# Maintenance Help Document MNWIN-TMS Digital

# **Overview of Preventive Maintenance**

This procedure allows you to schedule PM's or other services (Licensing, Evaluations, Permitting, etc.) that need to be tracked by miles, hours or days. As a maintenance supervisor you are probably very familiar with preventive maintenance. You know that a good PM system can reduce the cost of maintenance on your equipment and keep it in an operational status more of the time. You probably also have a PM system already in place. MNWIN allows you to keep the system you are currently using and expand it any time that you wish.

The keyword for MNWIN PM Scheduling is "flexibility". PM's can be scheduled for an individual unit, for a group of units or for all of one TYPE of vehicle. Multiple services can be attached to each PM for maximum utilization and they can be scheduled by miles, hours or by days. A "PM" is defined in MNWIN as any type of service that needs to be performed at regular intervals.

If an oil change is needed every 3000 miles, you can track it. If a unit is

Licensed every 12 months, you can track it. If a generator needs a PM every 100 hours, you can track it. In other words, you can track any activity that is regularly performed on a unit. There are several steps to scheduling PMs.

The first is setting up and editing several PM support files.

The second is actually scheduling the PM for the appropriate units.

You should then check your set up for accuracy.

# Set up Supporting PM Files

The following support files should be set up or edited in order for PM's to track properly.

PM Types File PM Master File Parts Master File Trucks, Trailers or Vehicles Master File Service Master File

# Vehicle Master File for PM's

In the Vehicle files, the question "Track PM's" must be answered Y. This is on the second page of the Truck File and the first page of the Trailer File and Vehicle File. Any piece of information that may be used to schedule PM's must be entered in these master files. If PM's will be scheduled by make or model, these fields must be filled in. If PM's will be scheduled by unit type only, those fields are optional.

# Parts Master File for PM's

Many PM's will use inventory parts. Any part that will be used on a PM must be entered in the parts master file.

| PM Master for         | ID: OILCHG               | Type: ROUTIN | IE            | X       |
|-----------------------|--------------------------|--------------|---------------|---------|
|                       |                          |              |               |         |
| Type:<br>Description: | ROUTINE<br>Truck Oil Cha | nge          |               |         |
| PM Services           |                          |              |               |         |
| Туре                  | ID                       | Description  |               | <b></b> |
| PM SERVICE            | OILCHG                   |              |               |         |
| PM SERVICE            | CLEAN                    |              |               |         |
|                       |                          |              |               |         |
|                       |                          |              |               |         |
| 41                    |                          |              |               |         |
|                       |                          |              |               |         |
| Add                   | Edit Del                 | ete          |               |         |
| PM Parts              |                          | 1773         |               |         |
| Part #                |                          | Quantity     | Description   |         |
| OIL                   |                          | 12.000       | Oil           |         |
| LUBE SUPPLIES         |                          | 1.000        | Lube Supplies |         |
|                       |                          |              |               |         |
| -                     |                          |              |               |         |
| •                     |                          |              |               | •       |
|                       |                          |              |               |         |
|                       | Lait Del                 | ece          |               |         |
| OF 1                  | Cancel                   |              |               |         |
|                       |                          |              |               |         |

# **Service Master File**

This file is vital to the PM's scheduling. This is labor, whether charged by the hour or a flat rate.

The Service may also include parts, if any to be used when this service is done. For example, if the service were for an oil change, the parts included might be quarts of oil and an oil filter.

# **PM Types**

This is where you specify and group what type your PM Master will be. For example, you may have several ROUTINE PM's that will go under the ROUTINE PM type.

| 镭 F | File Maintena       | nce: PM Types        | ×       |
|-----|---------------------|----------------------|---------|
| D   | PM Type             | Description          | <b></b> |
| 1   | INSPECT             | Inspection           |         |
| 1   | ROUTINE             | Rountine Maintenance |         |
| T   | WRECK               | Post Wreck Check     |         |
| 0   |                     |                      |         |
|     |                     |                      |         |
|     |                     |                      |         |
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| 1   |                     |                      |         |
| 4   |                     |                      |         |
| _   | de                  |                      |         |
| E   | dit-F2 <u>D</u> ele | te-F3 Add-F4         |         |

