



Maintenance Management

A CMMS Overview

Q4 Power

Introduction

With plant availability and operating costs central to profitable performance, the benefits of well managed maintenance, stock inventories and procurement processes are easily recognised by operations and maintenance professionals.

The Q4 product suite has been designed by engineers for engineers to provide seamless co-ordination of all maintenance, inventory and procurement, and safety activities with comprehensive and intuitive features. The software is highly configurable with powerful functionality, yet is based around a user friendly interface that is the result of more than 20 years of development.

Q4 contains all of the key elements expected in a world class CMMS system, as well as unique features that provide immediate business benefit and a rapid return on investment.

The systems can be sub divided into the elements of Q4 Engineering, Q4 Stock & Procurement, and Q4 Safety and implemented as standalone modules or integrated to operate as a single coherent unit. These three core elements are discussed below.



Q4 Power Engineering Features

Q4 Power Engineering consists of a series of system manager menus that provide maintenance engineers with highly effective tools, reflecting all that is best in engineering maintenance practice.

Comprehensive tracking and analysis of plant, equipment, and assets is managed by Q4, with a range of additional details stored against each equipment item. A standard feature throughout the software is the ability to easily navigate around the system and link to associated information. This ensures supplementary data can be viewed against a particular equipment item very quickly and easily. The result is improved identification of fault patterns and trends, leading to a reduction in breakdowns and increased asset life.

The co-ordination of corrective and preventative maintenance is another important element of a good CMMS. This, along with project work is controlled through a built in task manager which facilitates an improvement in the ratio of corrective to preventative maintenance tasks

Q4 System Managers

- Equipment Manager
- Task Manager
- Resource Manager
- Stock Manager
- Event Manager
- Work Manager
- Report Manager
- History Manager
- Safety Manager
- Risk Assessment



Maintenance Management

A CMMS Overview

Q4 Power

and helps to optimise maintenance planning with useful associated information.

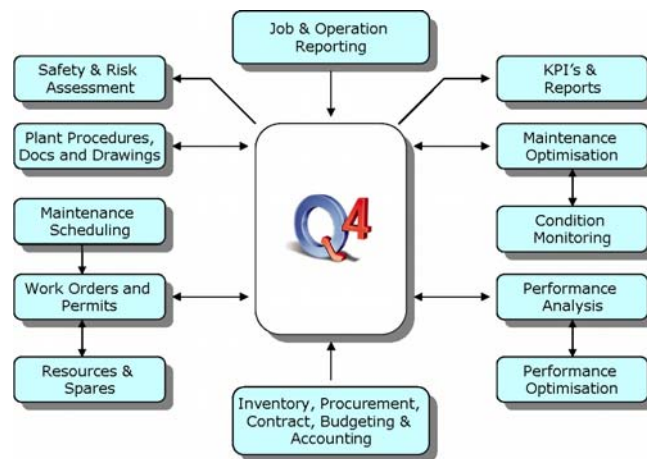
A resource manager helps to lower operational costs by providing better management of maintenance department resources, skills and labour costs. A database of individual engineers or tradesmen linked to calendars results in improvements in work scheduling and management of resource availability. In addition, a record of labour time and cost in the system helps to determine where labour is best utilised.

Q4 also contains a module for detailed work order planning, scheduling and processing. This allows manual or automatic creation of work orders, and results in increased management of and access to Work Orders and associated documents. Powerful work management tools control the assignment of work orders to equipment, systems, and work teams. Following assessment, work can then be scheduled with checks on resource availability and usage.

The management of events is available through integration with existing condition monitoring facilities, allowing triggering of event messages upon the occurrence of specified event parameters. A work order can then be automatically raised in the system for the necessary maintenance task to address the condition event.

Preventative Maintenance

Preventative maintenance is another important component of a good CMMS, and software able to perform well in this area unlocks a range of benefits through improved procedures and a reduction in downtime. Functionality is contained within Q4 for powerful definition of preventative maintenance regimes, with frequencies specified as time based, meter based or set to fixed date periods. Elements such as fault reports, critical path modules, manpower estimates, and work specifications can all be included, along with any stock or tool requirements for the work task.



Q4 also features strong reporting capabilities and comprehensive tools to rapidly analyse the data generated by the system. A broad range of reports can be generated quickly and easily within Q4 to assist users in identifying trends in costing, personnel, technical, and user patterns. The use of external reporting tools can also be applied if required, although this is rarely necessary due to the strength of reporting within Q4.

Finally, a comprehensive reference source to measure and analyze key performance indicators is another major advantage of a CMMS. Q4 provides powerful access to historical information to assist in the maintenance management process and ensure all relevant details are stored for future reference.



Maintenance Management

A CMMS Overview

Q4 Power

Q4 Stock and Procurement Features

Q4 Stock and Procurement provides a fully integrated set of managers to streamline inventory control and ensure tight management of purchasing, vendors, services and transactions. The software improves tracking and auditing, along with comprehensive item and vendor appraisal tools.

An inventory and procurement management module helps to minimise stock holdings in stores to optimum levels through regular reviews and an automatic audit trail. The requisition process is streamlined with automatic or manual orders and a security based procurement system.

The software can be configured to match current procedures and integration with existing financial systems allows co-ordinated stock and purchasing within a tightly integrated unit.

A Stock inventory register with each record linked to both a stock type and a depot manages stock levels, and is also referenced to a stock supplier record. Detailed information on vendors is accessible along with vendor appraisals containing a range of useful statistics, and links to additional information such as purchase orders and tenders.

Stocktakes can also be carried out quickly and easily within the system and a useful option is the utilisation of a hand held bar code reader to upload data to the master system.

