User's Guide

SUNGUIDE℠
Florida's Intelligent Transportation System

RRIPversion 1.0
ROAD RANGER INSPECTION PROGRAM

STATE OF FLORIDA · DEPARTMENT OF TRANSPORTATION

Lehman Center for Transportation Research · Florida International University · LCTR

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Introduction

This guide provides detailed guidance on how to use the Road Ranger Inspection Program (RRIP)—a mobile Tablet PC application designed to record and query data from field inspections of Road Ranger service patrol vehicles. Specifically, the application provides the following capabilities:

- Record violations of Road Ranger service patrol vehicles
- Calculate the total fines from violations
- Verify violations and provide receipts signed by Road Ranger drivers
- Generate violation reports in a PDF file that includes pictures showing vehicle damages
- Email violation reports from the field to contractors
- Retrieve and view existing inspection records
- Generate standard summary reports for specific time periods, contractors, etc.

This guide assumes that the user is familiar with the general operations of Microsoft Windows Tablet PC Edition. For general help on using Windows such as managing the environment, the file system and printing, please refer to the Microsoft Windows User's Guide.

Setting up the System

Minimum System Requirements

RRIP requires a Tablet PC with a minimum 1024x768 display resolution. A higher resolution can be used, but is not recommended because the screen on the Tablet PC may become too small to read, especially when it is under the sun. In addition, if you want to be able to create and email violation reports to contractors, you will need to install a PDF writer in your Tablet PC. Adobe Acrobat 7.0 Professional is recommended for this purpose. Refer to the next page on how to set up the output PDF file path for RRIP.

Installing RRIP Application

Insert your RRIP CD into the CD drive of your Tablet PC and wait for a few seconds for the install program to automatically start. Follow the instructions on the screen to complete the installation. If you are using a flash drive or a memory stick, you will need to double tap the **setup.exe** file to start the install program.

Note: *If your computer is already installed with a previous version of RRIP, you will be prompted to remove the existing version before installing a newer version of RRIP. **Remember to backup your RRIP.mdb database file before you choose to remove the previous version.***

Setting Output File Path for PDF Writer

An Adobe PDF Writer is needed for you to create violation summary reports to be emailed to contractors as email attachments. This program must be purchased and installed separately from RRIP.

After the PDF Writer is installed, you will need to setup the default folder for the PDF output files so that RRIP will know where to find the PDF files. The steps to reset the default folder are as follows:

1. Click **Start** > **Print and Faxes** to open the screen shown in Figure 1.

2. Right click **Adobe PDF** and select **Properties** to open the **Adobe PDF Properties** window shown in Figure 2. Select the **Advanced** tab and click the **Printing Defaults…** button to bring up the screen shown in Figure 3.

3. Select the **Adobe PDF Settings** tab and set **Adobe PDF Output Folder** to the RRIP program folder. The default RRIP folder for this purpose is: "c:\Program Files\RRIP\PDF" (see Figure 3). The recommended options for the checkboxes in Figure 3 are as shown.