#### **PM Master File**

This file defines which services (Service Master File) will be performed as a PM. Multiple services may be included on one PM. A PM master may be used in multiple schedules. A PM master also may include parts. Also, see PM Master file in the Setup area.

| PM Master for         | ID: OILCHG               | Type: ROUTINE |               | (        |
|-----------------------|--------------------------|---------------|---------------|----------|
| Type:<br>Description: | ROUTINE<br>Truck Oil Cha | nge           |               |          |
| PM Services           |                          |               |               |          |
| Туре                  | ID                       | Description   |               | •        |
| PM SERVICE            | OILCHG                   |               |               |          |
| PM SERVICE            | CLEAN                    |               |               |          |
|                       |                          |               |               | -        |
| •                     |                          |               |               |          |
| Add E                 | Edit Del                 | ete           |               |          |
| PM Parts              |                          |               |               |          |
| Part #                |                          | Quantity      | Description   |          |
| OIL                   |                          | 12.000        | Oil           |          |
| LUBE SUPPLIES         |                          | 1.000         | Lube Supplies |          |
|                       |                          |               |               | <b>_</b> |
| •                     |                          |               |               | •        |
| Add E                 | Edit Del                 | ete           |               |          |
|                       |                          |               |               |          |

### Scheduling PM's

After the files have been built for PM's, the intervals must be scheduled. This defines when and how often a PM should be performed and on which vehicles. Each PM to be done is given a PM number. This is merely a tracking number for the system. The detail of this PM is handled in the PM Master.

After your PM Master is setup for the PM, you will come to the Schedule PM screen and add the PM as a schedule.

| 0 | PMNUM  | PMTYPE  | PMID   | DESC                       | IDTYPE    | MILI |
|---|--------|---------|--------|----------------------------|-----------|------|
| ĺ | B0001  | ROUTINE | CLEAN  | Clean Unit                 | FLT TRUCK |      |
|   | DESC   | ROUTINE | DESC   | CHECK DESC                 | FLT TRUCK |      |
|   | TRKOIL | ROUTINE | OILCHG | Truck Oil Change           | FLT TRUCK |      |
| 1 | TRLCLN | ROUTINE | CLEAN  | Clean Unit                 | FLT TRAIL |      |
|   | XL     | ROUTINE | XL     | CHECKING FOR XL ONLY STUFF | FLT TRUCK |      |
|   |        |         |        |                            |           |      |
| • |        |         |        |                            |           |      |

Click on Add.

Scheduling PM's may be done in several ways. When a PM schedule record is added, there are many fields that may be used, but the user should ONLY use those fields that are necessary for the PM tracking. For instance, if a particular PM should be done on ALL Fleet Trucks, then the only fields to fill in would be PM Type, PM ID, Unit Type, and Utilization Factor. Other entry would restrict the PM further.

| M ID:                            | CLEAN           | Type:          | ROUTINE    |              |     |       |    |
|----------------------------------|-----------------|----------------|------------|--------------|-----|-------|----|
| lustomer:                        |                 |                |            |              |     |       |    |
| Init Type:                       | FLT TRUCK       |                | ID:        |              |     |       |    |
| Init Make:                       |                 |                | Model:     |              |     |       |    |
| Init Year Starting               | g in:           |                | Ending in: |              |     |       |    |
| ngine Model:                     |                 |                | RPM: 0     | Horsepower:  | 0   |       |    |
| Init Description:                |                 |                | 10         | Floot        | 0   |       |    |
| TILIZATION FA                    | CTORS AND INTER | VALS           |            |              | 10  |       | -  |
| ITILIZATION FAC<br>peedometer: 2 | TORS AND INTER  | VALS<br>Meter: | 0          | Chronometer: | 0.0 | Days: | Γο |

After adding the PM to the Schedule screen. You then need to click on Schedule and make your choices as follows:

PM's may be calculated for due in several ways.

1. Starting utilization looks at the beginning meter reading and the utilization factor and schedules according to that. If a PM were to be done every 15000 miles, and starting utilization were used, the PM would be due as soon as the vehicle reaches the meter reading 15000, if the beginning meter were 0.

