DSD Business Systems

Sage 100 Enhancements

EMEM

Equipment Maintenance

Version 7.50

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Equipment Maintenance User's Manual
Version 7.50

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Section A: Introduction

This manual contains a description and instructions for this DSD product. Operating instructions are included for the features added by this product to Sage 100. For instructions on using Sage 100, refer to the appropriate Sage 100 manual, or call your Sage 100 reseller. DSD Business Systems offers excellent Sage 100 support, at an hourly rate.

Web Resources

DSD web site: **http://www.dsdinc.com**

The Enhancement page contains:

Current Release Schedule
Purchasing Information
Installation Instructions
Product Support
Enhancement Links

EMEM Equipment Maintenance:

http://www.dsdinc.com/enhancement/emem-equipment-maintenance/

The product web page contains:

Product Description
Web Links
Current Product Version Table
Product Installation File Download
Product Manual in .pdf Format
Revision History
FAQ

Support

DSD provides product support through Sage 100 resellers. Support is provided for the current version. Older versions are supported at an hourly rate. DSD's telephone number is **858-550-5900**. Fax: **858-550-4900**.

For a hard error, where the program displays an error dialog, report:

Error number.
Program name.
Line number.
Program version.
Exact sequence that caused the error, including menus and menu selections.

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Other pertinent information.

If leaving a message or faxing, please include:

Your name.
Your phone number (and fax if applicable) and extension.

It is possible to be unable to duplicate a problem, because of data corruption or because we have not exactly duplicated a particular operating environment. In such circumstances, we can only continue to try to fix the problem if we can either access the system with Symantec PCAnywhere or by some other means access or duplicate the system.

Equipment Maintenance Features

The Equipment Maintenance Module keeps your company up to date with the equipment it takes to operate your business on a day to day basis. Equipment Maintenance allows you to track maintenance tasks and assign items to these tasks, while tracking technician's labor and time to complete tasks.

The Equipment Maintenance module is designed to operate with the other Sage 100 ERP product line.

Before proceeding, complete the installation instructions listed in your Installation Guide. Before you can use Equipment Maintenance, you must have set up Inventory Management and Purchase Order, if you are going to integrate with those modules.

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Section B: Getting Started



- **If you reinstall or upgrade one of the Sage 100 modules listed in the following table, you must also reinstall this Enhancement.**
- Enhancements from different Sage Developers are generally not designed to work together. If installed together, problems are likely to occur.
- **Check with DSD before installing more than one Enhancement.**

Required Levels

Sage 100 Module	Module Required	Required Level
E/M	**Y**	7.50
I/M	**Y**	7.50
P/O	**Y**	7.50

Installation

1. **Back-up:** Exit all Sage 100 sessions. Back-up existing Sage 100 data.
2. **Check Levels:** Sage 100 module levels **must match** those listed above.
3. **Run Enhancement Setup Program:** Save the executable installation program (sent to you or downloaded from our website) in a convenient location on the Sage 100 server. Launch the program from Windows Explorer or by selecting Start/Run, and then browse for the file in the location you saved it. Follow on-screen instructions.
4. **Send your Sage Serial Number to your DSD Representative:** Send your Sage Serial Number to your DSD representative in order for us to send you back the encrypted keys to unlock your system. This serial number can be found in Library Master\Setup\System Configuration, Tab 3. Registration as Serial Number.
5. **Re-Start Sage 100:** Sage 100 will be updated.
6. **Unlock the Enhancement:** DSD Enhancements must be unlocked to run. When any part of the Enhancement is run for the first time, the **DSD Enhancement License Agreement and Activation** window will appear. Follow the steps shown on that window. *You can click the Help button for more detailed instructions.*

   Note: *On the next page is a screenshot of the DSD Enhancement License Agreement and Activation window.*

   After accepting the License Agreement, you can then select the type of unlocking that you'd prefer. The choices are File, Web, Demo and Manual Entry.

   File Unlock: After receiving your encrypted serial number key file from DSD, and placing that file in the MAS90/SOA directory, selecting this option will unlock all products keys contained in the file. This means you can unlock all enhancements at once using this option.

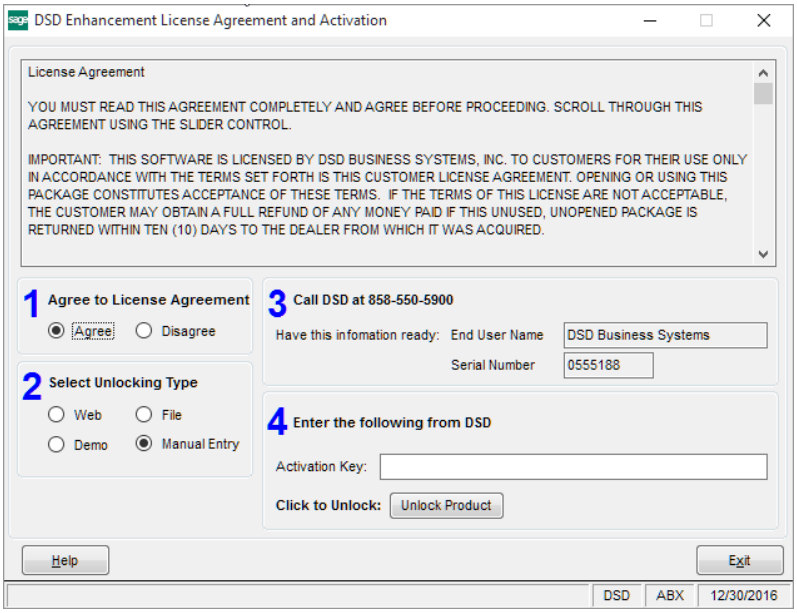
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Web Unlock: If the system that is running the DSD Enhancement *has web access* and you *have sent DSD your Sage Serial number*, you can unlock the Enhancement without assistance using Web Unlock. When this option is selected, the program will attempt to download encrypted serial number key file from DSD *and then proceed to unlock all enhancements contained in the file.*

- *The Sage 100 system that is being used must have web access for this option to be effective.*
- *You can send your Sage Serial Number to your DSD Enhancements sales representative.*

Demo Unlock: If a Demo mode is available for the Enhancement you're running, you will be able to Demo unlock the product without assistance from DSD for demo purposes.

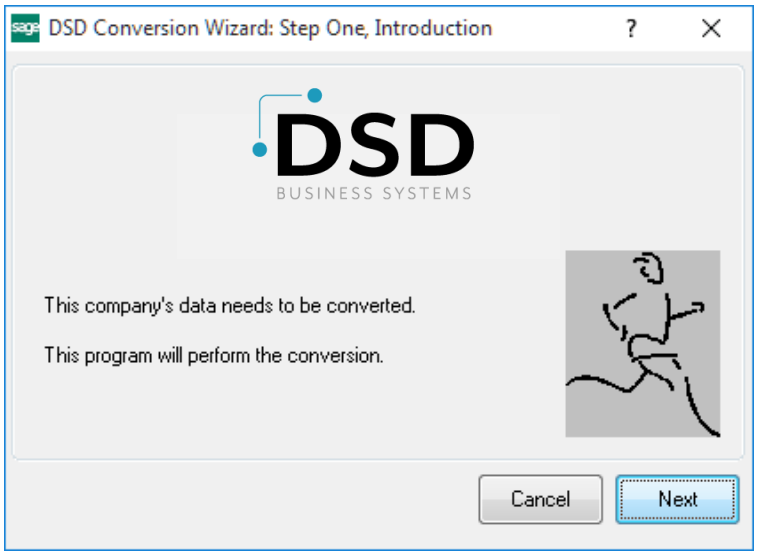
- *Creating a Demo Unlock is a good way to temporarily unlock DSD Enhancements off-hours, if you do not have web or email access. Later, you can unlock the product fully, during business hours.*



Manual Entry Unlock: If you want to unlock a single enhancement using a single encrypted key, you can select this option and enter the 64 character key you receive from DSD by copy and paste.

Note: *You can also unlock a DSD Enhancement through the* ***DSD Enhancement Control Panel*** *found on the Library Master Utilities Menu. Then, select the Enhancement with your mouse from the list of Enhancements and click the* ***Unlock Product*** *button on the right side of the window.*

7. **Convert Data:** After unlocking, the DSD Conversion Wizard will appear. Follow on-screen instructions to complete data conversion. *You can exit the conversion program without converting data. The Enhancement will not proceed, however, until data is converted. If you enter an enhanced program and data has not been converted, the conversion program will run again.*

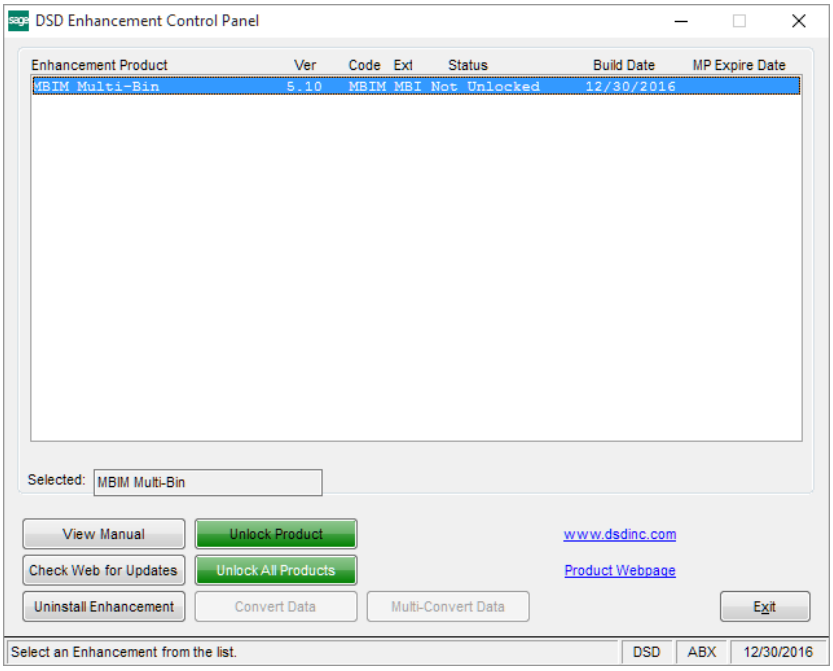


DSD Enhancement Control Panel

Starting with version 3.61, all DSD Enhancement products include DSD's Enhancement Control Panel. The **DSD Enhancement Control Panel is accessed from the Library Master Utilities menu**.

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The DSD Enhancement Control Panel is a simple to use yet powerful system to help maintain DSD Enhancements installed on a Sage 100 system. To use it, select an Enhancement product from the list on the window and then click the button, on the right side of the window, which corresponds with the desired task.



View Manual: This button will display the product manual for the selected Enhancement using Adobe Acrobat. For this to be possible, the PDF file for the corresponding manual must be in the "MAS90/PDF" folder in the Sage 100 system. If the file is not present, and the system has web access, the correct PDF file will be automatically downloaded from the DSD website, put into the "MAS90/PDF" folder and then displayed.

Check the Web for Updates: This button will check the DSD website to see what the current build is the selected Enhancement and alert the user if a later version is available. *This requires an internet connection on the Sage 100 system.*

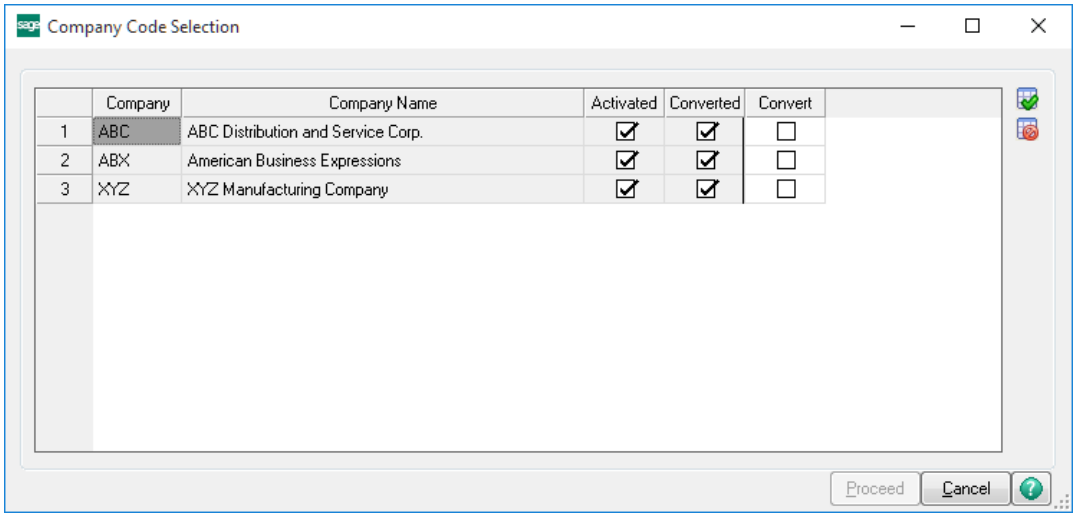
Unlock Product: This will cause the DSD Enhancement License Agreement and Activation window to appear. Using this window is described on the previous page. *This button is disabled if the selected Enhancement is already unlocked or if unlocking is not required.*

Unlock All Products: This will cause the DSD Enhancement All License Agreement and Activation window to appear. This window is similar to the one described on the previous page, but has only web and file as options to unlock. *This button is never disabled.*

Convert Data: After verification, the selected Enhancement's data conversion program will run. Data conversion is non-destructive, and may be triggered any number of times. Sometimes this is required to fix data records imported or updated from a non-enhancement installation.

Multi-Convert Data: Multiple Companies can be converted at the same time for a given Enhancement. (*If you have a large number of Companies to convert, please do in batches of 20 or fewer due to memory limitations.)*

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Help: The Help button, located at the bottom right of the window, opens an HTML help file.

Get Adobe Acrobat: Opens the Adobe Acrobat website to the page where Acrobat can be downloaded and installed.

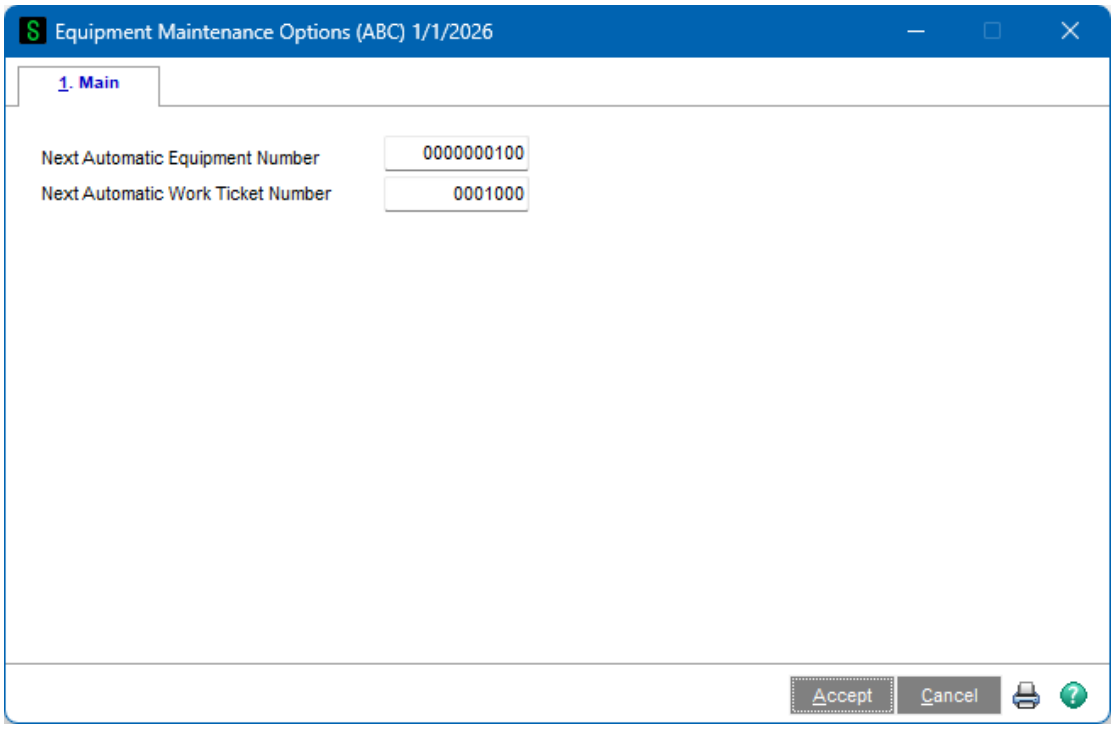
Uninstall Enhancement If this option is available, then selecting this button will start the un-install process, removing the enhancement from the system. (for more information see Uninstall DSD Enhancements)

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Section C: Setup

The Equipment Maintenance Setup menu contains the options to build and maintain the files required for the operation of the Equipment Maintenance module. You can access the Equipment Maintenance setup menu anytime to modify the Equipment Maintenance options. In addition, you can modify or delete the information contained in the setup files.

Equipment Maintenance Options



Equipment Maintenance Options allows you to customize the Next Automatic Equipment Number or Next Automatic Work Ticket Number.

Next Automatic Equipment Number - This sets the next Automatic number to be generated when you select from the Equipment Maintenance screen in order to define the Equipment ID number.

Next Automatic Work Ticket Number - This sets the next Automatic number to be generated when you select from the Work Ticket Entry screen.

Equipment Type Maintenance

In order to speed up the entry of the actual equipment records, you first define categories, or Type, of equipment that share maintenance requirements and lifetime limits. For example, you may have one

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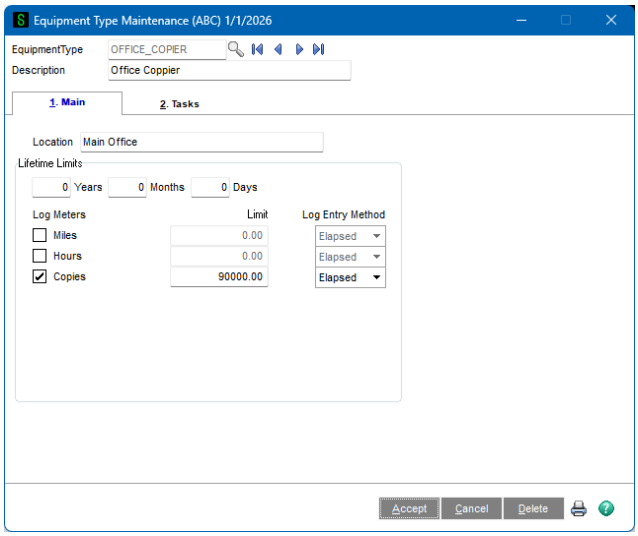
type for diesel trucks and one type for gasoline trucks because the schedule for maintenance and the tasks required are different between to the two. The Equipment Type will define which meters are used for this type of equipment and how the meter reading is logged.

