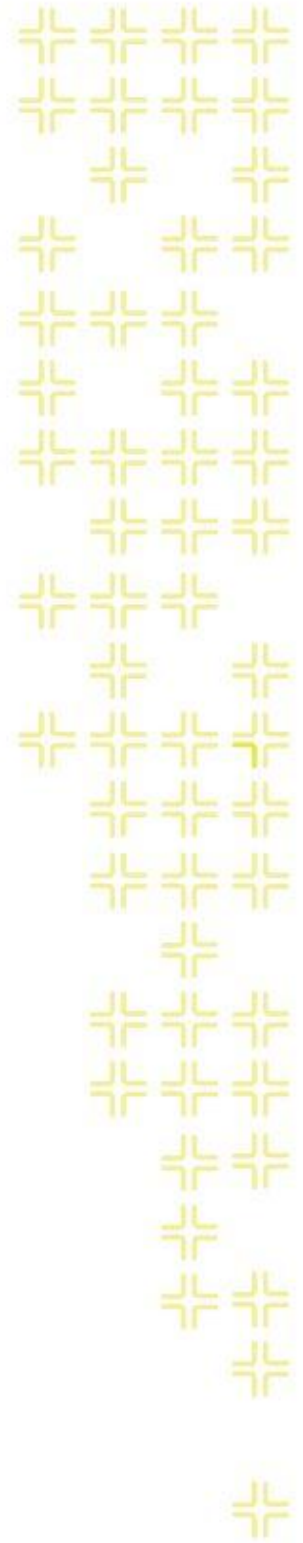




TRAINING GUIDE

PM Beginner



Beginning PM Training

Preventative Maintenance & Work Templates

The *Work PM/Template* module allows you to create Work Order Templates and scheduled Preventative Maintenance jobs (PMs). All information entered in this module will be carried over to work orders whether you are creating a WO template or a PM. That's why so much of the information in this module is exactly like the information that you enter in the *Work Orders* module. This even includes the data stored in the grids. The PM and Template are very similar to one another; the main difference is that one has a set schedule and the other can be used to generate a work order on demand by the user.

- PMs generate Work Orders automatically based on a schedule you define. They're useful for any regular job to be done on a routine basis.
- Work Order Templates don't generate Work Orders based on a schedule. Instead, they allow you to generate work orders quickly, whenever you wish. This is useful when you have regular activities that require complex entry of resource details, as most of the data in the template is pre-entered.




To help you create a preventative maintenance program, we'll go through several step-by-step examples. In the following pages, we'll walk you through three distinct types of PMs: One for a street sweep on a series of pavements, one for a bi-annual sewer pipe cleaning, and a group of PMs for a single fleet asset.

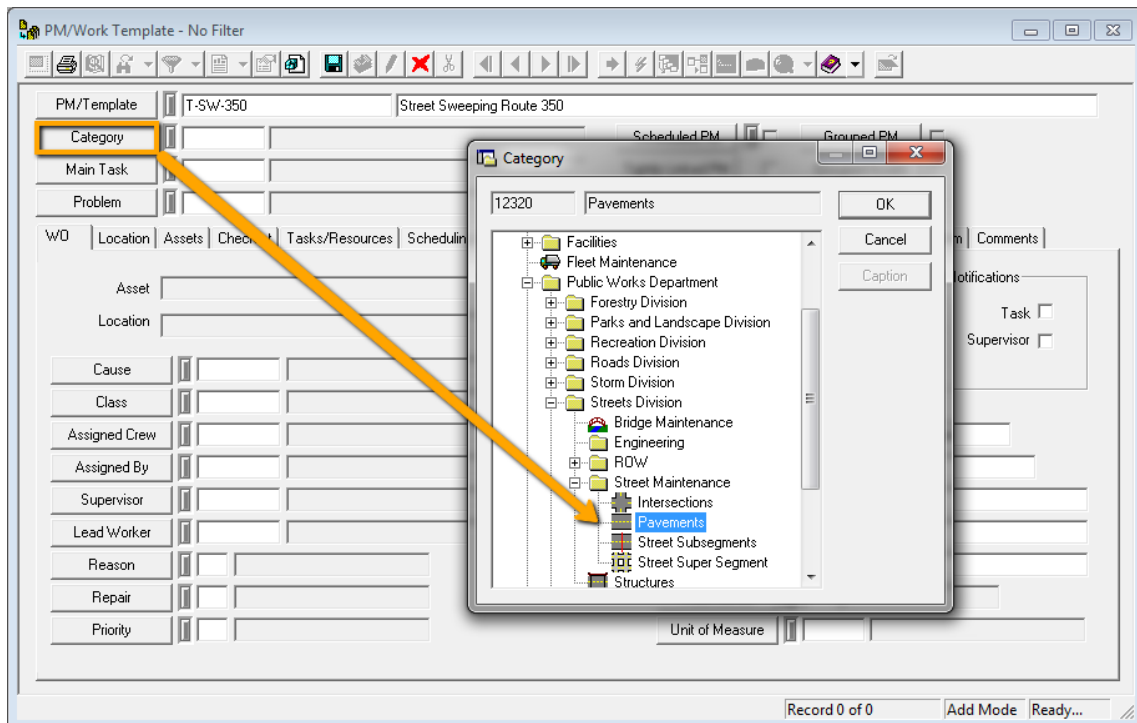
Table of Contents

Creating a Street Sweeping PM	3
Checkboxes.....	4
Adding Street Assets	5
Adding Checklist Items	7
Adding Tasks/Resources	8
Scheduling your Street PM.....	10
Work Order Generation	11
Creating a Sewer Pipe Cleaning PM	14
Adding Sewer Assets	15
Scheduling your Sewer PM	16
Work Order Generation	17
Creating a Fleet PM A.....	18
Scheduling your Fleet PM A	20
Creating a Fleet PM B.....	21
Scheduling your Fleet PM B.....	22
Associating PM B with PM A	23
Creating a Fleet PM C.....	24
Scheduling your Fleet PM C	25
Associating PM C with PM A and PM B	26
Work Order Generation.....	27
PM A	27
PM B	32
PM C	33
Creating a Work Template	34
Using Work Templates	36

Creating a Street Sweeping PM

In the following example, we'll create a PM for a routine street sweeping program. This will help clean and maintain the pavements in your network. Since street routes in your network won't change on a regular basis, we'll be able to create a static asset list using a street subset. Let's go over the steps in the example below.

1. To open the module select **Work>>PM/Work Template** from the main menu.
2. Click the Add button  to enter *Add Mode*.
3. Create a unique code and description in the PM/Template field of the header. Remember to choose a code that is easily recognizable.
 - For this example, we'll choose a PM/Template code of "T-SW-350" and a description of "Street Sweeping Route 350".
4. Click the Category, Main Task, and Problem buttons to select from the pick lists. You'll need to select the Category first. Click the plus [+] sign to open a Category group and then select the appropriate Category for this PM task.
 - Be careful when selecting a Category; only those with icons will allow you to select assets in the asset grid.
 - For example, a category with an icon like  Pavements will allow you to select from a list of assets.
 - Alternatively, categories with folders like  Street Maintenance will not.
 - In this example, we've selected Category 12320 - Pavements. This will allow us to add street segment assets to the asset grid.
 - We've also selected "Street Sweep" as the Main Task and "Routine Maintenance" as the Problem.



Checkboxes

The checkboxes in the header are used to indicate the type of record you are creating.

1. For our Street Sweeping example, select the Scheduled PM checkbox. This checkbox is used to indicate whether the record is a PM or a Work Template. This is an important distinction. As noted earlier, PMs automatically generate on a schedule whereas Templates are made available to generate a Work Order at any time.
 - You'll see three additional checkboxes in the header that we won't be using in this example. These other options are explained in greater detail in the related workbook, Advanced PMs. A simple explanation of each checkbox is as follows:
 - The Grouped PM checkbox allows you to create one PM for multiple assets. You can then use the Grouped PM to generate a Work Order for each asset individually.
 - The Tightly Linked PM checkbox allows you to have a series of two or more sliding PMs that are generated based on a single, scheduled PM. Tightly linked PMs are not based on time (like a Scheduled PM), but instead are based on how often the initial PM is generated. When a Tightly Linked PM is generated along with a Scheduled PM, both PMs will be associated with a single Work Order.
 - The Grouped Assets checkbox allows you to create one PM for multiple assets. You can then group similar assets and generate work orders for each group that is defined.
2. On the **WO** tab, include any information that you would like to be carried over to the work order when it is created.
 - In the example below, the cause (preventative maintenance), supervisor (Wilson Bean), and priority (Next Day Priority) have been entered.

The screenshot shows a software window titled "PM/Work Template - No Filter". The form contains the following fields and options:

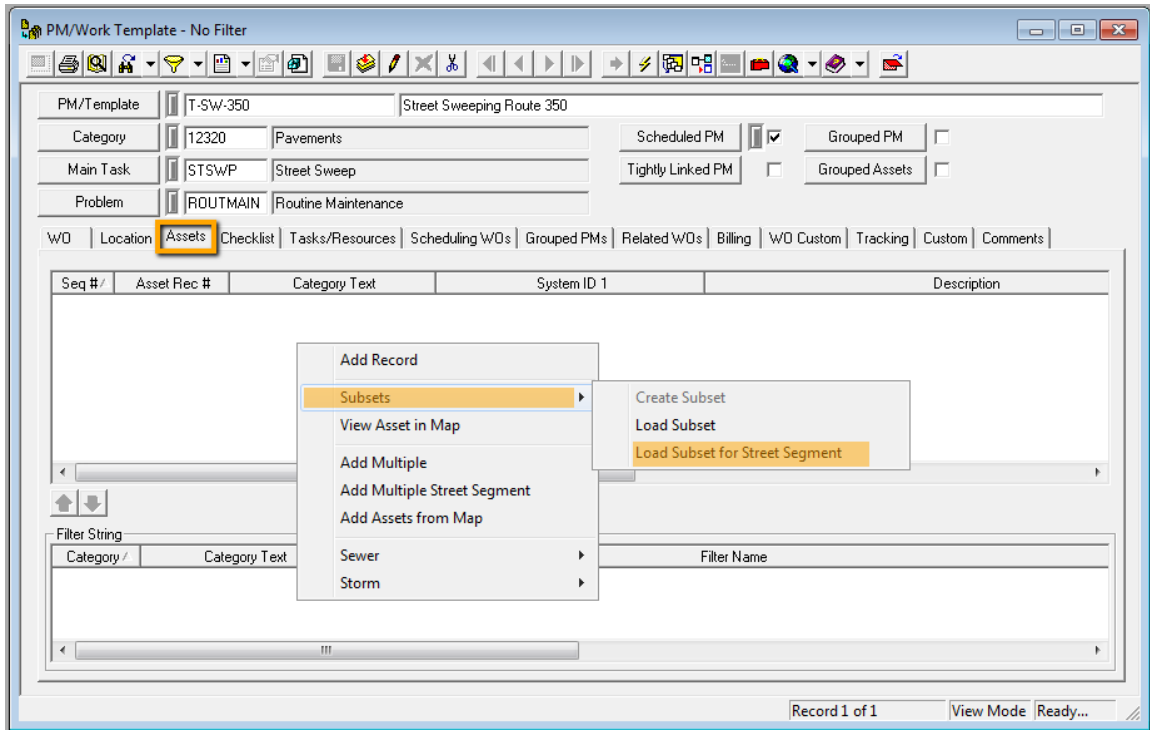
- PM/Template:** T-SW-350, Street Sweeping Route 350
- Category:** 12320 Pavements
- Main Task:** STSWP Street Sweep
- Problem:** ROUTMAIN Routine Maintenance
- Checkboxes:** Scheduled PM (checked), Grouped PM (unchecked), Tightly Linked PM (unchecked), Grouped Assets (unchecked)
- WO Tab:** Location, Assets, Checklist, Tasks/Resources, Scheduling WOs, Grouped PMs, Related WOs, Billing, WO Custom, Tracking, Custom, Comments
- Asset:** [Empty field]
- Location:** [Empty field]
- Override Notifications:** Problem (unchecked), Task (unchecked), Overdue (unchecked), Supervisor (unchecked), Lead Worker (unchecked)
- Cause:** 03 Preventative Maintenance
- Class:** [Empty field]
- Assigned Crew:** [Empty field]
- Assigned By:** [Empty field]
- Supervisor:** 8 WILSON BEAN
- Lead Worker:** [Empty field]
- Reason:** [Empty field]
- Repair:** [Empty field]
- Priority:** 3 Next Day Priority
- Assigned Date:** / / : AM
- Subcontractor:** [Empty field]
- Project Text:** [Empty field]
- Account #:** [Empty field]
- Proj No - Acct:** [Empty field]
- Profit Center:** [Empty field]
- Unit of Measure:** ea Each

Record 1 of 1 View Mode Ready...

