

Vision PM Module Use Case Section 1 – VT Admin Setup and Task Creation

Definitions:

VT Admin	Vocation Admin Users, Has full access to the Administration Dashboard, can switch to any account using the “Switch Account” menu.						
Account Users	Account user who have access to a company building. Account users include: General Manager, Portfolio Manager, Property Manager and Engineer.						
Tenant Admin	A User that has full right to the tenant screen, can add/Modify/Delete users within their own company.						
Tenant User	A user with limited rights on the tenant screen. Can NOT Add or Deleted users. Has the ability to modify their own information.						
Development Server	dev.visionworkorders.com						
Testing Server	qa.visionworkorders.com						
Production server	https://visionworkorders.com						
PM	Preventive Maintenance						
PM Module	refers to a module that can be added to an existing work order program or can be a standalone product.						
PM Templates	A set of PM Task the only VT Admin can modify. Located in the Administrator Menu in the VT Admin. PM Templates are visible to all Account Users						
Template Name	Name of a defined list of templates for a group of equipment that have similar Tasks. Example: <table><tr><td>Fruit</td><td><- Template Name</td></tr><tr><td>Apple</td><td><- Type Designation</td></tr><tr><td>Pear</td><td><- Type Designation</td></tr></table>	Fruit	<- Template Name	Apple	<- Type Designation	Pear	<- Type Designation
Fruit	<- Template Name						
Apple	<- Type Designation						
Pear	<- Type Designation						
Type Designation	List of Equipment that fall under a Template Name						

10.0 Synchronize Equipment when Templates are changed

10.1 Assume we have Equipment Template with a Template Name of “AIR-Type1”

10.2 Under PM – Equipment, We have a Six pieces of equipment that are using (tied) to the template name “Air Compressors”

The screenshot shows the 'Create A New Designation Wizard - Step 2' interface. On the left is a sidebar with 'Preventive Maintenance' expanded, showing 'PM – Work Orders', 'PM – Equipment', 'Equipment Templates', 'Building Administration', and 'Email Templates'. The main area is titled 'Air Compressors- Type Designation - AIR-Type1' with a 'View list' button. It has tabs for 'Task(s)' and 'Reading(s)'. Below is a table with columns: Task, Task Instruction, Frequency, Start date, Seasonal, and Start Date Of Month. Two rows are listed:

Task	Task Instruction	Frequency	Start date	Seasonal	Start Date Of Month
1	00-Task	Monthly	October 2025	Y	8
2	task	Monthly	October 2025	N	8

Example of Equipment Template with 2 Task(s) and 2 Reading(s)

The screenshot shows a list of equipment under 'Air Compressors Red'. The columns are: Floor, Unit, Make/ Model, Location, and Template. There are six entries, each with a circled number and a circled dot icon. All entries have 'Electrical closet' in the Location column and 'AIR-Type1' in the Template column.

Floor	Unit	Make/ Model	Location	Template
1	1		Electrical closet	AIR-Type1
1	2		Electrical closet	AIR-Type1
2	1		Electrical closet	AIR-Type1
2	2		Electrical closet	AIR-Type1
3	1		Electrical closet	AIR-Type1
3	2		Electrical closet	AIR-Type1

PM – Equipment | Six pieces of equipment are using the “AIR-Type1” template.

10.3 When an Account User modifies the “AIR-Type1” template by adding a new Task(s) or Reading(s), each piece of equipment that is using that template MUST be updated to reflect the new Task(s) or Reading(s).

10.3.1 Each piece of equipment that is using the modified template will default to the Start Date that is created, the system user will then have to modify each piece of equipment that is effective.

The screenshot shows the 'Create A New Designation Wizard - Step 2' interface. The sidebar and main area are identical to the previous screenshot, but the table now has three rows. The third row, 'New Task', has a yellow background. Its start date is listed as 'July 2018'.

Task	Task Instruction	Frequency	Start date	Seasonal	Start Date Of Month
1	00-Task	Monthly	October 2025	Y	8
2	task	Monthly	October 2025	N	8
3	New Task	Monthly	July 2018	N	1

Templated Modified with “New Task” with a Start Date of “July 2018”

Floor	Unit	Make/Model	Location	Template
01	01		1St Floor	AIR-Type1
1	1	McQuade	1St floor	AIR-Type1

Floor	Unit	Make/Model	Location	Template
1	1		Electrical closet	AIR-Type1

Currently, PM-Equipment does not show the “New Task” that was entered.

- 10.3.2 Once the changes are made to each piece of equipment, create a link “Modified Equipment List” in the upper right hand corner of both Equipment Templates and PM –Equipment screens.

Create a link to a list of modified equipment.

Equipment Template

Create a link to a list of modified equipment

PM - Equipment

this link will show List of all Equipment that has been effected by the template modifications.

10.3.3 Modified Equipment List will show

Equipment Name, Floor, Unit, Template Name, Date last Modified, Number of Task effected, number of readings effected and Verified for the building that has been updated

Modified Equipment List							
Equipment Name	Floor	Unit	Template Name	Date last Modified	Task	Reading	Verified
Air Compressors Red	01	01	AIR-Type1	07/24/20018	01	0	OK
Air Compressors Red	01	02	AIR-Type1	07/24/20018	01	0	OK
Air Compressors Red	02	01	AIR-Type1	07/24/20018	01	0	OK
Air Compressors Red	02	02	AIR-Type1	07/24/20018	01	0	OK
Air Compressors Red	03	01	AIR-Type1	07/24/20018	01	0	OK
Air Compressors Red	03	02	AIR-Type1	07/24/20018	01	0	OK

10.3.4 If Account User click "OK" under Verified, the link will be removed from the table.

10.3.5 If the Account User clicks anywhere on a row, a link will take them to the equipment (Task or Reading) where they can modify the start date

Modified Equipment List							
Equipment Name	Floor	Unit	Template Name	Date last Modified	Task	Reading	Verified
Air Compressors Red	01	01	AIR-Type1	07/24/20018	01	0	OK
Air Compressors Red	01	02	AIR-Type1	07/24/20018	01	0	OK
Air Compressors Red	02	01	AIR-Type1	07/24/20018	01	0	OK
Air Compressors Red	02	02	AIR-Type1	07/24/20018	01	0	OK
Air Compressors Red	03	01	AIR-Type1	07/24/20018	01	0	OK
Air Compressors Red	03	02	AIR-Type1	07/24/20018	01	0	OK

Modified Equipment List

The screenshot shows the 'Equipment detail Task/Reading' interface. At the top, there are tabs for 'Task(s)' and 'Reading(s)', with 'Return to Modified Equipment List' highlighted. A yellow callout box points to this tab with the instruction: 'Change the "Close" button to "Return to Modified Equipment List"'. Below the tabs is a table titled 'Air Compressor - Type Designation - AIR-Type1'. The table has columns for 'Task - Order', 'Task Instruction', 'Frequency', 'Start date', 'Seasonal', and 'Start Day of Month'. Two rows are listed: row 1 has task '00-Task' with frequency 'Monthly' and start date 'June 2018'; row 2 has task 'task' with frequency 'Monthly' and start date 'June 2018'. A green callout box at the bottom of the table area says: 'New Task or Reading to be listed and AU User will have the ability to modify start date'. Another yellow callout box points to the 'Start date' column with the text: 'The new Task(s) or Reading(s) will appear in same location as the template.' A third yellow callout box points to the 'Start date' column with the text: 'The user will be able to modify the start date of any Task(s) or Reading(s)'.

PM – Equipment | Equipment detail task/Reading

- 10.3.6 When Account User clicks "Return to Modified Equipment List" this screen will close and this Item will be removed.
- 10.3.7 Once all the equipment has been removed from the "Modified Equipment List" the "Modified Equipment List" on both the Equipment Templates and PM –Equipment screens will be removed.

10.4 Change the color of the added task or reading to red so the user will know which one need to be modified

Task Order	Task Instruction	Frequency	Start date	Seasonal	Start Date Of Month
1	Just added task	Monthly	September 2018	N	1
2	Task subset- New Subset	Frequency	Start date	Seasonal	Start Date Of Month
3	Task subset- Task subset Second	Frequency	Start date	Seasonal	Start Date Of Month
4	this is a new task	Monthly	July 2018	N	1
5	Task instruction	Monthly	May 2018	N	1
6	AAAAAA - Add new Task	Monthly	September 2018	N	1
7	task instruction first	Frequency	Start date	Seasonal	Start Date Of Month
8	task pos	Monthly	May 2018	N	1

Equipment Name	Floor	Unit	Template Name	Date last Modified	Task	Reading	Verified
Pump	24	24	AHU - Type 1	09/18/2018	1	0	Ok
AAA-1	01	01	AHU - Type 1	09/18/2018	1	0	Ok
Air Handling Units	Roof	01	AHU - Type 1	09/18/2018	1	0	Ok
Air Handling Units	Roof	02	AHU - Type 1		1	0	Ok

Task Order	Task Instruction	Frequency	Start date	Seasonal	Start Day of Month
1	Just added task	Monthly	September 2018	N	1
2	New Subset	Frequency	Start date	Seasonal	Start Day of Month
3	Task subset Second	Frequency	Start date	Seasonal	Start Day of Month
4	Task instruction	Monthly	May 2018	N	1
5	this is a new task	Monthly	September 2018	N	1
6	new subset	Frequency	Start date	Seasonal	Start Day of Month
7	task instruction first	Monthly	May 2018	N	1
8	task pos	Monthly	May 2018	N	1

10.5 PM – Equipment : Add a way for the user to return back to previous menu

Equipment Name	Floor	Unit	MAKE/ MODEL	Location
AAA-1	01	01		1st floor

Task Order	Task Instruction	Frequency	Next Start Date
1	Just added tasks	Monthly	September 2018
2	New Subset		Dec 2018
3	new Task to find ID number	Monthly	Dec 2018

Equipment detail Task/Reading											
Task(s)		Reading(s)									
AAA-1 - Type Designation - AHU - Type 1											
View list ▾											
Task - Order	Task Instruction	Frequency	Start date ▾	Seasonal	Start Day of Month						
1	Just added tasks	Monthly	September 2018	N	1						
2	New Subset	Frequency	Start date ▾	Seasonal	Start Day of Month						
1	new Task to find ID number	Monthly	Dec 2018	N	1						
3	Test subset Second	Frequency	Start date ▾	Seasonal	Start Day of Month						
1	Task Instruction	Monthly			1						
2	this is a new task!	Monthly			1						
4	AAAAAA - Add new Task	Monthly			1						
5	new subset	Frequency	Start date ▾	Seasonal	Start Day of Month						
1	task instruction first	Monthly	Dec 2018	N	1						
6	task pos	Monthly	Dec 2018	N	1						

Equipment detail Task/Reading											
Task(s)		Reading(s)									
AAA-1 - Type Designation - AHU - Type 1											
View list ▾											
Task - Order	Task Instruction	Frequency	Start date ▾	Seasonal	Start Day of Month						
1	Just added tasks	Monthly	September 2018	N	1						
2	New Subset	Frequency	Start date ▾	Seasonal	Start Day of Month						
1	new Task to find ID number	Monthly	Dec 2018	N	1						
3	Test subset Second	Frequency	Start date ▾	Seasonal	Start Day of Month						
1	Task Instruction	Monthly			1						
2	this is a new task!	Monthly			1						
4	AAAAAA - Add new Task	Monthly			1						
5	new subset	Frequency	Start date ▾	Seasonal	Start Day of Month						
1	task instruction first	Monthly	Dec 2018	N	1						
6	task pos	Monthly	Dec 2018	N	1						

11.0 Add the ability to Modify Equipment

11.1 Add the ability to edit the equipment Name

Equipment List						
Equipment Name ▾						
AAA-1						
View list ▾						
Floor	Unit	Make/ Model	Location	Template		
01	01			AHU - Type 1		
Air Handling Units						
Floor	Unit	Make/ Model	Location	Template		
Roof	01	McQuade		AHU - Type 1		
Roof	02	McQuade	West	AHU - Type 1		
Pump						
Floor	Unit	Make/ Model	Location	Template		
01	01	McQuade	1st Floor			

Add an Edit Button for the Equipment Name

Equipment Name ▾

Edit Equipment Name

Air Handling units Task

Update Cancel

Description Test

11.2 Add the ability to edit Floor / Unit

Equipment List					
Equipment Name					
AAA-1					
Floor	Unit	Make/ Model	Location	Template	
01	01		1st floor	AHU - Type 1	
Air Handling Units					
Floor	Unit	Make/ Model	Location	Template	
Roof	01	McQuade	East	AHU - Type 1	
Roof	02	McQuade	West	HU - Type 1	
Pump					
Floor	Unit	Make/ Model		Template	
01	01	McQuade	1st Floor		
01	01	McQuade	1st Floor	A Fire Pump	
01	02		1		
01	02		1	A Fire Pump	

Edit Equipment

Equipment Name*	Attach Template*
Air Handling Units	Air Handling units Task AHU - Type 1 this is a te
Unit*	01
Floor*	01
Location*	First Floor
Serial number	
Make / Model	
In Service Date	09/18/2018
Note:	
	Status
	Active
	Equipment Name and Attached Template disabled and are not able to be modified
	Equipment Manual

11.2.1 The User will be able to Change Unit, Floor, Location, Serial Number, Notes, Upload / Remote Picture and manual.

11.2.2 User will also be able to set unit status as "Inactive" or "Active"

11.2.3 Equipment Manual

The screenshot shows the 'Edit Equipment' form. On the right side, there is a file attachment section for 'Equipment Manual'. It contains two 'Choose File' buttons, one for each PDF document listed: 'PS_AK_DN2_2267.pdf' and 'Manual_3do.pdf'. A red 'X' button is positioned next to the second document's file name. Two yellow callout boxes provide feedback: one pointing to the 'X' button with the text 'Create the ability to remove and Equipment Manual', and another pointing to the 'Choose File' buttons with the text 'Create the ability to add multiple manuals'.

LLC

Edit Equipment

Equipment Name* Equipment

Attach Template* Equipment | Ac Maintenance Test description

Unit* 2

Floor* 1

Location* west

Serial:

Make:

In Service Date 07/24/2018

Note:

Choose File No file chosen

Equipment Manual

Choose File No file chosen

PS_AK_DN2_2267.pdf

Manual_3do.pdf

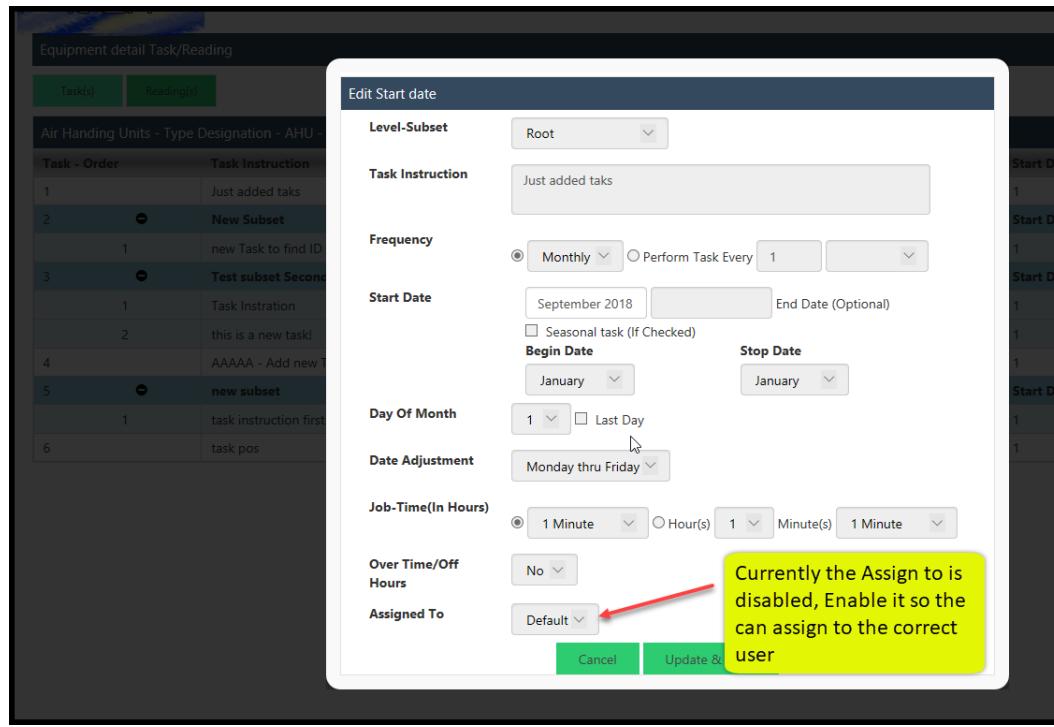
X

Save Cancel

- 11.2.3.1 Add the ability for user to be able to remove any PDF document listed
11.2.3.2 Add the ability to add unlimited number of PDF documents.

11.3 Edit Start Dates and assign user

11.3.1 Add the ability to assign user



11.3.2 Add the Ability to Change the Day of the Month

11.3.2.1 Currently the AU does not have the ability to change the "Day of Month"

11.3.2.2 Enable AU to edit the "Day of Month" on both Task and Readings.

11.3.2.3 The Value is currently using the Tables :

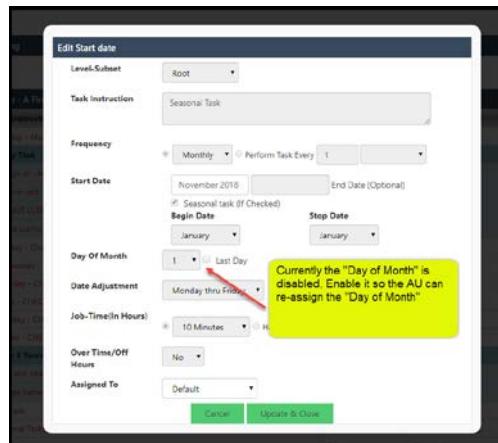
Pm_AU_Template_Task and

PM_AU_Template_Reading

Modify so that it will use the following tables:

PM_AU_Equipment_Task -> Startdate_month

PM_AU_Equipment_Readings -> Startdate_month



12.0 PM – Work Orders

12.1 Open Work Order List – By Equipment

By Default, show open work orders listed by equipment

The screenshot shows the 'PM Work Order List' page. On the left is a vertical navigation menu with options like Work Orders, Preventive Maintenance, PM – Work Orders (which is selected and highlighted in green), PM – Equipment, Equipment Templates, Building Administration, Reports, Company Consoles, Utilities, Conference Room, Change Password, and Logout. At the top, there are three building icons: 155 Federal Street (red), 10 High Street (green), and 185 Cambridge Street (purple). Below these are search fields for 'Equipment Name' and buttons for 'Reset', 'Search', 'By Equipment', and 'WO Number'. There are also 'Expand All' and 'Collapse All' buttons. The main area displays a table titled 'PM Work Order List' with sections for 'Air Handling Units' and 'Fan Coil Units'. The columns include Floor, Unit, Work Order Number, Location, Task or Reading, Print, and Complete. The data shows various work orders across different floors and units.

This screenshot is similar to the first one but includes several yellow callout boxes with arrows pointing to specific UI elements:

- A large yellow box labeled 'By Default - List By Equipment' points to the 'By Equipment' button in the search bar.
- A smaller yellow box labeled '2 Settings for View - Expand All (Default) - Collapse All' points to the 'Expand All' and 'Collapse All' buttons.
- Red arrows point from the 'List Equipment in Alphanumeric order' text in the 'Air Handling Units' section to the 'Floor' and 'Unit' headers.
- A yellow box labeled 'Complete Icon to close out PM work order' points to the 'Complete' icon in the 'Task or Reading' column.
- A yellow box labeled 'Show ICON for Task or Reading' points to the icons in the 'Task or Reading' column.
- A yellow box labeled 'Print ICON to print individual PM work order' points to the 'Print' icon in the 'Task or Reading' column.
- A yellow box at the bottom states 'Account User will have the ability to sort A-Z or 1-10 on Floor, Unit, Work Order Number'.