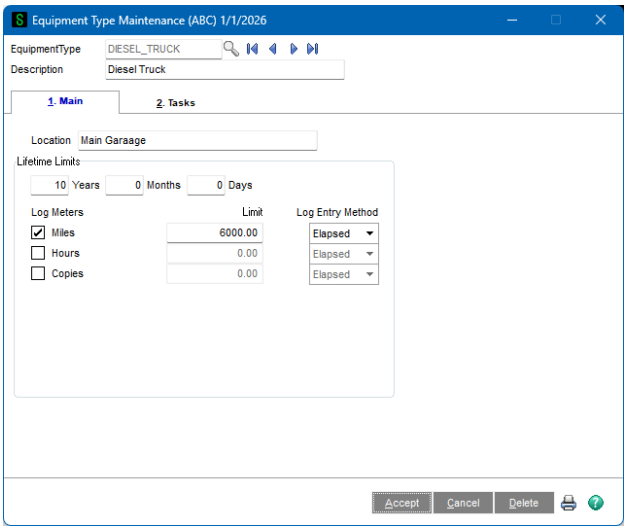
For more about how to set up the available meters, look at Field Label Definition and the Meter1 through Meter8 fields.

Since part of the definition of the Equipment Type is the tasks that are to be performed and the schedule for those tasks, it is useful to open Task Maintenance at the same time. This will allow you to set up your task, easily switch over to Equipment Type Maintenance, and immediately assign that task to the Equipment Type record.

Equipment Type Maintenance - Main Tab

The Main Tab is used to define general information about the type of equipment, including which meters are logged for this type, the method for entering the meter readings, and what the lifetime limits are.





Lifetime Limits - Lifetime Limits is for user information only, it is not used by the system. This is how long you plan to keep the equipment. It is designed to limit the life time of a particular type of equipment.

Log Meters - By checking the appropriate box for the equipment type, you will be able to track usage based on the meter selected.

Limit - You can specify a metered lifetime limit for an equipment type for your own information.

Log Entry Method - There are 2 options for logging meters. They include elapsed and ending.

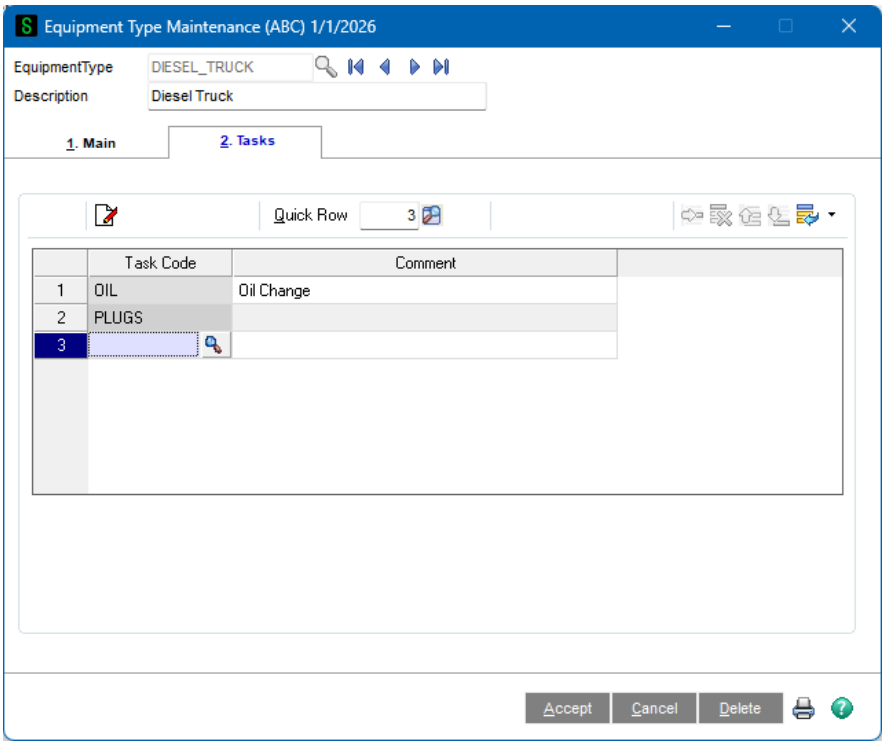
- Elapsed will calculate the next maintenance due based on a continuously incrementing limit interval, or how many since the last time it was serviced.

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- Ending will calculate the next maintenance due based on the ending meter value of the last maintenance performed.

Equipment Type Maintenance - Tasks Tab

The Tasks Tab is where you will enter the list of Tasks that are to be scheduled for this type of equipment. For example, you may want to set up a task to rotate tires every 3 months or 3,000 miles, or to inspect the oven electrical system after 100 hours of operation.



The tasks tab is where you can assign an associated task to a type of equipment. The button is used to apply the tasks to the equipment.

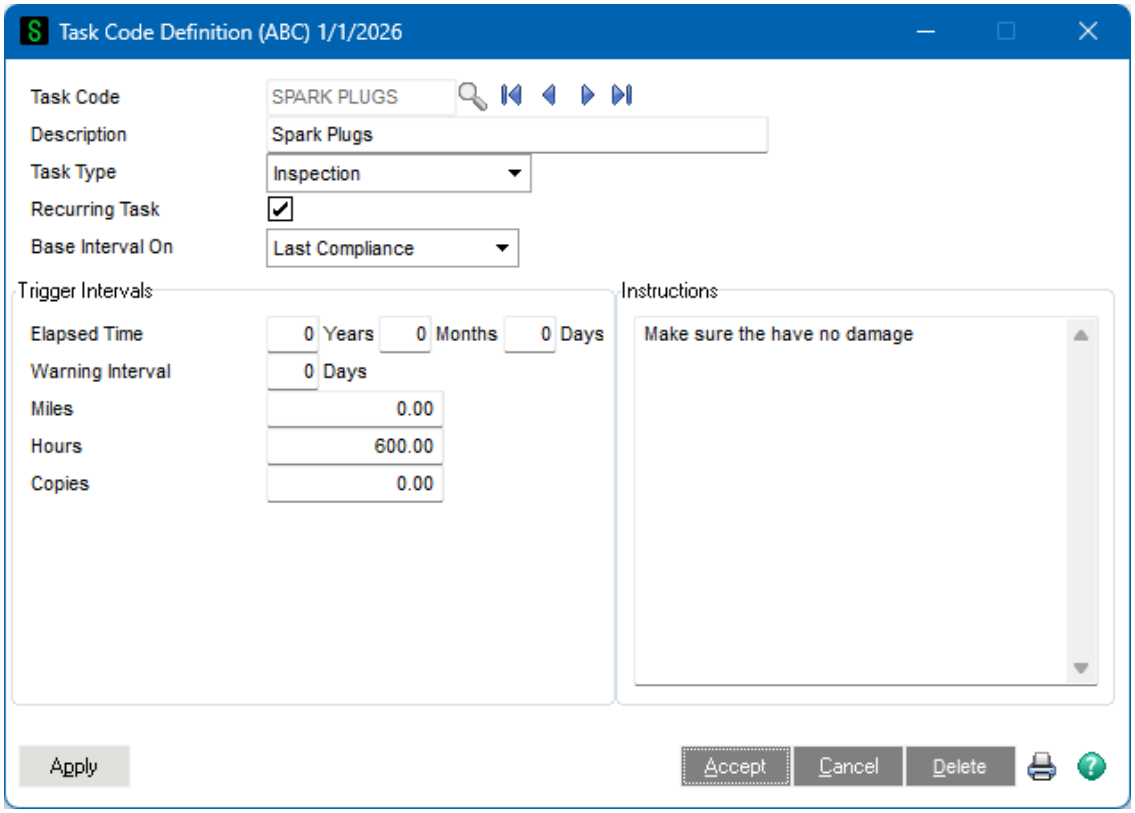
When you are setting up your type of equipment, it is useful to open Task Maintenance as well. This will allow you to set up your task, easily flip to Equipment Type Maintenance, and immediately assign it to a type of equipment.

Notice that no scheduling is done in Equipment Type Maintenance, you can only assign a task to a type of equipment. If you would like to schedule when a task is performed, go to Equipment Maintenance after finishing Equipment Type Maintenance.

On the lines, there is a button. This button can be used to look up various tasks to assign to the equipment.

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Task Maintenance



Task maintenance is used to provide default values for Equipment Maintenance and set up specific tasks. The default information can be changed on equipment by equipment basis, but will be changed back to default when the apply button is used.

Task Code - Enter the task code to describe the task, or click the lookup button to search for a specific code that has already been made.

Description - Enter a description of your task code, used only for your benefit.

Task Type - Pick one of 3 options for task type, just for your information. Task types include Inspection, Overhaul, and Repair. For example, routine tasks, such as oil changes, could be labeled "Inspection", while tasks to fix a broken windshield could be labeled "Repairs".

Recurring Task - Checking this box distinguishes the task as recurring based on the "Base Interval On" selection. If your task is not recurring, it is not necessary to fill out the rest of the fields below.

Base Interval On - There are 2 options for Base Interval On to calculate when the task is due, which include Last Compliance and Zero Meter.

- Last Compliance Starts the trigger meter on the last time a work ticket was performed.
- Zero meter starts the trigger meter at the beginning meter value, which is usually 0 if you purchased the equipment new.

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Trigger Intervals -The trigger intervals calculate when the task is due. There are two types of Trigger Intervals, which include Elapsed Time and Meters.

- Elapsed Time - set the year, months, or days that the equipment can function before the task needs to be performed.
- Meters - Measures the interval between tasks by something other than time, such as miles, copies, or hours.

Elapsed Time and Meters work together, so if your equipment requires the task to be performed the earliest of 3000 MILES or 3 MONTHS, you can enter both and the Warning Interval will warn you when you have either 10% of your meter left or the days that you entered in the warning interval.

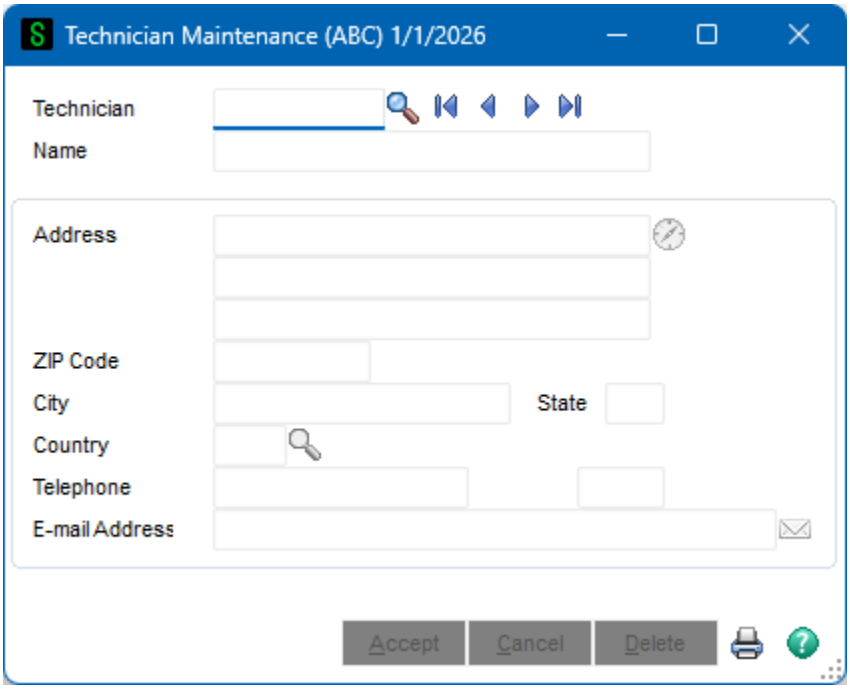
Warning Interval - enter how many days before the task is due that you wish to be warned and the warning meter will appear as yellow and inform you.
If tasks are different between pieces of equipment in the same equipment type, you might want to set up more than one task code for the task.
For example, If your vehicles have different requirement for intervals between oil changes, you can set up tasks names OIL5000 or OIL7500.

Instructions - For your benefit, you can fill in instructions to print on a work ticket or to review on the computer.

Apply Button - After filling out Task Maintenance, hitting the apply button will change the information for every piece of equipment that has this task to the default value that you just created and will recalculate when they are all next due.
The information in Task Maintenance is the default, but values can be changed for different pieces of equipment in Equipment Maintenance. When you set up a new specific piece of equipment, you can change the default task information values.

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Technician Maintenance



Technician Maintenance allows you to keep track of mechanics, strictly for your records. It does not send any notifications, but when you need to know which technician worked on which order, you can find out here.

Technician - Enter a meaningful Technician code.

Name - Enter up to 10 characters of the technician's full name.

Address - Technician's address

Zip Code - Technician's zip code

City - Technician's city

State - Technician's state

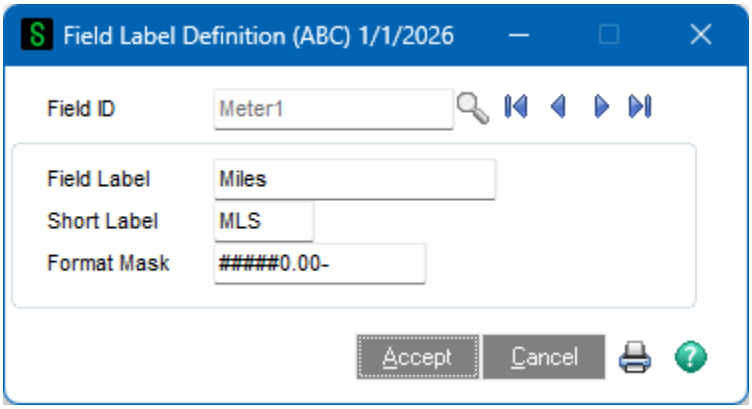
Country - Technician's country

Telephone - Technician's telephone

E-mail Address - Technician's e-mail address

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Field Label Definition



Field ID - You can specify here what type of Equipment you are using. If it makes sense to name the EMC Internal Asset ID as Vehicle or Equipment or anything else, the first label is where this is done. There are 8 available meter IDs. A "Task" FieldID and a "Work Ticket" Field ID can be renamed to suit your internal business needs.

Field Label - Renaming this field will change the text users see on the menu throughout EMC for the Field Label.

Short Label - An abbreviated label for the FieldID. This can be used for reporting purposes.

Format Mask - As a default this is automatically set up as #,###,##0.00-. This can be altered to suit your business needs. The # signs will appear as numbers, and the zeros will appear as such if no quantity is entered.

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Section D: System Operations

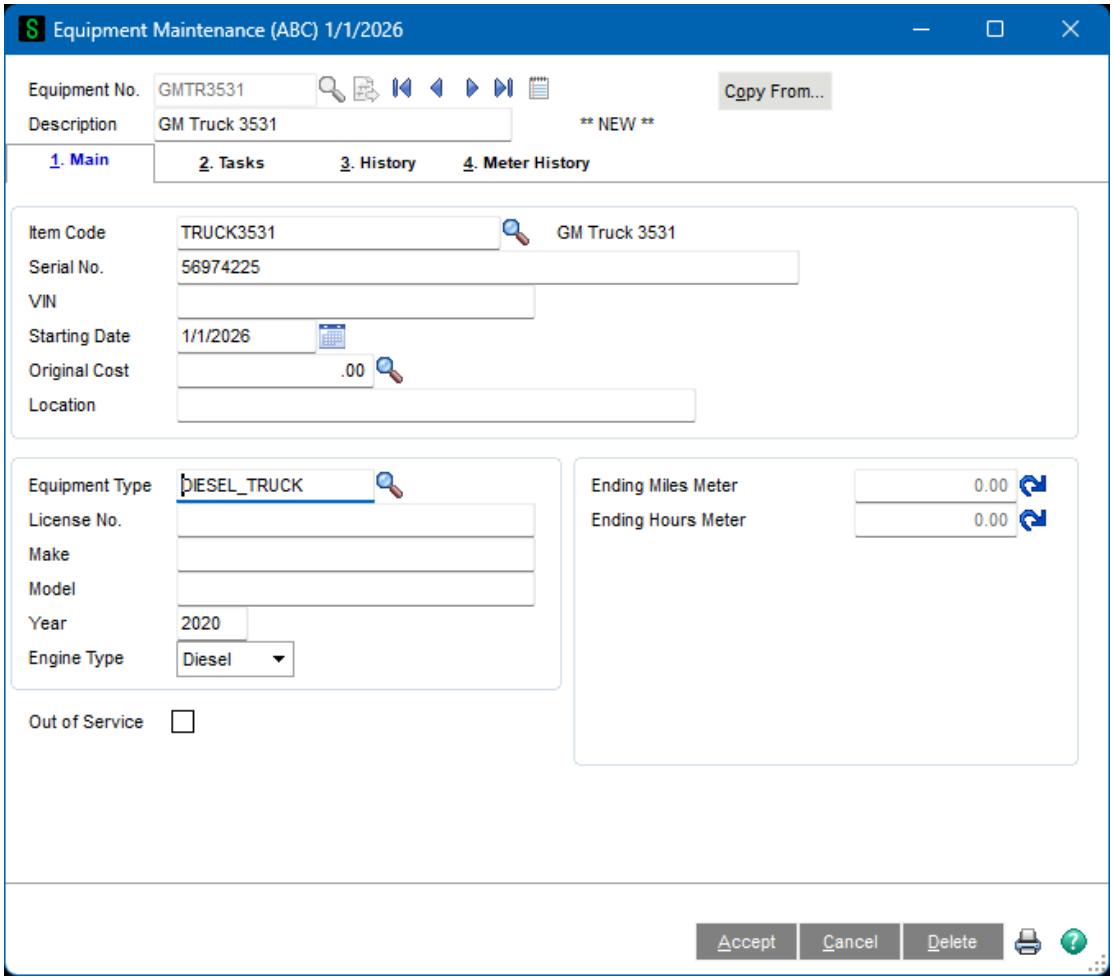
Main Menu

Equipment Maintenance

This form is where you can enter Equipment into the database, set up tasks for the equipment, and check the history of work performed on the equipment. There are three tabs in Equipment Maintenance which include Main, Tasks, and History. To set up the type of equipment, go to Equipment Type Maintenance.

