PROTEUS MMX TRAINING MANUAL – RIGHTS & ROLES

EAGLE TECHNOLOGY, INC.

CONTENTS

WORK ORDERS

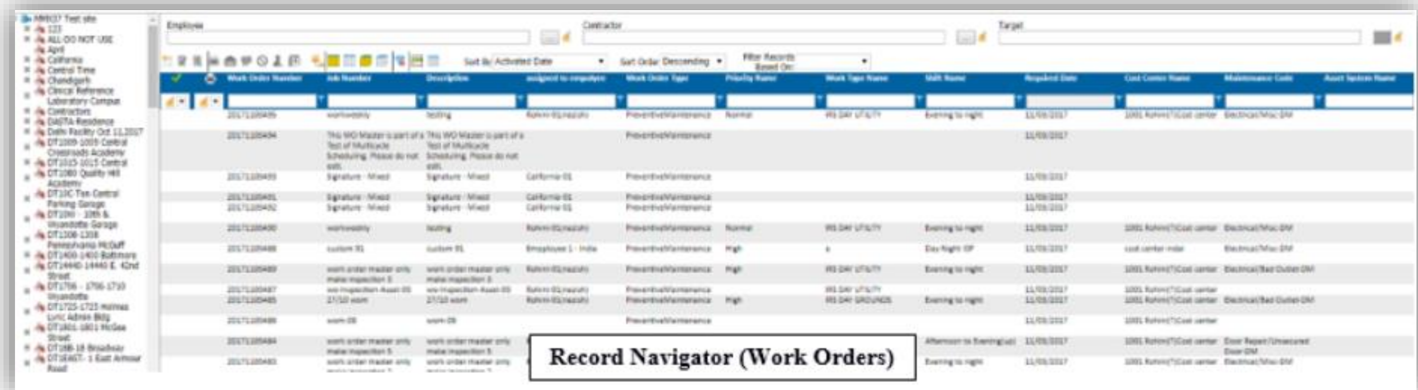
1. OVERVIEW

The ***Work Orders*** page in the **Work Orders Functional Area** is used to plan, create, and record maintenance and procedures in response to maintenance service requests, emergency breakdowns, or other non-routine maintenance activities. Each work order contains a variety of information, such as who requested the job, the estimated downtime of the equipment, the reason or problem, and the date by which the job should be completed.

Note: In addition to work orders created here, all activated work order masters will also show up in the **Active Work Order Record Navigator.** These work order masters can either be force-activated or activated by means of a schedule. Work order records can be filtered based on demand maintenance or preventative maintenance on the work order list display.

The fields listed in the Record Navigator are:

- Work Order Number
- Tasks Progress
- Job Number
- Description
- Type
- Priority
- Work Type
- Shift
- Cost Center
- Maintenance Code
- Asset Number
- Serial Number
- Assigned To
- Completion Date
- Requester



2. WORK ORDER NUMBERING

Work order numbers in the **Active Work Orders** page are assigned automatically. Proteus MMX will number the work orders in a date-code fashion (*YYYYMMDDNNN,* with "N" being a sequential number starting with *001*).

3. CUSTOM WORK ORDER NUMBERING

The user has the option to create a custom template for Active Work Order numbering. This can be done through ***Settings.***

TO CREATE A CUSTOM WORK ORDER NUMBERING TEMPLATE

1. Go to ***Work Orders*** from ***Settings.***
2. Select the ***Work Order Numbers*** option.
3. Select the ***Use Custom Work Order*** checkbox.
4. Enter a ***Minimum Range Value.***
5. Enter a ***Maximum Range Value.***
6. Enter a ***Prefix.***
7. Enter a ***Suffix.***
8. If desired, select the ***Leading Zeros*** checkbox.

The **Minimum Range Value** is the first number in the work order. The work orders will be auto-incremented until they reach the **Maximum Range Value.**

The **Maximum Range Value** is the last possible work order number in the template.

The **Prefix** is a string that will form the first part of the work order number.

The **Suffix** is a string that will be added after the range.

If **Leading Zeros** is selected, Proteus MMX will show all leading zeros in the work order (001 vs. 1).

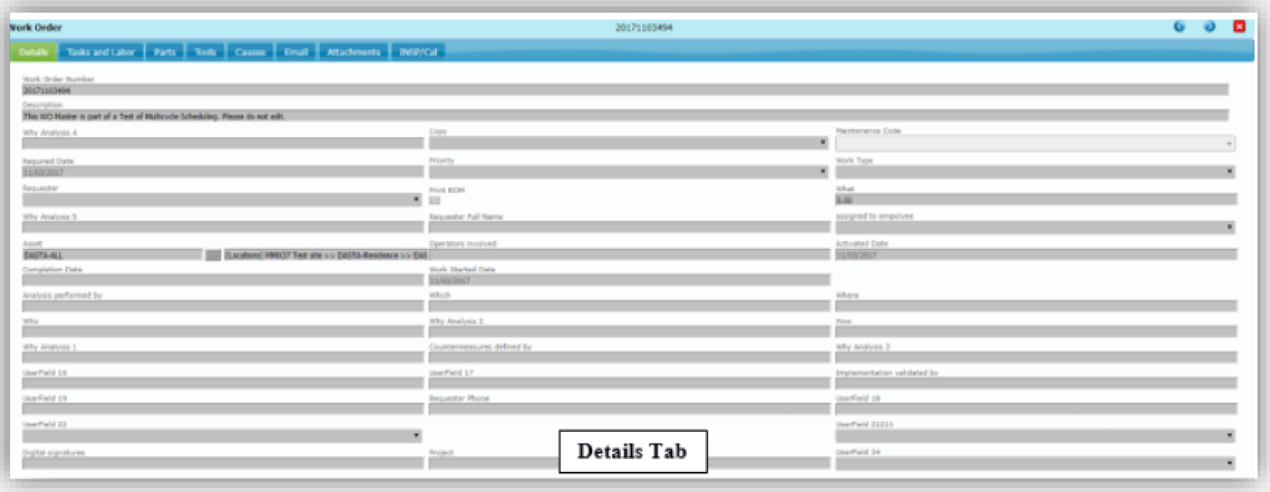
4. DETAILS

The ***Details*** tab consists of basic work order information fields. These fields are:

- Description
- Maintenance Code
- Work Type
- Shift
- Cost Center
- Priority

Note 1: A work order must have a **Target** and a **Required Date** to be created.

Note 2: Leaving information fields blank will decrease Proteus MMX's effectiveness in building complete maintenance history records. Make sure all available information has been gathered prior to recording.



5. TARGET

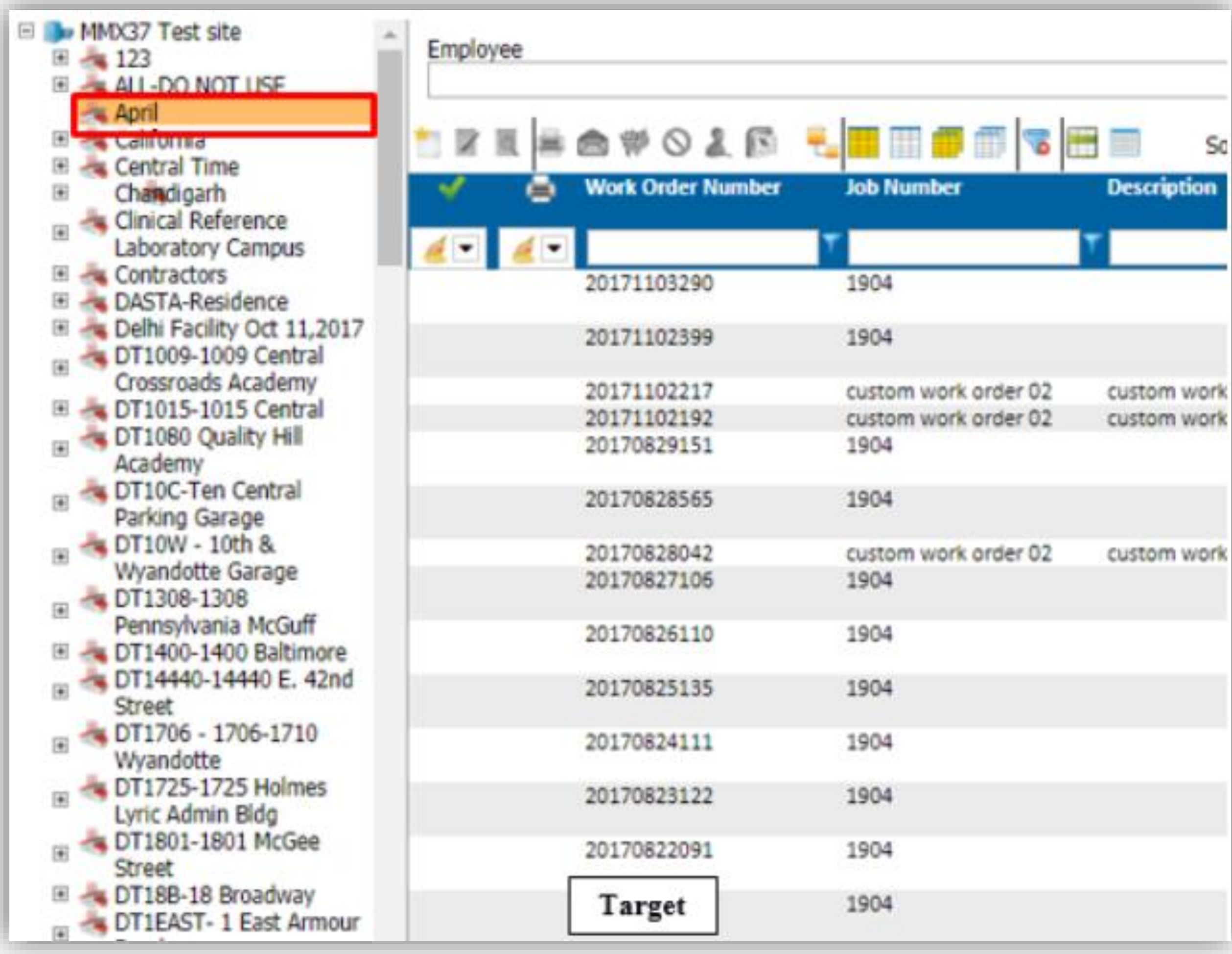
The ***Target Navigation Tree*** is used to attach assets or a location to a Work Order. Depending on your nomenclature, Work Orders can also be created for a location by creating a Work Order from that specific location.