All Stock transactions are automatically recorded in the system and stored in an easily accessible history database. The software can generate detailed reports run against various fields such as date, type etc. Control is provided over stock movements through the recording of all issues and returns, along with Stock transfers and any loans or hires that take place.

The system also provides additional control over the management of sensitive procedures, such as Stock takes and the adjustment of Stock levels, which can only be carried out by users with the appropriate security access level. Discrepancy values, along with price adjustments are automatically stored for audit purposes.

Another useful feature of Q4 Stock & Procurement is a Hazards and Safety database relating

Q4 Stock & Procurement System Managers

- Stock
- Vendors
- Stock Suppliers & Appraisals
- Stock Transactions
- Hazard Datasheets
- Safety Procedures
- Stock Take
- Stores Costing
- Purchasing
- Purchase Transactions
- Requisitions
- Tenders
- Supplier Selection





Maintenance Management

A CMMS Overview

Q4 Power

to stock records. This contains applicable information on hazardous items, and appropriate handling procedures. Detailed safety procedures relating to Stock items can also be attached, providing a safety control database including information on statutory requirements.

Q4 Safety Features

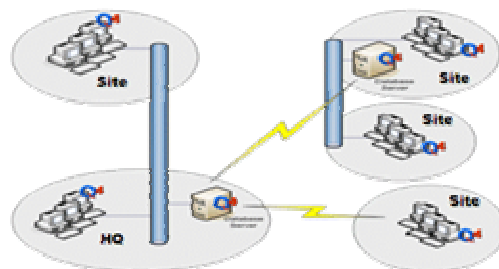
Engica's Q4 product suite also features a fully integrated Safety system for the creation and management of all safety document types, including Risk Assessment, Permit to work and any other associated documents. All documents and processes can be configured to match our clients current hard copy documents and safety procedures, ensuring immediate familiarity amongst all users of the software and maximum engagement with the new system.



In addition to these elements the software contains comprehensive features to assist with isolation management, sanction to test and shutdown planning. This allows synchronisation between maintenance work and safety procedures, with work order issue inhibited until the correct safety processes and documents are completed and the maintenance system informed. For more information see the Q4 Safety pages on the Engica website.

Configuration

One of the major strengths of Q4 products is their flexibility, and ability to be configured to match our client's unique processes and existing documents. The advantages of this are immediately apparent. Implementing a system that looks and feels similar to your paper system ensures immediate familiarity during the initial changeover from paper to electronic. If desired, the opportunity to optimise, streamline and strengthen the rule base, processes, and documents can also be defined and configured resulting in the most powerful system possible.



Integration

Engica's unique position as a company able to supply systems that meet the full spectrum of requirements for maintenance related applications ensures maximum business benefit to our clients through close interfacing between disparate systems. The ability to deploy a tightly integrated single unit supporting maintenance, logistics, and safety management, leads to the



Maintenance Management

A CMMS Overview

Q4 Power

whole becoming vastly greater than the sum of its parts. In addition to integration between our own systems Engica also possess considerable expertise interfacing Q4 products with existing client business solutions such as financial and ERP software, document management systems, as well as SCADA and DCS systems.

Ease of Use

Ease of use is a key issue. If the software is intuitive and user friendly the result is rapid uptake amongst all end users while unlocking maximum benefit through use of the system's advanced functionality. Q4 has been designed to guide users through the application of maintenance best practice in a logical and natural manner which allows staff to pick up the system with a minimum of training.

Delivery Capability

With a proven track record spanning more than 20 years Engica has the necessary expertise to successfully deliver projects, often to tight timescales, in multiple languages, and in difficult operating environments. An innovative approach to project implementation lies at the heart of Engica's philosophy and ensures that our clients current and future needs are fully met by our software, immediately following go live and for many years to come.

It's the emphasis we place on the implementation and support that is so important because it's the key to your and our business success.

Project Implementation

Experience in project management is one of Engica's major underlying strengths and forms the cornerstone of our client partnership relations.

A project is typically managed in four stages, providing key milestones that can be measured to optimise results and ensure that project deadlines and budgets are being met:



Definition: Defining and agreeing project objectives, success criteria and constraints. With configuration a key element of many projects, process mapping is carried out early on in an implementation to match existing processes and documents during this stage.

Preparation: Putting into place everything needed to make effective use of the system.

Pilot: Testing all previous assumptions about users, process and data to show that system can run effectively before going live.

Implementation: Establishing the system in effective operation as required by business objectives.



Maintenance Management

A CMMS Overview

Q4 Power

Training

A high standard of training is central to the rapid and successful uptake of a new system. This is provided via a combination of standard or custom built training courses including on site delivery and e-learning if required.

Support

Because we place a high value on every single one of our clients Engica provides telephone, fax, email and web based support as well as ongoing workshops, training and regular software upgrades. This ensures that our clients get the very best from our software and are able to benefit from the strong emphasis on support and customer service that is fundamental to our continued success as an organisation.

Benefits and Synopsis

- Increased Plant Availability and a Reduction in Downtime
- Lower Operational Costs
- Increased Asset Life
- Better Resource Management
- Powerful Reporting and Analysis Capabilities
- Improved Work Scheduling and Planning
- Move from Corrective to Preventative Maintenance
- Optimisation of Stock Inventory Levels
- Better Tracking of Spares
- Streamlined Procurement Processes
- Stronger Safety Management
- Greater Co-ordination Between Departments

While this overview gives a brief introduction to the Q4 Power Engineering, Stock & Procurement, and Safety systems the software contains numerous additional features to support greater adherence to best practice in maintenance management.

For more information or a software demonstration contact us at
info@engica.com or Tel: +44 (0) 191 201 7777