- 12.1.1 Open work order will be filtered by building, Account User will have the ability to select between buildings that they have privileges to.
- 12.1.2 Account user will have the ability to change the PM Work Order list by:
 - 12.1.2.1 By Equipment (This is the Default, shown above)
 - 12.1.2.2 WO Number
- 12.1.3 When Account user changes the WO List View, the program will remember the Account users choice every time they log into the system
- 12.1.4 Equipment to be list in Alphabetical order A-Z , 1-10
- 12.1.5 Account User will have the ability to change the order by selecting the “Listed by Equipment (A-Z)
- 12.1.6 Under each Equipment Name, the display will be indented and list the following:
 - 12.1.6.1 Floor, to be in Alphanumerical order, A-Z, 1-10 By default
 - 12.1.6.2 Unit (A-Z , 1-10)
 - 12.1.6.3 Work Order Number (1- 10)
 - 12.1.6.4 Location
 - 12.1.6.5 Task or Reading (Use an Icon to depict either a Task or Reading)
 - 12.1.6.6 Print current PM Work Order (Use Icon to depict printing work order)
 - 12.1.6.7 Compete Work order (Use an Icon to depict closing work order)

12.1.7 Account user will have the ability to change the order of each of the following:

- 12.1.7.1 Floor
- 12.1.7.2 Unit
- 12.1.7.3 Work Order Number

12.1.8 Expand All (Default)

PM Work Order List							
Listed by Equipment (A-Z)							
Air Handling Units							
Location	Unit	Work Order Number	Location	Task or Reading	Print	Complete	
01	01	1201	First Floor	N	○	✓	
02	01	1025	Second Floor	N	○	✓	
03	01			N	○	✓	
Fan Coil Units							
Floor	Unit	Work Order Number	Location	Task or Reading	Print	Complete	
01	01			N	○	✓	
01	02			N	○	✓	
01	03			N	○	✓	
HVAC							
Penthouse	Unit	Work Order Number	Location	Task or Reading	Print	Complete	
	03	1067	Penthouse - River side	N	○	✓	

12.1.8.1 When Expand All is selected, show each Equipment and work order details

12.1.9 Collapse All

PM Work Order List							
Listed by Equipment (A-Z)							
Air Handling Units							
Equipment	Location	Work Order Number	Location	Task or Reading	Print	Complete	
Air Handling Units							
Fan Coil Units							
HVAC							

12.1.9.1 When Collapse All is selected, show only the equipment name. When Account user selects the equipment, automatically expand select information

12.1.10 Search For

PM Work Order List							
Listed by Equipment (A-Z)							
Air Handling Units							
Equipment	Location	Work Order Number	Location	Task or Reading	Print	Complete	
Air Handling Units							
Floor	Unit	Work Order Number	Location	Task or Reading	Print	Complete	
01	v1			N	○	✓	
02	01			N	○	✓	
03	01	1003	Third Floor	N	○	✓	
Fan Coil Units							
Floor	Unit	Work Order Number	Location	Task or Reading	Print	Complete	
01	01	1004	First Floor - West	N	○	✓	
01	02	1011	First Floor - East	N	○	✓	
01	03	1207	First Floor - South	N	○	✓	
HVAC							
Penthouse	Unit	Work Order Number	Location	Task or Reading	Print	Complete	
	03	1067	Penthouse - River side	N	○	✓	

12.1.10.1 Account User will have the ability to filter results use the "Search For" drop down box.

12.1.10.2 The Drop down box will have the following 5 options:

- 12.1.10.2.1 Work Order Number
- 12.1.10.2.2 Equipment
- 12.1.10.2.3 Floor
- 12.1.10.2.4 Unit
- 12.1.10.2.5 Location

- 12.1.10.3 When the Account User select the “Search” filter results
- 12.1.10.4 When the Account User selects “Reset” remove all filters

12.2 Open Work Order List – By WO Number

The screenshot shows a software interface for managing work orders. On the left is a vertical navigation menu with options like Work Orders, Preventive Maintenance, PM - Work Orders, PM - Equipment, Equipment Templates, Building Administration, Reports, Company Consoles, Utilities, Conference Room, Change Password, and Logout. The main area is titled "PM Work Order List" and shows a table of work orders listed by WO Number (1-10). The columns include Work Order Number, Equipment, Floor, Unit, Location, Task or Reading, Print, and Complete. The table data is as follows:

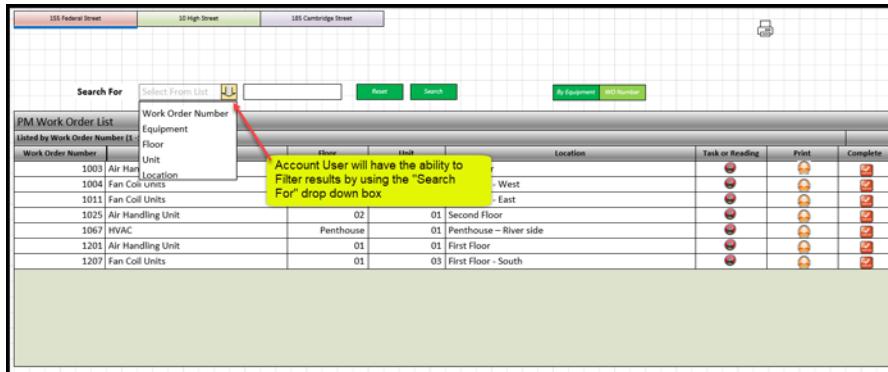
Work Order Number	Equipment	Floor	Unit	Location	Task or Reading	Print	Complete
1003	Air Handling Unit	03	01	Third Floor	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
1004	Fan Coil Units	01		First Floor - West	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
1011	Fan Coil Units	01		First Floor - East	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
1025	Air Handling Unit	02		Second Floor	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
1067	HVAC	Penthouse		Penthouse - River side	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
1201	Air Handling Unit	01		First Floor	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
1207	Fan Coil Units	01	03	First Floor - South	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

This screenshot is similar to the first one but includes several yellow callout boxes with arrows pointing to specific UI elements and table rows. The annotations are:

- A top-left box: "Selected - List by WO Number - List Equipment in Numeric order Lowest to Highest (1-10) by default".
- A top-right box: "Remove the: - Expand All - Collapse All Buttons".
- A bottom-left box: "Show complete ICON to close out PM work orders".
- A bottom-right box: "Show a print ICON to print individual PM work orders".
- A central box: "Account User will have the ability to sort A-Z or 1-10 on - Work Order Number - Equipment - Floor - Unit - Location".

- 12.2.1 PM Work Orders will be filtered by building, Account User will have the ability to select between buildings that they have privileges to.
- 12.2.2 Account user will have the ability change the PM Work Order list view in two ways they are:
- 12.2.2.1 By Equipment (This is the default)
 - 12.2.2.2 WO Number (Shown above)
- 12.2.3 When Account User changes the PM WO list view, the program will remember the Account Users choice every time they log into the system
- 12.2.4 PM Work Order number will be listed in numeric order, lowest to highest (1001 – 1010) by default
- 12.2.5 Account User will have the ability to change the order, highest to lowest (1010 – 1001)
- 12.2.6 The Account User will also have the ability to change the order of the following
- 12.2.6.1 Equipment
 - 12.2.6.2 Floor
 - 12.2.6.3 Unit
 - 12.2.6.4 Location

12.2.7 Search For Filter:



12.2.7.1 Account User will have the ability to filter results use the "Search For" drop down box.

12.2.7.2 The Drop down box will have the following 5 options:

12.2.7.2.1 Work Order Number

12.2.7.2.2 Equipment

12.2.7.2.3 Floor

12.2.7.2.4 Unit

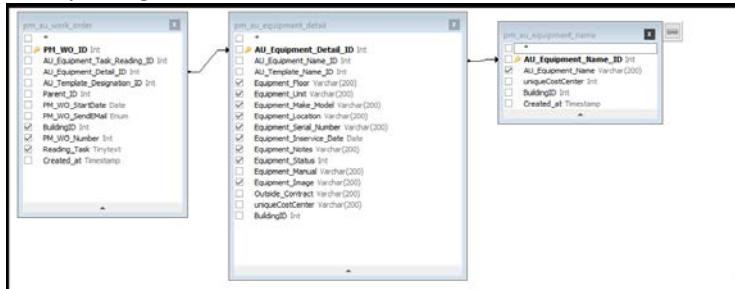
12.2.7.2.5 Location

12.2.7.3 When the Account User select the "Search" filter results

12.2.7.4 When the Account User selects "Reset" remove all filters

12.3 PM Work Order List Database

12.3.1 Query Design



12.3.2 MySQL Text for displaying PM Work Order List:

SELECT

```

pm_ae_work_order.BuildingID AS BuildingID,
pm_ae_equipment_name.AU_Equipment_Name,
pm_ae_work_order.PM_WO_Number AS WO_Number,
pm_ae_equipment_detail.Equipment_Floor,
pm_ae_equipment_detail.Equipment_Unit,
pm_ae_equipment_detail.Equipment_Location,
pm_ae_equipment_detail.Equipment_Inservice_Date,
pm_ae_equipment_detail.Equipment_Notes,
pm_ae_equipment_detail.Equipment_Image,
pm_ae_equipment_detail.Equipment_Status,
pm_ae_work_order.Reading_Task
FROM
pm_ae_work_order
    
```

```

LEFT JOIN pm_au_equipment_detail ON pm_au_equipment_detail.AU_Equipment_Detail_ID =
pm_au_work_order.AU_Equipment_Detail_ID
LEFT JOIN pm_au_equipment_name ON pm_au_equipment_name.AU_Equipment_Name_ID =
pm_au_equipment_detail.AU_Equipment_Name_ID
WHERE
pm_au_work_order.BuildingID IN (1, 2, 44) AND
pm_au_equipment_detail.Equipment_Status = 1
GROUP BY
pm_au_work_order.BuildingID,
pm_au_equipment_name.AU_Equipment_Name,
pm_au_work_order.PM_WO_Number,
pm_au_equipment_detail.Equipment_Floor,
pm_au_equipment_detail.Equipment_Unit,
pm_au_equipment_detail.Equipment_Make_Model,
pm_au_equipment_detail.Equipment_Location,
pm_au_equipment_detail.Equipment_Serial_Number,
pm_au_equipment_detail.Equipment_Inservice_Date,
pm_au_equipment_detail.Equipment_Notes,
pm_au_equipment_detail.Equipment_Image,
pm_au_equipment_detail.Equipment_Status,
pm_au_work_order.Reading_Task
ORDER BY
BuildingID,
WO_Number

```

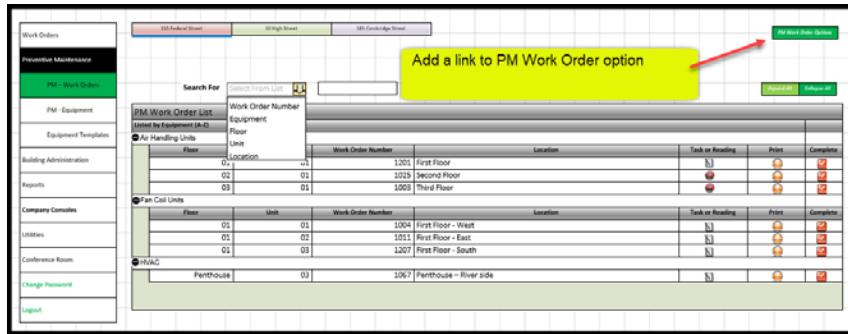
12.3.3 Query Result:

BuildingID	AU_Equipment_Name	WO_Number	Equipment_Floor	Equipment_Unit	Equipment_Location	Equipment_Inservice_Date	Equipment_Notes	Equipment_Status	Reading_Task
1	Air Handling Units PM Equipment	1001 01	01	First Floor	4/1/2008	This is a very important note.	1 T		
1	Air Handling Units PM Number 1	1002 01	01	1st Floor, next to # Sign	1/1/1967	Many Notes are put here.	1 T		
1	Air Handling Units PM Equipment	1003 02	01	West Side	12/31/1969	Some Notes	1 T		
1	Air Handling Units PM Equipment	1004 01	01	First Floor	4/1/2008	This is a very important note.	1 R		
1	Air Handling Units PM Equipment	1005 01	01	First Floor	4/1/2008	This is a very important note.	1 T		
2	Air Handling Unit(s)	1001 Penthouse	01	Left side east penthouse	12/31/1969	Whole lot of note here.	1 T		
44	User Templates	1001 1	1	Electrical Room	12/31/1969		1 T		
44	User Templates	1002 1	2	Electrical Room	12/31/1969		1 T		
44	User Templates	1003 2	1	Electrical Room	12/31/1969		1 T		
44	User Templates	1004 2	2	Electrical Room	12/31/1969		1 T		
44	User Templates	1005 3	1	Electrical Room	12/31/1969		1 T		
44	User Templates	1006 3	2	Electrical Room	12/31/1969		1 T		
44	User Templates	1007 4	1	Electrical Room	12/31/1969		1 T		
44	User Templates	1008 4	2	Electrical Room	12/31/1969		1 T		
44	User Templates	1009 5	1	Electrical Room	12/31/1969		1 T		
44	User Templates	1010 5	2	Electrical Room	12/31/1969		1 T		
44	Fire Pump	1011 Garage	01	East side Mechanical rooms	1/1/1965	Need to replace in 20250	1 T		

13.0 PM Options

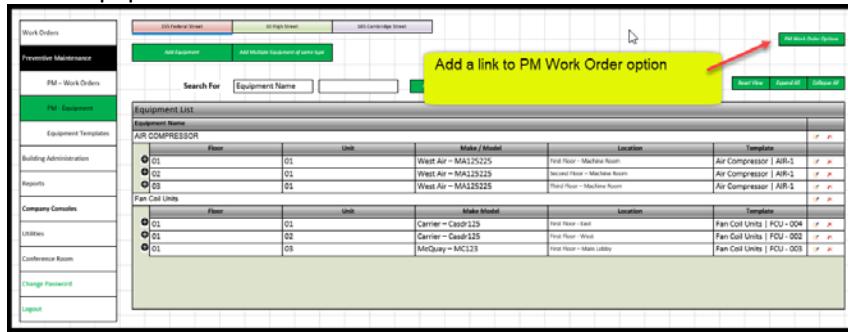
13.1 Add a Link to PM Options on each Preventive Maintenance menu

13.1.1 PM – Work Order Menu



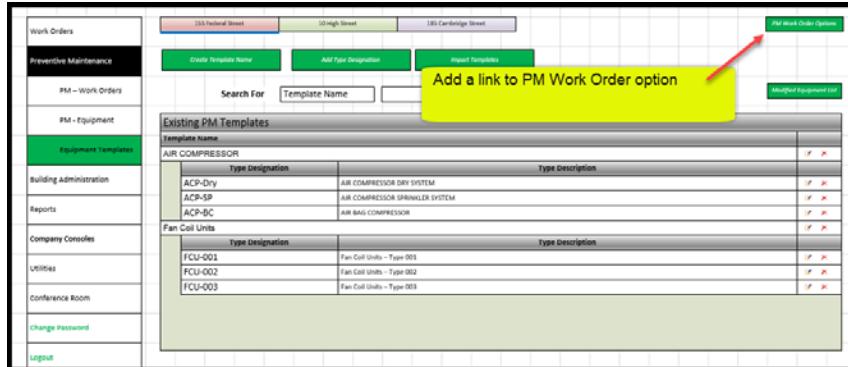
Add a link to PM Work Orders in upper right hand corner

13.1.2 PM – Equipment Menu



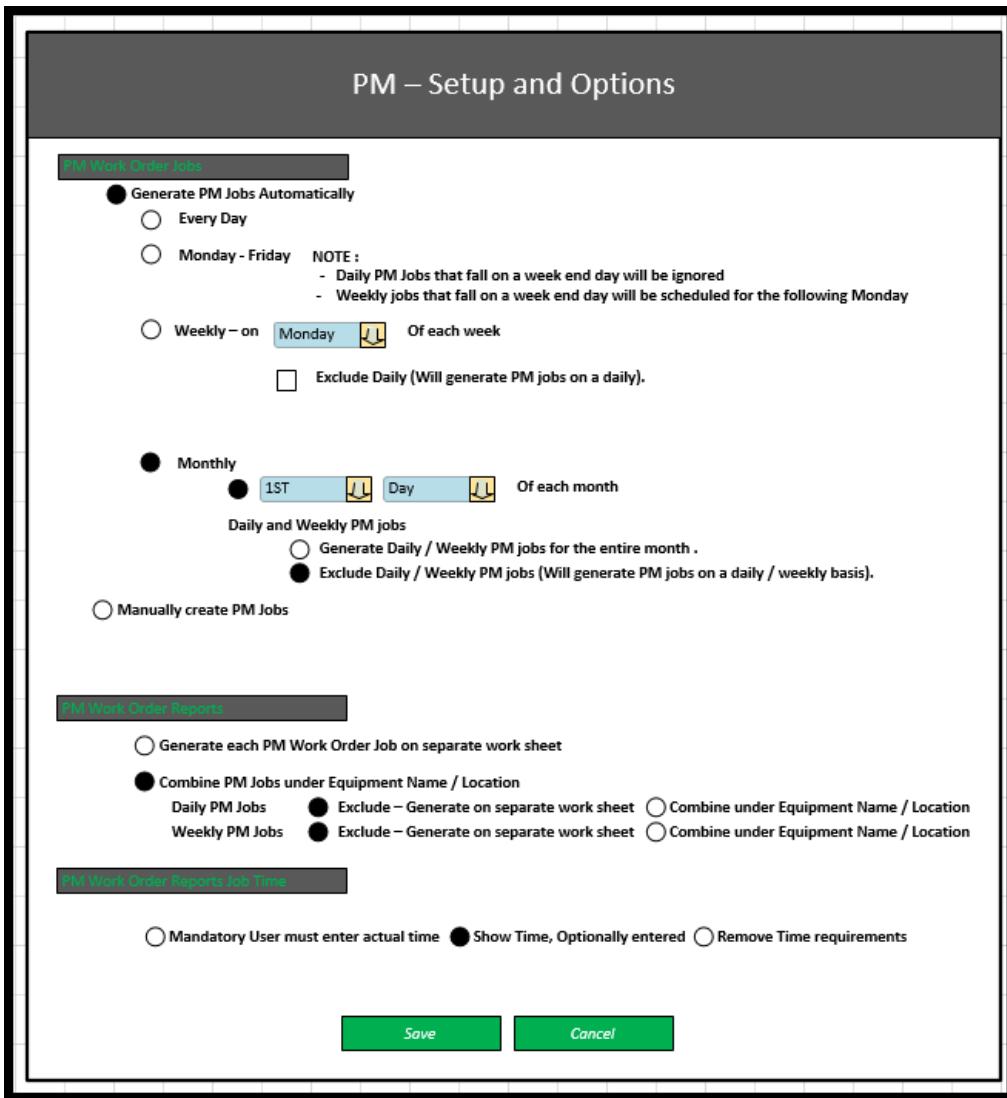
Add a link to PM Work Orders in upper right hand corner

