Maximo Asset Management 7.6

Rotating Items/Assets

Usually, we think of assets and inventory items as two separate concepts. Like motorcycles and flower baskets – nothing at all in common, and used for entirely different purposes.

- Assets are equipment that are used in the facility for production. Each asset has a unique identity.
- Inventory items are spare parts that are kept in the storeroom until needed. Each item may have a fluctuating quantity, but there is no distinction made between individual units.

Rotating Items/Assets attempt to bridge the gap between these two concepts by allowing you to treat an asset as inventory in many senses, and vice versa. It is most useful for assets that are moved in and out of the storeroom and sent out for repair or rebuild.

The terms "rotating assets" and "rotating items" can seem ambiguous, so we'll try to clear up any confusion. Bear with us if we seem repetitive – we really want to make sure you understand this concept. A rotating item is similar to any other inventory item, except that <u>each unit is an individual asset</u>. For example, if an (rotating) item has a quantity of five on hand, that means that five individual rotating assets are being stored in the warehouse under the same (rotating) item number. As with any other asset, each can have its own unique specifications, status, PM schedules, and work order history. Because they are grouped together with a common rotating item number, it is assumed that they are physically identical and interchangeable, although that's not technically a requirement.

When a regular inventory item is issued, it is simply "consumed". When a rotating item is issued, it is "transferred and tracked". After you choose *which* (rotating) asset you want to use, the asset is moved out of the storeroom and into the selected production location. There is a separate process for moving it back *into* the storeroom again.

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Purpose of Rotating Assets

Why should you bother with setting up and maintain rotating assets? Here are just a few answers.

1. Rotating Assets allow you to group assets that are similar and interchangeable. Under the rotating item (in the *Inventory* application), you can view the statuses and locations of all associated assets, whether they be in production, in the storeroom, or out for repair.

2. Rotating Assets more accurately represent the physical, real-life movement and location of stuff. If a pump is on a shelf, Maximo will know that it's on the shelf, and which shelf it is on. It doesn't think that it's just sitting out in the plant beside the one that's actually in service.

    Bonus: when a technician selects a location for maintenance, they won't have to pick which asset to use, the active one or the inactive one. Maximo will already know which one is "in production", because the other one isn't there – it's in the storeroom.

3. Rotating Assets help you to track maintenance history by location and by asset. For example, someday you might want to know not only *where* a failure occurred, but *which pump* was there at the time of the failure. Conversely, you might want to look at all the different locations where a specific pump has failed, check to see if it had been moved shortly before a specific failure, etc. Some of this can be accomplished with regular assets, but with limitations regarding the storerooms.

4. Rotating Assets allow you to deal properly with refurbishment and correctly assign values according to the actual repair costs.

5. Rotating Assets can be purchased through a PO. Regular assets cannot.

Locations and Storerooms

Before moving on, it's important to understand something about locations and storerooms. Like assets and inventory, we usually think of these two things as completely distinct types of objects. A "location", we say, is one of thousands of places where assets are located. It fits somewhere into a complex hierarchy of parent/child relationships. A "storeroom", on the other hand, we think of as a warehouse where hundreds or thousands of inventory items are stored and tracked. A plant is likely to have only one storeroom, partitioned into "bins". Furthermore, the two things aren't even part of the same module – locations belong to the *Assets* module, and storerooms are part of the *Inventory* module. So they seem very different. But if you're going to understand rotating assets, you need to realize that <u>a storeroom is actually just a different type of location</u>. It's a special location intended for storage instead of production: storage of both inventory items and (rotating) assets. For clarity, I will use the terms "Production Location" and "Storeroom Location" for a while, even though these aren't the terms you'll see in Maximo. A proper understanding of locations is important because it makes it less confusing to think about moving assets "from production into the storeroom". Now, we understand that it's just movement from one type of location into another type of location.

In fact, it doesn't stop there. You'll see two other types of locations mentioned in this document as well.