Equipment Maintenance - Main Tab

This is where you can enter Equipment into the EMC database including all the pertinent information for that equipment.



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Copy From - The copy from button, in the top right of the window, is a fast way to copy information from another item if the new item you are creating is very similar. When you select the copy from button, a window will appear where you can either enter or look up the equipment number. Then you can check boxes to choose if you want to copy ending meter readings, copy tasks, or copy task data from the other item.

- Copy end meter reading - will repeat the ending meter from the other item onto the item you are creating.
- Copy tasks - will take the tasks assigned to the other item and assign them to the item you are creating.
- Copy task data - will give the same meter readings of the other piece of equipment to the item you are creating, calculating their due dates to be the same.

Remember, if you use the copy from button, you will still need to change unique information, such as the VIN number and license number for a vehicle.

Equipment No. - Enter an Equipment No. for the equipment to be added, or click on the button to locate a specific equipment. You can also click on the next automatic equipment number button to allow the program to automatically number the next piece of equipment based on the setting in Equipment Maintenance Options. This field is similar to the Inventory Maintenance Item No. field.

Description - Type a description for the equipment.

Item Code - This field allows you to tie the equipment to a valid item code in inventory. It is not necessary to assign an item code but it may be useful your own records to be able to distinguish between different items.

Serial No. - You can enter the serial number for the equipment, strictly for your records. The serial number can contain up to 15 characters and does not have to be valid.

Original Cost - The original cost of the equipment.

Location - The location of where the equipment is kept.

VIN - Enter the VIN number if your equipment is a vehicle. This is strictly for your records and does not have to be a valid number.

Starting Date - The date the equipment was entered into the EMC Database or the date you wish to begin tracking equipment in EMC.

Equipment Type - A list of available Equipment Types is set up in Equipment Type Maintenance. Use the button to select the type of equipment that fits this item. After selecting the equipment type, all the appropriate tasks should be assigned and the meters will show up on the right hand side of the window.

License No. - Vehicle or equipment license number.

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Make - Equipment manufacturer.

Model - Equipment model.

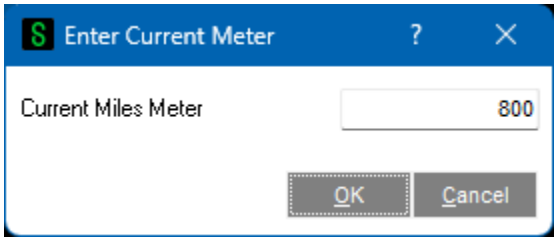
Year - The year the equipment was manufactured.

Engine Type - The type of engine in the equipment, either gasoline or diesel.

Out of Service - By default, this box will be unchecked, meaning that the customer is still using this equipment. You can check the box if the customer tells you it is no longer in service., either gasoline or diesel.

Ending xxxxxx Meter - The current meter on the equipment. When users log an entry or create a work order this field will be updated.

Reset xxxxxx Meter - Press this button when you want to reset the current meter on the equipment. When this button is pressed, it will pop up a new dialog so you can enter the current meter data.



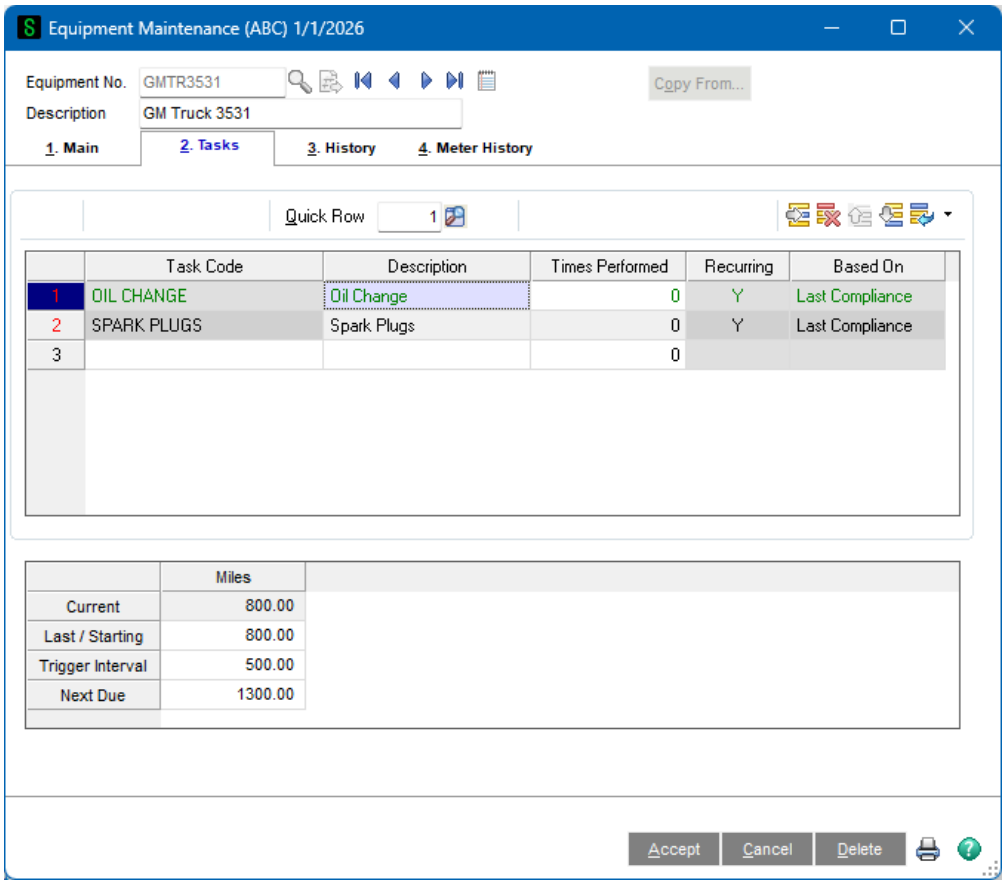
When the OK button is pressed, the Ending xxxxxx Meter field will be updated with the entered current meter data. The equipment task records will also be updated, and the adjustment record will be created in the Log Entry table. **Note:** The Reset Meter buttons will be shown on the panel only if the appropriate security event is set up.

Notice that there is a lot of extra space where you can create all the user defined fields that you need and put them on this screen to keep track of any additional information.

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Equipment Maintenance - Tasks Tab

This is where you can set up related tasks for the equipment.



The Equipment Maintenance Tasks Tab is where you can assign tasks to equipment. If the items are not due, they will appear green and if they are due to have a task performed they will appear red. Click on any task to view specific information about it in the secondary grid.

Task Code - Use the button to see the available tasks set up in Task Maintenance.

Description - The Description is automatically pulled in from the Task Description.

Times Performed - Times Performed is the number of times the task has been performed on a work order for the equipment.

Recurring - Signifies whether the task is recurring

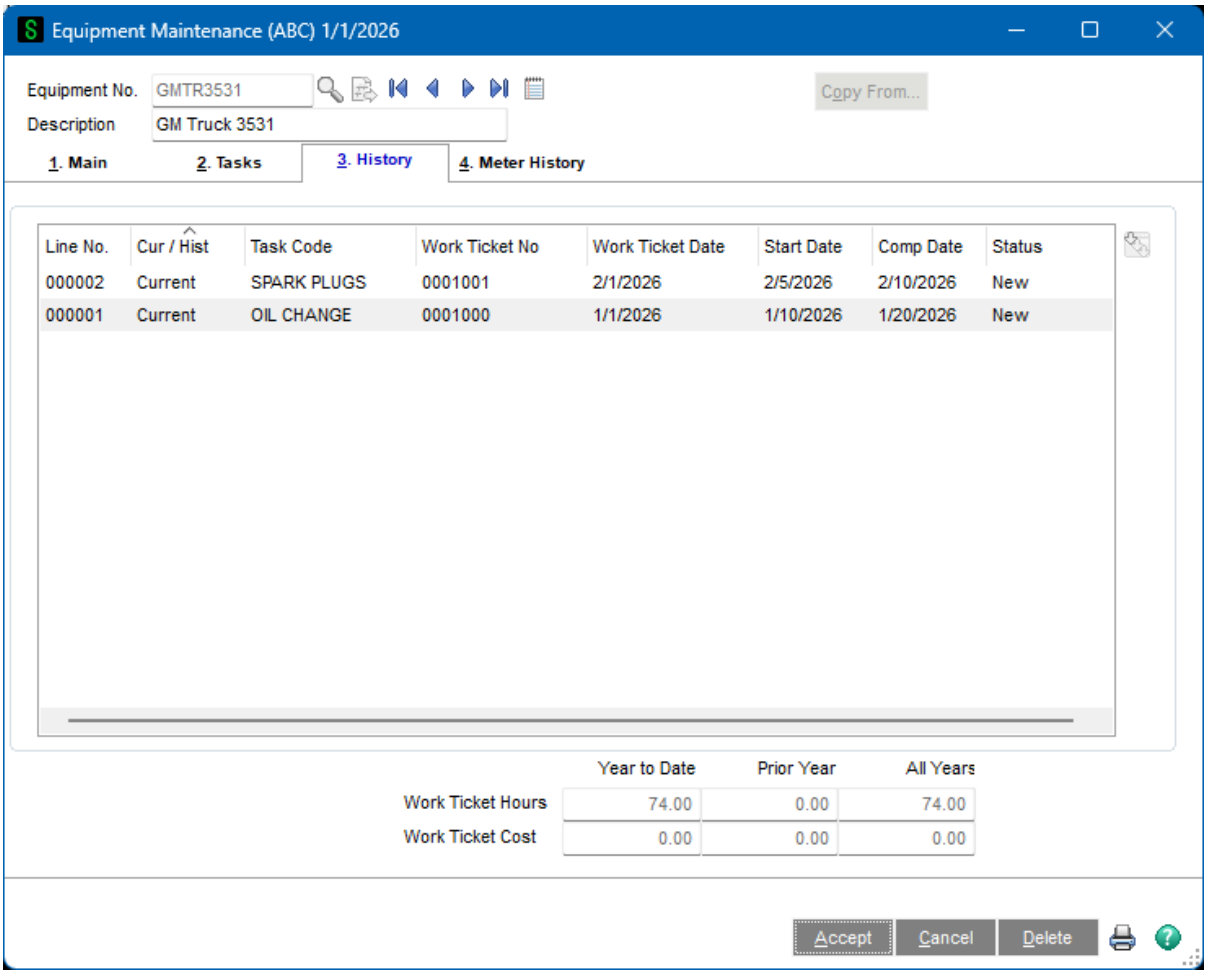
Based On - References the Based On setting in Task Maintenance.

The secondary grid contains information relating to the Current meter, Last/Starting meter, the Trigger Interval, and the next time maintenance is due on the Equipment.

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Equipment Maintenance - History Tab

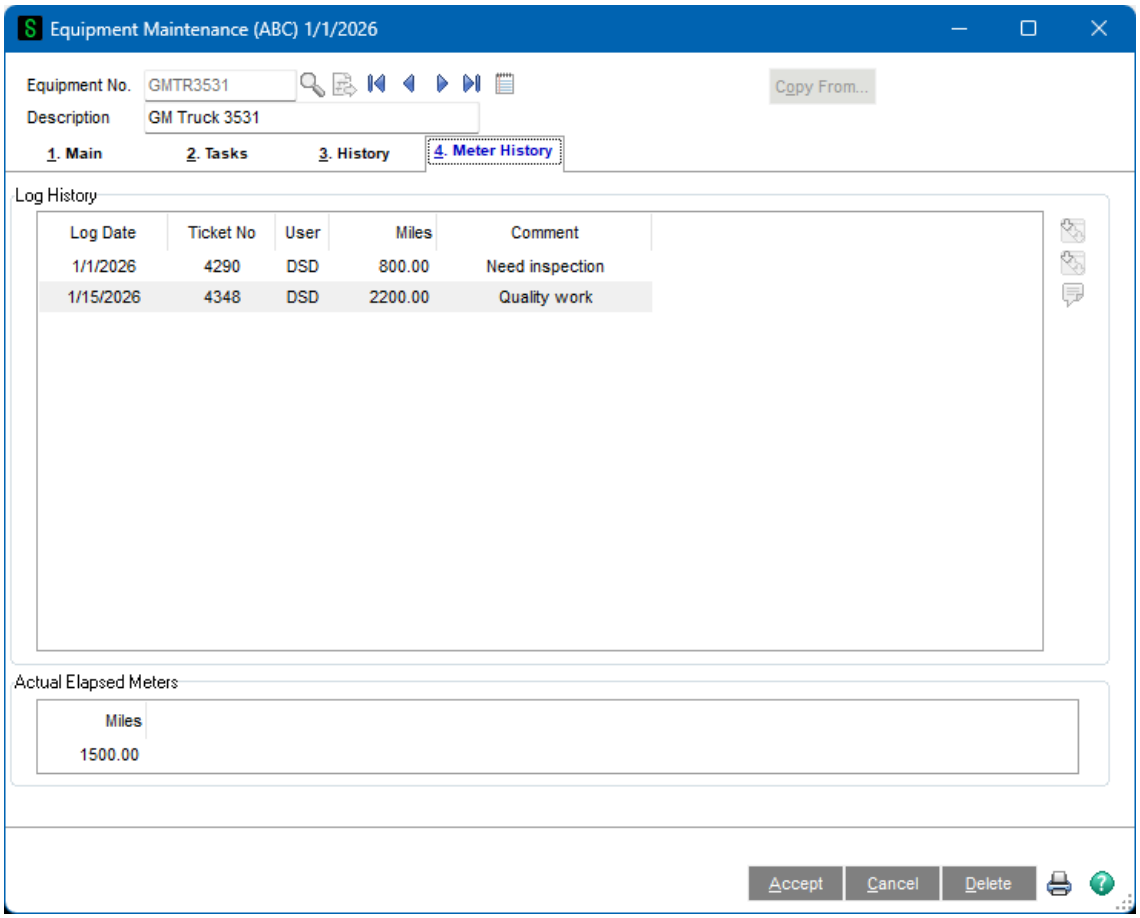
This is where you can see all history related to the specific piece of Equipment.



The History Tab shows all the history for the Equipment. This includes the Work Ticket, the date of the work ticket, when the work started, when the work was completed, and the status of the work ticket. Clicking on the Additional Information button will drill into the Work Ticket History Inquiry screen and allow you to see all the information about the work ticket that is on the service item entry row.
The tab also shows the running totals on the Year to Date, Prior Year, and All Years for Work Ticket Hours and Work Ticket Costs. The years are tallied based on the system date.

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Equipment Maintenance - Meter History Tab

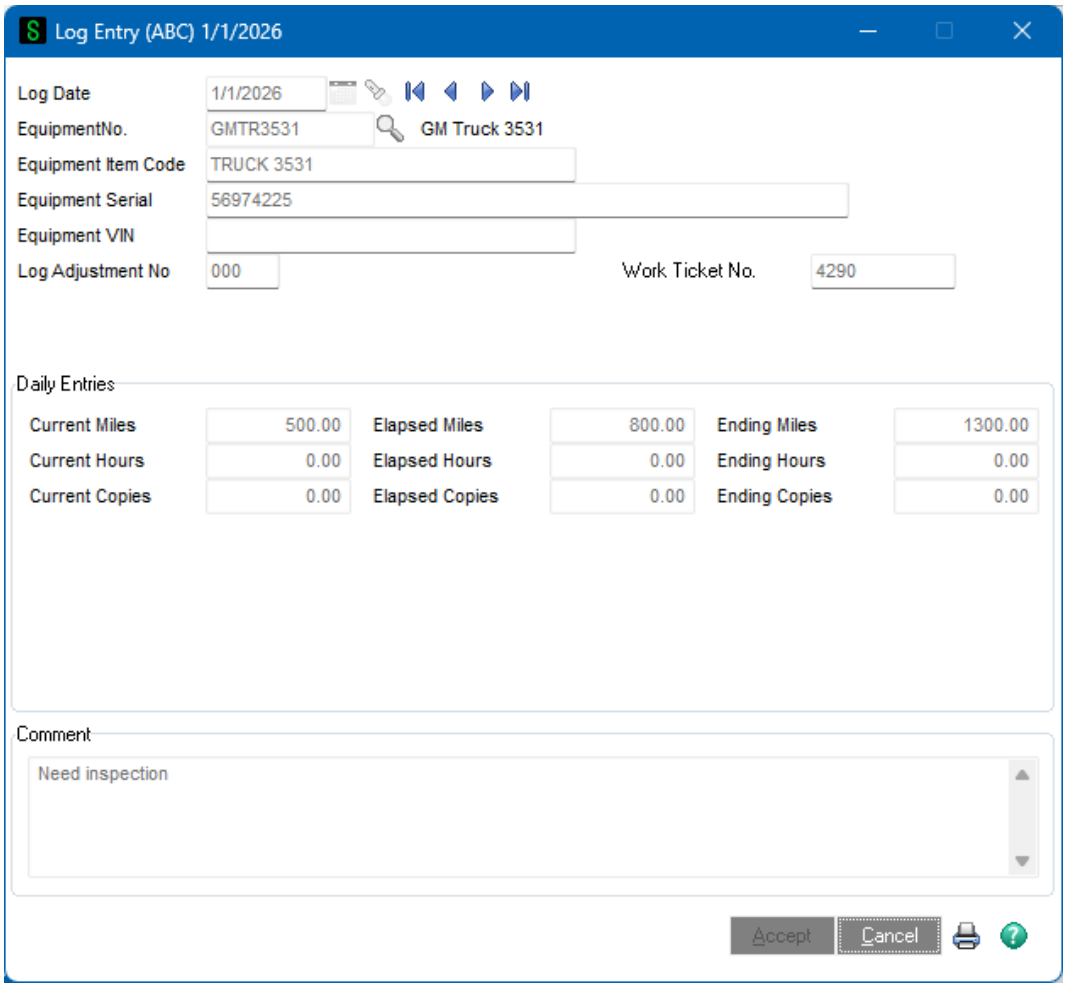


The Meter History Tab shows all the log records for the Equipment. This includes the date of the log record, the work ticket, the user ID and all meter elapsed readings.
You can click on the Record Log Info button to drill into the Log Entry screen or click on the Ticket Info button to drill into the Work Ticket History Inquiry / Work Ticket Entry screen. If you want to see the full text of the comment that was entered for that log record, click on the comment button.

