Component Inspection

Version 6.6.3

A component of the Wheel Shop Management Suite (WSMS)

User Guide

Revised 2021-11-14

Contents

Introduction

Overview

Component Inspection is part of the Wheel Shop Management Suite. It is used to record wheel mounting charts and data for freight wheel sets. The program will automatically recognize several types of mounting chart misfits. However, **wheel shop personnel must review each chart for correctness** per Association of American Railroad requirements.

Layout

Component Inspection contains two main screen areas. The menu bar located across the bottom of the screen and the client area above the menu bar. The menu bar is used to access important features, like returning to the home screen. For more details see the topic on the Menu Bar. The client area is for displaying data and changes based on the current operation.

System Requirements

This application has minimum system requirements as described below. These requirements must be met for the application to operate as designed.

This application supports the following Microsoft Windows operating systems.

- Windows 8.1 (x86 and x64) [1]
- Windows 10 (x86 and x64) [1]

The application requires the Microsoft .Net Framework (4.6.2 or later) which can be obtained from https://dotnet.microsoft.com/download

The application requires the following hardware at a minimum.

- 2.0 GHz Processor
- 1 GB installed RAM
- 100 MB available disk space
- Ethernet Card

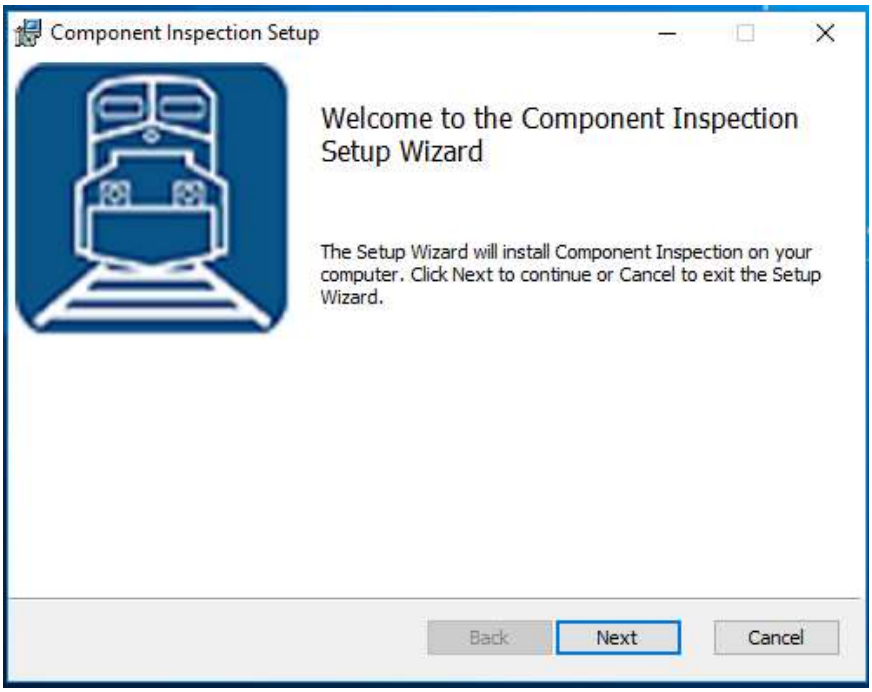
[1] When installed on a 64 bit operating system, the application will run in a subsystem of Windows called WOW64 (Windows-on-Windows 64 bit). WOW64 is included on all 64 bit versions of Windows and is designed to make differences between the operating systems transparent to the user.

Getting Started

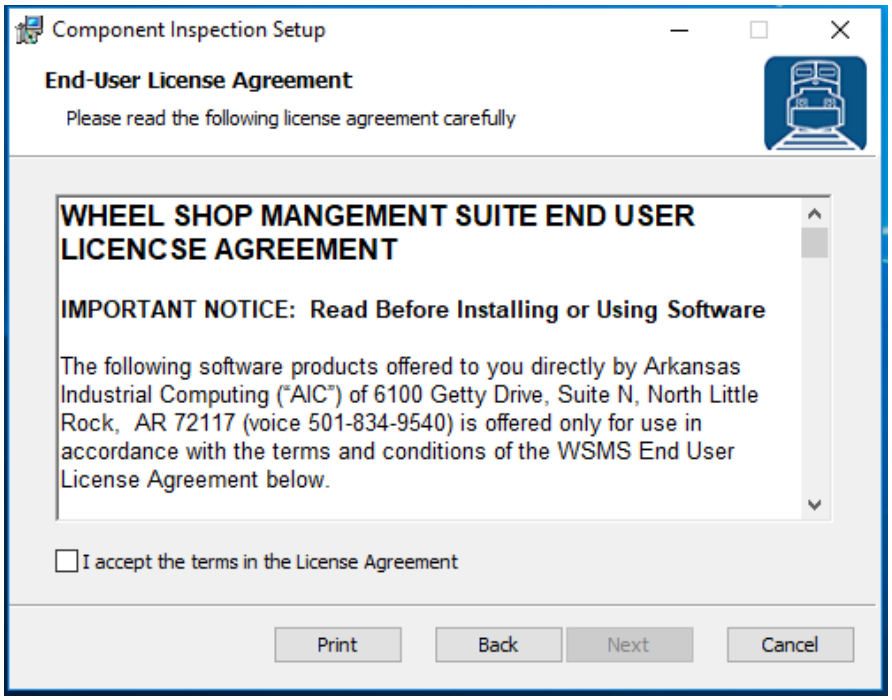
Installing Component Inspection

As with most software you will need Administrator rights to install Component Inspection.

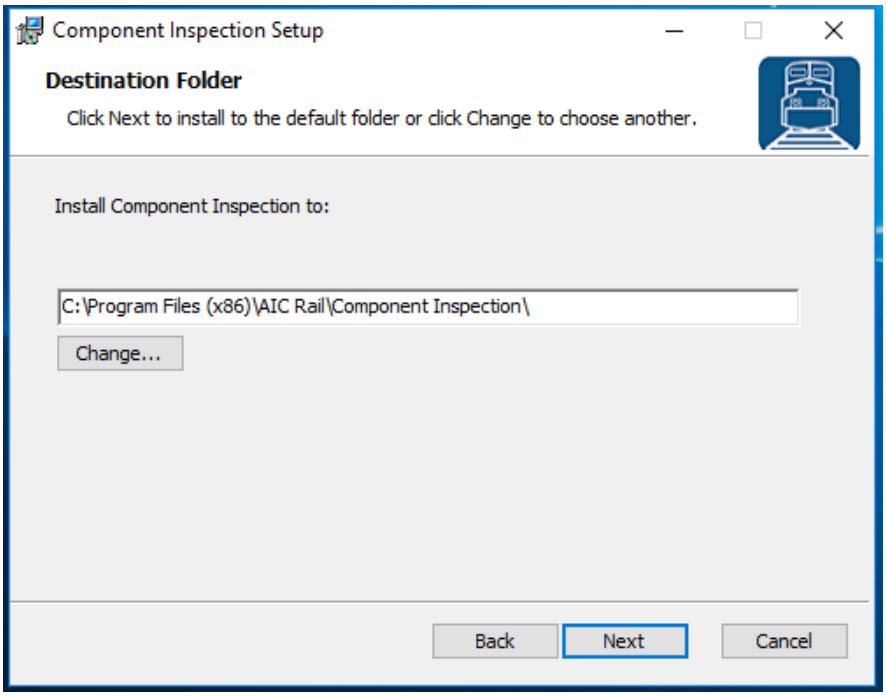
To install Component Inspection, you will need the latest version. Run the setup program and follow the on-screen prompts as described below. Contact our support team for assistance.



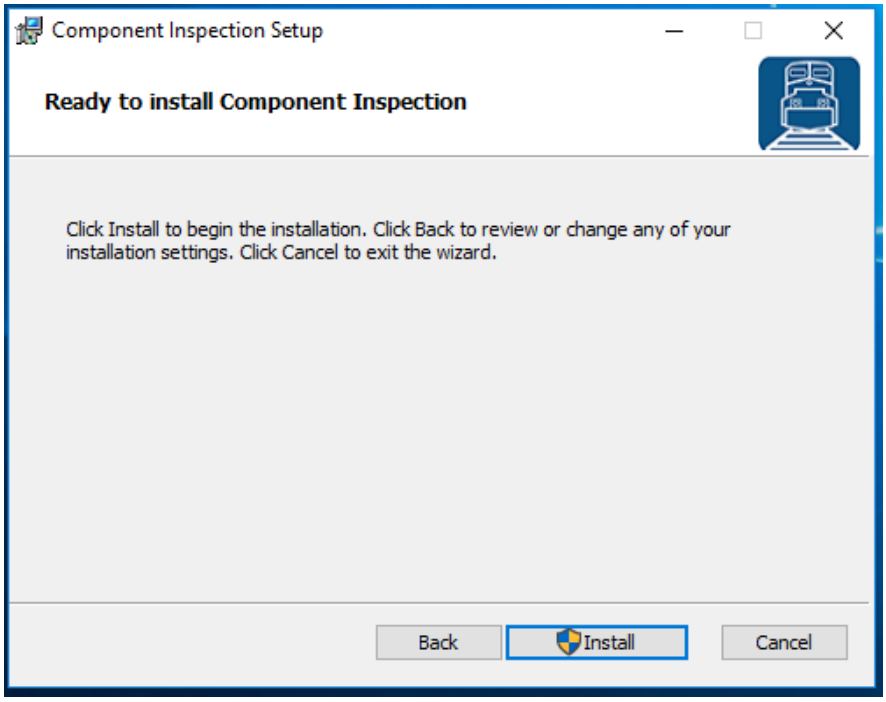
Click **NEXT** to continue.



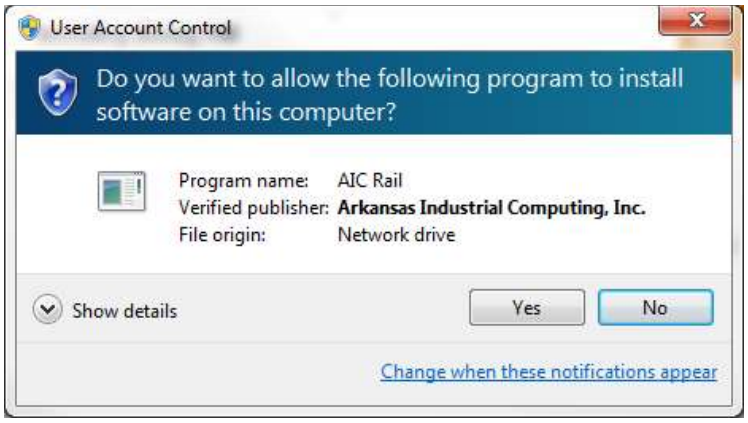
Accept the License Agreement and click **NEXT**.



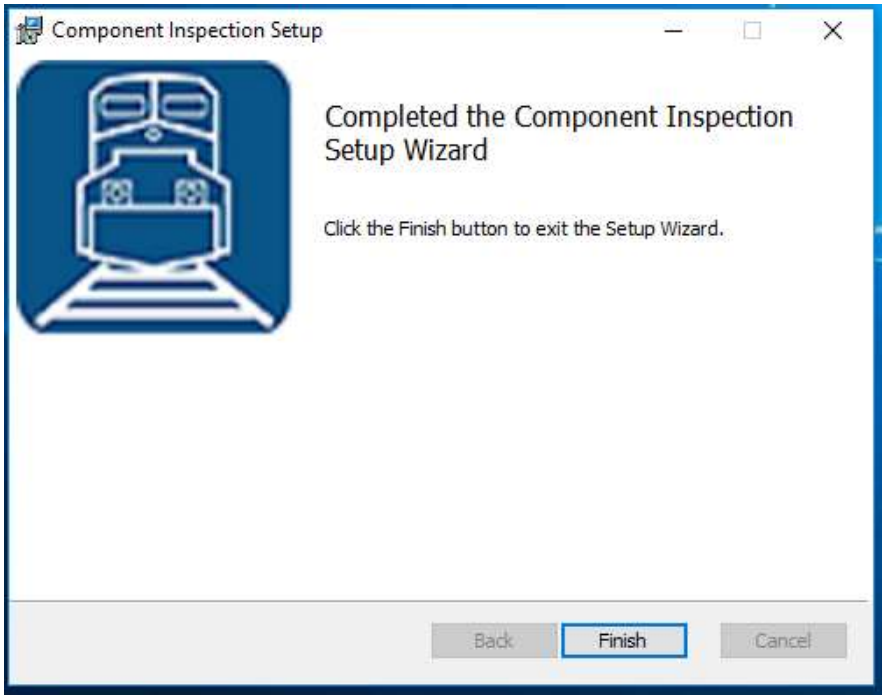
Select the location where you would like to install Component Inspection and click **NEXT**.



Click **INSTALL** to begin the installation



You may be asked to allow the setup program to install Component Inspection on your computer. Click **YES**.

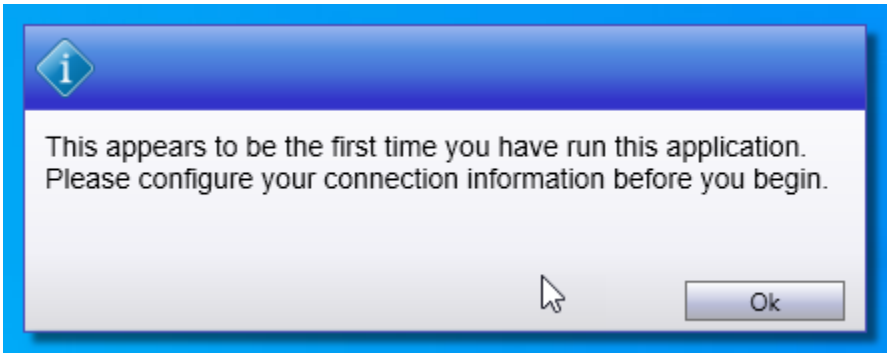


When the installation has completed, click **FINISH** to close the setup application.

Initial Setup

Once you have installed Wheel Press Recorder you can double click the desktop shortcut to start the application.

Component Inspection requires access to an instance of the WSMS database which can be installed on the same computer or any computer with network access and the required permissions. The first time you run Wheel Press Recorder you will be prompted to enter your database connection information.



Refer to the section on Connection Settings for more information on configuring the database connection.

Login

Each user is given a unique user name and password for the WSMS system for authentication and accountability. You must provide your user name and password each time Component Inspection starts before you can begin. Your log on also determines what functions you have permissions to perform. If you do not have this information, contact your manager or a system administrator.

Menu Bar

The menu bar is used to access the home screen, as well as important tools like Documents, Chat, and Get Support.

Home

Navigate to the Home screen. For more information refer to the section on Home.

Documents

Opens the Document Viewer portal for viewing electronic documents. For more information refer to the section on Document Viewer.

Chat

Opens the Chat feature for communicating with other WSMS users or stations. For more information refer to the section on Chat.

Get Log Files

Used to retrieve the diagnostic log files so they can be sent to AIC Support team. After clicking Get Log Files you will be prompted for a folder and file name to save the information to a ZIP file. After saving this file, you can send it to AIC Support for help troubleshooting. For more information contact AIC Support.

Get Support

Used to submit a support ticket for the current station. Refer to the Get Support section for more information.

Clock

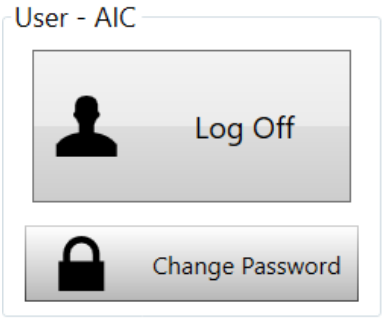
Displays the current time of day based on the computer date and time settings.

Home

The Home screen provides access to the important settings and features of Component Inspection. Features are grouped together based on their purpose.

User

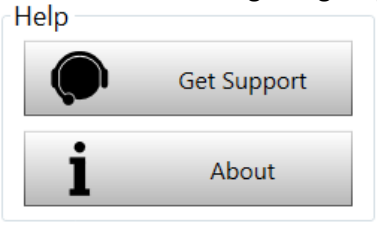
Displays the currently logged in user.



- Log Off - logs out the current user.
- Change Password – Opens the change password dialog to let the currently logged in user change their password.

Help

Provides information for getting help with the current application.



- Get Support - Opens the AIC Support website in the default web browser. This requires internet access be available at the station.
- About - Opens the About dialog that displays information about the current version of the application.

System

Provides access to configuration and setup for the current station.

- Downtime – Navigates to the Downtime screen for managing the current machine status. Refer to the section on Downtime for more information.
- Scanners - Opens the scanners dialog to troubleshoot problems with your barcode scanner, or to configure a new scanner or barcode label. Refer to the section on Scanners for more information.
- Machine Setup – Opens the settings dialog to configure settings for this machine. For more information refer to the section on Settings.
- Connection Settings – Opens the Connection Settings dialog to configure the database connection information for the WSMS database. For more information refer to the section on Database Connection Settings.
- Manage Lookups – Opens the Manage Lookups dialog to configure lookup items that appear in the drop down for certain fields.
    - *Manage Lookups is only available for Standalone licenses. For all others, lookups will be managed from Shop Manager.*
    - *User must be logged in as Admin to enable this button.*
- Reports – Opens the Reports dialog. Select a report from the list to run the report.
    - If the user has permission, the Import command will appear in the bottom right corner of the reports window, allowing the user to select a new report file, give it a name, and assign it to a new or existing category.
- Exit – Closes the application and returns to the Windows desktop. The user must have 'ExitApplication' permission to be able to exit the application.

Production

These are the most common functions and will be available to all users that have access to log in to the application.

- Press – Navigate to the press screen to record data and mounting charts for the current wheelset. Refer to the section on the Press screen for more information.
- History – Navigate to the History screen to review data for the wheelsets that have been mounted from this machine. Refer to the section on History screen for more information.

- Trends – Navigate to the Trends screen to view the force trends for the most recent wheelsets. Refer to the section on Trends screen for more information.
- View Logs – Opens the current diagnostic log file in Notepad. Used primarily by AIC Support for troubleshooting problems.

Maintenance

Provides access to the Downtime feature, sensor calibration, and for exiting the application.