Holding Locations – used for temporarily storing rotating items until someone creates the rotating assets to go with them.

Repair Locations – used for holding assets while they are being repaired (likely off-site).

Inventory Costs for Rotating Items

For normal inventory, you use one of four costing method: Average (the most common), FIFO, LIFO, or Standard. Rotating items cannot use any of these. Part of the idea of rotating items is that each individual asset can have its own, unique cost that is derived from many different factors, including the cost of repair/refurbishment.
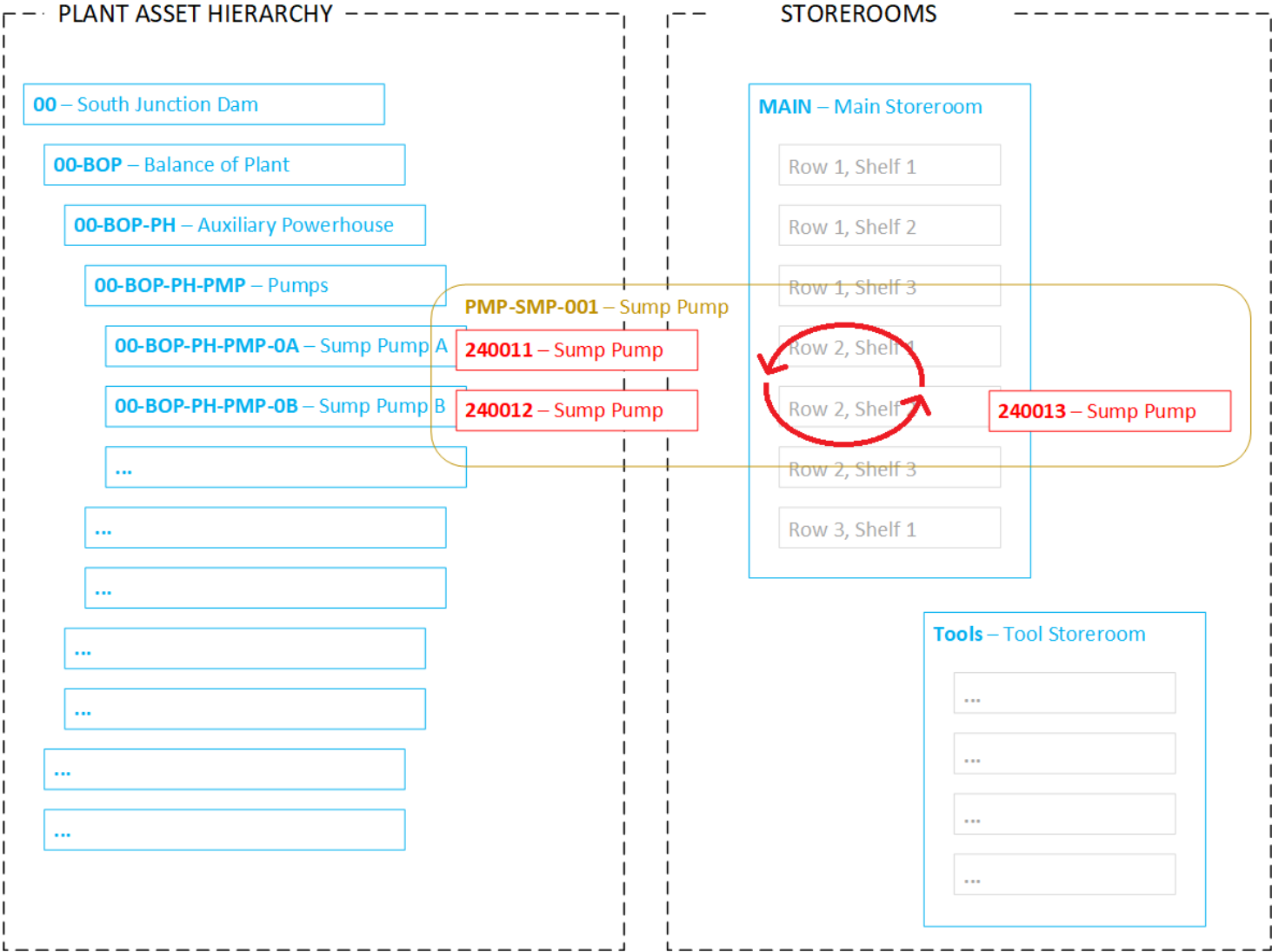
When you view a rotating item, the *Inventory Costs* area, the *Standard Cost* and *Average Cost* values are essentially meaningless and can be ignored. Instead, you'll notice that each associated asset has a record and individual cost in the *Asset Cost* area.