The tab also shows the Actual Elapsed Meter readings for this Equipment.

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Log Entry



Log Entry is where you keep track of your equipment's daily, weekly, or periodic usage for an ongoing basis. One option is to have your items bar-coded, so you can simply scan them and Log Entry will automatically pull up the item information.

Log Date - This is the date the log entry was created.

EquipmentNo. - You can enter a new equipment number which will launch Equipment Maintenance or you can use the button to find existing equipment. Once you have entered the equipment number, Log Entry knows exactly what meter information is needed.

Equipment Item Code - This field is automatically filled in once a selection is made in the EquipmentNo. field.

Equipment Serial - This field is automatically filled in once a selection is made in the EquipmentNo. field.

Equipment VIN - This field is automatically filled in once a selection is made in the EquipmentNo. field.

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Log Adjustment No - This field is automatically filled in once a selection is made in the EquipmentNo. field. It reflects the current adjustment on the Log Entry.

Work Ticket No - If the log record was created during the completion of the work ticket, his field displays the work ticket number and can only be viewed.

Daily Entries - These entries should be recorded frequently so users can maintain accountability of the current state of their equipment.

Current - The current meters for the equipment

Elapsed - The elapsed meters since the last entry.

Ending - The ending meters after the elapsed time is entered.

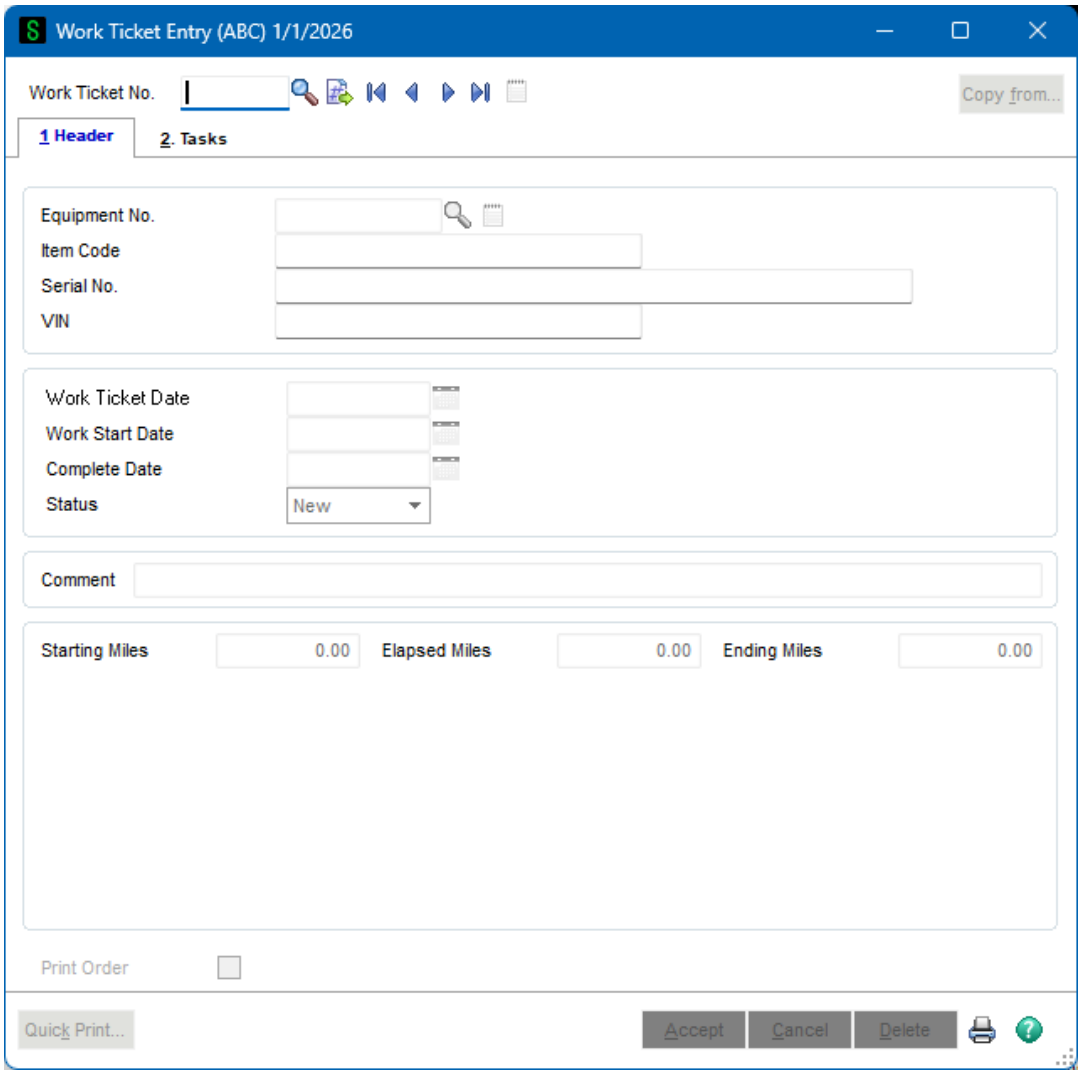
Comment - The comment for the log record.

As soon as you hit accept, the item is immediately updated and you can view it in Equipment Maintenance. Also, if you would like a hard copy of the log entry, you have the option of printing it.

Adjustment - It is possible to make adjustments to an earlier log entry if absolutely necessary. When you enter an earlier date, Log Entry with prompt you saying "A log entry for a later date has already been entered, is this an adjustment?" When you select yes, you can then make the adjustments that you need to and make. When you are finished and select accept, all the proceeding log entries will be adjusted so that the ending meter is correct in Equipment Maintenance.
If one or more meters on an equipment were reset and you want to enter an adjustment for this equipment, the Current, Elapsed and Ending meter fields will be disabled if the adjustment date is greater than the meter reset date.

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Work Ticket Entry



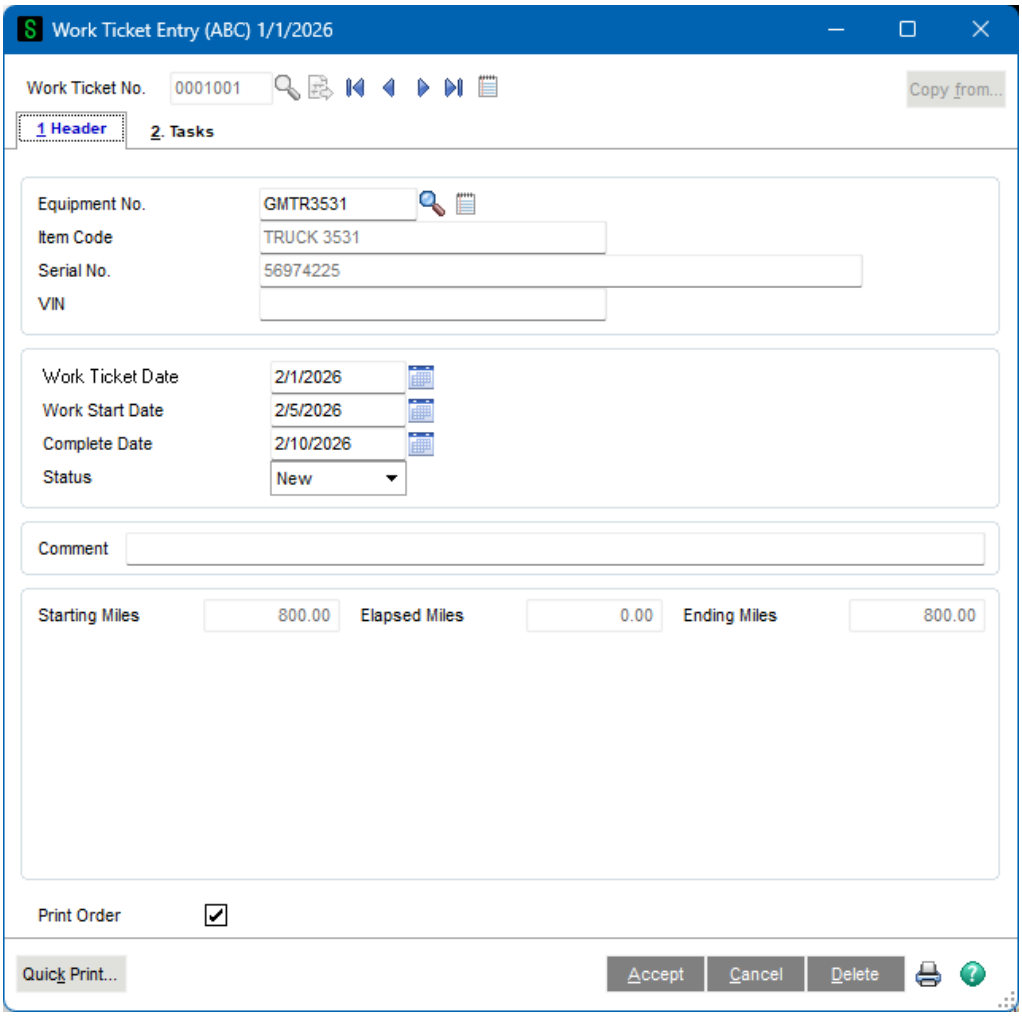
Work Ticket Entry is where you create a work ticket with information and instructions for the mechanic to use to record his work. It is very similar to Sales Order Entry and Invoice Entry. To create a new work ticket, you can assign the next automatic work ticket number or type in a new number. To update a work ticket in progress, you can look up an existing work ticket number using the button or use the browse buttons. If you used Schedule Maintenance Due to schedule maintenance for your equipment, the date is already pulled in from there.

Work Ticket Entry contains two tabs, Header and Tasks.

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Work Ticket Entry - Header Tab

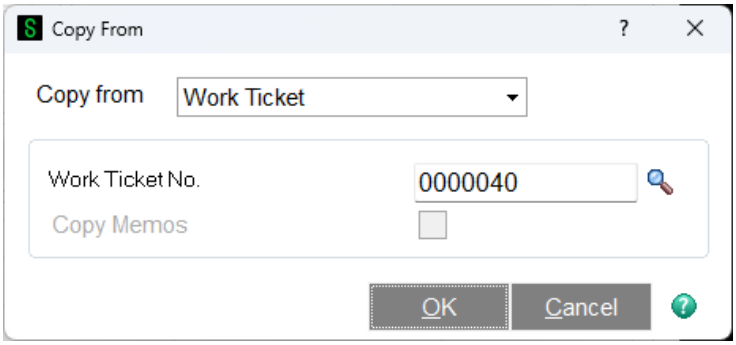
The header tab is where you can choose the equipment and enter the pertinent date, information, and any comments.



Work Ticket No. - Either enter a new work ticket number, let EMC assign the next automatic work ticket number, or lookup an existing work ticket with either the button or the browse buttons.

Copy From - The copy from button, in the top right of the window, is a fast way to copy information from another work ticket if the new work ticket you are creating is very similar. When you select the copy from button, a window will appear where you can either enter or look up the current/history work ticket. Then you can check the Copy Memos boxe to choose if you want to copy memos from the other work ticket.

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Equipment No. - Choose the appropriate equipment number or enter a new number which will take you to the Equipment Maintenance form.

Item Code - This field is automatically populated if the equipment is tied to an item in inventory

Serial No. - This field is automatically populated with the data input on the Equipment Maintenance form.

VIN - This field is automatically populated with the data input on the Equipment Maintenance form.

Work Ticket Date - The date the work ticket was created.

Work Start Date - The date the work is supposed to start for the work ticket.

Complete Date - The date the work ticket was completed.

Status - These selections control the status of the work ticket to let others know what stage the work ticket is in.

- New refers to a work ticket that is still being created and defined, you are not able to edit the meters in a new work ticket.
- In Progress is a work ticket that is currently being worked on and is in the mechanic's possession. The elapsed meters can be entered on a work ticket that is "In Progress".
- Completed refers to work tickets that are ready to be closed and are no longer in progress. Make sure that all tasks are updated and you have entered everything you need to before accepting a completed work ticket. Once you click yes, the Work Ticket will be moved into Work Ticket History and it can no longer be changed.

Note: Work tickets must be completed and updated before another one can be created for the same piece of Equipment.

Comment - Any comments pertinent to the work ticket.

Starting xxxxx - Starting meter when the work ticket began.

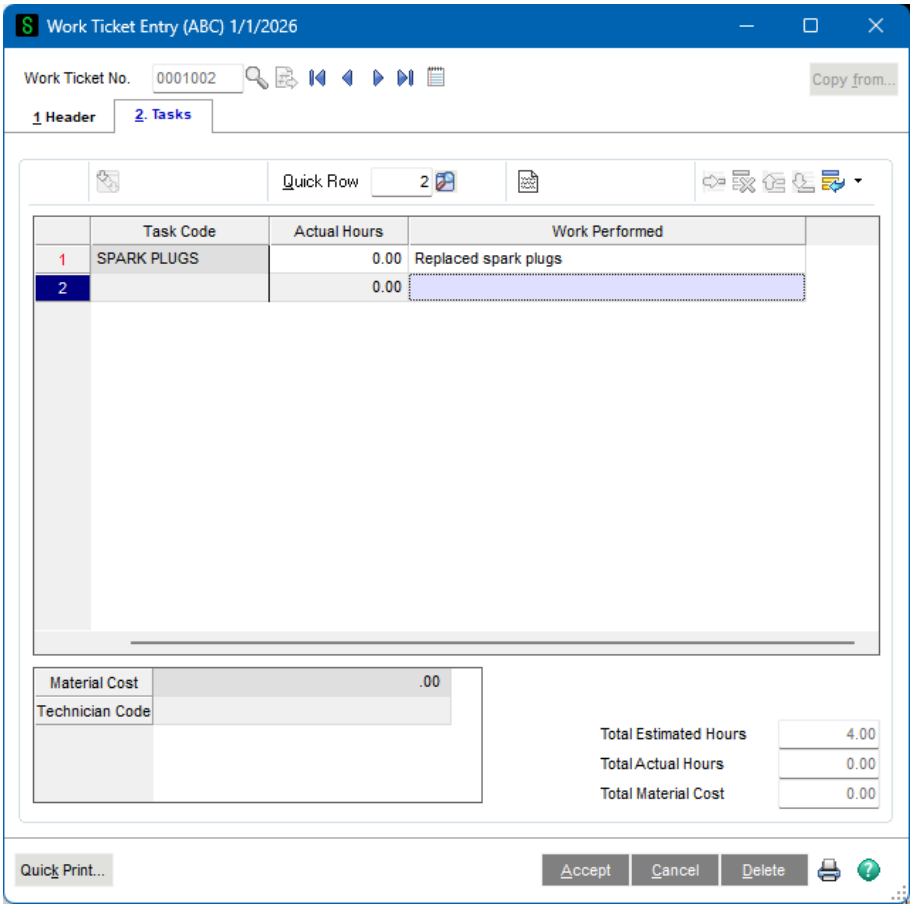
Elapsed xxxxx - Elapsed meter since the work ticket began.

Ending xxxxx - Ending meter for the work ticket.

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Work Ticket Entry - Tasks Tab

The Tasks Tab is where you can enter the tasks that are/were being performed on the work ticket.



The Tasks Tab tells you exactly what you are going to be working on. You can enter tasks to be performed on the equipment on this panel. For each line you can enter the Estimated Hours, Actual Hours, Material Cost, the Technician who is performing the task, and the Work Performed.

Task Code - This is where you can find the task that you are going to be performing on this piece of equipment. You can have as many tasks as you would like on one ticket.

Estimated Hours - You can enter the amount of hours you think the task will take to complete.

Actual Hours - You can enter the actual amount of hours it took to perform the task.

Material Costs - This is based upon the postings made to this work ticket. If you need to take items from your inventory, you can do so through the Inventory Management module. If you do not have the product in inventory, you will have to buy it and record it in the Purchase Order module. Once you have assigned parts you used, you can use the drill down button above Task Code to see details of the items you have used.

Technician Code - Allows you to assign a technician to perform the maintenance.

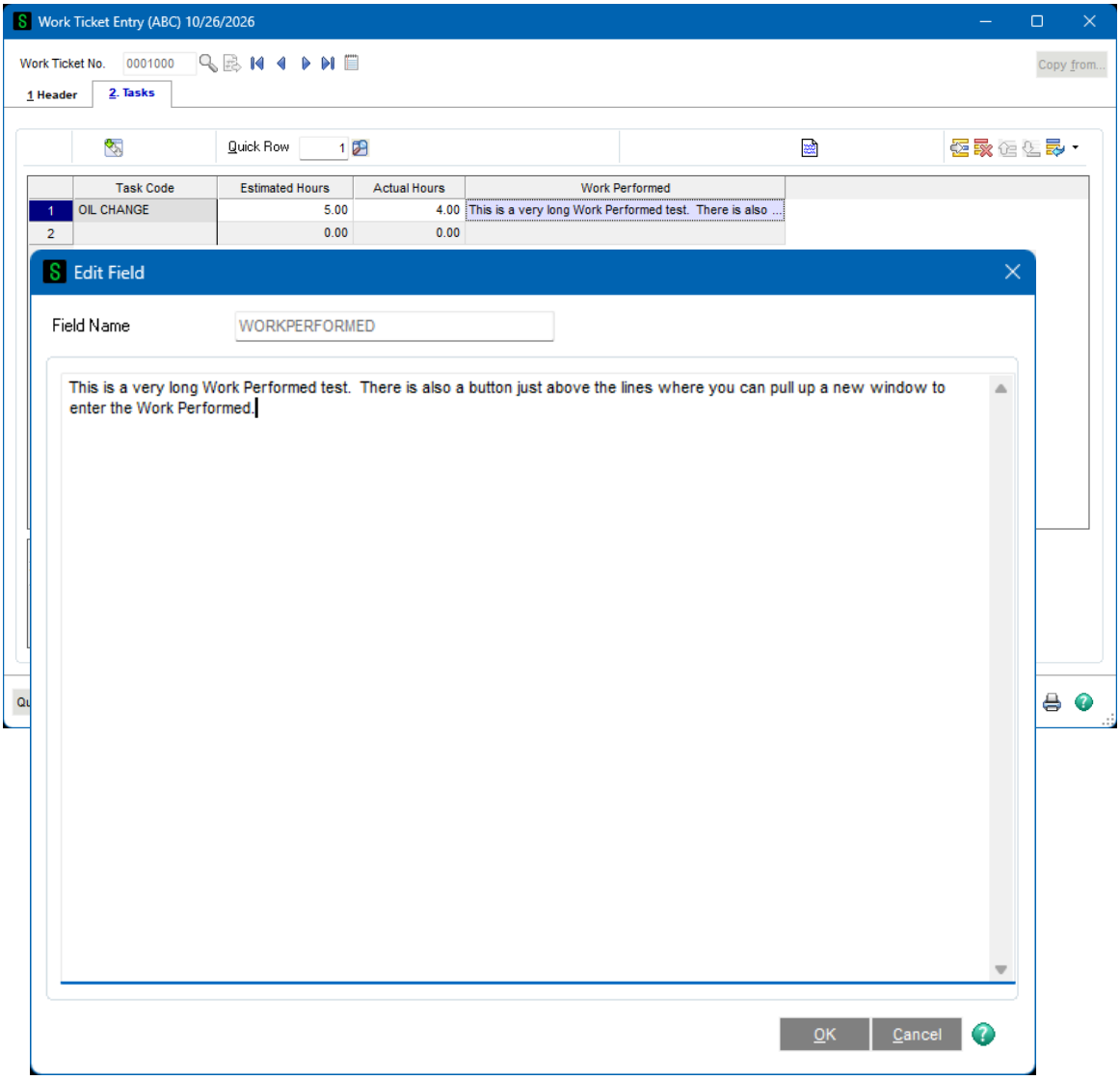
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Work Performed - You can enter information about what you or your technician did to complete to the maintenance.