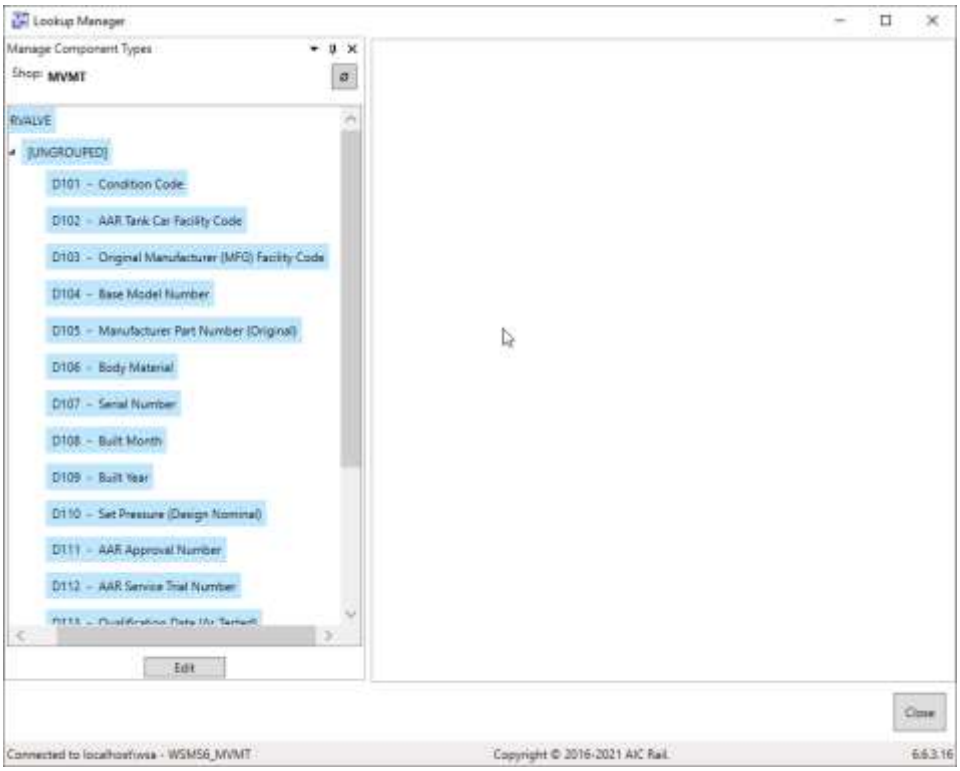
- Downtime – Navigates to the Downtime screen for managing the current machine status. Refer to the section on Downtime for more information.
- Calibrate Sensors – Navigate to the Calibration screen for calibrating the force and distance sensors that are used to record the mounting charts. For more information refer to the Calibration section.
- Exit – Closes the application and returns to the Windows desktop. The user must have 'ExitApplication' permission to be able to exit the application.

Machine Inspections

Provides access to the Machine Inspections feature for recording periodic setup, maintenance, and validation inspections. Machine Inspections let you record electronically what you previously had to keep up with on paper. For more information on Machine Inspections refer to the sections on setting up Machine Inspections and performing Machine Inspections

Manage Lookups

This feature is only available for a Standalone Component Inspection license. For standard licenses please use Shop Manager to manage lookup values.

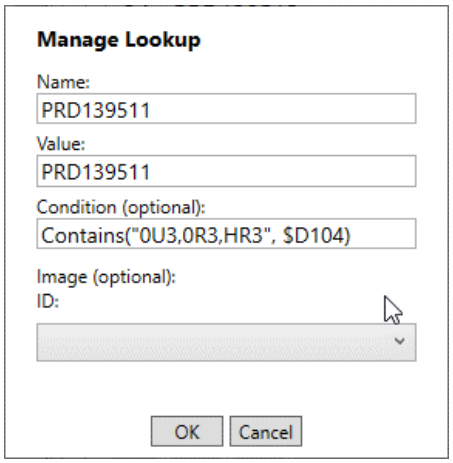


Use the Manage Lookups dialog Add, edit, or remove one of the items in a drop-down selection (referred to as Lookups).

Select the field (element) that you want to modify from the list on the left and click Edit, or double-clck it. The list of current lookup items will appear in a tab on the right.

- Click the Add + button to add a new value to the list. In the popup dialog, Enter the Name, Value, a Condition expression when applicable, and then click OK.
- Select an existing value and click the Edit button to edit an existing value. In the popup dialog, modify the Name, Value, or Condition expression and click OK.
- Select and existing value and click the Remove × button to remove an existing value.
- Use the Move Up and Move Down buttons to change the order of the selected item in the list.
- Click Save when you are finished making changes.

The popup dialog for modifying and adding new values lets you specify the following:

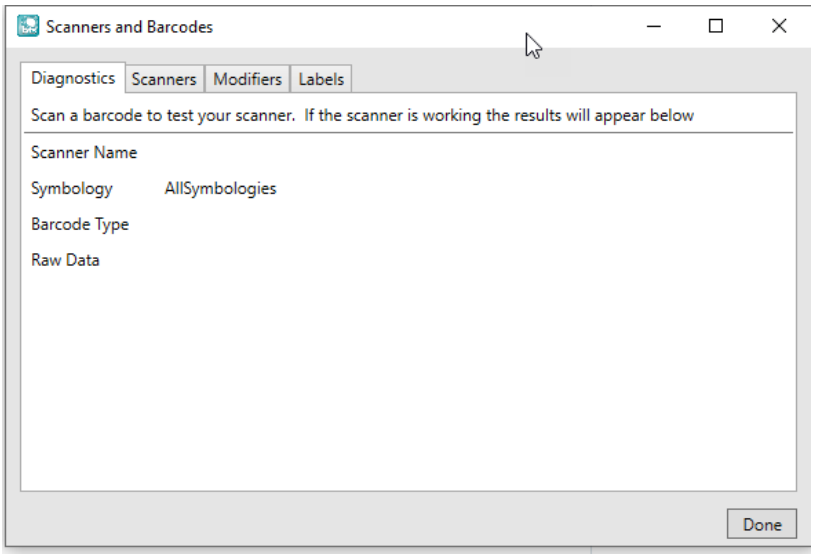


- Name – this is the value that will display to the user in the drop down.
- Value – this is the value that will be stored in the database. If this element is reported to Railinc as part of the AAR's Component Tracking this is the value that will be sent.
- Condition – this is an optional field that lets you specify an expression of when this lookup should be available for the user to select.
    - In the example above, the value PRD139411 will only appear in the drop-down if the value of another element (D104) is contained in the comma separated list of values for that element (OU3, OR3, HR3).

Barcode Scanner and Labels

Diagnostics

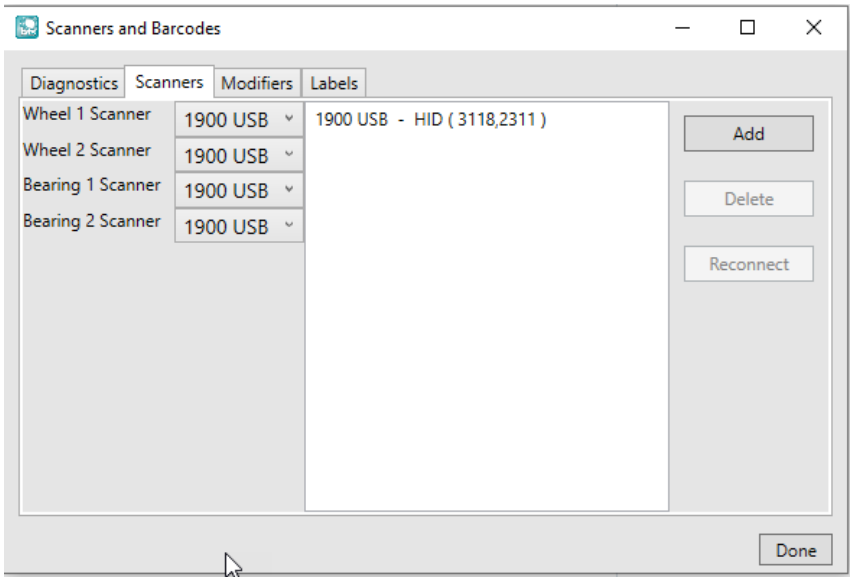
Test and diagnose issues with barcode scanners. While on this tab, scan a barcode with one of the barcode scanners connected to the machine. If the scanner is set up properly, you should see the barcode and scanner information populate.



- Scanner Name – The name assigned to the scanner that read the barcode. If more than one scanner is configured this name should be unique to help you identify the scanner.
- Symbology – The Symbology of the barcode that was scanned. It will either show the symbology like **DataMatrix, Code128, PDF417, etc.** or it will show **Unknown** If the symbology cannot be detected. When the symbology cannot be detected the scanner most likely is not configured to transmit the AIM ID prefix that identifies the barcode symbology. This may cause the barcode to be misidentified or not identified at all.
- Barcode Type – The label definition type that was matched to the barcode being scanned. If the Barcode Type is Unknown, it means the barcode that was scanned is not matching any of the known label definitions, either because the data is in the wrong format or the symbology does not match. Refer to the section on Labels for more information.
- Raw Data – The character string that was read from the barcode, not including the symbology AIM ID prefix if it exists.

Scanners

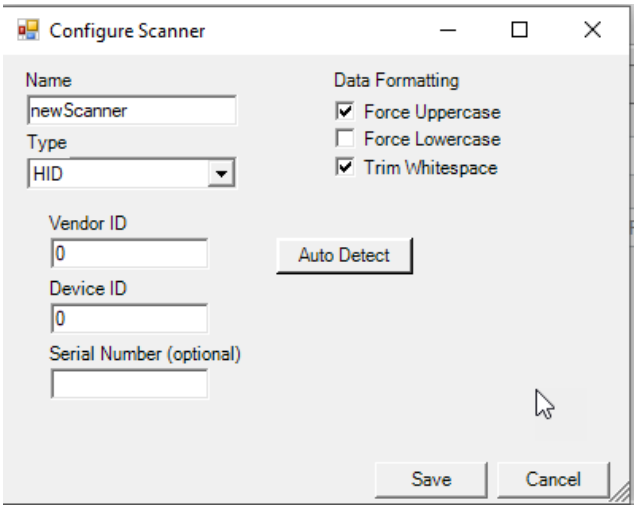
View and configure barcode scanners.



- Add – Configure a new barcode scanner for use with the application.
- Delete – Remove the selected barcode scanner from use.
- Reconnect – Disconnect the selected barcode scanner and attempt to reconnect.
- Component scanner settings – If more than one scanner is configured, you can specify to only scan certain components with a specific canner. Select the scanner name next to each component. If you only have one scanner, you can select that scanner for all components, or leave it blank.

Adding a Scanner

To add a new scanner, Click Add. In the popup dialog, enter a name to identify the scanner and select the scanner interface type (HID, RS232, etc).



Specify any data formatting you want to apply to the raw barcode data using the checkboxes in the top right corner. By default, all barcodes will be UPPER CASED and whitespace will be removed from the beginning and end of each barcode and each value that is parsed out.

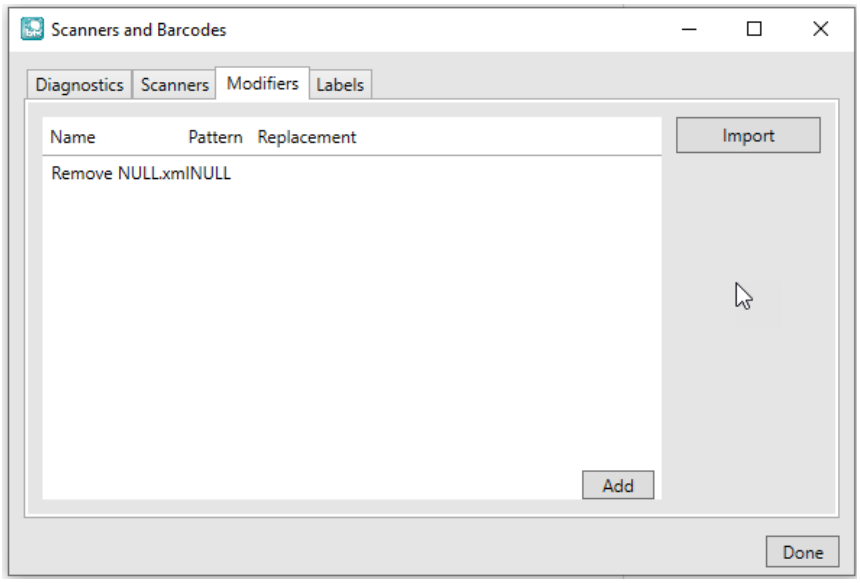
Depending on the Type selected, you will need to enter some parameters that are required to connect to the scanner. In most cases you can use the Auto Detect feature to automatically detect these parameters.

- Click Auto Detect button
- Scan a barcode (other than a programming barcode) with 15 seconds.
- A message will appear below the Auto Detect button to indicate if the auto detection was successful. The parameters should populate automatically.

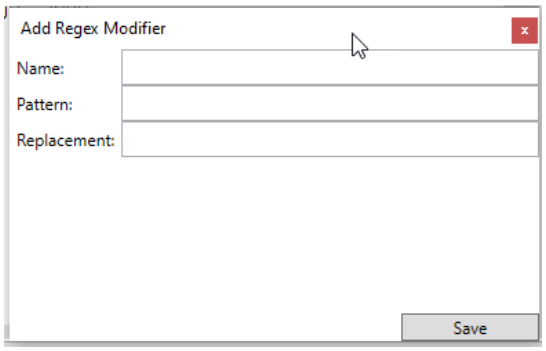
Note: For USB barcode scanners, the Serial Number parameter is optional if you are only using one scanner at the station. Leaving it blank will allow you to replace a scanner without having to reconfigure it, as long as the make and model are the same. If using more than one scanner (example: Wheel A and Wheel B or Left and Right) the serial number is required to distinguish between the scanners.

Modifiers

Sometimes component manufacturers make mistakes with their barcodes, or fail to follow the AAR S-920 specification. You should always report issues to the manufacturer so they can correct the issues immediately. Depending on the error, we may be able to modify the barcode data so it meets the correct format using a Regular Expression find/replace on the barcode data.



Advanced users may be able to create these Modifier themselves by click Add to create a new Modifier.



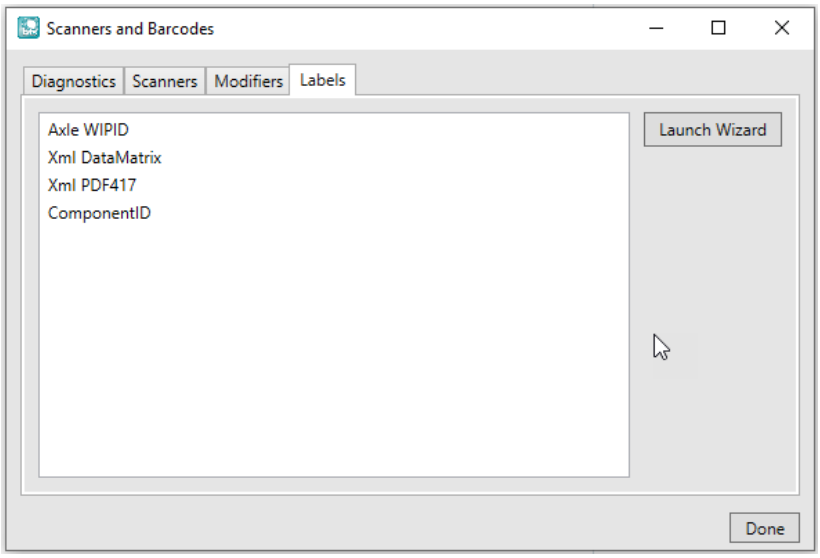
- Name - A descriptive name that helps identify the problem this Modifier is trying to address.
- Pattern – The Regular Expression pattern used to find the problems in the barcode data that need to be fixed.
- Replacement – An expression or text that you want to use to replace the data that matches the Pattern.

After you save your changes, this information will be saved to a file on the local machine only. You will have to repeat this process at each machine that requires it, or you can copy the file and use the Import option.

Import lets you add a Modifier to the system using a Modifier file that was already generated, either by another user, or more likely by AIC Rail.

Labels

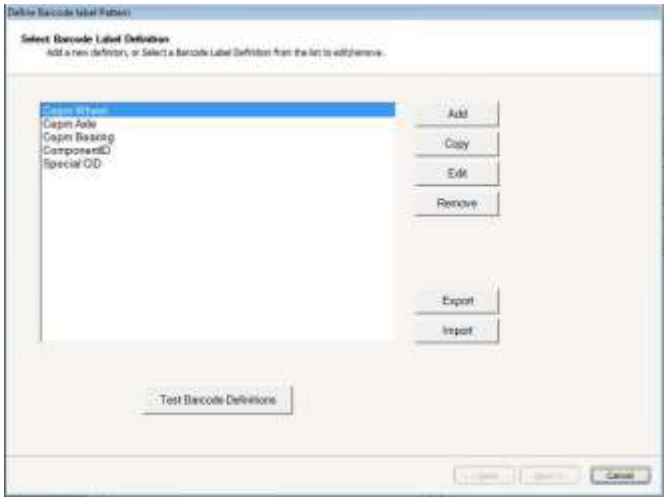
View and configure barcode label definitions. Label definitions help the system to identify different types of barcode labels. For example WIP ID labels vs 1D Component ID labels vs 2D Component labels (Wheels, axles, etc).



- Launch Wizard – The only way to configure a label definition is with the Label Definition Wizard. Click Launch Wizard to start the label definition wizard.

Label Definition Wizard

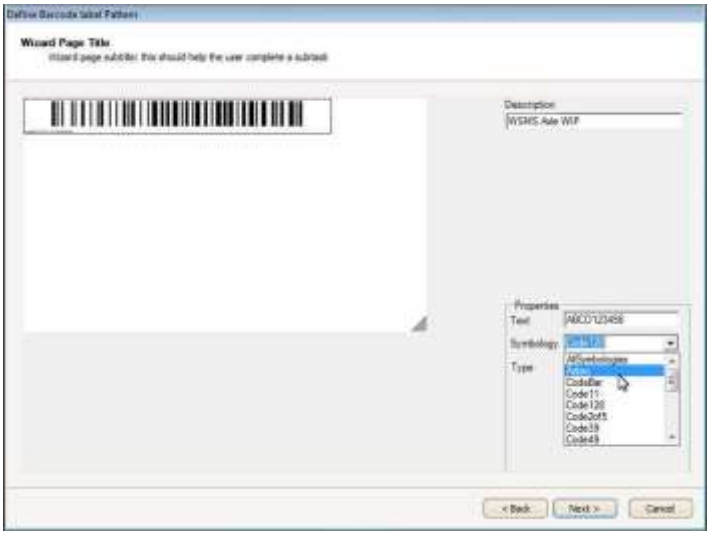
The first page of the Label Definition Wizard lists all of the current definitions and provides controls to add, edit, remove, etc.



- Add – create a new label definition
- Copy – create a new label definition by copying the selected label definition
- Edit – Modify the selected label definition
- Remove – delete the selected label definition
- Export – save the current label definitions to a file so it can be imported to another system
- Import – select a file that was exported from another system to import into your system
- Test Barcode Definition – go to the Test Label Definition screen to scan a label and verify it is properly detected.

Add Label Definition

To add a new barcode label definition, click ADD. You will then add the label definition description and properties such as the Symbology and Barcode type. Click NEXT, to configure the barcode label.