13.1.3 Equipment Templates Menu



Add a link to PM Work Orders in upper right hand corner

13.2 PM Option Menu will Display the following pop up



13.2.1

13.2.2 Create a new Table pm_au_work_order_options with the following fields:

MYSQL -

13.2.3 CREATE TABLE `pm_au_work_order_options` (

```
`PM_WO_Options_ID` int(11) NOT NULL,  
`BuildingID` int(11) NOT NULL,  
`PM_Auto_Create_Jobs` enum('Y','N') COLLATE utf8_unicode_ci NOT NULL DEFAULT 'Y',  
`PM_Auto_schedule` enum('E','F','W','M') COLLATE utf8_unicode_ci NOT NULL DEFAULT 'M'  
COMMENT 'E - Every Day, F - Week Day Only, W - Weekly, M - Monthly',  
`PM_Auto_Month_Day_Of_Week` varchar(11) COLLATE utf8_unicode_ci NOT NULL DEFAULT '1',  
`PM_Auto_Month_Generate` varchar(11) COLLATE utf8_unicode_ci NOT NULL DEFAULT 'Day'  
COMMENT 'Day or Monday through Sunday',  
`PM_Auto_Exclude` ENUM('Y','N') NOT NULL DEFAULT 'N' COMMENT 'Exclude Daily and or Weekly  
when generatig PM WO',  
`PM_Reports_Separate` enum('Y','N') COLLATE utf8_unicode_ci NOT NULL DEFAULT 'Y',
```

```

`PM_Reports_Exclude_Daily` enum('Y','N') COLLATE utf8_unicode_ci NOT NULL DEFAULT 'Y',
`PM_Reports_Exclude_Weekly` enum('Y','N') COLLATE utf8_unicode_ci NOT NULL DEFAULT 'N',
`PM_Complete_Job_Time` enum('M','O','R') COLLATE utf8_unicode_ci NOT NULL DEFAULT 'O'
COMMENT 'M - Mandatory, O - Optional, R - Remove time requirements'
) ENGINE=MyISAM DEFAULT CHARSET=utf8 COLLATE=utf8_unicode_ci;

```

```

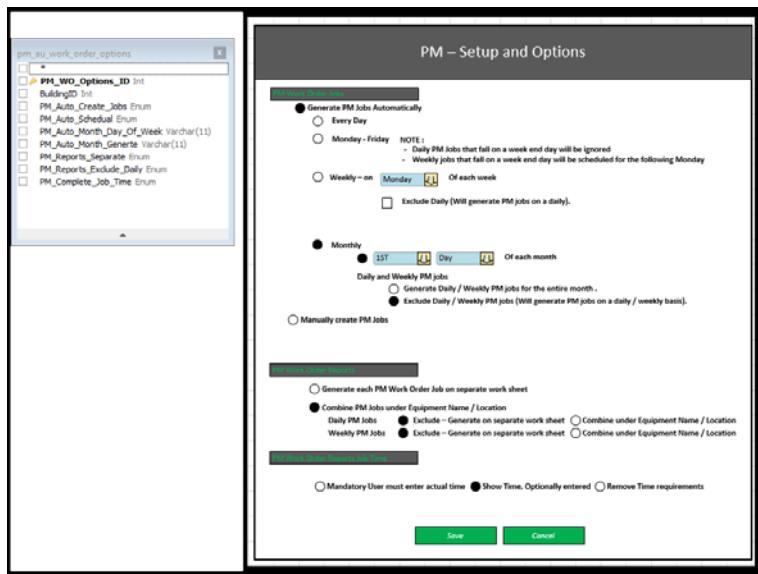
ALTER TABLE `pm_au_work_order_options`
ADD PRIMARY KEY (`PM_WO_Options_ID`) USING BTREE,
ADD UNIQUE KEY `PM_WO_Options_ID` (`PM_WO_Options_ID`),
ADD KEY `BuildingID` (`BuildingID`);

```

```

ALTER TABLE `pm_au_work_order_options`
MODIFY `PM_WO_Options_ID` int(11) NOT NULL AUTO_INCREMENT;

```



13.2.4 PM_WO_Options_ID Auto_Increment, Primary key

13.2.5 BuildingID Enter building ID

13.2.6 PM_Auto_Create_Jobs		Default Value	Y
13.2.6.1 Generate PM Jobs Automatically	Value		Y
13.2.6.2 Manually create PM jobs	Value		N
13.2.7 PM_Auto_Daily_Schedule		Default Value	M
13.2.7.1 Every Day	Value		E
13.2.7.2 Monday – Friday	Value		F
13.2.7.3 Weekly	Value		W
13.2.7.4 Monthly	Value		M
13.2.8 PM_Auto_Month_Day_Of_Week		Default Value	1

13.2.8.1 Drop Down List Default Value 1st

Show Value	Database Value
1St	1
2nd	2
3rd	3
4th	4
5th	5
6th	6
7th	7
15th	15
Last	Last

13.2.9 PM_Auto_Month_Generate Default Value Day
13.2.9.1 Drop Down List

Show Value	Database Value
Day	Day
Monday	1
Tuesday	2
Wednesday	3
Thursday	4
Friday	5
Saturday	6
Sunday	7

13.2.10 PM_Auto_Exclude Default Value N
13.2.10.1 Generate Daily Value N
13.2.10.2 Exclude Value Y

13.2.11 PM_Reports_Separate Default Value Y
13.2.11.1 Generate each PM Work Order Job on separate work sheet Value Y
13.2.11.2 Combine PM Jobs under Equipment Name / Location Value N

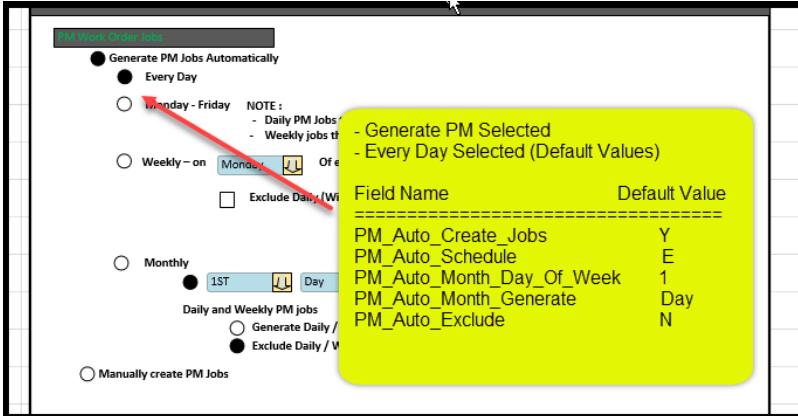
13.2.12 PM_Reports_Exclude_Daily Default Value Y
13.2.12.1 Exclude – Generate on separate work sheet Value Y
13.2.12.2 Combine under Equipment Name / Location Value N

13.2.13 PM_Reports_Exclude_Weekly Default Value N
13.2.13.1 Exclude – Generate on separate work sheet Value Y
13.2.13.2 Combine under Equipment Name / Location Value N

13.2.14 PM_Complete_Job_Time Default Value O

13.2.14.1	Mandatory User must enter actual time	Value M
13.2.14.2	Show Time, Optionally entered	Value O
13.2.14.3	Remove Time requirements	Value R

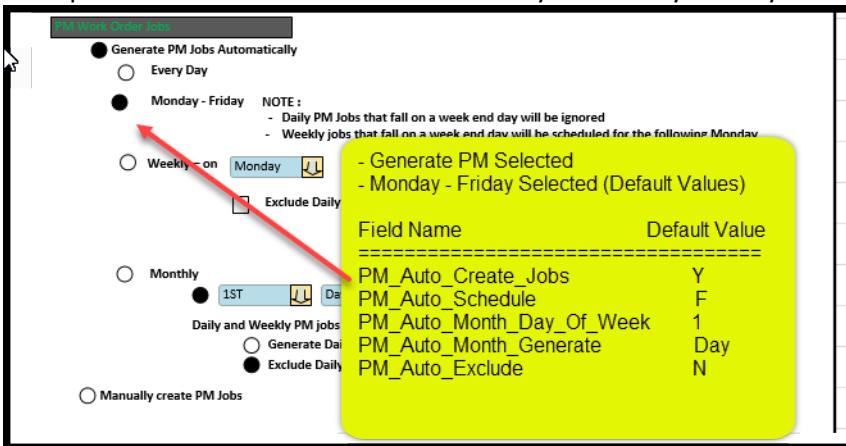
13.3 PM Option – Generate PM Jobs Automatically -> Every Day



- 13.3.1 If Account User selects Generate PM Jobs Automatically -> Every Day
the Database Default Values will be as follows :

PM_Auto_Create_Jobs	Value Y
PM_Auto_Schedule	Value E
PM_Auto_Month_Day_Of_Week	Value 1
PM_Auto_Month_Generate	Value Day
PM_Auto_Exclude	Value N

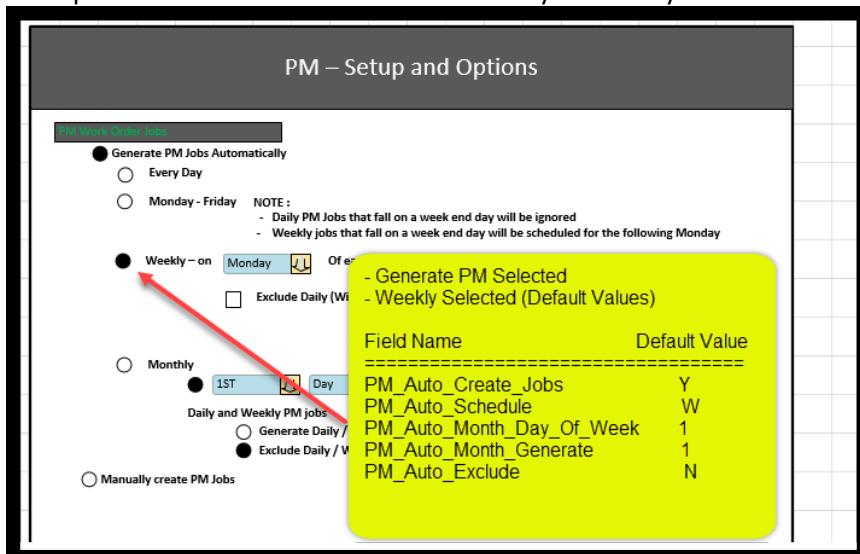
13.4 PM Option – Generate PM Jobs Automatically -> Monday - Friday



- 13.4.1 If Account User selects Generate PM Jobs Automatically -> Monday - Friday
the Database Default Values will be as follows :

PM_Auto_Create_Jobs	Value Y
PM_Auto_Schedule	Value F
PM_Auto_Month_Day_Of_Week	Value 1
PM_Auto_Month_Generate	Value Day
PM_Auto_Exclude	Value N

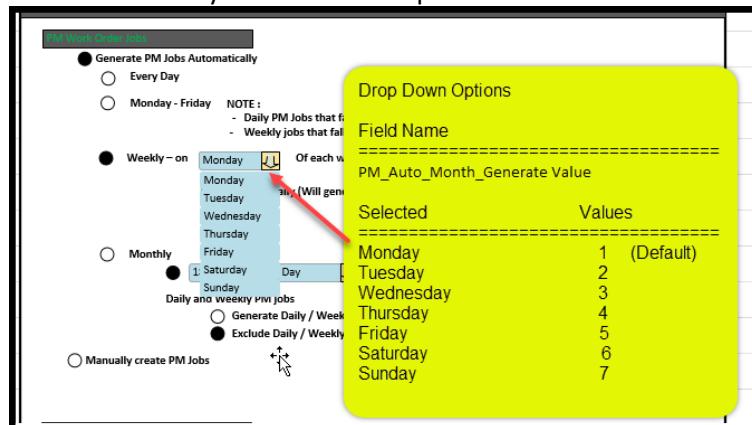
13.5 PM Option – Generate PM Jobs Automatically -> Weekly



- 13.5.1 If Account User selects Generate PM Jobs Automatically -> Weekly the Database Default Values will be as follows :

PM_Auto_Create_Jobs	Value	Y
PM_Auto_Schedule	Value	W
PM_Auto_Month_Day_Of_Week	Value	1
PM_Auto_Month_Generate	Value	1
PM_Auto_Exclude	Value	N

- 13.5.2 Account User Day of the week drop down values:

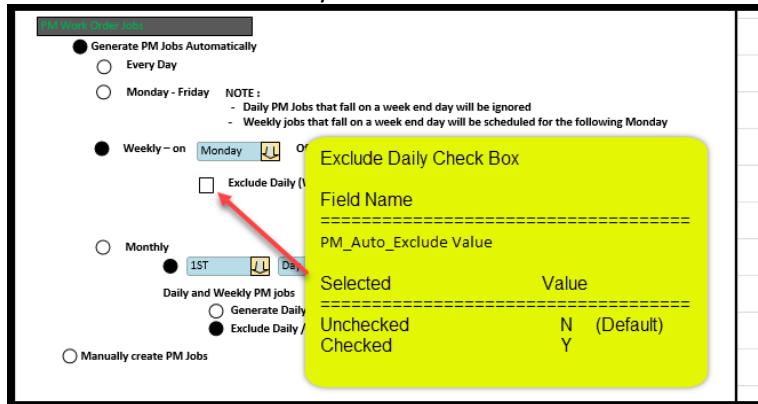


- 13.5.2.1 The value of “PM_Auto_Month_Generate” is as follows :

Monday	Value	1 (Default)
Tuesday	Value	2
Wednesday	Value	3
Thursday	Value	4
Friday	Value	5
Saturday	Value	6
Sunday	Value	7

NOTE : The “Day” Value is not a valid value when “Weekly” is selected

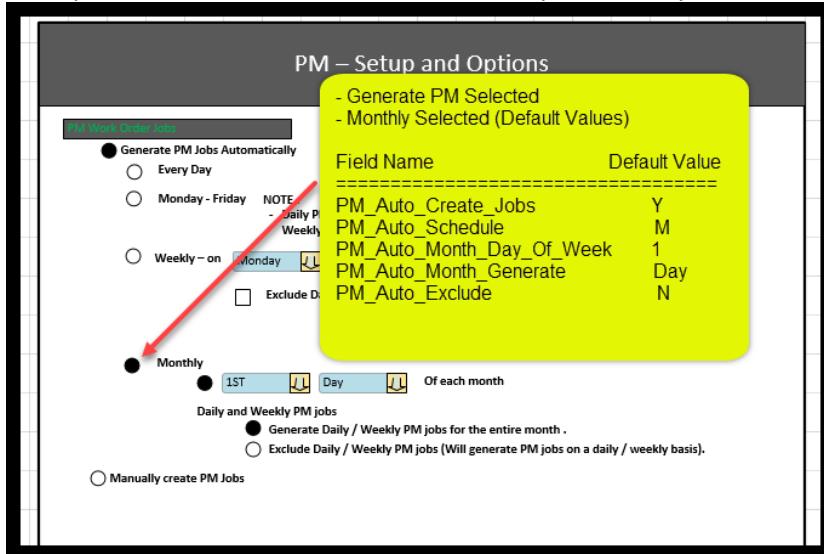
13.5.3 Account User Exclude Daily



13.5.3.1 The value of “**PM_Auto_Exclude**” is as follows :

Unchecked	Value	N (Default)
Checked	Value	Y

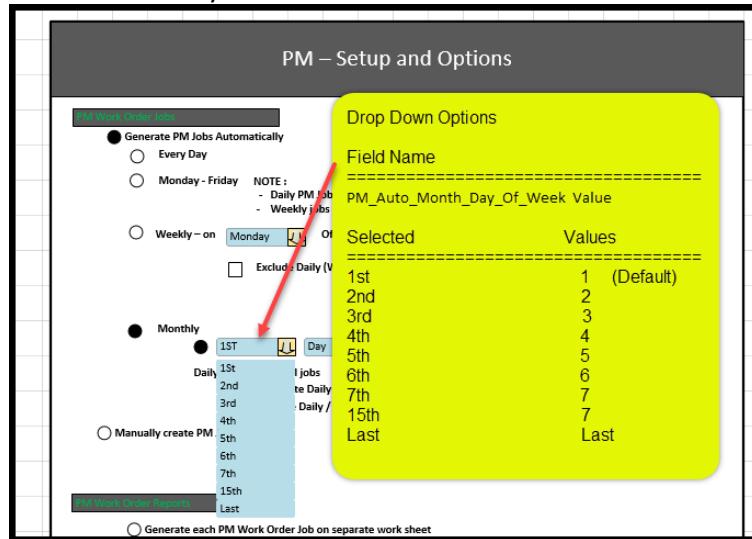
13.6 PM Option – Generate PM Jobs Automatically -> Monthly



13.6.1 If Account User selects Generate PM Jobs Automatically -> Monthly
the Database Default Values will be as follows :

PM_Auto_Create_Jobs	Value	Y
PM_Auto_Schedule	Value	M
PM_Auto_Month_Day_Of_Week	Value	1
PM_Auto_Month_Generate	Value	Day
PM_Auto_Exclude	Value	N

13.6.2 Account User Day of the Week

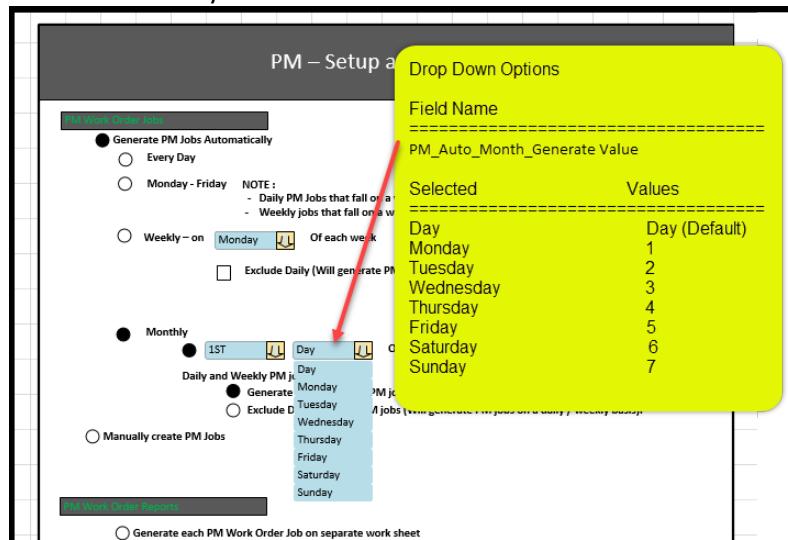


13.6.2.1

The value of "PM_Auto_Month_Day_Value" is as follows :

1 st	value	1 (Default)
2 nd	Value	2
3 rd	Value	3
4 th	Value	4
5 th	Value	5
6 th	Value	6
7 th	Value	7
15 th	Value	15
Last	Value	Last

13.6.3 Account User Day of the Week



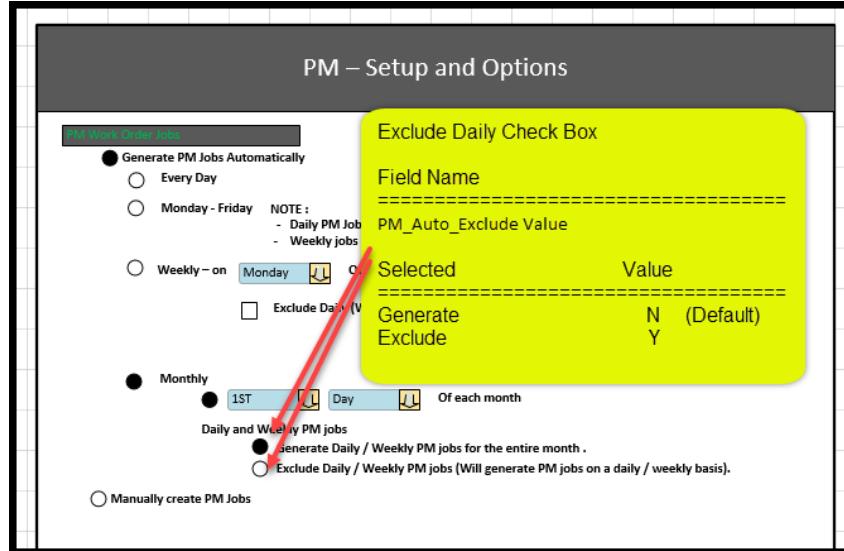
13.6.3.1

The value of "PM_Auto_Month_Generate" is as follows :

