

Inventory Strategies

**MAXIMO UTILITIES
WORKING GROUP**

**WORKSHOP
FALL 2007**

HOSTED BY TVA – CHATTANOOGA, TN

Inventory & Purchasing Strategies

Objective:

- **Establish the need to have well defined strategy for material support for maintenance, modification and construction work managed in Maximo**
- **Discuss elements of strategic inventory and purchasing management that drive supply chain and other approaches to managing work**
- **Review features in Maximo that support inventory & purchasing strategies**

Inventory Strategies

Value of establishing inventory strategy

- **Defines senior management expectations for maintenance and inventory management and supervision**
- **Creates the direction and emphasis for material support for maintenance and related activity**
- **Establishes performance measures that support the strategy**
- **Enables the configuration of Maximo that supports inventory strategy and business objectives**

Inventory Strategies

Sponsorship and Development of Inventory Strategy

- Senior manager that owns the budget for O&M and Inventory
- Joint development between the customer (maintenance management) and the provider (inventory system management)

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Key Elements of Inventory Strategy

- **Focus must be on supporting business objectives of the organization such as:**
 - **Power Generation**
 - **Delivery systems (electric, gas water, waste water collection)**
 - **Maintain cost control**
 - **Improving performance (assets and people)**
 - **Establish metrics to validate inventory strategy against business objectives**

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Examples of strategic statements

- Maintain an inventory that supports the routine operation and maintenance of assets that are critical for meeting the business objectives.**
- Maintain an inventory of critical parts and components that are no longer available or have a long lead time and may cause reduced capability**

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Examples of Strategic Statements

- **Maintain parts and component to support preventive maintenance and minor maintenance to improve the planning and scheduling of work. This may include consumable items not readily available from local sources.**
- **Establish and monitor metrics that provide data to adjust inventory to optimize usage and maintain the balance between the cost of inventory and risk associated with the inability to meet business objectives caused by the lack of stocked parts.**

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Strategy must address criterion for supply process

- **Stocked parts and usage**
 - **Item Master requirements**
 - **Storeroom inventory requirements**
 - **Open stock in work areas or satellite storerooms**
 - **Item storage requirements**
- **Non stocked parts and direct issue**
- **Rotating Items**
- **Purchase process to meet planned and scheduled work for non stocked and open purchased**
- **Emergency parts/material/service requirements**
- **Quality requirements for items – receipt inspections**

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Developing business practice that support strategy

- **Material support for business processes determine how Maximo inventory is configured**
- **Define how Item Masters are managed**
- **Determine Stocking levels at warehouses**
- **Define interfaces between maintenance, inventory and purchasing organizations**
- **Establish rules for non stock items**
- **Provide details for inspection and storage of inventory**
- **Provide rules for issue, return and transfer of items**

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Inventory Metrics

- **Enables the determination of inventory value for meeting business objectives**
- **Provides management with ability to make business process adjustments**
- **Measures and trends the optimal use of inventory resources**
- **Example Metrics:**
 - **Material coverage for planned and scheduled work**
 - **Level of work that is delayed due to “waiting for material”**
 - **Lost revenue/service due to material problems (Risk)**

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Inventory value to the business

- **Critical Spare parts usage**
- **Item usage of stock to support PMs and routing work**
- **Quality of parts and materials (work delayed or rework due to materials or parts)**
- **Procurement driven by inventory shortages**

Inventory Metrics that have value

- **Total cost of inventory**
- **Inventory turns ratios**
- **Inventory counts**

Purchasing Strategies

Key elements of purchase Strategy are to support:

- **Inventory and inventory quality**
- **Non-stocked items required for**
 - **Planned maintenance**
 - **Construction (Capital work)**
 - **Modifications and Upgrades**
- **Emergency and expedited procurement**
- **Special one time use items**
- **Management of qualified suppliers/vendors**
- **Use of Bank Cards by Maintenance staff**
- **Metrics to determine purchasing performance to support business objectives**

Purchasing Strategies

Purchase strategy drives business processes for:

- **Selection of qualified vendors/suppliers**
- **Inventory value and stocking approaches**
 - **Safety stock, reorder points, economic order quantities lead time, inspection, etc**
- **Non-stock purchase process**
 - **Lead time, approvals, delivery requirements**
- **Capital purchasing for maintenance & construction**
- **Service agreements with local suppliers**
- **Standard pricing for commodities**
- **Bidding requirements – sole source**

Purchasing Strategies

Some key metrics for Purchasing

- Number of high priority work orders waiting material and age of status**
- Procured item quality and vendor performance for delivery commitments**
- Bank Card purchases by maintenance staff to support high priority maintenance**
- Number of expedited purchases to meet maintenance high priority work**
- Amount of material purchased via purchase agreements**

Inventory & Purchasing Strategies

Summary:

- **Well developed strategy is required to develop business process for the configuration of Maximo**
- **Strategy drives the ability to measure performance**
- **Develop Inventory & Purchasing Strategy before you upgrade**