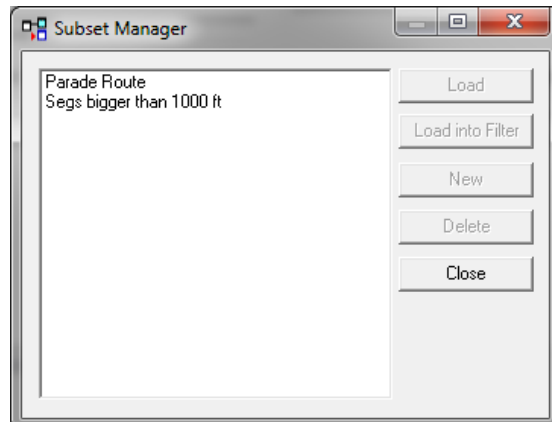
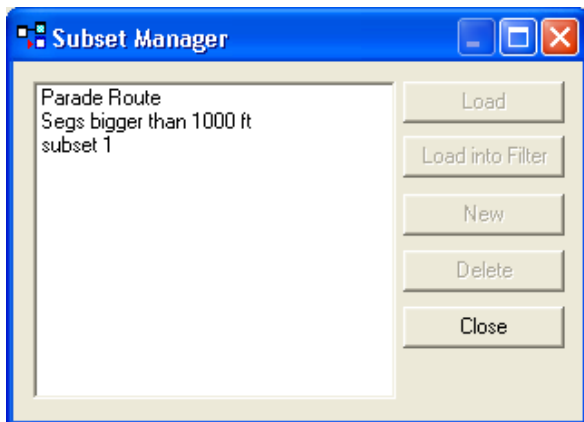
Adding Street Assets

The **Assets** tab allows you to attach asset inventory records needed for the work order. For our street sweeping program, we'll attach a pavement subset. Subsets contain static lists of assets. Since street routes don't change on a regular basis, a subset is a good choice for this type of PM.

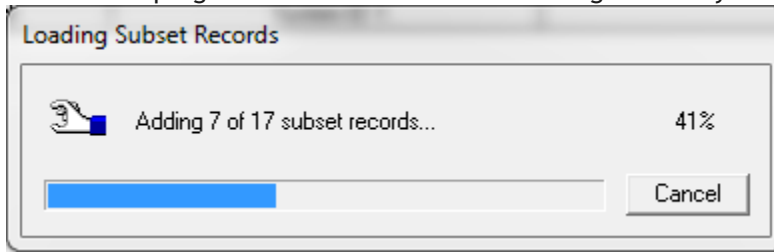
1. On the **Assets** tab, right click and select **Subsets>>Load Subset for Street Segment**.



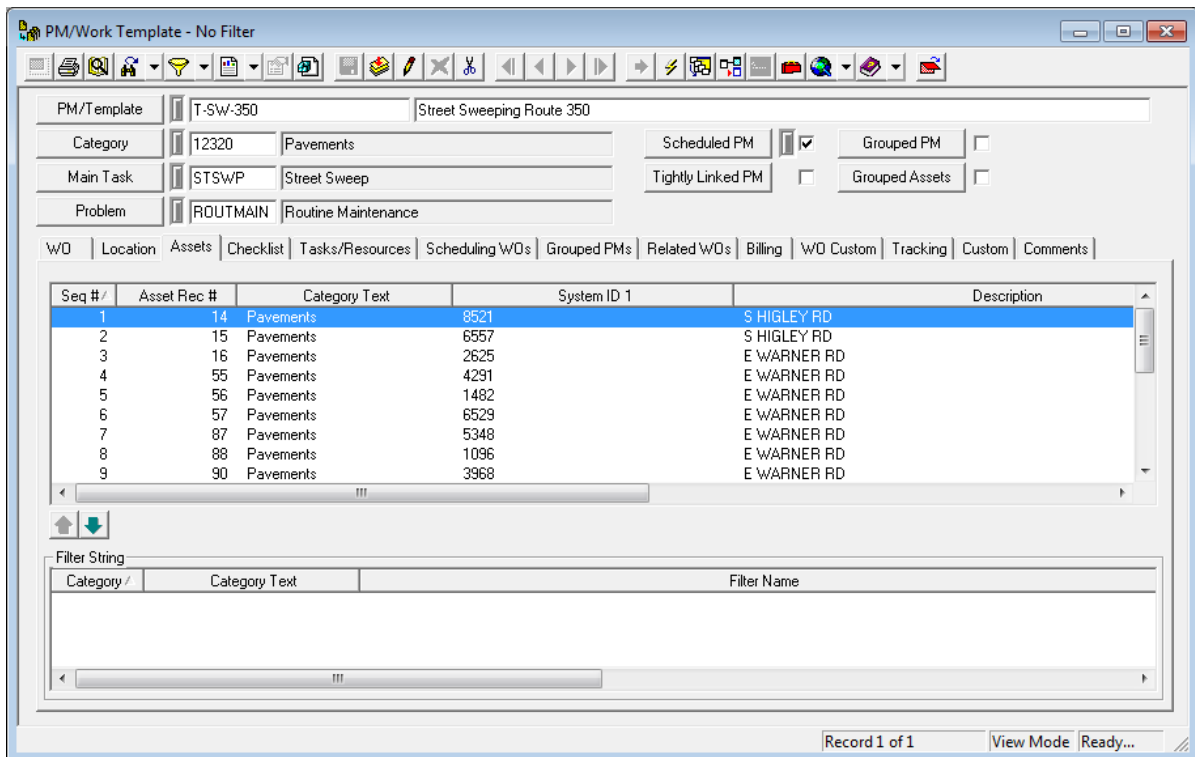
2. Select your subset from the Subset Manager and click **Load**.
 - In our example, we've selected a subset entitled "Parade Route". This subset contains a predetermined list of streets on a static parade route. This type of subset is ideal for our street cleaning PM.



- You'll see a progress bar while the subset is being loaded by the system.




- When the process is complete, all of the street segments in your subset will appear in the Assets grid.

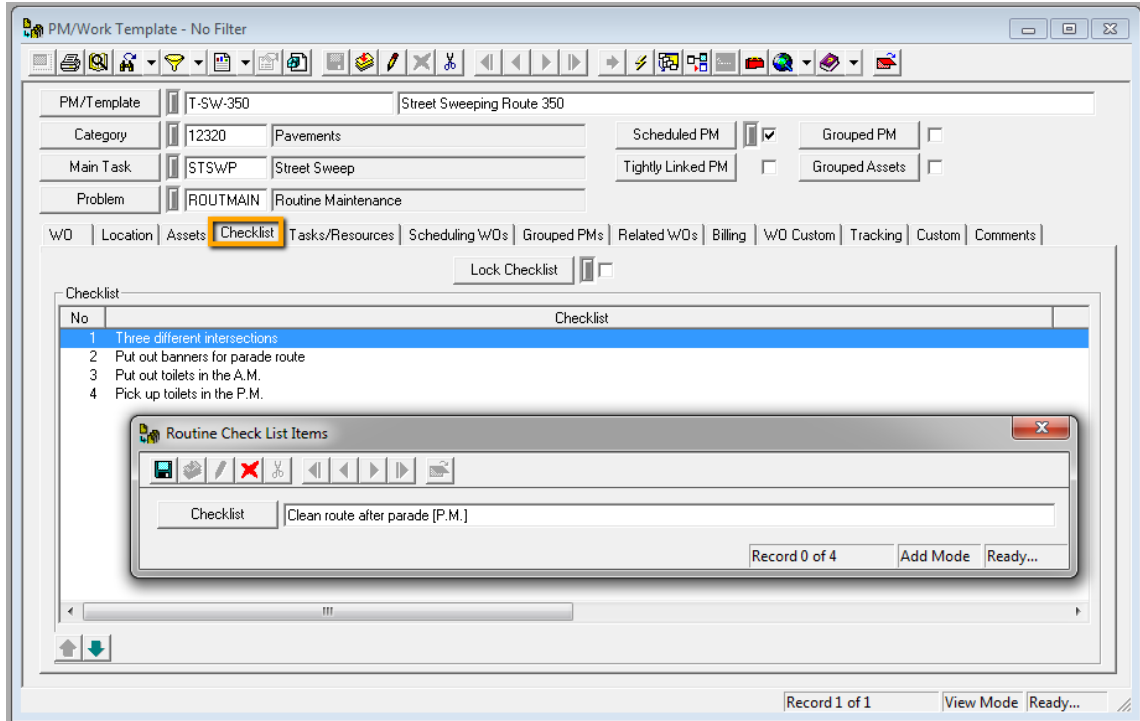


Notes: _____

Adding Checklist Items

Next, on the **Checklist** tab, we will include a list of tasks to be carried over to the work order. For our street sweeping task on this parade route, we've entered items of importance for the crew. For example, we've used this to alert the crew that there are three different intersections to focus on, as well as banners to put out, toilets to put out and pick up, and times to clean.

1. To add a new checklist item, right click in the grid and select *Add Record*.
2. Type a checklist item into the Routine Checklist Items dialog. Then click save .



Notes: _____

Adding Tasks/Resources

On the **Tasks/Resources** tab, we'll include detailed information about the job including what the task is, who will work on it, and what equipment and materials need to be used to complete the task.

1. Right click in the Work Tasks grid and select *Add Record*.
2. Select a Task from the pick list. Some fields will be filled automatically with corresponding data. These fields are defined in *Work Flow Setup*. They may include the Task Crew, Supervisor, Account #, etc.

- In the example above, we've added the task, "Sweep Street", to the record.

3. To add Resources to the record, highlight the task you just added in the Work Tasks grid.

Work Tasks						
No /	Task	Task Text	Unit of Measure Text	# of Units	Task Crew Text	Task Su
1	STS/WP	Street Sweep				WILSON BE

4. Right click in the Resources grid and select *Add Record*. The highlighted task will appear at the top of the Routine Work Resources record.

Notes: _____

5. Select a Resource Type and Resource from the pick lists.

The screenshot shows the 'Routine Work Resources' window. The 'WORK TASK' field contains 'Street Sweep'. Below it, the 'Resource Type' is set to '2 Equipment' and the 'Resource' is 'STC0743 2006 FREIGHTLINER SWEEPER'. The 'Unit of Measure' is '1 Hours'. The status bar at the bottom indicates 'Record 1 of 1' and 'View Mode Ready...'.

- In our example above, we've added a piece of equipment, 2006 FREIGHTLINER SWEEPER, to the record.

The screenshot shows the 'PM/Work Template - No Filter' window. The 'Tasks/Resources' tab is active. The 'Work Tasks' table has one row: '1 STSWP Street Sweep' with 'WILSON BE' as the task supervisor. The 'Resources' table has three rows: 'Equipment STC0743 2006 FREIGHTLINER SWEEPER', 'Employee 201 CHAD AARON', and 'Fluid FDS Diesel'. The status bar at the bottom indicates 'Record 1 of 1' and 'View Mode Ready...'.

No.	Task	Task Text	Unit of Measure Text	# of Units	Task Crew Text	Task Su
1	STSWP	Street Sweep				WILSON BE

Group# /	Type	Resource	Resource Desc	Unit of Measure Text	Units
	Equipment	STC0743	2006 FREIGHTLINER SWEEPER	Hours	
	Employee	201	CHAD AARON	Hours	
	Fluid	FDS	Diesel	Gallon	

Our sample above displays the tasks and resources that we just added. In addition to the street sweeping task and 2006 FREIGHTLINER SWEEPER, we've also assigned an employee, CHAD AARON, and included Diesel gasoline as a resource.

All of the information in this tab will be carried over to the generated work order. There, you'll be able to track employee hours, resource hours, and material amounts used.

Scheduling your Street PM

The **Scheduling WOs** tab is the most important tab for scheduled PMs. Here, you can see where the Work Order generation schedule is set up.

1. The first step in scheduling work orders is to determine whether you would like to use a fixed or a floating schedule.
 - A **Fixed Schedule** generates a work order based on the Next Start Date. This type of PM will generate at a fixed interval regardless of when the last job was completed. For example, if you have a weekly work order that generates on a Monday, the next new work order will be generated the following Monday even if the last job wasn't finished until Thursday.
 - A **Floating Schedule** generates a work order based on the Last End Date. In the same example as above, if a work order was generated on Monday for your weekly task but you didn't finish the work until Thursday, your next work order will not generate until the following Thursday.
2. For our example, we'll demonstrate how to set up a fixed schedule. This will ensure that the parade route is swept on a regular basis.
 - Enter a Last Start Date. This is the last time the job was completed.
 - Enter an Interval. This indicates how frequently you would like the job to be done. For our street sweeping PM, we'll set a bi-weekly interval.
 - The Next due date will calculate automatically. This is the date that the Work Order will be generated. In the example below, a Work Order is due every two weeks, starting with the next one on August 30, 2013.

The screenshot shows the 'PM/Work Template - No Filter' window. The 'Scheduling WOs' tab is selected and highlighted with a yellow box. The 'Last Start Date' is set to 08/16/2013, the 'Interval' is 2 Weeks, and the 'Next' date is 08/30/2013. The 'Days Ahead' field is empty. Below this, there are fields for 'Last End Date', 'Previous Odometer', 'Previous Hourmeter', and 'Previous Other'. The 'Status' is set to 'Initiated' and the 'W/O Number' is empty. The 'Initiated Date' is set to // /. At the bottom, there are two tables: 'Affected or Tightly Linked PMs' and 'Exclusion Days'. The 'Affected or Tightly Linked PMs' table has columns for Code /, # Between, # Remain, and Routine Text. The 'Exclusion Days' table has columns for Day, Start Range, End Range, Work Day?, and Seasonal. The status bar at the bottom indicates 'Record 1 of 1', 'Edit Mode', and 'Ready...'.