Day	Value	Day (Default)
Monday	Value	1
Tuesday	Value	2

Wednesday	Value	3
Thursday	Value	4
Friday	Value	5
Saturday	Value	6
Sunday	Value	7

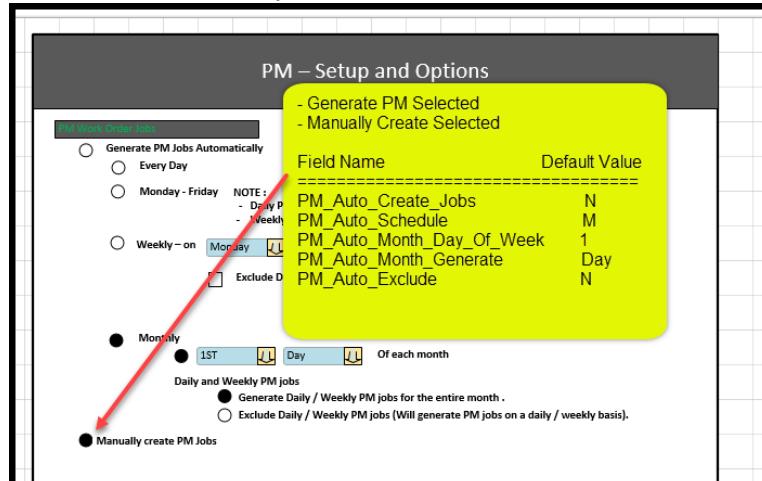
13.6.4 Account User Generate or Exclude Daily / Weekly PM Jobs



13.6.4.1 The value of “PM_Auto_Exclude” is as follows :

Generate Daily	Value	N (Default)
Exclude Daily	Value	Y

13.6.5 Account User Manually Create PM Jobs

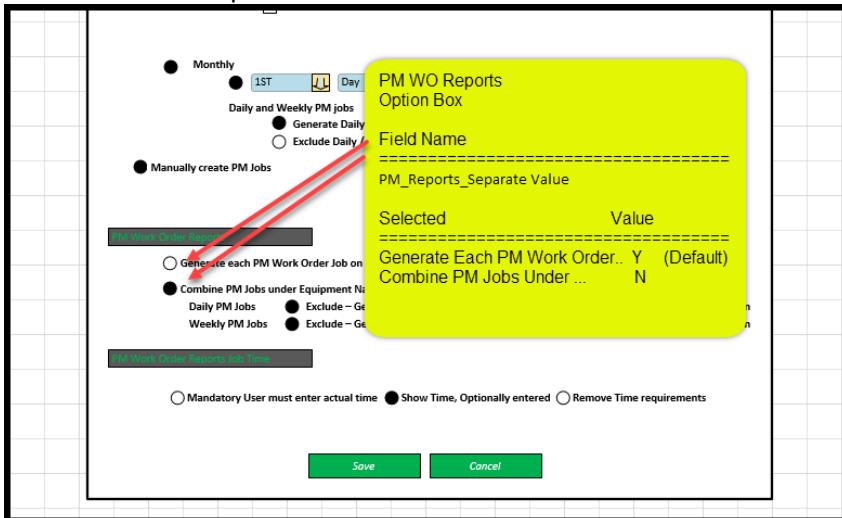


13.6.5.1 If Account User selects **Manually Create PM Jobs**

the Database Default Values will be as follows :

PM_Auto_Create_Jobs	Value	N
PM_Auto_Schedule	Value	M
PM_Auto_Month_Day_Of_Week	Value	1
PM_Auto_Month_Generate	Value	Day
PM_Auto_Exclude	Value	N

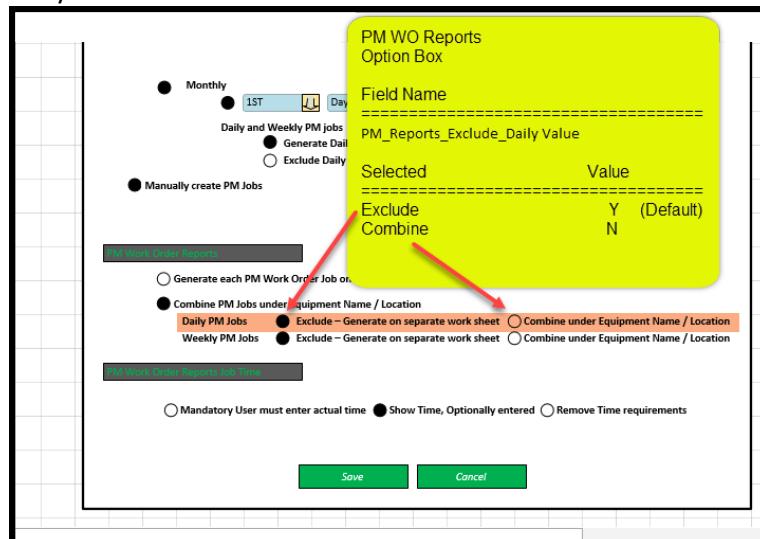
13.7 PM Work Order Reports



- 13.7.1 If Account User selects has two options for PM Work Order Reports
 The Value for **PM_Reports_Separate** is:

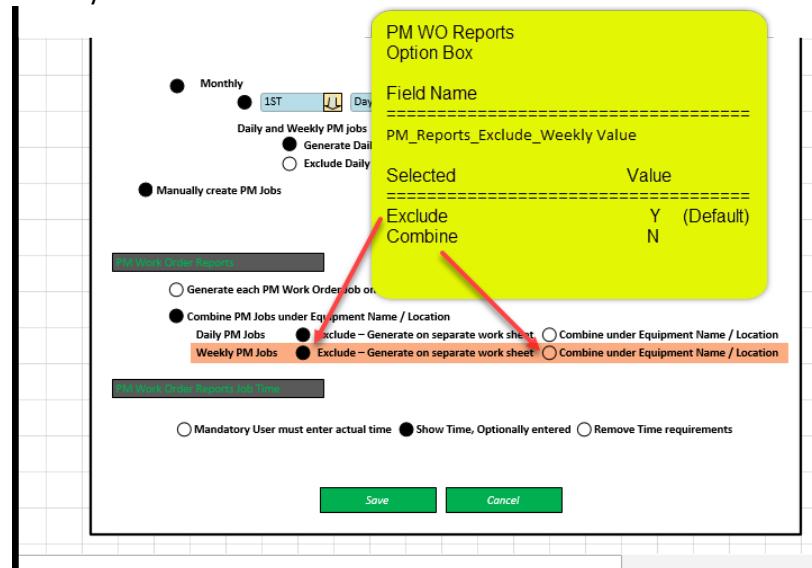
Generate each PM Work Order Job on Separate Work Sheet	Y (Default)
Combine PM Jobs under Equipment Name / Location	N

13.7.2 Daily PM Jobs



- 13.7.2.1 The values for **PM_Reports_Exclude_Daily** is
- | | | |
|---------|-------|-------------|
| Exclude | Value | Y (Default) |
| Combine | Value | N |

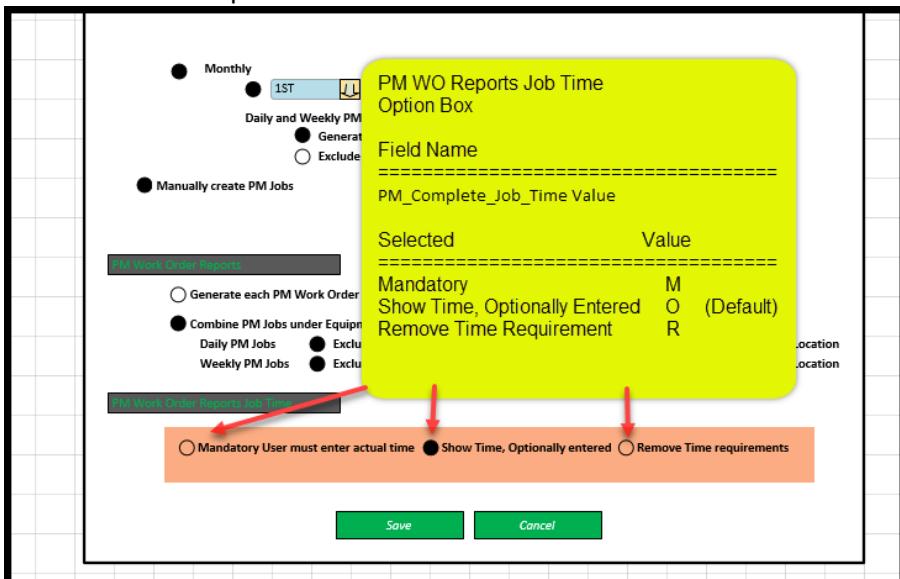
13.7.3 Weekly PM Jobs



13.7.3.1 The values for **PM_Reports_Exclude_Weekly** is

Exclude	Value	Y (Default)
Combine	Value	N

13.8 PM Work Order Report Job Time

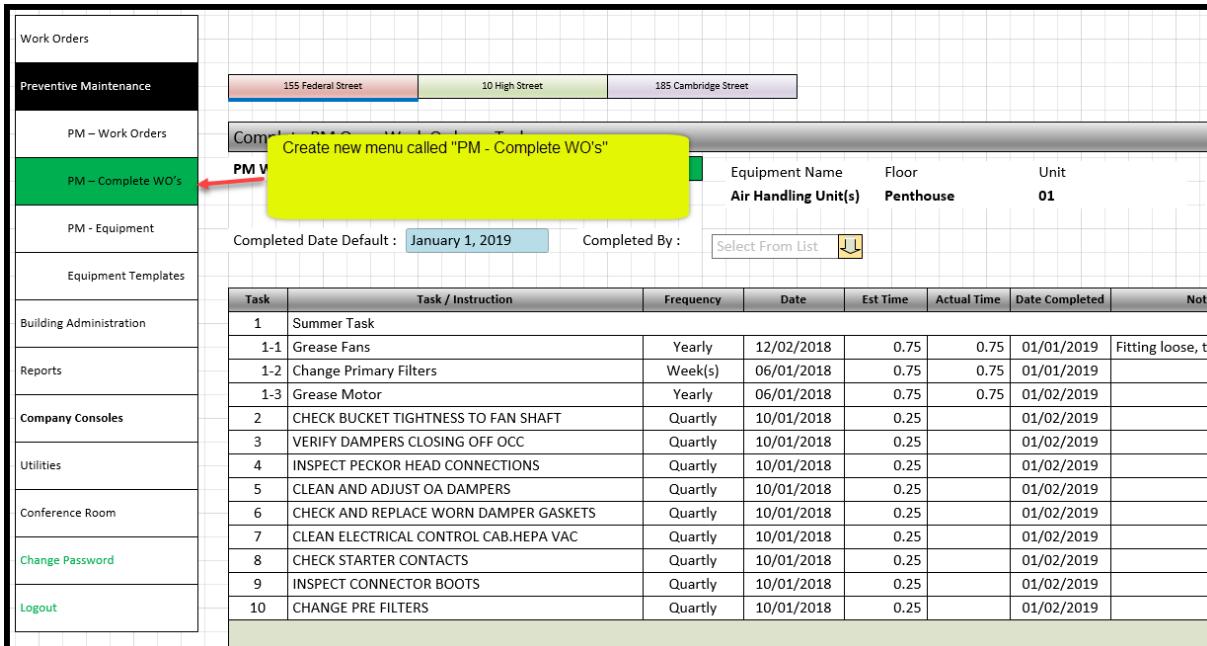


13.8.1.1 The values for **PM_Complete_Job_Time** is

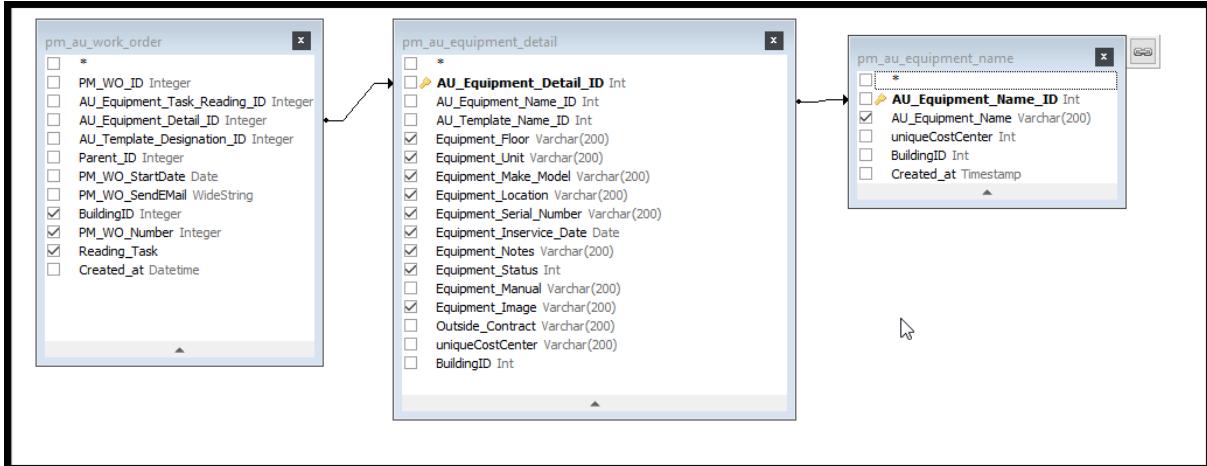
Mandatory	Value	M
Show Time, Optionally Entered	Value	O (Default)
Remove Time Requirement	Value	R

14.0 PM Complete WO's

- 14.1 Add a new Menu on the Preventive Maintenance Menu below "PM-Work Orders" called "PM – Complete WO's"



- 14.2 For each building, have a drop down list of all open PM Work Orders.



MySQL Text for displaying open work orders

```

SELECT
    pm_au_work_order.BuildingID AS BuildingID,
    pm_au_equipment_name.AU_Equipment_Name,
    pm_au_work_order.PM_WO_Number AS WO_Number,
    pm_au_equipment_detail.Equipment_Floor,
    pm_au_equipment_detail.Equipment_Unit,
    pm_au_equipment_detail.Equipment_Make_Model,
    pm_au_equipment_detail.Equipment_Location,
    pm_au_equipment_detail.Equipment_Serial_Number,
    pm_au_equipment_detail.Equipment_Inservice_Date,
    pm_au_equipment_detail.Equipment_Notes,
    pm_au_equipment_detail.Equipment_Status

```

```

pm_au_equipment_detail.Equipment_Image,
pm_au_equipment_detail.Equipment_Status,
pm_au_work_order.Reading_Task
FROM
pm_au_work_order
LEFT JOIN pm_au_equipment_detail ON pm_au_equipment_detail.AU_Equipment_Detail_ID =
pm_au_work_order.AU_Equipment_Detail_ID
LEFT JOIN pm_au_equipment_name ON pm_au_equipment_name.AU_Equipment_Name_ID =
pm_au_equipment_detail.AU_Equipment_Name_ID
WHERE
pm_au_work_order.BuildingID IN (1)
GROUP BY
pm_au_work_order.BuildingID,
pm_au_equipment_name.AU_Equipment_Name,
pm_au_work_order.PM_WO_Number,
pm_au_equipment_detail.Equipment_Floor,
pm_au_equipment_detail.Equipment_Unit,
pm_au_equipment_detail.Equipment_Make_Model,
pm_au_equipment_detail.Equipment_Location,
pm_au_equipment_detail.Equipment_Serial_Number,
pm_au_equipment_detail.Equipment_Inservice_Date,
pm_au_equipment_detail.Equipment_Notes,
pm_au_equipment_detail.Equipment_Image,
pm_au_equipment_detail.Equipment_Status,
pm_au_work_order.Reading_Task
ORDER BY
WO_Number

```

14.3 Query Result

BuildingID	AU_Equipment_Name	WO_Number	Equipment_Floor	Equipment_Unit	Equipment_Make_Model	Equipment_Location	Equipment_Serial_Number	Equipment_Inservice_Date	Equipment_Notes	Equipment_Image	Equipment_Status	Reading_Task
	Air Handling Units PH Equipment	1001 01	01	McQuade	First Floor	NBB100	4/1/2008	This is a very important note.	AHU.jpg	1 T		
	1 Auto Parts - Type Number 1	1002 01	01	Simpson & Echo Hello	1st Floor, next to # Sign	11@***** P +_	1/1/1967	Many Notes are put here.	F-99905.jpg	1 T		
	Air Handling Units PH Equipment	1003 02	01	125	West Side	12	12/31/1969	Some Notes.		1 T		
	1 Air Handling Units PH Equipment	1004 01	01	McQuade	First Floor	NBB100	4/1/2008	This is a very important note.	AHU.jpg	1 R		
	Air Handling Units PH Equipment	1005 01	01	McQuade	First Floor	NBB100	4/1/2008	This is a very important note.	AHU.jpg	1 T		
	Air Handling Units PH Equipment	1006 01	01	McQuade	First Floor	NBB100	4/1/2008	This is a very important note.	AHU.jpg	1 T		
	1 Auto Parts - Type Number 1	1007 01	01	Simpson & Echo Hello	1st Floor, next to # Sign	11@***** P +_	1/1/1967	Many Notes are put here.	F-99906.jpg	1 T		
	Air Handling Units PH Equipment	1008 02	01	125	West Side	12	12/31/1969	Some Notes.		1 T		
	Air Handling Units PH Equipment	1009 01	01	McQuade	First Floor	NBB100	4/1/2008	This is a very important note.	AHU.jpg	1 T		

14.4 The query result will go to the drop-down list in the “PM – Complete Wo’s” screen

Task	Description	Frequency	Start Date	Duration	Completion Date	Notes
1	Summer Task					
1-1	Grease Fans	Yearly	12/02/2018	0.75	0.75	01/01/2019
1-2	Change Primary Filters	Week(s)	06/01/2018	0.75	0.75	01/01/2019
1-3	Grease Motor	Yearly	06/01/2018	0.75	0.75	01/02/2019
2	CHECK BUCKET TIGHTNESS TO FAN SHAFT	Quarterly	10/01/2018	0.25		01/02/2019
3	VERIFY DAMPERS CLOSING OFF OCC	Quarterly	10/01/2018	0.25		01/02/2019
4	INSPECT PECKOR HEAD CONNECTIONS	Quarterly	10/01/2018	0.25		01/02/2019
5	CLEAN AND ADJUST OA DAMPERS	Quarterly	10/01/2018	0.25		01/02/2019
6	CHECK AND REPLACE WORN DAMPER GASKETS	Quarterly	10/01/2018	0.25		01/02/2019
7	CLEAN ELECTRICAL CONTROL CAB.HEPA VAC	Quarterly	10/01/2018	0.25		01/02/2019
8	CHECK STARTER CONTACTS	Quarterly	10/01/2018	0.25		01/02/2019
9	INSPECT CONNECTOR BOOTS	Quarterly	10/01/2018	0.25		01/02/2019
10	CHANGE PRE FILTERS	Quarterly	10/01/2018	0.25		01/02/2019