Quick Print - When you select the Quick Print Button, Work Ticket Entry will prompt you to save the order. Since Equipment Management uses Crystal Reports©, you can make the format look anyway you would like. There is a standard format already in place that you can use, as well.

There is also a running meter of the **Total Estimated Hours**, the **Total Actual Hours**, and the **Total Material Cost** for all the tasks on the Work Ticket on the bottom right of the form.

Text Editor



Clicking on the Text Editor button gives you a lot larger space into which you can write the text for the highlighted text field that is larger than the 30 character limit. This makes it easier to see what you've written.

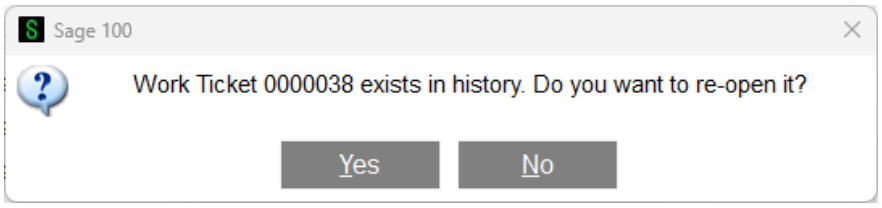
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Re-opening a Work Ticket

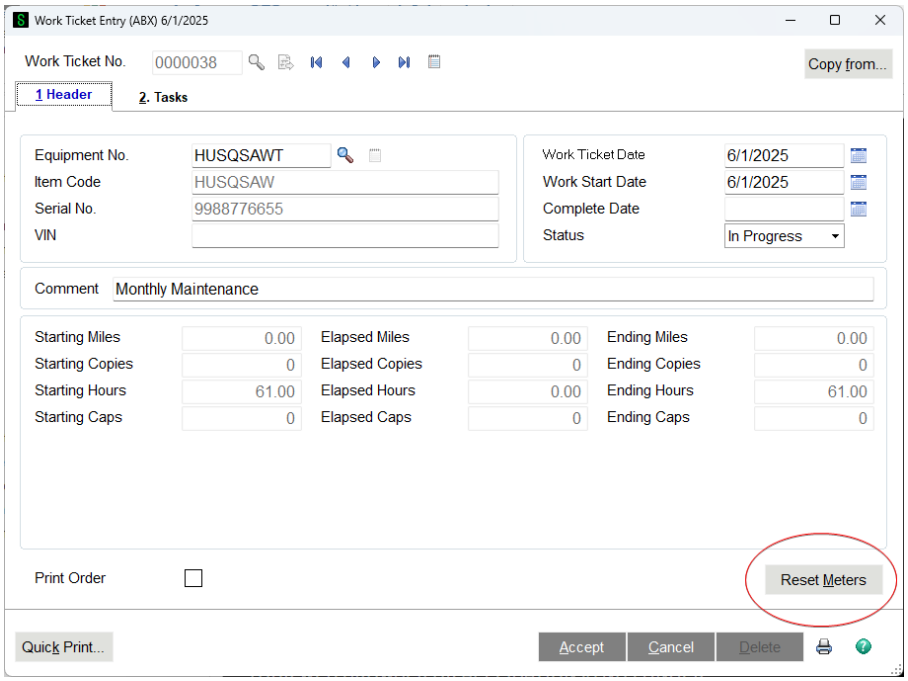
A new feature allows you to re-open a closed work ticket. Most of the time, this is an easy process and will not cause any problems, but you must be aware of some special considerations regarding the meter values on the tasks.

There is an option to enter the elapsed meter reading, or the ending meter reading, the work ticket header. If you have done this, and the work ticket is completed, that elapsed meter reading is updated to the equipment record. This is basically the same thing that happens when you enter meter readings in Log Entry. However, the work ticket also will update the equipment task records to indicate that a task was performed, and will write the ending meter reading for each meter associated with that task.

If you decide to re-open a work ticket, you have to enter the history ticket number into the work ticket number field and answer yes to the following message.



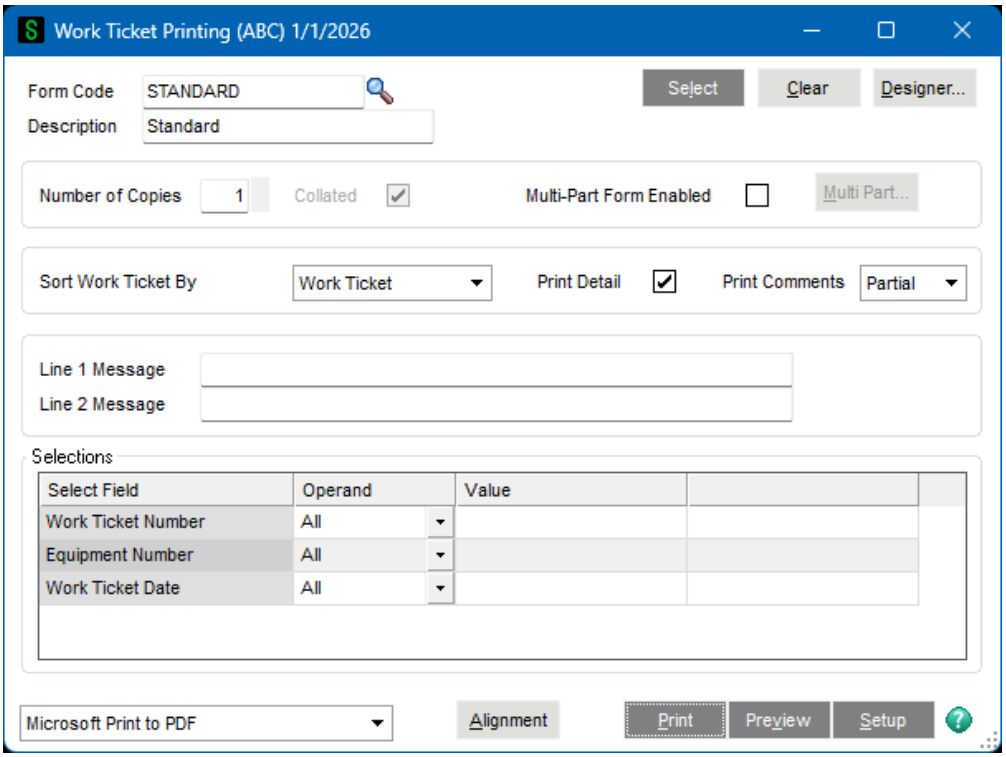
When you click yes, the history work ticket will be opened in Work Ticket Entry. Once this work ticket is saved, it will be erased from history files.



Re-opened ticket meter fields display the old meter readings and can only be viewed.
If you need to make changes to meter readings, you can either enter an adjustment record into Log Entry, or press the Reset Meters button on the Work Ticket Entry screen. If the Reset Meters button is pressed, all meters will be reset to the current level and you will be able to enter the adjustments.

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Work Ticket Printing



Report Setting - Enter a report setting, or click the button to list all report settings. The Standard report setting provides a set of default options, sort criteria, and selection criteria for each report.

Description - This field displays the description for the selected report setting. Enter a description that describes the output of the report. The description can be up to 40 characters.

Type - This field displays the type of access assigned to the report setting. A public report setting allows access to all users. This includes the ability to access, modify, save, print, and delete the report setting. However, the Standard report setting cannot be deleted. This field can only be viewed.

Default Report - Select this check box to set the current report setting as the default report setting. The default report setting is the first report setting displayed when the report is accessed. Clear this check box if you do not want this report setting to be the default.
When a default report setting is not selected, the Report Setting field displays the Standard report setting.

Print Report Settings - Select this check box to print the options, sort criteria, and selection criteria for the selected report setting. This information prints on a separate cover page when the report is printed. Clear this check box if you do not want to print the report settings.

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Three Hole Punch - Select this check box to print the report with a larger margin. This allows enough space for you to three-hole punch the report. Clear this check box if you do not want a larger margin for this purpose.

Number of Copies - Select the number of copies to print. This allows you to print multiple copies of the report or form without accessing Printer Setup.

Collated - Select this check box to print each copy of the report or form in proper binding order when printing multiple copies. Clear this check box if you do not want to collate the report or form. This check box is available only if the value selected at the Number of Copies field is greater than 1.

Sort Report By - Select an option for sorting the report.

Print Detail - Select this check box to include work ticket detail on the report. Clear this check box to exclude this information.

Print Comments - Select the type of comments to print on the report.

- Select Full to print the entire comment entered on the Lines tab of the applicable data entry window.
- Select Partial to print only the first 100 characters of the comment entered on the Lines tab.
- Select None if you do not want to print Lines tab comments.

Operand - Select an operand to limit your selection to a particular value or range of values. When selecting a value using the button or entering a value directly into the Value field (and moving out of the field), the operand automatically changes to Equal to. Likewise, when selecting a value using the button for a range or entering values directly into both Value fields, the operand automatically changes to Range.
The following operands are available.

Operand	Operand Function
All	Selects all information for the Select Field.
Begins with	Selects only the information for the Select Field that begins with the value entered at the Value field.
Ends with	Selects only the information for the Select Field that ends with the value entered at the Value field.
Contains	Selects only the information for the Select Field that contains the value entered at the Value field.
Less than	Selects only the information for the Select Field that is less than, but not equal to, the value entered at the Value field.
Greater than	Selects only the information for the Select Field that

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	is greater than or equal to the value entered at the Value field. When Range is selected, two Value fields are used. Information is selected that is greater than or equal to the first value entered and less than or equal to the second value entered at the Value fields.
Range	Note Entries at the "From" Value field may change to the entry made at the "To" Value field, if the "From" Value contains a lowercase letter and the "To" Value contains an uppercase letter. This occurs because lowercase letters are greater than uppercase letters. For example, if 01a is entered at the "From" Value field and 01C is entered at the "To" Value field, the "From" Value field changes to 01C.
Equal to	Selects only the information for the Select Field that is equal to the value entered at the Value field.
Not Equal to	Selects only the information for the Select Field that is not equal to the value entered at the Value field.

Additional operands are available for date Select fields. The system date is used to calculate the date ranges. When one of the date operands is selected, the Value fields automatically default to the appropriate dates.

You can use commas (,) to separate multiple values. However, if your selection values already contain commas, you must use alternate separators to separate them.

Note: When alternate separators are used, the value list must end with the alternate separator character.
The alternate separators include the following:
~ ! @ # $ % ^ & * ( ) = [ ] \ ; " / _ + { } | : < > ?

Note: If you enter a value that contains a comma (for example, if a vendor number is 01-SAGE,WEST), then you must enclose the value with an alternate separator (for example, %01-SAGE,WEST%). Because the comma is a separator, if the value is not enclosed in alternate separators, the system can search for two incorrect values (for example, "01-SAGE" and "WEST", instead of "01-SAGE,WEST").

Example – Using alternate separators when selection values contain commas
If your company uses commas in item codes, use an alternate separator to select one or multiple item codes.

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Enter....	If....
#82,120#	you want to select the following item code: 82,120
	you want to select the following item codes:
#82,120#83,120#84,102#	82,120
	83,120
	84,102

Value - Enter a value based on the operand entered, or click the or Calendar button to select a value from the list. Multiple values can be entered by using a comma or alternate separators to separate values.
You can enter single or multiple values as follows:

Operand	Value
All	Selects all information for the Select Field.
Begins with	Multiple values are separated by a comma or alternate separator, and assume an OR condition.
Ends with	Multiple values are separated by a comma or alternate separator, and assume an OR condition.
Contains	Multiple values are separated by a comma or alternate separator, and assume an OR condition.
Less than	Only single values are allowed.
Greater than	Only single values are allowed.
Range	Both Value fields are used to define a range. Only single values are allowed at each Value field.
Equal to	Multiple values are separated by a comma or alternate separator, and assume an OR condition.
Not Equal to	Multiple values are separated by a comma or

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alternate separator, and assume an AND condition.

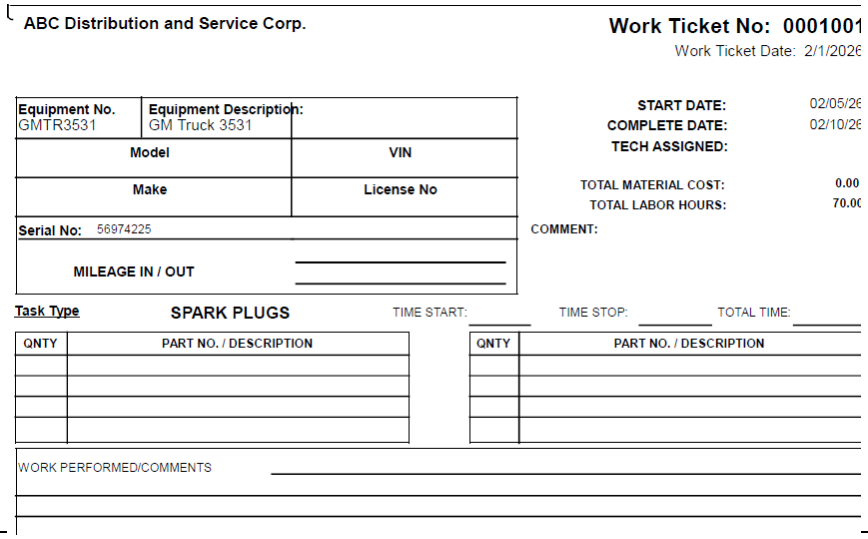
Note: If you enter a value that contains a comma (for example, if a vendor number is 01-SAGE,WEST), then you must enclose the value with an alternate separator (for example, %01-SAGE,WEST%). Because the comma is a separator, if the value is not enclosed in alternate separators, the system can search for two incorrect values (for example, "01-SAGE" and "WEST", instead of "01-SAGE,WEST").

Printer/Output - Select a printer or output method. The following output methods are available:

- Select "Deferred" to save the report or listing to your hard drive for printing at a future time using Deferred Printing. For more information, see Deferred Printing.
- Select "Export/E-mail" to export to a file type, such as PDF or Excel. The file can then be saved to your hard drive or e-mailed.
- Select "Data Only Export" to export only the data portion of the report (excluding header information) to a file type, such as PDF or Excel. The file can then be saved to your hard drive or e-mailed.
  Note: This option is available only if the report or listing contains header information.
- Select "Office Merge" to export data to a Microsoft Word or Excel template. For more information, see Office Template Manager.
- Select "Paperless Office" to e-mail, fax, or print the report as a PDF document. When you select this option and click Print, the Paperless Office Selection window appears and allows you to define recipient and message options. For more information, see Paperless Office Selection.

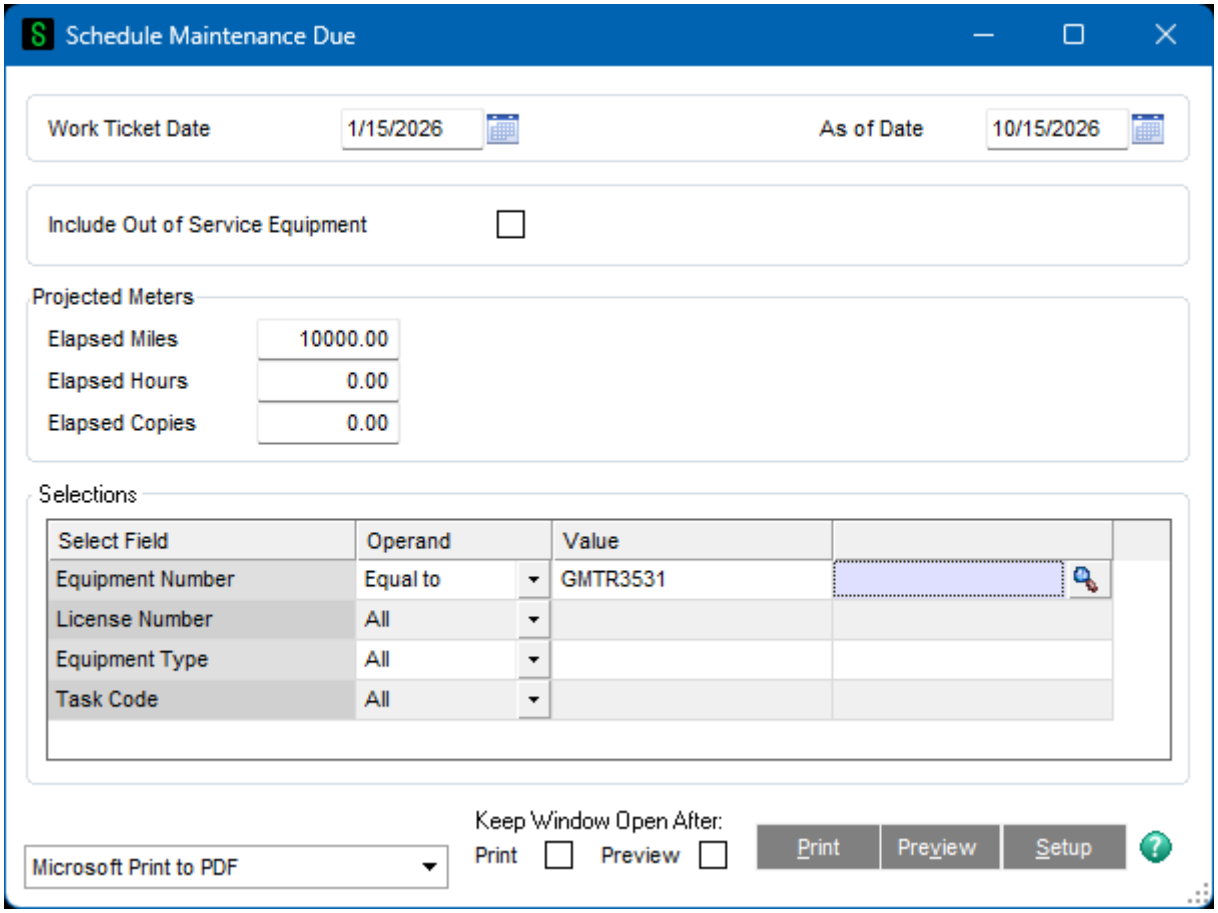
Keep Window Open After Print - Select this check box to keep this window open after you print. Clear this check box if you want this window to close automatically after you print.
Note: The check box setting defaults to the last user setting.