Work Order Generation

Once you've saved your street sweeping PM, a work order will be generated on the next due date.

1. On the due-date, the PMs status will be updated to read "2 - WO Generated". You'll also see the new Work Order Number and Initiated Date.

The screenshot shows the 'PM/Work Template - No Filter' window. The 'Scheduled PM Activity' section is expanded, showing a table with columns for 'Last', 'Interval', and 'Next'. The 'Status' field is highlighted with a yellow box and contains the value '2 | WO Generated'. Other fields include 'WD Number' (2013-00003) and 'Initiated Date' (08/30/2013).

Last	Interval	Next	Days Ahead
Last Start Date: 08/30/2013	2 Weeks	09/13/2013	
Last End Date: / /		/ /	Meters Ahead
Previous Odometer			
Previous Hourmeter			
Previous Other			

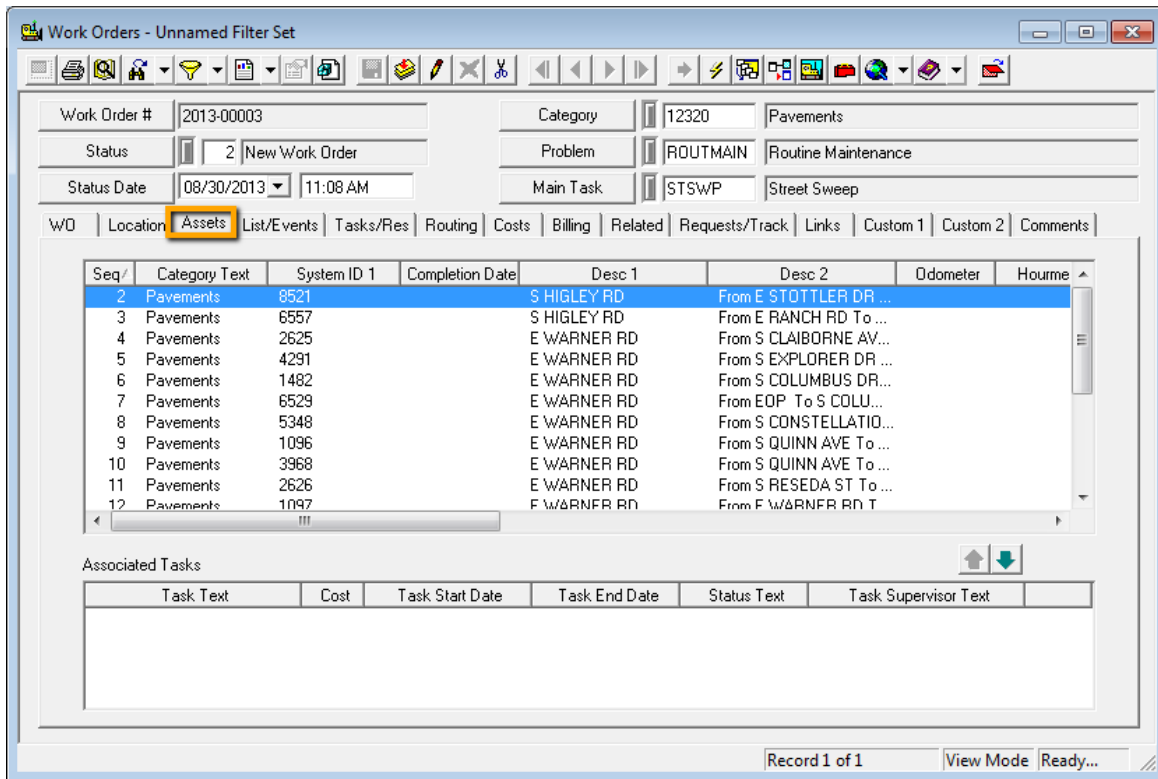
Below the table, the 'Status' field is highlighted with a yellow box and contains the value '2 | WO Generated'. Other fields include 'WD Number' (2013-00003) and 'Initiated Date' (08/30/2013).

2. To access your generated work order, click on the Related WOs tab. There, you'll see a listing with a status text of "New Work Order". Double click on the listing to open the *Work Orders* module.

The screenshot shows the 'PM/Work Template - No Filter' window. The 'Work Order PM History' section is expanded, showing a table with columns for 'End Date', 'Start Date', 'WD Creation Date', 'PM Trigger Text', 'Work Order #', 'Status Text', 'Main Task Text', and 'Supervisor'. The first row is highlighted in blue and contains the following data:

End Date	Start Date	WD Creation Date	PM Trigger Text	Work Order #	Status Text	Main Task Text	Supervisor
08/30/2013	08/30/2013	08/30/2013	Date	2013-00003	New Work Order	Street Sweep	WILSON BEAN

- In the *Work Orders* module, you'll see the Category, Problem, and Main Task carried over from the PM. In addition, all of the assets from your street segment subset will appear on the Assets tab, as displayed below.



- If you open the Work Order's Tasks/Res tab, you'll see the tasks and resources that you added to the PM.

Notes: _____

- To complete this PM process, you'll need to close out the work order. Set the status to "999 - Complete" and enter an End Date.

Work Order # 2013-00003

Status 999 Complete

Status Date 08/30/2013 11:08 AM

Category 12320 Pavements

Problem ROUTMAIN Routine Maintenance

Main Task STS WP Street Sweep

Asset 8521 S HIGLEY RD From E STOTTLER DR To E RANCH RD

Location S HIGLEY RD Your Town

Cause 03 Preventative Maintenance

Assigned Crew

Supervisor 8 WILSON BEAN

Lead Worker

Priority 3 Next Day Priority

Account #

Proj No - Acct

Project Text

Reason

Assigned By

Assigned Date / / : AM

Start Date 08/30/2013 : AM

End Date 08/31/2013 : AM

Master Project ID

Name

Override Notifications Problem

Overdue

Lead Worker

Task

Supervisor

Hard Lock WO

Press F9 for pop-up selection

Record 1 of 1 Edit Mode Ready...



- Now, go back to your street sweep PM. On the Scheduling WOs tab, you'll see that the status has been reset to "1 - Awaiting WO Generation". Additionally, you'll see that the Last Start Date, Last End Date, and Next due date have all been reset for the next work order generation.

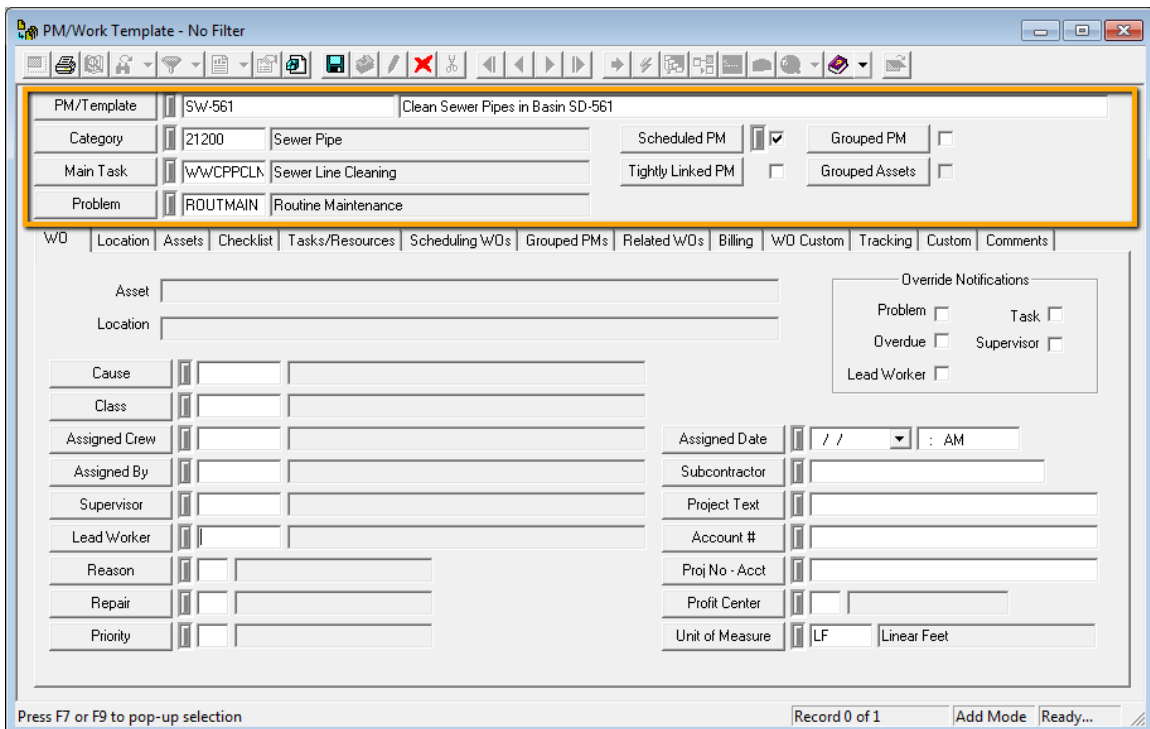
Scheduled PM Activity				
Last	Interval	Next		
Last Start Date	08/30/2013	2 Weeks	09/13/2013	Days Ahead
Last End Date	08/31/2013	/ /		Meters Ahead
Previous Odometer				
Previous Hourmeter				
Previous Other				
Status	1 Awaiting WO Generation	WO Number		Initiated Date / /

Notes: _____

Creating a Sewer Pipe Cleaning PM

In the following example, we'll create a PM for a bi-annual sewer pipe cleaning program. This will allow you to schedule cleaning and maintenance for your sewer network. Since sewer pipe cleaning is typically performed on a single basin at a time, we'll create our sample PM for all of the pipes in a single flow basin. Since pipes leading in and out of a flow basin may be changed, you'll want to use a dynamic asset list for this type of PM. To show you this feature, we'll demonstrate how to use a filter string in a PM.

1. To open the module select **Work>>PM/Work Template** from the main menu.
2. Click the Add button  to enter *Add Mode*.
3. Create a unique code and description in the PM/Template field of the header. Remember to choose a code that is easily recognizable.
 - For this example, we've entered a PM/Template code of "SW-561" and a description of "Clean Sewer Pipes in Basin SD-561".
4. Select a Category, Main Task, and Problem from the pick lists.
 - In this example, we've selected Category 21200 - Sewer Pipe. Remember to choose a category with an icon . This will allow us to add sewer pipe assets to the asset grid.
 - We've also selected "Sewer Line Cleaning" as the Main Task and "Routine Maintenance" as the Problem.
5. Select the Scheduled PM checkbox. As we mentioned earlier, this distinguishes the PM record from a Work Template.



PM/Work Template - No Filter

PM/Template | SW-561 | Clean Sewer Pipes in Basin SD-561

Category | 21200 | Sewer Pipe | Scheduled PM | | Grouped PM |

Main Task | Ww/CPCLN | Sewer Line Cleaning | Tightly Linked PM | | Grouped Assets |

Problem | ROUTMAIN | Routine Maintenance

W/O | Location | Assets | Checklist | Tasks/Resources | Scheduling W/Os | Grouped PMs | Related W/Os | Billing | W/O Custom | Tracking | Custom | Comments