ATTACHING AN ASSET TO A WORK ORDER

To add an asset to an active work order:

1. When creating a new work order, select an asset/location from the **Navigation Tree.**
2. Confirm your selection.

Note: Any attachments from the asset will be added to the work order attachments.



6. TASKS AND LABOR

The ***Tasks and Labor*** tab is used to attach tasks and labor to a Work Order. Tasks are defined in **Tasks and Labor**

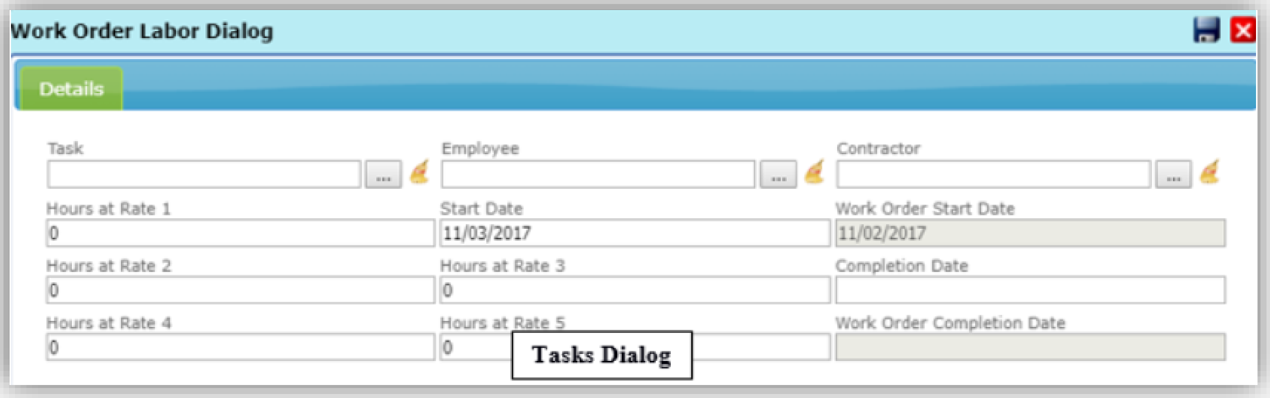
The **Tasks and Labor** tab consists of a listing of all tasks/labor assigned to the current work order. The grid contains various task-related fields. These fields are:

- Sequence
- Task Number
- Description
- Estimated Hours
- Start Date
- Completion Date
- Employee Name
- Labor Craft Code
- Contractor Name
- Hours at Rate 1
- Hours at Rate 2
- Hours at Rate 3
- Hours at Rate 4
- Hours at Rate 5

ATTACHING A TASK TO WORK ORDER

To add tasks to a work order:

1. Open the ***Work Orders*** page from the ***Work Orders*** Functional Area.
2. Under the ***Tasks and Labor*** tab, select ***Add*** and select a task from the pop-up.
3. Enter all necessary data.
4. Confirm your selection.



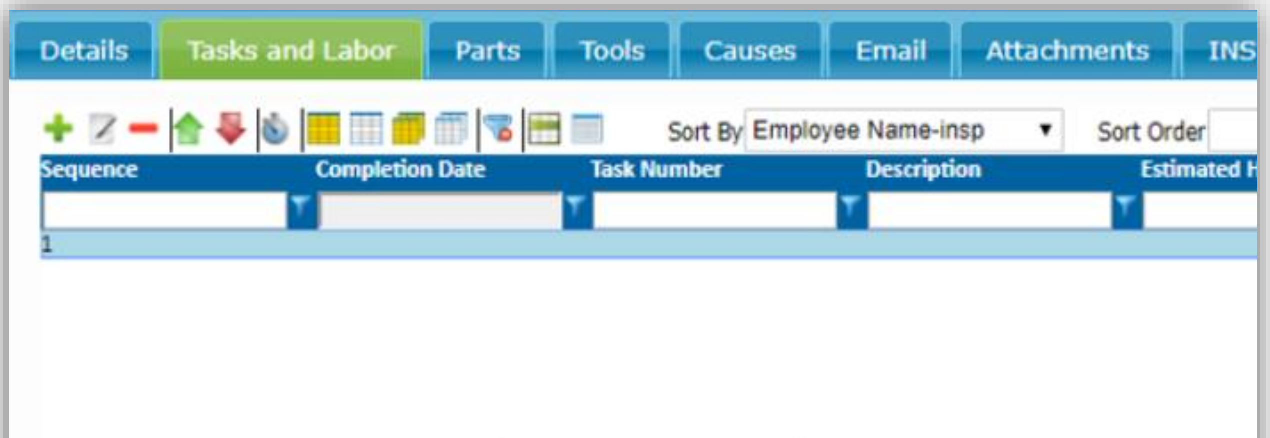
Tasks Dialog

To remove tasks from an active work order:

1. Open the ***Work Orders*** page from the ***Work Orders*** Functional Area.
2. Select a work order.
3. Under the ***Tasks and Labor*** tab, select a task from the grid.
4. Select ***Perform Earlier*** or ***Perform Later,*** depending on your preference.
5. Select ***Save***

To reorder tasks in an active work order:

1. Open the ***Work Orders*** page from the ***Work Orders*** Functional Area.
2. Select a work order.
3. Under the ***Tasks and Labor*** tab, select a task from the grid.
4. Select ***Perform Earlier*** or ***Perform Later,*** depending on your preference.
5. Select ***Save.***



Tasks and Labor Tab

7. PARTS

The ***Parts*** tab is used to attach a part or parts to a work order. Each part is defined in the **Parts Master** page in the **Inventory** Functional Area.

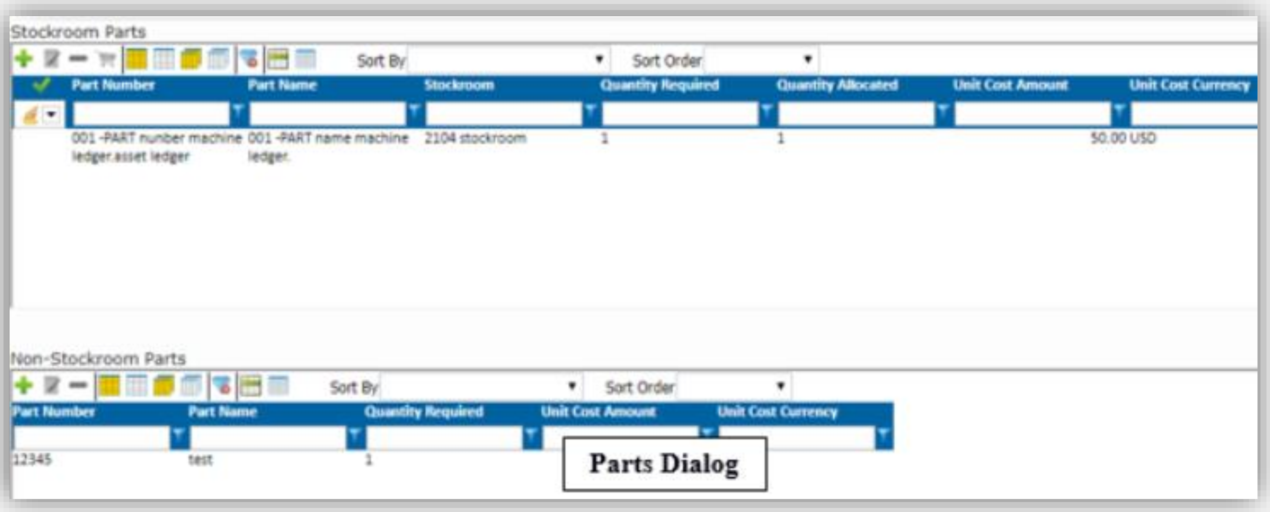
The **Parts** tab consists of a list of all parts from the **Parts Master** page. The grid contains various part-related fields. These fields are:

- Part Number
- Part Name
- Stockroom
- Quantity Required
- Quantity Allocated
- Unit Cost

ATTACHING A PART TO A WORK ORDER

To add parts to an active work order:

1. Open the ***Work Orders*** page from the ***Work Orders*** Functional Area.
2. Under the ***Parts*** tab, select ***Add*** and select a part from the pop-up.
3. Confirm your selection.



To remove parts from an active work order:

1. Open the ***Work Orders*** page form the ***Work Orders*** Functional Area.
2. Under the ***Parts*** tab, select a part from the grid and select the ***Remove*** icon.
3. Select ***Save.***

8. TOOLS

The ***Tools*** tab is used to attach a tool or tools to a work order. Each tool is defined in the **Tools** page in the ***Inventory*** Functional Area.

The **Tools Tab** consists a list of all tools from the **Tools Page**. The grid contains various tool-related fields. These fields are:

- Tool Number
- Tool Name
- Tool Crib

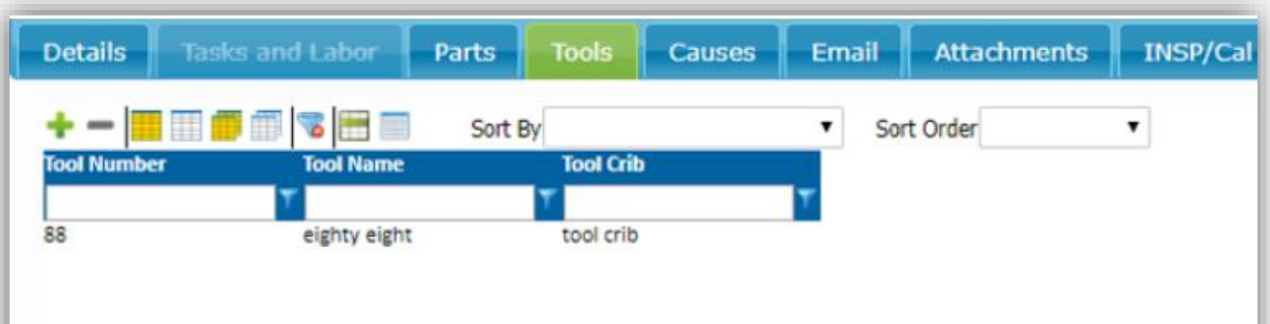
ATTACHING A TOOL TO A WORK ORDER

To add tools to a work order:

1. Open ***Work Order*** from the ***Work Orders*** Functional Area.
2. Under the ***Tools*** tab, select ***Add*** and select a tool from the pop-up.
3. Confirm your selection.

To remove tools from an active work order:

1. Open ***Work Orders*** from the ***Work Orders*** Functional Area.
2. Under the ***Tools*** tab, select a tool from the grid and select the ***Remove*** icon.