Keep Window Open After Preview - Select this check box to keep this window open after you preview. Clear this check box if you want this window to close automatically after you preview.
Note: The check box setting defaults to the last user setting.



Schedule Maintenance Due

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Schedule Maintenance Due uses parameters entered to determined which tasks are due to be scheduled on all of your equipment. It will first print a report, then prompt you to create the work tickets. If tasks are within the notification range, which is 10% of meters or number of days you entered in Task Maintenance, then the report will print these tasks as yellow. If the tasks are at or beyond their due date they will appear red on the report. The current meter readings get updated when you record the usage of equipment in Log Entry.

Work Ticket Date - If any tasks are due and are subsequently scheduled, this is the date that will be used for the resulting work tickets which will show up on the report.

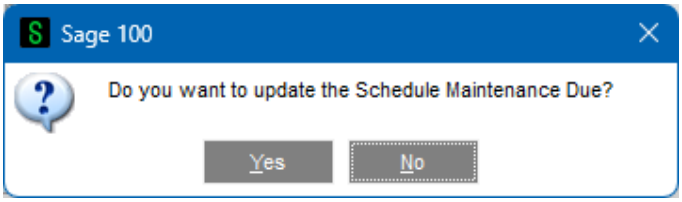
As of Date - The As of Date allows you to project into the future to see what maintenance your item will need at the given date. If the next due date for a task is close enough to this date to be within the warning period specified in the Task Code Maintenance, it will appear on this report as a Due Task in yellow. If it is after this date, the task will show up as Past Due in red.

Include Out of Service Equipment - If this box is cleared, the out of service equipment will not be selected.

Projected Meters - These fields allow you to project what maintenance will be due in the future based upon the expected elapsed meter counts.
For example, if you want to see how many tasks will come due if you drive vehicles 1,000 miles, you would enter that in the Elapsed Miles field shown.

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The report looks very similar to the Maintenance Due Report. Once the report is printed, the following prompt will appear:



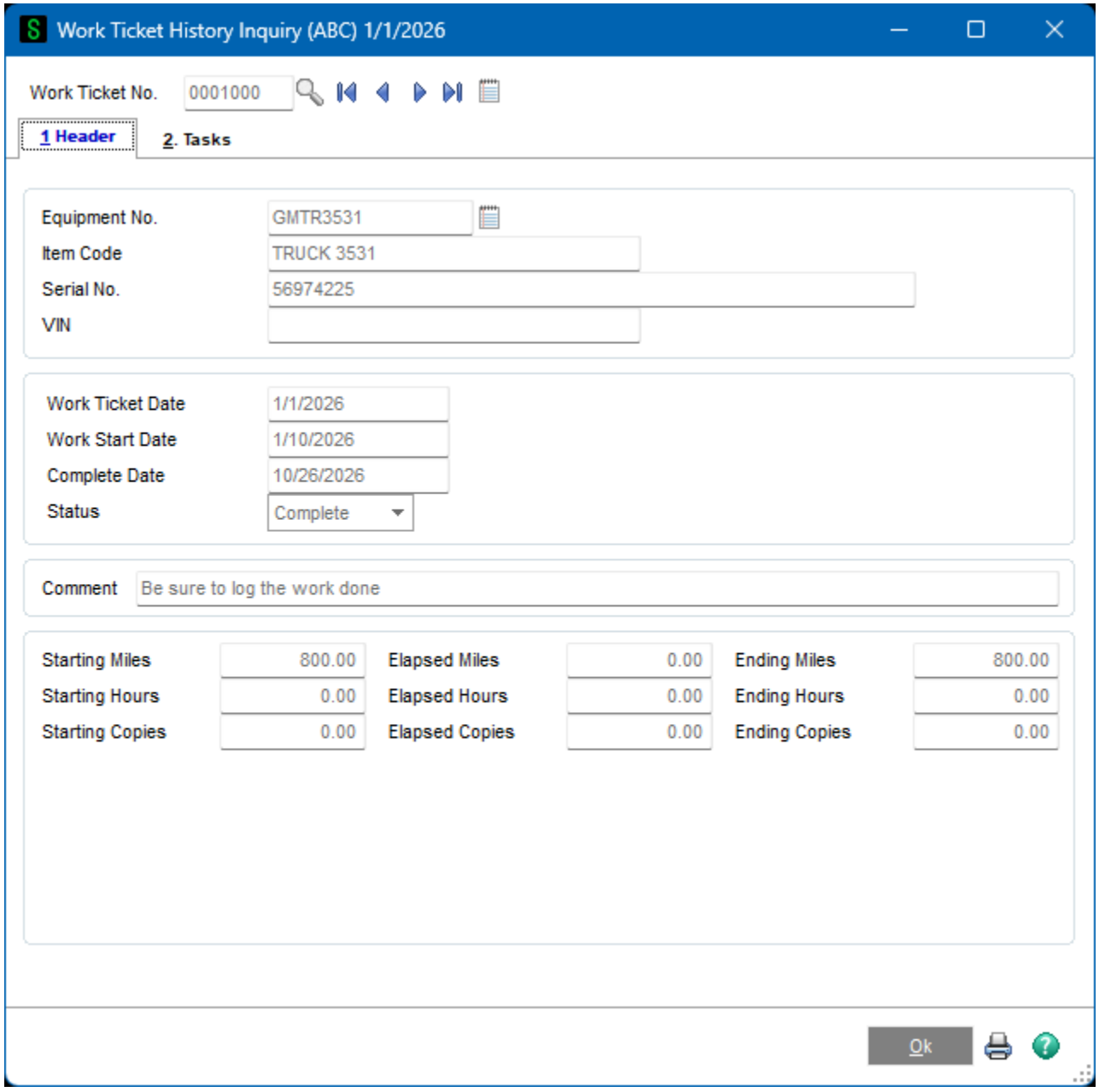
If you hit Yes, the program will automatically create one work ticket for each equipment record, combining multiple tasks on each work ticket.

If you do not want to update certain ones, then you will have to individually select them by license number.

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Inquiry Menu

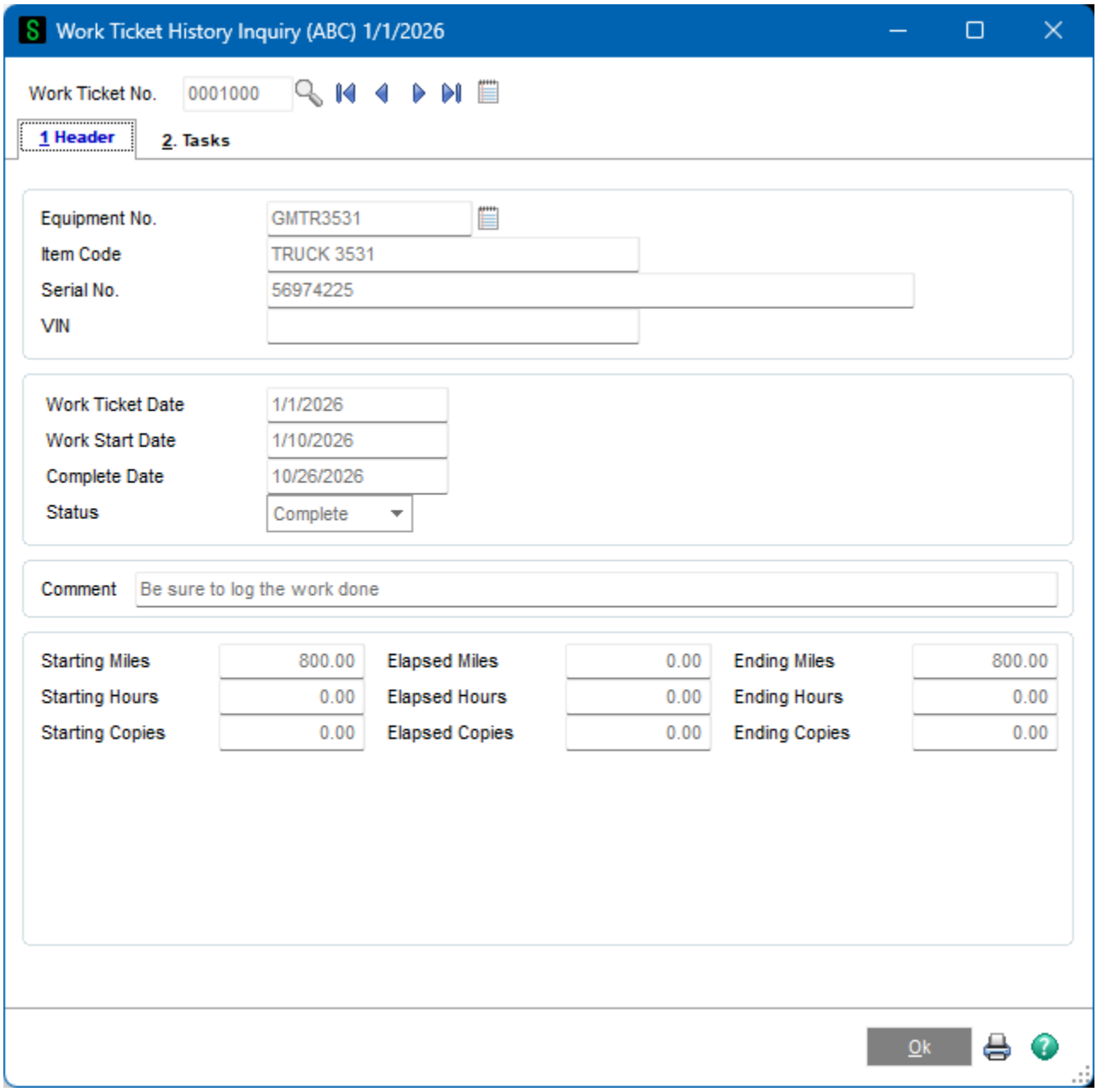
Work Ticket History Inquiry



Work Ticket History Inquiry Contains the same fields as Work Ticket Entry except they are read only.

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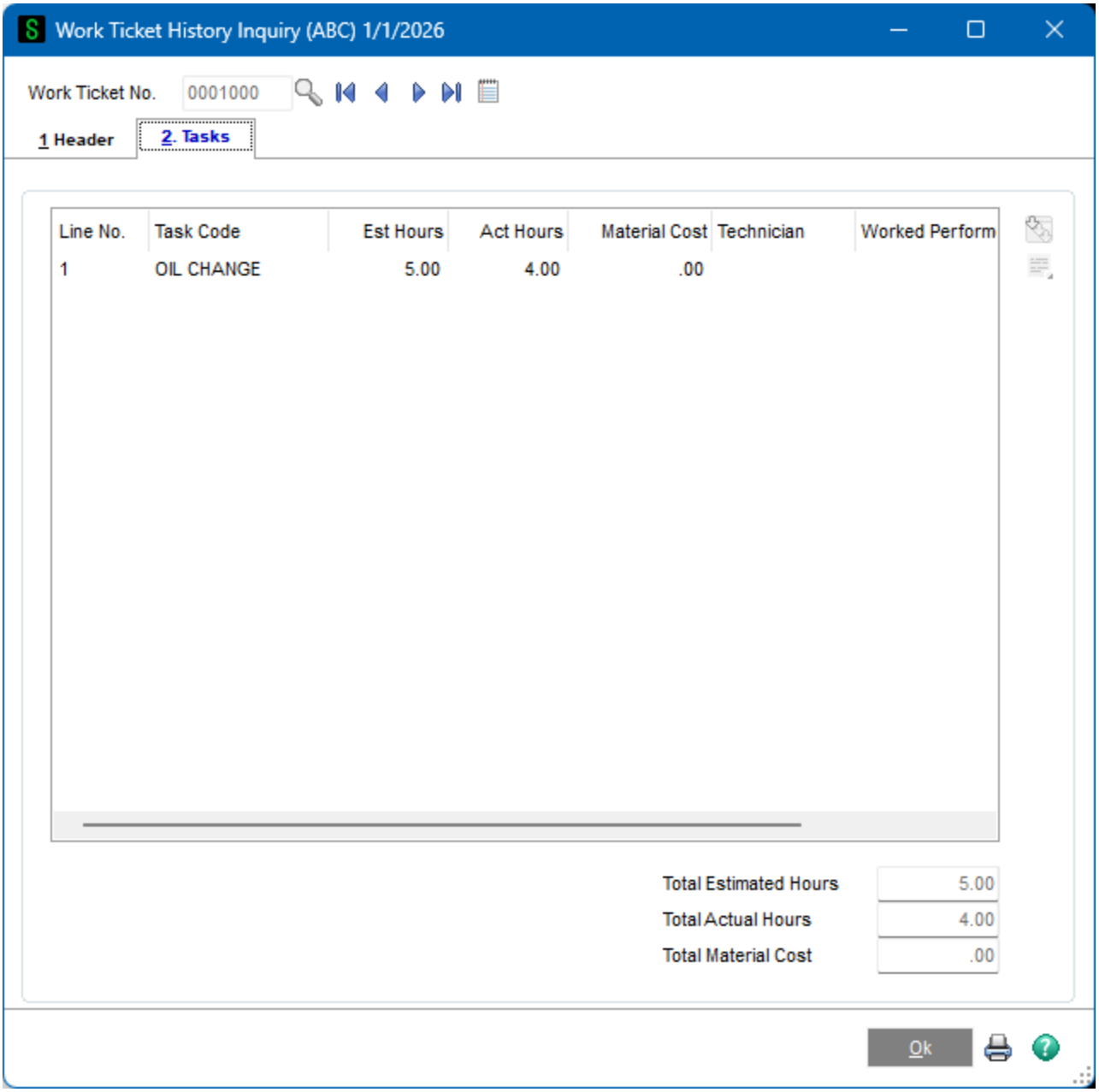
Work Ticket History Inquiry - Header Tab



Work Ticket History Inquiry main tab contains the same fields as the Work Ticket Entry - Header except they are read only.

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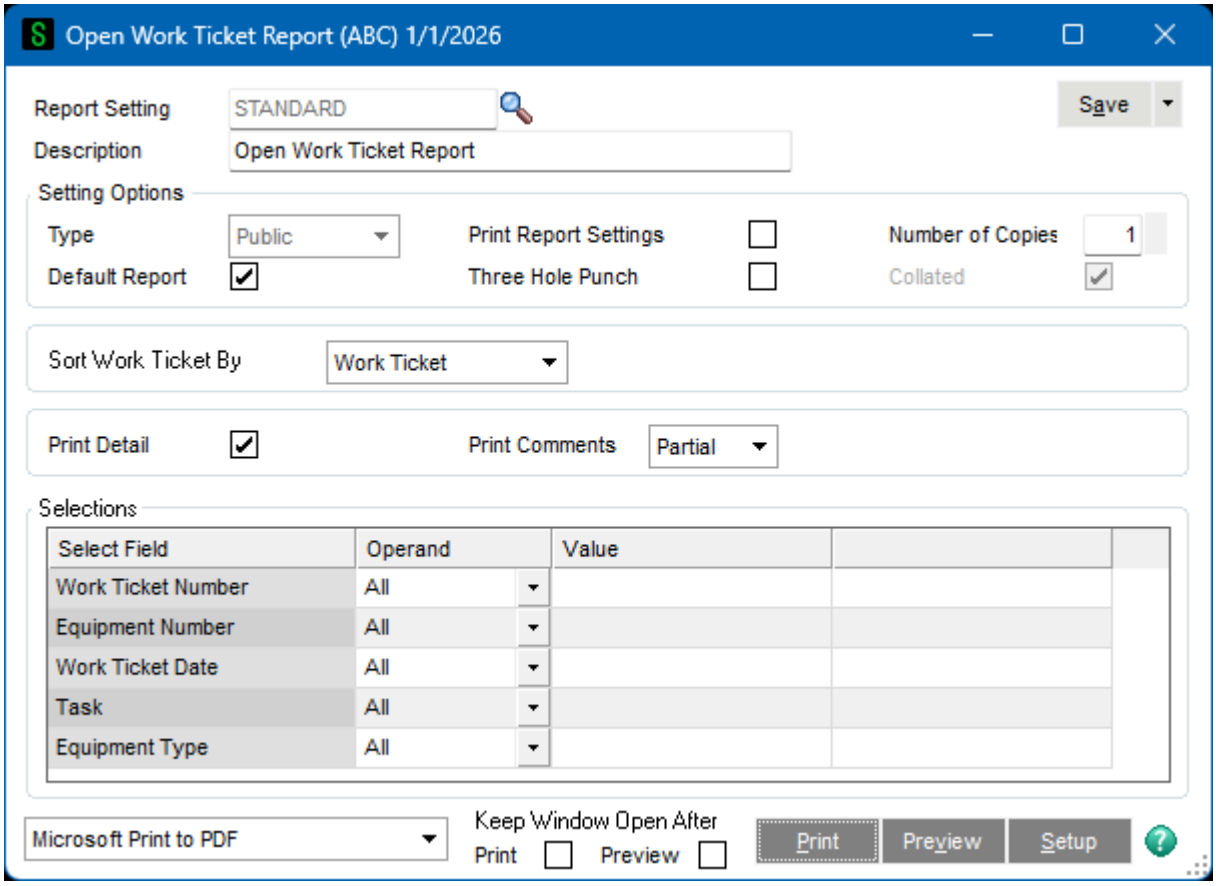
Work Ticket History Inquiry - Tasks Tab



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Reports Menu

Open Work Ticket Report



The Open Work Ticket Report allows you to print all or selected work tickets that are either new or in progress. Once a work ticket is completed, it is moved to Work Ticket History. You can use the Work Ticket History Report to report on tickets in history. You can customize the order in which you want to print the tickets. You can also select specific work tickets or specific pieces of equipment for the current work ticket that you want to print.

