

Powered by  OSAS

# Traverse

## Global Service

Traverse Global v11.2

# Service Repair Inspection Tutorial

---

© 2020 Open Systems Holdings Corp. All rights reserved.

No part of this manual may be reproduced by any means without the written permission of Open Systems Adaptable Solutions.

OPEN SYSTEMS and Traverse are registered trademarks of Open Systems Adaptable Solutions. All other product names are trademarks or registered trademarks of their respective companies.

Printed in U.S.A. This manual is recyclable.

August 2020, Release 11.2

Document Number TMGINSPKB11.2

This document has been prepared to conform to the current release version of Traverse. Because of our extensive development efforts and our desire to further improve and enhance the software, inconsistencies may exist between the software and the documentation in some instances. Call your customer support representative if you encounter an inconsistency.

Open Systems Adaptable Solutions  
4301 Dean Lakes Boulevard  
Shakopee, Minnesota 55379

General Telephone: (800) 328-2276 or (952) 403-5700  
General Fax: (952) 496-2495  
Support Telephone: (800) 320-3088  
Support Fax: (952) 403-5870  
Support Email: [traverse\\_support@osas.com](mailto:traverse_support@osas.com)  
Internet Address: [www.osas.com](http://www.osas.com)

# Contents

Traverse Service Repair Inspection Tutorial .....	1
Basics .....	1
Planning – Stage 1 .....	1
Planning – Stage 2 .....	2
Planning – Stage 3 .....	2
Set Up .....	3
Inventory Items .....	3
Min/Max Tables.....	3
Sample: Routine/Scheduled Maintenance Inspection .....	4
Plan the inspection .....	4
Establish groups and related inspection questions.....	4
Tolerances, parts, etc. ....	4
Create Inspection .....	4
General section.....	5
Groups Section .....	5
Tabs Section.....	6
Validate the inspection.....	30
Add inspection to a job transaction .....	31
Complete inspection using Mobile Service Repair .....	33
Review and/or edit inspection .....	34
Printing an inspection report .....	34
Sample: Repair Maintenance Inspection .....	35
Plan the inspection .....	35
Establish groups and related inspection questions.....	35
Tolerances, parts, etc. ....	35
Create tolerance tables .....	35
Create Inspection .....	36
General section.....	37
Groups Section .....	37

Tabs Section ..... 38

Validate the inspection ..... 48

Add inspection to a job transaction..... 49

Complete inspection using Mobile Service Repair ..... 51

Review and/or edit inspection..... 52

Printing an inspection report ..... 52

# Traverse Service Repair Inspection Tutorial

This tutorial is designed to guide you through the basic set up and use of the Inspection function available as part of the Service Repair application of Traverse Global Services.

Because of the amount of flexibility you have when setting up an inspection, we will walk through two common uses of the Inspection functions: routine/scheduled maintenance and repair diagnosis.

Because the Inspection functions are designed to be utilized by service technicians, this guide will focus on the needs of those users. More advanced information is available in the Traverse online help.

## Basics

You use the Configurator application to create inspections. You can create inspections that offer a multitude of options, but planning the structure and contents of an inspection before you do any system entry is essential to ensuring the inspection is useful in the way you intend.

You will find additional guidance on the basics of using the Configurator application, as well as creating a Service Repair or Inspection configuration in the Traverse online help:

[http://clientportal.osas.com/downloads/traverse\\_SR\\_help/Content/Home.htm](http://clientportal.osas.com/downloads/traverse_SR_help/Content/Home.htm)

### Planning – Stage 1

Before doing any entries into the system for your inspection, plan what you want to inspect, the options you will present to the user, and the pricing scheme you want to use for the inspection and any replacement items.

Ask yourself these questions:

- What does the inspection encompass? What will I be inspecting?
- What details do I want to include in the inspection? What am I looking at during the inspection? Will the technician record measurements?
- Do I have tolerances to check on the inspection?
- Are there parts that are always replaced, such as filters or seals?
- Do I want to use pictures or other media, whether as reference or for the technician to record damage or wear?
- Does part of the inspection depend on how a technician answers an earlier question? For instance, you may have a question about the condition of a bearing or alignment, but the technician doesn't need to answer those questions unless the shaft is binding.

## Planning – Stage 2

The next step you should consider before you create an inspection in the system is the specifics of the particular inspection. For instance, as part of an inspection, the technician may have visual, mechanical, and electrical observations.

Determine if details of the inspection can be grouped together:

Options that are part of a visual inspection:

- Signs of overheating or leaks
- General condition
- Oil or other fluid levels
- Air filters

Options that are part of a mechanical inspection:

- Shaft evaluation: does the shaft turn freely?
- If the shaft binds, are the bearings seized? Is the shaft bent?
- Are belts tight? Cracked? Are any pulley bushings seizing?
- Are any joints or knuckles binding? If so, are bushings corroded?
- Do any rotors spin freely? Are they balanced or out of balance (excessive vibration)

Options that are part of an electrical inspection:

- Record output voltage. Is output voltage within tolerance?
- Measure resistance (megger test). Is resistance within limits?
- Are all phases being output? Are phases within limits?
- Is capacitor leakage within tolerance?

List any parts or items that are replaced as part of an inspection routine:

- Fluid filters: oil, hydraulic, fuel
- Air filters
- Filter seals
- Dessicant cartridges or cans

## Planning – Stage 3

Determine additional details of inspections that are indirectly related to the technician's procedure:

- Min-max tables for tolerances
- Inventory pricing for any replacement parts
- Is a group of inspection questions performed by a particular crew? Is there a labor code or work type that can be assigned to the group?
- Is there an estimated number of hours to complete a group of inspection questions?

Once you have a good idea of how you want to set up the inspection, you can create it in the system.

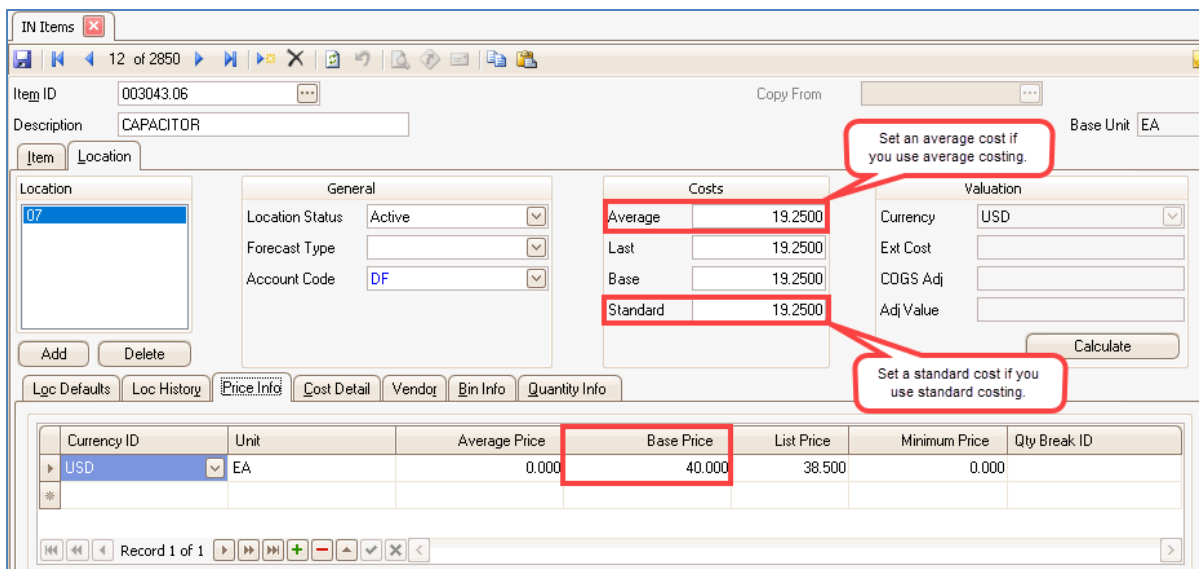
## Set Up

If you want to include inventory pricing automatically as part of the price of the inspection, meaning the price of parts that are replaced are added to the overall price of the inspection, you must make sure the proper item pricing is set up in the Item maintenance screen. Likewise, if tolerances for inspections depend on the model or part number of the part you are measuring, you can set up min-max tables that allow the technician to choose the appropriate part, and use the associated min-max values.

### Inventory Items

Review the pricing for item that may be used or replaced during the inspection by using the Items maintenance screen on the Inventory Setup and Maintenance menu.

Each item should have a **Base Price**. If you use average costing, make sure each item has an **Average** cost. If you use standard costing, make each item has a **Standard** cost.



The screenshot displays the 'IN Items' maintenance window for item ID 003043.06, described as 'CAPACITOR'. The 'Costs' tab is selected, showing the following values:

Cost Type	Value
Average	19.2500
Last	19.2500
Base	19.2500
Standard	19.2500

The 'Valuation' tab shows the following settings:

Field	Value
Currency	USD
Ext Cost	
COGS Adj	
Adj Value	

At the bottom, a table displays pricing information for the selected item:

Currency ID	Unit	Average Price	Base Price	List Price	Minimum Price	Qty Break ID
USD	EA	0.000	40.000	38.500	0.000	

### Min/Max Tables

You can find detailed instructions on setting up and using tolerance tables (SR Min/Max Values) in the online help in the [Using Tolerances in Configurator and Inspections](#) topic.

Once you have the min/max values entered into Traverse, it is a two-step process: add a reference to a table to an inspection, and then create a question for which the technician will record measurements.

## Sample: Routine/Scheduled Maintenance Inspection

For this tutorial, we will create an onsite inspection for a generator. This inspection is intended only to demonstrate the process of creating, then utilizing an inspection. We will use a number of the options available when configuring an inspection to show you how the options might be used.

### Plan the inspection

It is easier to configure an inspection if you know what you want to do with the inspection. This inspection should guide a service technician through a periodic inspection of a self-contained generator that is installed outside of a building.

### Establish groups and related inspection questions

There are certain things a technician should look at when doing a routine inspection on a generator. We can separate those inspection questions into three groups:

#### Visual Inspection:

- Damage to exterior housing of unit
- Record hour-meter reading
- Inspect for signs of leaks

#### Routine Maintenance:

- Check air filter, change as needed
- Check oil, fill/change as needed

#### Operational check:

- Start the generator
- Run the generator, measure output

### Tolerances, parts, etc.

Which inspection items have min/max values? Only the running output has a min/max range

Which parts do/might we need for the inspection?

- Filters: air
- Oil

### Create Inspection

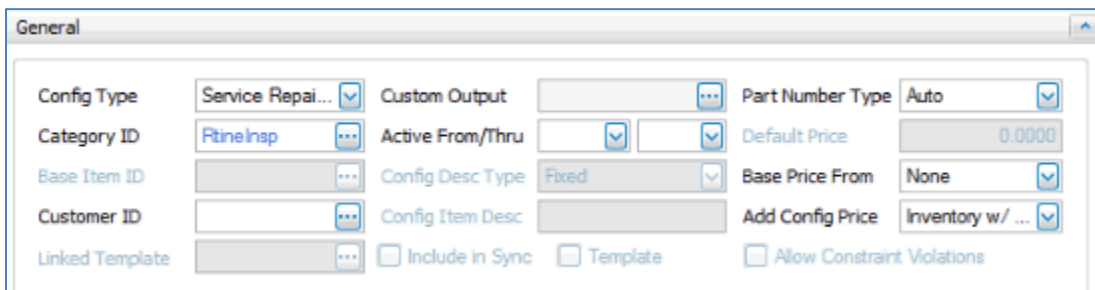
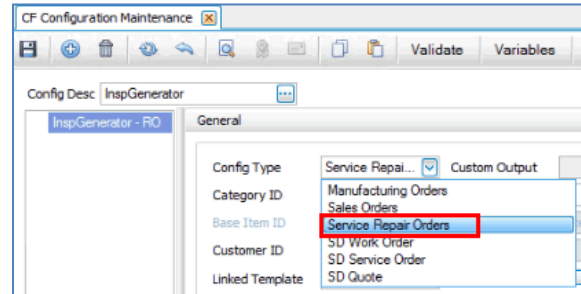
Use the Configurator application to create an inspection. In Traverse, open the Configuration Maintenance function from the CF Setup and Maintenance menu. Click **New** to open a new configuration.

Enter a description for the configuration in the **Config Desc** field.



### General section

1. In the **Config Type** drop-down list, select 'Service Repair Orders' for the type of configuration.
2. Select a category for the inspection from the **Category ID** drop-down list.
3. If the inspection is for a particular customer, select a customer in the **Customer ID** field.
4. See the online help for specifics regarding templates and custom output. This tutorial will not cover templates or custom output.
5. If the inspection is valid for a limited amount of time, select the timeframe within which the inspection is active in the **Active From/Thru** fields.
6. For simplicity's sake, leave the **Part Number Type** as 'Auto'. See the online help regarding the other available part number types.
7. The base price of the configuration sets the initial amount charged to a customer. Often a routine inspection is covered under a warranty, so we will select 'None' in the **Base Price From** field. If the inspection is not covered by a warranty, we would select 'Configuration', which will allow us to enter a price in the **Default Price** field. See the online help for more information.
8. To add the inventory price of parts used to the base price, in the **Add Config Price** field, select 'Inventory w/ Config Override'. This adds the inventory price to the base price while allowing you to override the price if necessary. See the online help for more information.



### Groups Section

The Groups section is where you create different groupings of questions. We determined we have three 'types' of questions: visual inspection, routine maintenance, and operational check. Use the **Append** button or click in a blank record to create each new group.

For each group:

1. Enter up to 5 characters for the **Group ID**.

## Sample: Routine/Scheduled Maintenance Inspection

2. The **Group Order** defines the sequence in which groups will be presented to the technician. Edit the group order to change the sequence.
3. Enter a **Description** for the group.
4. If you want to assign a group to a particular person, select them in the **Assigned To** field. We will leave this blank.
5. If a specific work type and/or labor code can be applied to the group, select the appropriate value in the **Work Type** and/or **Labor Code** fields. See the online help for more information. We will leave these fields blank.
6. Enter the estimated number of hours in which the group can be completed in the **Estimated Hours** field. We will leave this field blank.