Tools Tab

9. CAUSES

The ***Causes*** tab consists of a grid that displays the root cause of the work order. These can be used to determine trends. The grid contains various cause-related fields. These fields are:

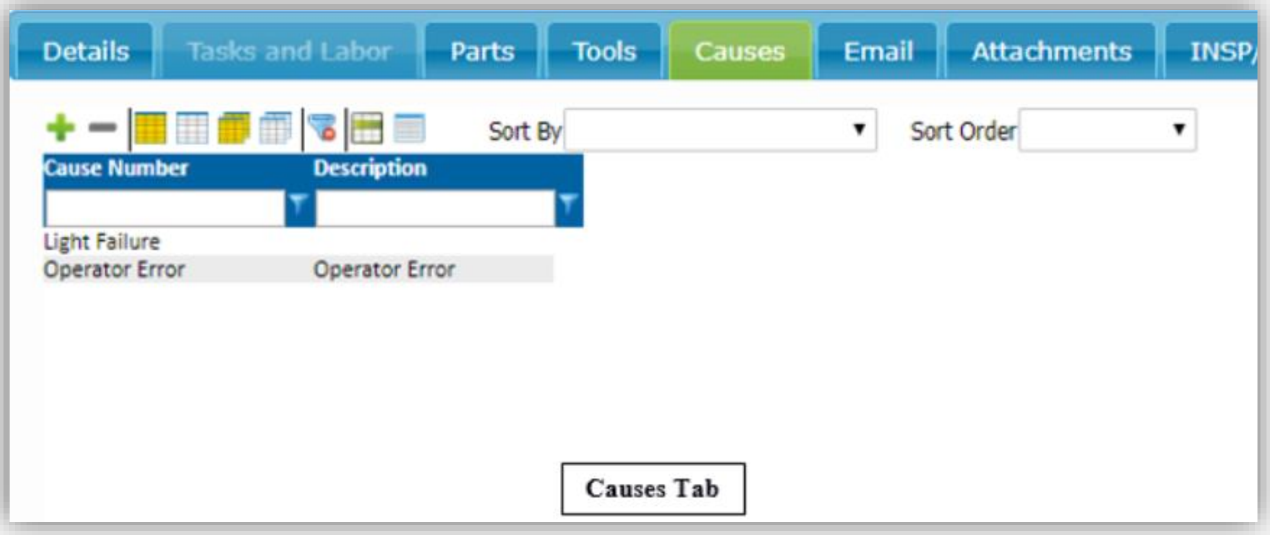
- Cause Number
- Description

ATTACHING A CAUSE TO A WORK ORDER

To add causes to a work order:

1. Open ***Work Orders*** from the ***Work Orders*** Functional Area.
2. Under the ***Causes*** tab, select ***Add*** and select a cause from the pop-up.
3. Confirm your selection.

Note: The list of Causes comes from the ***Settings*** Menu under ***Work Orders > Causes.*** You can add or edit causes there.



10. CREATING A WORK ORDER

TO CREATE A WORK ORDER

1. Open ***Work Orders*** from the ***Work Orders*** Functional Area.
2. Select the ***New*** icon.
3. Enter in all data on the ***Details*** tab.
4. All remaining tabs/information can be entered at this point.
5. Select ***Save.***

Note: Targets can be an Asset, Customer Asset, Location or Customer Location.

11. CLOSING AN ACTIVE WORK ORDER

When a work order is closed, all data for that work order is transferred from the ***Work Orders*** page to the ***Closed Work Orders*** page. In addition, all dates, costs, and inventory levels are updated per the values entered on the complete work order.

WHEN A WORK ORDER IS CLOSED, THE FOLLOWING OCCURS:

- The work order is transferred from the **Work Orders** page to the **Closed Work Orders** page. The **Closed Work Orders** page shows all closed work orders since the last time its database was purged.
- For each part used in the work order, a new quantity on hand is calculated and written to the **Stockrooms** page. Also, the **Date Last Used** field is updated.
- The actual material and labor costs are calculated and written to the **Assets Cost History.**
- Material Cost = Qty. Allocated * Unit Cost
- Labor Cost = Labor Rate for Appropriate Labor Craft * Hours at Rate
- All dates are updated in the **Closed Work Orders** page.

TO CLOSE AN ACTIVE WORK ORDER

1. Open the ***Work Orders*** page from the ***Work Orders*** Functional Area.
2. Select a record from the Record Navigator.
3. Edit the work order to enter all relevant information (Actual Downtime, Employee Labor Hours, Parts Used, etc.)
4. Select the ***Complete and Close*** icon.
5. Enter the **Completion Date** for the work order, if it wasn't already entered.
6. Add a digital signature, if required.
7. Select the ***Save*** icon.

Note: You can also **Batch Close,** or close multiple work orders using the same method by selecting more than **one (1)** record.

12. CANCELLING AN ACTIVE WORK ORDER

When an active work order is cancelled, the outcome will vary depending on the type of maintenance. When a **Demand Maintenance** work order is canceled, it is removed from the **Work Order** page and is gone forever. However, when a **Preventive Maintenance** work order is cancelled, the work order is removed and placed on the **Cancelled Work Orders** page. The work order is rescheduled to the next scheduled date. All parts, tasks, employees, etc. are no longer allocated or assigned to the work order.

TO CANCEL A WORK ORDER

1. Open the ***Work Orders*** page from the ***Work Orders*** Functional Area.
2. Select a record from the Record Navigator. [If a digital signature is required, then proceed to edit the work order and add a digital signature within that field and **Save**.]
3. Select the ***Cancel*** icon.
4. Confirm your selection.

VIEW A CANCELLED WORK ORDER

Once cancelled, an active work order will be transferred to the ***Cancelled Work Orders*** module. Here, you can see the details of a cancelled work order by utilizing the ***View*** feature.

To view a Canceled Work Order:

1. Open ***Cancelled Work Order*** from the ***Work Orders*** Functional Area.
2. Select a cancelled work order record from the Record Navigator.
3. Select the ***View*** icon.

WORK ORDER MASTERS

1. OVERVIEW

The ***Work Order Masters*** page in the ***Work Order*** Functional Area is used to create, delete, schedule or activate a work order master. The Work Order Master page is used to define maintenance jobs and procedures that are routinely completed. An example of this type of work order may be machine setup. It is a job which follows the same procedures every time but still falls under the category of demand maintenance because one cannot anticipate when the need will arise. Preventive maintenance schedules can also be entered for a work order master.

The ***Work Order Masters*** page is instrumental in the creation of Preventive and Demand maintenance work orders. When a work order master is activated by a user, it creates a demand maintenance work order that will be listed in the **Active Work Orders** page. When a work order master is used with a schedule, it becomes a preventive maintenance work order and will be listed in the Active Work Orders page.

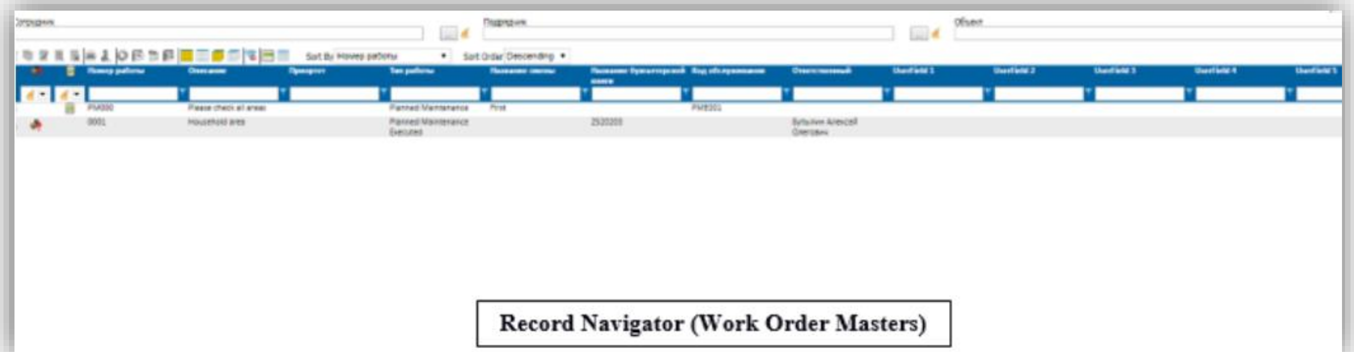
> **Note:** A work order number is automatically assigned when a work order master is activated or an active work order is created. The work order number will not be displayed in **Work Order Masters.** The work order number will be displayed in the **Active Work Orders** page.

The Record Navigator displays a listing of the work order masters. When a specific work order master is expanded, a details grid appears on the screen and lists the schedules associated with the work order master. The fields listed in the Record Navigator are:

- Job Number
- Description
- Priority
- Work Type
- Shift
- Cost Center Name
- Maintenance Code

The fields in the Details Grid are:

- Schedule Type
- Description
- Summary
- Next Occurrence Date
- Last Occurrence Date



Record Navigator (Work Order Masters)

2. DETAILS

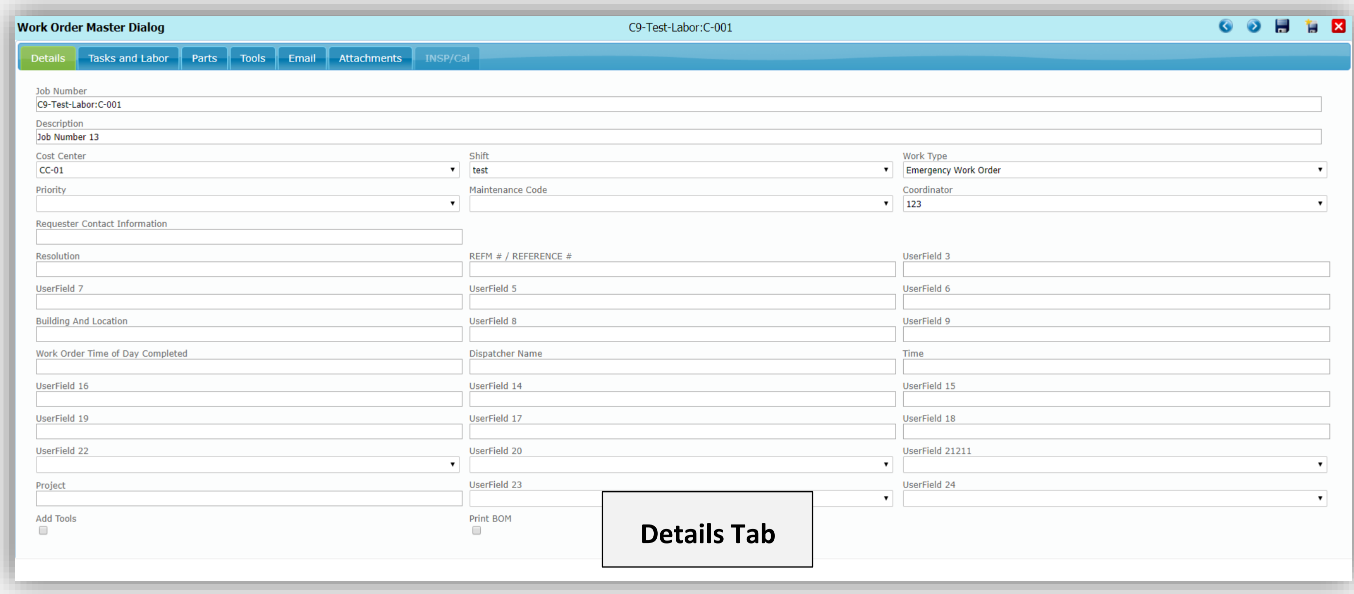
The ***Details*** tab consists of basic work order information fields. These fields are:

- Job Number
- Description
- Cost Center
- Priority
- Shift
- Maintenance Code
- Project
- Work Type

Note: Job Number is a required field to create a record. All other fields are optional. Job Number can be categorized by work type, interval, asset type or by any other meaningful method of grouping. Examples include:

AH100 – CLN	Weekly cleaning of Air Handling Unit #100
AH100 – INS	Inspection of Air Handling Unit #100
TEST01	Compressor leak down test

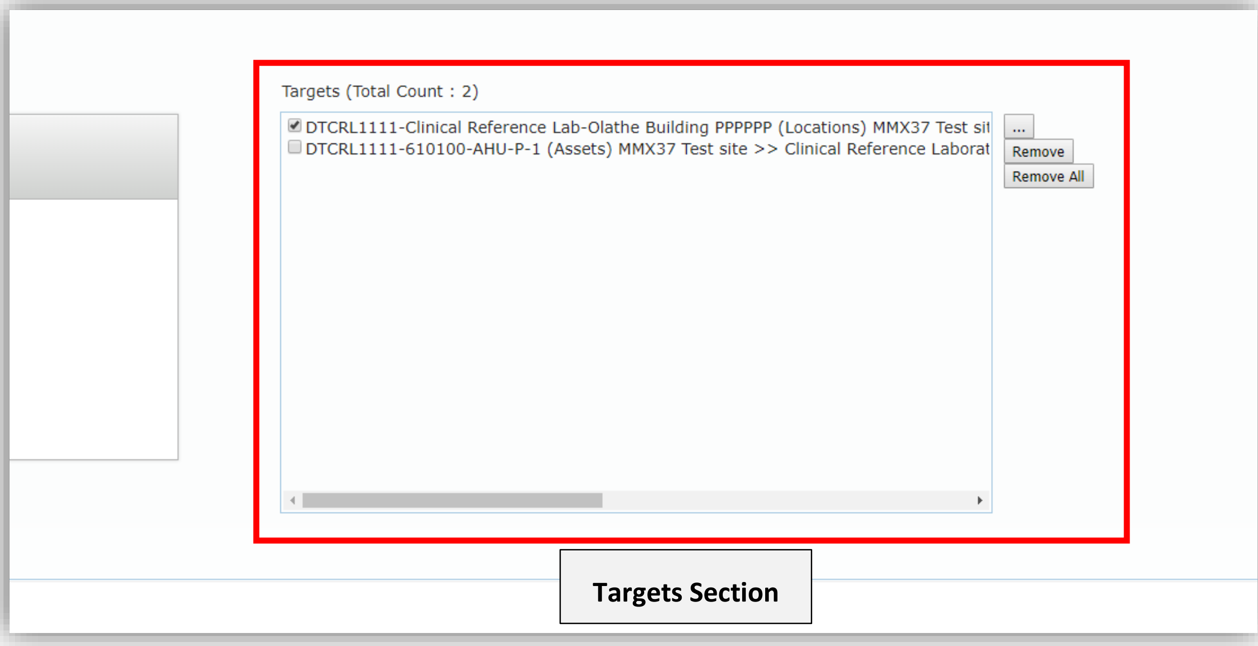
Note: Leaving information fields blank will decrease Proteus MMX's effectiveness in building complete maintenance history records. Make sure all available information has been gathered prior to recording.



3. TARGETS

The ***Targets*** section located on the **Details** tab is used to attach assets or a location a work order master. ***Work Order Masters*** can also be created for a location by creating an asset that represents an area (i.e. create an asset record called *North Lawn, North Building,* or *North Entrance*).

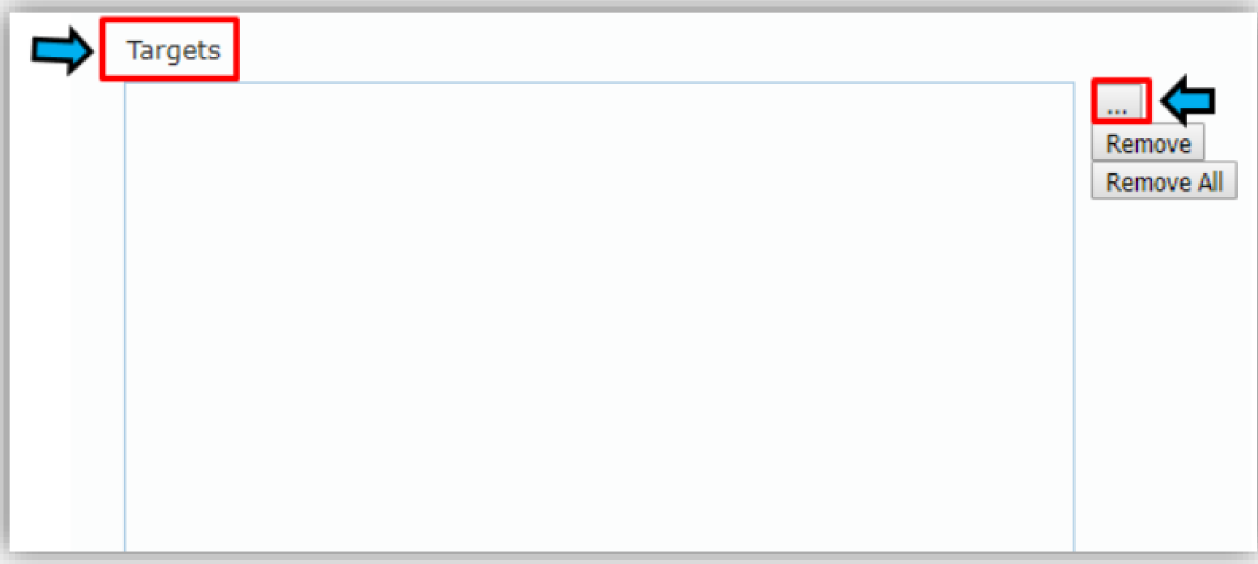
The Targets section accesses a list of assets from the Assets page.



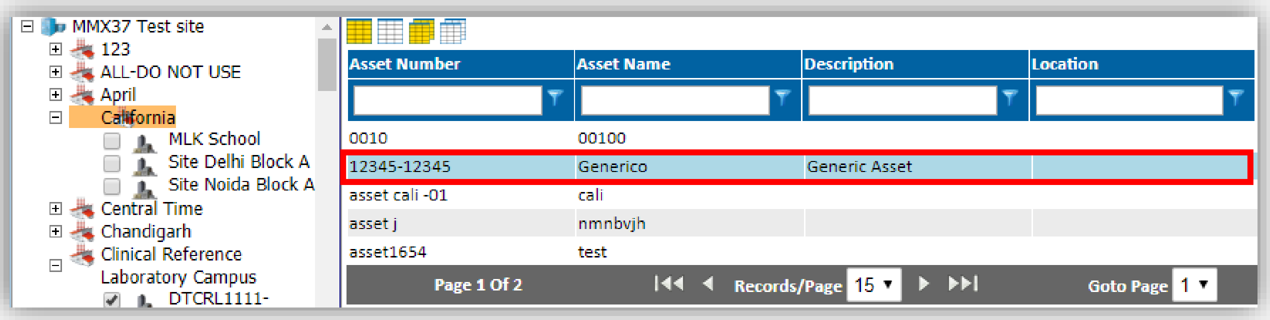
ATTACHING A TARGET TO A WORK ORDER MASTER

To add a target to a work order masters:

1. Open ***Work Order Masters*** from the ***Work Orders*** Functional Area.
2. Under the ***Details*** tab, on the ***Targets*** section, select the ***3-Dots*** icon.



3. Select an asset from the list on the right.



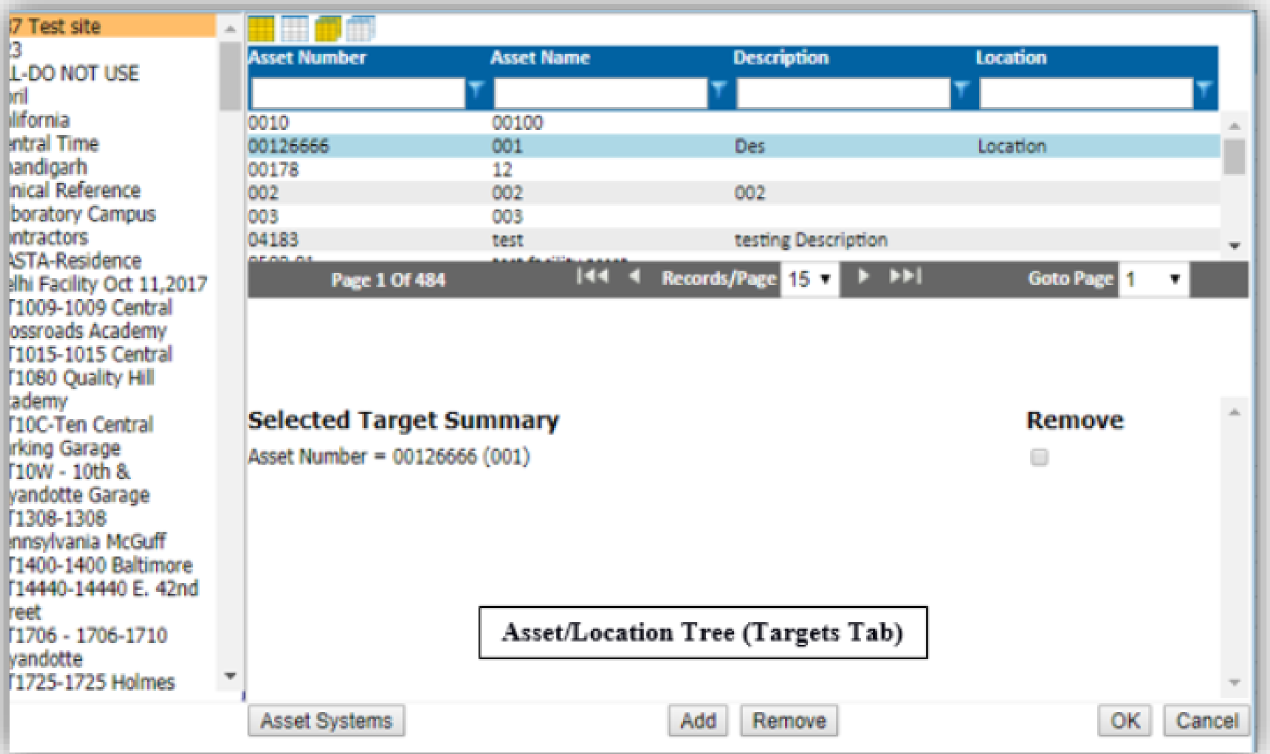
Note: You can also use the navigation tree on the left to find an asset by location, or select a location as a target.

