

---

## Introduction to PMO 2000 - Reliability Improvement Software

PMO 2000 is a Windows based industrial maintenance and failure analysis tool designed for:

- Defining plant maintenance requirements, and
- Implementing a reliability growth program.

Whereas today's Computerised Maintenance Management Systems (CMMS) are excellent administrators, PMO 2000 provides the expert information system, analysis logic and wisdom behind the CMMS' asset management strategy.

PMO 2000 has been designed specifically to fill the hole left between CMMS information and reliability strategy. It is a rapid implementation system that can be used to deploy either PM Optimisation or more formal approaches to RCM analysis.

Whilst securely storing the maintenance strategy / program for a company's assets PMO 2000 has the ability to electronically output these into "user created" documents (normally MS Word) readily accessible to most CMMS. PMO 2000 can also electronically link with some CMMS systems to automatically load the revised maintenance schedules thereby ensuring consistency and accuracy of transfer. For this to happen, client system needs to have an upload facility and be able to provide MS Excel templates of the fields and table required.

All features of the process of maintenance analysis have been automated into the PMO2000 software. As well as outputting information as described above, PMO2000 features include information upload and distribution, duplication or cloning and building hierarchical schedules.

A major feature of PMO 2000 software is the ease at which changes to strategy can be made and documented as plant or operating conditions change. Using PMO 2000, the maintenance strategy can be instantly changed and output into schedules with the stroke of a few keys. All changes from the time the program starts to the time the plant is decommissioned are easily retrievable. This creates a history of all changes and the reason for them.

Unlike many statistical analysis packages, PMO 2000 has empirical thought processes and is ideal for organisations where failure history data is sketchy. Use of the software can be tailored to suit the level of analysis required and the significance of available data.

PMO2000 is written in Delphi 5.

Key features of PMO 2000 are as follows:

- User interfaces are designed for use by shop floor personnel who may have limited computer literacy.
- The three essential screens to be completed for each task analysis are as follows.
  - Analysis,
  - Approval, and
  - Implementation Preparation Complete.

Each screen can be password protected using an inbuilt security protocol. There are six access levels, so there is one to suit almost all access requirements.

- The software ensures the input of the three ingredients for condition-based maintenance, the conditions to be inspected, the limits of acceptability and the action to be taken if the limits are exceeded.
- Both PM Optimisation and RCM methods are fully supported. Zero based Failure Mode Effect and Criticality Analysis (FMECA) is a feature included for use in the design of new equipment whether the design is a totally new concept or an upgrade of a previous model. The software is therefore a living tool from the equipment concept design to decommissioning.

- 
- Maintenance analysis can be completed rapidly using single screen analysis or where required, rigorous analysis using cost benefit calculations. All analysis can be fully costed and the returns calculated by in-built intelligent cost calculators.
  - Cloning or duplication of maintenance analysis is fully supported thereby removing significant administrative burden where there are many items of identical plant or where there is a need to apply unilateral maintenance policy to groups common components with like failure modes and similar failure consequences. Cloning is as simple as using windows explorer drag and drop facility to copy similar analyses from one area to another.
  - Single tasks can be assigned to multiple hierarchical schedules such as monthly, three monthly, six monthly and annual. The order that the task appears on each schedule can be set for each schedule independently. There is therefore no need to retype each task on each hierarchical servicing.
  - The labour content for each schedule can be calculated by adding the content for each individual task or by assigning a global labour content for the schedule as a work package.
  - All changes to the maintenance program are archived on final approval for implementation. At any subsequent time, the rationale for changes to each task can be easily viewed no matter how many changes are made to the same task.
  - Work arising from the analysis (such as writing operating procedures or assessing modifications) is allocated to people during the analysis via the software. Management of this work can be controlled via the software.
  - Following implementation approval the relevant maintenance schedules are electronically and automatically updated. Maintenance schedules can be linked to CMMS via Hyperlink functions.
  - There is extensive reporting capability with the user able to decide the type of report and then filter and sort as to what and how the information should be presented.
  - The system can be used and operated by many people at once using a centralised database and a PC based analysis screens.
  - Fully integrated spell checker.