> *NOTE: Although not discussed in detail in this document, condition codes can be used on rotating items to reduce the cost of associated assets based on their condition (i.e. used, rebuilt, or scrap). This process works very similar to the way it does on non-rotating items.*

An Example of a Rotating Asset

The diagram below shows one scenario of how all these different pieces fit together. We suggest that you read through the following bullets in order while simultaneously studying the diagram on the following page.

- Blue boxes are locations (production locations on the left, storeroom locations on the right).
  Red boxes are assets.
  Yellow boxes are inventory items.
- There are three identical sump pumps, each of which is a unique asset.
- At present, two pumps are in production locations, while a third is sitting on a shelf in a storeroom location.
- The pumps can by moved around between locations.
- All three pumps (assets) are grouped together under a (rotating) item number.
- All three pumps remain individual "assets" in every sense of the term.
- If you were to open the Inventory application, you could view the statuses and locations of all three pumps via a single inventory record.
- If you were to open the Assets application, you could view each of pumps as three separate asset records.
- If you were to open the Locations application, you could view the two production locations that currently have pumps in them and see which pump is there right now. You wouldn't find the third one there.

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Location

Asset

Inventory Item

PLANT ASSET HIERARCHY

00 – South Junction Dam

00-BOP – Balance of Plant

00-BOP-PH – Auxiliary Powerhouse

00-BOP-PH-PMP – Pumps

00-BOP-PH-PMP-0A – Sump Pump A

00-BOP-PH-PMP-0B – Sump Pump B

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STOREROOMS

MAIN – Main Storeroom

Row 1, Shelf 1

Row 1, Shelf 2

Row 1, Shelf 3

Row 2, Shelf 1

Row 2, Shelf 2

Row 2, Shelf 3

Row 3, Shelf 1

Tools – Tool Storeroom

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PMP-SMP-001 – Sump Pump

240011 – Sump Pump

240012 – Sump Pump

240013 – Sump Pump

Creating Rotating Assets

There are two ways that rotating assets come into existence: via the standard procurement process (if you're going to purchase them), or by using the *Assets* application (if they either already exist or you intend to create them as assets without using a PO).

Creating a Rotating Asset Via the *Assets* Application

1. If the rotating item number does not exist, create it.

   1. Navigate to the *Item Master* application. Open an item, or create and save a new item.

   2. Ensure that the *Rotating* box is checked.

   3. Add the item to a storeroom with zero quantity.

2. Navigate to the *Assets* application. Open the asset record, or create and save a new asset.

3. From the *Actions* menu, select *Change Item Number*.

4. Fill in the *Item Number* field. Then click the *OK* button.

Creating a Rotating Asset Via Procurement

If you're going to purchase a rotating asset through a Maximo PO, you'll create a PR or PO for the rotating item. At the time of receiving, there will be a few extra steps required to create the associated rotating assets for the item. Instead of going directly to the storeroom location or production location, the item will be received temporarily to a "holding location" (yet another type of location). Before leaving the *Receiving* application, you'll move them out of that location as part of the process of creating the (rotating) assets.