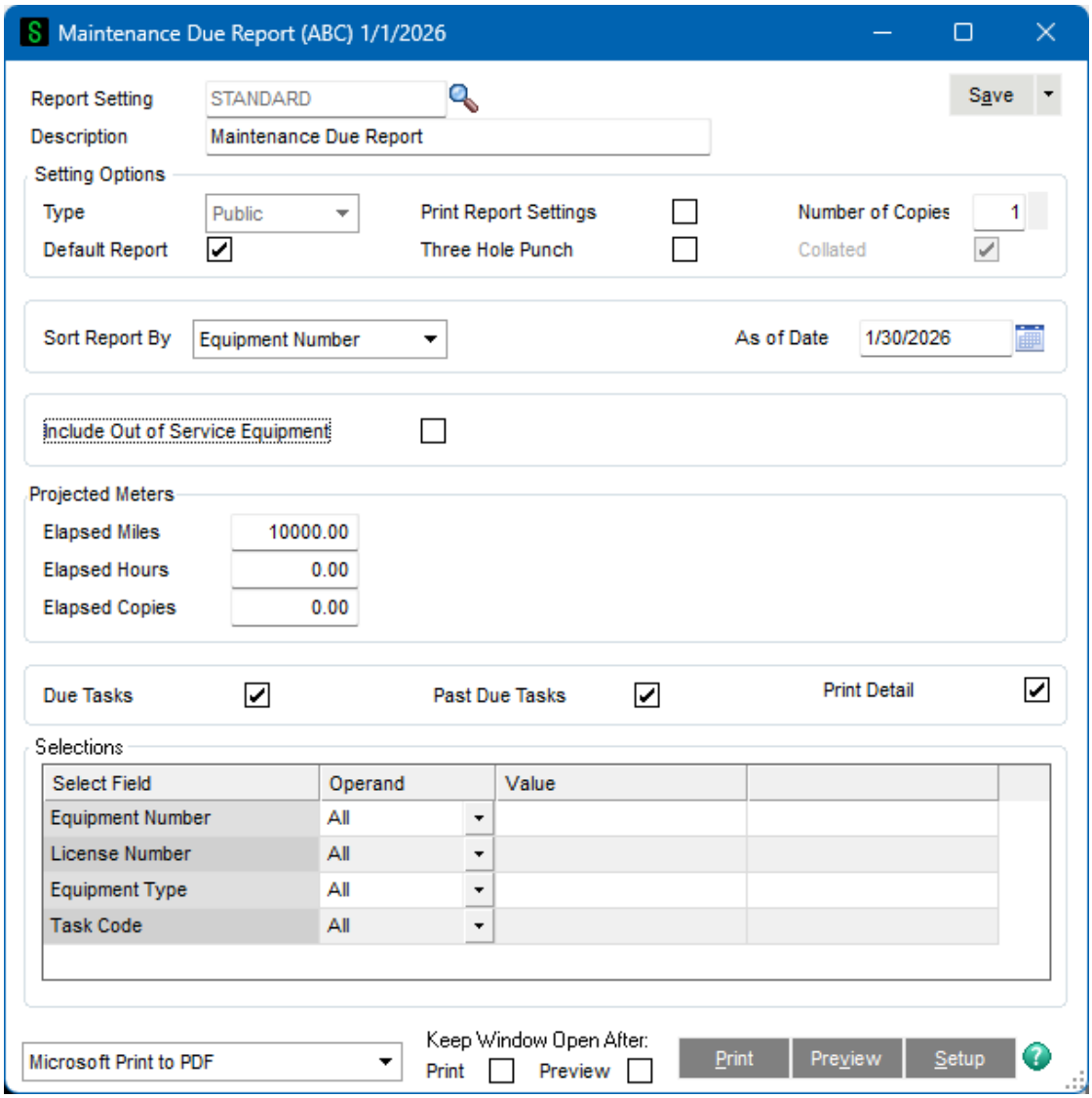
Sort Work Ticket By - Use this drop box to select how you would like to sort the report. The choices are to sort by Work Ticket, Equipment ID or Work Ticket Date.

Print Detail - Check this box if you wish to print the item codes that are issued against this work ticket from inventory or purchase order receipts.

Print Comments - Select whether you wish to see full comments, partial comments, or no comments. This will apply to the work ticket comments as well as the Work Performed field on the tasks.

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Maintenance Due Report



The information that you enter through daily processing in the Equipment Maintenance system is available to you through a standard Maintenance Due Report. This report can be supplemented with reports that you create from the same data using Crystal Reports©.

The Maintenance Due Report allows you to list all of the Equipment that has maintenance that is due based on the criteria specified on the Maintenance Due Report Options Screen. It is very similar to Schedule Maintenance Due. It will print the same information and use the same color schemes, but Maintenance Due Report will not prompt you to create work tickets. You also have the option in Maintenance Due Report to only print due tasks, or past due, or no detail.

As of Date - If the next due date for a task is close enough to this date to be within the warning period specified in the Task Code Maintenance, it will appear on this report as a Due Task. If it is after this date, the task will show up as Past Due.

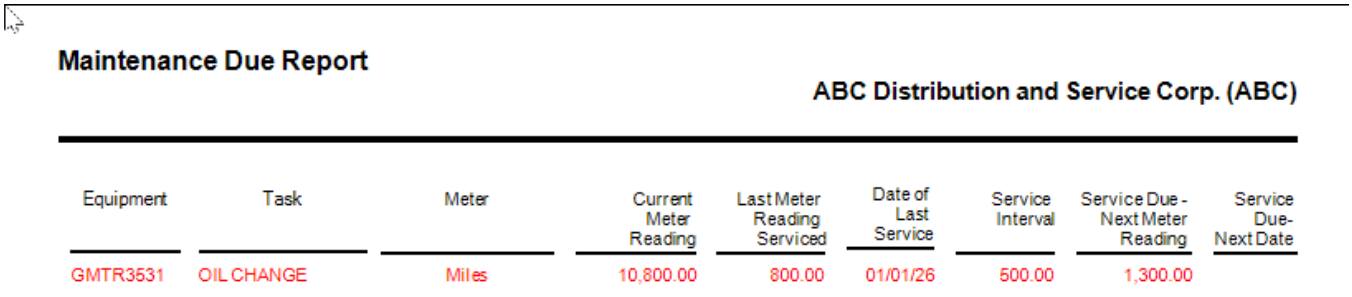
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Include Out of Service Equipment - If this box is cleared, the out of service equipment will not be selected for the report.

Projected Meters - These fields allow you to project what maintenance will be due in the future based upon the expected elapsed meter counts. For example, if you want to see how many tasks will come due if you drive vehicles 1,000 miles, you would enter that in the Elapsed Miles field shown.

Due Tasks - If the task interval is based upon the calendar, then a Due task is within the Warning Interval of the Next Due Date. If the task is based upon a meter, then a Due Task is within the last 10% of the interval before the Next Due meter. For example, if the interval is 3,000 miles, then it becomes Due when it is within 300 miles of the Next Due meter.

Past Due Tasks - If the As of Date is beyond the Next Due Date for the task or if the calculated meter reading (current ending meter plus the projection) is greater than the Next Due Meter for the task, it will be considered Past Due.



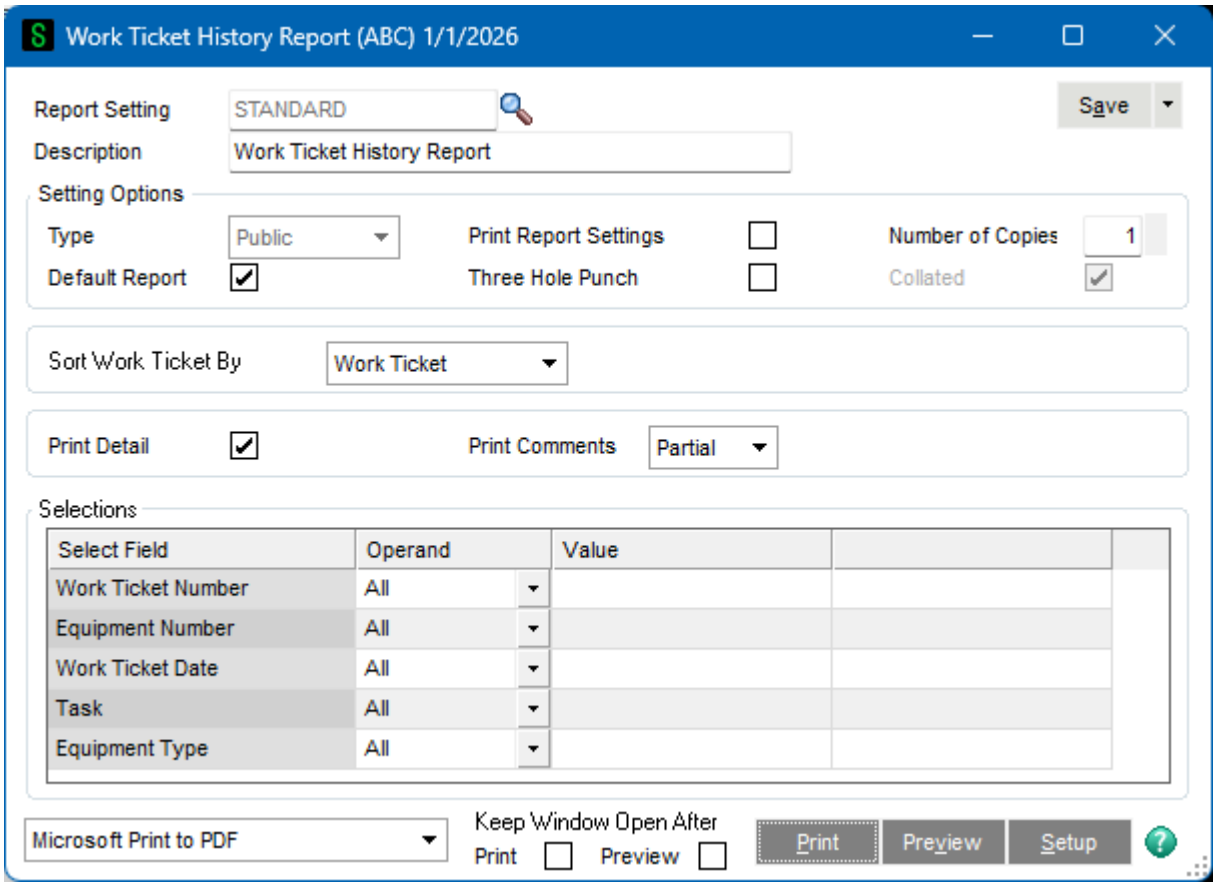
Maintenance Due Report

ABC Distribution and Service Corp. (ABC)

Equipment	Task	Meter	Current Meter Reading	Last Meter Reading Serviced	Date of Last Service	Service Interval	Service Due - Next Meter Reading	Service Due- Next Date
GMTR3531	OIL CHANGE	Miles	10,800.00	800.00	01/01/26	500.00	1,300.00	

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Work Ticket History Report



The Work Ticket History Report allows you to print all or selected work tickets that have been completed and are now in history. If the work ticket is still open, either new or in progress, you can use the Open Work Ticket Report to report.

Sort Work Ticket By - Use this drop box to select how you wish to sort the report. The choices are to sort by Work Ticket, Equipment ID or Work Ticket Date.

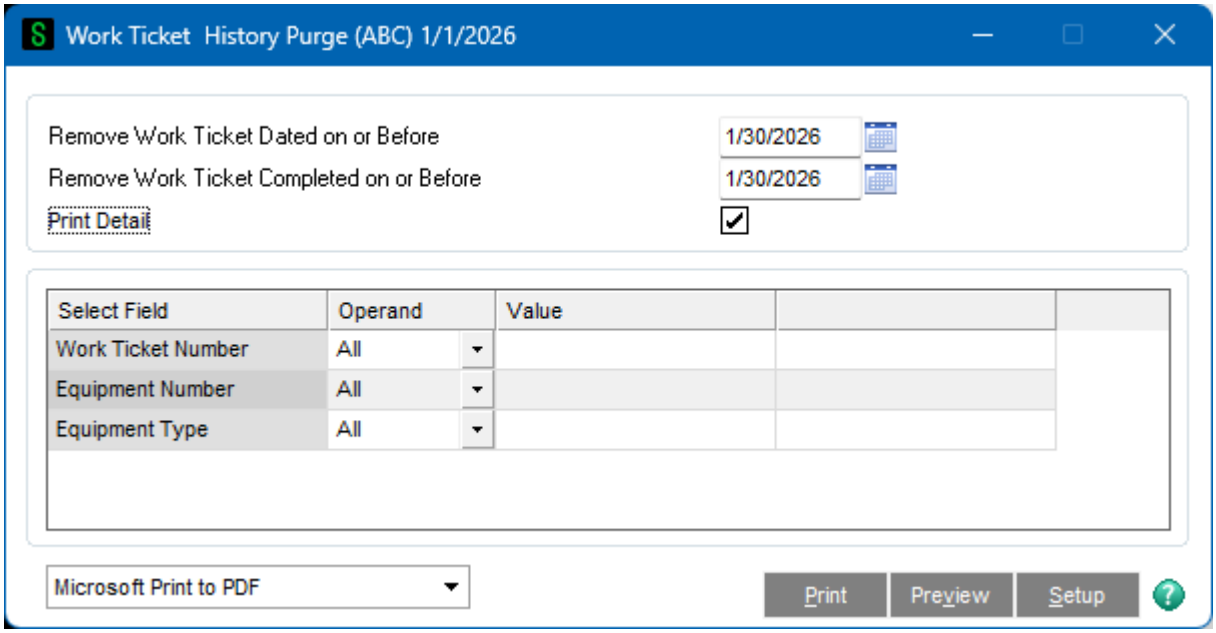
Print Detail - Check this box if you wish to print the item codes that are issued against this work ticket from inventory or purchase order receipts.

Print Comments - Select whether you wish to see full comments, partial comments, or no comments. This will apply to the work ticket comments as well as the Work Performed field on the tasks.

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Utilities Menu

Work Ticket History Purge



Work Ticket History Purge - Print a list of work tickets that are either new or in progress.

The Work Ticket History Purge is a good way to get rid of history work tickets, that are old and no longer needed on file.

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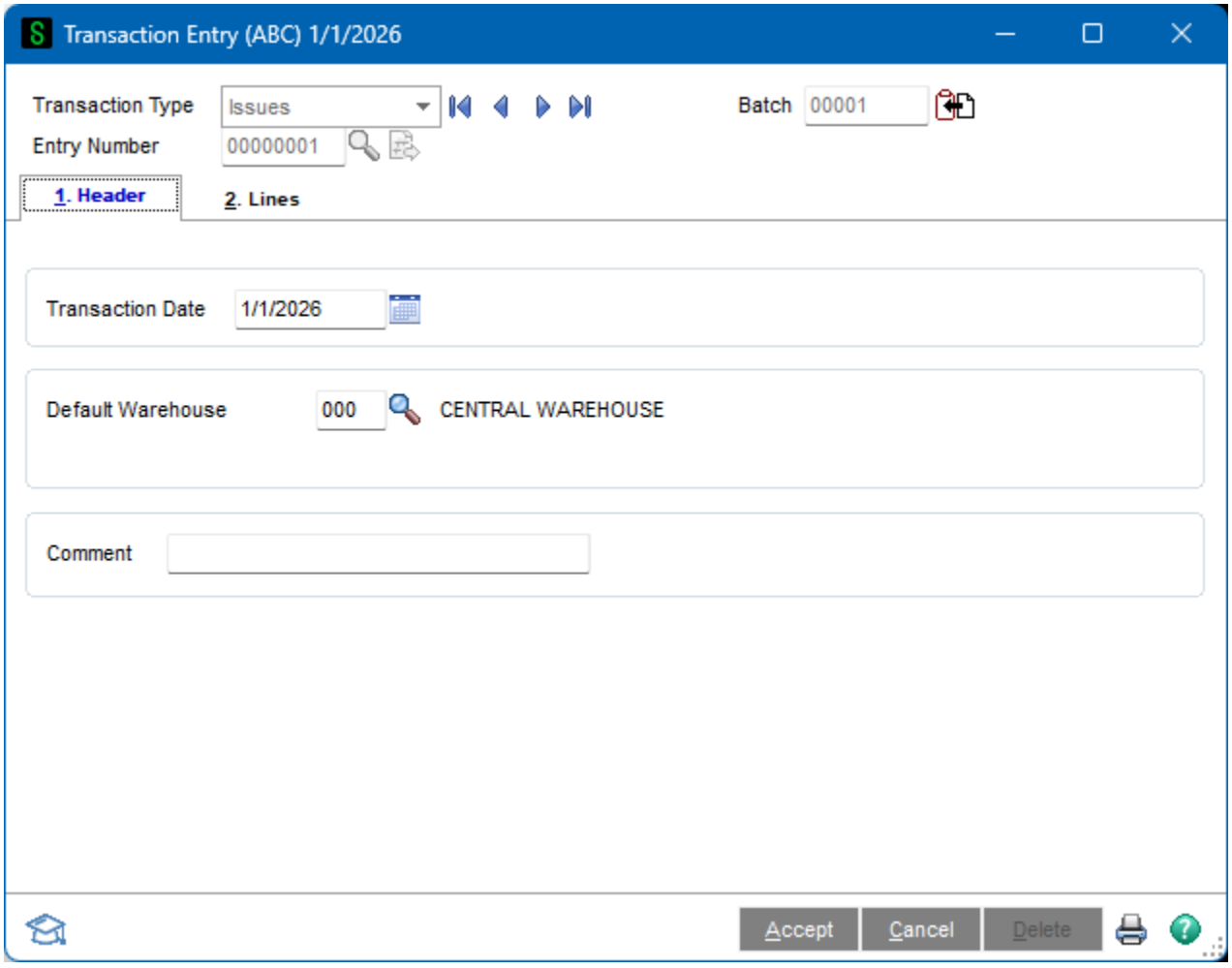
Sage 100 ERP Integrations

Additional functionality has been added to Inventory Management and Purchase Order to complement the Equipment Maintenance package. Equipment Maintenance installs as a module in the Sage 100 ERP product line and acts just as any other Sage 100 ERP module would act. It also tightly integrates with Inventory Management, Sales Order and Accounts Receivable. In order for everything to work seamlessly, some changes have been made to other modules and are explained in this section.