14.5 There will be two different screens, depending if the work order is a Task or Reading.

15.0 Task Completion Screen

15.1 If the work order is a task from 14.3 Result query

Equipment_Number	Equipment_Inservice_Date	Equipment_Notes	Equipment_Image	Equipment_Status	Reading_Task
4/1/2008		This is a very important note	AHU.jpeg		T
1/1/1967		If Reading_Task equal "T" then the work order is a Task, if the value is "R" then the work order is a Reading			T
12/31/1969					T
4/1/2008					R
4/1/2008					T
1/1/1967		Many Notes are put here	F-95906.jpg		T
12/31/1969		Some Notes			T
4/1/2008		This is a very important note	AHU.jpeg		T

15.2 Change Header to read: "Complete PM Open Work Order – Task "

Task	Task / Instruction	Frequency	Date	Est Time	Actual Time	Date Completed	Notes / Comments	Completed By
1	Summer Task							
1-1	Grease Fans	Yearly	12/02/2018	0.75	0.75	01/01/2019	Fitting loose, tighten and greased	Select From List
1-2	Change Primary Filters	Week(s)	06/01/2018	0.75	0.75	01/01/2019		Select From List
1-3	Grease Motor	Yearly	06/01/2018	0.75	0.75	01/02/2019		Select From List
2	CHECK BUCKET TIGHTNESS TO FAN SHAFT	Quarterly	10/01/2018	0.25		01/02/2019		Select From List
3	VERIFY DAMPERS CLOSING OFF OCC	Quarterly	10/01/2018	0.25		01/02/2019		Select From List
4	INSPECT PECKOR HEAD CONNECTIONS	Quarterly	10/01/2018	0.25		01/02/2019		Select From List
5	CLEAN AND ADJUST OA DAMPERS	Quarterly	10/01/2018	0.25		01/02/2019		Select From List
6	CHECK AND REPLACE WORN DAMPER GASKETS	Quarterly	10/01/2018	0.25		01/02/2019		Select From List
7	CLEAN ELECTRICAL CONTROL CAB.HEPA VAC	Quarterly	10/01/2018	0.25		01/02/2019		Select From List
8	CHECK STARTER CONTACTS	Quarterly	10/01/2018	0.25		01/02/2019		Select From List
9	INSPECT CONNECTOR BOOTS	Quarterly	10/01/2018	0.25		01/02/2019		Select From List
10	CHANGE PRE FILTERS	Quarterly	10/01/2018	0.25		01/02/2019		Select From List

15.3 Display the following Information from 14.3 Result Query:

- Equipment Name
- Floor
- Unit
- Location

Task	Task / Instruction	Frequency	Date	Est Time	Actual Time	Date Completed	Notes / Comments	Completed By
1	Summer Task							
1-1	Grease Fans	Yearly	12/02/2018	0.75	0.75	01/01/2019	Fitting loose, tighten and greased	Select From List
1-2	Change Primary Filters	Week(s)	06/01/2018	0.75	0.75	01/01/2019		Select From List
1-3	Grease Motor	Yearly	06/01/2018	0.75	0.75	01/02/2019		Select From List
2	CHECK BUCKET TIGHTNESS TO FAN SHAFT	Quarterly	10/01/2018	0.25		01/02/2019		Select From List
3	VERIFY DAMPERS CLOSING OFF OCC	Quarterly	10/01/2018	0.25		01/02/2019		Select From List
4	INSPECT PECKOR HEAD CONNECTIONS	Quarterly	10/01/2018	0.25		01/02/2019		Select From List
5	CLEAN AND ADJUST OA DAMPERS	Quarterly	10/01/2018	0.25		01/02/2019		Select From List
6	CHECK AND REPLACE WORN DAMPER GASKETS	Quarterly	10/01/2018	0.25		01/02/2019		Select From List
7	CLEAN ELECTRICAL CONTROL CAB.HEPA VAC	Quarterly	10/01/2018	0.25		01/02/2019		Select From List
8	CHECK STARTER CONTACTS	Quarterly	10/01/2018	0.25		01/02/2019		Select From List
9	INSPECT CONNECTOR BOOTS	Quarterly	10/01/2018	0.25		01/02/2019		Select From List
10	CHANGE PRE FILTERS	Quarterly	10/01/2018	0.25		01/02/2019		Select From List

15.4 The Account user will select a Work Order number from the drop-down list and populate the grid by using the following MySql Query.

- 15.5 Using the building ID, Reading_Task and Work Order number Where
- pm_au_work_order.Reading_Task = 'T' Where 'T' is from 14.3 result query
 - pm_au_work_order.BuildingID IN (2) Where (2) is the building ID
 - pm_au_work_order.PM_WO_Number = 1001 Where 1001 is the PM WO Selected

MySQL Text for displaying the TASK List :

```

SELECT
    pm_au_work_order.PM_WO_ID,
    pm_au_work_order.BuildingID,
    pm_au_work_order.PM_WO_Number,
    pm_au_template_task.View_order AS Sort_Order,
    pm_au_template_task.Task_Instruction,
    pm_au_work_order.PM_WO_StartDate,
    pm_au_work_order.Reading_Task,
    pm_au_work_order.Parent_ID AS WO_Parent_ID,
    pm_au_template_task.Task_jobtime AS JobTime,
    pm_au_template_task.AU_Template_Task_ID,
    pm_au_template_task.Parent_ID,
    pm_au_frequency.Name AS Frequency

FROM
    pm_au_work_order
    LEFT JOIN pm_au_equipment_task ON pm_au_equipment_task.AU_Equipment_Task_ID =
        pm_au_work_order.AU_Equipment_Task_Reading_ID
    LEFT JOIN pm_au_template_task ON pm_au_template_task.AU_Template_Task_ID =
        pm_au_equipment_task.AU_Template_Task_ID
    LEFT JOIN pm_au_frequency ON pm_au_frequency.AU_Frequency_ID =
        pm_au_template_task.AU_Frequency_ID

WHERE
    pm_au_work_order.Reading_Task = 'T' AND
    pm_au_work_order.BuildingID IN (2) AND
    pm_au_work_order.PM_WO_Number = 1001

GROUP BY
    pm_au_work_order.BuildingID,
    pm_au_work_order.PM_WO_Number,
    pm_au_template_task.View_order,
    pm_au_template_task.Task_Instruction,
    pm_au_work_order.Reading_Task,
    pm_au_work_order.Parent_ID,
    pm_au_template_task.AU_Template_Task_ID,
    pm_au_frequency.Name

UNION

SELECT
    pm_au_work_order.PM_WO_ID,
    pm_au_work_order.BuildingID,
    pm_au_work_order.PM_WO_Number,
    pm_au_template_task.View_order AS Sort_Order,
    pm_au_template_task.Task_Instruction,
    pm_au_work_order.PM_WO_StartDate,
```

pm_au_work_order.Reading_Task,
 pm_au_work_order.Parent_ID AS WO_Parent_ID,
 pm_au_template_task.Task_jobtime AS JobTime,
 pm_au_template_task.AU_Template_Task_ID,
 pm_au_template_task.Parent_ID,
 pm_au_frequency.Name AS Frequency

FROM

pm_au_work_order
LEFT JOIN pm_au_template_task **ON** pm_au_template_task.AU_Template_Task_ID =
 pm_au_work_order.Parent_ID
LEFT JOIN pm_au_equipment_task **ON** pm_au_equipment_task.AU_Equipment_Task_ID =
 pm_au_work_order.AU_Equipment_Task_Reading_ID
LEFT JOIN pm_au_frequency **ON** pm_au_frequency.AU_Frequency_ID =
 pm_au_template_task.AU_Frequency_ID

WHERE

pm_au_work_order.Reading_Task = 'T' AND
 pm_au_work_order.BuildingID IN (2) AND
 pm_au_work_order.PM_WO_Number = 1001 AND
 pm_au_work_order.Parent_ID > 0

GROUP BY

pm_au_work_order.BuildingID,
 pm_au_work_order.PM_WO_Number,
 pm_au_template_task.View_order,
 pm_au_template_task.Task_Instruction,
 pm_au_work_order.Reading_Task,
 pm_au_work_order.Parent_ID,
 pm_au_template_task.Task_jobtime,
 pm_au_template_task.AU_Template_Task_ID,
 pm_au_frequency.Name

ORDER BY

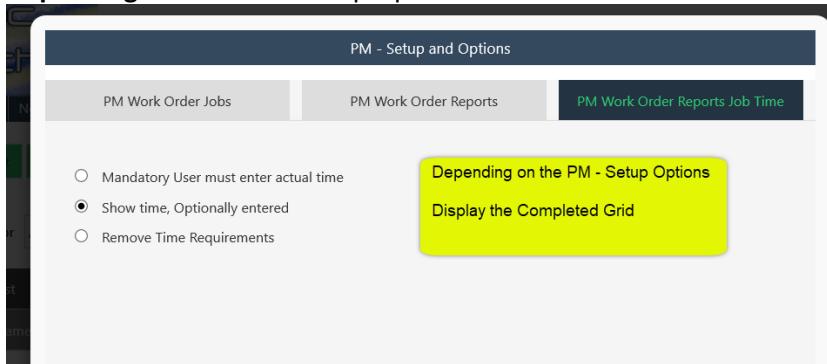
Sort_Order

15.6

Query Result:

PM_WO_ID	BuildingID	PM_WO_Number	Sort_Order	Task_Instruction	PM_WO_StartDate	Reading_Task	WO_Parent_ID	JobTime	AU_Template_Task_ID	Parent_ID	Frequency
77	2	1001	2	Summer Task	6/1/2018	T	1196	0.75	1196	0	0
82	2	1001	3	GREASE FAN	12/3/2018	T	1196	0.75	1192	1196	Yearly
77	2	1001	4	CHANGE PRIMARY FILTERS	6/1/2018	T	1196	0.75	1184	1196	Week(s)
79	2	1001	5	GREASE MOTOR	6/1/2018	T	1196	0.75	1191	1196	Yearly
75	2	1001	7	CHECK BUCKET TIGHTNESS TO FA...	10/1/2018	T	0	0.25	1177	0	Quarterly
78	2	1001	8	VERIFY DAMPERS CLOSING OFF O...	10/1/2018	T	0	0.25	1178	0	Quarterly
81	2	1001	9	INSPECT PECKOR HEAD CONNECTI...	10/1/2018	T	0	0.25	1179	0	Quarterly
84	2	1001	10	CLEAN AND ADJUST OA DAMPER...	10/1/2018	T	0	0.25	1180	0	Quarterly
87	2	1001	11	CHECK AND REPLACE WORN DAMP...	10/1/2018	T	0	0.25	1181	0	Bi-Yearly
90	2	1001	12	CLEAN ELECTRICAL CONTROL CAB...	10/1/2018	T	0	0.25	1182	0	Quarterly
93	2	1001	13	CHECK STARTER CONTACTS	10/1/2018	T	0	0.25	1183	0	Quarterly
80	2	1001	14	INSPECT CONNECTOR BOOTS	10/1/2018	T	0	0.75	1185	0	Quarterly
83	2	1001	15	CHANGE PRE FILTERS	10/1/2018	T	0	0.75	1186	0	Quarterly
86	2	1001	16	ADJUST BELTS	10/1/2018	T	0	0.75	1187	0	Quarterly
89	2	1001	17	CHECK MOTOR AND FAN SHEAVES	10/1/2018	T	0	0.75	1188	0	Quarterly
92	2	1001	18	CHECK VIBRATION ISOLATION SP...	10/1/2018	T	0	0.75	1189	0	Quarterly
76	2	1001	19	CLEAN ADJUST & LUBRICATE DAM...	10/1/2018	T	0	0.75	1190	0	Quarterly
85	2	1001	20	CHECK FAN AND MOTOR BEARINGS	10/1/2018	T	0	0.33	1193	0	Quarterly
88	2	1001	21	CLEAN UNIT AND MOTOR	10/1/2018	T	0	0.33	1194	0	Quarterly
91	2	1001	22	X - CLEAN CONDENSATE FLOOR D...	10/1/2018	T	0	0.33	1195	0	Quarterly

15.7 Depending on the PM – Setup Options:



- 15.7.1 Mandatory User must enter actual time,**
Display both “Est Time” and Actual Time” columns
“Actual Time” column will appear white and a value is mandatory in order to close out work order.

The screenshot shows the 'Complete PM Open Work Orders - Task' screen for PM WO Number 1001. It includes fields for 'Completed Date Default' (January 1, 2019) and 'Completed By' (Select From List). A yellow callout box highlights the 'PM Work Order Options' section, specifically the 'Show Both "Est Time" and "Actual Time" if' dropdown which lists 'Mandatory User must enter actual time with a white background or Show time, Optionally entered with an off white background'. Red arrows point from this text to the 'Actual Time' column header in the table below.

Task	Task / Instruction	Frequency	Date	Est Time	Actual Time	Date Completed	Notes / Comments	Completed By
1	Summer Task							
1-1	Grease Fans	Yearly	12/02/2018	0.75	0.75	01/01/2019	Fitting loose, tighten and greased	Select From List ADD
1-2	Change Primary Filters	Week(s)	06/01/2018	0.75	0.75	01/01/2019		Select From List ADD
1-3	Grease Motor	Yearly	06/01/2018	0.75	0.75	01/02/2019		Select From List ADD
2	CHECK BUCKET TIGHTNESS TO FAN SHAFT	Quarterly	10/01/2018	0.25		01/02/2019		Select From List ADD
3	VERIFY DAMPERS CLOSING OFF OCC	Quarterly	10/01/2018	0.25		01/02/2019		Select From List ADD
4	INSPECT PECKOR HEAD CONNECTIONS	Quarterly	10/01/2018	0.25		01/02/2019		Select From List ADD
5	CLEAN AND ADJUST OA DAMPERS	Quarterly	10/01/2018	0.25		01/02/2019		Select From List ADD
6	CHECK AND REPLACE WORN DAMPER GASKETS	Quarterly	10/01/2018	0.25		01/02/2019		Select From List ADD
7	CLEAN ELECTRICAL CONTROL CAB.HEPA VAC	Quarterly	10/01/2018	0.25		01/02/2019		Select From List ADD
8	CHECK STARTER CONTACTS	Quarterly	10/01/2018	0.25		01/02/2019		Select From List ADD
9	INSPECT CONNECTOR BOOTS	Quarterly	10/01/2018	0.25		01/02/2019		Select From List ADD
10	CHANGE PRE FILTERS	Quarterly	10/01/2018	0.25		01/02/2019		Select From List ADD

- 15.7.2 Show time, Optional entered,**
Display both “Est Time” and Actual Time” columns.
“Actual Time” column will appear off white and no value is required to close out work order.

The screenshot shows the 'Complete PM Open Work Orders - Task' screen for PM WO Number 1001. It includes fields for 'Completed Date Default' (January 1, 2019) and 'Completed By' (Select From List). A yellow callout box highlights the 'PM Work Order Options' section, specifically the 'Show Both "Est Time" and "Actual Time" if' dropdown which lists 'Mandatory User must enter actual time with a white background or Show time, Optionally entered with an off white background'. Red arrows point from this text to the 'Actual Time' column header in the table below.

Task	Task / Instruction	Frequency	Date	Ext Time	Actual Time	Date Completed	Notes / Comments	Completed By
1	Summer Task							
1-1	Grease Fans	Yearly	12/02/2018	0.75	0.75	01/01/2019	Fitting loose, tighten and greased	Select From List ADD
1-2	Change Primary Filters	Week(s)	06/01/2018	0.75	0.75	01/01/2019		Select From List ADD
1-3	Grease Motor	Yearly	06/01/2018	0.75	0.75	01/02/2019		Select From List ADD
2	CHECK BUCKET TIGHTNESS TO FAN SHAFT	Quarterly	10/01/2018	0.25		01/02/2019		Select From List ADD
3	VERIFY DAMPERS CLOSING OFF OCC	Quarterly	10/01/2018	0.25		01/02/2019		Select From List ADD
4	INSPECT PECKOR HEAD CONNECTIONS	Quarterly	10/01/2018	0.25		01/02/2019		Select From List ADD
5	CLEAN AND ADJUST OA DAMPERS	Quarterly	10/01/2018	0.25		01/02/2019		Select From List ADD
6	CHECK AND REPLACE WORN DAMPER GASKETS	Quarterly	10/01/2018	0.25		01/02/2019		Select From List ADD
7	CLEAN ELECTRICAL CONTROL CAB.HEPA VAC	Quarterly	10/01/2018	0.25		01/02/2019		Select From List ADD
8	CHECK STARTER CONTACTS	Quarterly	10/01/2018	0.25		01/02/2019		Select From List ADD
9	INSPECT CONNECTOR BOOTS	Quarterly	10/01/2018	0.25		01/02/2019		Select From List ADD
10	CHANGE PRE FILTERS	Quarterly	10/01/2018	0.25		01/02/2019		Select From List ADD

15.7.3 Remove Time Requirements

If "Remove Time Requirements" is selected, do not show either "Est Time" or Actual Time" columns and no value for "Actual Time" will be required.

Task	Task / Instruction	Frequency	Date	Date Completed	Notes / Comments	Completed By
1	Summer Task					
1-1	Grease Fans	Yearly	12/02/2018	01/01/2019	Fitting loose, tighten and greased	Select From List ADD
1-2	Change Primary Filters	Week(s)	06/01/2018	01/01/2019		Select From List ADD
1-3	Grease Motor	Yearly	06/01/2018	01/02/2019		Select From List ADD
2	CHECK BUCKET TIGHTNESS TO FAN SHAFT	Quarterly	10/01/2018	01/02/2019		Select From List ADD
3	VERIFY DAMPERS CLOSING OFF OCC	Quarterly	10/01/2018	01/02/2019		Select From List ADD
4	INSPECT PECKER HEAD CONNECTIONS	Quarterly	10/01/2018	01/02/2019		Select From List ADD
5	CLEAN AND ADJUST OA DAMPERS	Quarterly	10/01/2018	01/02/2019		Select From List ADD
6	CHECK AND REPLACE WORN DAMPER GASKETS	Quarterly	10/01/2018	01/02/2019		Select From List ADD
7	CLEAN ELECTRICAL CONTROL CAB.HEPA VAC	Quarterly	10/01/2018	01/02/2019		Select From List ADD
8	CHECK STARTER CONTACTS	Quarterly	10/01/2018	01/02/2019		Select From List ADD
9	INSPECT CONNECTOR BOOTS	Quarterly	10/01/2018	01/02/2019		Select From List ADD
10	CHANGE PRE FILTERS	Quarterly	10/01/2018	01/02/2019		Select From List ADD

- 15.8 Once the Account user select the work order number, fill in the Task information.