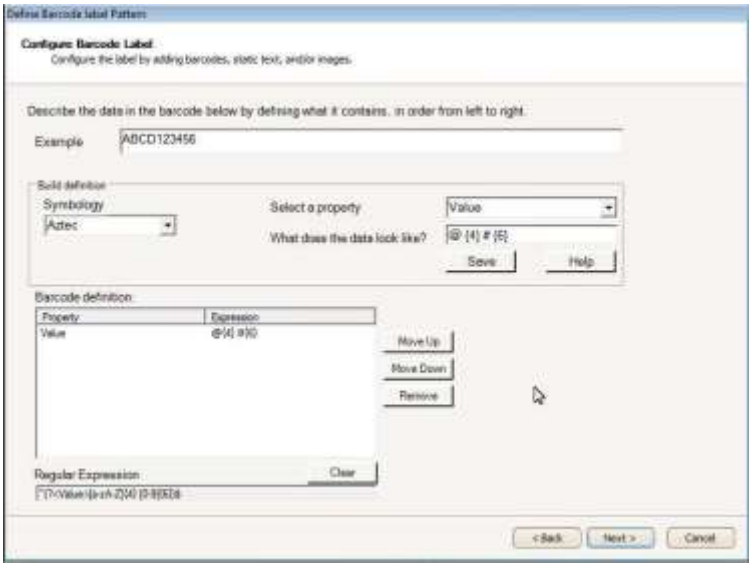


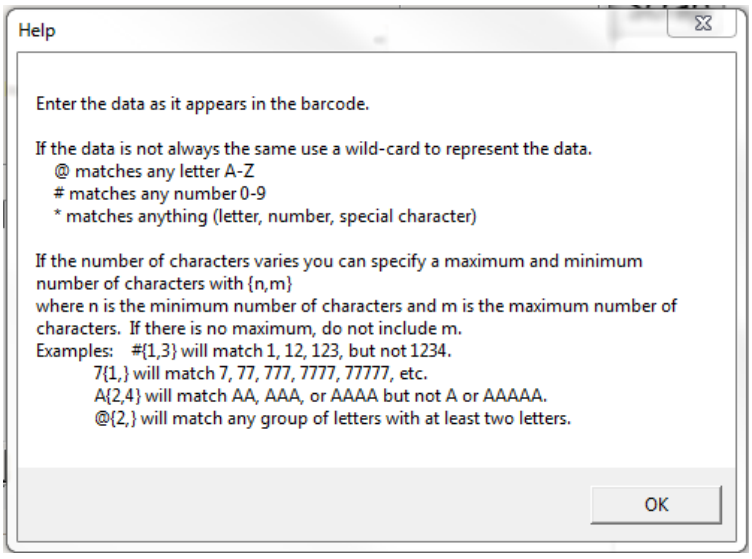
Configure Barcode Label

Add a new label definition or select and existing label definition and click Copy or Edit.

Configuring the barcode label requires describing the data that will be in the barcode. Define what data elements are contained in the barcode in order from left to right of the barcode raw data. Define individual properties of the data and what the data looks like in the “What does the data look like?” box. Use the Help button to guide you through the correct syntax.

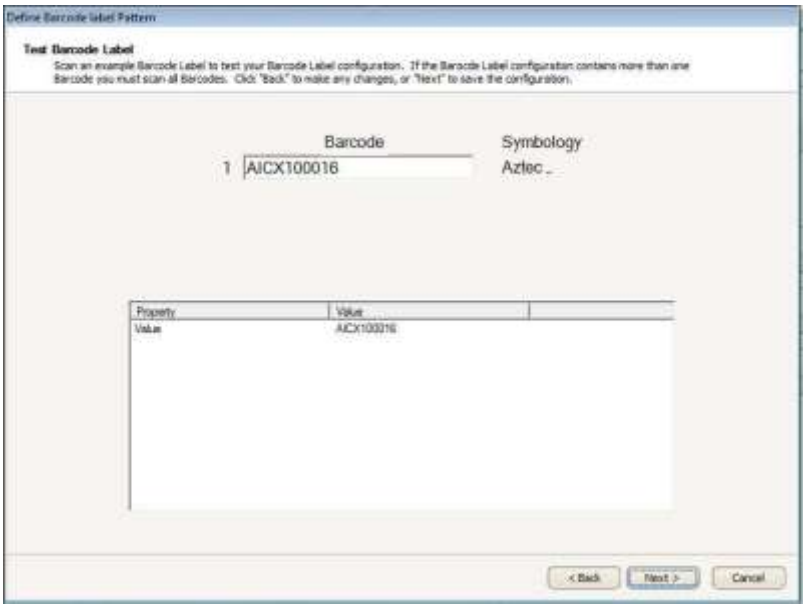
Select the correct barcode symbology.





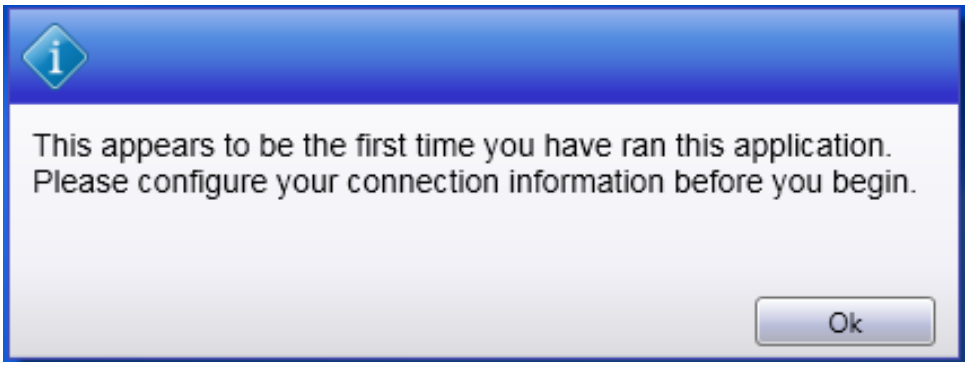
Test Barcode Label

Once you have configured your barcode label you can test the definition. Scan an example barcode label. If the barcode label configuration contains more than one barcode you must scan all barcodes. Click “Back” to make any changes, or “Next to save the configuration.

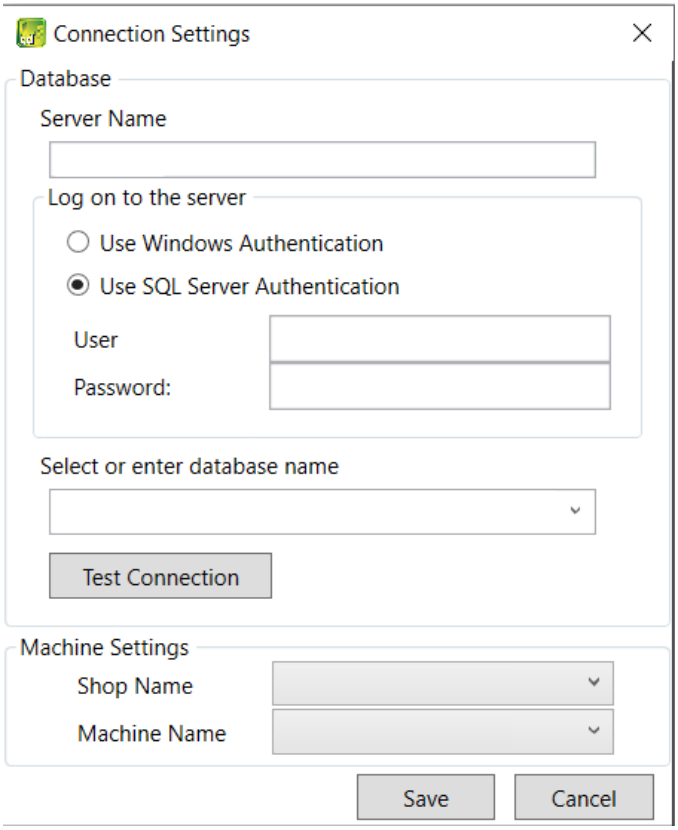


Database Connection Settings

Access to an instance of the WSMS database is going to be required, which can be installed on the same computer or any computer with network access and the required permissions. The first time you run the application you will be prompted to enter database connection settings.



Click **OK** to display the Connection Settings dialog. Enter Server Name, User, password.



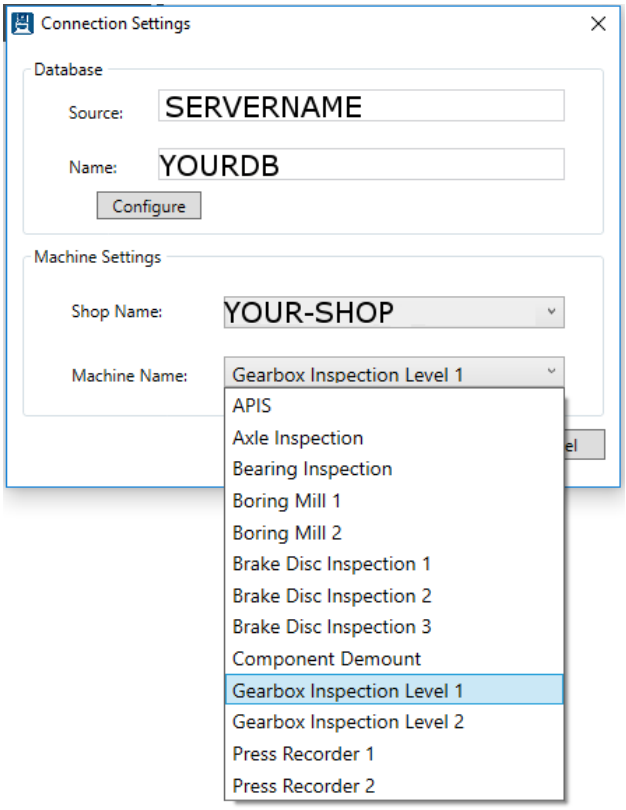
A list of available databases will appear after typing the security information. Select the desire database. If you are unsure about the Server Name, User or password, contact your IT Department or our support team.

Click **TEST CONNECTION** to verify your settings. If the information you enter is correct, you will see the following dialog, click **OK** to continue.

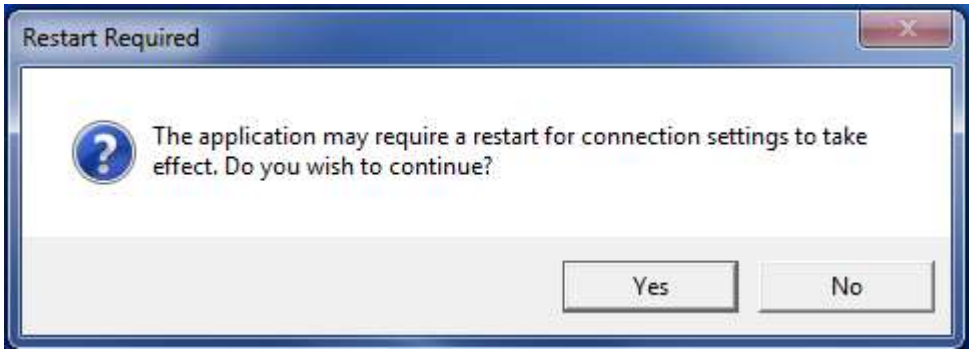
Once you have configured the Database Connection information click the **Shop Name** drop down to select the location for which you want to configure this installation. WSMS can support multiple locations or 'shops' hosted in one database. To isolate the data and settings to your location you must provide this information.

After you have selected the Shop Name click on **Machine Name** and select the machine you are installing on. Some settings are stored per machine so this setting will be used to differentiate each installation.

Click **OK** to save your changes.



Once you have entered your database settings the application may require a restart for the connection settings to take effect. Click **YES** to restart.



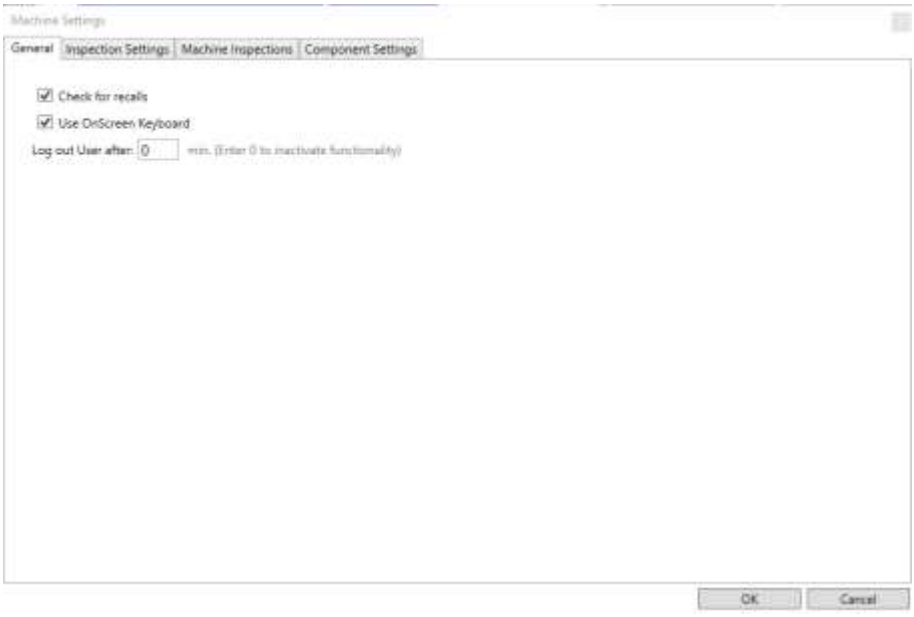
You will then be taken to the Log On screen. After configuring the database connection, the Log On screen will be the first screen you see each time you run the application.

Machine Setup

General

Configure general settings for the application.

- Check for recalls – Recall criteria can be configured in the WSMS6 database. When checked, any component information that matches the recall criteria will get flagged and will notify the operator. Contact AIC Rail for more information on recalls.
- Use OnScreen Keyboard – When checked, the application will display an on-screen keyboard any time data entry is desired. This is useful for touchscreen interfaces.
- Log out User – Log user out every number of minutes.

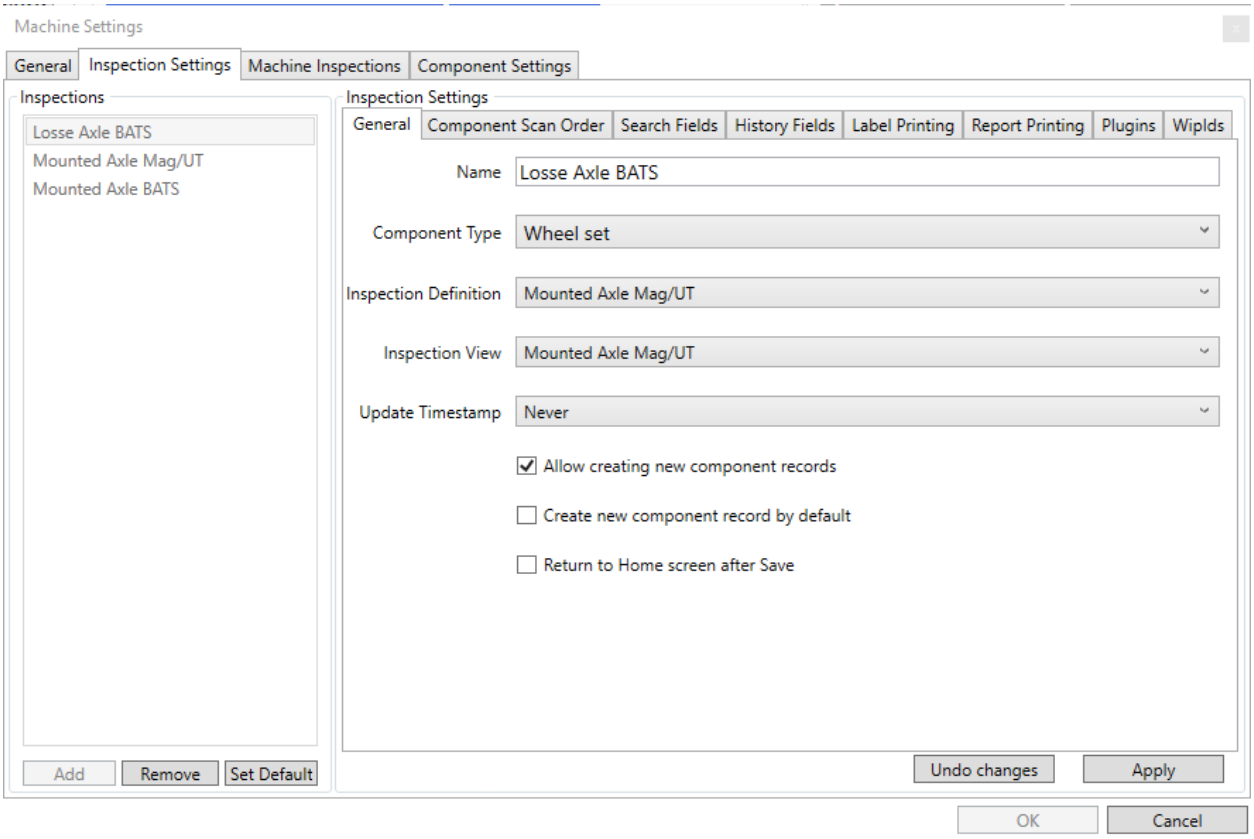


Inspections

Configure the inspection(s) that will be performed at this station.

- Add – Select to configure a new inspection.
- Remove – Select to remove the selected inspection.
- Set as Default – Select one inspection that will be the default inspection for this station. When a user logs in the default inspection will automatically be selected instead of starting at the home screen.

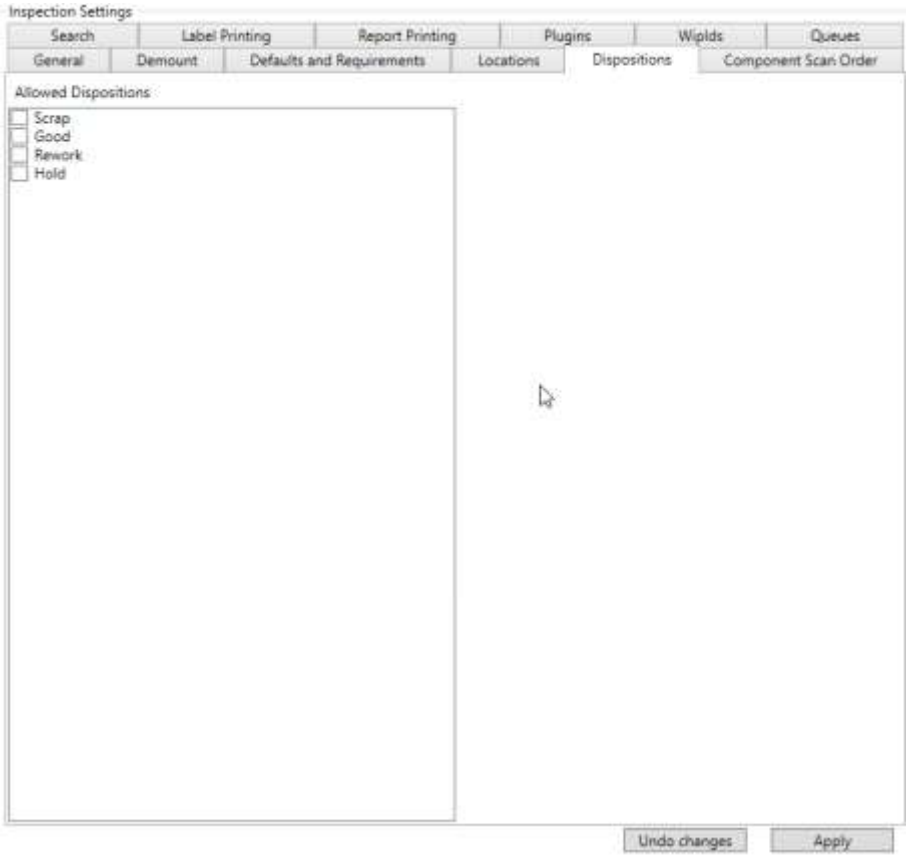
General



- Name – Set a name for the Inspection.
- Component Type – Select the component type for the inspection you a creating.
- Inspection Definition – Select a preconfigured inspection definition for that component type.
- Inspection View – Select a preconfigured user interface for collecting component and inspection data.
- New component by default – When checked, the default behavior for this inspection will be to create a new component record rather than search for an existing component to inspect.
- Return to Home screen after Save – Return to home every time a user saves an inspection.
- Update timestamp – Select when to update the timestamp of the assembly.