2. Last occurrence looks at the last time this PM was performed. If the PM has never been performed, and the meter readings are greater than the utilization factor, then this PM will show as due now.

If a PM was done prior to installation of this system, and the PM should not be due now, enter the date and meter reading of the occurrence on a repair order (and post it). The system will then calculate this PM using that meter reading plus the utilization factor. The system would also look at POSTED repair orders for this vehicle to see if this PM has been performed, and trigger the next PM based on whichever was the most recent performance.

3. Current utilization factor uses the current meter reading and schedules from that reading plus the interval. Previous history is not considered.

# Edit an existing PM

- 1. Highlight the PM in need of editing. Click the RemovePM button to clearout the existing PM in the database to avoid duplication.
- 2. Edit the PM as desired.
- 3. Re-Schedule the PM. It will place the corrected records in the database.

|      | PMNUM  | PMTYPE  | PMID   | DESC                       | IDTYPE    | MILI 🚽 |
|------|--------|---------|--------|----------------------------|-----------|--------|
|      | B0001  | ROUTINE | CLEAN  | Clean Unit                 | FLT TRUCK | -      |
|      | DESC   | ROUTINE | DESC   | CHECK DESC                 | FLT TRUCK |        |
|      | TRKOIL | ROUTINE | OILCHG | Truck Oil Change           | FLT TRUCK |        |
|      | TRLCLN | ROUTINE | CLEAN  | Clean Unit                 | FLT TRAIL |        |
|      | XL     | ROUTINE | XL     | CHECKING FOR XL ONLY STUFF | FLT TRUCK |        |
|      |        |         |        |                            |           |        |
| 1000 |        | _       |        |                            |           |        |
|      | -      |         |        |                            |           |        |
| -    | 2      |         |        |                            |           |        |
|      |        | 1       |        |                            |           |        |

### Check PM Set Up

To verify that a PM has been set up and scheduled correctly, view the following locations...

### **Trucks and Trailers File**

From Truck (or Trailer) file maintenance screen off of the Operations menu, you will see a button <u>PM's Pending.</u>

Click on this and View PM's Already Scheduled. If PM's do not show here, then something was done incorrectly.

### Vehicle Master File

From Vehicle file maintenance screen off of the Operations menu, you will see a button **PM's Pending.** 

Click on this and View PM's Already Scheduled. If PM's do not show here, then something was done incorrectly.

### **Open Repair Order**

PM's may also be checked by opening a new repair order for a vehicle that you know should have a PM scheduled. After vehicle type and ID and shop have been entered, click on the PM's Due button in the upper right hand corner. Scheduled PM's should be displayed on this page. Also, the interval until the PM is due, and asterisk "\*" if the PM is due now.

You can also go directly to the PM's Pending screen from the Operations menu to see all the PM's pending for all trucks, trailers, and vehicles.

### Reports

On the report menu, go to PM Reports and then to PM's Scheduled and Due Report. This report should list all PM's that are scheduled and due, depending on the way the report options are answered.

If the PM does not show in these places see the section on <u>Trouble Shooting</u>.

### **Trouble Shooting**

If a PM should show, but doesn't:

1. Check "Track PM's" in the vehicle master file. Make sure it has a Y.

2. Check PM Scheduling. Make sure there are no unnecessary fields filled in, such as customer, make, etc. if doing the PM for all trucks.

3. Make sure open repair orders are posted. PM's need to have updated meter readings to schedule correctly.

### **Deleting a PM Schedule**

To delete a PM Schedule, call up a PM as if you are going to edit it. Instead of pressing the F2 key, press the F3 key. This will delete all PMs scheduled for the units defined by the PM Schedule.

#### **Notification of PM Due**

Once a PM is scheduled, the system will notify you that it is due in two places. The first place is through the "PM Scheduled and Due Report". This report tells you what PMs are due on what units and when they were done last. It also allows you to enter "lead" times. Lead times allow you to see those units which are a certain distance from being due. For example, if you enter "10" in the lead days restriction, the system will tell you all those PMs which will be due in the next 10 days.

The second place the system will notify you of a PM due is through the Repair Order Entry Procedure. Click on the PMs Due button to see all PM's for the unit and an asterisk (\*) to the right of the ones due now or overdue.