FACTSHEET MAINTENANCE MANAGEMENT

The ever changing scenario of global competition and technological advancement pose major challenges and incessant pressure on the maintenance department, whose major objective is to provide safe and secure continuous operation at highly demanding levels.

The health of your equipment has considerable impact on the productivity and efficiency of the plant and consequently determines the profitability of the organization.

Dynamic Software Maintenance Management offers your organization an all-in-one solution that gives you real-time information across your business.

Customers worldwide rely on HSO Maintenance Management for Microsoft Dynamics® AX to support their business processes. Maintenance Management supports your organization by optimizing your plant’s preventive periodic maintenance, as well as repairs. At the same time you have direct access to all the data you need regarding the equipment, resources and logistics.

CHALLENGES

- Keeping plant machinery and equipment in optimal productive condition
- Meeting legal requirements for operation (certification)
- Meeting vendor warranty requirements for maintenance
- Controlling and reducing maintenance and repair costs
- Efficiently managing the maintenance department
- Limiting downtime to maximize productivity
- Optimizing utilization of both technical (machinery) and human (engineers) resources

SOLUTION BENEFITS

- Help to manage and track the maintenance of equipment installed in the organization
- Increased uptime of equipment by doing timely maintenance
- Help to generate preventive and ad-hoc work orders for servicing equipment
- Better maintenance and repair cost containment
- Improved operational performance and efficiency
- Obtain overall control of installed equipment from an operation and financial perspective
- Increase in workforce productivity and first time fix %

“Gain better control over the preventive and ad-hoc services required for your plants and equipment.”
Key features HSO Maintenance Management

**KEY FEATURES OF MAINTENANCE MANAGEMENT:**
- Comprehensive equipment management
- Supports a multi-level equipment structure (e.g. complete plants, buildings, production machines)
- Integration with fixed assets of Microsoft Dynamics AX
- Help to generate preventive and ad-hoc work orders for plants and equipment
- Full functions work order management for work order generation with tasks details
- Supports tracking and tracing of maintenance and repair work orders
- Provides full financial forecasting and cost evaluation
- Supports maintenance logistics, financials and work orders for the maintenance crew and workshop
- Real time statistics on costs and revenues of the plants equipment

Maintenance Management is fully integrated with the Microsoft Dynamics AX Logistics, Projects, Finance and Resources modules. Maintenance Management offers your organization the tools to be in control of:

**SHORT TERM:**
- Full visibility on open work orders (ad-hoc and preventive)
- Status of maintenance work orders with respect to applicable deadlines

**LONG TERM:**
- Support for preventive maintenance based on flexible maintenance schedules and frequencies
- Required resource availability versus available resource capacity
- Financial planning based on estimated maintenance

**FINANCIAL:**
- Show total hours, materials and costs spent
- Generates budgets based on preventive maintenance
- Integration with fixed asset module of Dynamics AX

**STATISTICS:**
- Pre- and post-calculations of costs and revenues per maintenance request and per object
- Financial cockpit overview on maintenance requests and objects
HSO Maintenance Management provides a strong platform to help you control and manage the preventive and ad-hoc services required for plants and equipment.

It supports a wide range of functions and empowers your company to meet the challenges of growth, while giving you the insight into your business you need to succeed in an increasingly competitive global environment.

**EQUIPMENT MANAGEMENT**

The equipment management master file handles the master data of the various equipment within the plant.

You can maintain different groups of plants and equipment's and all your plants and equipment may be integrated with Microsoft Dynamics AX Fixed Assets, if the module is installed.

The equipment management master file can be used to store information such as:

- Information such as equipment type, serial number, warranty, etc.
- Cost center department or other financial dimensions to which maintenance expenses are to be posted
- Flexibility to define equipment property sheets to maintain relevant technical information about the equipment
- Attach notes, drawings and other relevant documents using Dynamics AX document management

The equipment management master file is also the single source of information regarding historical operational and financial information.

**WORK ORDER MANAGEMENT**

With work order management, HSO Maintenance Management provides accurate information about upcoming preventive maintenance, as well as ad-hoc maintenance.

Maintenance Management serves as the central point of information where your employees can keep relevant work order status updated. Having accurate information available lets you monitor and track the open work order in an effective and efficient way.

All work orders will be stored and linked to equipment providing a knowledge base for future repairs.
HSO Maintenance Management allows you to generate work orders automatically for all your preventive maintenance and manually for all your ad-hoc maintenance.

Maintenance processes and procedures can be tailored using the work order types and work order statuses. Any change in flow related data, is recorded in the work order-history. This allows for extensive and detailed work order fulfillment analysis.

You can route the work order requests and - if needed - additional work can be identified to be carried out by the workshop or maintenance employees.

Maintenance Management uses ‘event codes’ to identify predefined work packages, which can have hour budgets and proposed spare parts usage.