Group ID	Group Order	Description	Assigned To	Work Type	Labor Code	Estimated Hours
VISUL	10	Visual Inspection				
MAINT	20	Routine Maintenance				
OPCHK	30	Operational Check				
*						

### Tabs Section

This section defines the question and answer flow, types of answers, pricing, etc. This section determines how the inspection configuration works.

Each group has its own list of questions, so for each group you must repeat the process of setting up each question. Each question can have answers of only one data type. In other words, if a question has a yes/no answer, you must enter another question that allows the technician to enter text or photos as a follow-up.

Reminder: Use the Column Chooser to add fields to the grid on the Fields tab.

**VISUL group**

Make sure you have the VISUL group selected in the Groups section.

Here are the inspection questions that we determined are part of the VISUL group:

- Damage to exterior housing of unit
- Record hour-meter reading
- Inspect for signs of leaks

Each of these questions can have follow-up questions. For instance, one question can ask if there is damage or debris. A follow-up question about amount or location of damage can be shown to the technician if the answer to the first question is 'yes'.

**Ques 1:** Is there damage to the unit housing? Follow-up ques: Attach photo of damage OR Does housing need to be replaced OR two follow-up questions, one for photo, and one for whether the housing needs replacement.

Use the **Append** button to add an empty record to the Tabs section.

**Fields tab**

1. Enter a field reference for the question in the **Field ID** column. The field ID is not the actual question. For this example, the field ID = 'DMGHOUSING'.
2. Enter the actual question in the **Label/Question** column: Is the housing damaged?
3. The **Group ID** should fill in automatically, and should indicate the field is part of the VISUL group.
4. The **Field Order** column shows the sequence in which the questions are presented to the tech.
5. Use the **Display When** column to determine whether the question is always shown, or only shown in certain instances, such as when another question is answered a certain way. This question should always be shown, so leave the column blank.
6. The **Build** button opens a criteria window similar to a data filter. This is where you determine when the question will be shown.
7. Mark the **Required** check box if the question is mandatory. This question is required.
8. If the question is subject to a tolerance, we would use the **Min/Max Table ID** and **Min/Max Field ID** columns to indicate where the tolerances are stored and which min/max values are used. Leave these columns blank.

Field ID	Label / Question	Group ID	Field Order	Display When	Build	Required	Min/M...	Min/Max Field ID
DMGHOUSING	Is the housing dam...	VISUL	10		Build	<input checked="" type="checkbox"/>		

Field Detail tab

The **Field ID**, **Group/Order**, and **Label** fields are filled in from the Fields tab.

1. Select whether the question is for information or for action to take. The inspection is an informational task, so select 'Information' in the **Line Type** field.
2. The **Data Type** field determines the type of data the technician needs to enter or select as an answer to the question. Of the options available (text, numeric, yes/no, list, description only, picture, drawing), the question needs a 'Yes/No' answer. More information about data types is available in the online help.
3. We will not use the **Linked** field or the **Print Group** field in this tutorial. You can find more information in the online help.
4. In the **Help Text** field, you can enter additional text to help the user answer the question.
5. Because we have a data type of 'Yes/No', we have the option to set a default value for the question. Select 'No' in the **Default Value** field. This ensures the question, which is required, will have an answer.
6. The mark in the **Required** check box indicates the question must be answered.

The screenshot shows the 'Field Detail' tab of a software interface. At the top, there are tabs for 'Fields', 'Field Detail', 'List Values', 'Actions', and 'Action Detail'. The 'Field Detail' tab is active. The form contains several sections:

- Field ID:** DMGHOUSING
- Group / Order:** VISUL (dropdown), 10 (text)
- Label:** Is the housing damaged?
- Line Type:** Infor... (dropdown), Allow Qty's (checkbox)
- Data Type:** Yes/... (dropdown), Multiple Selections (checkbox)
- Linked:** (dropdown), Multiple Values (checkbox)
- Text Length:** (text), Limit To List (checkbox)
- Display When:** (text), Build (button)
- Help Text:** Inspect for notable damage to the unit housing.
- Precision:** 0 (text)
- Min Value:** 0 (text)
- Max Value:** 0 (text)
- Increment:** (text)
- Numeric Warn:** (checkbox)
- Print Group:** (text)
- Default Value:** No (dropdown)
- Use Field Price:** (checkbox)
- Field Price:** 0.0000 (text), Picture (button)
- Price Option:** Fixe... (dropdown), Media (button)
- Required:** (checked)
- Long Descr:** (text area)
- Smart ID Len:** (text)
- Smart ID Value:** (text)

At the bottom left, there are navigation buttons: Home, Back, Forward, Refresh, Add, and Remove.

The List Values tab is only applicable when the question has a list data type.

If a question needs added material or labor, for example, you can specify such on the Actions tab. We will look at this in a later question.

The Action Detail tab is only applicable when the Actions tab has an entry.

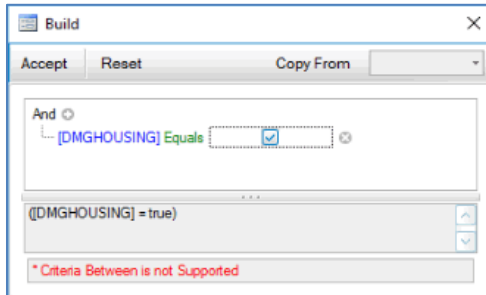
**Save your changes.**

**Ques. 2:** This is a follow-up question to Ques 1, and will only show if the answer to Ques 1 is 'Yes'. It is more an instruction than a question: Take one or more photos of the damage to the housing.

Use the **Append** button to add an empty record to the Tabs section.

Fields tab

1. Enter a field reference for the question in the **Field ID** column. The field ID is not the actual question. For this example, the field ID = 'HOUSINGPICS'.
2. Enter the actual question or instruction in the **Label/Question** column: Take one or more photos of the damage to the housing.
3. The **Group ID** should fill in automatically, and should indicate the field is part of the VISUL group.
4. The **Field Order** column shows the sequence in which the questions are presented to the tech.
5. Use the **Display When** column to set the question to display only when the answer to Ques 1 is 'Yes'. Click **Build** to open the criteria window.



Click the plus sign and select the DMGHOUSING field (blue text). That is the field that determines whether Ques 2 shows.

The criteria is if DMGHOUSING is 'Yes', show Ques 2, so click the gray <enter a value> criteria and select 'True' or mark the check box.

Click **Accept** to return to the Fields tab.

6. Leave the **Required** check box blank. The question only appears if Ques 1 = 'Yes'.
7. If the question is subject to a tolerance, we would use the **Min/Max Table ID** and **Min/Max Field ID** columns to indicate where the tolerances are stored and which min/max values are used. Leave these columns blank.

Field ID	Label / Question	Group ID	Field Order	Display When	Build	Required	Min/...	Min/Max Field ID
DMGHOUSING	Is the housing damag...	VISUL	10		Build	<input checked="" type="checkbox"/>		
HOUSINGPICS	Take photos of the d...	VISUL	20	[[DMGHOUSING] = true)	Build	<input type="checkbox"/>		

Field Detail tab

The **Field ID**, **Group/Order**, and **Label** fields are filled in from the Fields tab.

1. Select whether the question is for information or for action to take. Taking photos supplies information, so select 'Information' in the **Line Type** field.

2. The **Data Type** field determines the type of data the technician needs to enter or select as an answer to the question. Of the options available (text, numeric, yes/no, list, description only, picture, drawing), the tech is asked to take photos, so select the 'Picture' type. More information about data types is available in the online help.
3. We will not use the **Linked** field or the **Print Group** field in this tutorial. You can find more information in the online help.
4. In the **Help Text** field, you can enter additional text to help the user answer the question.
5. Other fields are disabled.

The screenshot shows a software configuration window with several tabs: 'Fields', 'Field Detail', 'List Values', 'Actions', and 'Action Detail'. The 'List Values' tab is active. The configuration includes:

- Field ID:** HOUSINGPICS
- Group / Order:** VISUL (dropdown), 20 (input)
- Label:** Take photos of the damage to the h...
- Line Type:** Infor... (dropdown), Allow Qty's (checkbox)
- Data Type:** Picture (dropdown), Multiple Selections (checkbox)
- Linked:** (input), Multiple Values (checkbox)
- Text Length:** (input), Limit To List (checkbox)
- Display When:** ([DMGHOUSING] = true), Build (button)
- Help Text:** tures with the photo app on your mobile device or select a stored photo.
- Precision:** 0 (input)
- Min Value:** 0 (input)
- Max Value:** 0 (input)
- Increment:** (input)
- Default Value:** (input)
- Use Field Price:** (checkbox)
- Field Price:** 0.0000 (input), Picture (button)
- Price Option:** Fixe... (dropdown), Media (button)
- Required:** (checkbox)
- Long Descr:** (text area)
- Smart ID Len:** (input)
- Smart ID Value:** (input)

The List Values tab is only applicable when the question has a list data type.

If a question needs added material or labor, for example, you can specify such on the Actions tab. We will look at this in a later question.

The Action Detail tab is only applicable when the Actions tab has an entry.

**Save your changes.**

**Ques. 3:** Record the reading on the hour-meter.

Use the **Append** button to add an empty record to the Tabs section.

### Fields tab

1. Enter a field reference for the question in the **Field ID** column. The field ID is not the actual question. For this example, the field ID = 'HRSMETER'.
2. Enter the actual question or instruction in the **Label/Question** column: Enter the reading on the hours-meter.
3. The **Group ID** should fill in automatically, and should indicate the field is part of the VISUL group.
4. The **Field Order** column shows the sequence in which the questions are presented to the tech.

5. Use the **Display When** column to determine whether the question is always shown, or only shown in certain instances, such as when another question is answered a certain way. This question should always be shown, so leave the column blank.
6. The **Build** button opens a criteria window similar to a data filter. This is where you determine when the question will be shown.
7. Mark the **Required** check box if the question is mandatory. This question is required.
8. If the question is subject to a tolerance, we would use the **Min/Max Table ID** and **Min/Max Field ID** columns to indicate where the tolerances are stored and which min/max values are used. Leave these columns blank.

Field ID	Label / Question	Group ID	Field Order	Display When	Build	Required	Min/...	Min/Max Field ID
DMGHOUSING	Is the housing damag...	VISUL	10		Build	<input checked="" type="checkbox"/>		
HOUSINGPICS	Take photos of the d...	VISUL	20	{DMGHOUSING} = true	Build	<input type="checkbox"/>		
HRSMETER	Enter the reading on ...	VISUL	30		Build	<input checked="" type="checkbox"/>		

### Field Detail tab

The **Field ID**, **Group/Order**, and **Label** fields are filled in from the Fields tab.

1. Select whether the question is for information or for action to take. The tech is recording information, so select 'Information' in the **Line Type** field.
2. The **Data Type** field determines the type of data the technician needs to enter or select as an answer to the question. Of the options available (text, numeric, yes/no, list, description only, picture, drawing), the tech is asked to enter a meter reading, so select the 'Numeric' type. More information about data types is available in the online help.
3. We will not use the **Linked** field or the **Print Group** field in this tutorial. You can find more information in the online help.
4. In the **Help Text** field, you can enter additional text to help the user answer the question.
5. Because the data type is numeric, you should review and check settings that affect numerical data.
6. If the meter has a decimal point, set the **Precision** to the number of digits to the right of the decimal point.
7. If there is a minimum or maximum value for the number, such as the number can't be under 2 or over 10, enter that minimum and/or maximum value in the **Min Value** and/or **Max Value** fields.
8. In the **Increment** field, enter the value by which numbers can be increased. For instance, an increment of 2 means only even numbers can be entered (2, 4, 6, 8, etc.). Because we have a precision of 3, the numbers should increment by that fractional amount, so enter '.001' in the **Increment** field.
9. If you have a minimum and/or a maximum value set, and you want the user to either get a warning that an answer is below or above the threshold, mark the **Numeric Warn** check box. Since we do not have a min or max value, leave the check box blank.
10. The **Default Value** is automatically set to 0. We can leave it.
11. The **Required** check box is marked as it was on the Fields tab.

## Sample: Routine/Scheduled Maintenance Inspection

The screenshot shows the 'Field Detail' configuration window. The 'List Values' tab is selected. The form includes the following fields and controls:

- Field ID: HRSMETER
- Precision: 3
- Default Value: 0.000
- Group / Order: VISUL (dropdown), 30 (input)
- Min Value: 0.000
- Use Field Price:
- Label: Enter the reading on the hours-meter
- Max Value: 0.000
- Field Price: -0.0000
- Picture:
- Line Type: Infor... (dropdown)
- Allow Qty's:
- Increment: 0.001
- Price Option: Fixe... (dropdown)
- Media:
- Data Type: Num... (dropdown)
- Multiple Selections:
- Numeric Warn:
- Required:
- Linked:  Multiple Values:
- Print Group:
- Text Length:  Limit To List:
- Long Descr:
- Display When:
- Help Text: Enter the number of hours displayed on the hours-meter.
- Smart ID Len:

The List Values tab is only applicable when the question has a list data type.

If a question needs added material or labor, for example, you can specify such on the Actions tab. We will look at this in a later question.

The Action Detail tab is only applicable when the Actions tab has an entry.

**Save your changes.**

**Ques 4:** Are there any signs of leaks? Follow-up ques: Inspect for leaks. Enter location(s) of leak(s).

Use the **Append** button to add an empty record to the Tabs section.

### Fields tab

1. Enter a field reference for the question in the **Field ID** column. The field ID is not the actual question. For this example, the field ID = 'LEAKINSP'.
2. Enter the actual question in the **Label/Question** column: Are there any signs of leaks?
3. The **Group ID** should fill in automatically, and should indicate the field is part of the VISUL group.
4. The **Field Order** column shows the sequence in which the questions are presented to the tech.
5. Use the **Display When** column to determine whether the question is always shown, or only shown in certain instances, such as when another question is answered a certain way. This question should always be shown, so leave the column blank.
6. The **Build** button opens a criteria window similar to a data filter. This is where you determine when the question will be shown.
7. Mark the **Required** check box if the question is mandatory. This question is required.
8. If the question is subject to a tolerance, we would use the **Min/Max Table ID** and **Min/Max Field ID** columns to indicate where the tolerances are stored and which min/max values are used. Leave these columns blank.