Asset | |

Location | |

Cause | |

Class | |

Assigned Crew | |

Assigned By | |

Supervisor | |

Lead Worker | |

Reason | |

Repair | |

Priority | |

Assigned Date | // / : AM

Subcontractor | |

Project Text | |

Account # | |

Proj No - Acct | |

Profit Center | |

Unit of Measure | LF | Linear Feet

Override Notifications

Problem Task

Overdue Supervisor


Lead Worker

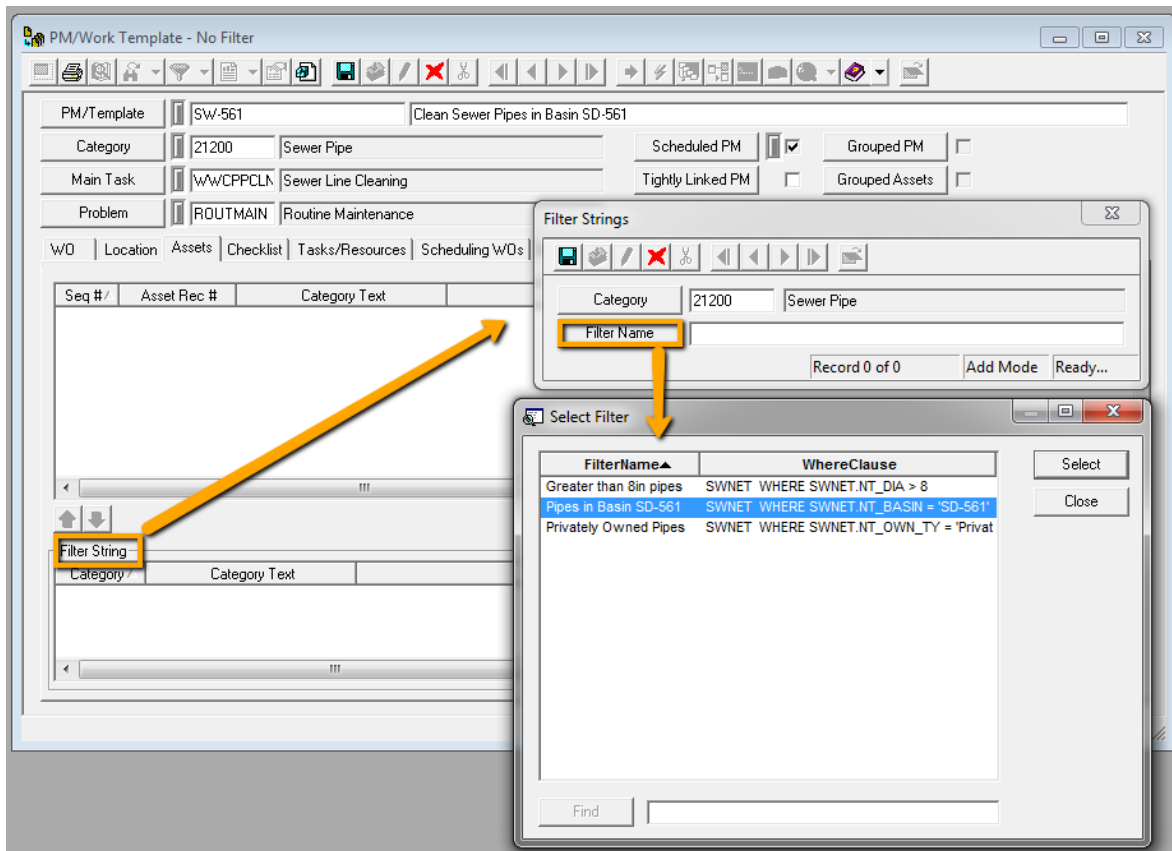
Press F7 or F9 to pop-up selection

Record 0 of 1 | Add Mode | Ready...

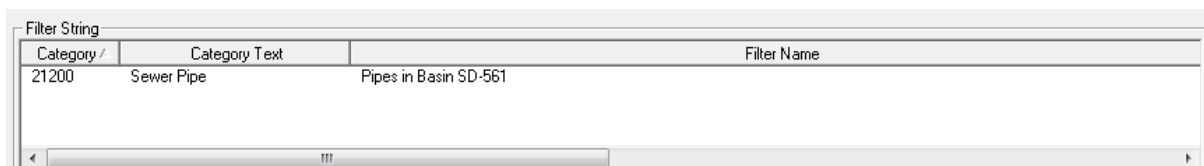
Adding Sewer Assets

Remember, the **Assets** tab is used to include assets that are needed for the work order. We anticipate that pipes going in and out of flow basins will change over time, thus, we'll need to use a dynamic asset list instead of a static asset list. In order to include a dynamic asset list, we won't be adding individual asset records to this tab. Instead, we'll use the Filter Text String feature. Let's go over the steps now.

1. While in *Edit Mode* , open the Assets tab. Then, in the Filter String grid, right-click to Add a Record. The Filter Strings window will appear.
2. In the Filter Strings window, click on the Filter Name button and the Select Filter dialogue box will appear. Highlight a filter name in the list. The filter clause will be displayed on the right-hand side of the box. Click *Select* and then *Save the Filter String*.
 - o In our example below, we've selected the filter, "Pipes in Basin SD-561".
 - o The filter clause reads "SWNET WHERE SWNET.NT_BASIN = 'SD-561'", meaning that we have filtered for all sewer pipe records where the Flow Basin equals SD-561.
 - o These filters are all created in the *Sewer Pipe Inventory* module.



3. After you have selected your filter, the Category and Filter Name will appear on the Assets tab.



Scheduling your Sewer PM

As we discussed earlier, the **Scheduling WOs** tab is the most important one for Scheduled PMs. We'll once again use this tab to create our Work Order generation schedule. This time, we'll show you how to set up a Floating Schedule for your sewer pipe cleaning. Remember, a Floating Schedule generates a work order based on the Last End Date. This means that the work orders will be reset based on the last time the job was completed.

1. Enter the last date the sewer pipes were cleaned in the Last End Date field. The Last Start Date fields will be disabled.
2. Enter an interval. The Next due date will be automatically calculated by the system.
 - o For our example, we've chosen to set up a bi-annual sewer cleaning schedule using a two year interval.
3. The status will read "1 - Awaiting WO Generation" until the due date is reached. At that time, the status will be updated to read "2 - WO Generated" and the WO Number and Initiated Date will appear. You can see an example of this change below:

The screenshot shows the 'PM/Work Template - No Filter' window. The 'Scheduling WOs' tab is selected and highlighted with an orange box. The 'Last End Date' field is set to 08/30/2011, the 'Interval' is 2 Years, and the 'Next' date is 08/30/2013. The 'Status' is 2 WO Generated, the 'WO Number' is 2013-00004, and the 'Initiated Date' is 08/30/2013. The 'Affected or Tightly Linked PMs' and 'Exclusion Days' tables are empty.

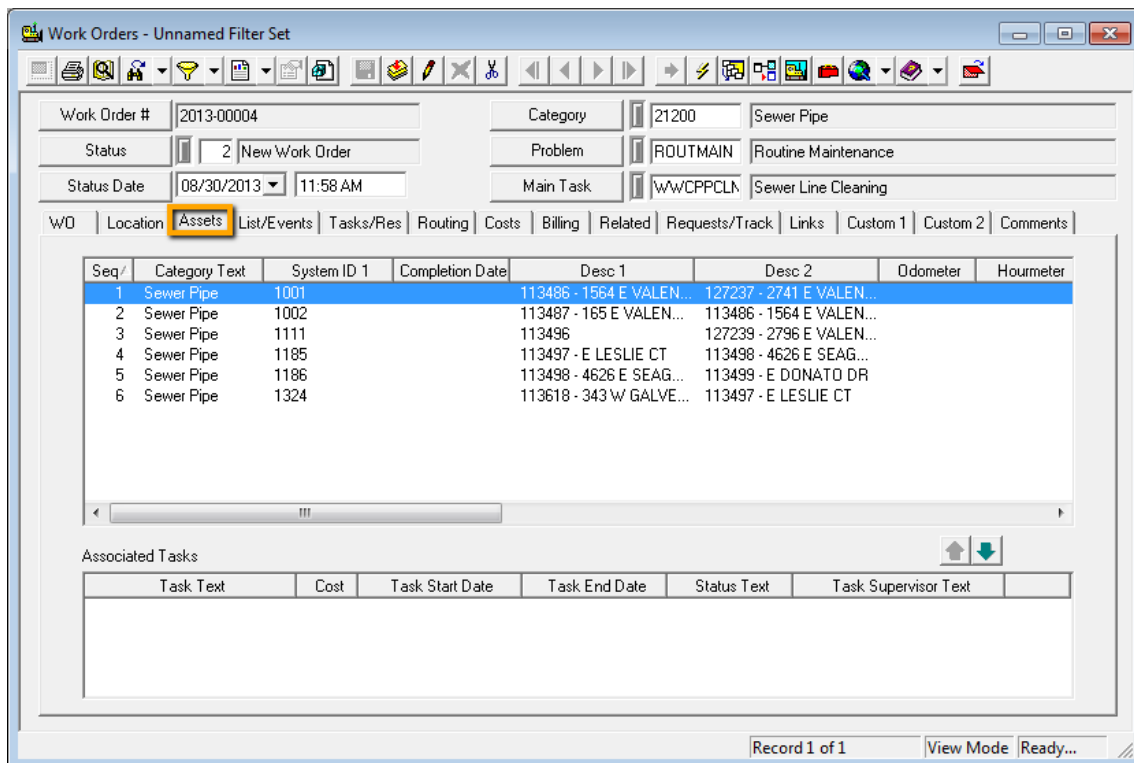
Notes:

Work Order Generation

Since we set up a dynamic asset list using the Filter String feature, the exact assets are not determined until the work order is generated. When that occurs, the system reads the filter string and retrieves the matching records.

- In our example, we chose a filter for all sewer pipes located in flow basin SD-561. When the system generates a work order, it will check the *Sewer Pipe Inventory* database to find all pipes in that basin.

1. Open the Related WOs tab in the PM and double click on the new work order listing.
2. On the Work Order's Assets tab, you'll see all of the pipes listed. Based on our filter, these are only the pipes located in flow basin SD-561.



3. Also note that the Category, Problem, and Main Task from the PM have all been carried over to the generated work order.
4. Now, close your work order by selecting a status of "999 - Complete" and entering an end date.
5. The PM's status will be reset to "1 - Awaiting WO Generation" and the Next due date will be adjusted.

Creating a Fleet PM A


In this example, we'll create a series of PM tasks for a single fleet asset. We intend to perform an oil change every 3,000 miles, an oil and transmission fluid change every 15,000 miles, and an oil and transmission fluid change plus a radiator flush every 30,000 miles.

1. Open the Fleet module by selecting **Fleet>>Fleet>>Fleet** from the desktop application main toolbar.
2. Locate the fleet asset record for which you would like to set up a series of PMs.

The screenshot shows a software window titled "Fleet - No Filter". The main content area is a form for a fleet asset. At the top, it displays "Fleet ID" as "Truck 1" and "2010 Ford F-150 Truck". Below this, there are several rows of input fields for various attributes:

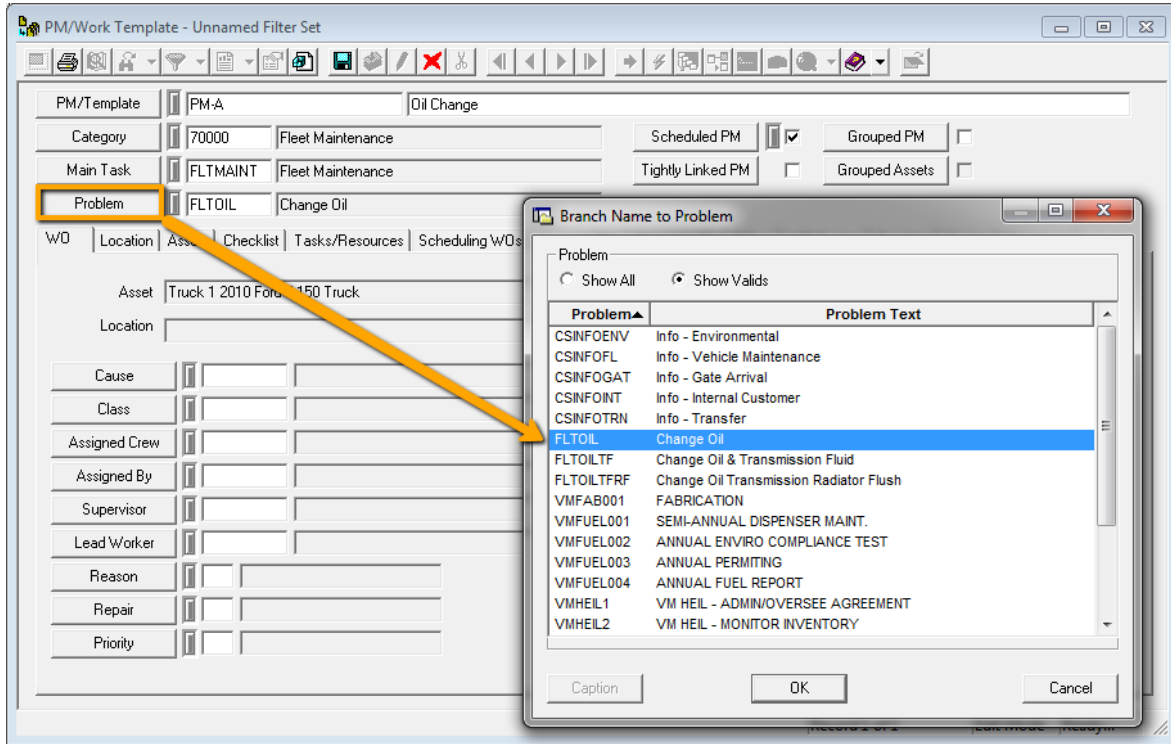
- Operating Status: 1 Operational
- Manufacturer: 41 FORD
- Year: 2010
- Color: Green
- Plate: 998 ACY
- VIN: 1FDXE459YHA30419
- Title: 4524-0912
- Fuel Type: 2 Unleaded
- Oil Type: 1 5w-30
- Engine Oil Quantity: 0.00
- Odometer:
- Hourmeter:


At the bottom right of the window, it says "Record 689 of 689" and "View Mode Ready..."

3. Click  on the module toolbar to create a new PM/Template. The Category and Asset ID will be carried over to the *PM/Template* module.
4. Create a unique code and description in the PM/Template field of the header. This allows the PM to be easily recognized. Choose codes that make sense to you and descriptions that are complete enough for anyone to understand what the PM is for.
 - In our example on the following page, we've titled the PM, "PM A - Oil Change".