15.8.1 If the task has a Subset levels

- 15.8.1.1 Display the Subset level name
- 15.8.1.2 Highlight the row in blue
- 15.8.1.3 Subset level has no inputs values
- 15.8.1.4 All task under the subset will be indented as shown

Complete PM Open Work Orders - Task							PM Work Order Options	
PM WO Number	1001	Search	Reset	Equipment Name	Floor	Unit	Location	Print
Completed Date Default :	January 1, 2019	Completed By :	Select From List					
If Task includes any subsets, highlight row in blue								
Subset row will have NO inputs, for show only								
Task	Task / Instruction	Frequency	Date	Est Time	Actual Time	Date Completed	Notes / Comments	Completed By
1	Summer Task							
1-1	Grease Fans	Yearly	12/02/2018	0.75	0.75	01/01/2019	Fitting loose, tighten and greased	Select From List ADD
1-2	Change Primary Filters	Week(s)	06/01/2018	0.75	0.75	01/01/2019		Select From List ADD
1-3	Grease Motor	Yearly	06/01/2018	0.75	0.75	01/02/2019		Select From List ADD
2	CHECK BUCKET TIGHTNESS TO FAN SHAFT	Quarterly	10/01/2018	0.25		01/02/2019		Select From List ADD
3	VERIFY DAMPERS CLOSING OFF OCC					01/02/2019		Select From List ADD
4	INSPECT PECKER HEAD CONNECTIONS					01/02/2019		Select From List ADD
5	CLEAN AND ADJUST OA DAMPERS					01/02/2019		Select From List ADD
6	CHECK AND REPLACE WORN DAMPER GASKETS	Quarterly	10/01/2018	0.25		01/02/2019		Select From List ADD
7	CLEAN ELECTRICAL CONTROL CAB.HEPA VAC	Quarterly	10/01/2018	0.25		01/02/2019		Select From List ADD
8	CHECK STARTER CONTACTS	Quarterly	10/01/2018	0.25		01/02/2019		Select From List ADD
9	INSPECT CONNECTOR BOOTS	Quarterly	10/01/2018	0.25		01/02/2019		Select From List ADD
10	CHANGE PRE FILTERS	Quarterly	10/01/2018	0.25		01/02/2019		Select From List ADD

15.8.2 Display all Task Information in blue shading as Follows:

- 15.8.2.1 Task Number Display all Task by sort order
- 15.8.2.2 Task / Instruction Display Only, cannot be modified
- 15.8.2.3 Frequency Display Only, centered, cannot be modified
- 15.8.2.4 Date Display Only, centered, cannot be modified

15.8.2.5 EST Time

Estimated Time show only allowed in PM Option, display only, cannot be modified

Task	Task / Instruction	Frequency	Date	Est Time	Actual Time	Date Completed	Notes / Comments	Completed By
1 Summer Task				0.75	0.75	01/01/2019	Fitting loose, tighten and greased	Select From List
1-1 Grease Fans	Yearly	12/02/2018	0.75	0.75	01/01/2019			Select From List
1-2 Change Primary Filters	Week(s)	06/01/2018	0.75	0.75	01/02/2019			Select From List
1-3 Grease Motor	Yearly	06/01/2018	0.75	0.75	01/02/2019			Select From List
2 CHECK BUCKET TIGHTNESS TO FAN SHAFT	Quarterly	10/01/2018	0.25	0.25	01/02/2019			Select From List
3 VERIFY DAMPERS CLOSING OFF OCC	Quarterly	10/01/2018	0.25	0.25	01/02/2019			Select From List
4 INSPECT PECKOR HEAD CONNECTIONS	Quarterly	10/01/2018	0.25	0.25	01/02/2019			Select From List
5 CLEAN AND ADJUST OA DAMPERS	Quarterly	10/01/2018	0.25	0.25	01/02/2019			Select From List
6 CHECK AND REPLACE WORN DAMPER GASKETS	Quarterly	10/01/2018	0.25	0.25	01/02/2019			Select From List
7 CLEAN ELECTRICAL CONTROL CAB.HEPA VAC	Quarterly	10/01/2018	0.25	0.25	01/02/2019			Select From List
8 CHECK STARTER CONTACTS	Quarterly	10/01/2018	0.25	0.25	01/02/2019			Select From List
9 INSPECT CONNECTOR BOOTS	Quarterly	10/01/2018	0.25	0.25	01/02/2019			Select From List
10 CHANGE PRE FILTERS	Quarterly	10/01/2018	0.25	0.25	01/02/2019			Select From List

15.8.3 Competed Date Default:

- 15.8.3.1 Account user can select any day from a Date Picker date-drop-down or manually enter a date in the MM/DD/YYYY format
- 15.8.3.2 When the Account User select a date, automatically fill in the Date Completed in the task grid.
- 15.8.3.3 Account User still can change any one of the tasks competed dates and override the "Completed Date Default".

Task	Task / Instruction	Frequency	Date	Est Time	Actual Time	Date Completed	Notes / Comments	Completed By
1 Summer Task				0.75	0.75	01/01/2019	Fitting loose, tighten and greased	Select From List
1-1 Grease Fans	Yearly	12/02/2018	0.75	0.75	01/01/2019			Select From List
1-2 Change Primary Filters	Week(s)	06/01/2018	0.75	0.75	01/02/2019			Select From List
1-3 Grease Motor	Yearly	06/01/2018	0.75	0.75	01/02/2019			Select From List
2 CHECK BUCKET TIGHTNESS TO FAN SHAFT	Quarterly	10/01/2018	0.25	0.25	01/02/2019			Select From List
3 VERIFY DAMPERS CLOSING OFF OCC	Quarterly	10/01/2018	0.25	0.25	01/02/2019			Select From List
4 INSPECT PECKOR HEAD CONNECTIONS	Quarterly	10/01/2018	0.25	0.25	01/02/2019			Select From List
5 CLEAN AND ADJUST OA DAMPERS	Quarterly	10/01/2018	0.25	0.25	01/02/2019			Select From List
6 CHECK AND REPLACE WORN DAMPER GASKETS	Quarterly	10/01/2018	0.25	0.25	01/02/2019			Select From List
7 CLEAN ELECTRICAL CONTROL CAB.HEPA VAC	Quarterly	10/01/2018	0.25	0.25	01/02/2019			Select From List
8 CHECK STARTER CONTACTS	Quarterly	10/01/2018	0.25	0.25	01/02/2019			Select From List
9 INSPECT CONNECTOR BOOTS	Quarterly	10/01/2018	0.25	0.25	01/02/2019			Select From List
10 CHANGE PRE FILTERS	Quarterly	10/01/2018	0.25	0.25	01/02/2019			Select From List

15.8.4 Completed By:

- 15.8.4.1 Account User can select a person from the dropdown list box.
- 15.8.4.2 The completed by list is determined e-mail distribution group that was selected in the "Assign All Task(s) and Reading(s) to:"

Equipment Name	Fire Pumps	Attach Template	Pumps Fire Pump Fire
Unit:	12	Pump Default Ta	
Floor:	12		
Default all Start Date:		Status:	Active
		<input checked="" type="radio"/> Assign all Task(s) and Reading(s) To:	
		<input type="radio"/> Maintained by outside vendor:	
Outside vendor name:		Name :	

- 15.8.4.3 When the Account User selects “Completed By”, automatically fill in the “Completed By” column in the task grid with the select person.
- 15.8.4.4 Account User still can change any one of the “Completed By” and override the “Completed By Default”.

The screenshot shows a table with columns: Task, Task / Instruction, Frequency, Date, Est Time, Actual Time, Date Completed, Notes / Comments, and Completed By. A tooltip above the 'Completed By' column says: "Once the Account User select a person, automatically enter the person into the Task Grid under the 'Completed By' Column for all Tasks that are listed". Another tooltip on the right says: "Account User will also have the ability to change any one of the 'Completed By' rows an override the 'Completed By' drop down above." Red arrows point from the text to the 'Completed By' column header and the 'Completed By' column itself.

15.8.5 Data Entry in Task Grid – Reading Required

15.8.5.1 With Readings Required

15.8.5.2 Reading Actual time will have a white background

15.8.5.3 Account User will be required to enter values in the white area

The screenshot shows the same table structure as before, but the 'Actual Time' column has a white background. A tooltip above it says: "Reading Requires - Background is White". Another tooltip at the bottom right says: "Account user can only add entries in the white areas". Red arrows point from the text to the 'Actual Time' column header and the white background of the column.

15.8.5.4 Curser will move Left to Right when Account User is entering values

15.8.5.5 The Account User can use either the “Tab” or the “Return” to move to the next cell.

The screenshot shows the table with the 'Actual Time' column highlighted. A tooltip in the center says: "Required Filed Set 'Actual Time' as focused". A large green arrow points from the 'Actual Time' column to the right. A red arrow points from the 'Actual Time' column to the left. A yellow box on the right lists steps: 1 - Actual Time, 2 - Date Completed, 3 - Completed By, 4 - Checked (Completed), 5 - Note Comments. It also says: "Account User will start Left to right fill out data fields. Require Fields: 1 - Actual Time, 2 - Date Completed, 3 - Completed By, 4 - Checked (Completed), 5 - Note Comments. Optional Fields: 3 - Note Comments".

15.8.5.6 Field Requirements

- 15.8.5.6.1 Actual Time Required Numbers Only, Must be in format ###.##
- 15.8.5.6.2 Date Completed Required Date Format MM/DD/YYYY
- 15.8.5.6.3 Notes / Comments Optional
- 15.8.5.6.4 Completed Required If not check, the data will not be saved

15.8.6 Data Entry in Task Grid – Reading Optional

15.8.6.1 With Reading Optional

15.8.6.2 Reading Optional time will have a Off White background

15.8.6.3 Account User will NOT be required to enter values in the Off White area

Task	Task / Instruction	Frequency	Date	Est Time	Actual Time	Date Completed	Notes / Comments	Completed By
1	Summer Task							
1-1	Grease Fans	Yearly	12/02/2018	0.75	0.75	01/01/2019	Fitting loose, tighten and greased	Joe Smith <input checked="" type="checkbox"/>
1-2	Change Primary Filters	Weekly	06/01/2018	0.75	0.75	01/01/2019		Joe Smith <input checked="" type="checkbox"/>
1-3	Grease Motor	Yearly	06/01/2018	0.75	0.75	01/02/2019		Joe Smith <input checked="" type="checkbox"/>
2	CHECK BUCKET TIGHTNESS TO FAN SHAFT	Quarterly	10/01/2018	0.25		01/02/2019		Joe Smith <input checked="" type="checkbox"/>
3	VERIFY DAMPERS CLOSING OFF OCC	Quarterly	10/01/2018	0.25		01/02/2019		Joe Smith <input checked="" type="checkbox"/>
4	INSPECT PECKOR HEAD CONNECTIONS	Quarterly	10/01/2018	0.25		01/02/2019		Joe Smith <input checked="" type="checkbox"/>
5	CLEAN AND ADJUST OA DAMPERS	Quarterly	10/01/2018	0.25		01/02/2019		Joe Smith <input checked="" type="checkbox"/>
6	CHECK AND REPLACE WORN DAMPER GASKETS	Quarterly	10/01/2018	0.25		01/02/2019		Joe Smith <input checked="" type="checkbox"/>
7	CLEAN ELECTRICAL CONTROL CAB. HEPA VAC	Quarterly	10/01/2018	0.25		01/02/2019		Joe Smith <input checked="" type="checkbox"/>
8	CHECK STARTER CONTACTS	Quarterly	10/01/2018	0.25		01/02/2019		Joe Smith <input checked="" type="checkbox"/>
9	INSPECT CONNECTOR BOOTS	Quarterly	10/01/2018	0.25		01/02/2019		Joe Smith <input checked="" type="checkbox"/>
10	CHANGE PRE FILTERS	Quarterly	10/01/2018	0.25		01/02/2019		Joe Smith <input checked="" type="checkbox"/>

15.8.6.4 Cursor will move Left to Right when Account User is entering values

15.8.6.5 The Account User can use either the “Tab” or the “Return” to move to the next cell.

Task	Task / Instruction	Frequency	Date	Est Time	Actual Time	Date Completed	Notes / Comments	Completed By
1	Summer Task				0.75	01/01/2019		
1-1	Grease Fans	Yearly			0.75	01/01/2019	Fitting loose, tighten and greased	Joe Smith <input checked="" type="checkbox"/>
1-2	Change Primary Filters	Weekly			0.75	01/01/2019		Joe Smith <input checked="" type="checkbox"/>
1-3	Grease Motor	Yearly			0.75	01/01/2019		Joe Smith <input checked="" type="checkbox"/>
2	CHECK BUCKET TIGHTNESS TO FAN SHAFT	Quarterly			0.25	01/02/2019		Joe Smith <input checked="" type="checkbox"/>
3	VERIFY DAMPERS CLOSING OFF OCC	Quarterly	10/01/2018	0.25		01/02/2019		Joe Smith <input checked="" type="checkbox"/>
4	INSPECT PECKOR HEAD CONNECTIONS	Quarterly	10/01/2018	0.25		01/02/2019		Joe Smith <input checked="" type="checkbox"/>
5	CLEAN AND ADJUST OA DAMPERS	Quarterly	10/01/2018	0.25		01/02/2019		Joe Smith <input checked="" type="checkbox"/>
6	CHECK AND REPLACE WORN DAMPER GASKETS	Quarterly	10/01/2018	0.25		01/02/2019		Joe Smith <input checked="" type="checkbox"/>
7	CLEAN ELECTRICAL CONTROL CAB. HEPA VAC	Quarterly	10/01/2018	0.25		01/02/2019		Joe Smith <input checked="" type="checkbox"/>
8	CHECK STARTER CONTACTS	Quarterly	10/01/2018	0.25		01/02/2019		Joe Smith <input checked="" type="checkbox"/>
9	INSPECT CONNECTOR BOOTS	Quarterly	10/01/2018	0.25		01/02/2019		Joe Smith <input checked="" type="checkbox"/>
10	CHANGE PRE FILTERS	Quarterly	10/01/2018	0.25		01/02/2019		Joe Smith <input checked="" type="checkbox"/>

15.8.6.6 Field Requirements

- 15.8.6.6.1 Actual Time Optional Numbers Only, Must be in format ###.##
- 15.8.6.6.2 Date Completed Required Date Format MM/DD/YYYY
- 15.8.6.6.3 Notes / Comments Optional
- 15.8.6.6.4 Completed Required If not check, the data will not be saved

15.8.7 Data Entry in Task Grid – No Readings

15.8.7.1 Reading will not be shown

Task	Task / Instruction	Frequency	Date	Date Completed	Notes / Comments	Completed By
1 Summer Task		Yearly	12/02/2018	01/01/2019	Fitting loose, tighten and greased	
1-2 Change Primary Filters		Week(s)	06/01/2018	01/01/2019		
1-3 Grease Motor		Yearly	06/01/2018	01/01/2019		
2 CHECK BUCKET TIGHTNESS TO FAN SHAFT		Quarterly	10/01/2018	01/02/2019		
3 VERIFY DAMPERS CLOSING OFF OCC		Quarterly	10/01/2018	01/02/2019		
4 INSPECT PECKOR HEAD CONNECTIONS		Quarterly	10/01/2018	01/02/2019		
5 CLEAN AND ADJUST OA DAMPERS		Quarterly	10/01/2018	01/02/2019		
6 CHECK AND REPLACE WORN DAMPER GASKETS		Quarterly	10/01/2018	01/02/2019		
7 CLEAN ELECTRICAL CONTROL CAB,HEPA VAC		Quarterly	10/01/2018	01/02/2019		
8 CHECK STARTER CONTACTS		Quarterly	10/01/2018	01/02/2019		
9 INSPECT CONNECTOR BOOTS		Quarterly	10/01/2018	01/02/2019		
10 CHANGE PRE FILTERS		Quarterly	10/01/2018	01/02/2019		

15.8.7.2 Field Requirements

15.8.7.2.1 Date Completed Required Date Format MM/DD/YYYY

15.8.7.2.2 Notes / Comments Optional

15.8.7.2.3 Completed Required If not check, the data will not be saved

15.8.8 Check All

15.8.8.1 If Account User select the Check All then mark all Work Orders as completed.

15.8.8.2 The Account User can un-select them if they wish

Complete PM Open Work Orders - Task		PM WO Number	Search	Reset	Equipment Name	Floor	Unit	Location	Completed By	Completed
Completed Date Default : 01/01/2019		Completed Date Default :	01/01/2019	Completed By :	Joe Smith	Penthouse	01	Left side east penthouse	If the Account User selects "Check All" then enter a check mark for every work order	<input type="button" value="Complete"/>
										<input type="button" value="Check All"/>
Task	Task / Instruction	Frequency	Date	Est Time	Actual Time	Date Completed	Notes / Comments	Completed By	Completed	
1 Summer Task		Yearly	12/02/2018	0.75	0.75	01/01/2019	Fitting loose, tighten and greased	Joe Smith	<input checked="" type="checkbox"/>	<input type="checkbox"/>
1-1 Grease Fans		Yearly	06/01/2018	0.75	0.75	01/01/2019		Joe Smith	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
1-2 Change Primary Filters		Week(s)	06/01/2018	0.75	0.75	01/01/2019		Joe Smith	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
1-3 Grease Motor		Yearly	06/01/2018	0.75	0.75	01/02/2019		Joe Smith	<input checked="" type="checkbox"/>	<input type="checkbox"/>
2 CHECK BUCKET TIGHTNESS TO FAN SHAFT		Quarterly	10/01/2018	0.25		01/02/2019		Joe Smith	<input type="checkbox"/>	<input type="checkbox"/>
3 VERIFY DAMPERS CLOSING OFF OCC		Quarterly	10/01/2018	0.25		01/02/2019		Joe Smith	<input type="checkbox"/>	<input type="checkbox"/>
4 INSPECT PECKOR HEAD CONNECTIONS		Quarterly	10/01/2018	0.25		01/02/2019		Joe Smith	<input type="checkbox"/>	<input type="checkbox"/>
5 CLEAN AND ADJUST OA DAMPERS		Quarterly	10/01/2018	0.25		01/02/2019		Joe Smith	<input type="checkbox"/>	<input type="checkbox"/>
6 CHECK AND REPLACE WORN DAMPER GASKETS		Quarterly	10/01/2018	0.25		01/02/2019		Joe Smith	<input type="checkbox"/>	<input type="checkbox"/>
7 CLEAN ELECTRICAL CONTROL CAB,HEPA VAC		Quarterly	10/01/2018	0.25		01/02/2019		Joe Smith	<input type="checkbox"/>	<input type="checkbox"/>
8 CHECK STARTER CONTACTS		Quarterly	10/01/2018	0.25		01/02/2019		Joe Smith	<input type="checkbox"/>	<input type="checkbox"/>
9 INSPECT CONNECTOR BOOTS		Quarterly	10/01/2018	0.25		01/02/2019		Joe Smith	<input type="checkbox"/>	<input type="checkbox"/>
10 CHANGE PRE FILTERS		Quarterly	10/01/2018	0.25		01/02/2019		Joe Smith	<input type="checkbox"/>	<input type="checkbox"/>

15.8.9 Complete PM Work Orders

15.8.9.1 Create a new Table **pm_au_history** with the following fields:

MYSQL -

```
CREATE TABLE `pm_au_history` (
`PM_History_ID` int(11) NOT NULL,
`AU_Equipment_Task_Reading_ID` int(11) NOT NULL,
`AU_Equipment_Detail_ID` int(11) NOT NULL,
`AU_Template_Designation_ID` int(11) NOT NULL,
`Parent_ID` int(11) NOT NULL,
`PM_WO_StartDate` date NOT NULL,
`BuildingID` int(11) NOT NULL,
`PM_WO_Number` int(11) NOT NULL,
`Reading_Task` tinytext COLLATE utf8_unicode_ci NOT NULL,
`PM_Actual_JobTime` float NOT NULL,
`PM_WO_Complete_Date` date NOT NULL,
`PM_Note_Comments` varchar(255) COLLATE utf8_unicode_ci NOT NULL,
`PM_CompletedBy_UID` int(10) NOT NULL,
`Reading_Value` varchar(200) COLLATE utf8_unicode_ci NOT NULL,
`Created_at` timestamp NOT NULL DEFAULT CURRENT_TIMESTAMP ON UPDATE
```

CURRENT_TIMESTAMP

) ENGINE=MyISAM DEFAULT CHARSET=utf8 COLLATE=utf8_unicode_ci;

Indexes for table `pm_au_history`

ALTER TABLE `pm_au_history`

ADD PRIMARY KEY (`PM_History_ID`),

ADD UNIQUE KEY `PM_WO_ID`(`PM_History_ID`),

ADD KEY `AU_Equipment_Task_ID`(`AU_Equipment_Task_Reading_ID`);

