

AssetOptics Quick Start Preventive Maintenance – PM Schedule Training Exercises

Prior to completing these training exercises, please ensure that you have a user account in an AssetOptics training environment or sandbox. If you do not have a user account, please submit a case via the Support Community at www.assetoptics.com

For these exercises you will be acting as a maintenance supervisor in a fictional brewery. Partial data have been preloaded into a demo org for this purpose. You will be instructed to both review existing records and create new ones to familiarize yourself with the concepts being presented. Save your work as you go.

In these exercises you will learn about the following: creating Preventive Maintenance (PM) Schedules and how to schedule the release of preventive work orders according various permutations of calendar and meter.

Definition: “Preventive Maintenance Schedule” – a plan by which work orders are automatically created and released according to user-defined criteria. Work orders may be scheduled by calendar, meter, or a combination of both. For example:

- Monthly Backup Generator Testing (calendar)
- 8000 Hours Valve Clearance Check (meter)
- 5000 mile or 3-month Engine Oil Change (combination)

Action: If you completed the Work Management Training Exercises you will recall creating a *corrective* Work Order on a lobe pump using the Standard Work Task called “Monthly Maintenance APV Lobe Pump.” Since, by definition, “monthly maintenance” is predictable, it is more efficient to create a **PM Schedule** for the asset. If necessary, review the Work Order previously created to refresh your memory.

Exercise: In this exercise you will be creating a calendar-based PM Schedule on a Mash Mixer Pump. You will first need to create a Model Work Order from which the PM Schedule will clone and release preventive Work Orders.

1. Create a new **Work Order** (record type: Model Work Order) with the following details:

Description: Monthly MM Pump Service

Asset Group: APV Lobe Pump

2. On the newly created Model Work Order edit (or create if necessary) the **Work Task** and choose the Standard Work Task called “Monthly Maintenance APV Lobe Pump.” Add a Craft to the Work Task, such as “General Maintenance.”

3. Open the **Work Task** a second time and note that upon save all the previous values were overwritten by those associated with the Standard Work Task.
4. Navigate back to the Model Work Order and from the Quick Links pane add new **Planned Stock** items to the Work Order. Choose two or three Stock Items in whatever quantity you wish and add them to the plan (for demonstration purposes).

Tip: Search "si" to retrieve a list of all Stock Items.

5. Create a new **PM Schedule** with the following details:

Model Work Order: Monthly MM Pump Service
Asset ID: Mash Mixer Pump
Default Work Order Owner: [your username]
Release Window: 15
Schedule by Calendar: checked
Floating Interval: unchecked
Schedule by Meter: unchecked
Auto Release: checked
Calendar Interval: 1
Calendar Interval UOM: months
Calendar Due Date Override: [the 1st of next month]

6. Change the **PM Status** from Draft to Active.

Preventive work orders will now automatically be generated monthly. They will be released 15 days before their due date, which you specified as the 1st of the month. If your org uses Salesforce queues, you may enable queues on the PM Schedule and Work Order Custom Objects and assign default work order ownership to a queue.

7. On the newly created PM Schedule, click the **New PM Work Order** action button to manually release a preventive Work Order.

If you are unable to perform this step it is because your System Administrator has not enabled the Permission Set "PM Schedules - Manually Release Work Orders" on your username in Setup.

Definitions: In the preceding exercise you created a *fixed interval* calendar-based PM Schedule, which means a new preventive Work Order will be released every month as scheduled regardless of when (or if) the earlier work order was completed. If you fall behind in completing scheduled maintenance, it is possible to have multiple open work orders. In some use cases it is preferable to specify a *floating interval* on the PM Schedule. For example, you are supposed to change the filter in your HVAC system every 3 months. Because of a parts shortage you are only able to acquire and change the filter after 5 months. According to a fixed interval schedule, you would be due to change the filter again in only one

month. If you checked the attribute “Floating Interval” on the PM schedule, however, the application would know to make the next preventive work order due 3 months from the last filter change.

- Fixed Interval - The Due Date for the next Work Order is based on the Current Work Due Date + Scheduling Interval
- Floating Interval - The Due Date for the next Work Order is based on the Last Work Order Completion Date + Scheduling Interval

Exercise: The Plant Manager has decided that only Assets/Equipment of high criticality to the Brewery’s operation should be maintained according to a fixed interval PM Schedule. The brewery has several redundant mash mixer pumps, so she has decided to change the schedule logic to floating interval.

1. Edit the **PM Schedule** you created in the preceding exercise (Monthly MM Pump Service). In the section labeled “PM Schedule Type” check the box for Floating Interval.

Tip: The Calendar Due Date Override field is reset when the interval type is changed. You must edit and save this field as well.