Notes: _____

5. Select a Main Task and Problem from the pop-up pick lists by clicking on the field caption buttons.
 - You can see below that the Fleet category has been carried over from the related asset.
 - Then, we chose “Maintenance” as the Main Task and “Change Oil” as the Problem.




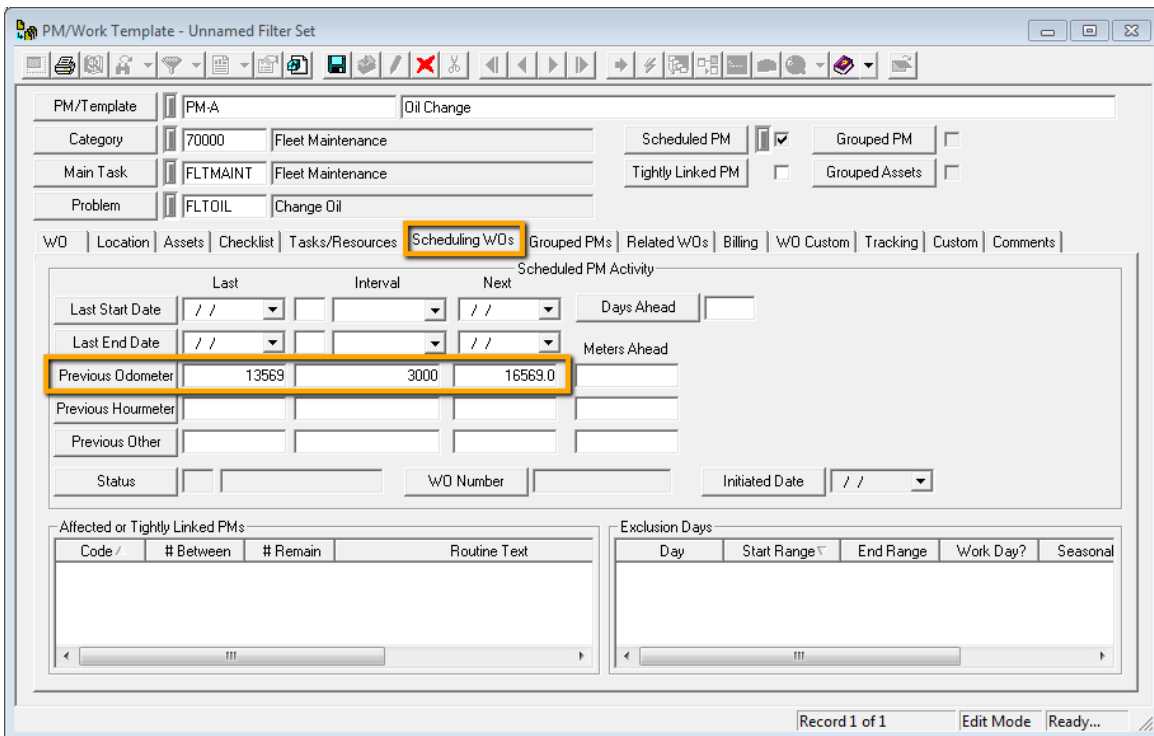
6. Select the Scheduled PM checkbox. This distinguishes the Scheduled PM from a Work Template.
7. Click  to save the record.

Notes: _____

Scheduling your Fleet PM A

Once again, the most important tab for scheduled PMs is the Scheduling WOs tab. On this tab, you can see where the Work Order generation schedule is set up. Earlier we discussed setting up this oil change PM A to generate every 3,000 miles. Complete the steps below to create the appropriate Work Order generation schedule based on meter readings.

1. Click  to enter *Edit* mode.
2. Open the Scheduling WOs tab and enter a Previous Odometer reading in the field provided.
 - We've entered 13,569 miles, the odometer reading found on the *Fleet Inventory* record.
3. Then, enter the interval - 3,000 miles. The odometer reading for when the PM is due will be calculated automatically by the system.



PM/Work Template - Unnamed Filter Set

PM/Template: PM-A Oil Change

Category: 70000 Fleet Maintenance Scheduled PM: Grouped PM:

Main Task: FLTMAINT Fleet Maintenance Tightly Linked PM: Grouped Assets:

Problem: FLTOIL Change Oil

WD | Location | Assets | Checklist | Tasks/Resources | **Scheduling WOs** | Grouped PMs | Related WOs | Billing | WD Custom | Tracking | Custom | Comments

Scheduled PM Activity

Last	Interval	Next	Days Ahead
Last Start Date			
Last End Date			
Previous Odometer	13569	3000	16569.0
Previous Hourmeter			
Previous Other			

Status: WD Number: Initiated Date:

Affected or Tightly Linked PMs

Code /	# Between	# Remain	Routine Text
--------	-----------	----------	--------------

Exclusion Days


Day	Start Range	End Range	Work Day?	Seasonal
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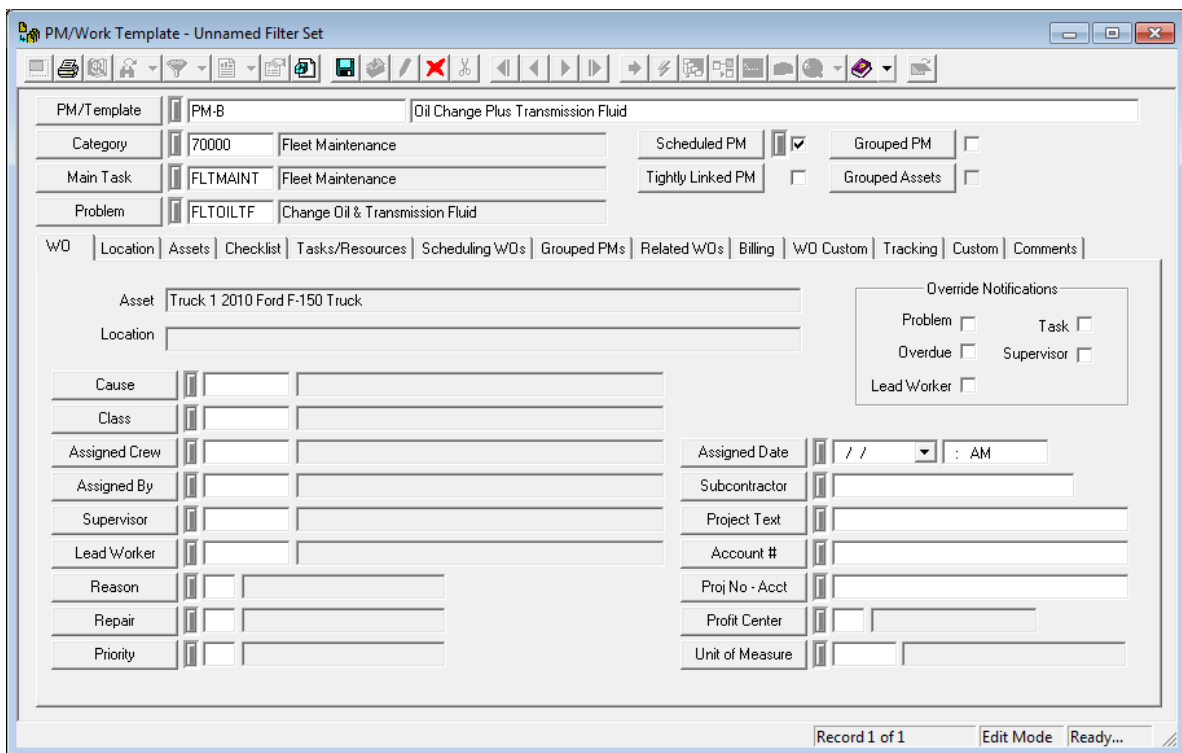
Record 1 of 1 Edit Mode Ready...

Notes: _____

Creating a Fleet PM B

We discussed creating a series of PMs for a single fleet asset. As we've already established the first PM A for an oil change at 3,000 miles, we'll move on to PM B. As we mentioned earlier, this PM will be for an oil and transmission fluid change to be generated every 15,000 miles.


1. On the *Fleet Inventory* record, click  to create a new PM.
2. The Fleet category and Asset code will be automatically carried over by the system.
3. Enter a unique PM/Template code, Main Task, and Problem. Then, mark the Scheduled PM checkbox.
 - In our example, we've named the PM/Template "PM B - Oil Change Plus Transmission Fluid".
 - We've selected "Maintenance" as the Main Task and "Change Oil/Transmission Fluid" as the problem.
4. Save the record.

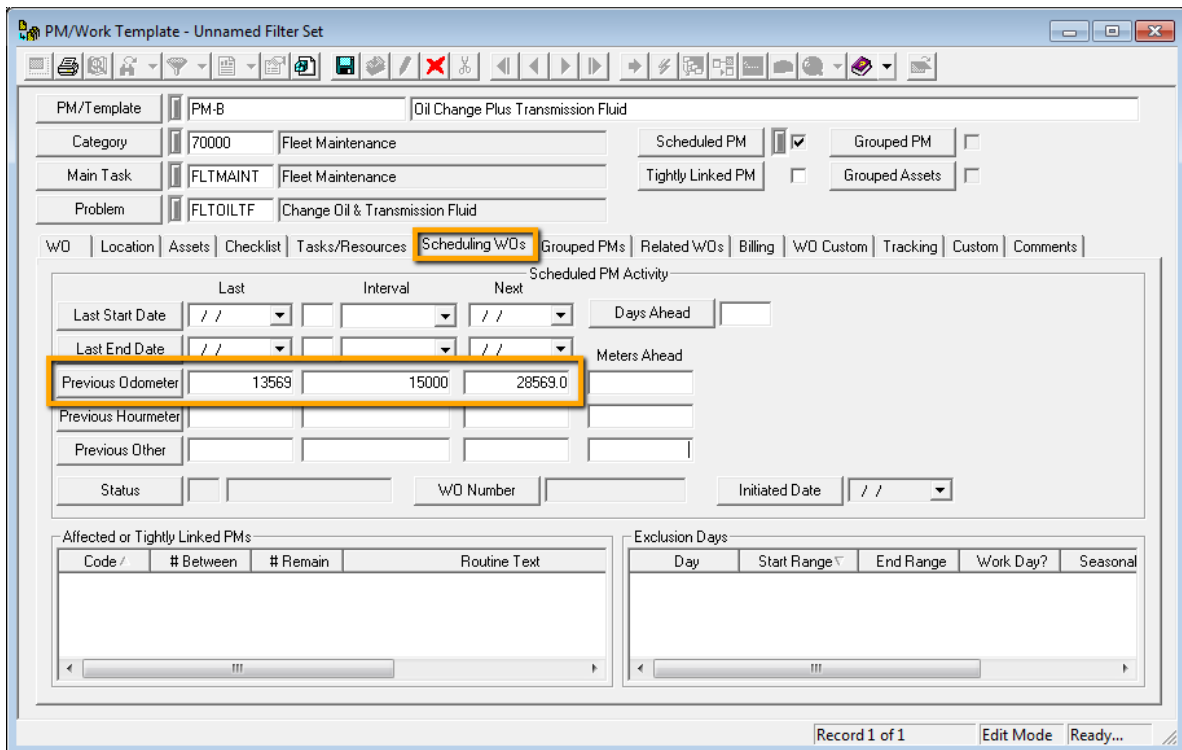


Notes: _____

Scheduling your Fleet PM B

We'll now set up PM B's Work Order generation schedule in the same manner as we did for PM A.

1. Click  to enter edit mode.
2. Open the Scheduling WOs tab and enter a Previous Odometer reading in the field provided.
 - Once again, we've entered 13,569 miles. This is the odometer reading found on the *Fleet Inventory* record.
3. Enter the interval - 15,000 miles. The odometer reading for when the PM is due will be calculated automatically by the system.



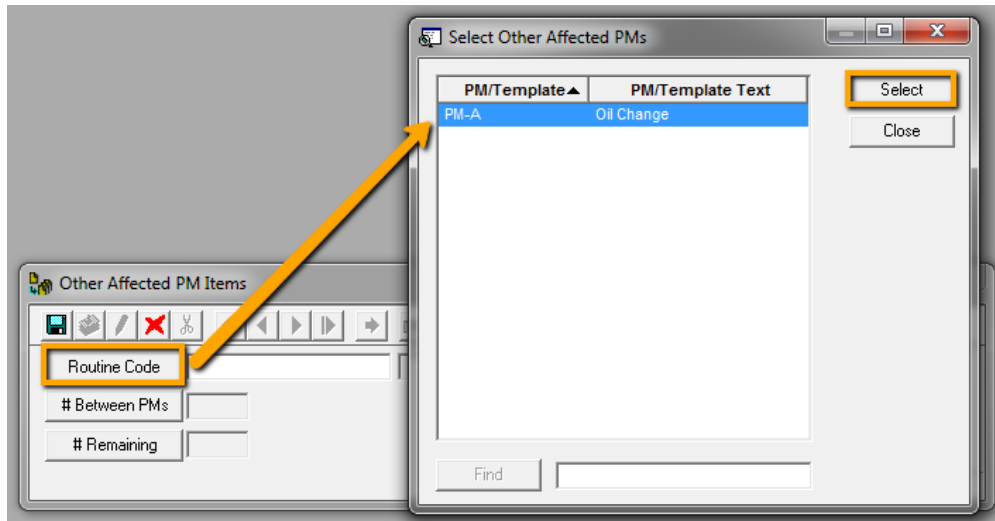
The screenshot shows the 'PM/Work Template - Unnamed Filter Set' window. The 'Scheduling WOs' tab is selected. The 'Previous Odometer' field is highlighted with a yellow box and contains the value 13569. The 'Interval' field contains 15000 and the 'Next' field contains 28569.0. The 'Meters Ahead' field is empty. The 'Status' field is empty. The 'WO Number' field is empty. The 'Initiated Date' field is empty. The 'Affected or Tightly Linked PMs' table is empty. The 'Exclusion Days' table is empty. The status bar at the bottom right shows 'Record 1 of 1', 'Edit Mode', and 'Ready...'.