Field ID	Label / Question	Group ...	Field Order	Display When	Build	Required	Min/Max T...	Min/Max Fe...
DMGHOUSING	Is the housing dama...	VISUL	10		Build	<input checked="" type="checkbox"/>		
HOUSINGPICS	Take photos of the ...	VISUL	20	[[DMGHOUSING] = true]	Build	<input type="checkbox"/>		
HRSMETER	Enter the reading o ...	VISUL	30		Build	<input checked="" type="checkbox"/>		
LEAKINSP	Are there any signs ...	VISUL	40		Build	<input checked="" type="checkbox"/>		

Field Detail tab

The **Field ID**, **Group/Order**, and **Label** fields are filled in from the Fields tab.

1. Select whether the question is for information or for action to take. The inspection is an informational task, so select 'Information' in the **Line Type** field.
2. The **Data Type** field determines the type of data the technician needs to enter or select as an answer to the question. Of the options available (text, numeric, yes/no, list, description only, picture, drawing), the question needs a 'Yes/No' answer. More information about data types is available in the online help.
3. We will not use the **Linked** field or the **Print Group** field in this tutorial. You can find more information in the online help.
4. In the **Help Text** field, you can enter additional text to help the user answer the question.
5. Because we have a data type of 'Yes/No', we have the option to set a default value for the question. Select 'No' in the **Default Value** field. This ensures the question, which is required, will have an answer.
6. The mark in the **Required** check box indicates the question must be answered.

The screenshot shows the 'Field Detail' configuration form for the field 'LEAKINSP'. The form is organized into several sections:

- Field ID:** LEAKINSP
- Group / Order:** VISUL (dropdown), 40 (input)
- Label:** Are there any signs of leaks?
- Line Type:** Info... (dropdown), Allow Qty's (checkbox)
- Data Type:** Yes... (dropdown), Multiple Selections (checkbox)
- Linked:** (checkbox), Multiple Values (checkbox)
- Text Length:** (input), Limit To List (checkbox)
- Display When:** (input), Build (button)
- Help Text:** Inspect for signs of fluid leaks. |
- Precision:** 0 (spinners)
- Min Value:** 0 (spinners)
- Max Value:** 0 (spinners)
- Increment:** (spinners)
- Numeric Warn:** (checkbox)
- Print Group:** (input)
- Default Value:** No (dropdown)
- Use Field Price:** (checkbox)
- Field Price:** 0.0000 (input), Picture (button)
- Price Option:** Fixe... (dropdown), Media (button)
- Required:**
- Long Descr:** (text area)
- Smart ID Len:** (input), Smart ID Value (input)

The List Values tab is only applicable when the question has a list data type.

If a question needs added material or labor, for example, you can specify such on the Actions tab. We will look at this in a later question.

The Action Detail tab is only applicable when the Actions tab has an entry.

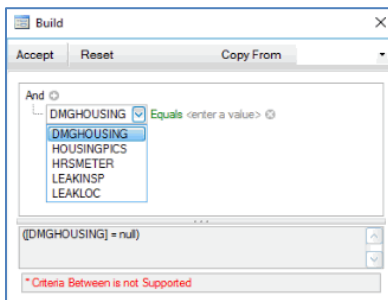
**Save your changes.**

**Ques. 5:** This is a follow-up question to Ques 4, and will only show if the answer to Ques 4 is 'Yes'. It is more an instruction than a question: Enter a description of the leak location(s).

Use the **Append** button to add an empty record to the Tabs section.

Fields tab

1. Enter a field reference for the question in the **Field ID** column. The field ID is not the actual question. For this example, the field ID = 'LEAKLOC'.
2. Enter the actual question or instruction in the **Label/Question** column: Enter a description of the leak location.
3. The **Group ID** should fill in automatically, and should indicate the field is part of the VISUL group.
4. The **Field Order** column shows the sequence in which the questions are presented to the tech.
5. Use the **Display When** column to set the question to display only when the answer to Ques 4 is 'Yes'. Click **Build** to open the criteria window.



Click the plus sign and select the LEAKINSP field (blue text). That is the field that determines whether Ques 5 shows.

The criteria is if LEAKINSP is 'Yes', show Ques 5, so click the gray <enter a value> criteria and select 'True' or mark the check box.

Click **Accept** to return to the Fields tab.

6. Leave the **Required** check box blank. The question only appears if Ques 4 = 'Yes'.
7. If the question is subject to a tolerance, we would use the **Min/Max Table ID** and **Min/Max Field ID** columns to indicate where the tolerances are stored and which min/max values are used. Leave these columns blank.

Field ID	Label / Question	Group ID	Field Order	Display When	Build	Required	Min/Max Ta...	Min/Max Fiel...
DMGHOUSING	Is the housing damag...	VISUL	10		Build	<input checked="" type="checkbox"/>		
HOUSINGPICS	Take photos of the d...	VISUL	20	([DMGHOUSING] = true)	Build	<input type="checkbox"/>		
HRSMETER	Enter the reading on t...	VISUL	30		Build	<input checked="" type="checkbox"/>		
LEAKINSP	Are there any signs of ...	VISUL	40		Build	<input checked="" type="checkbox"/>		
LEAKLOC	Enter a description of ...	VISUL	50	([LEAKINSP] = true)	Build	<input type="checkbox"/>		

## Field Detail tab

The **Field ID**, **Group/Order**, and **Label** fields are filled in from the Fields tab.

1. Select whether the question is for information or for action to take. Entering a description supplies information, so select 'Information' in the **Line Type** field.
2. The **Data Type** field determines the type of data the technician needs to enter or select as an answer to the question. Of the options available (text, numeric, yes/no, list, description only, picture, drawing), the tech is asked to enter a description, so select the 'Description Only' type. More information about data types is available in the online help.
3. We will not use the **Linked** field or the **Print Group** field in this tutorial. You can find more information in the online help.
4. In the **Help Text** field, you can enter additional text to help the user answer the question.
5. Other fields are disabled.

The screenshot shows the 'Field Detail' tab with the following fields and values:

- Field ID:** LEAKLOC
- Group / Order:** VISUL (dropdown), 50 (text)
- Label:** Enter a description of the leak local
- Line Type:** Info... (dropdown), Allow Qty's (checkbox)
- Data Type:** De... (dropdown), Multiple Selections (checkbox)
- Linked:** (dropdown), Multiple Values (checkbox)
- Text Length:** (text), Limit To List (checkbox)
- Display When:** [(LEAKINSP) = true] (text), Build (button)
- Help Text:** Describe the location of the leak. (text)
- Precision:** 0 (spin)
- Min Value:** 0 (spin)
- Max Value:** 0 (spin)
- Increment:** (spin)
- Numeric Warn:** (checkbox)
- Print Group:** (text)
- Default Value:** (text)
- Use Field Price:** (checkbox)
- Field Price:** 0.0000 (text), Picture (button)
- Price Option:** Fixe... (dropdown), Media (button)
- Required:** (checkbox)
- Long Descr:** (text area)
- Smart ID Len:** (spin)
- Smart ID Value:** (text)

The List Values tab is only applicable when the question has a list data type.

If a question needs added material or labor, for example, you can specify such on the Actions tab. We will look at this in a later question.

The Action Detail tab is only applicable when the Actions tab has an entry.

**Save your changes.**

## **MAINT group**

Make sure you have the MAINT group selected in the Groups section.

Here are the inspection questions that we determined are part of the MAINT group:

- Check air filter, change as needed
- Check oil, fill as needed

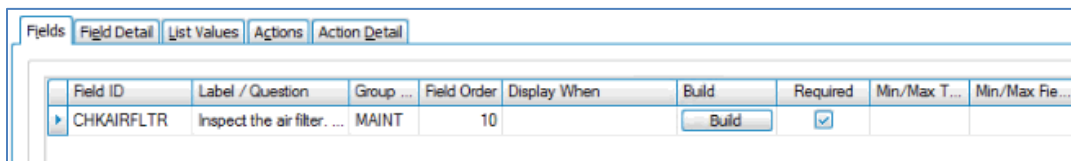
Each of these questions can have follow-up questions. For instance, one question can ask if the air filter needs to be changed. A follow-up question can indicate whether the technician changed the filter or not.

**Ques 1:** Inspect the air filter. Does it need to be changed? Follow-up ques: Replace filter.

Use the **Append** button to add an empty record to the Tabs section.

### Fields tab

1. Enter a field reference for the question in the **Field ID** column. The field ID is not the actual question. For this example, the field ID = 'CHKAIRFLTR'.
2. Enter the actual question in the **Label/Question** column: Inspect the air filter. Does it need to be changed?
3. The **Group ID** should fill in automatically, and should indicate the field is part of the MAINT group.
4. The **Field Order** column shows the sequence in which the questions are presented to the tech.
5. Use the **Display When** column to determine whether the question is always shown, or only shown in certain instances, such as when another question is answered a certain way. This question should always be shown, so leave the column blank.
6. The **Build** button opens a criteria window similar to a data filter. This is where you determine when the question will be shown.
7. Mark the **Required** check box if the question is mandatory. This question is required.
8. If the question is subject to a tolerance, we would use the **Min/Max Table ID** and **Min/Max Field ID** columns to indicate where the tolerances are stored and which min/max values are used. Leave these columns blank.



Field ID	Label / Question	Group ...	Field Order	Display When	Build	Required	Min/Max T...	Min/Max Fie...
CHKAIRFLTR	Inspect the air filter ...	MAINT	10		Build	<input checked="" type="checkbox"/>		

### Field Detail tab

The **Field ID**, **Group/Order**, and **Label** fields are filled in from the Fields tab.

1. Select whether the question is for information or for action to take. The inspection is an informational task, so select 'Information' in the **Line Type** field.
2. The **Data Type** field determines the type of data the technician needs to enter or select as an answer to the question. Of the options available (text, numeric, yes/no, list, description only, picture, drawing), the question needs a 'Yes/No' answer. More information about data types is available in the online help.
3. We will not use the **Linked** field or the **Print Group** field in this tutorial. You can find more information in the online help.
4. In the **Help Text** field, you can enter additional text to help the user answer the question.

5. Because we have a data type of 'Yes/No', we have the option to set a default value for the question. Select 'No' in the **Default Value** field. This ensures the question, which is required, will have an answer.
6. The mark in the **Required** check box indicates the question must be answered.

The screenshot shows the 'List Values' configuration window for a field. Key settings include:
 

- Field ID:** CHKAIRFLTR
- Group / Order:** MAINT (dropdown), 10 (text)
- Label:** Inspect the air filter. Does it need to
- Line Type:** Info... (dropdown), Allow Qty's (checkbox)
- Data Type:** Yes... (dropdown), Multiple Selections (checkbox)
- Linked:** (dropdown), Multiple Values (checkbox)
- Text Length:** (text), Limit To List (checkbox)
- Display When:** (text), Build (button)
- Help Text:** Inspect the air filter. Change the filter if the bypass indicator is red.
- Precision:** 0 (spinners)
- Min Value:** 0 (spinners)
- Max Value:** 0 (spinners)
- Increment:** (spinners)
- Numeric Warn:** (checkbox)
- Print Group:** (text)
- Default Value:** No (dropdown)
- Use Field Price:** (checkbox)
- Field Price:** 0.0000 (text), Picture (button)
- Price Option:** Fixe... (dropdown), Media (button)
- Required:**
- Long Descr:** (text area)
- Smart ID Len:** (spinners), Smart ID Value (text)

The List Values tab is only applicable when the question has a list data type.

If a question needs added material or labor, for example, you can specify such on the Actions tab. We will look at this in a later question.

The Action Detail tab is only applicable when the Actions tab has an entry.

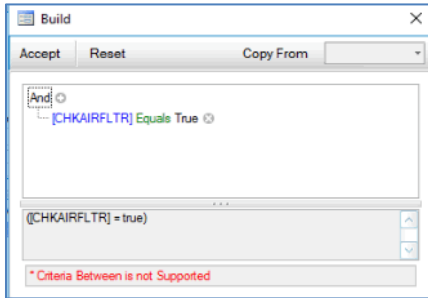
### Save your changes.

**Ques. 2:** This is a follow-up question to Ques 1, and will only show if the answer to Ques 1 is 'Yes'. It is more an instruction than a question: Replace the air filter. Select the number that matches the air filter you are replacing.

Use the **Append** button to add an empty record to the Tabs section.

### Fields tab

1. Enter a field reference for the question in the **Field ID** column. The field ID is not the actual question. For this example, the field ID = 'RPLCAIRFLTR'.
2. Enter the actual question or instruction in the **Label/Question** column: Select the number that matches the air filter you are replacing.
3. The **Group ID** should fill in automatically, and should indicate the field is part of the MAINT group.
4. The **Field Order** column shows the sequence in which the questions are presented to the tech.
5. Use the **Display When** column to set the question to display only when the answer to Ques 1 is 'Yes'. Click **Build** to open the criteria window.



Click the plus sign and select the CHKAIRFLTR field (blue text). That is the field that determines whether Ques 2 shows.

The criteria is if CHKAIRFLTR is 'Yes', show Ques 2, so click the gray <enter a value> criteria and select 'True' or mark the check box.

Click **Accept** to return to the Fields tab.

6. Leave the **Required** check box blank. The question only appears if Ques 1 = 'Yes'.
7. If the question is subject to a tolerance, we would use the **Min/Max Table ID** and **Min/Max Field ID** columns to indicate where the tolerances are stored and which min/max values are used. Leave these columns blank.

Field ID	Label / Question	Group ...	Field Order	Display When	Build	Required	Min/Max T...	Min/Max Fie...
CHKAIRFLTR	Inspect the air filter. ...	MAINT	10		Build	<input checked="" type="checkbox"/>		
RPLCARIFLTR	Select the number...	MAINT	20	([CHKAIRFLTR] = true)	Build	<input type="checkbox"/>		

### Field Detail tab

The **Field ID**, **Group/Order**, and **Label** fields are filled in from the Fields tab.

