learn about the advantages and the pitfalls of each
- determine the best ways of improving the value of each and avoiding the negatives
- look at many examples and discuss their relevance to their own workplace.

**Duration:** See Table pages 1 & 2

**Attendees:** This program will benefit all senior levels of maintenance personnel, especially those who currently measure and manage performance – specifically Managers, Superintendents, Supervisors, Engineers, and Senior Technicians in Operations, Maintenance, Reliability and Physical Asset Management

**Format:** Combination of presentations, workshops, practice, case studies, discussions and process review.

**Course Content:**

- Define and understand Key Performance Indicators, Performance Management and Benchmarking – how do they fit together, how can they be used to benefit your organization, and what will they not do.
- Build, manage and refine your Performance Management process so as to achieve the required goals.
- Using Corporate and organizational goals and priorities as the basis for Maintenance Performance Management and KPI's.
- Different measures for different parts of the organization; why and what Executives need in the way of Maintenance Performance Measurement.
- Financial measures in Maintenance – Maintenance as a producer of value, and how to measure that contribution.
- KPI's for Maintenance Managers, KPI's for equipment.
- OEE (Overall Equipment Effectiveness) as the most important single measure – its pitfalls and how to tie it to ROI (Return on Investment).
- Balanced Scorecard basics, and how to apply it to Maintenance.
- Maintenance Dashboards and their role in Performance Management.
- Implementing Performance Management and KPI's – objectives and process.
- Troubleshooting KPI's – understanding how they can be misleading and what to do about it.
- Many examples of KPI's; selecting those that make the most sense for your organization – the figures behind the KPI's and the formulas for calculation.
- Integrating Benchmarking into Performance management – different types of Benchmarking and how they can be used to advantage.
- Dangers and difficulties of benchmarking and how they can be overcome.

- When does Benchmarking make sense for your organization?
- Results of Benchmarking and how to use them – plus how NOT to use them; how to derive maximum benefit from them.
- Benchmarking step by step – the process involved, who should manage it and who should be involved.
- Choosing your benchmarking partners – which will provide benefit and which will cause confusion.

## Maintenance Improvement for Managers and Supervisors of Maintenance and Operations

**Summary:** This program provides an introduction for Managers and Supervisors to the best techniques available for improving the quality and cost of maintenance and increasing equipment reliability. The program focuses on:

- A Management overview of Maintenance – emphasizing self assessment
- A high level look at many ideas and concepts; attendees will not learn them all – but will absorb enough to decide which ones to follow-up
- Companies cannot do them all at once – focus is on selecting those that are most applicable and will give the best payoff.
- Workshops and discussions to ensure attendees understand the best practice.
- A series of short self-evaluations to see how applicable the techniques are to the attendees company

**Duration:** See Table pages 1 & 2

**Format:** Combination of presentations, workshops, practice, case studies and discussions.

**Attendees:** This program is designed to benefit all senior levels of maintenance personnel, especially those needing the most up-to-date facts, tools, methodologies and techniques in maintenance management to maximize their performance. Specifically - Superintendents, Managers, Supervisors, Engineers, and Senior Technicians in Operations, Maintenance, Reliability and Physical Asset Management.

**Course Content: Module 1 -- Maintenance Management Overview.**

The opening session lays the groundwork by reviewing the most important tools and methodologies currently available to Maintenance Managers. In particular we concentrate on how to assess where you stand in relation to best practices both in Maintenance overall and in your use of your CMMS. This includes a self assessment to be used to focus on the key issues in the individual's own work environment. Attendees will then explore a simple methodology for setting the priorities and achieving them.

**Module 2 - Improving Equipment Reliability through your CMMS.**

Most companies have a CMMS in place – yet few use it as a driver for improvements in equipment reliability and maintenance effectiveness. Attendees are led through the components of a self-improvement model, including the practical steps necessary at each phase to move from the classroom to an effective implementation in the workplace.

### **Module 3 - Performance Management in Maintenance.**

KPI's and Performance Management have become major issues in the trade magazines, yet most organizations have had little success in making them work. In this session, attendees will review the objectives of Performance Management in the context of their own workplace, identify the elements that go into making Performance Management work, and then develop the individual steps needed to implement a successful program.

### **Module 4 -- Maintenance Budgeting and Cost Control.**

Most Maintenance Managers are under continuous pressure to cut budgets and control costs. In this session, attendees will explore the various methods of setting budgets that make sense, together with methods for controlling costs – both in the daily maintenance work, and in maintenance projects. But this is not all one way; we will also use the CMMS to demonstrate the value that is being derived from the maintenance work and thus provide the means to persuade management to increase the maintenance budget.

### **Module 5 -- Building your Improvement Program**

A step by step plan for maintenance improvement will be developed by the attendees so that they can return to their workplace with an action plan ready for implementation. This will concentrate on the practical application of the selected techniques and assess the priorities based on the difficulties and benefits of the implementation.

*OMDEC Training and Consulting Services*