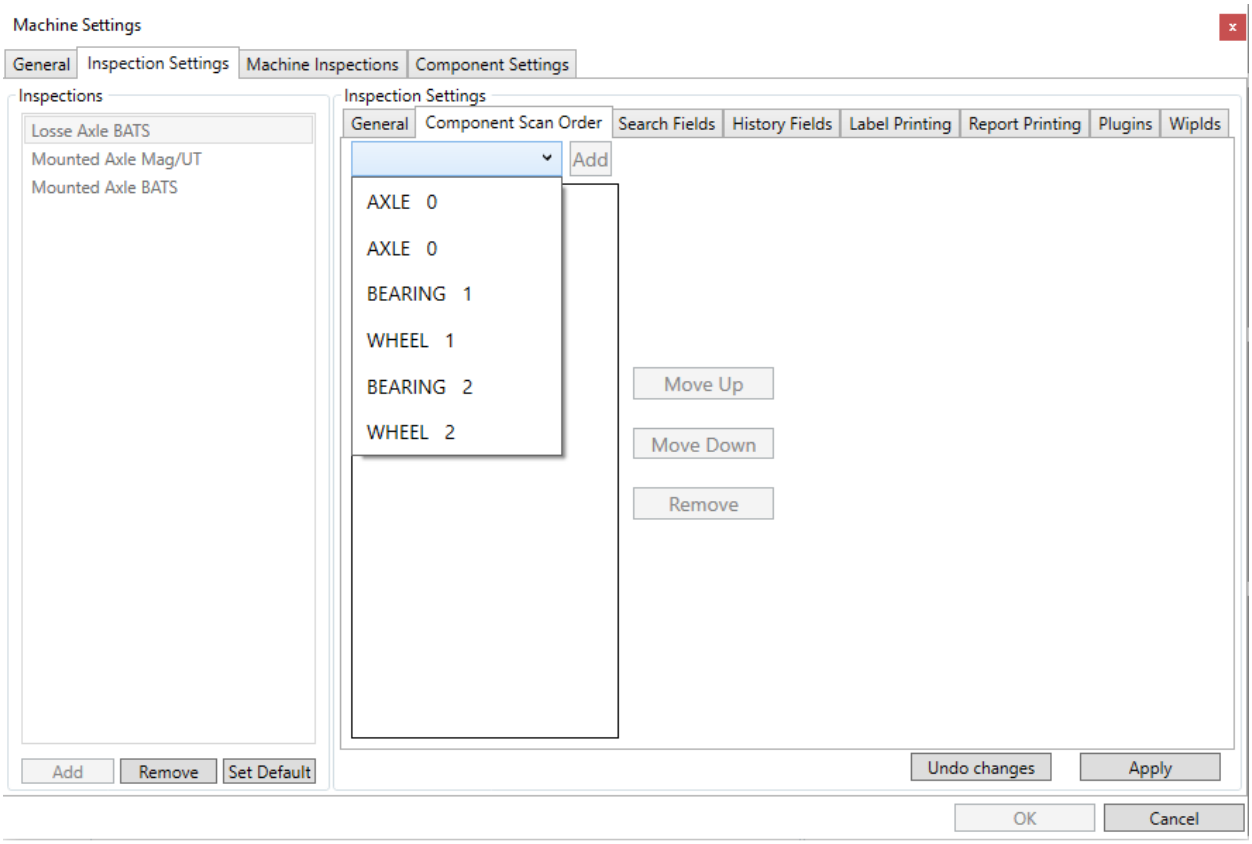
Dispositions

You can choose to only allow components with a certain disposition to be inspected. Check the box next to a disposition to allow that disposition to be entered. Leave all dispositions unchecked to allow all dispositions to be entered.



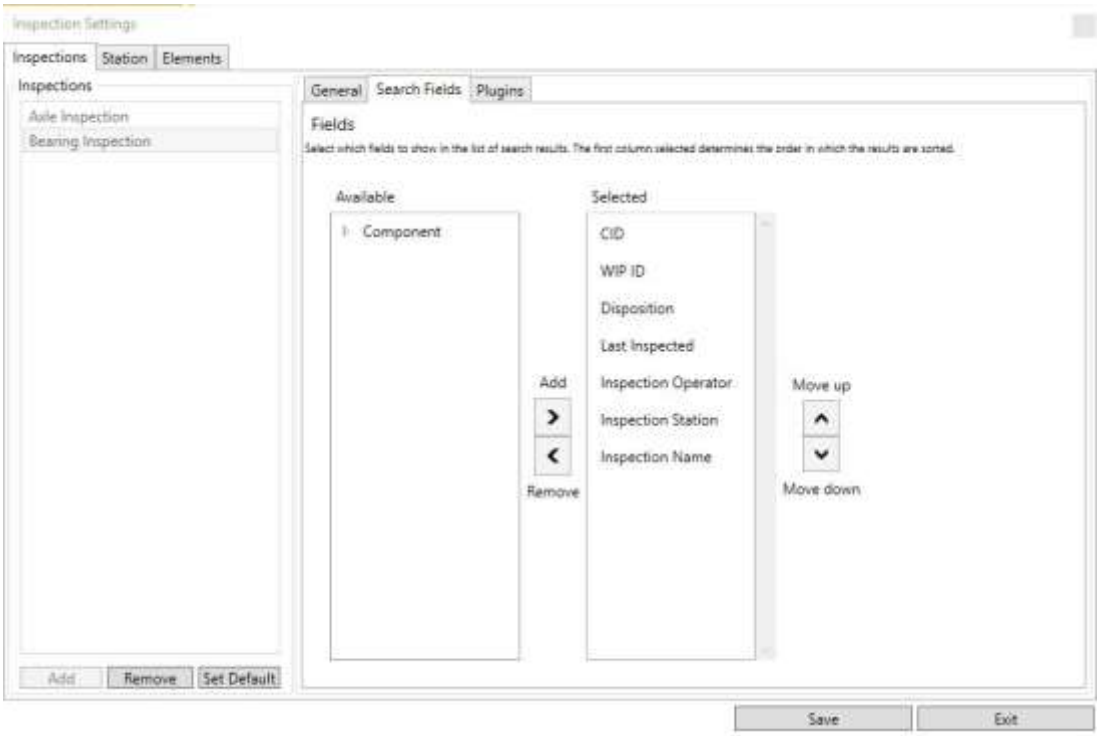
On the Search/History screen, when a user searches for a component and tries to start a new inspection, they will receive an error if the disposition is set to something other than what is selected in the settings. Refer to the Search/History section for more information.

Component Scan Order



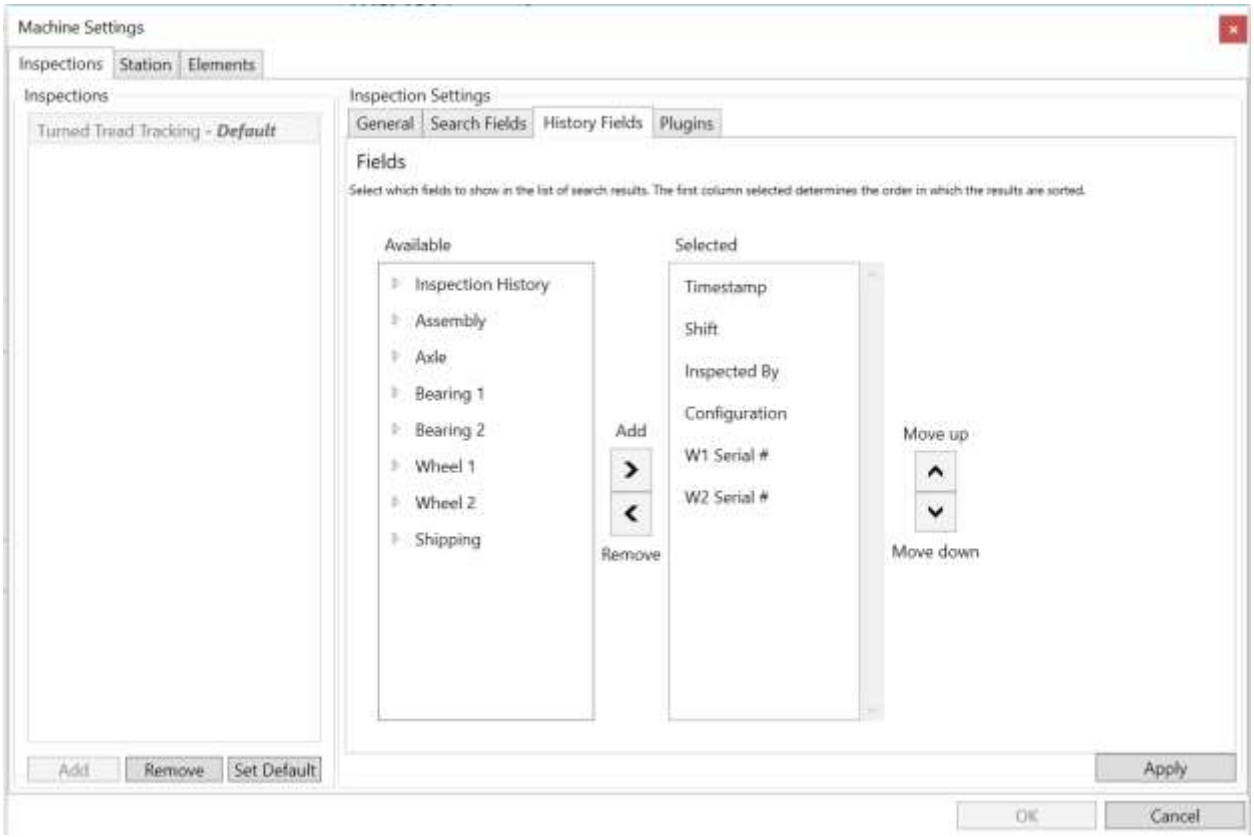
Define the order in which data scanned is going to be assigned to the components inspected. Add a component from the list and move its order by clicking “Move up” or “Move down” buttons. Click on the “Remove” button to remove a components from the list.

Search Fields



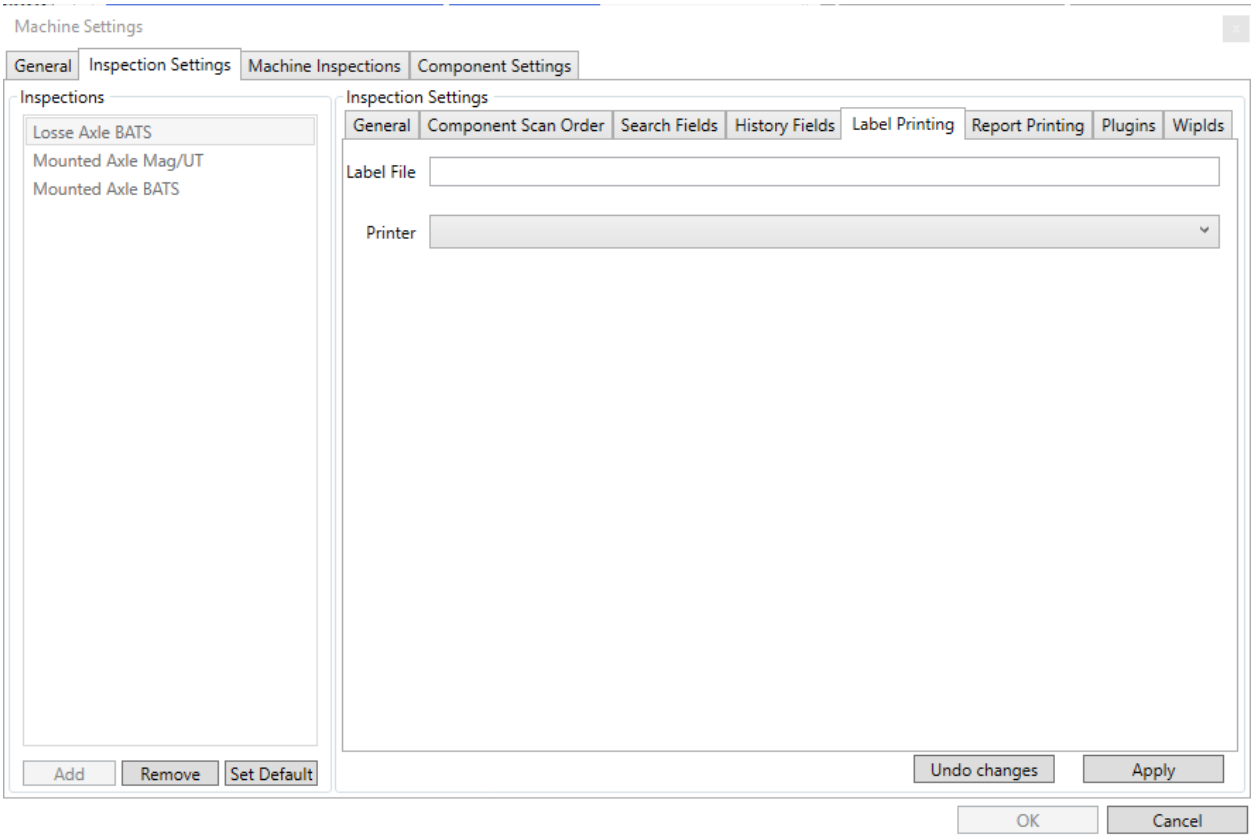
Select which fields to show in the list of search results. The first column selected will determine the order in which the results are sorted.

History Fields



Select what data fields to show on the History screen. The available fields may be different based on the Component Type selected for the Inspection.

Label Printing

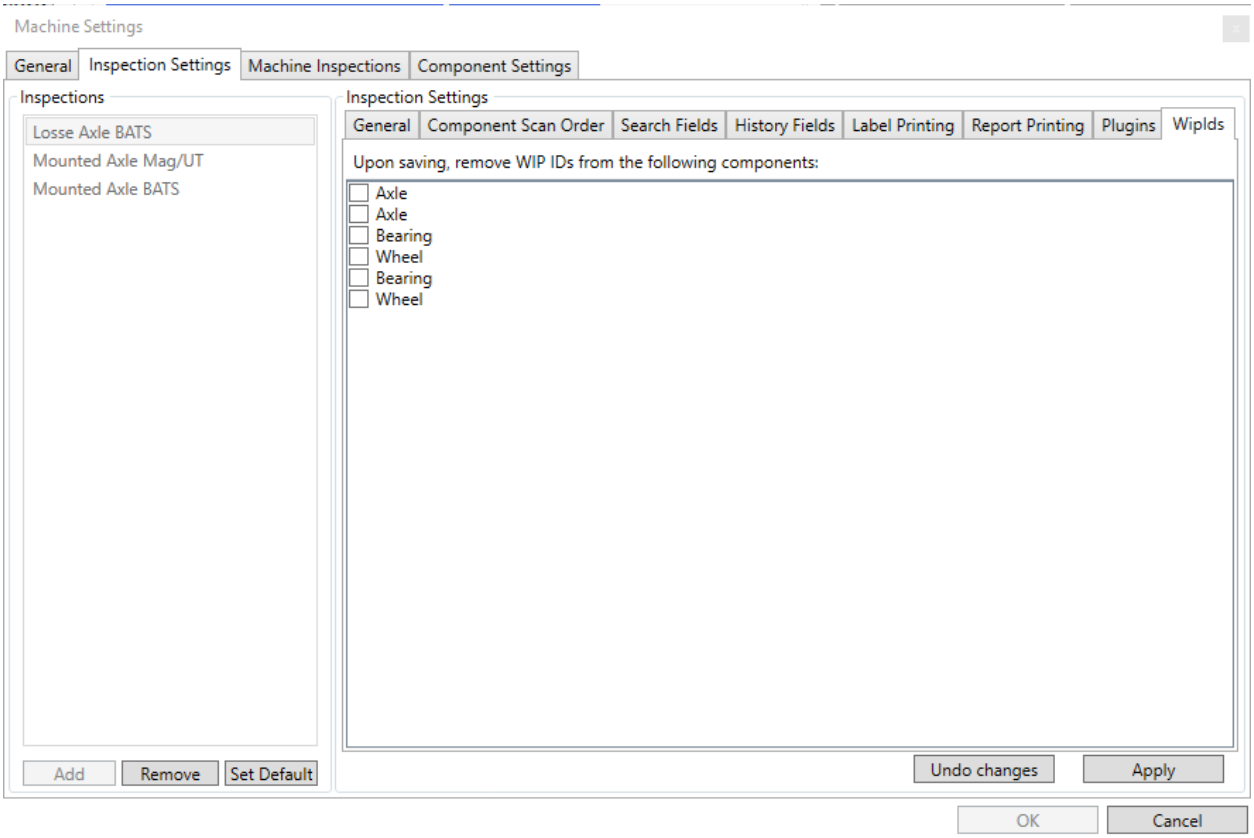


Enter path with the label file and select the printer you want to use to print your labels.

Plugins

Plugins are points in the application were custom action can be called to perform functions specific for each customer and each station. Use the Plugin settings to enable one or more plugins, if they are available. For more information about how to obtain custom plugin functions contact us.

Wip Ids

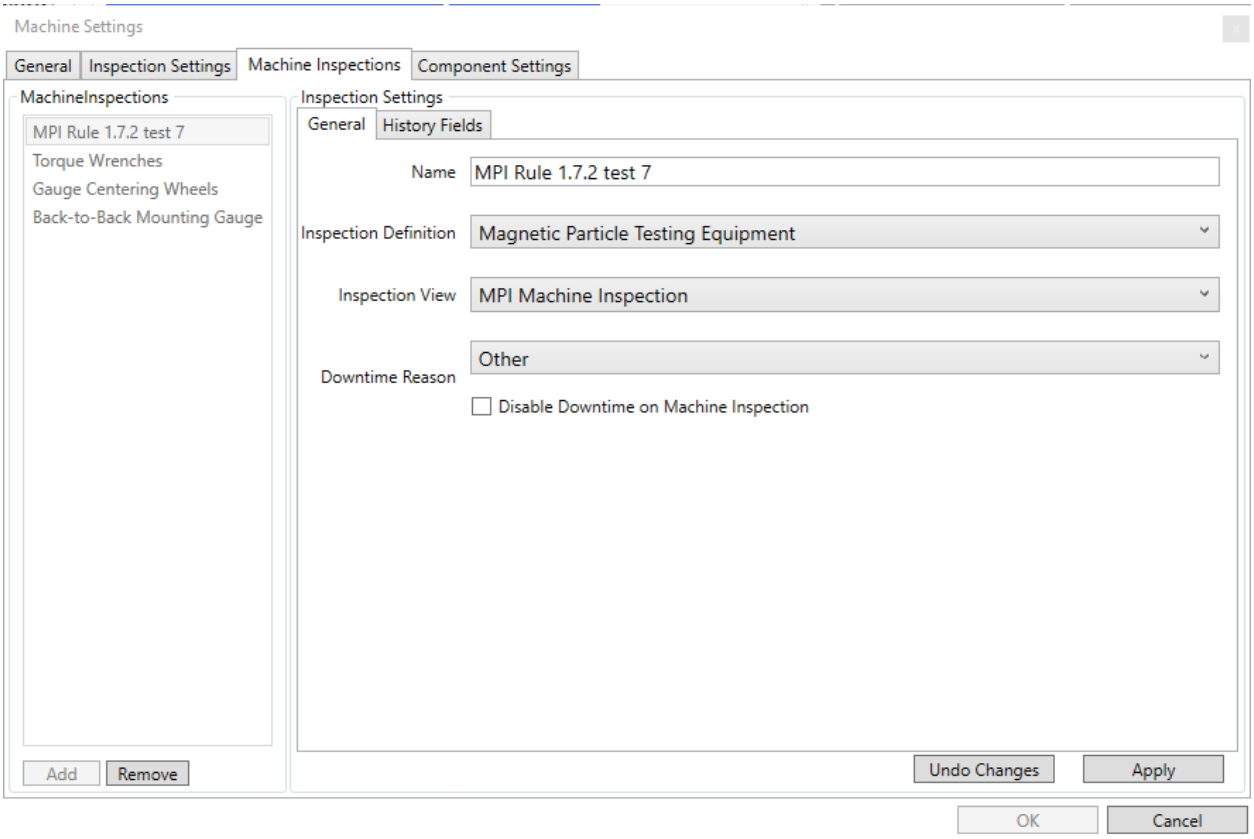


Check the box for the components you wish to remove wip ids when saving the inspection.