Notes: _____

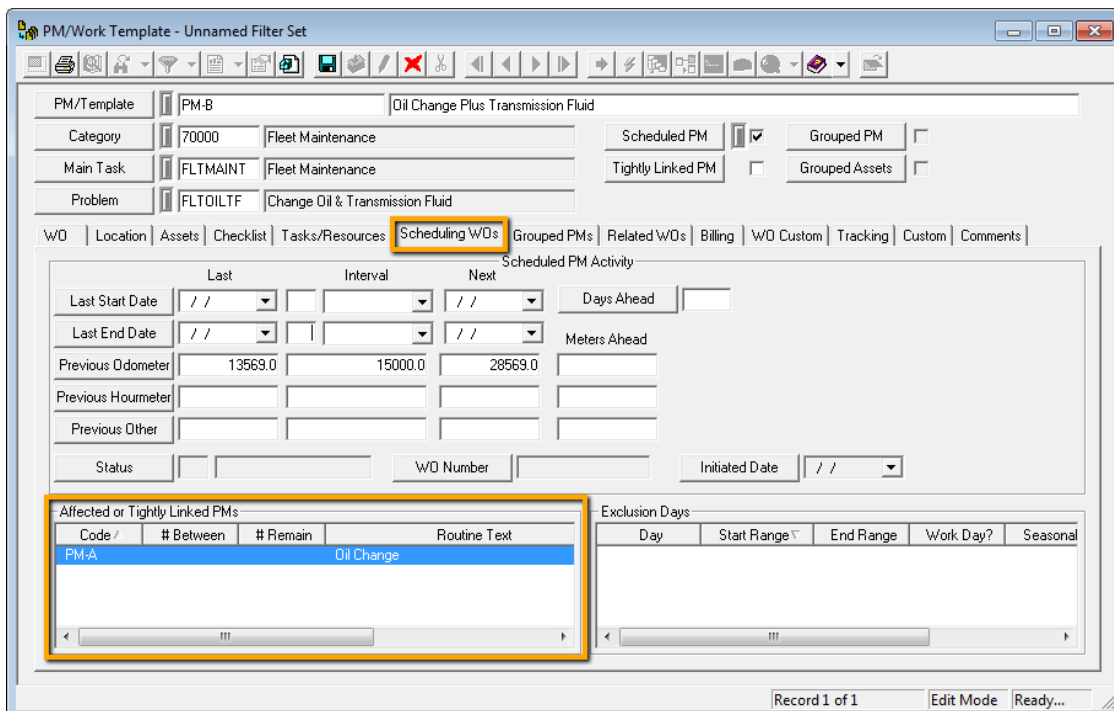
Associating PM B with PM A

Since we're creating a series of PMs for a single fleet asset, it's best if they are associated with each other. This allows you to see related PMs in the generated Work Orders and helps you avoid repeat trips to the mechanic.

1. Right click in the Affected or Tightly Linked PMs grid and select *Add Record*.
2. In the Other Affected PM Items dialog, click on the Routine Code button. This will allow you to select from the pick list. Only PMs that share the same Category and attached Assets as the current PM will be available for selection.
 - In our example, we've chosen the PM we just created, Oil Change PM A.




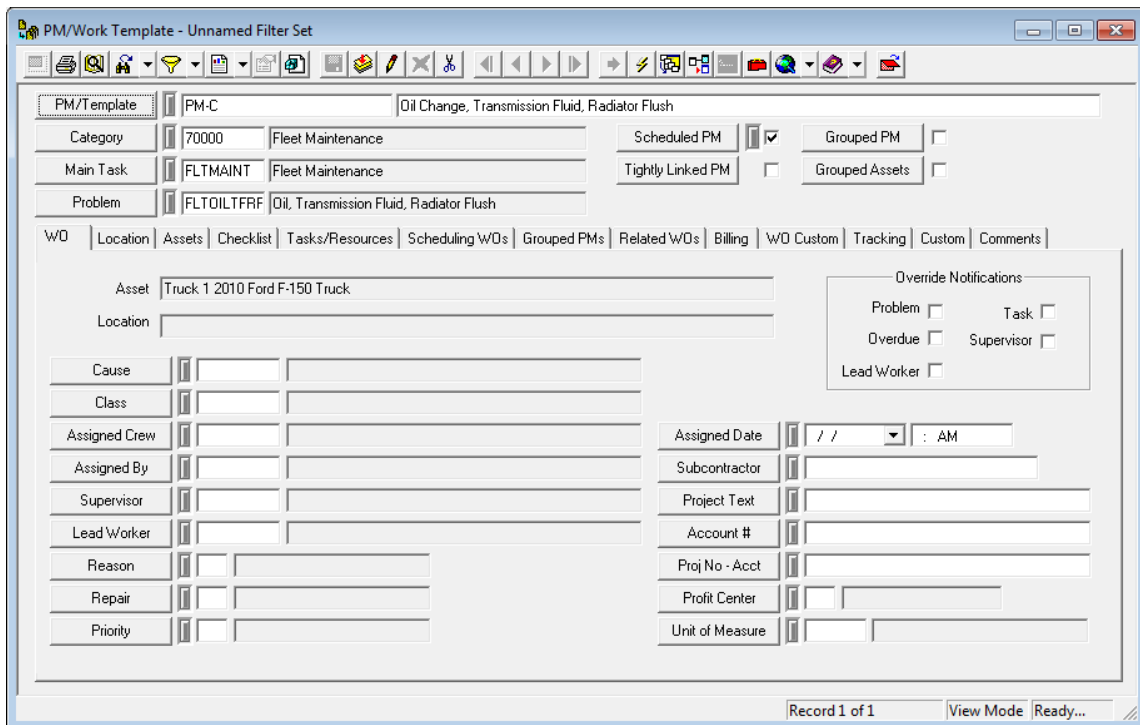
3. Click *Select*. Then save the record.
4. On the Scheduling WOs tab, you can now see the Oil Change PM A listed in the grid.



Creating a Fleet PM C

Now that you've set up PMs A and B for your fleet asset, let's complete the process by creating PM C. Remember, this will be for an oil change, transmission fluid change, and radiator flush performed at 30,000 miles. For this PM, we'll repeat all of the steps we followed for the first two PMs.

1. Once again, click  to create a new PM from the *Fleet Inventory* record.
2. The Fleet category and Asset code will be automatically carried over by the system.
3. Enter a unique PM/Template code, Main Task, and Problem. Then, mark the Scheduled PM checkbox.
 - For this example, we've named the PM/Template "PM C - Oil Change, Transmission Fluid, Radiator Flush".
 - We've selected "Maintenance" as the Main Task and "Oil, Transmission Fluid, Radiator Flush" as the problem.
4. Save the record.



PM/Work Template - Unnamed Filter Set

PM/Template: PM-C | Oil Change, Transmission Fluid, Radiator Flush

Category: 70000 | Fleet Maintenance | Scheduled PM: | Grouped PM:

Main Task: FLTMAINT | Fleet Maintenance | Tightly Linked PM: | Grouped Assets:

Problem: FLTOLTFRF | Oil, Transmission Fluid, Radiator Flush

Asset: Truck 1 2010 Ford F-150 Truck

Location:

Override Notifications: Problem Task
Overdue Supervisor
Lead Worker

Assigned Date: / / : AM

Subcontractor:

Project Text:

Account #:

Proj No - Acct:

Profit Center:


Unit of Measure:

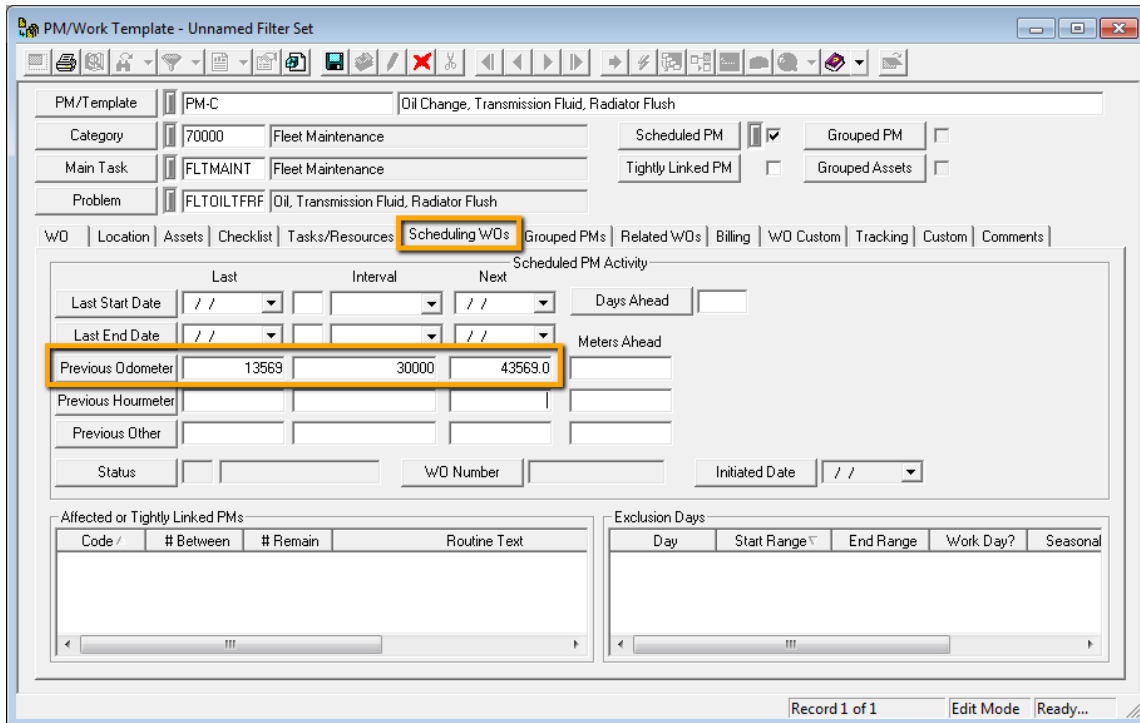
Record 1 of 1 | View Mode | Ready...

Notes: _____

Scheduling your Fleet PM C

Now, we'll set up PM C's Work Order generation schedule like we did for the other two PMs (A and B).

1. Click  to enter *Edit* mode.
2. Open the Scheduling WOs tab and enter a Previous Odometer reading in the field provided.
 - Once again, we've entered 13,569 miles. This is the odometer reading found on the *Fleet Inventory* record.
3. Enter the interval - 30,000 miles. The odometer reading for when the PM is due will be calculated automatically by the system.