Inventory Management

Inventory Management has added functionality to perform Transaction Entries for Equipment Work Orders. You will use Inventory Management to charge parts that are used in maintenance to apply to work tickets.

Transaction Entry

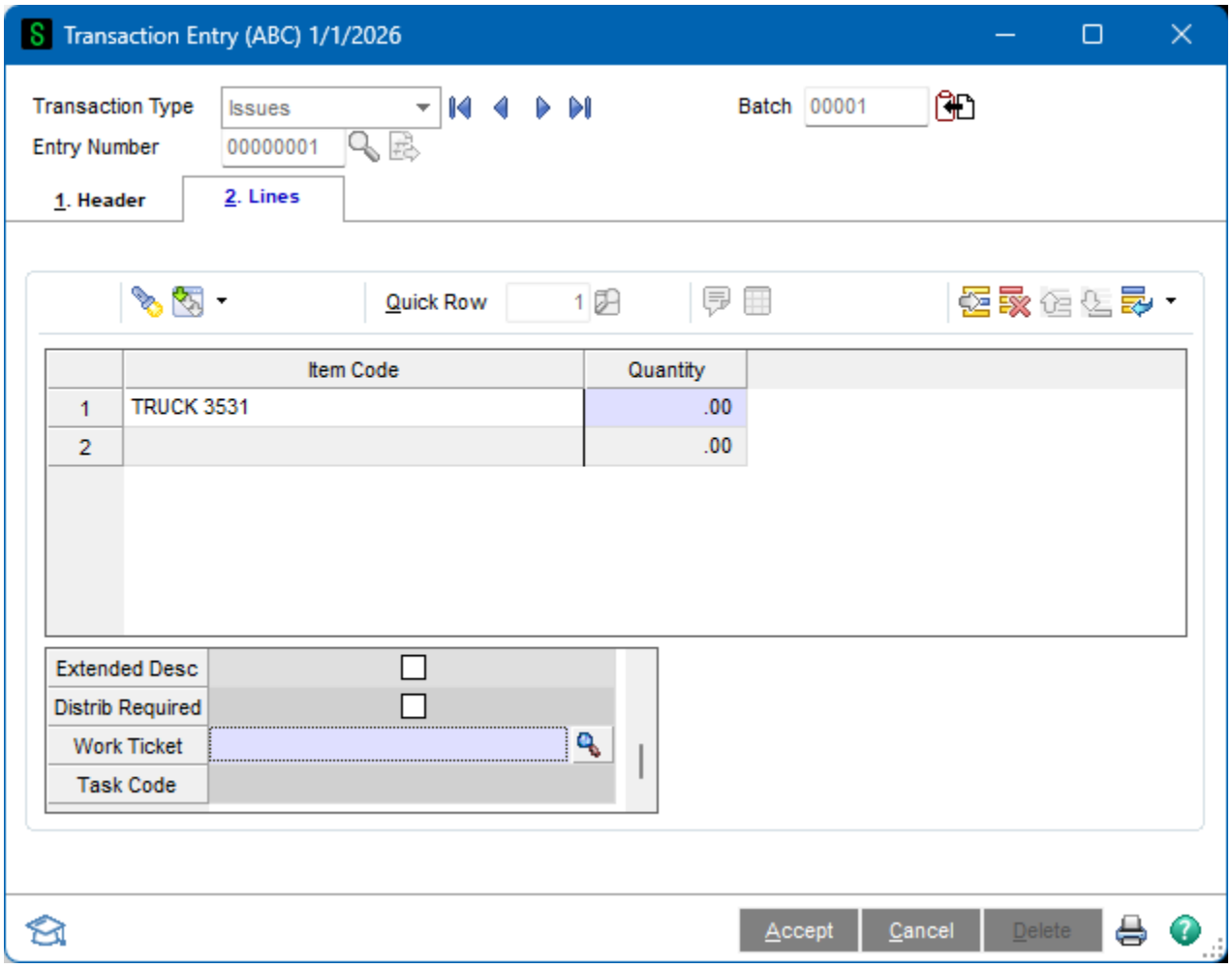


Transaction Entry is where you can record items pulled out of inventory so that your warehouse and computer inventories match. Each item code that you issue must have a work ticket and task code assigned.

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New fields, Work Ticket and Task Code, have been added to the secondary grid in the Header Tab. It might be easier if you click and drag to move them to the upper grid to ensure that you fill them out. These two fields are necessary when assigning items to work tickets.

The Lines Tab is where you fill out what parts you used by selecting the item code. Once you are finished filling it out, hit accept and print.

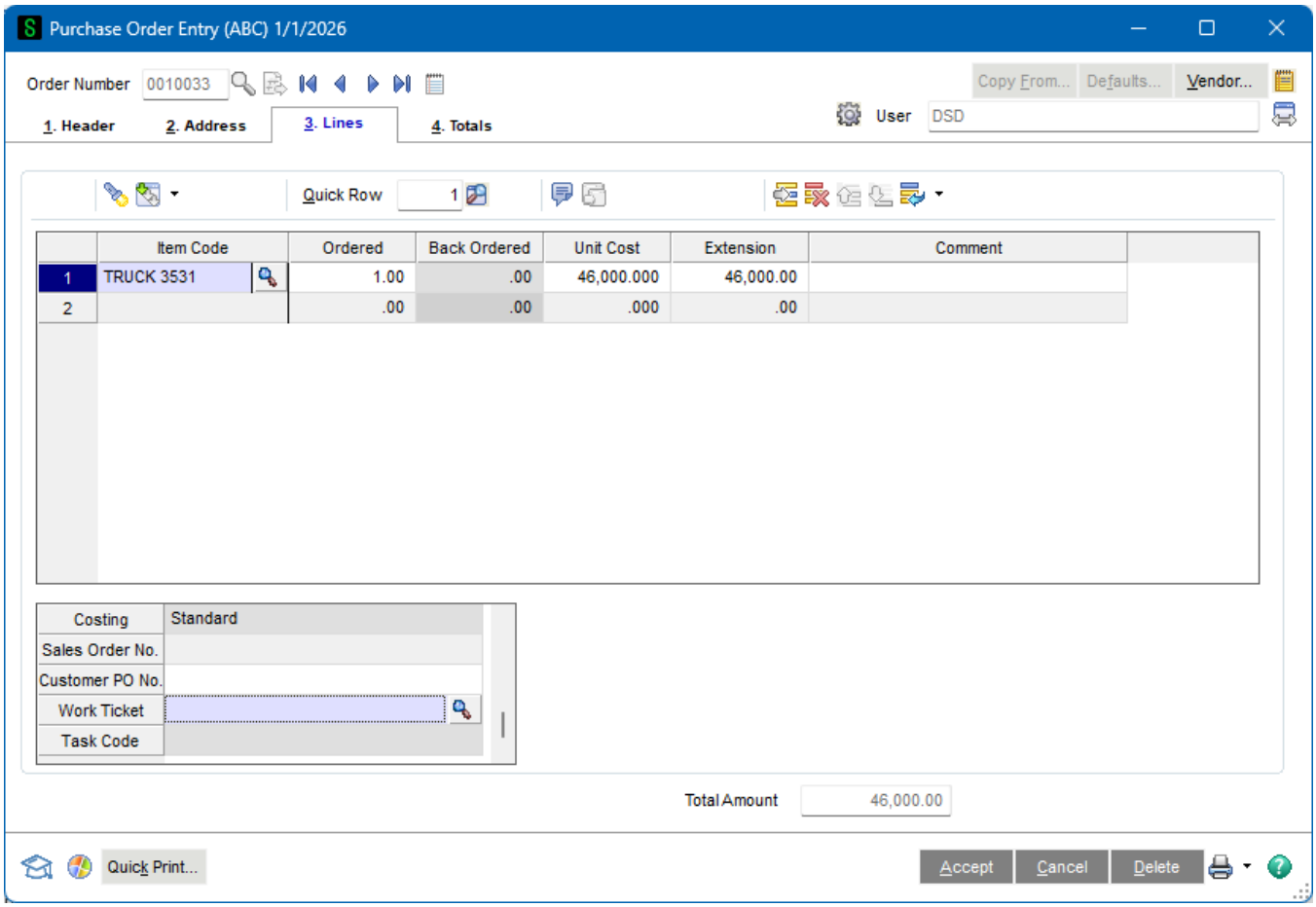


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Purchase Order

Purchase Order has added functionality to allow you to Purchase items from other vendors for Equipment Maintenance Work Tickets and Tasks.

Purchase Order Entry



*Note with Production Management installed you can only enter either an Equipment Maintenance Work Ticket or a Production Management Work Ticket, not both.

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Business Insights Explorer

Three new options have been added to the Business Insights - Explorer menu. These represent new views that allow you to explore equipment and work tickets.

Equipment Maintenance View

You can see all equipment on file and the tasks, current work tickets, and history work tickets associated with that equipment. From this view, you can also drill into Equipment Maintenance, create new work tickets or log entries, and select work tickets or history to explore.

Work Ticket View

You can see all the work tickets in the current table, including the status and other information about that ticket. The tasks for that ticket and the associated parts used will also be displayed.

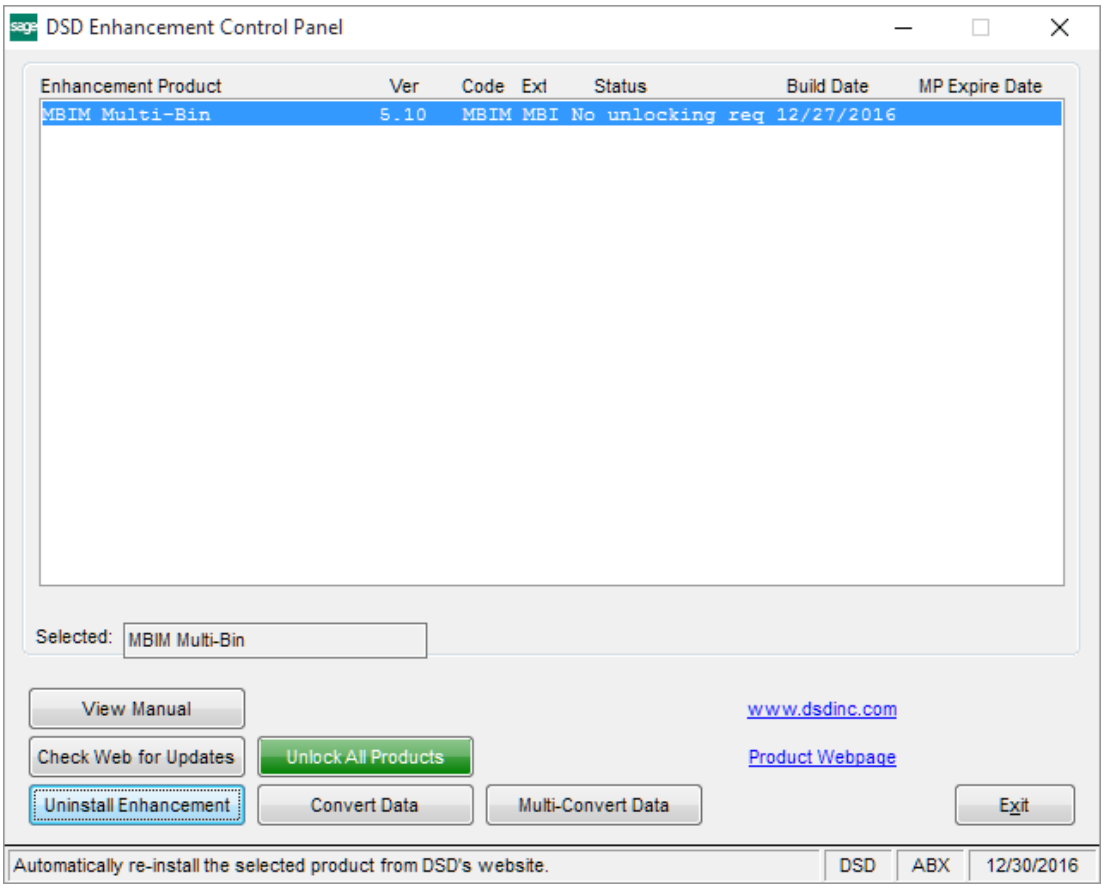
Work Ticket History View

You can see all the history work tickets along with the tasks on each ticket and the detail parts used for each task.

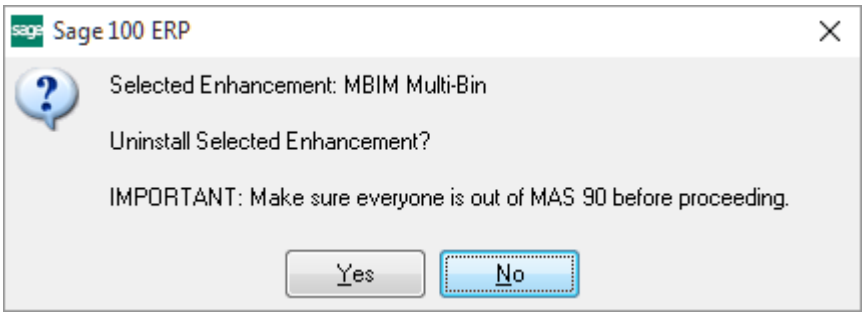
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Section E: Uninstall DSD Enhancements

A DSD Enhancements Uninstall Utility has been provided for the purposes of removing DSD Enhancements from your Sage 100 System. This utility may be accessed from the **DSD Enhancement Control Panel** menu option on the **Library Master / Utilities** menu.



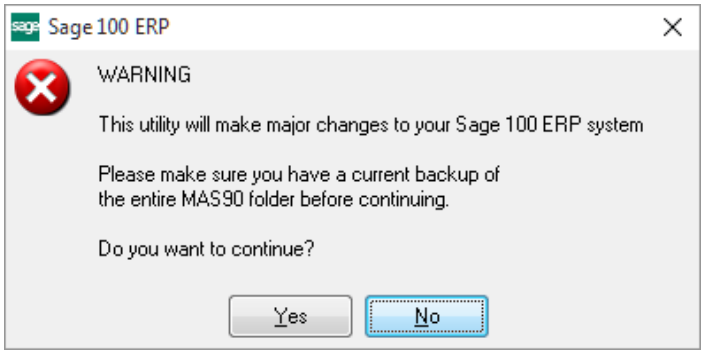
When accessing the **DSD Enhancement Control**, select the enhancement that you wish to Uninstall, and then select the **Uninstall Enhancement** button. The following message box will appear:



Select **No** to exit the Uninstall Process.
Select **Yes** to continue with the Uninstall Process.

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The following message box will appear, to remind you that a complete backup of your entire Sage 100 system should be completed prior to uninstalling a DSD product.



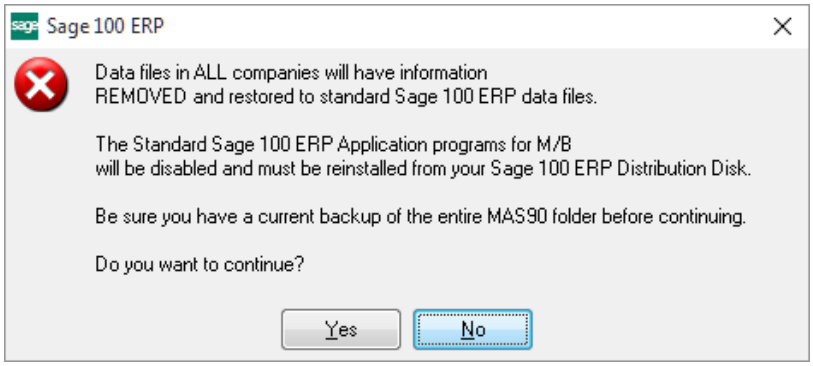
Select **No** to exit the Uninstall Process.
Select **Yes** to continue with the Uninstall Process.

After the Uninstall of the DSD Enhancement, you MUST reinstall certain standard Sage 100 modules, followed by reinstallation of Product Updates and Hot Fixes, if applicable.

A message box will appear, and will display which of those specific Sage 100 modules you must reinstall afterwards.

Select **No** to exit the Uninstall Process.
Select **Yes** to continue with the Uninstall Process.

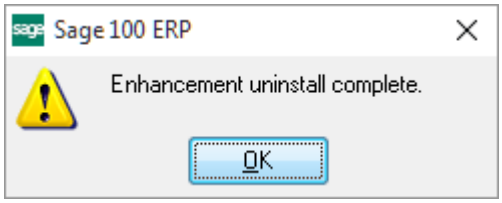
The following message box will appear, displaying the final warning message.



Select **No** to exit the Uninstall Process.
Select **Yes** to continue with the Uninstall Process. At this point, the DSD Enhancement will be removed from the Sage 100 system.

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After completion of the Uninstall, the following message box will appear. Select OK to continue.



Now that the Uninstall process is completed, you must:

- Reinstall the applicable standard Sage 100 modules
- Reinstall the latest Sage 100 Service Pack/Updates, if applicable.
- Reinstall any other DSD Enhancements or Developer products that are affected from the reinstallation of the standard Sage 100 module(s).

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