Machine Inspections

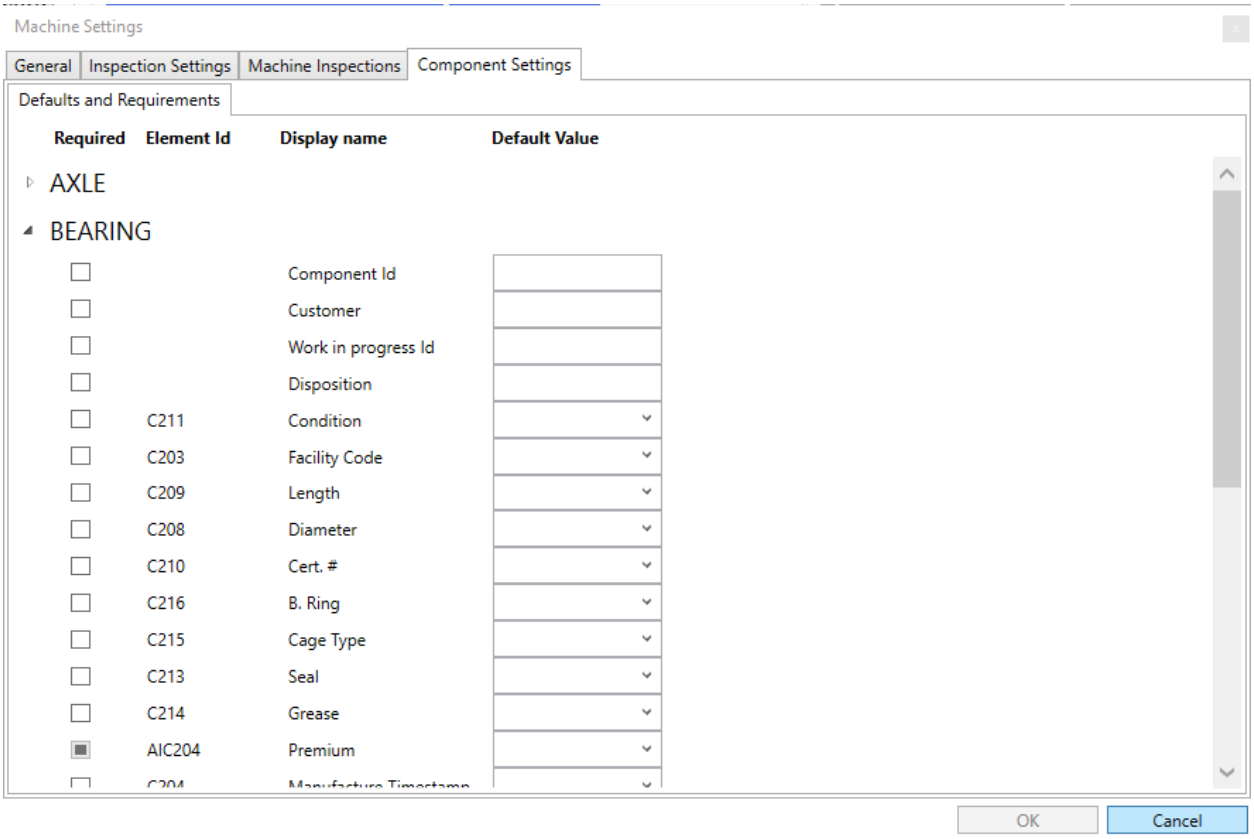
Configure the inspections to be performed in the machine station to ensure quality and good performance during production. It has same functionality as a normal inspection with some variations.

- Name – Set a name for the Inspection.
- Inspection Definition – Select a preconfigured inspection definition for that machine.
- Inspection View – Select a preconfigured user interface for collecting component and inspection data.
- Downtime Reason – Specify a default reason for the machine to be down. Check the box “disable downtime on Machine Inspection” to not put the machine on downtime during this inspection.



Component Settings

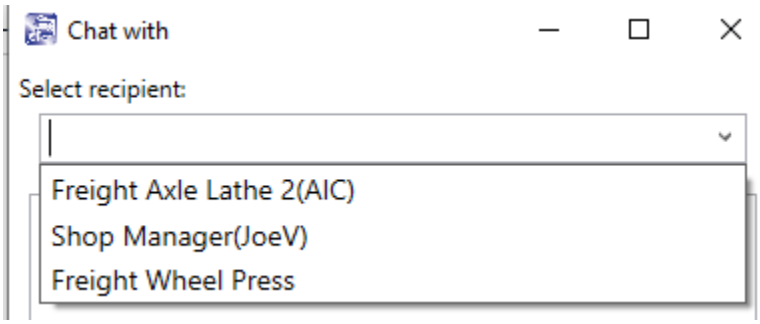
Use the Elements options to configure what data is required and if it should have a default value for new components. Data Elements marked as required must have a value before the component will save. To set a Default Value enter the value of “=lastvalue” to have the data from the last component populated.


Machine Settings
General
Inspection Settings
Machine Inspections
Component Settings
Defaults and Requirements
Required
Element Id
Display name
Default Value
AXLE
BEARING
Component Id
Customer
Work in progress Id
Disposition
C211
Condition
C203
Facility Code
C209
Length
C208
Diameter
C210
Cert. #
C216
B. Ring
C215
Cage Type
C213
Seal
C214
Grease
AIC204
Premium
OK
Cancel

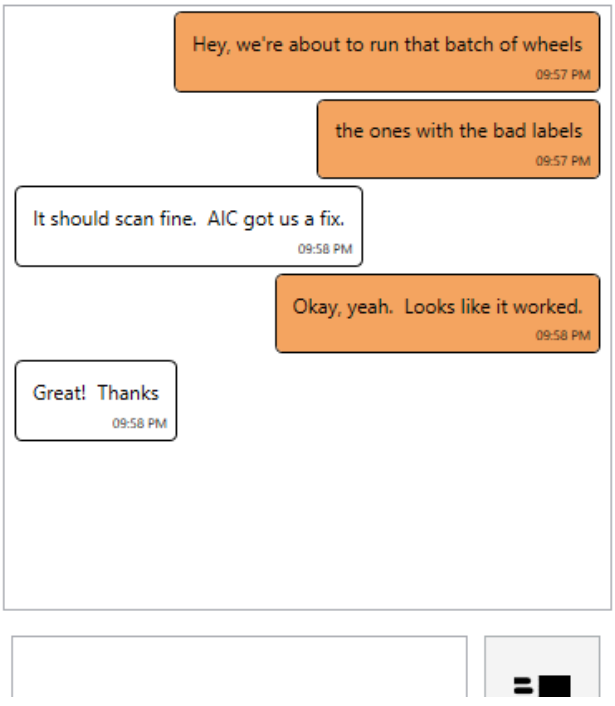
Chat

The Chat button can be used to communicate with other WSMS applications in your system.

Clicking it will open the Chat dialog. You can select a recipient from the dropdown based on the stations set up in your system.

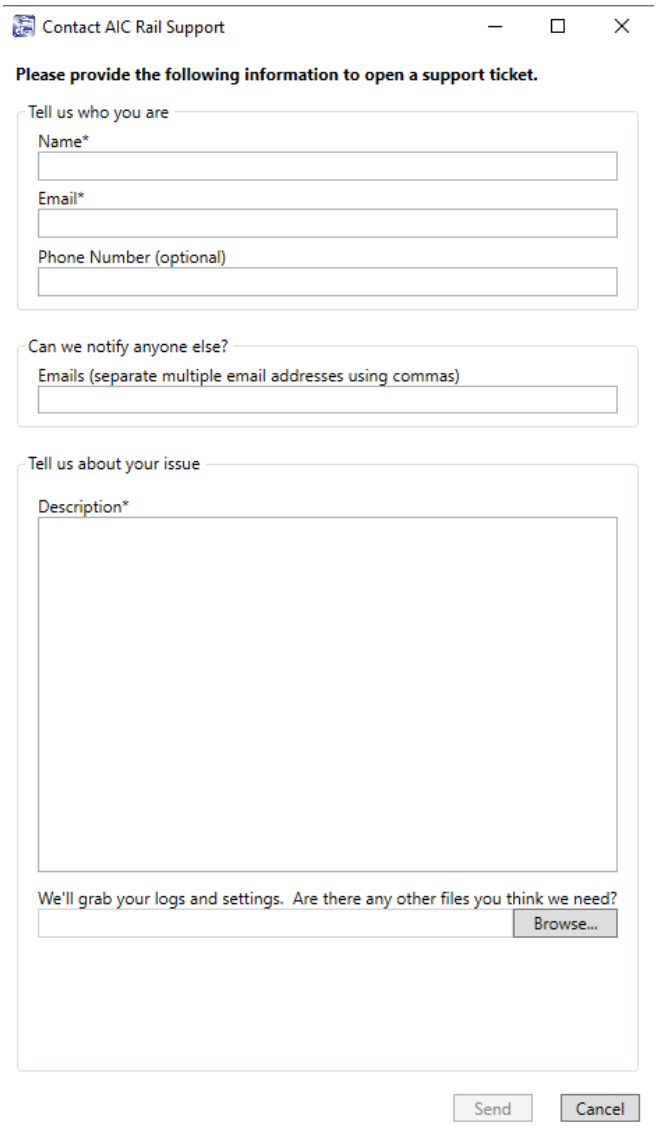


The name of each station is listed, and if a user is currently logged in, their name will appear in parentheses next to the station. You can send a message to a station even if no one is logged in, and it will display the next time someone is at the station. Messages you send will be shown in orange, and messages you receive will be shown in white.



Get Support

The Get Support feature will collect relevant information about your problem and attempt to submit a support ticket online (**ticket submission requires the WSMS6 Service to be running and have internet access**). Clicking the button will open the support dialog as shown below:



Name (Required): Your name, or the name of the relevant contact person.

Email (Required): The best email address to which we should respond with updates about your issue.

Phone Number: The best phone number in case urgent action is required.

Can we notify anyone else?: Include email addresses for any additional people who might need to be included on the conversation. You can enter multiple email addresses, separated with commas (,).

Description: Please include as much detail about the problem as possible. Information such as what you were attempting to do, which screen you were on, and any error messages that you received will help us resolve the issue more quickly.

We'll grab your logs and settings. Are there any other files you think we need?: We'll automatically package your logs, application settings, and take a screenshot. Use this dialog to include any additional files that we might need (ie. A document you're trying to import).

Clicking the Send button will attempt to submit the ticket to our support site. If your system is unable to submit the ticket, you'll get an error message prompting you to save the files locally. Once you select a location and file name, we'll create a .zip file containing the information you submitted and any files that would have been attached to your ticket. You can contact AIC Rail Support via email at support@aicrail.com and attach the .zip file or call us at 501-834-9540, and we'll give you more instructions on how to get use these files.

Document Viewer

Under this section you can find all the documents sorted by category that were added on **Shop Manager™.**

Button on top (Top Menu, Back) are to navigate through the folders and 'Close' button on bottom is to exit Documents

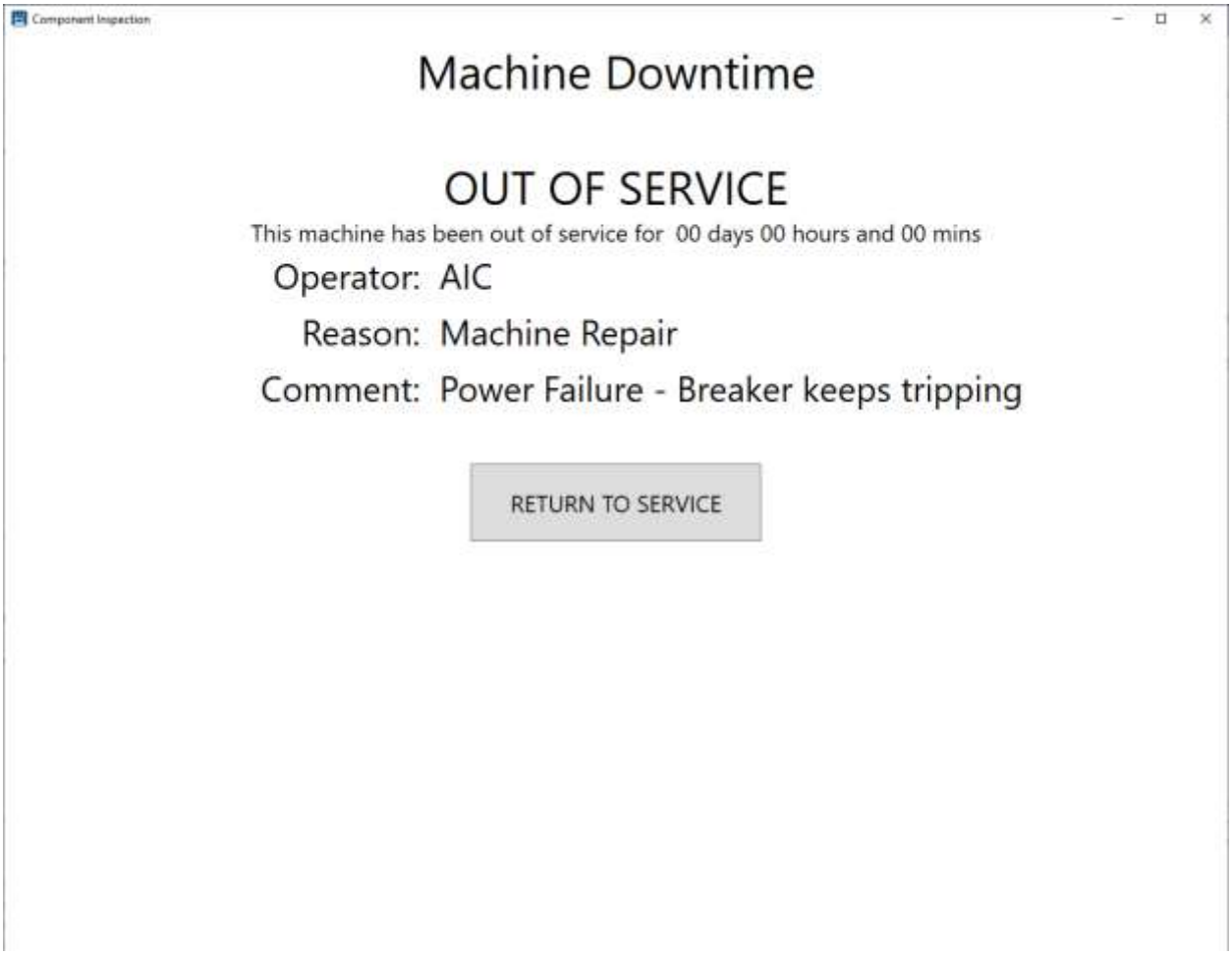
Downtime

Use the Downtime feature to track equipment efficiency. If the station is not able to be used because of machine repair, operator staffing issues, material shortage, or some other reason you can enter these downtime events to track the frequency and duration of issues.

Set out of service

To start a downtime event, you must first select a reason from the list of Downtime Reasons (configurable in Shop Manager). The operator can optionally enter a comment to explain in further detail why the station is down. Then click 'SET OUT OF SERVICE' to start the downtime event. The date and time the downtime event was started will be recorded along with the operator that initiated it and the reason selected.

Return to service



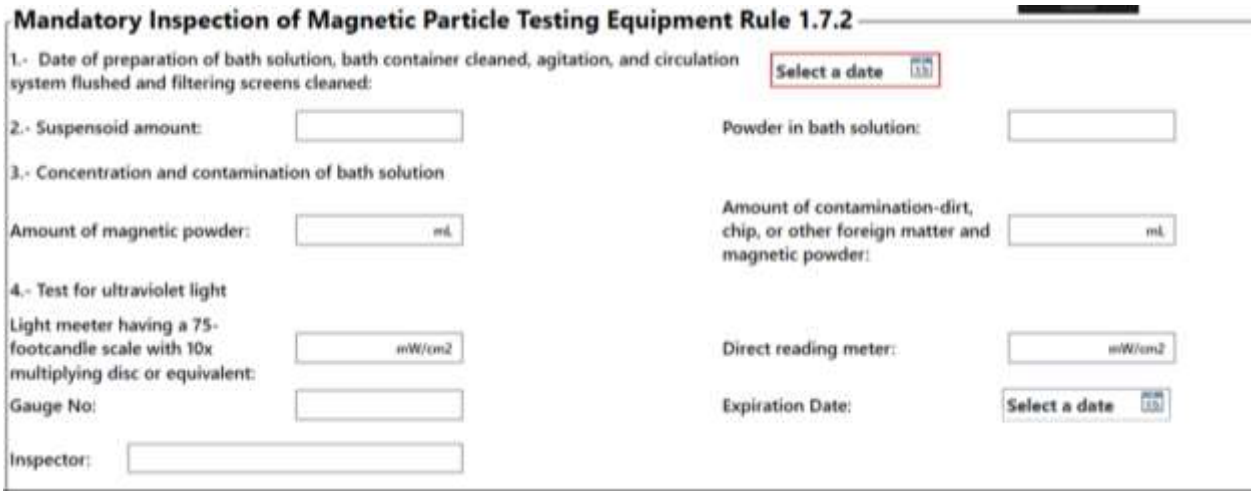
To end the downtime event and return the station to service simply click 'RETURN TO SERVICE'. The date and time the machine returned to service will be recorded and the total time the machine was down can be calculated for the event

Machine Inspections

Machine Inspections are like our Component Inspections except they apply to the machines in your shop. Once you choose to inspect a machine you will see the data entry screen. From here you can enter any information used to document maintenance to the AAR and QA rules. You will also enter inspection data such as measurements, visual inspection indications, or confirmation of steps performed. The data that is collected is customized for each station and may vary based on the type of machine being inspected. Each station can also have multiple inspections (i.e., monthly and weekly maintenance). Product changeover check list and QA data requirements (calibration readings and inspection requirements).

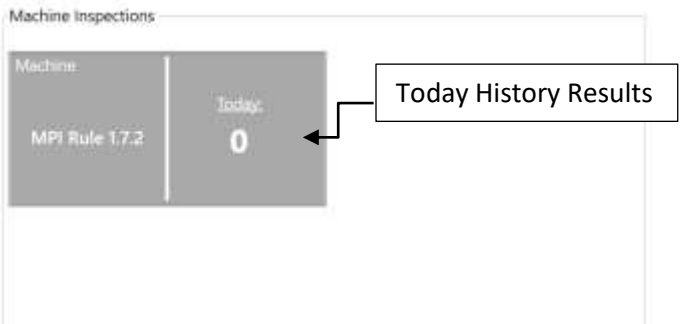
There are multiple reports for the Machine Inspections to assist in verity that inspection was completed and when.