1. Select whether the question is for information or for action to take. The technician is actively replacing a filter, so select 'Action' in the **Line Type** field.
2. The **Data Type** field determines the type of data the technician needs to enter or select as an answer to the question. Of the options available (text, numeric, yes/no, list, description only, picture, drawing), the tech is asked to select an item number for the filter being replaced, so select the 'List' type. More information about data types is available in the online help.
3. We will not use the **Linked** field or the **Print Group** field in this tutorial. You can find more information in the online help.
4. In the **Help Text** field, you can enter additional text to help the user answer the question.
5. Because the data type is a list, you should review and check settings that affect list data.
6. The **Allow Qty's** check box will allow the user to enter quantities for each list item selected. Leave the check box blank.
7. The **Multiple Selections** check box allows the user to select more than one list item; leave the check box blank, because we only want the user to pick one filter.
8. The **Multiple Values** check box will allow the user to enter more than one value for a list item, such as length/width/height for list item of dimensions. Leave the check box blank.

9. The **Limit to List** check box prevents users from entering values that do not exist on the list. Mark the check box.
10. Other fields are disabled.

The screenshot shows the 'Field Detail' configuration window. The 'Limit To List' checkbox is checked. The 'Field ID' is 'RPLCARIFLTR'. The 'Group / Order' is 'MAINT' with a value of '20'. The 'Label' is 'Select the number the matches the ai'. The 'Data Type' is 'List'. The 'Display When' is '([CHKAIRFLTR] = true)'. The 'Help Text' is 'Replace the air filter. Select the item number of the air filter you are replac'. A 'Build' button is located below the 'Display When' field.

### List Values tab

Because the question is a list data type, we will use the List Values tab to enter items for the list. We can enter the actual air filter part number here, or we can enter other information that determines which filter part number to use, such as generator model number. We will enter the actual item number from inventory on the Actions tab.

Enter each air filter part number in the Option List grid. For *each* entry on the list, you can mark the Use **Option Price** check box, as needed, to enter a price that is different from the inventory price for the item into the **Option Price** field. This price will override the inventory price.

The screenshot shows the 'List Values' configuration window. On the left is an 'Option List' grid with three entries: '7011-66140', '97240741', and 'Z837'. The '7011-66140' entry is selected. To the right of the grid are fields for 'Item ID', 'Use Option Price' (checked), 'Option Price' (5.3000), 'Location ID', 'Unit' (Media), 'Quantity', 'Smart ID Value', and 'Long Description'. A 'Media' button is next to the 'Unit' field. On the far right is an 'Option Picture' section with a 'Use Item Picture' checkbox and a large empty area labeled 'No image data'. A status bar at the bottom indicates 'Record 1 of 3'.

Actions tab

Because we have an action line type for this question (on the Field Detail tab), the Actions tab is where we enter item numbers and/or additional labor, among other actions. See the online help for more details.

For EACH value on the list, we will add an event that adds material to the configuration:

1. Use the **Append** button to add a record to the grid.
2. In the **Event** column, select 'With Value' to indicate the action will occur when a certain value is selected in the list.
3. The **Sequence** number indicates the order in which the actions are conducted.
4. In the **Value** column, select one of the list values. If you want labor or materials to be added no matter which list item is selected, you would choose 'Any Value' here. See the online help for more information.
5. In the **Action Type** column, select 'Add Material', because we are adding an inventory item when the value is selected.
6. In the **Action** column, select the inventory item number for the air filter that matches the list value.

Event	Sequence	Value	Action Type	Action	Message / Text Line
With Value	10	7011-66140	Add Material	7011-66140	
With Value	20	97240741	Add Material	97240741	
With Value	30	Z837	Add Material	Z837	

Action Detail tab

The Action Detail tab is where you add inventory location, quantity, units of measure, and other details for the material you are adding. See the online help for more details.

For EACH event on the Actions tab:

On the Action Detail tab, edit as necessary the **Location ID** for the item, the **Vendor ID** for the item, the **Sched Work Type** as necessary (applicable to adding labor), the **Quantity** of the item you are adding for the action, and the inventory **Unit** of measure you are using. Add any **Notes** as applicable.

Component ID	97240741	Use Override Price	<input type="checkbox"/>
Location ID	01	Override Price	0.0000
Sched Work Type		Quantity	1.0000
Vendor ID		Unit	EA
		Unit Cost	20.5200

**Save your changes.**



**Ques 3:** Inspect the oil level. Does it need to be filled? Follow-up ques: Add oil as needed, record amount added.

Use the **Append** button to add an empty record to the Tabs section.

### Fields tab

1. Enter a field reference for the question in the **Field ID** column. The field ID is not the actual question. For this example, the field ID = 'CHKOILVL'.
2. Enter the actual question in the **Label/Question** column: Check the oil level. Does it need to be filled?
3. The **Group ID** should fill in automatically, and should indicate the field is part of the MAINT group.
4. The **Field Order** column shows the sequence in which the questions are presented to the tech.
5. Use the **Display When** column to determine whether the question is always shown, or only shown in certain instances, such as when another question is answered a certain way. This question should always be shown, so leave the column blank.
6. The **Build** button opens a criteria window similar to a data filter. This is where you determine when the question will be shown.
7. Mark the **Required** check box if the question is mandatory. This question is required.
8. If the question is subject to a tolerance, we would use the **Min/Max Table ID** and **Min/Max Field ID** columns to indicate where the tolerances are stored and which min/max values are used. Leave these columns blank.

Field ID	Label / Question	Group ID	Field Order	Display When	Build	Required	Min/Max Ta...	Min/Max Fiel...
CHKAIRFLTR	Inspect the air filter. D...	MAINT	10		Build	<input checked="" type="checkbox"/>		
RPLCARIFLTR	Select the number the ...	MAINT	20	([CHKAIRFLTR] = true)	Build	<input type="checkbox"/>		
CHKOILVL	Check the oil level. D...	MAINT	30		Build	<input checked="" type="checkbox"/>		

### Field Detail tab

The **Field ID**, **Group/Order**, and **Label** fields are filled in from the Fields tab.

1. Select whether the question is for information or for action to take. The inspection is an informational task, so select 'Information' in the **Line Type** field.
2. The **Data Type** field determines the type of data the technician needs to enter or select as an answer to the question. Of the options available (text, numeric, yes/no, list, description only, picture, drawing), the question needs a 'Yes/No' answer. More information about data types is available in the online help.
3. We will not use the **Linked** field or the **Print Group** field in this tutorial. You can find more information in the online help.
4. In the **Help Text** field, you can enter additional text to help the user answer the question.

5. Because we have a data type of 'Yes/No', we have the option to set a default value for the question. Select 'No' in the **Default Value** field. This ensures the question, which is required, will have an answer.
6. The mark in the **Required** check box indicates the question must be answered.

The screenshot shows a configuration window for a field. The 'List Values' tab is selected. The field ID is 'CHKOILLVL'. The group is 'MAINT' and the order is '30'. The label is 'The oil level. Does it need to be filled?'. The data type is 'Yes/No', and the 'Required' checkbox is checked. The default value is set to 'No'. Other options include 'Use Field Price', 'Field Price', 'Price Option', 'Long Descr', and 'Smart ID Value'.

The List Values tab is only applicable when the question has a list data type.

If a question needs added material or labor, for example, you can specify such on the Actions tab.

The Action Detail tab is only applicable when the Actions tab has an entry.

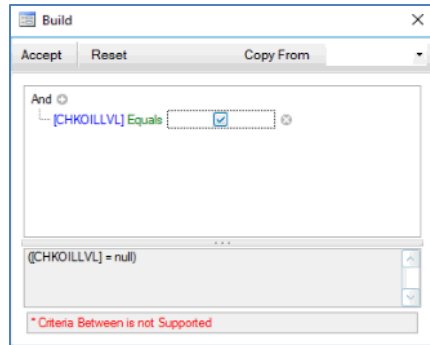
**Save your changes.**

**Ques. 4:** This is a follow-up question to Ques 1, and will only show if the answer to Ques 1 is 'Yes'. It is more an instruction than a question: Add oil as needed. Record the amount added.

Use the **Append** button to add an empty record to the Tabs section.

### Fields tab

1. Enter a field reference for the question in the **Field ID** column. The field ID is not the actual question. For this example, the field ID = 'ADDOIL'.
2. Enter the actual question or instruction in the **Label/Question** column: Add oil as needed. Record the amount of oil you added.
3. The **Group ID** should fill in automatically, and should indicate the field is part of the MAINT group.
4. The **Field Order** column shows the sequence in which the questions are presented to the tech.
5. Use the **Display When** column to set the question to display only when the answer to Ques 3 is 'Yes'. Click **Build** to open the criteria window.



Click the plus sign and select the CHKOILLVL field (blue text). That is the field that determines whether Ques 4 shows.

The criteria is if CHKOILLVL is 'Yes', show Ques 4, so click the gray <enter a value> criteria and select 'True' or mark the check box.

Click **Accept** to return to the Fields tab.

6. Leave the **Required** check box blank. The question only appears if Ques 3 = 'Yes'.
7. If the question is subject to a tolerance, we would use the **Min/Max Table ID** and **Min/Max Field ID** columns to indicate where the tolerances are stored and which min/max values are used. Leave these columns blank.

Field ID	Label / Question	Group ID	Field Order	Display When	Build	Required	Min/Max Ta...	Min/Max Fel...
CHKAIRFLTR	Inspect the air filter. D...	MAINT	10		Build	<input checked="" type="checkbox"/>		
RPLCARIFLTR	Select the number the...	MAINT	20	([CHKAIRFLTR] = true)	Build	<input type="checkbox"/>		
CHKOILLVL	Check the oil level. D...	MAINT	30		Build	<input checked="" type="checkbox"/>		
ADDOIL	Add oil as needed. R...	MAINT	40	([CHKOILLVL] = true)	Build	<input type="checkbox"/>		

### Field Detail tab

The **Field ID**, **Group/Order**, and **Label** fields are filled in from the Fields tab.

1. Select whether the question is for information or for action to take. The technician is recording information, so select 'Information' in the **Line Type** field.
2. The **Data Type** field determines the type of data the technician needs to enter or select as an answer to the question. Of the options available (text, numeric, yes/no, list, description only, picture, drawing), the tech is asked to record the amount of oil added, so select the 'Numeric' type. More information about data types is available in the online help.
3. We will not use the **Linked** field or the **Print Group** field in this tutorial. You can find more information in the online help.
4. In the **Help Text** field, you can enter additional text to help the user answer the question.
5. Because the data type is numeric, you should review and check settings that affect numerical data.
6. The technician may add a fractional amount of oil (in QTS), so set the **Precision** to the most applicable fraction of a quart, which is one number to the right of the decimal point.

7. If there is a minimum or maximum value for the number, such as the number can't be under 2 or over 10, enter that minimum and/or maximum value in the **Min Value** and/or **Max Value** fields. We will leave both fields at 0, indicating there is no Min or Max value.
8. In the **Increment** field, enter the value by which numbers can be increased. For instance, an increment of 2 means only even numbers can be entered (2, 4, 6, 8, etc.). Because we have a precision of 1, the numbers should increment by that fractional amount, so enter '.1' in the **Increment** field.
9. If you have a minimum and/or a maximum value set, and you want the user to either get a warning that an answer is below or above the threshold, mark the **Numeric Warn** check box. Since we do not have a min or max value, leave the check box blank.
10. The **Default Value** is left blank.
11. Other fields are disabled.

The screenshot shows the 'Field Detail' configuration window for a field named 'ADDOIL'. The configuration includes a group/order of 'MAINT' (40), a label 'is needed. Record the amount added.', and a data type of 'Nume...'. Numerical constraints are set with a precision of 1, min/max values of 0.0, and an increment of 0.1. The 'Numeric Warn' checkbox is checked. The 'Display When' condition is '([CHKOILLVL] = true)'. The 'Help Text' is 'Add oil. Record the amount you added in QTS.'. The 'Build' button is visible at the bottom of the configuration area.

The List Values tab is only applicable when the question has a list data type.

If a question needs added material or labor, for example, you can specify such on the Actions tab.

The Action Detail tab is only applicable when the Actions tab has an entry.

**Save your changes.**

**OPCHK group**

Make sure you have the OPCHK group selected in the Groups section.

Here are the inspection questions that we determined are part of the OPCHK group:

- Start the generator
- Run the generator, measure output. The running output has a min/max range

**Ques 1:** Start the generator. Does it start? Follow-up ques if the generator does not start might be: Troubleshoot starting issues. Does the starter turn? Is there positive fuel flow?

Use the **Append** button to add an empty record to the Tabs section.

**Fields tab**

1. Enter a field reference for the question in the **Field ID** column. The field ID is not the actual question. For this example, the field ID = 'STARTGEN'.
2. Enter the actual question in the **Label/Question** column: Start the generator. Does it start?
3. The **Group ID** should fill in automatically, and should indicate the field is part of the OPCHK group.
4. The **Field Order** column shows the sequence in which the questions are presented to the tech.
5. Use the **Display When** column to determine whether the question is always shown, or only shown in certain instances, such as when another question is answered a certain way. This question should always be shown, so leave the column blank.
6. The **Build** button opens a criteria window similar to a data filter. This is where you determine when the question will be shown.
7. Mark the **Required** check box if the question is mandatory. This question is required.
8. If the question is subject to a tolerance, we would use the **Min/Max Table ID** and **Min/Max Field ID** columns to indicate where the tolerances are stored and which min/max values are used. Leave these columns blank.

Field ID	Label / Question	Group ID	Field Order	Display When	Build	Required	Min/Max Ta...	Min/Max Fiel...
STARTGEN	Start the generator. D...	OPCHK	10		Build	<input checked="" type="checkbox"/>		

**Field Detail tab**

The **Field ID**, **Group/Order**, and **Label** fields are filled in from the Fields tab.

