MRO maintenance planning

Planning maintenance for component, subsystem and end-item assets

Benefits

• Increases productivity by enabling service organizations to establish a library of standard and approved maintenance procedures
• Ensures lean service operations by reducing waste in service team schedules, eliminating redundant/unnecessary work tasks and standardizing the work procedures associated with given maintenance requirements
• Facilitates better asset utilization and maintenance planning by enabling service teams to assess accurate life characteristic status at the appropriate level (for example, end item and component part)
• Increases the MRO capacity of the service organization by combining work for scheduled maintenance, modifications and discrepancies into efficient service events

Summary

Teamcenter® software’s maintenance, repair and overhaul (MRO) suite provides a maintenance planning solution that allows service organizations to plan MRO activities associated with servicing capital assets that range in complexity from individual components to an entire base of assets. Teamcenter is adept at allowing service teams to capture/manage maintenance requirements, analyze individual assets in terms of their utilization trends, define the resources required to perform specific maintenance tasks, proactively plan scheduled service visits and roll up maintenance requirements into an operations-wide plan.

Basic functionality

The maintenance planning solution leverages the Teamcenter configuration-driven MRO capabilities to provide service organizations with a framework for defining and managing maintenance requirements, as well as for establishing cost-effective service procedures and work schedules for satisfying those requirements.

More specifically, the Teamcenter maintenance planning solution enables service organizations to:

Capture and manage maintenance requirements for capital assets that range in complexity from individual assets to an entire base of assets. Teamcenter is capable of capturing requirements from manufacturer maintenance plans, corrosion prevention and control programs, structural and aging inspections, asset modification programs and other information sources.

Analyze each asset in terms of its operational hours, maintenance requirements and utilization data and then automatically generate a forecasted schedule for the asset’s maintenance.
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**Features**

- Ability to define maintenance requirements in terms of the parts, people, tools and equipment that generically pertain to the asset's components, subassemblies and systems – as well as for the asset's specific usage or position
- Ability to establish a work card library of work instructions that pertain to specific maintenance requirements
- Service bulletin and change notice tracking
- Support for work standards that apply to tasks and processes
- “Dues” list forecasting facilitated by comparing expected asset utilization data with asset's current life characteristic status and maintenance program requirements
- Ability to track incorporation of service bulletins, mod-kits and other change notices across an asset base

**Define the resources** needed to perform each forecasted requirement via a work card that describes the steps, tools, materials and time needed to perform specific maintenance tasks.

**Proactively plan service visits** to eliminate duplicate work tasks, generate bills of materials and prepare service forecasts that service teams can use to plan upcoming visits and assess near-term service requirements.

**Roll up maintenance requirements** for individual assets into operations-wide maintenance plans so that service organizations can eliminate duplicate work, combine service events and minimize the cost of complying with regulatory directives.

**Robust planning capabilities**

Teamcenter is distinguished by a variety of robust maintenance planning capabilities, including the ability to:

- Create and manage a work card library of work instructions that can be instantiated as jobs cards for specific maintenance requirements
- Establish “dues” lists that determine maintenance requirements by comparing an asset’s based and derived life characteristics (for example, hours, cycles, landings, rounds fixed or any user-defined metric) against its current maintenance program
- Track service bulletins, change notices, mod-kits and the dependencies that apply to individual assets and incorporate them across an entire asset base – by effectivity and applicability – to ensure valid installations and properly planned service events

**Use cases**

Teamcenter enables service organizations to adopt a variety of best practices that they can use to plan the MRO activities for an entire capital asset base. As a result, service organizations are able to:

- Streamline tasks that comprise the MRO cycle
- Improve service team productivity
- Maximize asset availability and reliability
- Accelerate service event turnaround

**Facilitating operations-wide maintenance planning** Teamcenter enables service organizations to forecast all of the maintenance requirements for an entire base of assets at the component, subsystem and end-item level. The service organization can use Teamcenter to analyze asset trends, consolidate service team visits and maintain accurate configuration status for all assets deployed in the field or on the shelf.

As a result, the service organization is able to satisfy the asset’s maintenance requirements while adopting lean MRO processes that eliminate unnecessary/redundant work tasks, leverage optimal information flows and ensure that the right parts, right tools and right knowledge are available for a service event.

**Facilitating earlier service event planning** Teamcenter improves event turnaround by providing tools that enable the service organization to comprehensively define the work tasks for a scheduled visit. Teamcenter can deliver accurate and up-to-date asset configuration information to the service team in advance of the service event, improving service technician productivity. Teamcenter can distribute standardized job cards to service managers, enabling them to make certain that the right resources, tools and equipment are available.