ALERT: During the receiving process, you may get an error informing you that "there is no holding location created for this site." If you see this, please contact your Maximo administrator – they should be able to create the holding location quickly.

1. Create the rotating item in the *Item Master* application and add it to the intended storeroom with a quantity of zero.

2. Follow your regular procurement process to purchase the rotating item(s). Make sure to provide the storeroom for all relevant PR/PO lines.

   TIP: although you can receive the item directly to the production location, it is usually easiest to receive it to the storeroom location first and then move it to the production location. That is especially true if the quantity is more than one.

3. Follow your regular receiving process. After receiving the item(s), you'll notice a couple things that are different than with regular items, which indicate that you're still not done here. So don't leave the *Receiving* application quite yet.

   - The *To Location* field automatically contains the value of your holding location, even though you did not provide this on the PO.
   - The *Inspection Status* field (you've likely never noticed this field before) contains the value "WASSAT" (Waiting for Asset Creation).

4. From the *Actions* menu, select *Receive Rotating Items*.

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> *NOTE: If you more than one rotating item, you'll need to perform steps 4 to 6 for each rotating item line. By "more than one", we mean more than one <u>unique item</u>, not more than one quantity of the same item.*

5. In the *Receive Rotating Items* dialog, you will see the number of lines that corresponds to the quantity for the line you selected – one line for each asset that needs to be created. You must create a unique asset number for each line by either providing it manually or by clicking the *Autonumber* button.

6. (optional) Provide a GL account and a serial number for each new asset. Then click the *OK* button.

Capitalizing and Item

You likely will want to designate rotating assets as capital spares so that no cost is incurred when you move them in and out of the storeroom.

1. Navigate to the *Item Master* application. Open the item.

2. From the Actions menu, select Change Capitalized Status.

3. Specify a GL account (for any cost write-off, if the item was previously non-capitalized).

4. Click the *OK* button.

Moving Rotating Assets

Moving a Rotating Asset from the Storeroom into a Production (or Repair) Location

1. Navigate to the *Inventory* application. Open the item.

2. From the *Actions* menu, select *Issue Current Item*.

3. Fill in all the applicable fields.

> **Rotating Asset** – the asset that you want to move out of the warehouse.
>
> **Location** – the production or repair location to which you want the asset to go.

4. Click the *OK* button.

> *NOTE: From the 'Rotating Assets' tab of the 'Inventory' application, you can view the location and status of all associated (rotating) assets, including those that are currently in production. To see all assets, you will likely have to remove the default filter on this tab for the storeroom.*

Moving a Rotating Asset from a Production Location into the Storeroom (or Repair Location)

1. Navigate to the *Assets* application. Open the item.

> *TIP: You can also find the asset by first going to the 'Locations' application, finding the location, going to the 'Assets' tab, finding the asset number, and selecting 'Go To > Assets' from the lookup menu.*

2. From the *Actions* menu, select *Move/Modify Assets*.

3. Populate the *To Location* field with the storeroom or repair location. Click the *Apply* button next to this field.

4. Click the *OK* button.

Repairing/Refurbishing Rotating Assets

ALERT TO ADMINISTRATORS: The goal is that the inventory cost for the repaired asset reflect the actual cost of repairs, as derived from the cumulative costs of the work order(s), such as actual labor and material costs. For this to happen, you must ensure that the 'Enable Repair Locations' option is checked. This can be done as follows: Navigate to the 'Organizations' application and open the organization. From the 'Actions' menu, select 'Work Order Options > Other Organizational Options'. Ensure that the 'Enable Repair Facilities?' box is checked.

1. Move the rotating asset into a repair location (see section: *Moving Rotating Assets*).

2. Create a new work order for the repair. Make sure populate the *Asset* field with the rotating asset.

3. Process the work order as usual. Update the *Actuals* tab with costs that will eventually affect the asset's inventory cost.

4. Close the work order.

5. Move the asset back into the storeroom location.

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