4. When you've selected an asset or location, select the ***Add*** icon at the bottom of the window.
5. Select ***OK.***

Note: Asset warranty end date will display when associated with a work order.

To remove targets from a work order master:

1. On the ***Targets*** section, select the checkbox next to the ***Asset*** or ***Location*** that you wish to remove.
2. Select the ***Remove*** icon.
3. Select ***OK.***



4. TASKS AND LABOR

The ***Tasks and Labor*** tab is used to attach tasks and labor to a work order master. Tasks are defined in ***Tasks and Labor*** is defined in ***Labor Crafts/Employees.***

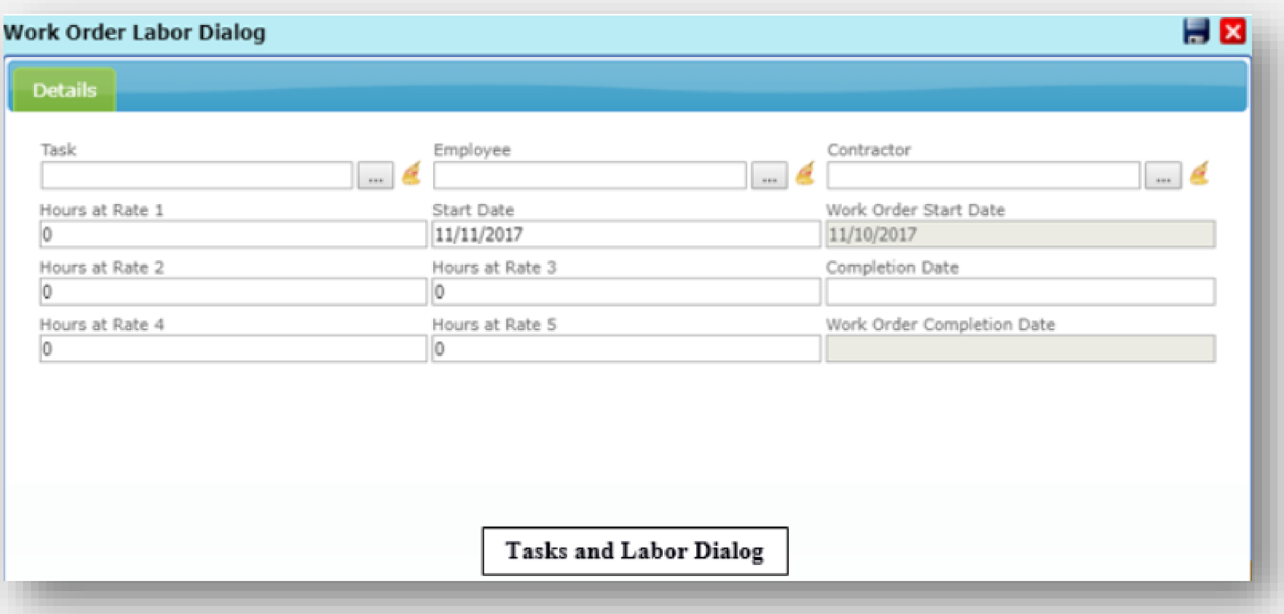
The ***Tasks and Labor*** tab consists of a listing of all tasks/labor assigned to current work order masters. The grid contains various task-related fields. These fields are:

- Sequence
- Name
- Employee Labor Craft
- Task Number
- Contractor
- Description
- Contractor Labor Craft
- Employee
- Estimated Hours

ATTACHING TASKS AND LABOR TO A WORK ORDER MASTER

To add tasks, labor and/or contractors to a work order master:

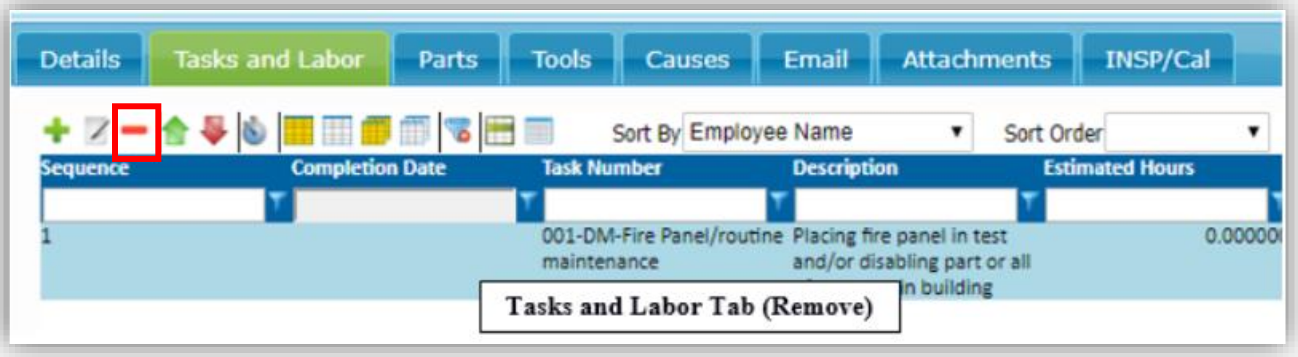
1. Open ***Work Order Masters*** from the ***Work Orders*** Functional Area.
2. Under the ***Tasks and Labor*** tab, select ***Add*** and select a ***Task, Employee*** and/or ***Contractor*** from the pop-up.
3. Select ***Save.***



Tasks and Labor Dialog

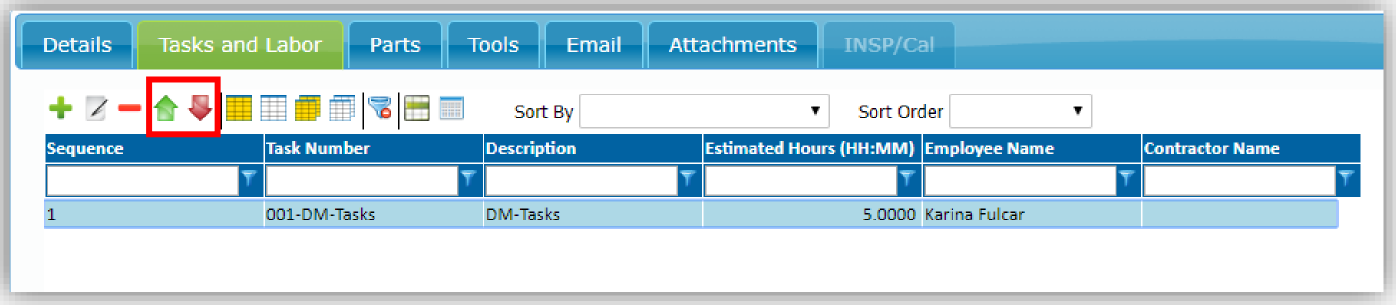
To remove tasks from a work order master:

1. Open ***Work Order Masters*** from the ***Work Orders*** Functional Area.
2. Under the ***Tasks and Labor*** tab, select a task from the grid and select the ***Remove (Red Minus Sign)*** icon.
3. Select ***Save.***



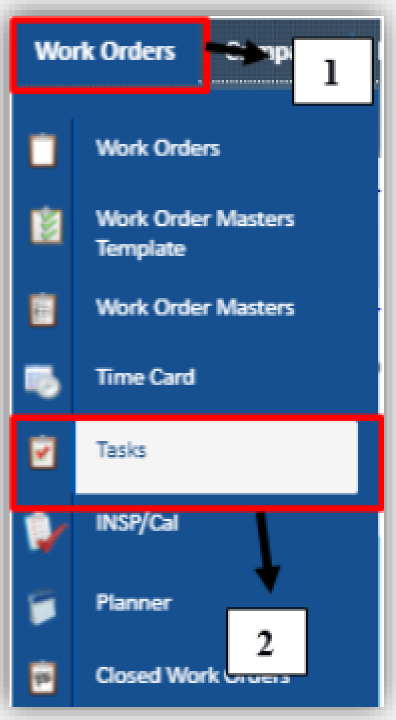
To reorder tasks on a work order master:

1. Open ***Work Order Masters*** from the ***Work Orders*** Functional Area.
2. Under the ***Tasks and Labor*** tab, select a task from the grid.
3. Select ***Perform Earlier (Green Up-Arrow)*** or ***Perform Later (Red Down-Arrow),*** depending on your preference.
4. Select ***Save.***

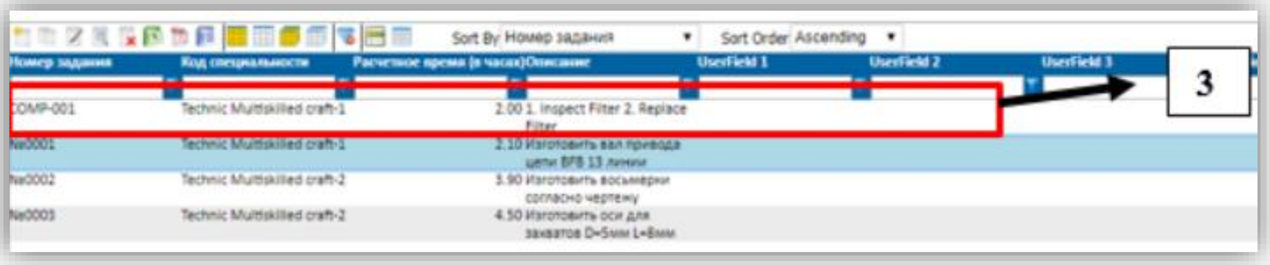


To copy tasks:

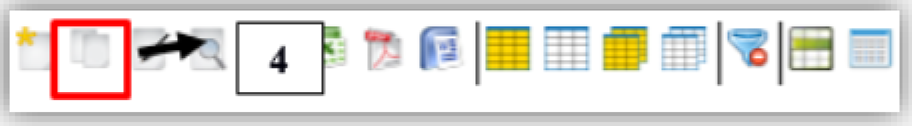
1. Open ***Work Orders*** from the module drop-down from the main menu.
2. Select ***Tasks.***



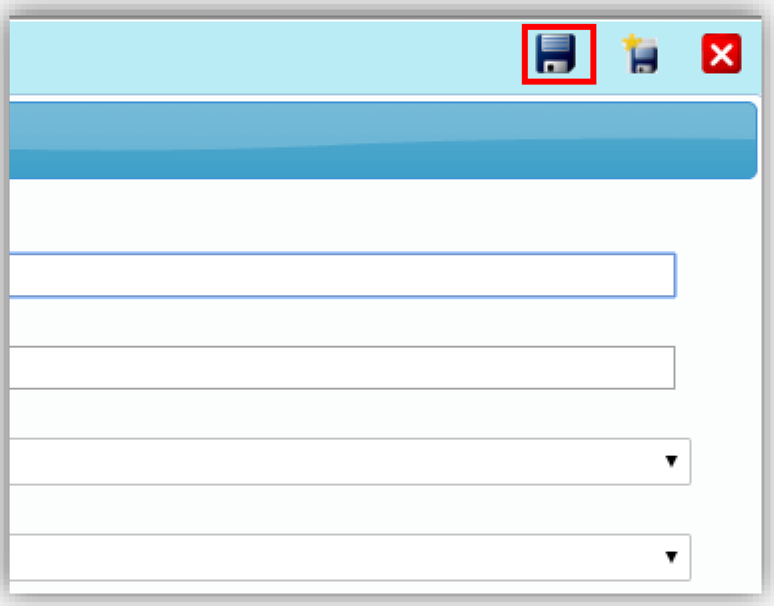
3. Select record to copy.



4. Click the ***Copy*** icon on the toolbar.



5. Click the ***Save*** icon.

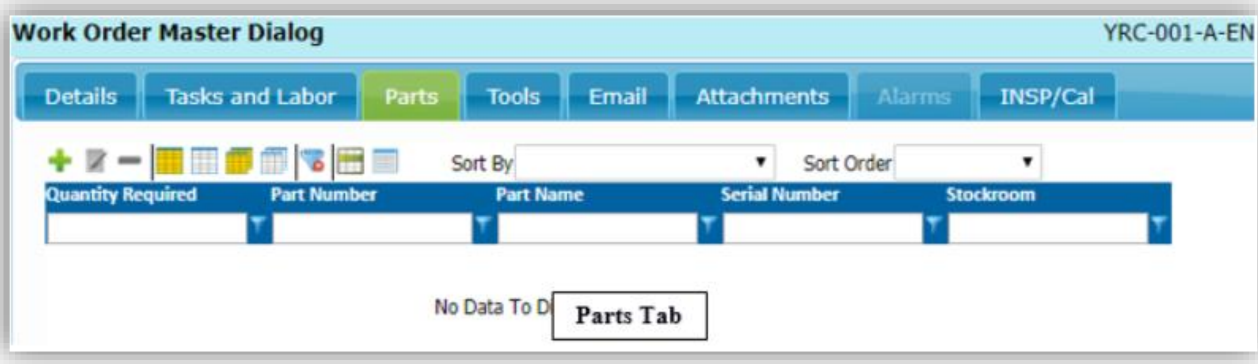


5. PARTS

The ***Parts*** tab is used to attach a part of parts to a work order master. Each part is defined on the Parts page in the **Inventory** Functional Area.

The ***Parts*** tab consists of a list of all parts from the ***Parts*** page. The grid contains various part-related fields. These fields are:

- Part Number
- Part Name
- Stockroom Name
- Quantity Required



Parts Tab

ATTACHING A PART TO A WORK ORDER MASTER

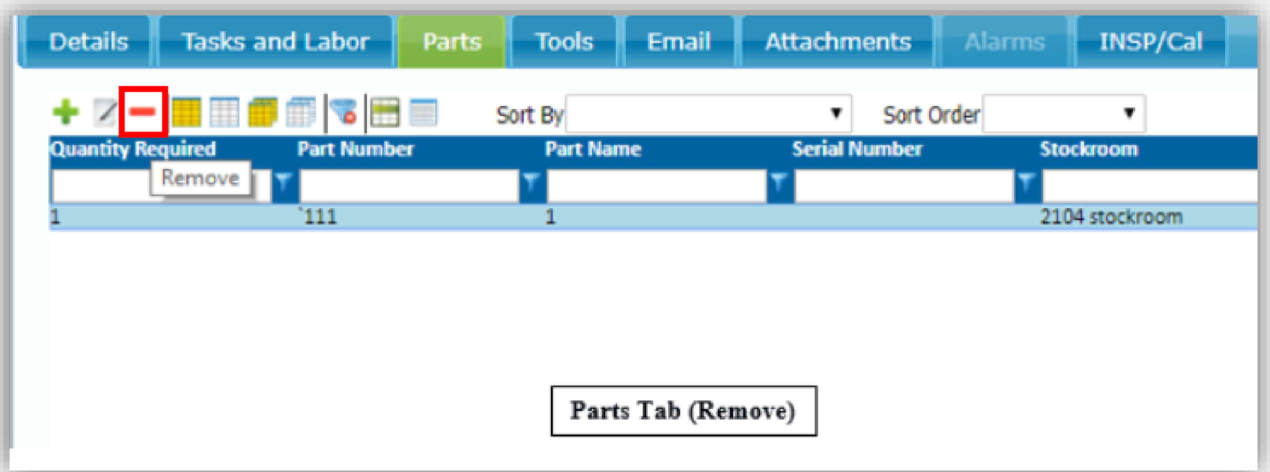
To add parts to a work order master:

1. Open ***Work Order Masters*** from the ***Work Orders*** Functional Area.
2. Under the ***Parts*** tab, select ***Add (Green Plus Sign)*** and select a part from the pop-up.

Parts Tab (Add)

To remove parts from a work order master:

1. Open ***Work Order Masters*** from the ***Work Orders*** Functional Area.
2. Under the ***Parts*** tab, select a part from the grid and select the ***Remove (Red Minus Sign)*** icon.
3. Select ***Save.***



Parts Tab (Remove)

6. TOOLS

The ***Tools*** tab is used to attach tool of tools to a work order master. Each tool is defined in the Tools page in the ***Inventory*** Functional Area.

The ***Tools*** tab consists of a list of all tools from the Tools page. The grid contains various tool-related fields. These fields are:

- Tool Number
- Tool Name
- Tool Crib Name

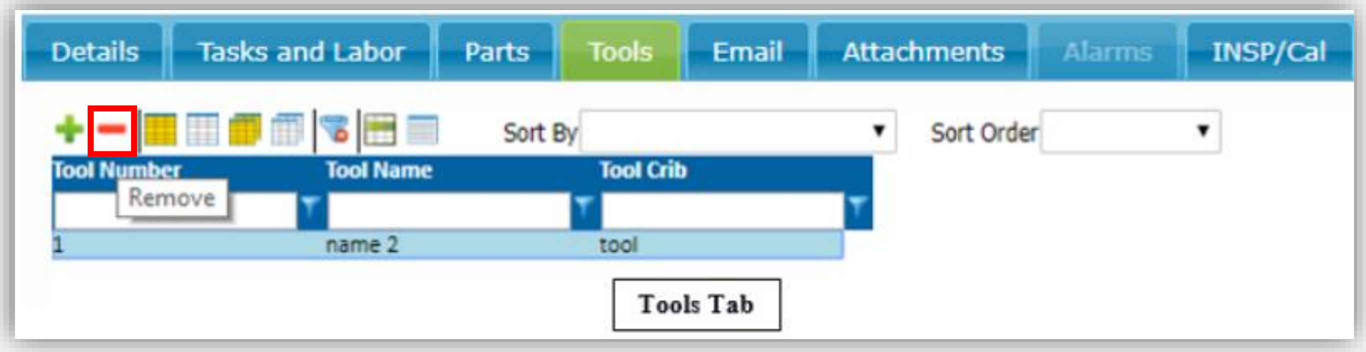
ATTACHING A TOOL TO A WORK ORDER MASTER

To add tools to a work order master:

1. Open ***Work Order Masters*** from the ***Work Orders*** Functional Area.
2. Under the ***Tools*** tab, select ***Add (Green Plus Sign)*** and select a tool from the pop-up.
3. Select ***Save.***

To remove tools from a work order master:

1. Open ***Work Order Masters*** from the ***Work Orders*** Functional Area.
2. Under the ***Tools*** tab, select a tool from the grid and select the ***Remove (Red Minus Sign)*** icon.
3. Select ***Save.***