1. Select whether the question is for information or for action to take. The task is an informational task, so select 'Information' in the **Line Type** field.
2. The **Data Type** field determines the type of data the technician needs to enter or select as an answer to the question. Of the options available (text, numeric, yes/no, list, description

only, picture, drawing), the question needs a 'Yes/No' answer. More information about data types is available in the online help.

3. We will not use the **Linked** field or the **Print Group** field in this tutorial. You can find more information in the online help.
4. In the **Help Text** field, you can enter additional text to help the user answer the question.
5. Because we have a data type of 'Yes/No', we have the option to set a default value for the question. Select 'Yes' in the **Default Value** field. This ensures the question, which is required, will have an answer.
6. The mark in the **Required** check box indicates the question must be answered.

The List Values tab is only applicable when the question has a list data type.

If a question needs added material or labor, for example, you can specify such on the Actions tab.

The Action Detail tab is only applicable when the Actions tab has an entry.

### Save your changes.

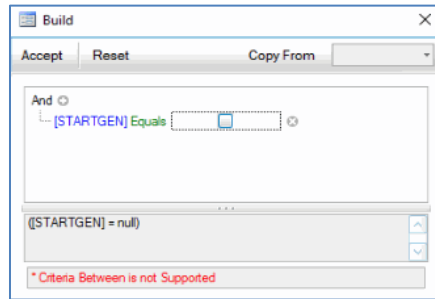
**Ques. 2:** This is a follow-up question to Ques 1, and will only show if the answer to Ques 1 is 'No':  
Does the starter turn?

Use the **Append** button to add an empty record to the Tabs section.

### Fields tab

1. Enter a field reference for the question in the **Field ID** column. The field ID is not the actual question. For this example, the field ID = 'STARTRCHK'.
2. Enter the actual question or instruction in the **Label/Question** column: Does the starter turn?
3. The **Group ID** should fill in automatically, and should indicate the field is part of the OPCHK group.
4. The **Field Order** column shows the sequence in which the questions are presented to the tech.

- Use the **Display When** column to set the question to display only when the answer to Ques 1 is 'No'. Click **Build** to open the criteria window.



Click the plus sign and select the STARTGEN field (blue text). That field determines whether Ques 2 shows.

The criteria is if STARTGEN is 'No', show Ques 2, so click the gray <enter a value> criteria and select 'False' or clear the check box.

Click **Accept** to return to the Fields tab.

- Leave the **Required** check box blank. The question only appears if Ques 1 = 'No'.
- If the question is subject to a tolerance, we would use the **Min/Max Table ID** and **Min/Max Field ID** columns to indicate where the tolerances are stored and which min/max values are used. Leave these columns blank.

Field ID	Label / Question	Group ID	Field Order	Display When	Build	Required	Min/Max Ta...	Min/Max Fiel...
STARTGEN	Start the generator. D...	OPCHK	10		Build	<input checked="" type="checkbox"/>		
STARTRCHK	Does the starter tum?	OPCHK	20	([STARTGEN] = false)	Build	<input type="checkbox"/>		

### Field Detail tab

The **Field ID**, **Group/Order**, and **Label** fields are filled in from the Fields tab.

- Select whether the question is for information or for action to take. Answering a question is for information, so select 'Information' in the **Line Type** field.
- The **Data Type** field determines the type of data the technician needs to enter or select as an answer to the question. Of the options available (text, numeric, yes/no, list, description only, picture, drawing), the question needs a 'Yes/No' answer. More information about data types is available in the online help.
- We will not use the **Linked** field or the **Print Group** field in this tutorial. You can find more information in the online help.
- In the **Help Text** field, you can enter additional text to help the user answer the question.
- Because we have a data type of 'Yes/No', we have the option to set a default value for the question. Select 'Yes' in the **Default Value** field. This ensures the question, which is required, will have an answer.
- Other fields are disabled.

## Sample: Routine/Scheduled Maintenance Inspection

The screenshot shows a software configuration window with the following details:

- Field ID:** STARTRCHK
- Group / Order:** OPCHK (dropdown), 20
- Label:** Does the starter turn?
- Line Type:** Info... (dropdown)
- Data Type:** Yes... (dropdown)
- Linked:** (dropdown)
- Text Length:** (input)
- Display When:** ([STARTGEN] = false)
- Help Text:** Does the starter turn when you try to start the generator?
- Precision:** 0
- Min Value:** 0
- Max Value:** 0
- Increment:** (input)
- Numeric Warn:** (checkbox)
- Print Group:** (input)
- Default Value:** No
- Use Field Price:** (checkbox)
- Field Price:** 0.0000
- Price Option:** Fixe... (dropdown)
- Required:** (checkbox)
- Long Descr:** (text area)
- Smart ID Len:** (input)
- Smart ID Value:** (input)

The List Values tab is only applicable when the question has a list data type.

If a question needs added material or labor, for example, you can specify such on the Actions tab.

The Action Detail tab is only applicable when the Actions tab has an entry.

### Save your changes.

Because this is a tutorial, we will not go any further with troubleshooting. We will move on to the next question.

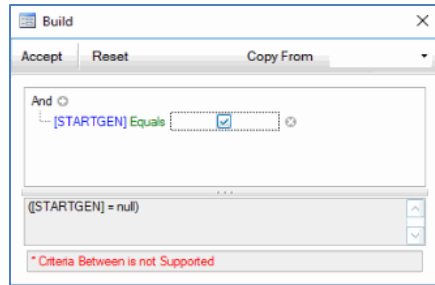
**Ques 3:** We are assuming the generator started. The next task is to ensure it is producing the correct amount of output. The running output has a min/max range.

Use the **Append** button to add an empty record to the Tabs section.

### Fields tab

1. Enter a field reference for the question in the **Field ID** column. The field ID is not the actual question. For this example, the field ID = 'MEASUREOUTPUT'.
2. Enter the actual question in the **Label/Question** column: Measure the output voltage.
3. The **Group ID** should fill in automatically, and should indicate the field is part of the OPCHK group.
4. The **Field Order** column shows the sequence in which the questions are presented to the tech.
5. Use the **Display When** column to set the question to display only when the answer to Ques 1 is 'Yes'. Click **Build** to open the criteria window.





Click the plus sign and select the STARTGEN field (blue text). That is the field that determines whether Ques 3 shows.

The criteria is if STARTGEN is 'Yes', show Ques 3, so click the gray <enter a value> criteria and select 'True' or mark the check box.

Click **Accept** to return to the Fields tab.

6. Leave the **Required** check box blank. The question only appears if Ques 1 = 'Yes'.
7. If the question is subject to a tolerance, we would use the **Min/Max Table ID** and **Min/Max Field ID** columns to indicate where the tolerances are stored and which min/max values are used. Leave these columns blank. In this tutorial, the voltage output is min/max, not tolerance-based.

Field ID	Label / Question	Group ID	Field Order	Display When	Build	Required	Min/Max Ta...	Min/Max Fel...
STARTGEN	Start the generator. D...	OPCHK	10		Build	<input checked="" type="checkbox"/>		
STARTRCHK	Does the starter turn?	OPCHK	20	([STARTGEN] = false)	Build	<input type="checkbox"/>		
MEASUREOUT...	Measure the output v...	OPCHK	30	([STARTGEN] = true)	Build	<input type="checkbox"/>		

### Field Detail tab

The **Field ID**, **Group/Order**, and **Label** fields are filled in from the Fields tab.

1. Select whether the question is for information or for action to take. The task is an informational task, so select 'Information' in the **Line Type** field.
2. The **Data Type** field determines the type of data the technician needs to enter or select as an answer to the question. Of the options available (text, numeric, yes/no, list, description only, picture, drawing), the tech is asked to enter a voltage measurement, so select the 'Numeric' type. More information about data types is available in the online help.
3. We will not use the **Linked** field or the **Print Group** field in this tutorial. You can find more information in the online help.
4. In the **Help Text** field, you can enter additional text to help the user answer the question.
5. Because the data type is numeric, you should review and check settings that affect numerical data.
6. Set the **Precision** to the number of digits to the right of the decimal point on the multimeter or voltmeter the tech will use.
7. There is a minimum and maximum value for the number. For our tutorial, the number can't be under 230 V or over 250V. Enter the minimum and maximum values in the **Min Value** and **Max Value** fields.

8. In the **Increment** field, enter the value by which numbers can be increased. For instance, an increment of 2 means only even numbers can be entered (2, 4, 6, 8, etc.). Because we have a precision of 3, the numbers should increment by that fractional amount, so enter '.001' in the **Increment** field.
9. We have a minimum and a maximum value, and we want the user to get a warning that an answer is below or above the threshold, so we will mark the **Numeric Warn** check box.
10. Because we have a data type of 'Numeric', we have the option to set a default value for the question. Set a value of **240** in the **Default Value** field. This ensures the question will have an answer.
11. The **Required** check box is clear, because the question is available only if Ques 1 is 'Yes'.

Field ID	MEASUREOUTPUT	Precision	3	Default Value	240.000
Group / Order	OPCHK 30	Min Value	230.0	Use Field Price	<input type="checkbox"/>
Label	Measure the output voltage.	Max Value	250.0	Field Price	0.0000
Line Type	Info... Allow Qty's	Increment	0.001	Price Option	Fixc... Picture
Data Type	Nu... Multiple Selections	Numeric Warn	<input checked="" type="checkbox"/>	Required	<input type="checkbox"/> Media
Linked	Multiple Values	Print Group		Long Descr	
Text Length	Limit To List			Smart ID Len	Smart ID Value
Display When	{(STARTGEN) = true}	Build			
Help Text	Measure and record the output voltage.]				

The List Values tab is only applicable when the question has a list data type.

If a question needs added material or labor, for example, you can specify such on the Actions tab.

The Action Detail tab is only applicable when the Actions tab has an entry.

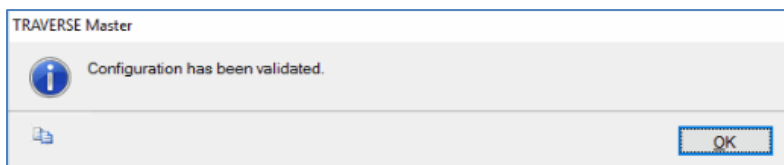
**Save your changes.**

## Validate the inspection

Once you have entered all the questions for the inspection, you must validate it using the **Validate** button on the toolbar of the Configuration Maintenance screen.

If any fields are missing information, you will get a notification listing the field and the reason the validation failed.

Use the **Validation** button for our tutorial inspection. There are no errors.



## Add inspection to a job transaction

You can add the inspection to a job type, so the inspection is added automatically when you create a job transaction for that job type. Alternately, you can add an inspection to a job transaction manually.

1. Create a new job transaction following your procedures. See the online help for more information.

The screenshot shows the 'SR Job Transactions' window. The 'Header' tab is active, displaying the following information:

- Transaction No: 00018201
- Base Currency:
- Transaction Type: Estimate Job
- Final Billing Complete:
- Invoice Amt: 0.00
- Customer ID: 002001 (Grace Industries)
- Department: SC (SERVICE CALL)
- Job Type: TST1 (Job Type for Tutorial)
- Contact: John Smith
- Nameplate Descr: onsite generator inspection
- Batch Code: 1
- Invoice From: Estimate
- Job State: Open
- Entered By: demo
- Status: Job Created
- Fiscal Period / Year: 7 / 2020
- Currency ID: USD
- Days Quote Valid For: 30
- Ship Date: [dropdown]
- Trans Date: 7/1/2021
- Cust PO #: [empty]
- PO Release #: [empty]
- Misc #: [empty]

The 'Estimate' tab is also visible, showing a table with one record:

Line Type	Labor Co...	Sched W...	Item ID	Description	Location ...	Quantity	Unit	Unit Cost	Ext Cost	Unit Price	Ext Price	Vendor ID
Labor	210	70		ON SITE...	03	2.0000	HOUR	26.0000	70.20	95.0000	190.00	

2. On the SR Inspections menu, open the SR Inspections screen. Use the **Add Inspection** button on the toolbar.

The screenshot shows the 'SR Inspections' window. The 'Add Inspection' button on the toolbar is highlighted with a red box. Below the toolbar, there is a table with the following columns:

Job Tra...	Location ID	Configuration ID	Customer ID	Inspection Des...	Job Transaction...	Promise Date	Job Description	Inspecti...	Inspection Status	Job Filter
00018183	03	636462668032...	002001	AC Motor Inse...		5/20/2020			Open	Unassign...
00018181	03	636462668032...	002001	AC Motor Inse...		5/20/2020			Open	Unassign...
00018188	01	636881582839...	002001	SR Cleaning Ch...		6/3/2020			Open	Unassign...
00018196	01	636881582839...	002001	SR Cleaning Ch...		6/16/2020			Open	Unassign...
00018200	01	636462668032...	002001	AC Motor Inse...		6/19/2020			Open	Assigned
00018200	01	636881582839...	002001	SR Cleaning Ch...		6/19/2020			Open	Assigned

3. The New Inspection window will open. Select your **Job Transaction No** from the drop-down list.
4. Select an **Inspection Description** to add to the job from the drop-down list.

## Sample: Routine/Scheduled Maintenance Inspection

Group ID	Description	Selected
VISUL	Visual Inspection	<input checked="" type="checkbox"/>
MAINT	Routine Maintenance	<input checked="" type="checkbox"/>
OPCHK	Operational Check	<input checked="" type="checkbox"/>

- The groups in that inspection will appear in the grid. You have the option to select one or more groups. By default, all groups are selected. We will select all groups. Click **Add Inspection** to add the inspection to the job transaction.
- There will be a record entered into the grid on the Inspections screen for the job transaction once an inspection is added to the job. When you select the transaction in the grid, the groups you added will appear in the detail grid in the lower part of the screen.

Job T...	Location ID	Configuration ID	Customer ID	Inspection Des...	Job Transaction...	Promise Date	Job Description	Inspeci...	Inspection Status	Job Filter
00018201	03	637272103739...	002001	InspGenerator	7/1/2020	7/21/2020	onsite generator...		Open	Unassign...
00018200	01	636881582839...	002001	SR Cleaning Ch...	6/19/2020				Open	Assigned
00018200	01	636462668032...	002001	AC Motor Inspe...	6/19/2020				Open	Assigned
00018196	01	636881582839...	002001	SR Cleaning Ch...	6/16/2020				Open	Unassign...
00018188	01	636881582839...	002001	SR Cleaning Ch...	6/3/2020				Open	Unassign...
00018183	03	636462668032...	002001	AC Motor Inspe...	5/20/2020				Open	Unassign...