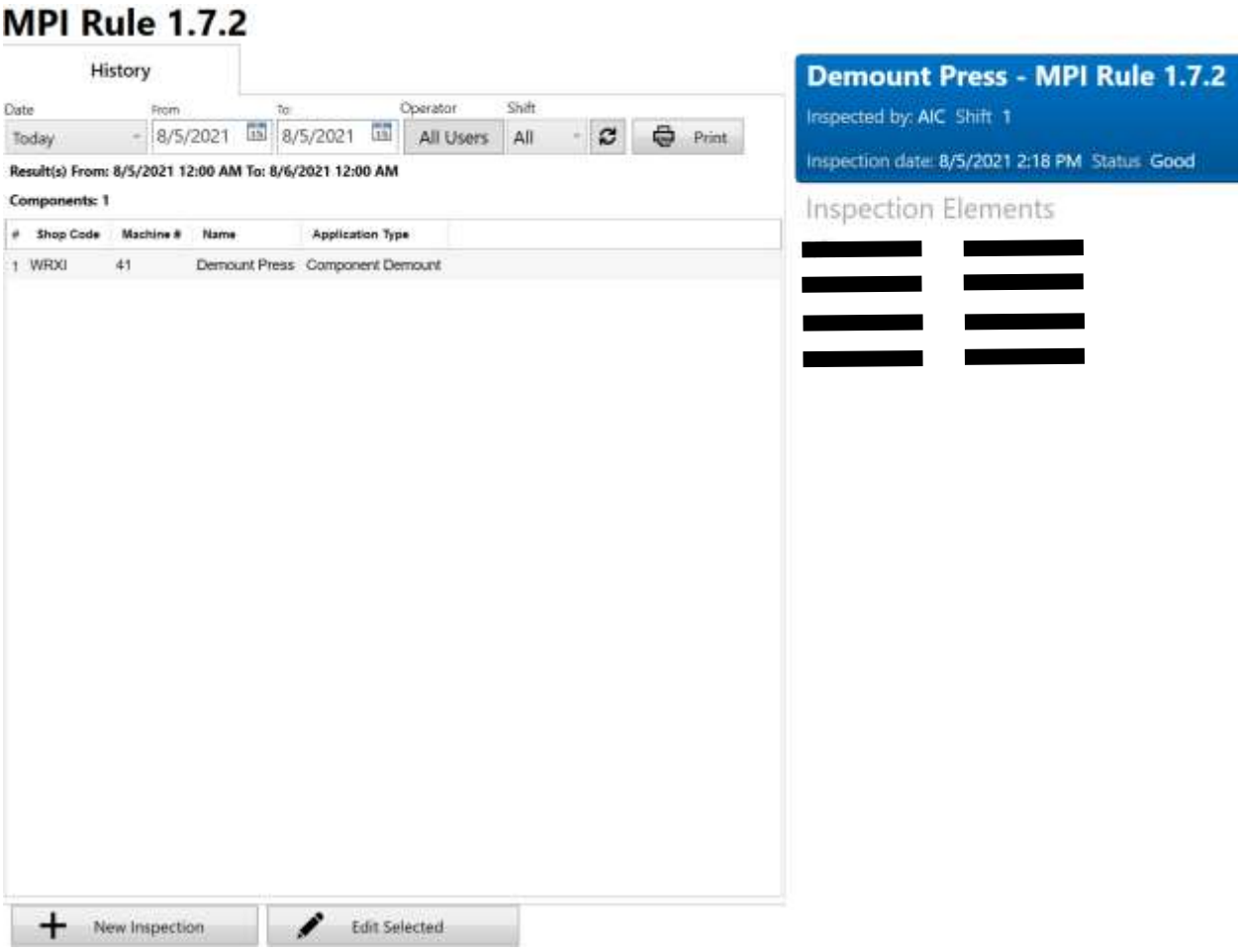
For more information about creating or modifying data collection screens please contact us.



Inspection History

To review the inspections performed at the current station for the day you can click on the “Today” section and it will take you to the History tab. You can specify any filters for operator, shift or a different date, and then click ‘Get History’. The current date is selected by default.





Get History will return a list of all inspections on the specified date that match the filters for operator and shift. You can use the predefine options do a date or select a custom date range. You must click the "Refresh" button to see the results.

A summary of the inspection totals will appear at the top of the list, with the total number unique inspections.

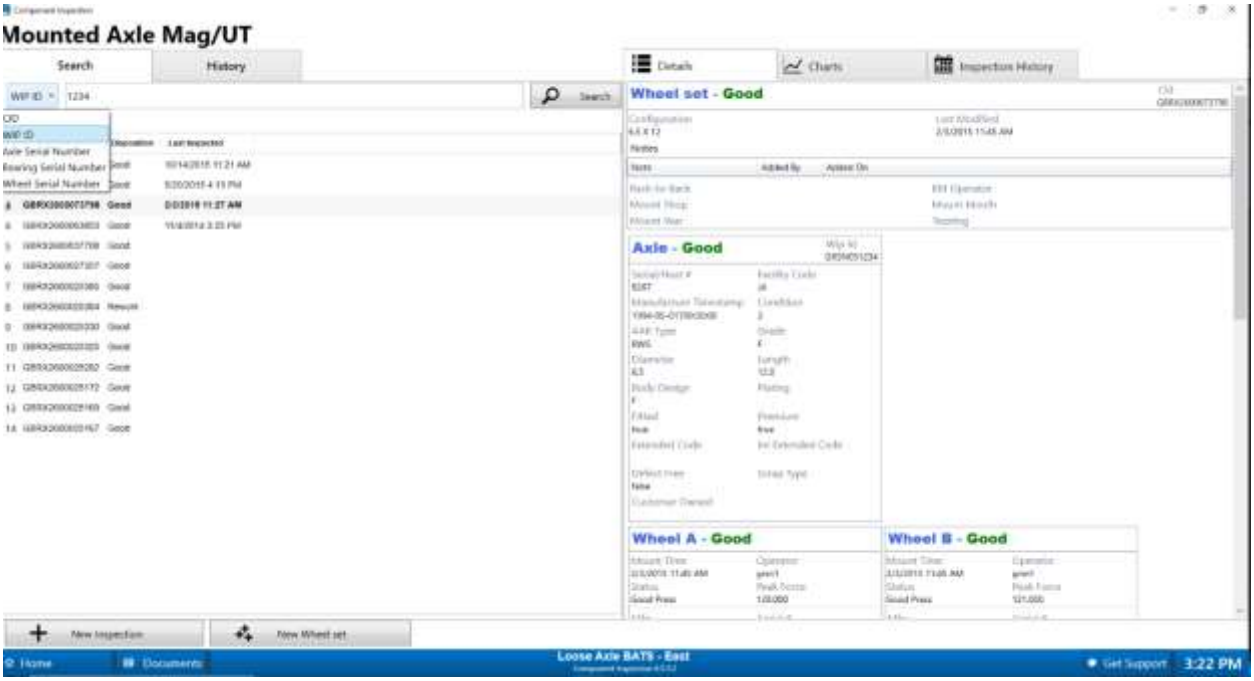
You can select a result by clicking on a row from the results list. The details for that inspection will appear at the right side. It will show who performed the inspection, shift, date and status.

Inspections

Select one of the configured Inspections to start data collection. This will open the search screen or the data entry screen depending on the configuration options selected.

Search

To inspect an existing component or assembly you must first locate the record for the component or assembly by searching the database. You can search for a component or assembly by scanning a WIP ID, CID, or component manufacturer's barcode. You can also manually enter a full or partial WIP ID, CID, or serial number.



The results of the search will be returned as a list of all possible matching components or assemblies. If more than one component/assembly matches the search criteria you should review the choices and make sure to select the correct result.

You can select a result by clicking on a row from the results list. The details for that assembly or component can be reviewed along with a detailed inspection history for that component/assembly.

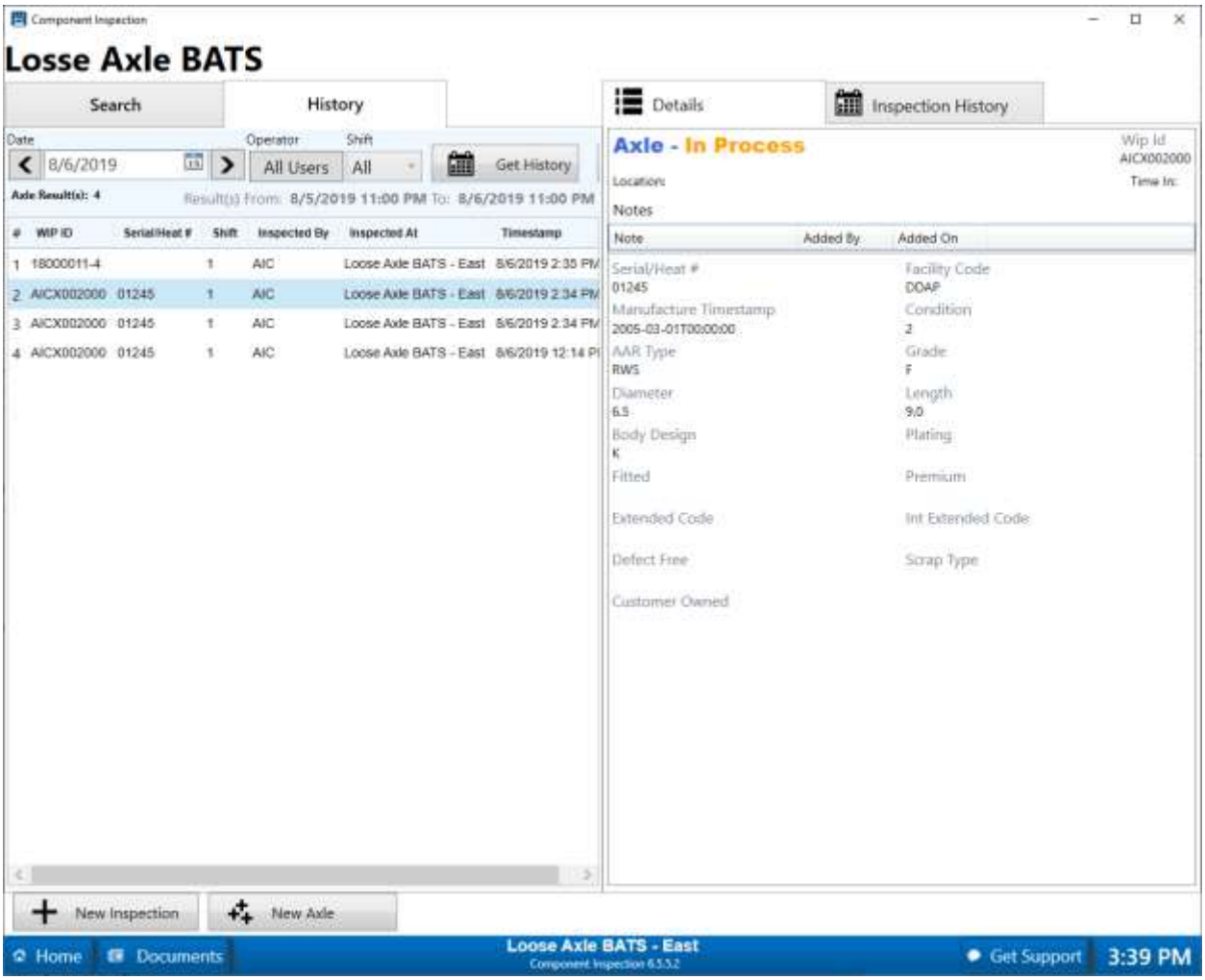
To begin a new inspection for the selected component, click 'Start New Inspection.

If a component or assembly has already been inspected at the current station, and if it has not yet been inspected at another station, you can modify the previous inspection by clicking 'Edit Most Recent'. Editing an inspection allows you to modify component and inspection data for the most recent inspection record without recording a separate inspection event. Use this to correct data entry errors or review the data you entered. If the assembly or component left the station and was sent back for rework you should use 'Start New Inspection' instead so that a new inspection event is recorded.

To create a new component or assembly record and perform the selected inspection click 'New *****' where ***** is the type of component configured for that inspection. For example, 'New Wheelset' or 'New Axle'.

History

To review the inspections performed at the current station for a specific day you can select the History tab. Select the date you want to review, specify any filters for operator or shift, and then click 'Get History'. The current date is selected by default.



Get History will return a list of all components inspected on the specified date that match the filters for operator and shift. You can use the Next and Previous buttons to scroll forward or backward one day at a time. You must click 'Get History' to refresh the results.

A summary of the inspection totals will appear at the top of the list, including the total number unique assemblies or components inspected, the number of assemblies/components inspected more than once, and the total number of inspections performed.

You can select a result by clicking on a row from the results list. The details for that assembly or component can be reviewed along with a detailed inspection history for that component/assembly.

To begin a new inspection for the selected component, click ‘Start New Inspection.

If a component or assembly has already been inspected at the current station, and if it has not yet been inspected at another station, you can modify the previous inspection by clicking ‘Edit Most Recent’. Editing an inspection allows you to modify component and inspection data for the most recent inspection record without recording a separate inspection event. Use this to correct data entry errors or review the data you entered. If the assembly or component left the station and was sent back for rework you should use ‘Start New Inspection’ instead so that a new inspection event is recorded.

To create a new component or assembly record and perform the selected inspection click ‘New *****’ where ***** is the type of component configured for that inspection. For example, ‘New Wheelset’ or ‘New Axle’.

To return to the home screen click the ‘Home’ button.

New Inspection prerequisites

In the Options dialog you can specify pre-requisites for a component/assembly. For example, you can configure the inspection to only accept components assigned to a specific location, or with a specific disposition.

Trying to perform a new inspection on a component when the pre-requisites aren't met will result in an error message preventing the component from being inspected.

Allowed Disposition

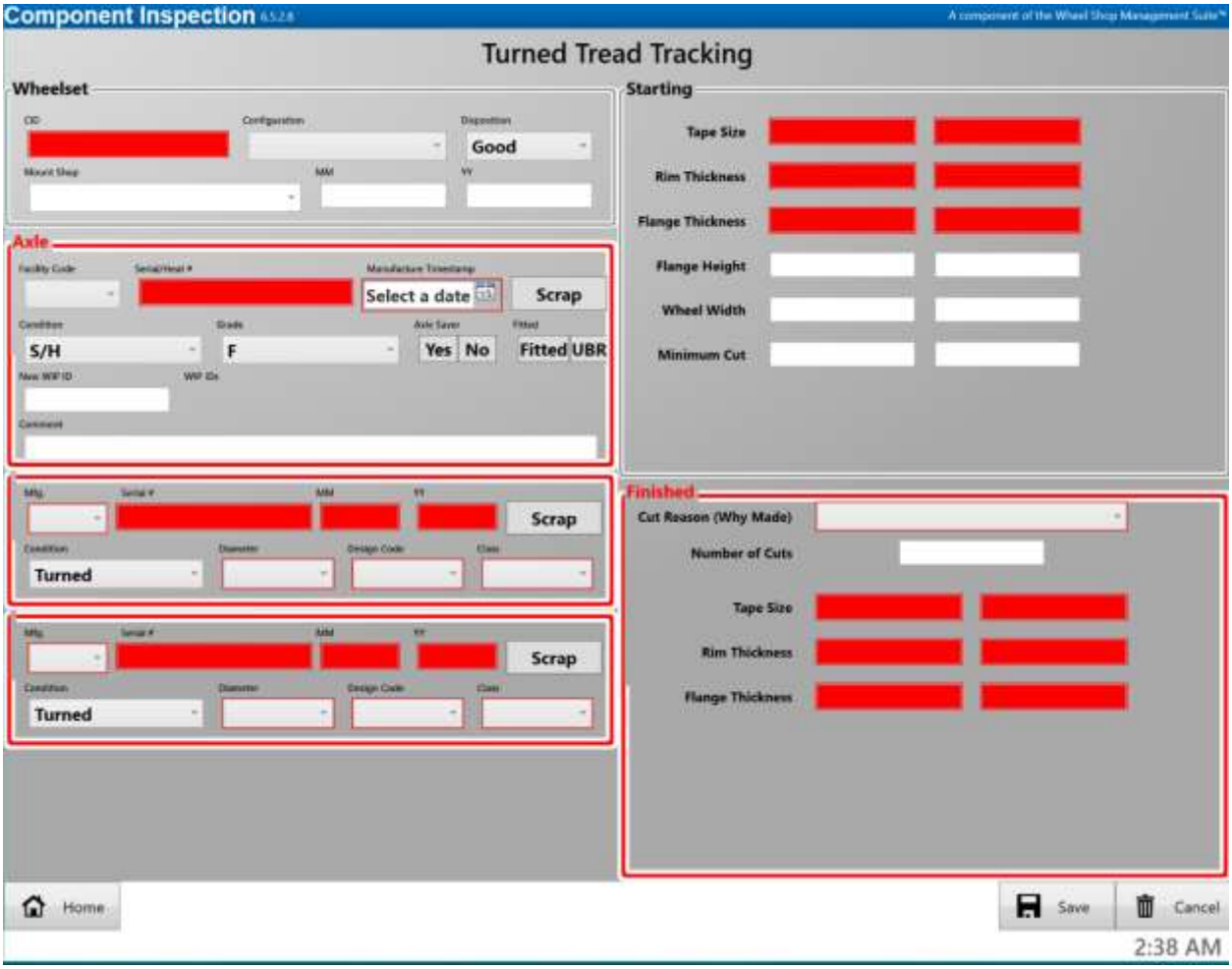
If you configure your settings to only allow a specific Disposition, and the component you select is not set to that disposition, you will receive an error indicating the current disposition, and the expected dispositions.

Click OK to search for a different component.

If you want to inspect the component anyway, click Override. If the current user has 'OverrideErrors' permission the component will be loaded and a new inspection will be allowed. If the current user does not belong to a Group with the OverrideErrors permission, they will be prompted to have a user with that permission to log in and approve the override.

Data Entry

Once you choose to inspect an existing component/assembly or create a new component/assembly record to inspect you will see the data entry screen. From here you can enter component information such as facility code, condition, serial number, manufacture/recondition date, etc. You will also enter inspection data such as measurements, visual inspection indications, or confirmation of steps performed. The data that is collected is customized for each station and may vary based on the type of component/assembly being inspected. For more information about creating or modifying data collection screens please contact us.