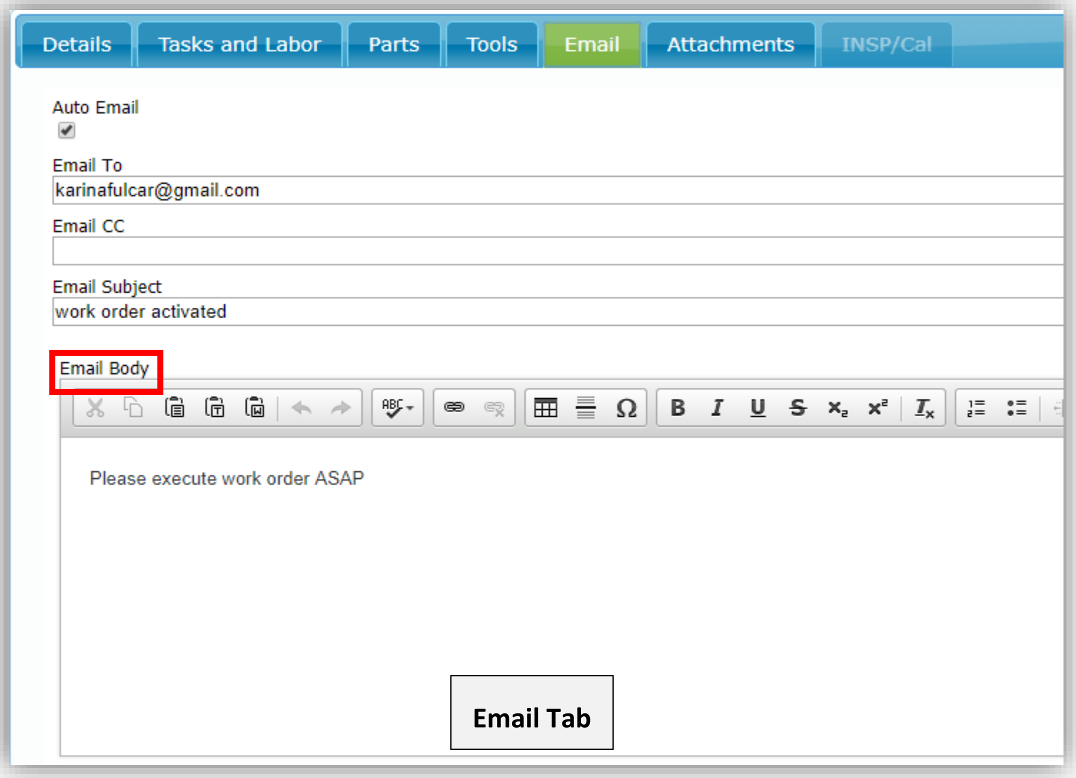


Tools Tab

7. EMAIL

The ***Email*** tab consists of a form that contains all email-related activities for the work order master. If this is filled out, an email will be sent to the recipient upon activation of the work order master.

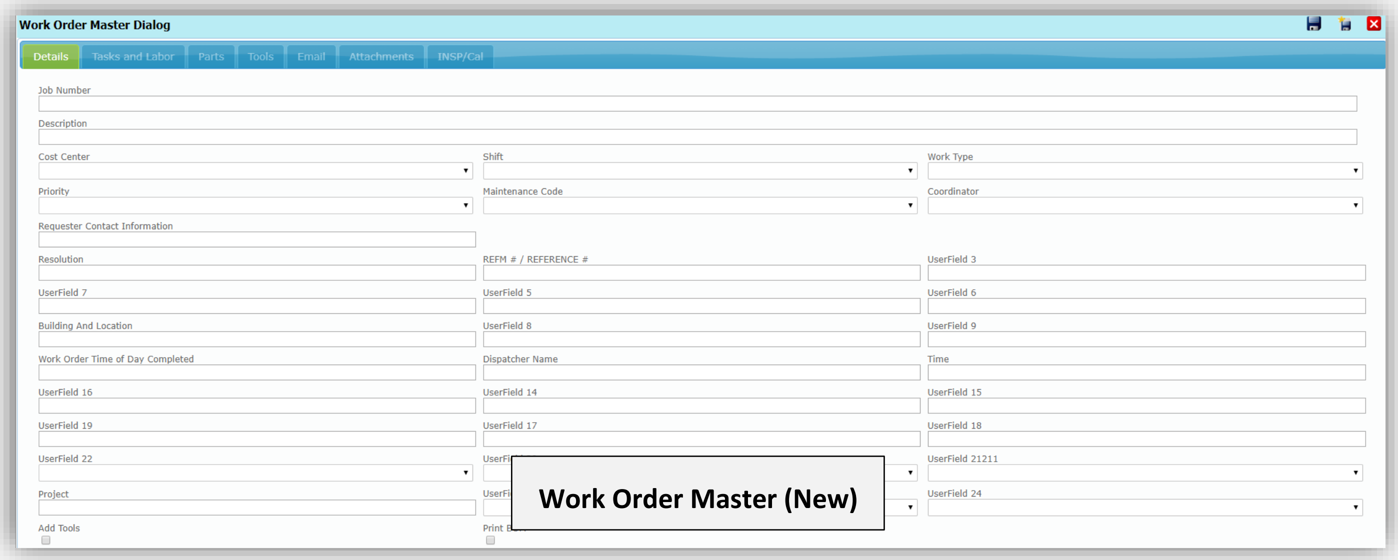
Note: This is **NOT** a required field.



8. CREATING A WORK ORDER MASTER

TO CREATE A WORK ORDER MASTER

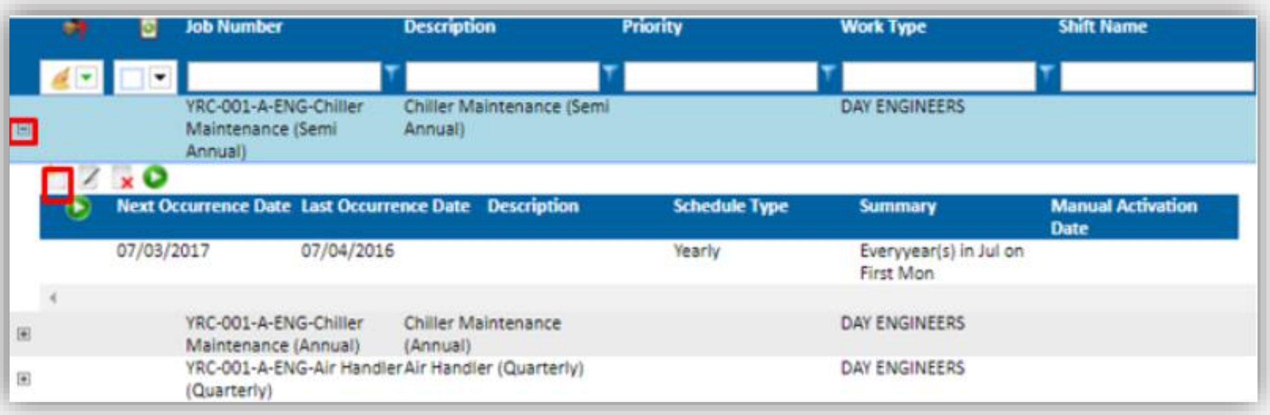
1. Open ***Work Order Masters*** from the ***Work Orders*** Functional Area.
2. Select the ***New*** icon.
3. Enter in all data on the ***Details*** tab.
4. Select ***Save.***
5. All remaining tabs/information can be entered at this point.
6. After entering any additional information, ***Save*** your selection.



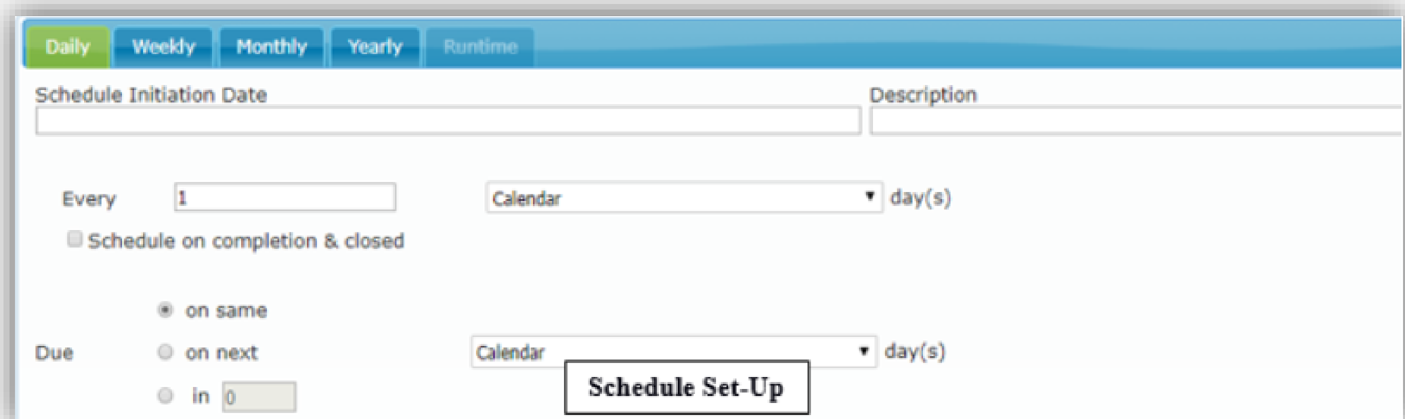
Note: A job number and description are required. A target is not initially required, but must be added before work order activation is possible.

9. SCHEDULING A WORK ORDER MASTER

1. Locate the ***Work Order Master*** you just created from the record navigator and select it.
2. Select the ***(+) sign*** to the left of the record



3. Select the ***New*** icon.
4. Choose the **Cycle Type** for the work order (Daily, Weekly, Monthly, Yearly or Runtime)
5. Enter the ***Schedule Initiation Date.*** (This date basically “turns on” the work order)
6. Enter the frequency of the work order. (i.e. Every 3 days, Every 2 weeks, Every 1 year, etc.)
7. Choose on which day the work order should occur (for Weekly, Monthly, and Yearly Schedules)
8. Choose when the work order is due. (i.e. how many days it should take to complete)
9. Select the ***Save*** icon.



Note: The Daily schedule has the option of ***Schedule on Completion*** so that the work order won’t generate again until the previous one is completed.