PM/Work Template - Unnamed Filter Set

PM/Template: PM-C Oil Change, Transmission Fluid, Radiator Flush

Category: 70000 Fleet Maintenance Scheduled PM: Grouped PM:

Main Task: FLTMAINT Fleet Maintenance Tightly Linked PM: Grouped Assets:

Problem: FLTOLTFRF Oil, Transmission Fluid, Radiator Flush

WD | Location | Assets | Checklist | Tasks/Resources | **Scheduling WOs** | Grouped PMs | Related WOs | Billing | WO Custom | Tracking | Custom | Comments

Scheduled PM Activity

Last	Interval	Next	Days Ahead
Last Start Date: / /		/ /	
Last End Date: / /		/ /	
Previous Odometer: 13569	30000	43569.0	
Previous Hourmeter			
Previous Other			

Status: WD Number: Initiated Date: / /

Affected or Tightly Linked PMs

Code /	# Between	# Remain	Routine Text
[Empty]			

Exclusion Days

Day	Start Range	End Range	Work Day?	Seasonal
[Empty]				

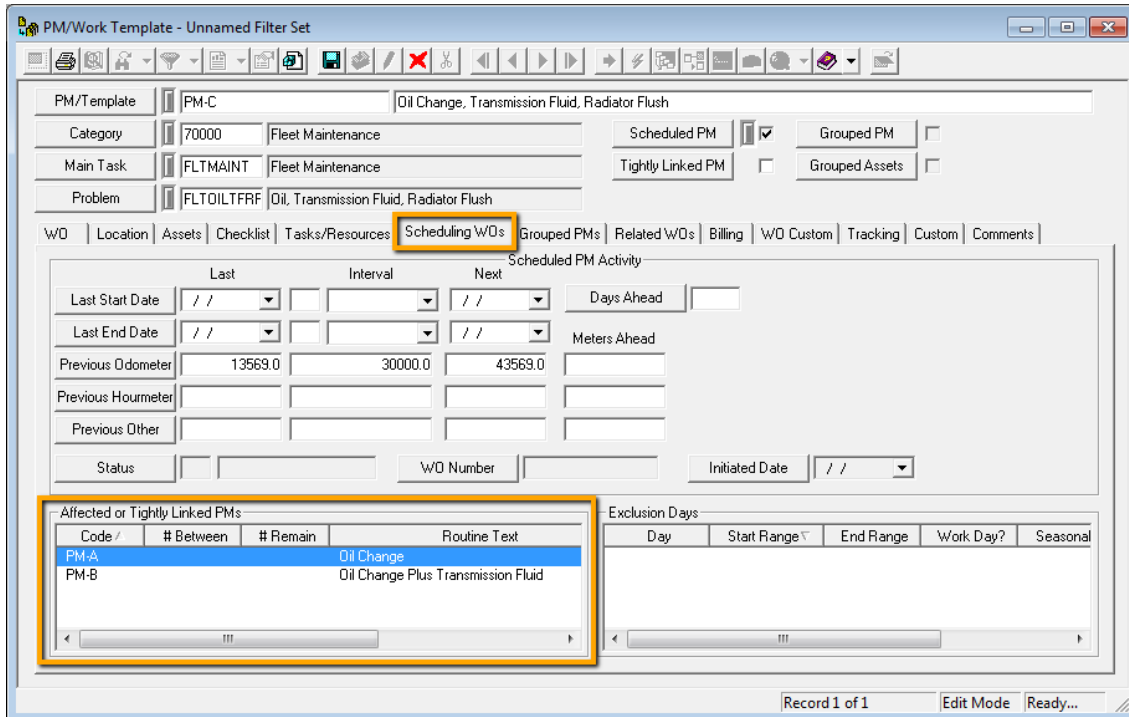
Record 1 of 1 Edit Mode Ready...

Notes: _____

Associating PM C with PM A and PM B

We'll also associate this PM C with our other PMs. Since we now have three separate PMs for a single fleet asset, we'll want to make sure they're all related.

1. Right click in the Affected or Tightly Linked PMs grid and select *Add Record*.
2. Using the Routine Code button, select your first PM A from the Other Affected PMs pick list.
3. Repeat this process to associated PM B with your new record.
4. There will now be two items listed in the Affected or Tightly Linked PMs grid.



Notes: _____

Work Order Generation

PM A

Based on the schedules you set up for your three PMs, work orders will be generated for this fleet asset when the vehicle's odometer reads 16,569 miles, 28,569 miles, and 43,569 miles (for PMs A, B, and C, respectively). In order for these work orders to be generated, you'll need to record increased odometer readings. We'll perform this task by entering a fleet fueling record for this vehicle.

1. On the *Fleet Inventory* record, Fueling tab, right click and select *Add Record*. The following window will appear.
2. As you can see, the previous odometer reading (13569) is listed on the left-hand side of the record.

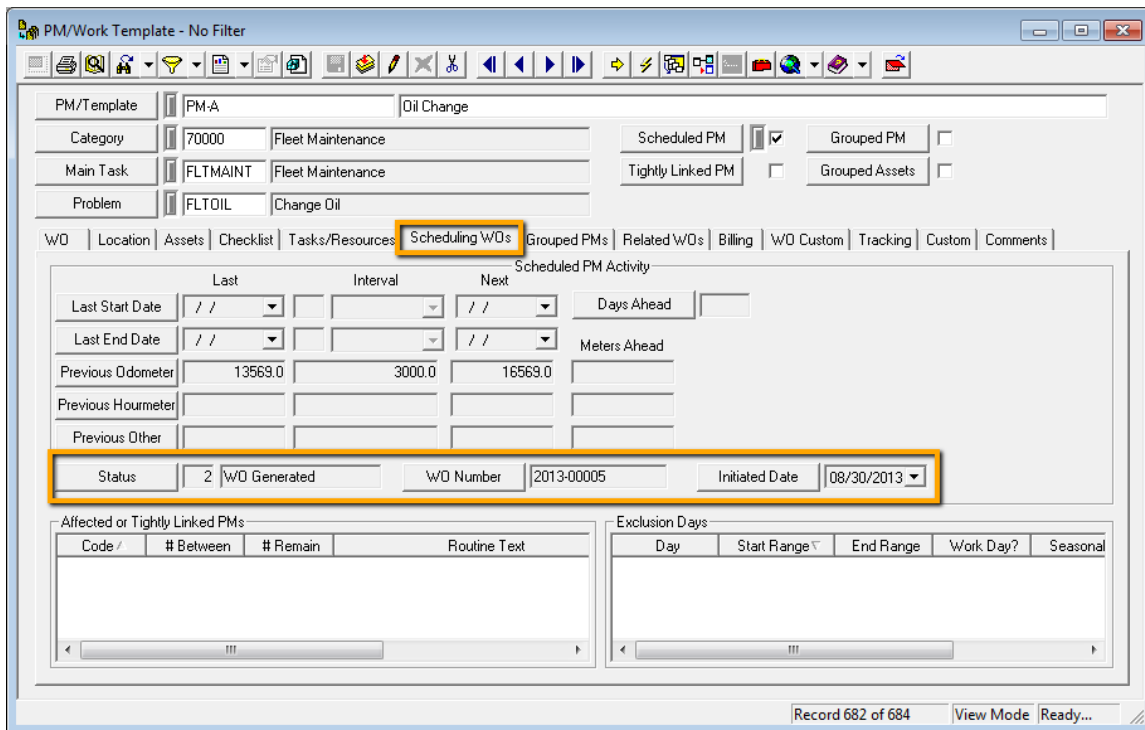
The screenshot shows a software window titled "Fuelings - Unnamed Filter Set". It contains several input fields and a table. The "Fleet ID" is "Truck 1" (2010 Ford F-150 Truck) and the "Employee" is "Channing". The "Fueling ID" is "152". The "Fuel" type is "FRG" (Regular Unleaded) with a "From Rollback" checkbox. The "Fuel Amount" is 12 Gallons, "Cost Per Unit" is 3.2, and "Total Fuel Cost" is 38.40. A "Totals" section shows "Other Fluids" at 0.00 and "Grand Total" at 38.40. A table below shows meter readings for "Date", "Odometer", "Hourmeter", and "Other Meter". The "Odometer" row shows a "Previous Reading" of 13569.0 and a "Current Reading" of 16587, with a "Difference" of 3018.0. The "Date" row shows "08/01/2013 : AM" and "08/03/2013 : AM" with a "Difference" of 2.00. The "\$ per Unit" is 19.20 and "Units / Fuel Amount" is 0.167. The bottom of the window shows "Record 0 of 1", "Add Mode", and "Ready..."

	Previous Reading	Current Reading	Difference	\$ per Unit	Units / Fuel Amount
Date	08/01/2013 : AM	08/03/2013 : AM	2.00	19.20	0.167
Odometer	13569.0	16587	3018.0	0.01	251.500
Hourmeter					
Other Meter					

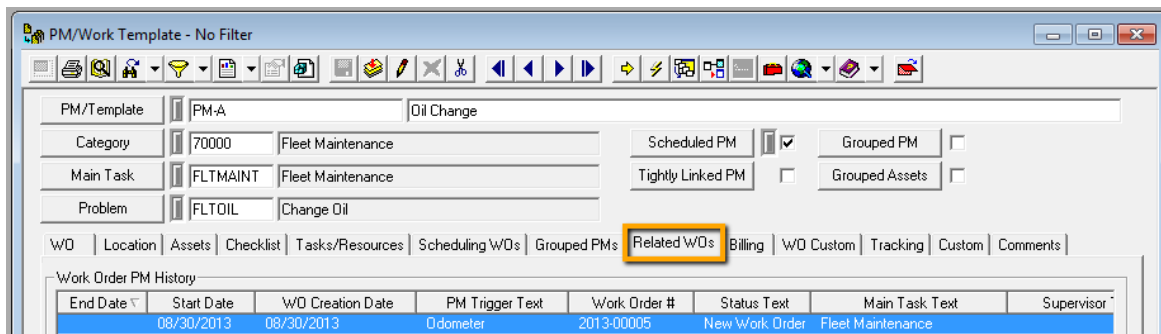
3. You'll want to enter the current reading and fuel used. The system will automatically calculate the fluid cost and difference between the odometer readings.
 - In our example, we've entered an odometer reading of 16,587 miles. This reading is in excess of the 3,000 mile generation requirement for PM A.
4. Save and close the record.

Notes: _____

- The Status on PM A's Scheduling WO's tab has now been updated to read "2 - WO Generated". The WO Number and Initiated Date are also listed.



- To view the generated Work Order, open the Related WO's tab. You'll see the new Work Order listed. Double click on it to open the *Work Orders* module.



Notes: _____

- The new Work Order contains the same Category, Problem, Main Task, and Asset that you included in the PM.

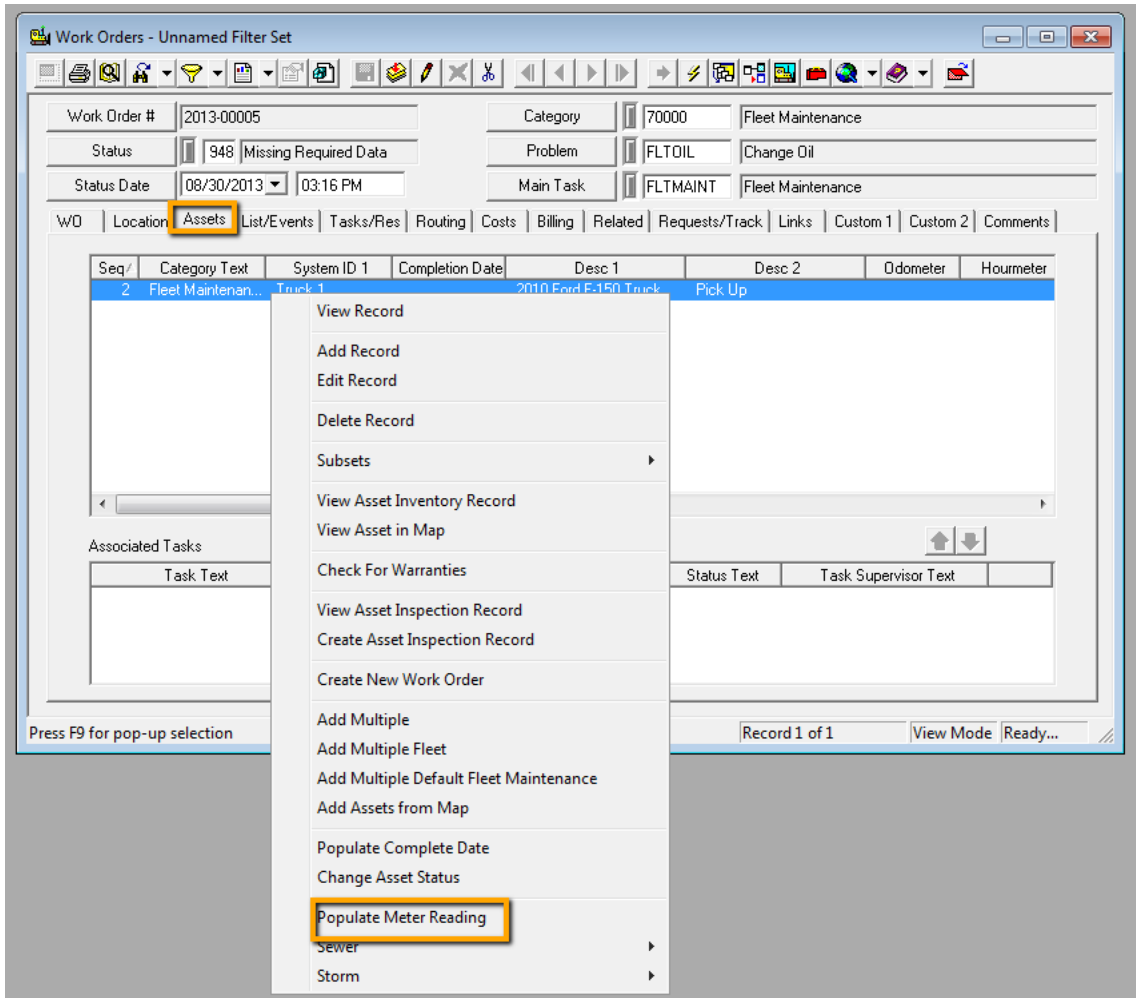
- Click on the Related tab of the Work Order to see the associated Oil Change PM A.