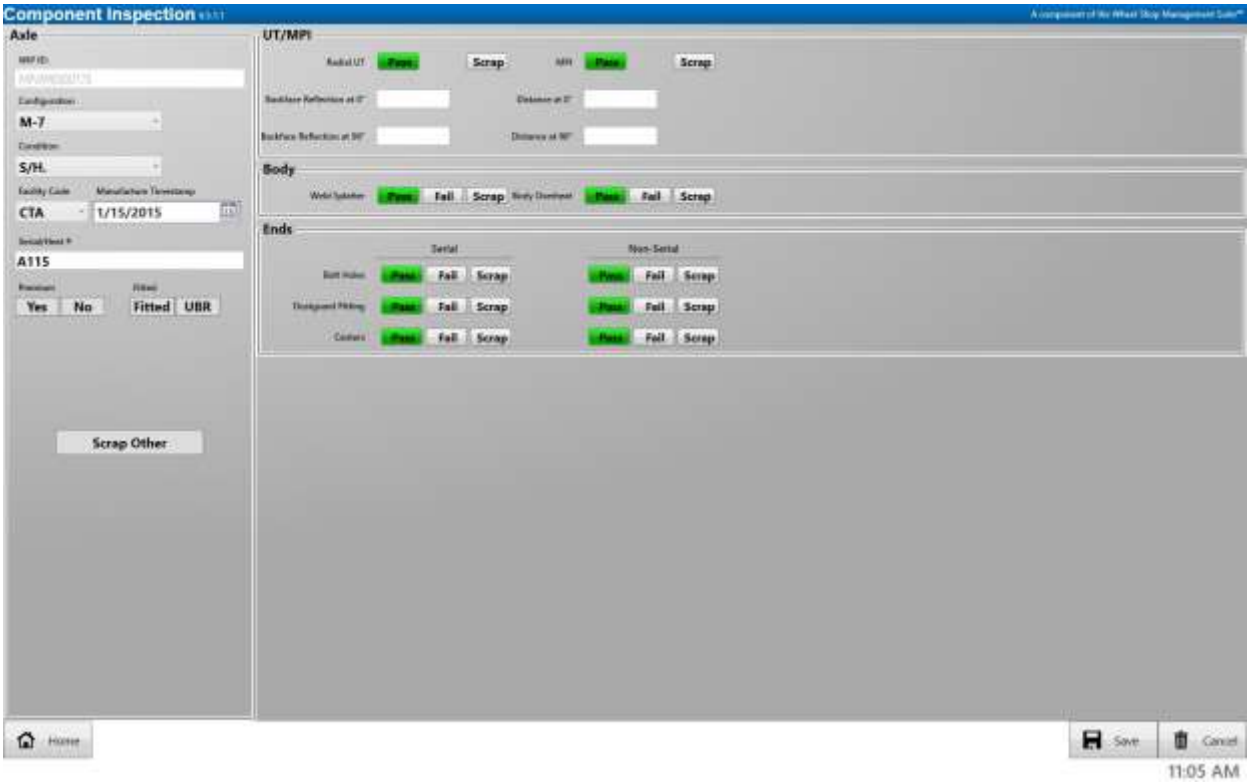
While most of the inspection data will need to be manually entered by the operator, the component information can also be captured from barcodes.

Depending on how the inspection and component information is configured certain fields may be required to be entered before the operator can save. Unless otherwise specified the required fields will be highlighted in Red. Additionally, if the operator tries to save with missing data, or if the data entered violates any of the specified Business Rules, the operator will be notified that they must correct the errors and then attempt to save again.

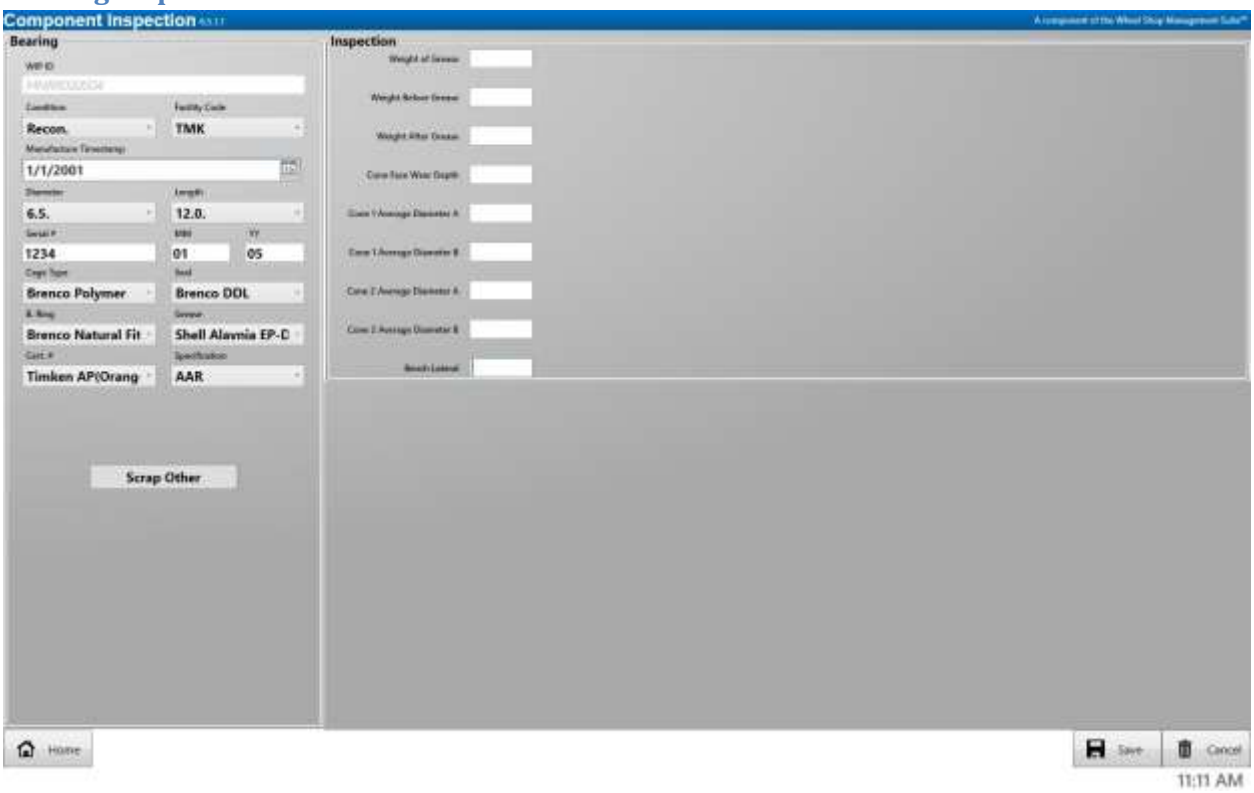
Examples

The following are examples of data entry configurations for several common component types.