10. ACTIVATING A WORK ORDER MASTER

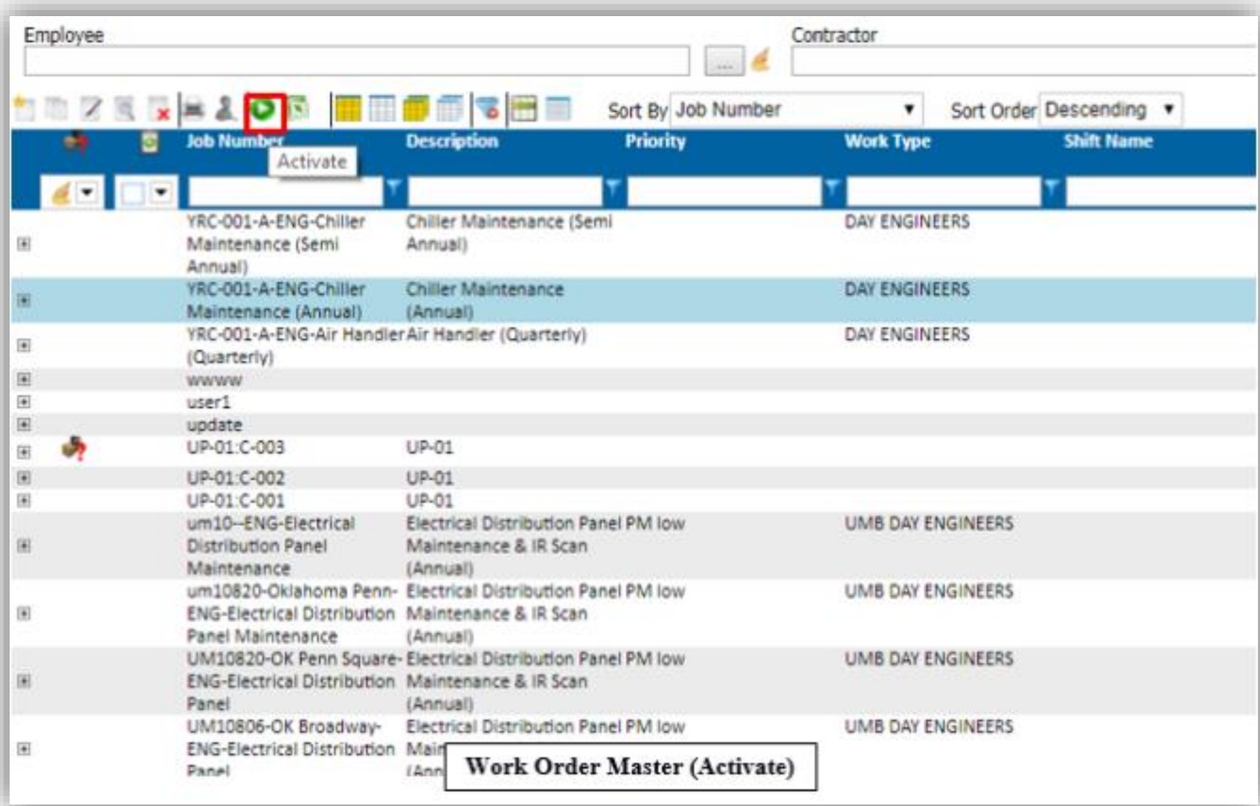
TO ACTIVATE A WORK ORDER MASTER

1. Select a record from the Record Navigator.
2. Select the ***Activate (Green Play)*** icon.
3. After verification, the work order will now be assigned a work order number and be shown on the **Active Work Orders** page.

11. ACTIVATING MULTIPLE WORK ORDER MASTERS

TO ACTIVATE MULTIPLE WORK ORDER MASTERS

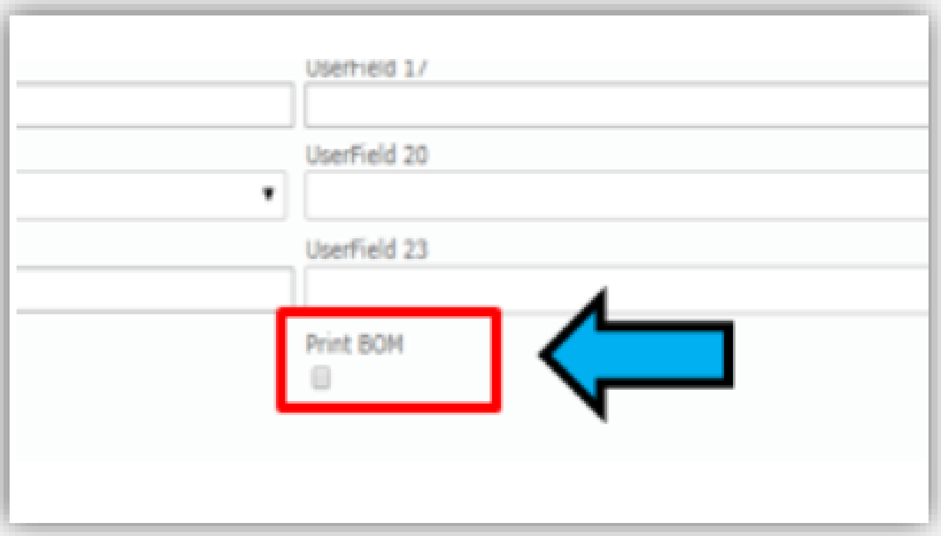
1. Select multiple records from the Record Navigator (by pressing and holding the **Ctrl** key).
2. Select the ***Activate (Green Play)*** icon.



12. PRINT BILL OF MATERIAL

TO PRINT BILL OF MATERIAL

1. Go to the ***Work Orders*** module.
2. Click on ***Work Order Masters.***
3. Select a work order master record.
4. Click the ***Edit*** icon.
5. Scroll to the bottom of the page to locate the ***Print BOM*** checkbox. (It is located above the **Notes** field.)

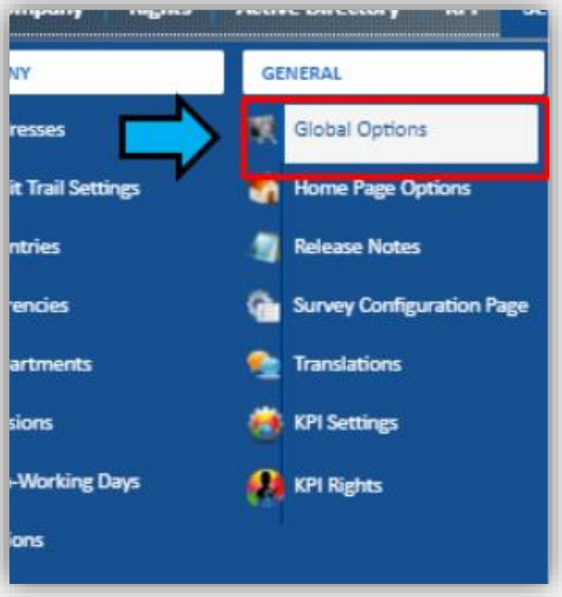


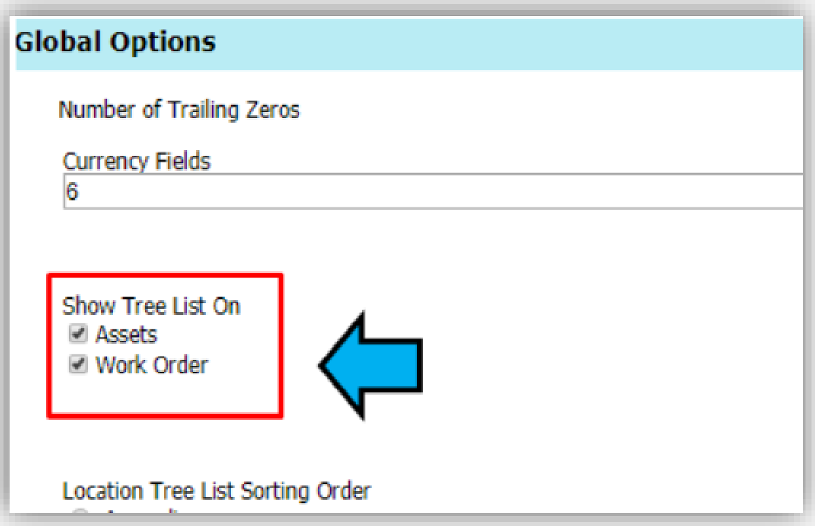
WORK ORDER ADMINISTRATION

1. SHOW TREE LIST

TO SHOW A TREE LIST FOR WORK ORDERS, YOU MUST:

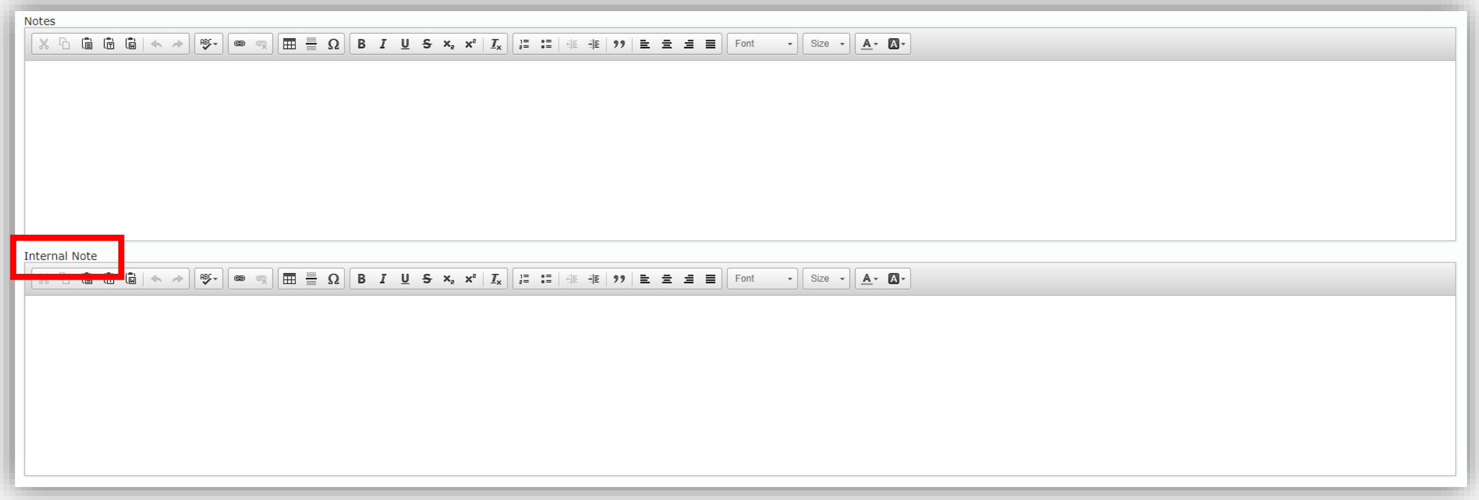
1. Go to the ***Settings*** Module drop-down.
2. Locate the ***General*** section of the drop-down menu.
3. Click ***Global Options.***





2. INTERNAL NOTE FIELD

The Internal Note field in the ***Work Order*** detail page and ***Close Work Order*** detail page gives you the ability to record any details you feel are pertinent to the work order. This not can only be seen by other users (with proper permissions) in your company. This feature appears in the Work Orders module and the Closed Work Orders module.



TO UTILIZE WORK ORDERS INTERNAL NOTE FIELD

1. Go to the ***Work Orders*** module.
2. Select ***Work Orders.***
3. Highlight a work order record.
4. Click the ***View*** or ***Edit*** icon.
5. Scroll down to the bottom of the ***Details*** page to find the ***Internal Note*** field.

TO ACCESS THE CLOSED WORK ORDER INTERNAL NOTE FIELD

1. Go to the ***Closed Work Orders*** module.
2. Click ***Closed Work Orders.***
3. Select a closed work order record.
4. Click the ***View*** icon.
5. Scroll down to the bottom of the ***Details*** page to locate the ***Internal Note*** field.