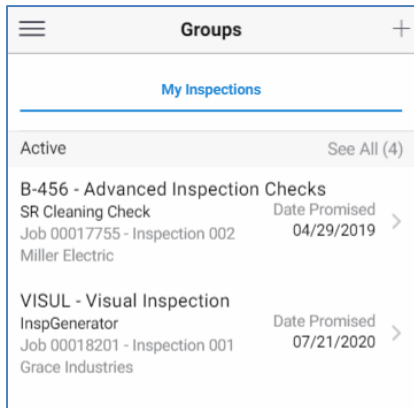
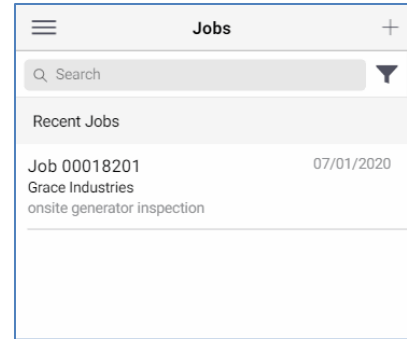
  

Group ID	Description	Assigned To	Group State	Group Status	Exclusive	Status D...	Status Tr
VISUL	Visual Inspection		New	Group Created	<input type="checkbox"/>	7/1/2020	9:28 AM
MAINT	Routine Maintenance		New	Group Created	<input type="checkbox"/>	7/1/2020	9:28 AM
OPCHK	Operational Check		New	Group Created	<input type="checkbox"/>	7/1/2020	9:28 AM

## Complete inspection using Mobile Service Repair

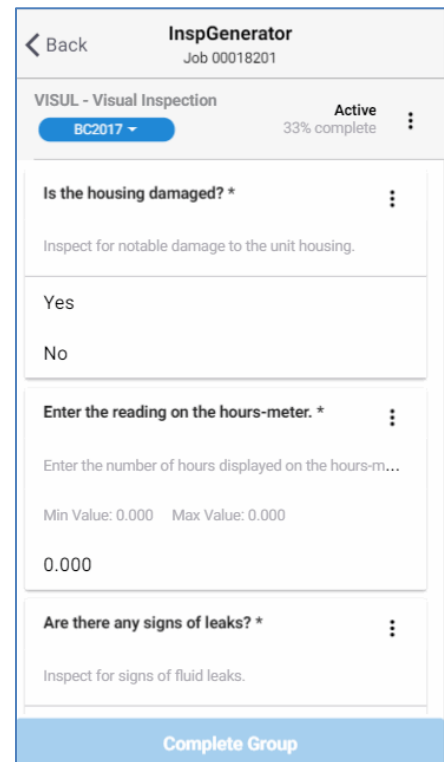
Once you add an inspection to a job, schedule it (through SR Update Job Tracking), and assign it to a service technician, that technician can complete the inspection using the Mobile Service Repair app.

Log into the Mobile Service Repair app. The job we created should appear on the Jobs Dashboard.



1. Tap the menu and select Inspections to open the Inspections dashboard. The first group in our inspection shows. Tap **See All** to see all inspection groups.

2. Tap on the VISUL group to open those questions. An asterisk indicates which questions are required.
3. Answer the questions, and tap **Complete Group** when finished.
4. The Inspections Groups dashboard will show the next group to complete. Tap the MAINT group to open those questions.
5. Answer the questions, and tap **Complete Group** when finished.
6. The Inspections Groups dashboard will show the next group to complete. Tap the OPCHK group to open those questions.
7. Answer the questions, and tap **Complete Group** when finished.
8. The Inspections Groups dashboard will no longer show the groups we added because they are all complete.



## Review and/or edit inspection

If you want to review the inspection or edit any of the answers, you can do so in the Traverse backoffice using the SR Inspections screen. Find the job transaction for the inspection you want to edit. Select the job and click **Edit Inspection** on the toolbar to open the Edit Inspection screen.

The screenshot shows the 'Edit Inspection' window with the following details:

- Job Transaction No: 00018201
- Inspection No: 001
- InspGenerator: (empty)

Group ID	Description	Assigned To	Group State	Priority	Exclusive
VISUL	Visual Inspection	BC2017	Completed		<input type="checkbox"/>
Question		Answer			
Is the housing damaged?		No			
Enter the reading on the hours-meter.		0.000			
Are there any signs of leaks?		No			
MAINT	Routine Maintenance	BC2017	Completed		<input type="checkbox"/>
Question		Answer			
Inspect the air filter. Does it need to be changed?		No			
Check the oil level. Does it need to be filled?		No			
OPCHK	Operational Check	BC2017	Completed		<input type="checkbox"/>
Question		Answer			
Start the generator. Does it start?		Yes			
Measure the output voltage.		245.000			

Edit the inspection as necessary. **Save** your changes.

## Printing an inspection report

You have the option to print a standard inspection report, or you can design your own inspection report using the Report Designer in Design Studio. To print a report, on the SR Inspections screen, select one of the options on the **Print** button on the toolbar.

You can find instructions on creating a custom report in the online help.

## Sample: Repair Maintenance Inspection

For this tutorial, we will create a diagnostic inspection for a motor repair. This inspection is intended only to demonstrate the process of creating, then utilizing an inspection. We will use a number of the options available when configuring an inspection to show you how the options might be used.

### Plan the inspection

It is easier to configure an inspection if you know what you want to do to with the inspection. This inspection should guide a service technician through a diagnostic inspection for a motor brought into the shop for repair.

### Establish groups and related inspection questions

There are certain things a technician should look at when doing a diagnostic inspection on a motor. We can separate those inspection questions into a couple groups:

Visual Inspection:

- External – evidence of overheating
- Inspect brushes for wear (tolerances)
- Measure wear – bearings (tolerances)

Operational check:

- Measure output (min-max)
- Resistance check

### Tolerances, parts, etc.

Items with tolerances: bearings, brushes

Which inspection items have min/max values? Only the output has a min/max range

Which parts do/might we need for the inspection?

- Bearings
- Brushes

### Create tolerance tables

Because some portions of the inspection will involve checking tolerances, we will create tolerance tables. These tables allow you to select a code, which could represent a part, and use the tolerances applicable to that particular code. For example, if you have similar items but different part numbers or models that each have different acceptable tolerances.

To create tolerance tables, use the SR Min/Max Values function on the SR Inspections menu. For our inspection, we will create a table for each part for which we are measuring tolerances.

Once you open the SR Min/Max Values function:

1. Click **New** to create a new table.
2. Enter a name for the table in the **Table ID** field. The first table we will create is for bearings.
3. In the **Code** column, enter a code for a min/max value record. For instance, if a bearing can be identified by a code 6200, enter that code. It could be a part or model number or some other way to identify that particular bearing.
4. In the **Min Value** and **Max Value** columns, enter the tolerance limits as applicable.
5. In the **Unit** column, enter the unit of measure used for tolerances.

Code	Min Value	Max Value	Unit
6200		0.3930	0.5930 MM
6201		0.4720	0.4920 MM
6203		0.6690	0.6990 MM

6. Repeat steps 1 – 5 for each code that has a tolerance.
7. **Save** your changes.

Create a table for brushes. You can add as many codes as necessary in each table. Another sample of a min/max table follows.

Code	Min Value	Max Value	Unit
455-221 Length		2.0000	3.5000 CM
9556-554 Length		1.5000	3.0000 CM
8897 Length		1.7500	3.0000 CM

## Create Inspection

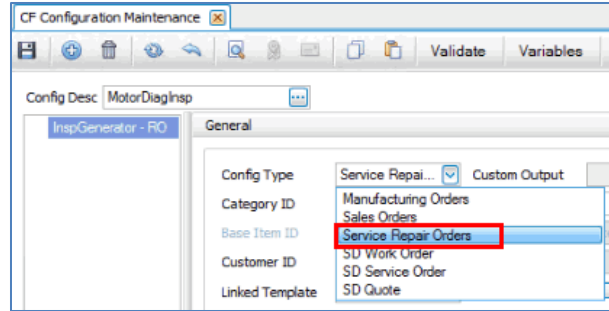
Use the Configurator application to create an inspection. In Traverse, open the Configuration Maintenance function from the CF Setup and Maintenance menu. Click **New** to open a new configuration.

Enter a description for the configuration in the **Config Desc** field.



## General section

1. In the **Config Type** drop-down list, select 'Service Repair Orders' for the type of configuration.
2. Select a category for the inspection from the **Category ID** drop-down list.
3. If the inspection is for a particular customer, select a customer in the **Customer ID** field.
4. See the online help for specifics regarding templates and custom output. This tutorial will not cover templates or custom output.
5. If the inspection is valid for a limited amount of time, select the timeframe within which the inspection is active in the **Active From/Thru** fields.
6. For simplicity's sake, leave the **Part Number Type** as 'Auto'. See the online help regarding the other available part number types.
7. The base price of the configuration sets the initial amount charged to a customer. Often a diagnostic inspection is charged a base price, so we will select 'Configuration' in the **Base Price From** field. Then we will enter the base price for the inspection in the **Default Price** field. See the online help for more information.
8. To add the inventory price of parts used to the base price, in the **Add Config Price** field, select 'Inventory w/ Config Override'. This adds the inventory price to the base price while allowing you to override the price if necessary. See the online help for more information.



## Groups Section

The Groups section is where you create different groupings of questions. We determined we have two 'types' of questions for this example: visual inspection and operational check. Use the **Append** button or click in a blank record to create each new group.

For each group:

1. Enter up to 5 characters for the **Group ID**.
2. The **Group Order** defines the sequence in which groups will be presented to the technician. Edit the group order to change the sequence.

3. Enter a **Description** for the group.
4. If you want to assign a group to a particular person, select them in the **Assigned To** field. We will leave this blank.
5. If a specific work type and/or labor code can be applied to the group, select the appropriate value in the **Work Type** and/or **Labor Code** fields. See the online help for more information. We will leave these fields blank.
6. Enter the estimated number of hours in which the group can be completed in the **Estimated Hours** field. We will leave this field blank.

Group ID	Group Order	Description	Assigned To	Work Type	Labor Code	Estimated Hours
VISUL	10	Visual Inspection				
OPCHK	20	Operational Check				

### Tabs Section

This section defines the question and answer flow, types of answers, pricing, etc. This section determines how the inspection configuration works.

Each group has its own list of questions, so for each group you must repeat the process of setting up each question. Each question can have answers of only one data type. In other words, if a question has a yes/no answer, you must enter another question that allows the technician to enter text or photos as a follow-up.

Reminder: Use the Column Chooser to add fields to the grid on the Fields tab.

### VISUL group

Make sure you have the VISUL group selected in the Groups section.

Here are the inspection questions that we determined are part of the VISUL group:

- External – evidence of overheating
- Inspect brushes for wear (tolerances)
- Measure wear – bearings (tolerances)

Each of these questions can have follow-up questions. For instance, one question can ask if there is evidence of overheating. A follow-up question about the location of the damage can be shown to the technician if the answer to the first question is 'yes'.

**Ques 1:** Is there evidence of overheating? Follow-up ques: Attach photo of damage.

Use the **Append** button to add an empty record to the Tabs section.

### Fields tab

1. Enter a field reference for the question in the **Field ID** column. The field ID is not the actual question. For this example, the field ID = 'OVERHEAT'.
2. Enter the actual question in the **Label/Question** column: Is there evidence of overheating?
3. The **Group ID** should fill in automatically, and should indicate the field is part of the VISUL group.
4. The **Field Order** column shows the sequence in which the questions are presented to the tech.
5. Use the **Display When** column to determine whether the question is always shown, or only shown in certain instances, such as when another question is answered a certain way. This question should always be shown, so leave the column blank.
6. The **Build** button opens a criteria window similar to a data filter. This is where you determine when the question will be shown.
7. Mark the **Required** check box if the question is mandatory. This question is required.
8. If the question is subject to a tolerance, we would use the **Min/Max Table ID** and **Min/Max Field ID** columns to indicate where the tolerances are stored and which min/max values are used. Leave these columns blank.

Field ID	Label / Question	Group ...	Field Order	Display When	Build	Required	Min/Max T...	Min/Max Fe...
OVERHEAT	Is there evidence of...	VISUL	10		Build	<input checked="" type="checkbox"/>		

### Field Detail tab

The **Field ID**, **Group/Order**, and **Label** fields are filled in from the Fields tab.

1. Select whether the question is for information or for action to take. The inspection is an informational task, so select 'Information' in the **Line Type** field.
2. The **Data Type** field determines the type of data the technician needs to enter or select as an answer to the question. Of the options available (text, numeric, yes/no, list, description only, picture, drawing), the question needs a 'Yes/No' answer. More information about data types is available in the online help.
3. We will not use the **Linked** field or the **Print Group** field in this tutorial. You can find more information in the online help.
4. In the **Help Text** field, you can enter additional text to help the user answer the question.
5. Because we have a data type of 'Yes/No', we have the option to set a default value for the question. Select 'No' in the **Default Value** field. This ensures the question, which is required, will have an answer.
6. The mark in the **Required** check box indicates the question must be answered.

The List Values tab is only applicable when the question has a list data type.

If a question needs added material or labor, for example, you can specify such on the Actions tab.

The Action Detail tab is only applicable when the Actions tab has an entry.

**Save your changes.**

**Ques. 2:** This is a follow-up question to Ques 1, and will only show if the answer to Ques 1 is 'Yes'. It is more an instruction than a question: Take one or more photos of the damage.

Use the **Append** button to add an empty record to the Tabs section.