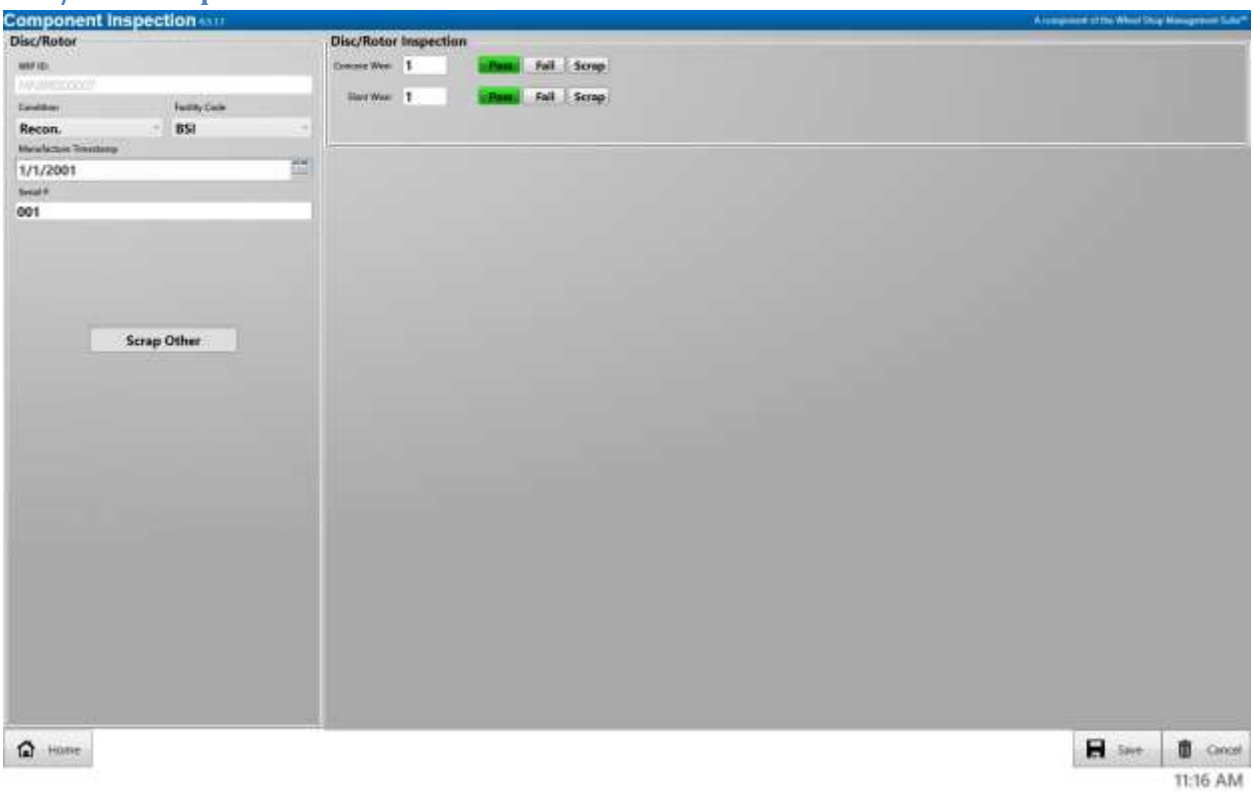
Loose Axle Inspection



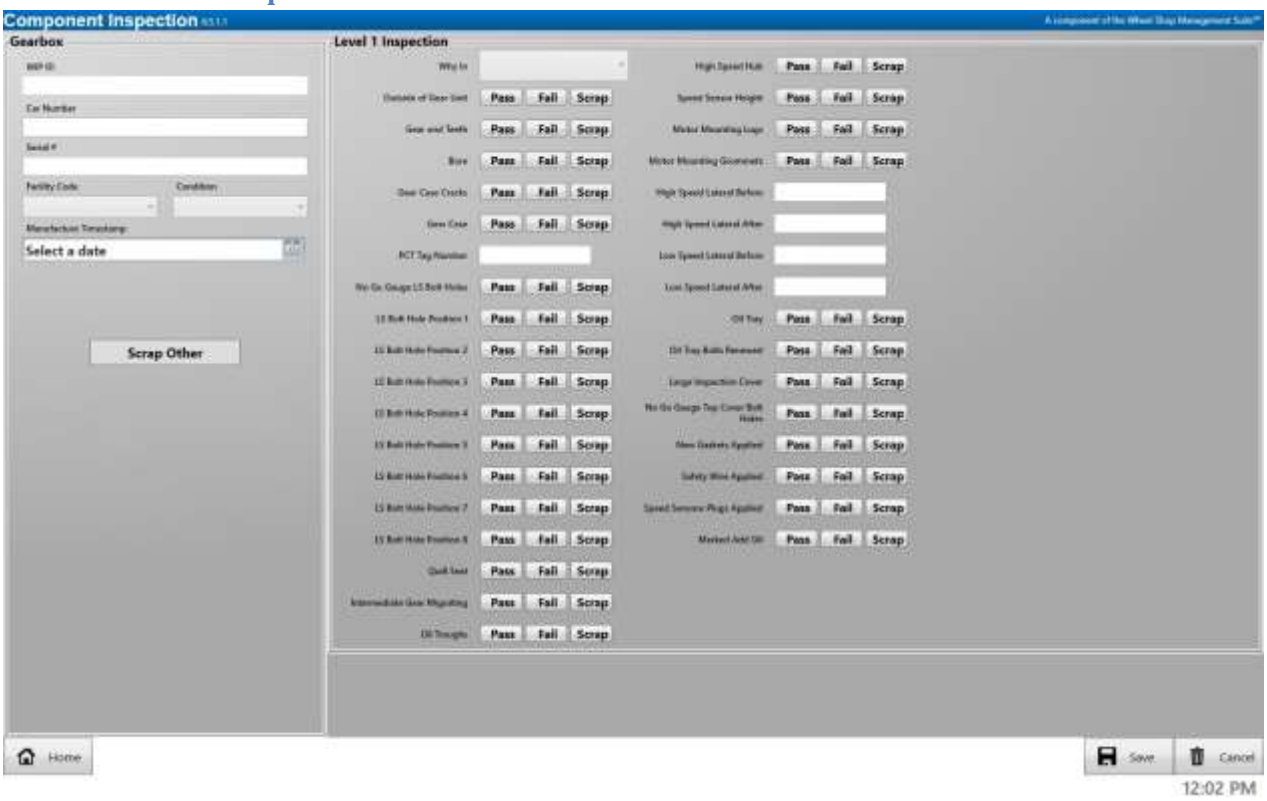
Bearing Inspection



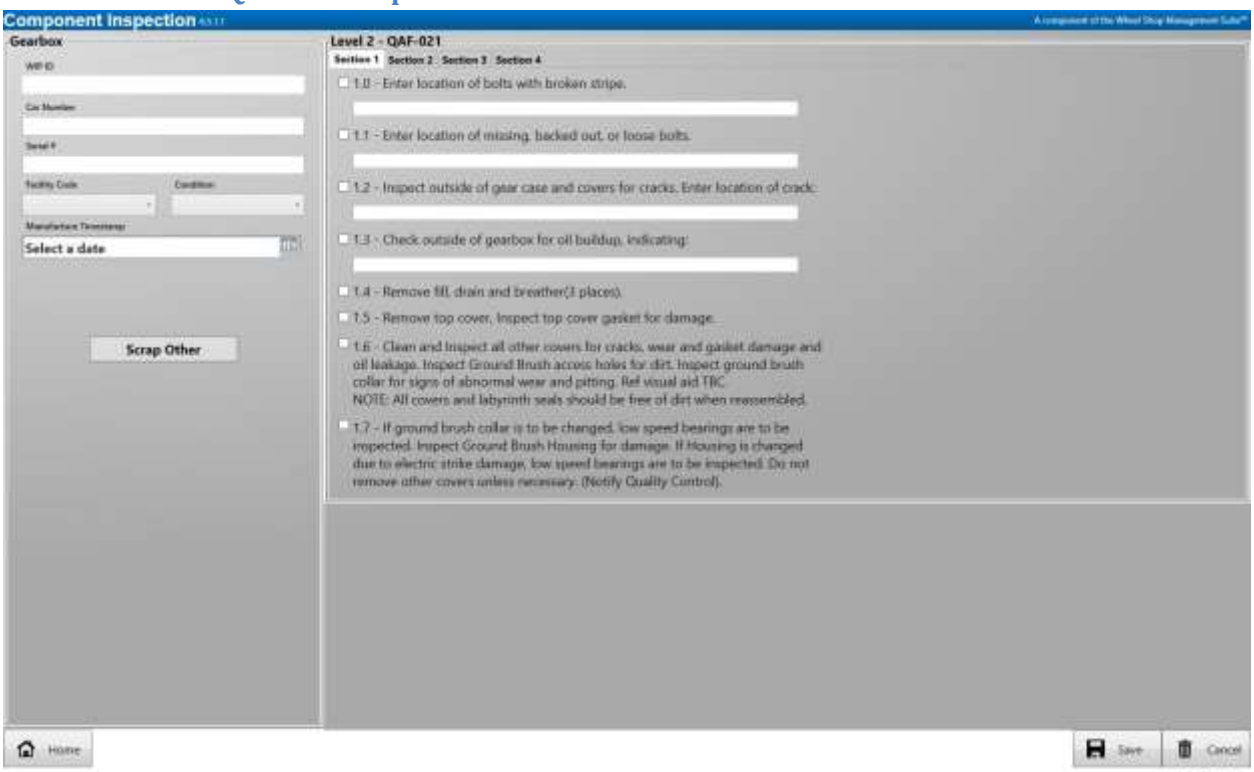
Disc/Rotor Inspection

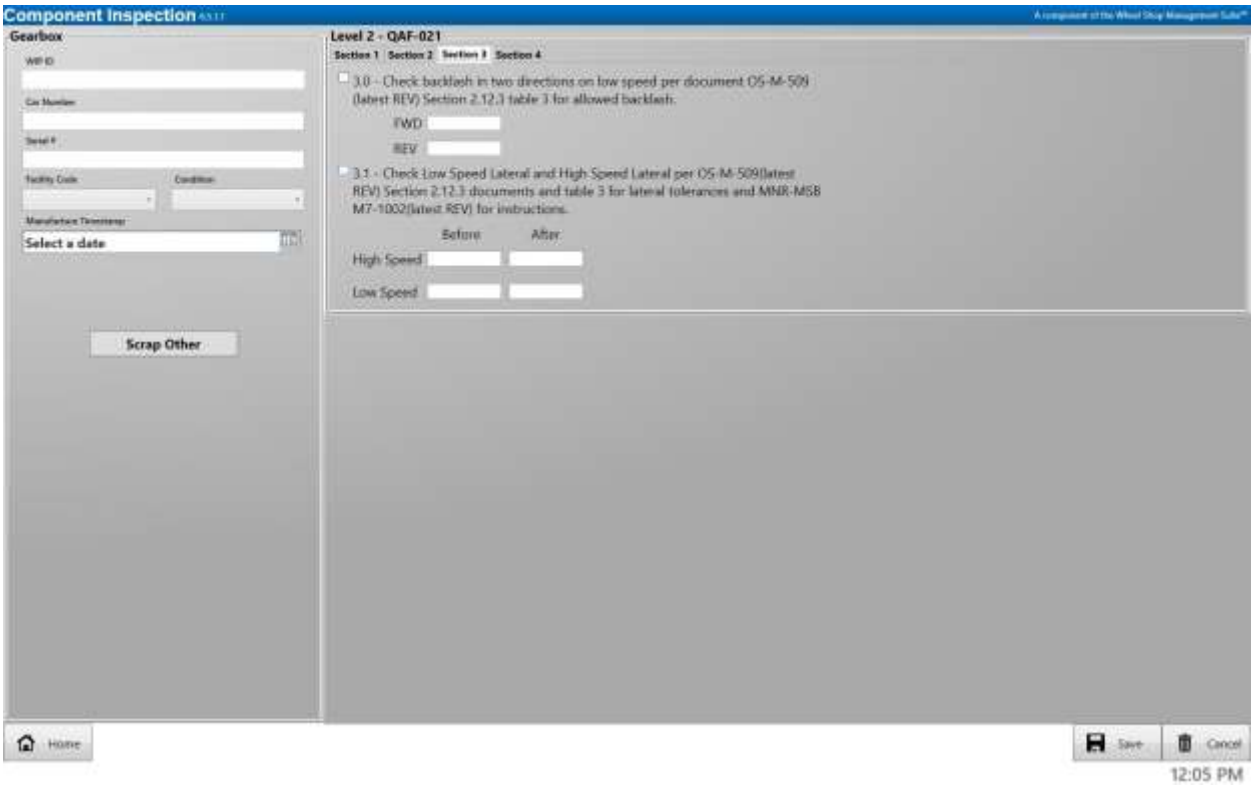


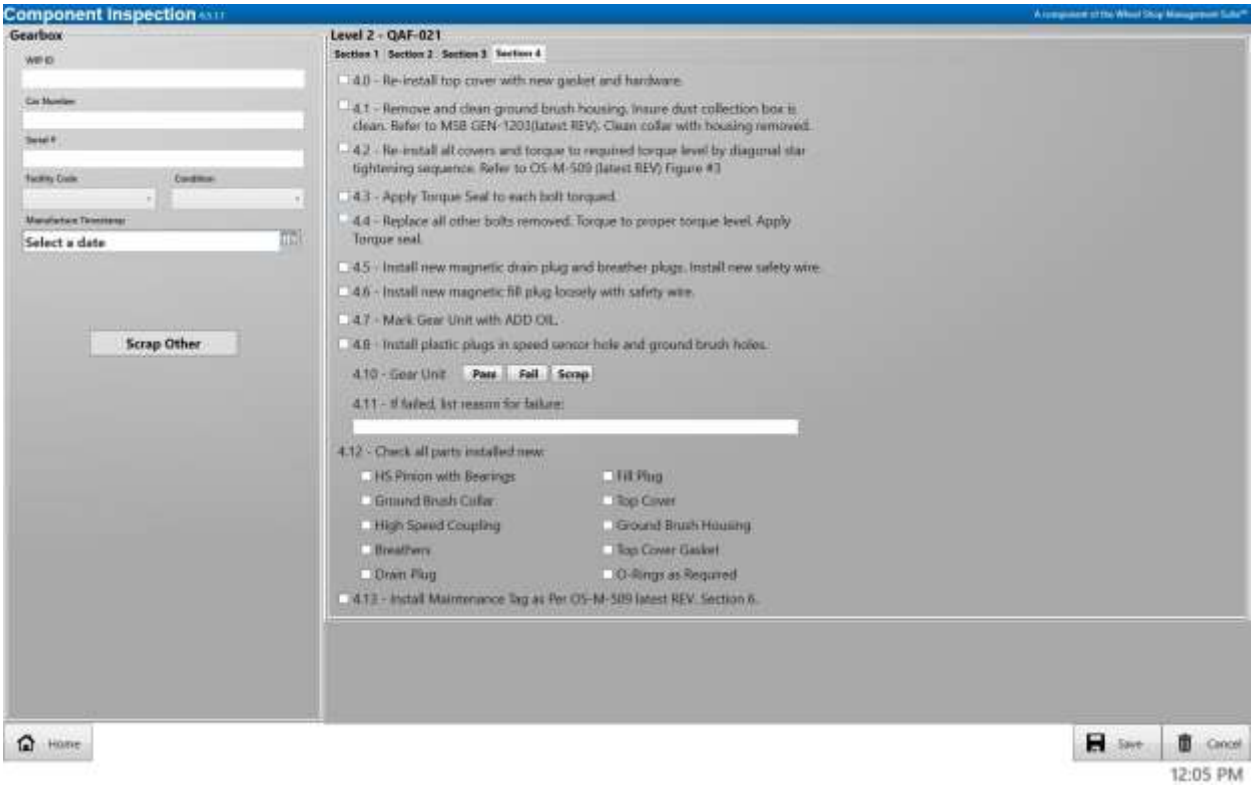
Gearbox Level 1 Inspection



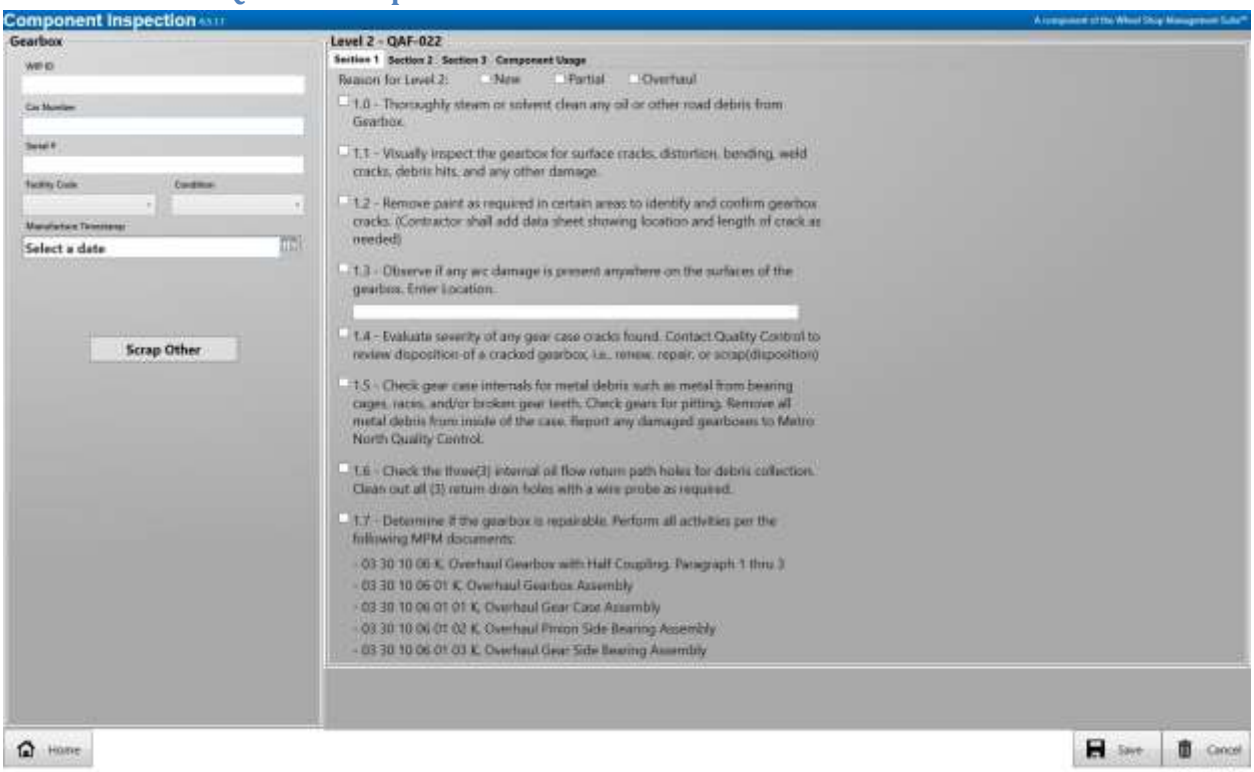
Gearbox Level 2 QAF-021 Inspection

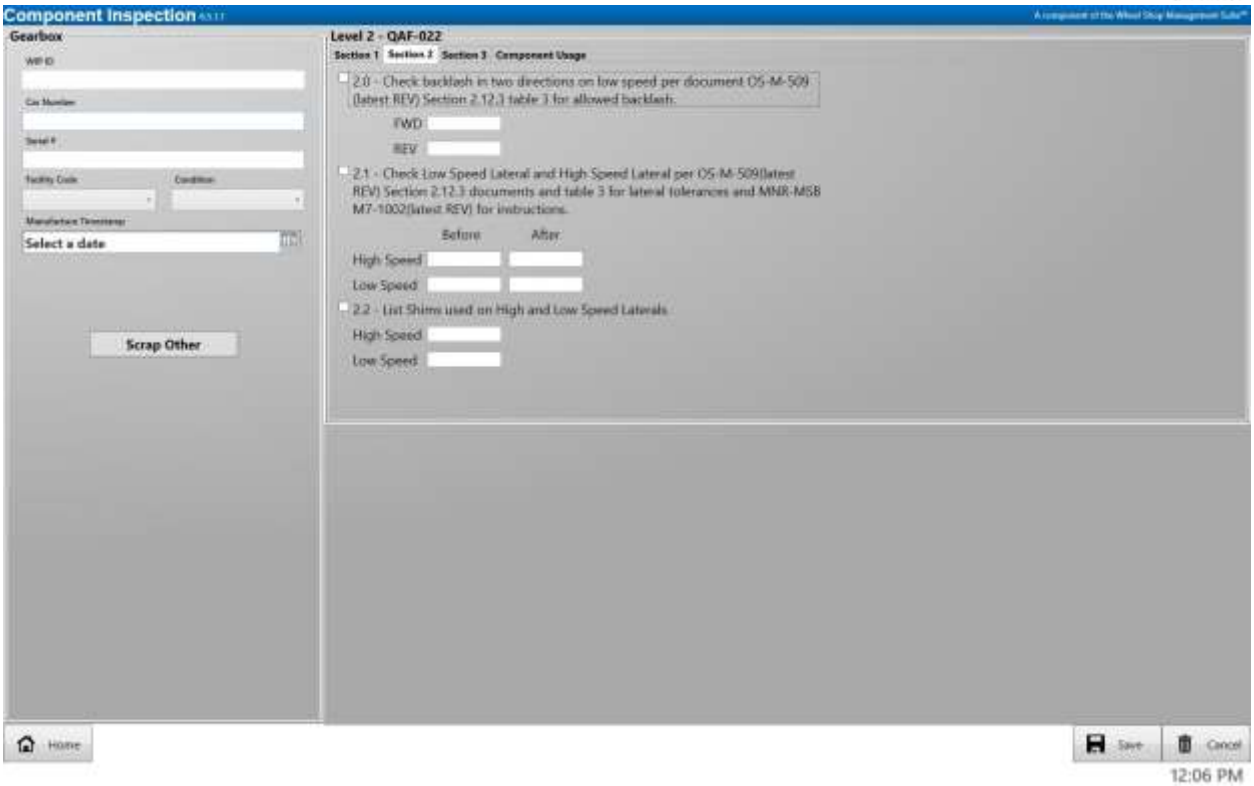


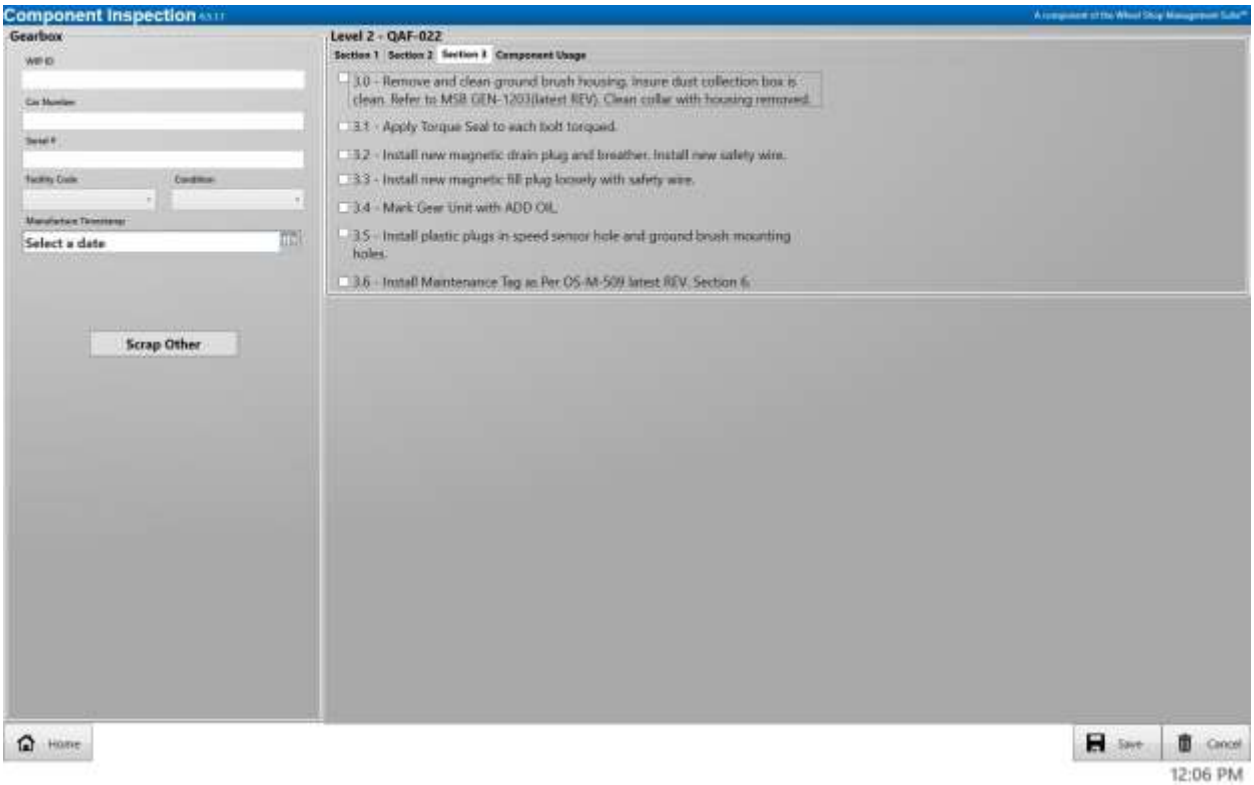

Component Inspection
Gearbox
WIP ID
Car Number
Serial #
Facility Code
Condition
Manufacture Timestamp
Select a date
Scrap Other
Level 2 - QAF-021
Section 1
Section 2
Section 3
Section 4
3.0 - Check backlash in two directions on low speed per document OS-M-509 (latest REV) Section 2.12.3 table 3 for allowed backlash.
FWD
REV
3.1 - Check Low Speed Lateral and High Speed Lateral per OS-M-509(latest REV) Section 2.12.3 documents and table 3 for lateral tolerances and MNR-MSB M7-1002(latest REV) for instructions.
Before
After
High Speed
Low Speed
Home
Save
Cancel
12:05 PM

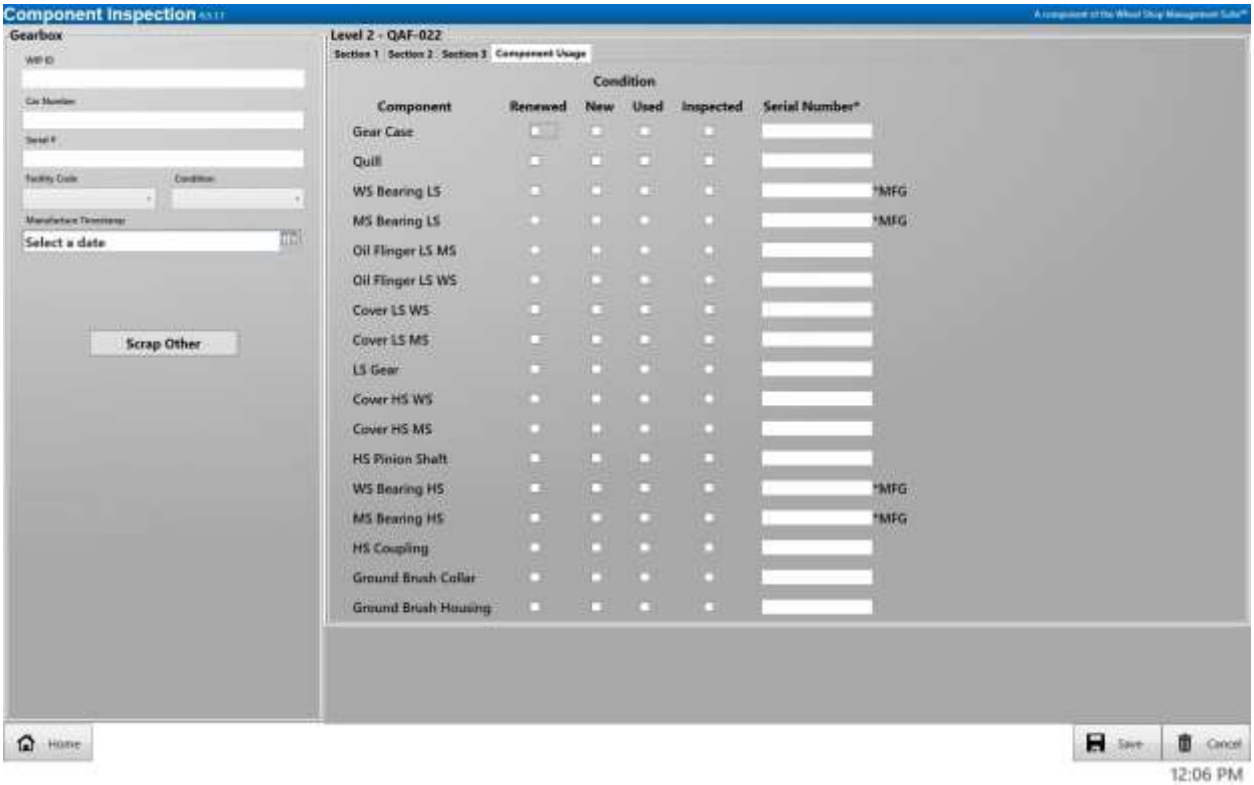

Component Inspection
Gearbox
WIP ID
Car Number
Serial #
Facility Code
Condition
Manufacture Timestamp
Select a date
Scrap Other
Level 2 - QAF-021
Section 1
Section 2
Section 3
Section 4
4.0 - Re-install top cover with new gasket and hardware.
4.1 - Remove and clean ground brush housing. Insure dust collection box is clean. Refer to MSB GEN-1203(latest REV). Clean collar with housing removed.
4.2 - Re-install all covers and torque to required torque level by diagonal star tightening sequence. Refer to OS-M-509 (latest REV) Figure #3
4.3 - Apply Torque Seal to each bolt torqued.
4.4 - Replace all other bolts removed. Torque to proper torque level. Apply Torque seal.
4.5 - Install new magnetic drain plug and breather plugs. Install new safety wire.
4.6 - Install new magnetic fill plug loosely with safety wire.
4.7 - Mark Gear Unit with ADD OIL.
4.8 - Install plastic plugs in speed sensor hole and ground brush holes.
4.10 - Gear Unit
Pass
Fail
Scrap
4.11 - If failed, list reason for failure:
4.12 - Check all parts installed new:
HS Pinion with Bearings
Ground Brush Collar
High Speed Coupling
Breathers
Drain Plug
Fill Plug
Top Cover
Ground Brush Housing
Top Cover Gasket
O-Rings as Required
4.13 - Install Maintenance Tag as Per OS-M-509 latest REV. Section 6.
Home
Save
Cancel
12:05 PM

Gearbox Level 2 QAF-022 Inspection






Component Inspection
Gearbox
Level 2 - QAF-022
Section 1
Section 2
Section 3
Component Usage
3.0 - Remove and clean ground brush housing. Insure dust collection box is clean. Refer to MSB GEN-1203(latest REV). Clean collar with housing removed.
3.1 - Apply Torque Seal to each bolt torqued.
3.2 - Install new magnetic drain plug and breather. Install new safety wire.
3.3 - Install new magnetic fill plug loosely with safety wire.
3.4 - Mark Gear Unit with ADD OIL.
3.5 - Install plastic plugs in speed sensor hole and ground brush mounting holes.
3.6 - Install Maintenance Tag as Per OS-M-509 latest REV. Section 6.
Select a date
Scrap Other
Home
Save
Cancel
12:06 PM


Component Inspection
Gearbox
Level 2 - QAF-022
Section 1
Section 2
Section 3
Component Usage
Condition
Component
Renewed
New
Used
Inspected
Serial Number*
Gear Case
Quill
WS Bearing LS
MS Bearing LS
Oil Flinger LS MS
Oil Flinger LS WS
Cover LS WS
Cover LS MS
LS Gear
Cover HS WS
Cover HS MS
HS Pinion Shaft
WS Bearing HS
MS Bearing HS
HS Coupling
Ground Brush Collar
Ground Brush Housing
*MFG
Select a date
Scrap Other
Home
Save
Cancel
12:06 PM

Appendix A: License

WHEEL SHOP MANGEMENT SUITE END USER LICENCSE AGREEMENT

IMPORTANT NOTICE: Read before Installing or Using Software

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Appendix B: Contact Information

AIC Rail
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Suite N
Sherwood, AR 72117

Online Support
Visit our website at www.aicRail.com/WSMS for 24/7 technical information and available downloads
Email us at Support@aicRail.com

Phone Support (Existing support contract or credit card required)
Call 1-501-834-9540 or 1-877-834-9540 (toll free). Press 1 at the prompt to be directed to or Support team.

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