Associated PM /	Associated PM Text	Closed PM
PM-A	Oil Change	No

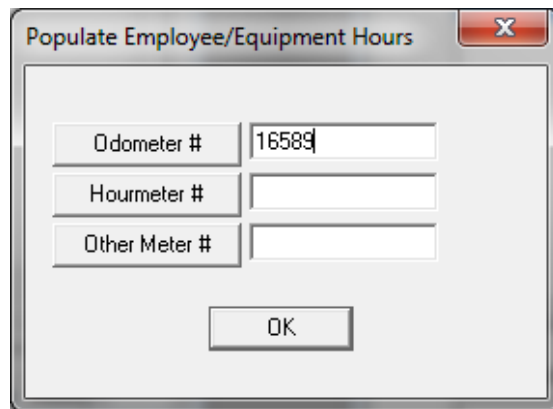
Notes: _____

9. To close the Work Order:

- You must first enter an Odometer reading for the Fleet Asset.
 - Go to the Asset grid for the work order and select the Asset.
 - Right-click and choose Populate Meter Reading.



- When the dialog opens, enter 16589 in the Odometer field and click OK.



- Then, as before, enter an End Date and set the Status to “999 - Complete”.

Work Orders - Unnamed Filter Set

Work Order # 2013-00005

Status 999 Complete

Status Date 08/30/2013 03:16 PM

Category 70000 Fleet Maintenance

Problem FLTOIL Change Oil

Main Task FLTMAINT Fleet Maintenance

Asset Truck 1 2010 Ford F-150 Truck Pick Up

Location

Cause

Assigned Crew

Supervisor

Lead Worker

Priority

Account #

Proj No - Acct

Project Text

Reason

Assigned By

Assigned Date / / : AM

Start Date 08/30/2013 : AM

End Date 08/30/2013 : AM

Master Project ID

Name

Override Notifications

Problem

Overdue

Lead Worker

Task

Supervisor

Hard Lock WO

Comment From Request

Press F9 for pop-up selection

Record 1 of 1 Edit Mode Ready...

10. PM A's status has now been updated to read “1 - Awaiting WO Generation”.

PM/Work Template - No Filter

PM/Template PM-A Oil Change

Category 70000 Fleet Maintenance

Main Task FLTMAINT Fleet Maintenance

Problem FLTOIL Change Oil

Scheduled PM Grouped PM

Tightly Linked PM Grouped Assets

WD Location Assets Checklist Tasks/Resources Scheduling WOs Grouped PMs Related WOs Billing WO Custom Tracking Custom Comments

Scheduled PM Activity

Last Start Date / / Interval Next / / Days Ahead

Last End Date 08/30/2013 / / Meters Ahead

Previous Odometer 16589.0 3000.0 19589.0

Previous Hourmeter

Previous Other

Status 1 Awaiting WO Generation

W/O Number

Initiated Date / /

Affected or Tightly Linked PMs

Code /	# Between	# Remain	Routine Text

Exclusion Days

Day	Start Range	End Range	Work Day?	Seasonal

Record 682 of 684 View Mode Ready...

PMB

Now that we've generated and closed a Work Order for the Oil Change PM A, we'll once again increase the odometer reading for our fleet asset by adding another fueling record. This time, we'll increment the mileage so that both PMs A and B will be generated.

1. On the *Fleet Inventory* record, Fueling tab, right click and select *Add Record*.
 - Remember, you'll want to track the fuel used, its cost, and the new odometer reading. The system will automatically calculate the increase.
 - For our example, we've entered a new odometer reading of 28,595 miles. This will trigger both PMs A and B to generate Work Orders.
2. As you can see below, the status for both PMs have now been reset to "2 - WO Generated".
 - Because these PMs are independent of each other, two separate Work Orders exist: 07-000009 and 07-000008.

PM A

Status	2	WO Generated	WO Number	2013-00006	Initiated Date	08/30/2013
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PM B

Status	2	WO Generated	WO Number	2013-00007	Initiated Date	08/30/2013
--------	---	--------------	-----------	------------	----------------	------------

3. Now, access and close the work orders as you did previously.
 - Open the Related WOs tab on both PMs. Then, double click on the New Work Order Generated listing.
 - On both work orders, enter an Odometer Reading of 28598, set the status to "999 - Complete" and enter the end date.
 - The status on both PMs will be reset to "1 - Awaiting WO Generation".
 - The odometer readings will be reset on both PMs.

PM A

Scheduled PM Activity				
Last	Interval	Next		
Last Start Date	/ /	/ /	Days Ahead	
Last End Date	09/01/2013	/ /	Meters Ahead	
Previous Odometer	28598.0	3000.0	31598.0	
Previous Hourmeter				
Previous Other				
Status	1	Awaiting WO Generation	WO Number	
Initiated Date	/ /			

PM B

Scheduled PM Activity				
Last	Interval	Next		
Last Start Date	/ /	/ /	Days Ahead	
Last End Date	09/01/2013	/ /	Meters Ahead	
Previous Odometer	28598.0	15000.0	43598.0	
Previous Hourmeter				
Previous Other				
Status	1	Awaiting WO Generation	WO Number	
Initiated Date	/ /			

PM C

In the previous steps, we showed you how to generate and close work orders for PMs A and B. To complete this process for our fleet asset, we'll force all three PMs to generate.

1. Enter another fueling record for your fleet asset. This time, we'll increase the odometer reading to 43,600 miles.
 - Remember, our previous reading was 28,595 miles.
 - PM A was set to generate at 31,595 miles - an increase of 3,000.
 - PM B was set to generate at 43,595 miles - an increase of 15,000.
 - PM C, our final PM, was originally set to generate at 43,569 miles - 30,000 more than the first odometer reading we used in this workbook.
2. Since our third *Fleet Fueling* record has an odometer reading that will trigger all three PMs to generate, you'll see the status on all three PMs reset to "2 - WO Generated".
 - Since these PMs are independent of each other, there will be three separate Work Orders.

PM A

Status	2	WO Generated	WO Number	2013-00008	Initiated Date	08/30/2013
--------	---	--------------	-----------	------------	----------------	------------

PM B

Status	2	WO Generated	WO Number	2013-00009	Initiated Date	08/30/2013
--------	---	--------------	-----------	------------	----------------	------------

PM C

Status	2	WO Generated	WO Number	2013-00010	Initiated Date	08/30/2013
--------	---	--------------	-----------	------------	----------------	------------

3. You should check the Affected or Tightly Linked PMs grid to help remind you which PMs are related to each other.
 - Below, you can see PM C's grid. Listed there are both PMs A and B.
 - Checking this grid will help ensure that all related PM work orders are taken care of at the same time. This will help avoid additional trips to the mechanic.

Affected or Tightly Linked PMs			
Code	# Between	# Remain	Routine Text
PM-A			Oil Change
PM-B			Oil Change Plus Transmission Fluid

4. Once again, access and close all three work orders.
 - The status for all three PMs will be reset to "1 - Awaiting WO Generation".
 - The odometer readings for all three PMs will be updated.

Creating a Work Template

Here we'll use a Template to set up a daily job that is complex because of the number of resource entries required for Project Accounting. Overall, the setup for a Work Template is similar to the setup for a PM. Since we discussed PMs in the preceding examples, we'll focus on the differences for a Work Template.

PM/Work Template - No Filter

PM/Template: FMTeam1 | Facilities Maintenance - Team 1 - Daily Work Order

Category: 53000 Facility Building | Scheduled PM: | Grouped PM:

Main Task: 160 Troubleshoot | Tightly Linked PM: | Grouped Assets:

Problem: 360 Routine Maintenance

WO | Location | Assets | Checklist | Tasks/Resources | Scheduling WOs | Grouped PMs | Related WOs | Billing | WO Custom | Tracking | Custom | Comments

Asset: _____

Location: _____

Cause: _____

Class: _____

Assigned Crew: _____

Assigned By: _____

Supervisor: 38 JESUS HERNANDEZ

Lead Worker: _____

Reason: _____

Repair: _____

Priority: _____

Assigned Date: ____/____/____ : AM

Subcontractor: _____

Project Text: _____

Account #: _____

Proj No - Acct: _____

Profit Center: _____

Unit of Measure: 2 Each

Override Notifications

Problem: | Task:

Overdue: | Supervisor:

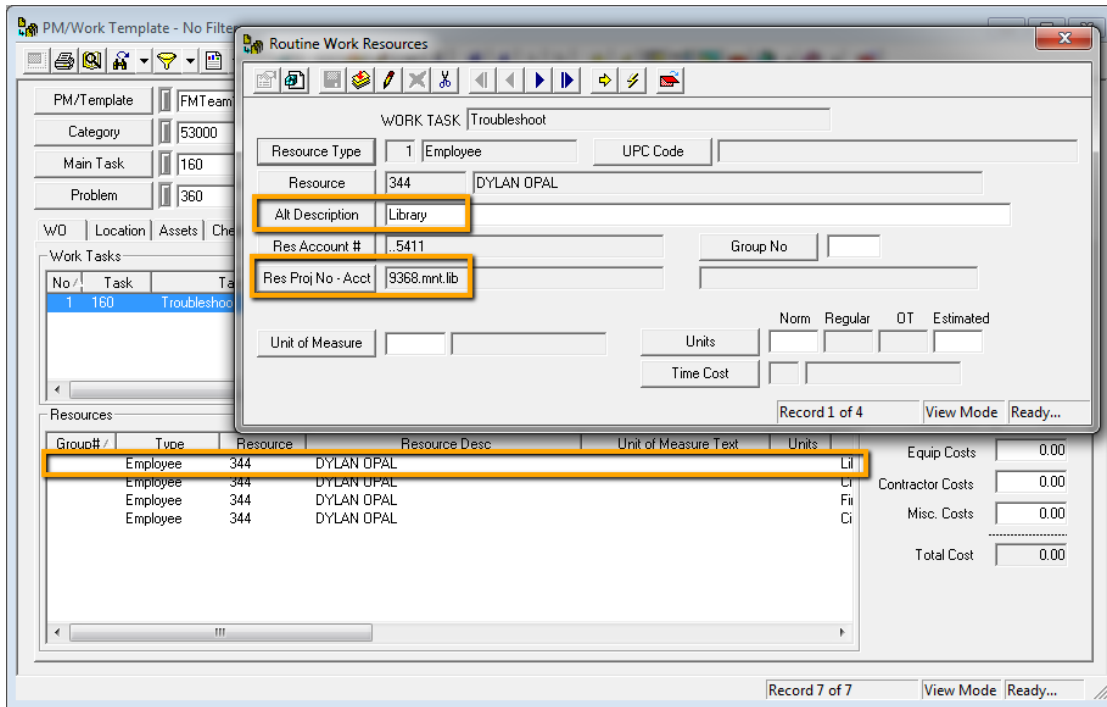
Lead Worker:

Record 0 of 6 | Add Mode | Ready...

1. The Template, like the PM, must be given a Code and Description (a unique name). This is important because when creating a Work Order from a Template, you'll need to be able to identify your Template in a list.
2. Note that the Scheduled PM checkbox is not marked. This turns off the scheduling function (in the Scheduling WOs Tab). This is the only thing that distinguishes the work template from a PM.

Notes: _____

- Now, you can enter all of the information you want to appear on the Work Order. This may include the Supervisor, Location, Asset, Resources, etc.




- On the Tasks/Resources tab in this template, one employee was entered multiple times; once for each building in which he routinely works. We've also entered corresponding Project Numbers. This way, a Work Order containing many entries with many complex Project Numbers doesn't need to be created each and every day.
 - Right click in the Resource grid and select Add Record.
 - Select a Resource Type and Resource.
 - Enter an Alt Description. This description will appear in the Resource grid on the generated Work Order allowing you to easily identify the record.
 - Make sure that the corresponding Project Number is populated.
- Now, the information you want to appear on the Work Order will appear each and every time you need it.

Notes:


Using Work Templates

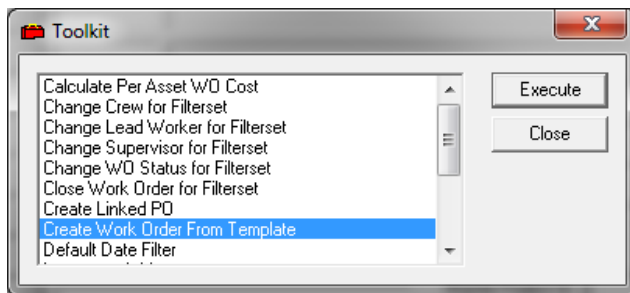
Work Templates are set up just like PMs; however, they do not have generation schedules and the Scheduled PM checkboxes are not marked. You can easily generate a Work Order from a Template as often and whenever you wish from either the *PM/Template* or *Work Orders* modules.

From the *PM/Template* module:

- Open **Work>>PM/Work Template** from the desktop application main menu.
- Locate the work template for which you would like to create a work order.
- Click the Create New Work Order button  at the top of the module toolbar.
- A work order will be generated based on the currently displayed template.

From the *Work Orders* module:

- Open **Work>>Work Orders>>Standard** from the desktop application main menu.
- Click the Toolkit button  at the top of the module toolbar.



- You'll find several tools listed in the toolkit. Execute the tool, "Create Work Order From Template".
- A list of all available Work Templates will appear. Select the Template you want and a Work Order will be generated.