Fields tab

1. Enter a field reference for the question in the **Field ID** column. The field ID is not the actual question. For this example, the field ID = 'OVRHTPICS.
2. Enter the actual question or instruction in the **Label/Question** column: Take one or more photos of the damage.
3. The **Group ID** should fill in automatically, and should indicate the field is part of the VISUL group.
4. The **Field Order** column shows the sequence in which the questions are presented to the tech.
5. Use the **Display When** column to set the question to display only when the answer to Ques 1 is 'Yes'. Click **Build** to open the criteria window.

Click the plus sign and select the OVERHEAT field (blue text). That is the field that determines whether Ques 2 shows.

The criteria is if OVERHEAT is 'Yes', show Ques 2, so click the gray <enter a value> criteria and select 'True' or mark the check box.

Click **Accept** to return to the Fields tab.

6. Leave the **Required** check box blank. The question only appears if Ques 1 = 'Yes'.
7. If the question is subject to a tolerance, we would use the **Min/Max Table ID** and **Min/Max Field ID** columns to indicate where the tolerances are stored and which min/max values are used. Leave these columns blank.

Field ID	Label / Question	Group ID	Field Order	Display When	Build	Required	Min/Max Ta...	Min/Max Fiel...
OVERHEAT	Is there evidence of o...	VISUL	10		Build	<input checked="" type="checkbox"/>		
OVRHTPICS	Take photos of overh...	VISUL	20	([OVERHEAT] = true)	Build	<input type="checkbox"/>		

### Field Detail tab

The **Field ID**, **Group/Order**, and **Label** fields are filled in from the Fields tab.

1. Select whether the question is for information or for action to take. Taking photos supplies information, so select 'Information' in the **Line Type** field.
2. The **Data Type** field determines the type of data the technician needs to enter or select as an answer to the question. Of the options available (text, numeric, yes/no, list, description only, picture, drawing), the tech is asked to take photos, so select the 'Picture' type. More information about data types is available in the online help.
3. We will not use the **Linked** field or the **Print Group** field in this tutorial. You can find more information in the online help.
4. In the **Help Text** field, you can enter additional text to help the user answer the question.
5. Other fields are disabled.

Field ID	OVRHTPICS	Precision	0	Default Value	
Group / Order	VISUL 20	Min Value	0	Use Field Price	<input type="checkbox"/>
Label	Take photos of overheated areas	Max Value	0	Field Price	0.0000 <input type="button" value="Picture"/>
Line Type	Info... <input type="checkbox"/> Allow Qty's	Increment		Price Option	Fixe... <input type="button" value="Media"/>
Data Type	Pict... <input type="checkbox"/> Multiple Selections	Numeric Warn	<input type="checkbox"/>	Required	<input type="checkbox"/>
Linked	<input type="checkbox"/> Multiple Values	Print Group		Long Descr	
Text Length	<input type="checkbox"/> Limit To List			Smart ID Len	<input type="checkbox"/> Smart ID Value
Display When	([OVERHEAT] = true) <input type="button" value="Build"/>				
Help Text	Take one or more photos of the overheat damage.				

The List Values tab is only applicable when the question has a list data type.

If a question needs added material or labor, for example, you can specify such on the Actions tab.

The Action Detail tab is only applicable when the Actions tab has an entry.

**Save your changes.**

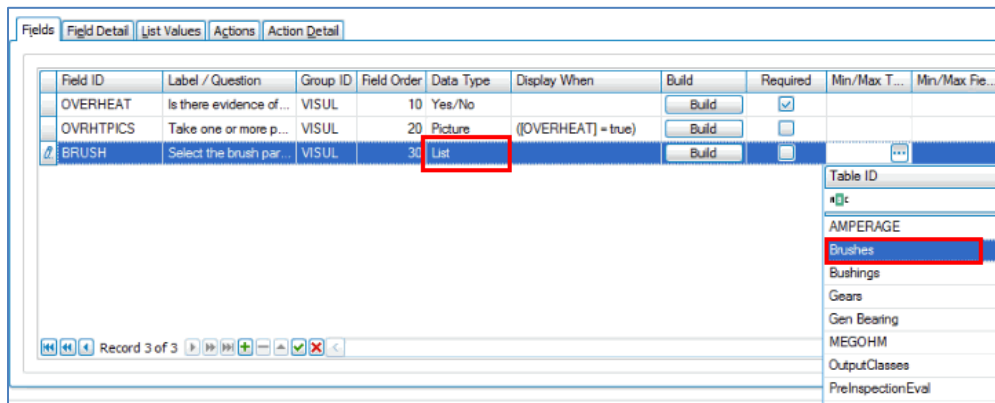
**QUESTION 3:** Measure brushes for wear.

Because this is a measurement question that uses a tolerance in a min/max table, there are two steps to perform: add a reference to the appropriate tolerance table, and add a question for measurement entry.

**Step 1:** Add a reference to a min/max (tolerance) table. To simplify this step, use the Column Chooser to add the **Data Type** column to the grid on the Fields tab.

Fields tab

1. Use the **Append** button to add an empty record to the Tabs section.
2. Enter a field reference for the question in the **Field ID** column. The field ID is not the actual question. For this example, the field ID = 'BRUSH'.
3. In the **Label/Question** column, instruct the tech to select the appropriate record from the tolerance table: Select the brush part number.
4. The **Group ID** should fill in automatically, and should indicate the field is part of the VISUL group.
5. The **Field Order** column shows the sequence in which the questions are presented to the tech.
6. In the **Data Type** column, select a data type of 'List'
7. In the **Min/Max Table ID** column, select the min/max table that holds the tolerance values to which you are comparing the measurements. In this case, select the Brushes table. The codes in the min/max table will appear in the Option List on the List Values tab.



Save your changes.

**Step 2 (QUESTION 4):** Now create the question for which the tech will record the measurements.

### Fields tab

1. Use the **Append** button to add an empty record to the Tabs section.
2. Enter a field reference for the question in the **Field ID** column. The field ID is not the actual question. For this example, the field ID = 'BRUSHLNGTH'.
3. In the **Label/Question** column, instruct the tech to record the appropriate measurement: Enter the length of the brush.
4. The **Group ID** should fill in automatically, and should indicate the field is part of the VISUL group.
5. The **Field Order** column shows the sequence in which the questions are presented to the tech.
6. In the **Data Type** column, select a data type of 'Numeric'
7. In the **Min/Max Field ID** column, select the **Field ID** that points to the tolerance (min/max) table

Field ID	Label / Question	Group ID	Field Order	Data Type	Display When	Build	Required	Min/Max T...	Min/Max Fe...
OVERHEAT	Is there evidence of...	VISUL	10	Yes/No		Build	<input checked="" type="checkbox"/>		
OVHRTPICS	Take one or more p...	VISUL	20	Picture	{(OVERHEAT) = true}	Build	<input type="checkbox"/>		
BRUSH	Select the brush par...	VISUL	30	List		Build	<input type="checkbox"/>	Brushes	
BRUSHLNGTH	Enter the length of t...	VISUL	40	Numeric		Build	<input type="checkbox"/>		BRUSH
		VISUL	50	Text		Build	<input type="checkbox"/>		

**Save your changes.**

**QUESTION 5:** Measure bearings for wear.

Because this is a measurement question that uses a tolerance in a min/max table, there are two steps to perform: add a reference to the appropriate tolerance table, and add a question for measurement entry.

**Step 1:** Add a reference to a min/max (tolerance) table. To simplify this step, use the Column Chooser to add the **Data Type** column to the grid on the Fields tab.

### Fields tab

1. Use the **Append** button to add an empty record to the Tabs section.
2. Enter a field reference for the question in the **Field ID** column. The field ID is not the actual question. For this example, the field ID = 'BEARING'.
3. In the **Label/Question** column, instruct the tech to select the appropriate record from the tolerance table: Select the bearing part number.

4. The **Group ID** should fill in automatically, and should indicate the field is part of the VISUL group.
5. The **Field Order** column shows the sequence in which the questions are presented to the tech.
6. In the **Data Type** column, select a data type of 'List'
7. In the **Min/Max Table ID** column, select the min/max table that holds the tolerance values to which you are comparing the measurements. In this case, select the table you created to hold bearing tolerances. The codes in the min/max table will appear in the Option List on the List Values tab.

Field ID	Label / Question	Group ID	Field Order	Data Type	Display When	Build	Required	Min/Max Table ...	Min/Max Field ID
OVERHEAT	Is there evidence of ...	VISUL	10	Yes/No		Build	<input checked="" type="checkbox"/>		
OVRHTPCIS	Take one or more p...	VISUL	20	Picture	{(OVERHEAT)...	Build	<input type="checkbox"/>		
BRUSH	Select the brush par...	VISUL	30	List		Build	<input type="checkbox"/>	Brushes	
BRUSHLGTH	Enter the length of t...	VISUL	40	Numeric		Build	<input type="checkbox"/>		BRUSH
BEARING	Select the bearing p...	VISUL	50	List		Build	<input type="checkbox"/>	Gen Bearing ...	

Save your changes.

**Step 2 (QUESTION 6):** Now create the question for which the tech will record the measurements.

Fields tab

1. Use the **Append** button to add an empty record to the Tabs section.
2. Enter a field reference for the question in the **Field ID** column. The field ID is not the actual question. For this example, the field ID = 'BEARINGWEAR'.
3. In the **Label/Question** column, instruct the tech to record the appropriate measurement: Record the bearing measurement.
4. The **Group ID** should fill in automatically, and should indicate the field is part of the VISUL group.
5. The **Field Order** column shows the sequence in which the questions are presented to the tech.
6. In the **Data Type** column, select a data type of 'Numeric'
7. In the **Min/Max Field ID** column, select the **Field ID** that points to the tolerance (min/max) table

Field ID	Label / Question	Group ID	Field Order	Data Type	Display When	Build	Required	Min/Max Table ...	Min/Max Field ID
OVERHEAT	Is there evidence of ...	VISUL	10	Yes/No		Build	<input checked="" type="checkbox"/>		
OVRHTPCIS	Take one or more p...	VISUL	20	Picture	{(OVERHEAT)...	Build	<input type="checkbox"/>		
BRUSH	Select the brush par...	VISUL	30	List		Build	<input type="checkbox"/>	Brushes	
BRUSHLGTH	Enter the length of t...	VISUL	40	Numeric		Build	<input type="checkbox"/>		BRUSH
BEARING	Select the bearing p...	VISUL	50	List		Build	<input type="checkbox"/>	Gen Bearing	
BEARINGWEAR	Record the bearing ...	VISUL	60	Numeric		Build	<input type="checkbox"/>		BEARING

Save your changes.



**OPCHK group**

Make sure you have the OPCHK group selected in the Groups section.

Here are the questions that we determined are part of the OPCHK group:

- Measure output (min-max)
- Resistance check

**Ques 1:** Mount the motor onto a test bench and run it at operational speed. Measure and record output voltage.

Use the **Append** button to add an empty record to the Tabs section.

**Fields tab**

1. Enter a field reference for the question in the **Field ID** column. The field ID is not the actual question. For this example, the field ID = 'OUTPUT'.
2. Enter the actual question in the **Label/Question** column: Measure and record the output voltage.
3. The **Group ID** should fill in automatically, and should indicate the field is part of the OPCHK group.
4. The **Field Order** column shows the sequence in which the questions are presented to the tech.
5. Use the **Display When** column to determine whether the question is always shown, or only shown in certain instances, such as when another question is answered a certain way. This question should always be shown, so leave the column blank.
6. The **Build** button opens a criteria window similar to a data filter. This is where you determine when the question will be shown.
7. Mark the **Required** check box if the question is mandatory. This question is required.
8. If the question is subject to a tolerance, we would use the **Min/Max Table ID** and **Min/Max Field ID** columns to indicate where the tolerances are stored and which min/max values are used. Leave these columns blank.

Field ID	Label / Question	Group ID	Field Order	Data Type	Display When	Build	Required	Min/Max Table ...	Min/Max Field ID ...
OUTPUT	Measure and record...	OPCHK	10	Numeric		Build	<input checked="" type="checkbox"/>		

**Field Detail tab**

The **Field ID**, **Group/Order**, and **Label** fields are filled in from the Fields tab.

1. Select whether the question is for information or for action to take. The task is an informational task, so select 'Information' in the **Line Type** field.

2. The **Data Type** field determines the type of data the technician needs to enter or select as an answer to the question. Of the options available (text, numeric, yes/no, list, description only, picture, drawing), the tech is asked to enter a voltage measurement, so select the 'Numeric' type. More information about data types is available in the online help.
3. We will not use the **Linked** field or the **Print Group** field in this tutorial. You can find more information in the online help.
4. In the **Help Text** field, you can enter additional text to help the user answer the question.
5. Because the data type is numeric, you should review and check settings that affect numerical data.
6. Set the **Precision** to the number of digits to the right of the decimal point on the multimeter or voltmeter the tech will use.
7. There is a minimum and maximum value for the number. For our tutorial, the number can't be under 11V or over 14V. Enter the minimum and maximum values in the **Min Value** and **Max Value** fields.
8. In the **Increment** field, enter the value by which numbers can be increased. For instance, an increment of 2 means only even numbers can be entered (2, 4, 6, 8, etc.). Because we have a precision of 3, the numbers should increment by that fractional amount, so enter '.001' in the **Increment** field.
9. We have a minimum and a maximum value, and we don't need the user to get a warning that an answer is below or above the threshold, so we will leave the **Numeric Warn** check box clear.
10. Because we have a data type of 'Numeric', we have the option to set a default value for the question. By default, the minimum value is entered into the **Default Value** field. This ensures the question will have an answer.
11. The mark in the **Required** check box indicates the question must be answered.

The screenshot shows a software interface for configuring a field. The 'List Values' tab is selected. The field is named 'OUTPUT' and is of type 'Num...'. The configuration includes a precision of 3, a minimum value of 11.000, a maximum value of 14.000, and an increment of 0.001. The 'Required' checkbox is checked. The 'Help Text' field contains the text 'Measure and record the output voltage.' The interface also shows options for 'Field Price', 'Price Option', and 'Smart ID Value'.

The List Values tab is only applicable when the question has a list data type.

If a question needs added material or labor, for example, you can specify such on the Actions tab.

The Action Detail tab is only applicable when the Actions tab has an entry.