15.8.9.2 When Account User selects “Complete”

15.8.9.2.1 Only Validate rows that have a check next to them

15.8.9.2.2 Validate the following fields:

15.8.9.2.2.1 Actual Time Only if required in PM Options

15.8.9.2.2.2 Date Completed

15.8.9.2.2.3 Completed By

15.8.9.2.3 If an entry is NOT checked as completed, then DO NOT add to the history table

Task	Task / Instruction	Frequency	Date	Est Time	Actual Time	Date Completed	Notes / Comments	Completed By
1	Summer Task							
1-1	Grease Fans	Yearly	12/02/2018	0.75	0.75	01/01/2019	Fitting loose, tighten and greased	Joe Smith <input checked="" type="checkbox"/>
1-2	Change Primary Filters	Week(s)	06/01/2018	0.75	0.75	01/01/2019		Joe Smith <input checked="" type="checkbox"/>
1-3	Grease Motor	Yearly	06/01/2018	0.75	0.75	01/02/2019		Joe Smith <input checked="" type="checkbox"/>
2	CHECK BUCKET TIGHTNESS TO FAN SHAFT	Quarterly	10/01/2018	0.25		01/02/2019		Joe Smith <input checked="" type="checkbox"/>
3	VERIFY DAMPERS CLOSING OFF OCC	Quarterly	10/01/2018					Joe Smith <input checked="" type="checkbox"/>
4	INSPECT PECKER HEAD CONNECTIONS	Quarterly	10/01/2018					Joe Smith <input checked="" type="checkbox"/>
5	CLEAN AND ADJUST OA DAMPERS	Quarterly	10/01/2018					Joe Smith <input checked="" type="checkbox"/>
6	CHECK AND REPLACE WORN DAMPER GASKETS	Quarterly	10/01/2018					Joe Smith <input checked="" type="checkbox"/>
7	CLEAN ELECTRICAL CONTROL CAB,HEPA VAC	Quarterly	10/01/2018					Joe Smith <input checked="" type="checkbox"/>
8	CHECK STARTER CONTACTS	Quarterly	10/01/2018	0.25		01/02/2019		Joe Smith <input checked="" type="checkbox"/>
9	INSPECT CONNECTOR BOOTS	Quarterly	10/01/2018	0.25		01/02/2019		Joe Smith <input checked="" type="checkbox"/>
10	CHANGE PRE FILTERS	Quarterly	10/01/2018	0.25		01/02/2019		Joe Smith <input checked="" type="checkbox"/>

15.8.9.2.4 IF the entry is not valid, let Account User know what is not valid and the set focus to the invalid entry.

15.8.9.2.5 IF all entries are valid, the enter the values into the history table

15.8.9.2.6 Use the data from the pmau_work_order table and copy them into the pm_au_history table.

History Table
pm_au_history

PM_History_ID	Auto_Increment
AU_Equipment_Task_Reading_ID	AU_Equipment_Task_Reading_ID
AU_Equipment_Detail_ID	AU_Equipment_Detail_ID
AU_Template_Designation_ID	AU_Template_Designation_ID
Parent_ID	Parent_ID
PM_WO_StartDate	PM_WO_StartDate
BuildingID	BuildingID
PM_WO_Number	PM_WO_Number
Reading_Task	"T"for Task

PM Work Order Table
pm_au_work_order

PM_Actual_JobTime Account User input or 0.00
 PM_WO_Complete_Date Account User input
 PM_Note_Comments Account User input or blank
 PM_CompletedBy_UID Account User input
 Reading_Value 0.00

- 15.8.9.2.7 Once all Checked entries are entered into the history table, Delete the corresponding entry from the pm_au_work_order table.

16.0 Reading Completion Screen

- 16.1 If the work order is a Reading form 14.3 Result query

al_Number	Equipment_Inservice_Date	Equipment_Notes	Equipment_Image	Equipment_Status	Reading_Task
4/1/2008	This is a very important note	AHU.jpeg	1 T	1 T	1 T
1/1/1967	Many Notes are put here	F-95906.jpg	1 T	1 T	1 T
12/31/1969	Some Notes		1 T	1 T	1 T
4/1/2008	This is a very important note	AHU.jpeg	1 T	1 T	1 T

- 16.2 Change Header to read: “Complete PM Open Work Order – Readings and Instruction to readings/Instructions

Task	Reading / Instruction	Frequency	Date	Assigned Value	Tolerance %	Reading Value	Date Completed	Notes / Comments	Completed By
1	Subset Voltage								
1-1	Check L1 Voltage	Monthly	12/02/2018	115 Volts	15	110.00	01/01/2019		Joe Smith <input checked="" type="checkbox"/>
1-2	Check L1 Voltage	Monthly	12/02/2018	115 Volts	15	110.00	01/01/2019		Joe Smith <input checked="" type="checkbox"/>
1-3	Check L1 Voltage	Monthly	12/02/2018	115 Volts	15	110.00	01/01/2019		Joe Smith <input checked="" type="checkbox"/>
1-4	Motor – Line Voltage	Monthly	12/02/2018	4 Volts	15	110.00	01/01/2019		Joe Smith <input type="checkbox"/>
2	Subset Readings								
2-1	Check L1 Amps	Monthly	12/02/2018	115 Volts	15	110.00	01/01/2019		Joe Smith <input type="checkbox"/>
2-2	Check L1 Amps	Monthly	12/02/2018	115 Volts	15	110.00	01/01/2019		Joe Smith <input type="checkbox"/>
2-3	Check L1 Amps	Monthly	12/02/2018	115 Volts	15	110.00	01/01/2019		Joe Smith <input type="checkbox"/>
3	Motor – RPM	Monthly	12/02/2018	875 RPM	10	110.00	01/01/2019		Joe Smith <input type="checkbox"/>

- 16.3 Display the following information form 14.3 Renault Query:

- Equipment
- Floor
- Unit

- Location

Task	Reading / Instruction	Frequency	Date	Assigned Value	Tolerance %	Reading Value	Date Completed	Notes / Comments	Completed By
1	Subset Voltage								
1-1	Check L1 Voltage	Monthly	12/02/2018	115 Volts	15	110.00	01/01/2019		Joe Smith <input checked="" type="checkbox"/>
1-2	Check L1 Voltage	Monthly	12/02/2018	115 Volts	15	108.00	01/01/2019		Joe Smith <input checked="" type="checkbox"/>
1-3	Check L1 Voltage	Monthly	12/02/2018	115 Volts	15		01/01/2019		Joe Smith <input checked="" type="checkbox"/>
1-4	Motor – Line Voltage	Monthly	12/02/2018	4 Volts	15		01/01/2019		Joe Smith <input type="checkbox"/>
2	Subset Readings								
2-1	Check L1 Amps	Monthly	12/02/2018	115 Volts	15		01/01/2019		Joe Smith <input type="checkbox"/>
2-2	Check L1 Amps	Monthly	12/02/2018	115 Volts	15		01/01/2019		Joe Smith <input type="checkbox"/>
2-3	Check L1 Amps	Monthly	12/02/2018	115 Volts	15		01/01/2019		Joe Smith <input type="checkbox"/>
3	Motor – RPM	Monthly	12/02/2018	875 RPM	10		01/01/2019		Joe Smith <input type="checkbox"/>

- 16.4 The Account User will select a Work Order number from the drop-down list and populate the grid by using the following MySQL Query
- 16.5 Using the building ID, Reading_Task and Work Order number Where
- pm_au_work_order.Reading_Task = 'R'
 - pm_au_work_order.BuildingID IN (7)
 - pm_au_work_order.PM_WO_Number = 1029
- Where 'R' is from 14.3 result query
Where (7) is the building ID
Where 1029 is the PM WO Selected

MySQL Text for displaying the Readings List :

SELECT

```
pm_au_work_order.PM_WO_ID,
pm_au_work_order.BuildingID,
pm_au_work_order.PM_WO_Number,
pm_au_work_order.PM_WO_StartDate,
pm_au_work_order.Reading_Task,
pm_au_work_order.Parent_ID AS WO_Parent_ID,
pm_au_frequency.Name AS Frequency,
pm_au_template_reading.AU_Template_Reading_ID,
pm_au_template_reading.Reading_Instruction,
pm_au_template_reading.Task_jobtime AS JobTime,
pm_au_template_reading.View_order AS Sort_Order,
pm_au_template_reading.Parent_ID,
pm_au_template_reading.Reading_Value,
pm_au_template_reading.Tolerance,
pm_au_unitofmeasure.Name AS Unit_of_Measure
```

FROM

```
pm_au_work_order
LEFT JOIN pm_au_equipment_readings ON pm_au_equipment_readings.AU_Equipment_Readings_ID =
pm_au_work_order.AU_Equipment_Task_Reading_ID
LEFT JOIN pm_au_template_reading ON pm_au_template_reading.AU_Template_Reading_ID =
pm_au_equipment_readings.AU_Template_Reading_ID
```

```


LEFT JOIN pm_au_frequency ON pm_au_frequency.AU_Frequency_ID =
pm_au_template_reading.AU_Frequency_ID
LEFT JOIN pm_au_unitofmeasure ON pm_au_unitofmeasure.AU_uom_ID =
pm_au_template_reading.AU_uom_ID
WHERE
pm_au_work_order.Reading_Task = 'R' AND
pm_au_work_order.BuildingID IN (7) AND
pm_au_work_order.PM_WO_Number = 1029
GROUP BY
pm_au_work_order.BuildingID,
pm_au_work_order.PM_WO_Number,
pm_au_work_order.Reading_Task,
pm_au_work_order.Parent_ID,
pm_au_frequency.Name,
pm_au_template_reading.AU_Template_Reading_ID,
pm_au_template_reading.Reading_Instruction,
pm_au_template_reading.Task_jobtime,
pm_au_template_reading.View_order,
pm_au_template_reading.Parent_ID,
pm_au_template_reading.Interval_Value,
pm_au_template_reading.Reading_Value,
pm_au_template_reading.Tolerance,
pm_au_unitofmeasure.Name
UNION
SELECT
pm_au_work_order.PM_WO_ID,
pm_au_work_order.BuildingID,
pm_au_work_order.PM_WO_Number,
pm_au_work_order.PM_WO_StartDate,
pm_au_work_order.Reading_Task,
pm_au_work_order.Parent_ID AS WO_Parent_ID,
pm_au_frequency.Name AS Frequency,
pm_au_template_reading.AU_Template_Reading_ID,
pm_au_template_reading.Reading_Instruction,
pm_au_template_reading.Reading_Value,
pm_au_template_reading.Tolerance,
pm_au_template_reading.Task_jobtime AS JobTime,
pm_au_template_reading.View_order AS Sort_Order,
pm_au_template_reading.Parent_ID,
pm_au_unitofmeasure.Name AS Unit_of_Measure
FROM
pm_au_work_order
LEFT JOIN pm_au_equipment_readings ON pm_au_equipment_readings.AU_Equipment_Readings_ID =
pm_au_work_order.AU_Equipment_Task_Reading_ID
LEFT JOIN pm_au_template_reading ON pm_au_template_reading.AU_Template_Reading_ID =
pm_au_work_order.Parent_ID
LEFT JOIN pm_au_frequency ON pm_au_frequency.AU_Frequency_ID =
pm_au_template_reading.AU_Frequency_ID


```

```

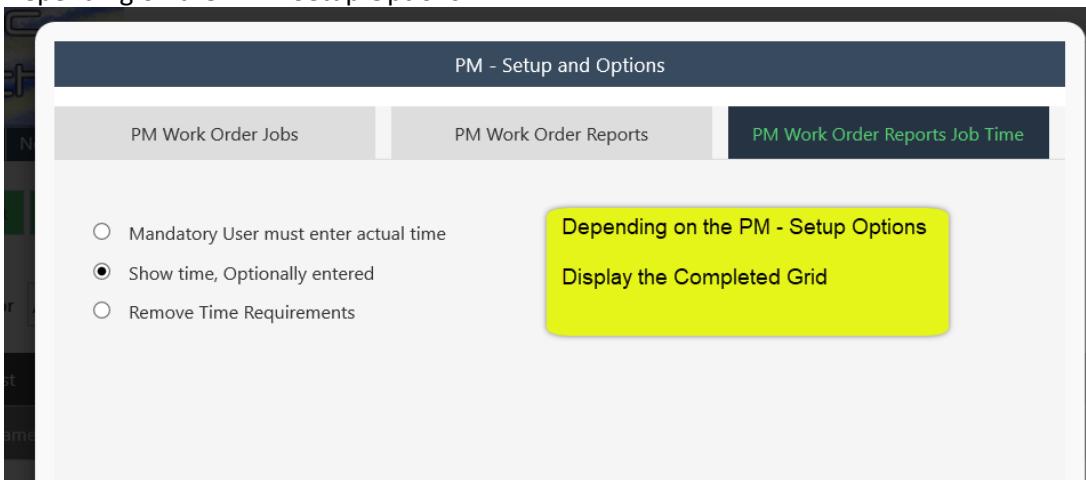

LEFT JOIN pm_au_unitofmeasure ON pm_au_unitofmeasure.AU_uom_ID =
pm_au_template_reading.AU_uom_ID
WHERE
pm_au_work_order.Reading_Task = 'R' AND
pm_au_work_order.BuildingID IN (7) AND
pm_au_work_order.PM_WO_Number = 1029 AND
pm_au_work_order.Parent_ID > 0
GROUP BY
pm_au_work_order.BuildingID,
pm_au_work_order.PM_WO_Number,
pm_au_work_order.Reading_Task,
pm_au_work_order.Parent_ID,
pm_au_frequency.Name,
pm_au_template_reading.AU_Template_Reading_ID,
pm_au_template_reading.Reading_Instruction,
pm_au_template_reading.Interval_Value,
pm_au_template_reading.Reading_Value,
pm_au_template_reading.Tolerance,
pm_au_template_reading.Task_jobtime,
pm_au_template_reading.View_order,
pm_au_template_reading.Parent_ID,
pm_au_unitofmeasure.Name
ORDER BY
Sort_Order


```

16.6 Query Result:

PM_WO_ID	BuildingID	PM_WO_Number	PM_WO_StartDate	Reading_Task	WO_Parent_ID	Frequency	AU_Template_Reading_ID	Reading_Instruction	JobTime	Sort_Order	Parent_ID	Reading_Value	Tolerance	Unit_of_Measure
352	7	1029	1/1/2019	R		1691		1691 Voltage Readings				0		
351	7	1029	1/1/2019	R		1695		1695 Amperage Readings				0		
353	7	1029	1/1/2019	R		1691 Monthly		1692 Check L1 Voltage	0.17	100	1691	115	15.00	Volts(s)
355	7	1029	1/1/2019	R		1691 Monthly		1693 Check L2 Voltage	0.17	101	1691	115	15.00	Volts(s)
356	7	1029	1/1/2019	R		1691 Monthly		1694 Check L3 Voltage	0.17	102	1691	115	15.00	Volts(s)
357	7	1029	1/1/2019	R		1695 Monthly		1696 Check L1 Amps	0.17	103	1695	31	15.00	Amp(s)
358	7	1029	1/1/2019	R		1695 Monthly		1697 Check L2 Amps	0.17	104	1695	31	15.00	Amp(s)
351	7	1029	1/1/2019	R		1695 Monthly		1698 Check L3 Amps	0.17	105	1695	31	15.00	Amp(s)
352	7	1029	1/1/2019	R		1691 Monthly		1709 Motor - Line Voltage	0.42	110	1691	4	15.00	Amp(s)
354	7	1029	1/1/2019	R		0 Monthly		1710 Motor RPM	0.42	111	0	4	15.00	RPM(s)

16.7 Depending on the PM – Setup Options:



16.7.1 Mandatory User must enter actual time,

Display both "Est Time" and Actual Time" columns

"Actual Time" column will appear white and a value is mandatory in order to close out work order.

The screenshot shows a software interface for managing work orders. At the top, there's a search bar with 'PM WO Number' set to '1031'. Below it, a yellow callout box contains the text: 'Show Both "Est Time" and "Actual Time" if - Mandatory User must enter actual time with a white background or - Show time, Optionally entered with an off white background'. The main area is a table with columns: Task, Task / Instruction, Frequency, Date, Est Time, Assigned Value, Tolerance %, Actual Time, Reading Value, Date Completed, Notes / Comments, and Completed By. The 'Actual Time' column is highlighted with a white background. The table data includes tasks like 'Subset Voltage' and 'Subset Readings' with various sub-tasks and their details.

16.7.2 Show time, Optional entered,

Display both "Est Time" and Actual Time" columns. "Actual Time" column will appear off white and no value is required to close out work order.

This screenshot is similar to the previous one, showing the same software interface and table structure. The yellow callout box at the top contains the same instructions: 'Show Both "Est Time" and "Actual Time" if - Mandatory User must enter actual time with a white background or - Show time, Optionally entered with an off white background'. The 'Actual Time' column is highlighted with an off-white background. The table data is identical to the first screenshot.

16.7.3 Remove Time Requirements

If "Remove Time Requirements" is selected, do not show either "Est Time" or Actual Time" columns

and no value for "Actual Time" will be required.