An event code serves as a template for a new maintenance task. Examples are repair, inspection, preventive maintenance and testing. This information can be used for scheduling and is the basis for the work order document for the technician performing the maintenance.

Important feature of work order management are:

- Generate work order for ad-hoc repairs, as well as for preventive maintenance
- Facility to monitor progress of open work orders
- Option to add multiple tasks to one work order
- Define template for standard hours and spare parts
- Use of user-defined categorization for work orders
- Define the priority for further follow up

To make sure work order are prioritized in the correct way, HSO Maintenance Management provides a flexible severity matrix to prioritize work.

PREVENTIVE MAINTENANCE

Planned and preventive maintenance work orders offer great flexibility in managing different types of maintenance activities.

HSO Maintenance Management offers full flexibility in defining maintenance schedules for preventive maintenance. The actual generation of the preventive work orders can be automated.

Just like ad-hoc work orders, the preventive work orders will appear in the to-do list of the maintenance planner to be assigned to the technicians/engineers.
**RESOURCE SCHEDULING**

With Maintenance Management you get a graphical scheduling overview for interactive planning of upcoming work based on outstanding priorities and availability of people.

Using the scheduling overview, your planner has all the necessary data in one or two separated screens with drag and drop functionality from the maintenance tasks to the planning.

Your planner first determines what kind of resources (type/group of employees, machines and materials) are necessary for solving the maintenance request.

Based on standard problem codes that can be indicated for each object type, a standard use of resources is proposed. Based on this data, a detailed planning can be made.

Several views are provided:

- Horizontal view for detailed and precise scheduling of tasks.
- Card view / Strip view to assign tasks to resource without allocating a fixed timeslot in the assigned day.

**PURCHASE CONTRACTS**

HSO Maintenance Management also offers support for purchase contract with third party vendors. These purchase contracts can be defined for hours and items.

When entering hours or items on a task, Maintenance Management will detect whether the hours or items are linked to a purchase contract. Maintenance Management will automatically alarm the user that specific purchase contracts exist for the entered data.

**WORK ORDER EVALUATION AND CLOSING**

Once a work order and its related tasks is completed, all actual cost are posted in in the equipment master file. In addition a detailed record of all spare parts used and hours consumed is retained.

The data that is recorded for each maintenance schedule provides the possibility of prognoses from different perspectives. This concerns the costs, as well as the necessary resources (people and materials).

For each plant or equipment, all transactions - from the maintenance perspective - are logged and saved. Over a period of time this provides a rich basis of historical data for each object, such as:

- The amount of work orders
- The cost of the work orders and tasks
- What types of work orders and which tasks are performed frequently
- Hour and materials which are necessary for various types of work orders

In addition to this more operational information, historical data concerning the costs can be retrieved. What is the operational cost with respect to hours, spare parts, hiring third parties, etc. of a plant or equipment? Was the budget for the period sufficient to cover the costs?
## Equipment
- Graphical equipment builder
- Equipment can be associated with Inventory
- Full financial maintenance history
- Full logistic maintenance history
- Maintenance of hierarchical equipment structures
- User definable equipment property sheet
- Monitor cost spent on equipment

## Equipment Types
- Equipment class and manufacturer maintenance
- Recurring tasks with BOM as item context
- Flexible maintenance schedule per equipment type
- Forecast of time and materials for each maintenance schedule line

## Event Codes
- Predefined material and hour usage per equipment type on work orders
- Forecasting on preventive maintenance
- Statistics on budgets and realizations

## Work Orders
- Standard and simplified screen for registering
- Standard extended entry form for fast work order and task creation
- Severity matrix
- SLA deadlines per status
- Logging of changes
- Monitoring progress and statuses
- Routing

## Planning and Scheduling
- Graphical planning
- Drag and drop functionality
- Partial rescheduling
- Route-planning and task overview by period, mechanic or region
- Forecast of hours and items
- Graphical view of resources assigned to service request
- Detailed information by directly zooming in

## Tasks
- Actual usage registration
- Multiple work orders per work order
- Documents for assignments
- Full support for logistics
- Workshop "baseline", capacity in work-center, including planned maintenance

## Overview/Analysis
- Standard and user defined queries
- Standard and user defined reports
- Graph of action codes on volume axis
- Graph of action codes on time axis
- OLAP table
- Cockpit view for financial data

## Integration
- Microsoft Dynamics AX Project Management and Accounting
- Microsoft Dynamics AX Resources
- HSO Service Management for Microsoft Dynamics AX
- Microsoft Dynamics AX Accounts Payable
- Microsoft Dynamics AX Accounts Receivable
- Microsoft Dynamics AX Sales Orders
- Microsoft Dynamics AX Purchase Orders

## Prerequisites
- Microsoft Dynamics AX 2012 CU2