PM Schedule Type

Schedule by Calendar

Schedule by Meter

Floating Interval

PM Scheduling - Calendar Based

Calendar Interval

Calendar Interval UOM

Calendar Due Date
This field is calculated upon save


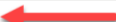

Calendar Due Date Override

2. If you were able to create a preventive **Work Order** in the preceding exercise (Step 7), navigate to that Work Order via the Quick Links pane. In the “Planning & Scheduling” section of the Work Order note the **Due Date** (the 1st of next month).
3. Change the **Status** of the Work Order from Ready to Schedule to Completed and save. In the “Planning & Scheduling” section of the Work Order note the Actual Completion Date (today’s date).
4. The “Information” section of the Work Order contains a link to the **PM Schedule**. Navigate back to the PM Schedule.
5. Click the **New PM Work Order** action button to manually release a preventive Work Order. Note the **Due Date** on the newly created Work Order (the 1st of next month). This is because of

the Calendar Due Date Override specified on the PM Schedule and because this is the *first* Work Order auto generated by the PM schedule since you changed the interval attribute to floating.

6. Open the newly created Work Order, and as before change the **Status** of the Work Order from Ready to Schedule to Completed and save.
7. Navigate back to the PM Schedule and again click the **New PM Work Order** action button to manually release a preventive Work Order. Note the **Due Date** on the newly created Work Order (one month from today's date). This is because the PM Schedule is now calculating the due date based on a floating interval, i.e., one month from the date of the last completed work order.

3 items · Sorted by Work Order · Updated a few seconds ago

	Work Order ↓	Status	Due Date	Actual Completion Date	
1	<input type="checkbox"/> WO-000047	Ready to Schedule	1/11/2021		 Created by Floating Interval PM Schedule
2	<input type="checkbox"/> WO-000046	Completed	1/1/2021	12/11/2020	 Created by Floating Interval PM Schedule
3	<input type="checkbox"/> WO-000043	Completed	1/1/2021	12/11/2020	 Created by Fixed Interval PM Schedule

Definition: “Meter” – an instrument used to measure time, distance, cycles, or use (e.g., hour meters, odometers, cycle counters). A “Meter Reading” is a record of such measurement at a specific date-time.

Exercise: The Hot Water Tank (HWT) at your brewery is outfitted with a filter to remove any sediment in the water. The HWT manufacturer recommends replacing the filter element after every ten-thousand gallons of use. You will be creating a meter, a model work order, and setting up a preventive maintenance schedule to plan this service.

1. Create a new Meter with the following details:

Description: Hot Water Tank Flow Meter

Type: Continuous

UOM: Gallons

Asset ID: Hot Water Tank

2. From the **Quick Links** pane on the Meter record page, create a new **Meter Reading** of 39250.
3. Create a new **Model Work Order** called “10000 Gallon Hot Water Tank Filter Change.”
4. Edit the default **Work Task** (or create if necessary) and choose the **Standard Work Task** “Hot Water Tank Filter Change,” which has already been created for you. Add a **Craft**, such as General Maintenance, to the Work Task.
5. Add **Planned Stock** to the model work order. Search Stock Items for filters and add a **Planned Qty** of 1 “DE Water Filter” to the model work order.

- Note that Planned Inventory and Labor Costs have been updated on the work order.
- Create a new **PM Schedule** with the following details:

Model Work Order: Choose the MWO you just created

Asset ID: Hot Water Tank

PM Status: Active

Release Window: 7

Auto Release: checked

Schedule by Calendar: unchecked

Schedule by Meter: checked

Meter ID: Choose the meter you just created

Meter Schedule Interval: 10000

Meter Due Value Override: 40000

Meter Release Threshold: 95%

Tip: Like the Calendar Due Date Override on a calendar-based PM Schedule, when setting up a meter-based PM Schedule for the first time you must enter a Meter Due Value Override.

- Return to the PM Schedule you just created (if necessary).

Record the **Meter Interval % Complete** value: _____

Record the **Projected Meter Due Date:** _____

Exercise: You will create a PM Schedule for the Brewery's Delivery Truck to change its oil every 3 months or 3000 miles, *whichever comes first*. You will do this by choosing both Schedule by Calendar (floating interval) and Schedule by Meter options.

- Create a new **Model Work Order** called "3 Month/3000 Mile Oil Change."
- Edit the default **Work Task** (or create if necessary) and choose the **Standard Work Task** "Vehicle Oil Change". Choose a **Craft** to perform the Work Task, such as Technician.
- Add **Planned Stock** to the model work order. Search Stock Items for oil and add a **Planned Qty** of 8 "Motor Oil, 5W-30 Quart" to the model work order. Search Stock Items for filter and add a **Planned Qty** of 1 "oil filter" to the model work order.
- Create a new **PM Schedule** using the Model Work Order you just created and select Delivery Truck for the **Asset ID**.
- Change the **Release Window** to 7 days and ensure that **Auto Release** is checked.
- In the Calendar-Based Scheduling section, enter the following parameters:

Schedule by Calendar: checked

Floating Interval: checked

Calendar Interval: 3

Calendar Interval UOM: Months

7. In the Meter-Based Scheduling Section, enter the following parameters:

Schedule by Meter: checked

Meter ID: Delivery Truck Odometer

Meter Schedule Interval: 3000

Meter Due Value Override: 21000

8. Save the PM Schedule.

Record the **Meter Interval % Complete** value: _____

Record the **Projected Meter Due Date:** _____

9. Change the **PM Status** to Active.