Task	Task / Instruction	Frequency	Date	Assigned Value	Tolerance %	Reading Value	Date Completed	Notes / Comments	Completed By
1	Subset Voltage								
1-1	Check L1 Voltage	Monthly	12/02/2018	115 Volts	15	110.00	01/01/2019		Select From L
1-2	Check L1 Voltage	Monthly	12/02/2018	115 Volts	15	108.00	01/01/2019		Select From L
1-3	Check L1 Voltage	Monthly	12/02/2018	115 Volts	15		01/01/2019		Select From L
1-4	Motor – Line Voltage	Monthly	12/02/2018	4 Volts	15		01/01/2019		Select From L
2	Subset Readings								
2-1	Check L1 Amps	Monthly	12/02/2018	115 Volts	15		01/01/2019		Select From L
2-2	Check L1 Amps	Monthly	12/02/2018	115 Volts	15		01/01/2019		Select From L
2-3	Check L1 Amps	Monthly	12/02/2018	115 Volts	15		01/01/2019		Select From L
3	Motor – RPM	Monthly	12/02/2018	875 RPM	10		01/01/2019		Select From L

16.8 Once the Account user select the work order number, fill in the Readings information.

16.8.1 If the Reading has a Subset levels

- 16.8.1.1 Display the Sunset level name
- 16.8.1.2 Highlight the row in blue
- 16.8.1.3 Subset level has no input values
- 16.8.1.4 All readings under the subset will be indented as shown

Task	Task / Instruction	Frequency	Date	Assigned Value	Tolerance %	Reading Value	Date Completed	Notes / Comments	Completed By
1	Subset Voltage								
1-1	Check L1 Voltage	Monthly	12/02/2018	115 Volts	15	110.00	01/01/2019		Select From L
1-2	Check L1 Voltage	Monthly	12/02/2018	115 Volts	15	108.00	01/01/2019		Select From L
1-3	Check L1 Voltage	Monthly	12/02/2018	115 Volts	15		01/01/2019		Select From L
1-4	Motor – Line Voltage	Monthly	12/02/2018	4 Volts	15		01/01/2019		Select From L
2	Subset Readings								
2-1	Check L1 Amps	Monthly	12/02/2018	115 Volts	15		01/01/2019		Select From L
2-2	Check L1 Amps	Monthly	12/02/2018	115 Volts	15		01/01/2019		Select From L
2-3	Check L1 Amps	Monthly	12/02/2018	115 Volts	15		01/01/2019		Select From L
3	Motor – RPM	Monthly	12/02/2018	875 RPM	10		01/01/2019		Select From L

16.8.2 Display all Reading information in blue shading as follows:

- | | | |
|----------|-----------------------|---|
| 16.8.2.1 | Task Number | Display all Task by sort order |
| 16.8.2.2 | Reading / Instruction | Display only, cannot be modified |
| 16.8.2.3 | Frequency | Display only, centered, cannot be modified |
| 16.8.2.4 | Date | Display only, centered, cannot be modified |
| 16.8.2.5 | EST Time | Estimated Time show only if allowed in PM Option, display only, cannot be modified. |

Complete PM Open Work Orders - Readings											
PM WO Number		1031	Search Reset		Equipment Name		Floor	Unit	Location		
Completed Date Default :		January 1, 2019	Completed By :		Select From List		Equipment@123	03	01	Wests	
Task	Reading / Instruction	Frequency	Date	Assigned Value	Tolerance %	Reading Value	Date Completed	Notes / Comments	Completed By		
1	Subset Voltage										
1-1	Check L1 Voltage	Monthly	12/02/2018	115 Volts	15	110.00	01/01/2019		Joe Smith	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
1-2	Check L1 Voltage	Monthly	12/02/2018	115 Volts	15	108.00	01/01/2019		Joe Smith	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
1-3	Check L1 Voltage	Monthly	12/02/2018	115 Volts	15				Joe Smith	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
1-4	Motor – Line Voltage	Monthly	12/02/2018	4 Volts	15				Joe Smith	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
2	Subset Readings										
2-1	Check L1 Amps	Monthly	12/02/2018	115 Volts	15				Joe Smith	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
2-2	Check L1 Amps	Monthly	12/02/2018	115 Volts	15				Joe Smith	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
2-3	Check L1 Amps	Monthly	12/02/2018	115 Volts	15				Joe Smith	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
3	Motor – RPM	Monthly	12/02/2018	875 RPM	10				Joe Smith	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

16.8.2.6

16.8.3 Complete Date Default: will be the same as 15.8.3

16.8.4 Completed By: will be the same as 15.8.4

16.8.5 Data Entry in Reading Grid – Job Time Optional

16.8.5.1 With PM – Setup and Options – Show Time, Optional entered

16.8.5.2 Actual Job Time will have an Off-White Background

16.8.5.3 Account User will NOT be required to enter Job Time in the off-white area

Job Time Options - Background is Off-White											
Task	Reading / Instruction	Frequency	Date	Est Time	Assigned Value	Tolerance %	Actual Time	Reading Value	Date Completed	Notes / Comments	Completed By
1	Subset Voltage										
1-1	Check L1 Voltage	Monthly	12/02/2018	5.00	115 Volts	15	5.0	110.00	01/01/2019		Joe Smith <input checked="" type="checkbox"/> <input checked="" type="checkbox"/>
1-2	Check L1 Voltage	Monthly	12/02/2018	5.00	115 Volts	15	5.0	108.00	01/01/2019		Joe Smith <input checked="" type="checkbox"/> <input checked="" type="checkbox"/>
1-3	Check L1 Voltage	Monthly	12/02/2018	5.00	115 Volts	15			01/01/2019		Joe Smith <input checked="" type="checkbox"/> <input checked="" type="checkbox"/>
1-4	Motor – Line Voltage	Monthly	12/02/2018	5.00	4 Volts	15			01/01/2019		Joe Smith <input checked="" type="checkbox"/> <input checked="" type="checkbox"/>
2	Subset Readings										
2-1	Check L1 Amps	Monthly	12/02/2018	5.00	115 Volts	15			01/01/2019		Joe Smith <input checked="" type="checkbox"/> <input checked="" type="checkbox"/>
2-2	Check L1 Amps	Monthly	12/02/2018	5.00	115 Volts	15			01/01/2019		Joe Smith <input checked="" type="checkbox"/> <input checked="" type="checkbox"/>
2-3	Check L1 Amps	Monthly	12/02/2018	5.00	115 Volts	15			01/01/2019		Joe Smith <input checked="" type="checkbox"/> <input checked="" type="checkbox"/>
3	Motor – RPM	Monthly	12/02/2018	5.00	875 RPM	10			01/01/2019		Joe Smith <input checked="" type="checkbox"/> <input checked="" type="checkbox"/>

16.8.5.4 Cursor will move Left to Right when Account User is entering values

16.8.5.5 The Account User can use either the “Tab” or the “Return” to move to the next cell.

Task	Reading / Instruction	Frequency	Date	Est Time	Assigned Value	Tolerance %	Actual Time	Reading Value	Date Completed	Notes / Comments	Completed By
1	Subset Voltage										
1-1	Check L1 Voltage	Monthly	12/02/2018	5.00	115 Volts	15	5.0	110.00	01/01/2019		Joe Smith <input checked="" type="checkbox"/> <input checked="" type="checkbox"/>
1-2	Check L1 Voltage	Monthly	12/02/2018	5.00	115 Volts	15	5.0	108.00	01/01/2019		Joe Smith <input checked="" type="checkbox"/> <input checked="" type="checkbox"/>
1-3	Check L1 Voltage	Monthly	12/02/2018	5.00	115 Volts	15			01/01/2019		Joe Smith <input checked="" type="checkbox"/> <input checked="" type="checkbox"/>
1-4	Motor – Line Voltage	Monthly	12/02/2018	5.00	4 Volts	15			01/01/2019		Joe Smith <input checked="" type="checkbox"/> <input checked="" type="checkbox"/>
2	Subset Readings										
2-1	Check L1 Amps	Monthly	12/02/2018	5.00	115 Volts	15			01/01/2019		Joe Smith <input checked="" type="checkbox"/> <input checked="" type="checkbox"/>
2-2	Check L1 Amps	Monthly	12/02/2018	5.00	115 Volts	15			01/01/2019		Joe Smith <input checked="" type="checkbox"/> <input checked="" type="checkbox"/>
2-3	Check L1 Amps	Monthly	12/02/2018	5.00	115 Volts	15			01/01/2019		Joe Smith <input checked="" type="checkbox"/> <input checked="" type="checkbox"/>
3	Motor – RPM	Monthly	12/02/2018	5.00	875 RPM	10					

16.8.5.6 Field Requirements

16.8.5.6.1 Actual Time

Optional Number only format ####.##

16.8.5.6.2 Reading Value

Required format ##.## Numbers only

16.8.5.6.3 Date Completed

Required Date Format MM/DD/YYYY

16.8.5.6.4	Notes / Comments	Optional
16.8.5.6.5	Completed by	Required
16.8.5.6.6	Complete saved	Required If not checked, the data will not be

16.8.6 Check All see 15.8.8 for reference

16.8.7 Tolerance Check

16.8.7.1 When Account User enters the reading value then system will do the following:

- 16.8.7.1.1 Evaluate the reading value entered and make sure it within the tolerance Example

Assigned Value	115
Tolerance %	15%

Acceptable Values

High 115 - (115 * .15)	132.25
Low 115 – (115 * .15)	97.75

If Account User value entered a value between 97.75 and 132.25 then the value is within acceptable value and nothing else need to be done.

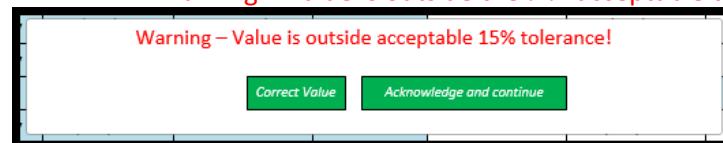
If the Account User enters a value lower than 97.75 or higher 132.25

Turn value RED

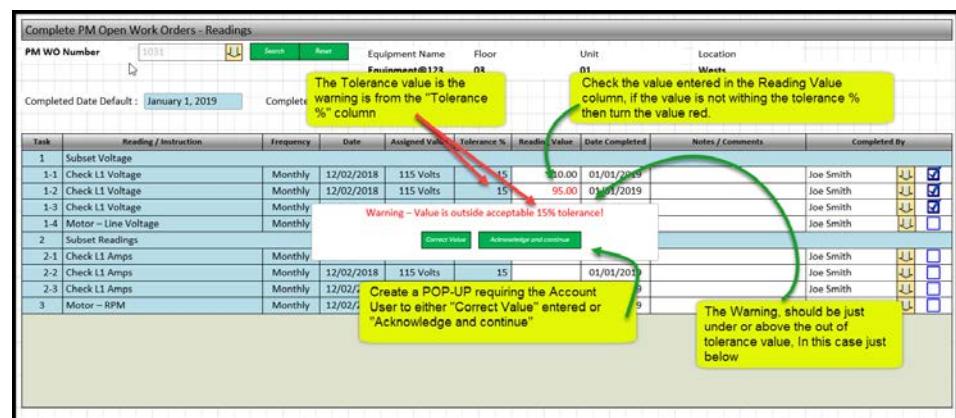
Generate a POP-UP requiring the Account User to either “Correct Value” entered or “Acknowledge and continue”

The POP-UP will have the heading

Warning – Value is outside the %% acceptable tolerance!



The POP-UP should be just under or above the RED Value



If Account User Selects “Correct Value” then set focus to the out of tolerance

AU_Equipment_Task_Reading_ID	AU_Equipment_Task_Reading_ID
AU_Equipment_Detail_ID	AU_Equipment_Detail_ID
AU_Template_Designation_ID	AU_Template_Designation_ID
Parent_ID	Parent_ID
PM_WO_StartDate	PM_WO_StartDate
BuildingID	BuildingID
PM_WO_Number	PM_WO_Number
Reading_Task	"R" for Readings
PM_Actual_JobTime	Account User input or 0.00
PM_WO_Complete_Date	Account User input
PM_Note_Comments	Account User input or blank
PM_CompletedBy_UID	Account User input
Reading_Value	Account User input
16.8.8.2.7	Once all Checked entries are entered into the history table, Delete the corresponding entry from the pm_au_work_order table.

17.0 Equipment Templates

17.1 User Created Templates

User created templates will use the PM_VT_.... Tables

"PM_VT_Template_Name" table with the "VT_Admin_Template" set to "No"

"PM_VT_Template_TypeDesignation" table with the "VT_Admin_Template" set to "No"

- 17.1.1 When an Account User select a Type Designation from the Equipment Templates menu they are taken to the "Create a New Designation Wizard"

Existing PM templates		
Template Name	Type Designation	Type Description
AC Equipment	Ac maintenance	AC Maintenance Designation
	Ac maintenance -9	AC Maintenance Designation
	Air Compressor Dry System	this is an Air Compressor Dry System

- 17.1.2 If Account User Creates a new Task and/or Readings or if Account User modifies an existing template that was imported, Then show "Save as User Template" in the right hand corner.

Task	Task Instruction	Frequency	Start date	Seasonal	▼Start Date Of Month
1	Task subset- Test subset	Frequency	Start date	Seasonal	▼Start Date Of Month
1	Task Instruction	Monthly	November 2018	N	1
2	Task subset- new subset	Frequency	Start date	Seasonal	▼Start Date Of Month
1	task instruction first	Monthly	November 2018	N	1
3	task pos	Monthly	March 2019	N	1
4	Clean Room	Monthly	March 2019	N	1
5	Task subset- New Subset	Frequency	Start date	Seasonal	▼Start Date Of Month

- 17.1.3 Save as User Template, will have the following:

- 17.1.3.1 Save Type Designation Under Template with three options

17.1.3.1.1 **User Default Template Name**, this is the current template name that the Type Designation is under.

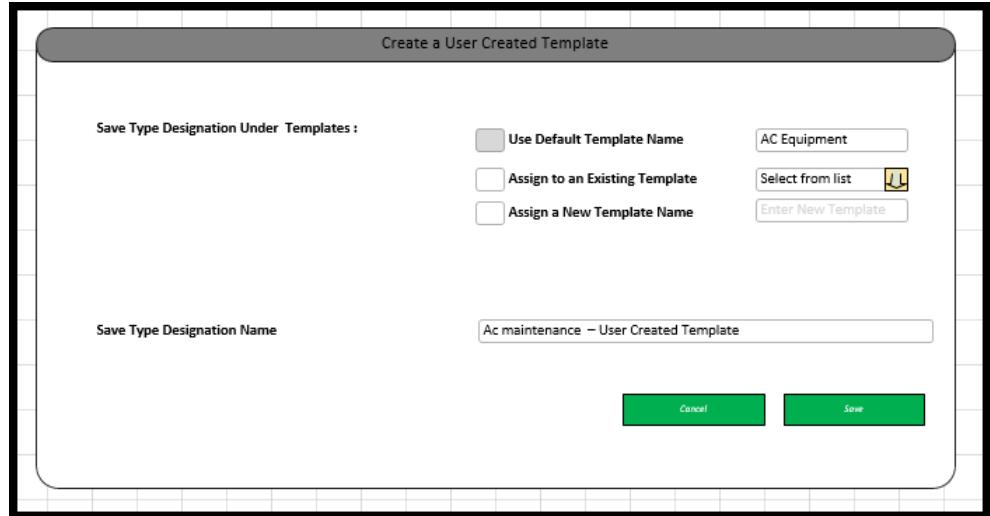
17.1.3.1.2 **Assign to an Existing Template Name**, List all Template Names from the "PM_VT_Template_Name" table. List Both Built In and User Created Templates. If the Template is User Created (Vt_Admin_Template == No) then the Template will show up in RED.

17.1.3.1.3 **Assign a New Template Name**,

-Account User will be able to create a new template name only if the Name does not already exist.

-Do not create duplicate Template Names, if the Template Name already exists,

then add the Type Designation Name to the existing Template Name.

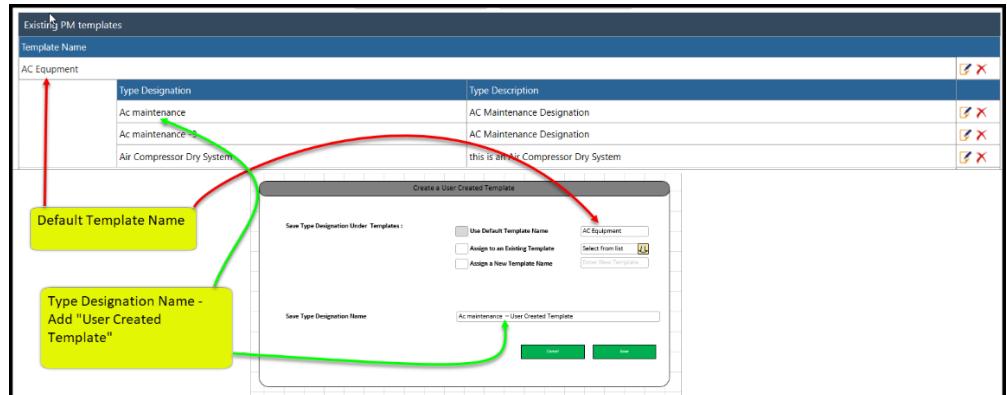


17.1.3.2 Save Type Designation Name

17.1.3.2.1 By Default, use the existing Type Designation Name and add “– User Created Template”

17.1.3.2.2 The Account User will have the ability to change the Type Designation Name

17.1.3.2.3 Do not let Account User create a duplicate name.



17.1.3.3 Save “Create a User Created Template”

17.1.3.3.1 Templates: If Account User save as a New Template Name then

```
INSERT INTO `pm_vt_template_name` ('VT_Template_Name_ID',  
`VT_Template_Name`, `Created_at`, `Vt_Admin_Template`) VALUES (NULL,  
'User Template Name', CURRENT_TIMESTAMP, 'No');
```

		VT_Template_Name_ID	VT_Template_Name	Created_at	Vt_Admin_Template Value Only: Yes or No
<input type="checkbox"/>		23	Template Name	2018-03-12 10:51:50	Yes
<input type="checkbox"/>		25	Template Name 1	2018-03-14 08:42:10	Yes
<input type="checkbox"/>		26	Air Handling Unit	2018-03-15 12:01:36	Yes
<input type="checkbox"/>		27	Hot Water Heaters	2018-03-22 21:02:10	Yes
<input type="checkbox"/>		28	Template 2	2018-04-24 06:00:27	Yes
<input type="checkbox"/>		29	rrr	2018-05-07 07:00:35	Yes
<input type="checkbox"/>		30	RTU	2018-10-21 13:06:47	Yes
<input type="checkbox"/>		31	User Template Name	2019-04-10 18:52:58	No

17.1.3.3.2 Save Type Designation Name:

Save the Type Designation Name in to the “PM_VT_Teplate_TypeDesignation”

```
INSERT INTO `pm_vt_template_typedesignation` (
    `VT_Template_Designation_ID`,
    `VT_Template_Name_ID`,
    `VT_TypeDesignation`,
    `VT_TypeDescriptipon`,
    `User_id`,
    `VT_Admin_Template`,
    `Created_at`)
VALUES (
    NULL,
    '31',
    'Ac Maintience - User Created Template',
    'User Created Template - April 10, 2019',
    '23',
    'No',
    CURRENT_TIMESTAMP);
```

		VT_Template_Designation_ID	VT_Template_Name_ID	VT_TypeDesignation	VT_TypeDescription	User_id	VT_Admin_Template	Created_at
<input type="checkbox"/>		31	23	Ac maintenance	AC Maintenance Designation	1	Yes	2018-03-12 10:53:09
<input type="checkbox"/>		33	25	Template Des		1	Yes	2018-03-14 08:43:33
<input type="checkbox"/>		34	26	test designation		1	Yes	2018-03-15 12:02:16
<input type="checkbox"/>		35	27	BBWH-1		1	Yes	2018-03-22 21:02:57
<input type="checkbox"/>		36	23	BBWH-12		1	Yes	2018-04-24 03:21:08
<input type="checkbox"/>		37	28	Designation2	test designation	7	Yes	2018-04-24 06:01:32
<input type="checkbox"/>		38	29	yyy	test	1	Yes	2018-05-07 07:01:14
<input type="checkbox"/>		39	26	AHU Type 1	Air Handling Unit - Type 1 Designation	1	Yes	2018-06-03 10:15:53
<input type="checkbox"/>		40	30	Roof Top Units	Roof Top Units	Yes	Yes	2018-10-21 13:07:12
<input type="checkbox"/>		41	31	Ac Maintience - User Created Template	User Created Template - April 10, 2019	23	No	2019-04-10 19:14:45

17.1.3.3.3 Import Task, Readings, Frequency, StartDateAdjustment and UnitOfMeasure, this is the same operation as the import into the building, but saving to the VT Tables.

17.1.3.3.4 The Import Table will show in red all user templates now

Import Templates

Select Templates :

Air Compressor ACP - Dry	Air Compressor Dry
Air Compressor ACP - PH	Air Bag Compressor
Air Compressor ACP - PNE	Air Compressor Pneumatics
Air Compressor ACP - FP	Air Compressor Sprinkler System
Fire Alarm Auto Call Panel	Auto Call Panel for Fire Alarm
Fan Coil Units FCU - 001	Fan Coil Units - Type 1
Fan Coil Units FCU - 002	Fan Coil Units - Type 2
Fan Coil Units FCU - 003	Fan Coil Units - Type 3

All Templates
 Built - In Templates
 User Created Templates (in Red)

Use Import Template name

 Select From Existing Template

 Create a new Template

Template Details

Task(s)	Reading(s)	Task Instruction
1		LUBRICATE FAN AND MOTOR IF REQUIRED
2		INSPECT PIPING AND HANGERS
3		CHECK T STAT SETTING
4		Subset Task – Spring Maintenance
	1	Change Air Filters
	2	CHECK CHILL WATER VALVE FOR OPERATION
	3	CLEAN MOTOR AND FAN CAGE
5		BLOW DOWN HEATER
6		Subset Task – Fall Maintenance
7		CLEAN CHILL WATER COIL
8		Take Meter Readings