**Save your changes.**

**Ques. 2:** Measure and record the armature resistance.

Use the **Append** button to add an empty record to the Tabs section.

### Fields tab

1. Enter a field reference for the question in the **Field ID** column. The field ID is not the actual question. For this example, the field ID = 'RESISTANCE'.
2. Enter the actual question in the **Label/Question** column: Measure and record the armature resistance.
3. The **Group ID** should fill in automatically, and should indicate the field is part of the OPCHK group.
4. The **Field Order** column shows the sequence in which the questions are presented to the tech.
5. Use the **Display When** column to determine whether the question is always shown, or only shown in certain instances, such as when another question is answered a certain way. This question should always be shown, so leave the column blank.
6. The **Build** button opens a criteria window similar to a data filter. This is where you determine when the question will be shown.
7. Mark the **Required** check box if the question is mandatory. This question is required.
8. If the question is subject to a tolerance, we would use the **Min/Max Table ID** and **Min/Max Field ID** columns to indicate where the tolerances are stored and which min/max values are used. Leave these columns blank.

Field ID	Label / Question	Group ID	Field Order	Data Type	Display When	Build	Required	Min/Max Table ...	Min/Max Field ID
OUTPUT	Measure and record...	OPCHK	10	Numeric		Build	<input checked="" type="checkbox"/>		
RESISTANCE	Measure and record...	OPCHK	20	Numeric		Build	<input checked="" type="checkbox"/>		

### Field Detail tab

The **Field ID**, **Group/Order**, and **Label** fields are filled in from the Fields tab.

1. Select whether the question is for information or for action to take. The task is an informational task, so select 'Information' in the **Line Type** field.
2. The **Data Type** field determines the type of data the technician needs to enter or select as an answer to the question. Of the options available (text, numeric, yes/no, list, description only, picture, drawing), the tech is asked to enter a resistance measurement, so select the 'Numeric' type. More information about data types is available in the online help.
3. We will not use the **Linked** field or the **Print Group** field in this tutorial. You can find more information in the online help.
4. In the **Help Text** field, you can enter additional text to help the user answer the question.
5. Because the data type is numeric, you should review and check settings that affect numerical data.

6. Set the **Precision** to the number of digits to the right of the decimal point on the ohmmeter or multimeter the tech will use.
7. For our tutorial, we will not set the minimum and maximum values in the **Min Value** and **Max Value** fields.
8. In the **Increment** field, enter the value by which numbers can be increased. For instance, an increment of 2 means only even numbers can be entered (2, 4, 6, 8, etc.). Because we have a precision of 3, the numbers should increment by that fractional amount, so enter '.001' in the **Increment** field.
9. We don't have a minimum and a maximum value, so we don't need the user to get a warning that an answer is below or above the threshold, so we will leave the **Numeric Warn** check box clear.
10. Because we have a data type of 'Numeric', we have the option to set a default value for the question. By default, the minimum value is entered into the **Default Value** field. This ensures the question will have an answer.
11. The mark in the **Required** check box indicates the question must be answered.

The screenshot shows the 'List Values' tab of the Configuration Maintenance screen. The field is named 'RESISTANCE' and is associated with the group 'OPCHK' and order '20'. The label is 'Measure and record armature resista'. The data type is 'Num...'. The precision is set to 3, the minimum value is 0.000, and the maximum value is 0.000. The increment is set to 0.001. The 'Numeric Warn' checkbox is unchecked, and the 'Required' checkbox is checked. The default value is 0.000. The 'Field Price' is 0.0000, and the 'Price Option' is 'Fixe...'. The 'Long Descr' field is empty. The 'Smart ID Len' is 0, and the 'Smart ID Value' is empty. The 'Build' button is highlighted.

The List Values tab is only applicable when the question has a list data type.

If a question needs added material or labor, for example, you can specify such on the Actions tab.

The Action Detail tab is only applicable when the Actions tab has an entry.

### Save your changes.

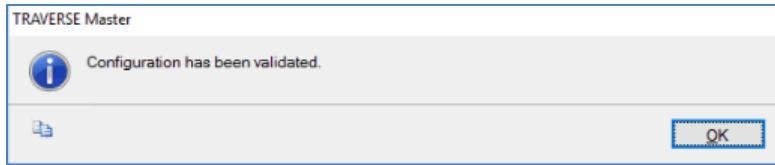
Because this is a tutorial, we will not go any further.

### Validate the inspection

Once you have entered all the questions for the inspection, you must validate it using the **Validate** button on the toolbar of the Configuration Maintenance screen.

If any fields are missing information, you will get a notification listing the field and the reason the validation failed.

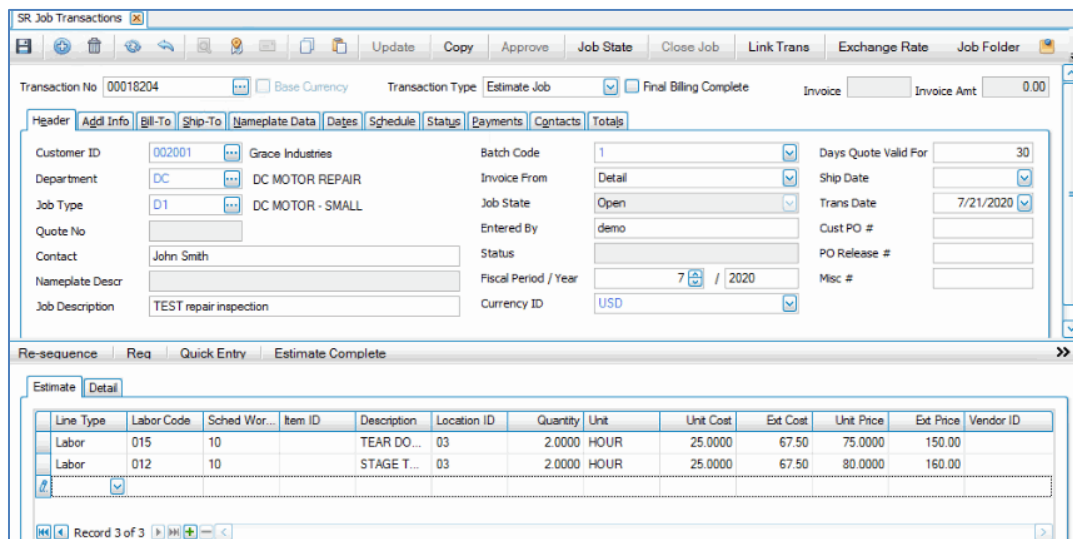
Use the **Validation** button for our tutorial inspection. There are no errors.



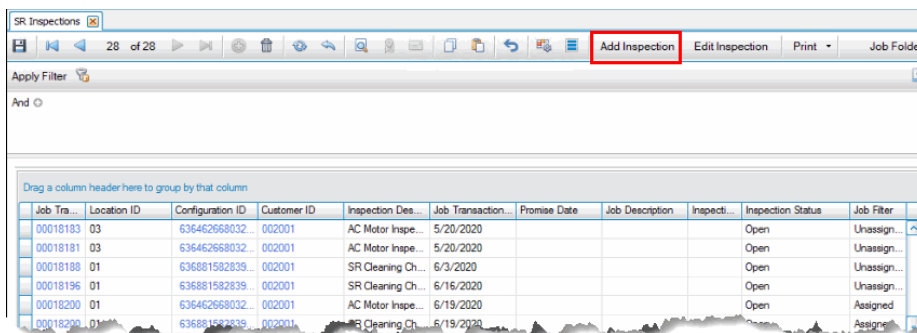
### Add inspection to a job transaction

You can add the inspection to a job type, so the inspection is added automatically when you create a job transaction for that job type. Alternately, you can add an inspection to a job transaction manually.

1. Create a new job transaction following your procedures. See the online help for more information.



2. On the SR Inspections menu, open the SR Inspections screen. Use the **Add Inspection** button on the toolbar.



3. The New Inspection window will open. Select your **Job Transaction No** from the drop-down list.
4. Select an **Inspection Description** to add to the job from the drop-down list.

## Sample: Repair Maintenance Inspection

New Inspection

Job Transaction No: 00018204

Inspection Description: MotorDiagInsp

Group ID	Description	Selected
VISUL	Visual Inspection	<input checked="" type="checkbox"/>
OPCHK	Operational Check	<input checked="" type="checkbox"/>

Add Inspection

- The groups in that inspection will appear in the grid. You have the option to select one or more groups. By default, all groups are selected. We will select all groups. Click **Add Inspection** to add the inspection to the job transaction.
- There will be a record entered into the grid on the Inspections screen for the job transaction once an inspection is added to the job. When you select the transaction in the grid, the groups you added will appear in the detail grid in the lower part of the screen.

SR Job Transactions | SR Inspections

33 of 33

Apply Filter

And

Drag a column header here to group by that column

Job Transaction	Location	Configuration ID	Customer ID	Inspection Des...	Job Transactio...	Promise Date	Job Description	Inspect...	Inspection Status	Job Filter
00018200	01	636462668032...	002001	AC Motor Inspe...	6/19/2020				Open	Assigned
00018200	01	636881582839...	002001	SR Cleaning C...	6/19/2020				Open	Assigned
00018201	03	637032894409...	002001	Test 3	7/1/2020	7/21/2020	onsite generato...		Open	Assigned
00018201	03	637272103739...	002001	InspGenerator	7/1/2020	7/21/2020	onsite generato...		Open	Assigned
00018202	03	636881582839...	002001	SR Cleaning C...	7/9/2020				Open	Unassigned
00018203	01	636995762952...	002001	Motor Inspectio...	7/13/2020				Open	Assigned
00018204	03	637292845882...	002001	MotorDiagInsp	7/21/2020		TEST repair ins...		Open	Unassigned

Manage Priorities | Mark All | View Group Status

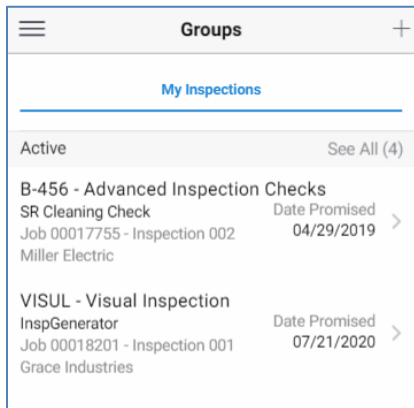
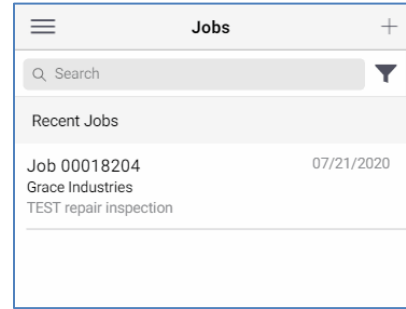
Group ID	Description	Assigned To	Group State	Group Status	Exclusive	Status Date	Status Time
VISUL	Visual Inspection		New	Group Created	<input type="checkbox"/>	7/21/2020	11:03 AM
OPCHK	Operational Check		New	Group Created	<input type="checkbox"/>	7/21/2020	11:03 AM

Record 1 of 2

## Complete inspection using Mobile Service Repair

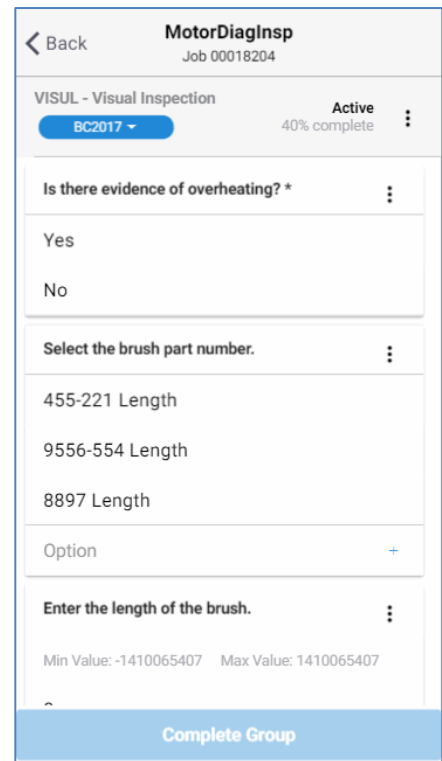
Once you add an inspection to a job and schedule it (through SR Update Job Tracking), a service technician can complete the inspection using the Mobile Service Repair app.

Log into the Mobile Service Repair app. The job we created should appear on the Jobs Dashboard.



1. Tap the menu and select Inspections to open the Inspections dashboard. The first group in our inspection shows. Tap **See All** to see all inspection groups.

2. Tap on the VISUL group to open those questions. An asterisk indicates which questions are required.
3. Answer the questions, and tap **Complete Group** when finished.
4. The Inspections Groups dashboard will show the next group to complete. Tap the OPCHK group to open those questions.
5. Answer the questions, and tap **Complete Group** when finished.
6. The Inspections Groups dashboard will show the next group to complete. Tap the OPCHK group to open those questions.
7. Answer the questions, and tap **Complete Group** when finished.
8. The Inspections Groups dashboard will no longer show the groups we added because they are all complete.



## Review and/or edit inspection

If you want to review the inspection or edit any of the answers, you can do so in the Traverse backoffice using the SR Inspections screen. Find the job transaction for the inspection you want to edit. Select the job and click **Edit Inspection** on the toolbar to open the Edit Inspection screen.

Group ID	Description	Assigned To	Group State	Priority	Exclusive
VISUL	Visual Inspection	BC2017	Completed		<input type="checkbox"/>
Question		Answer			
Is there evidence of overheating?		No			
Select the brush part number.		9556-554 Length			
Enter the length of the brush.		3.5520			
Select the bearing part number		6200			
Record the bearing measurement.		0.0000			
OPCHK	Operational Check	BC2017	Active		<input type="checkbox"/>

Edit the inspection as necessary. **Save** your changes.

## Printing an inspection report

You have the option to print a standard inspection report, or you can design your own inspection report using the Report Designer in Design Studio. To print a report, on the SR Inspections screen, select one of the options on the **Print** button on the toolbar.

You can find instructions on creating a custom report in the online help.