Figure 1: Print and Faxes
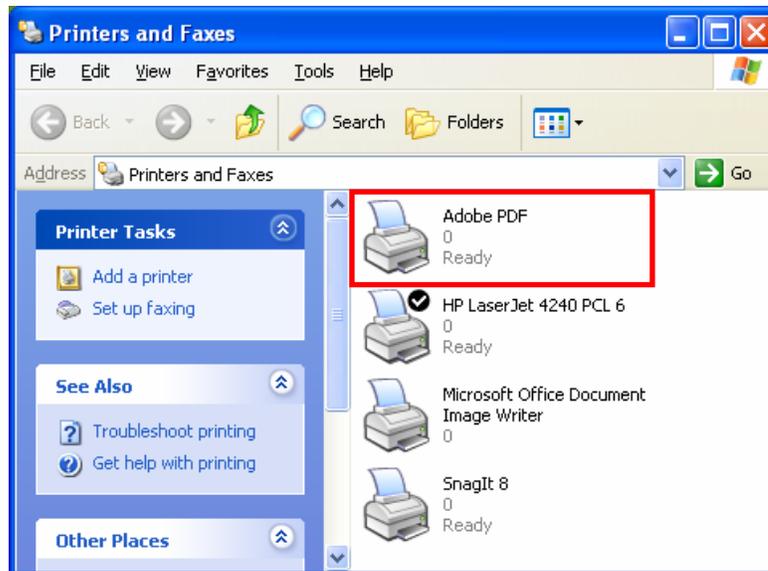
Figure 2: Adobe PDF Properties Setup
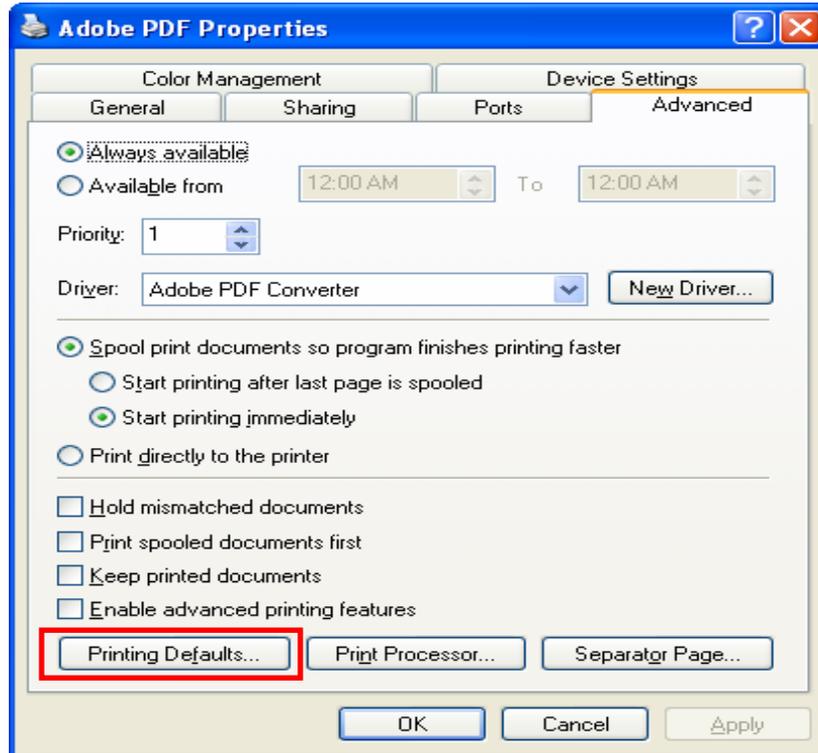
Figure 3: Adobe PDF Printing Setup
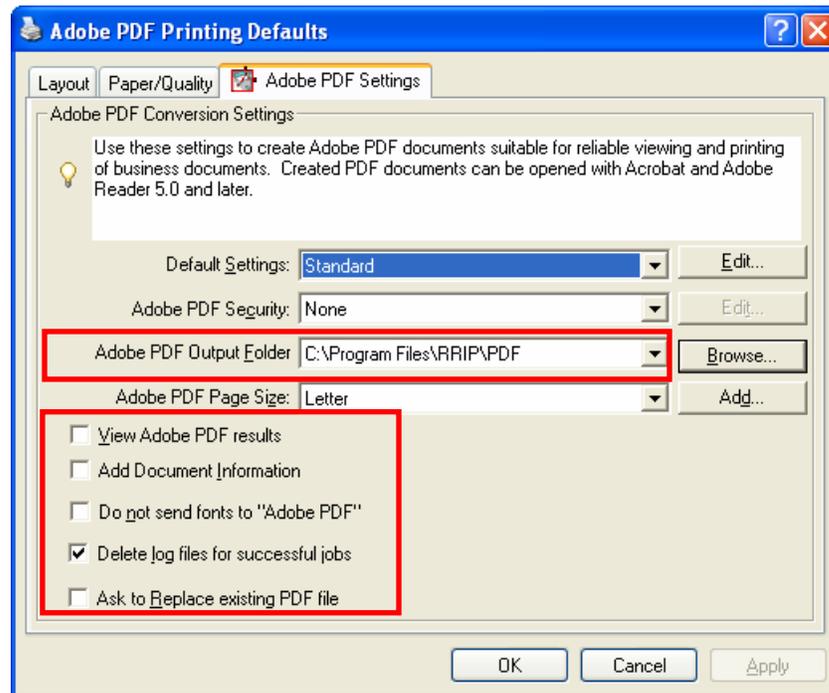
Entering Data in the Field

To start running RRIP to collect field data, double tap the shortcut icon on your desktop. You can also do so from the **Start** menu by selecting:

Start > All Programs > RRIP 1.0 > RRIP 1.0

This will open the main screen of the program, which consists of a series of tabs for data entries and data queries.

The data entries for each inspection are done within the first four tabs below:

- General Information
- Vehicle/Equipment/Safety/Uniform/Misc Inspection
- Light Inspection
- Summary Report

The **General Information** tab, as shown in Figure 4, is the first screen displayed when you first enter the program. The screen allows you to specify the name of inspector, date, contractor, vehicle/driver, contact number, type of assist, state road number, and location description. The name of the inspector and the type of assist will automatically be kept for the next record until the selection is changed. By default, the inspection date is today's date.

The second half of the screen lists all of the existing inspection records in the database. The current record is indicated with a small pointing arrow. You may double tap a specific record from the table to retrieve and display the data on the forms displayed in various tabs.

Figure 4: General Information Screen

As shown in Figure 5, the **Vehicle/Equipment/Safety/Uniform/Misc** tab allows you to check if a specific item related to vehicle, equipment, driver, etc., is in violation. Tap **Yes**, **No,** or **NA** to specify whether a checking item is not in violation, is in violation, or is not applicable, respectively. You may also tap the column header to toggle to select or unselect **Yes**, **No**, or **NA** for all items in a specific category at once.

Figure 5: Vehicle/Equipment/Safety/Uniform/Misc Checking Screen

The **Light Inspection** tab shown in Figure 6 allows you to use the digitizer pen to mark any non-functional lights as well as other vehicle damages. In this screen, you can also tap the **Clear** button to start the marking all over again. You can tap the **Add Photo** button to include multiple photos in the PDF summary report file. A dropdown box is included to allow you to preview specific photos, which is shown below the dropdown box one at a time. The screen also allows you to add a comment of up to 255 characters.

Figure 6: Light Inspection Checking Screen
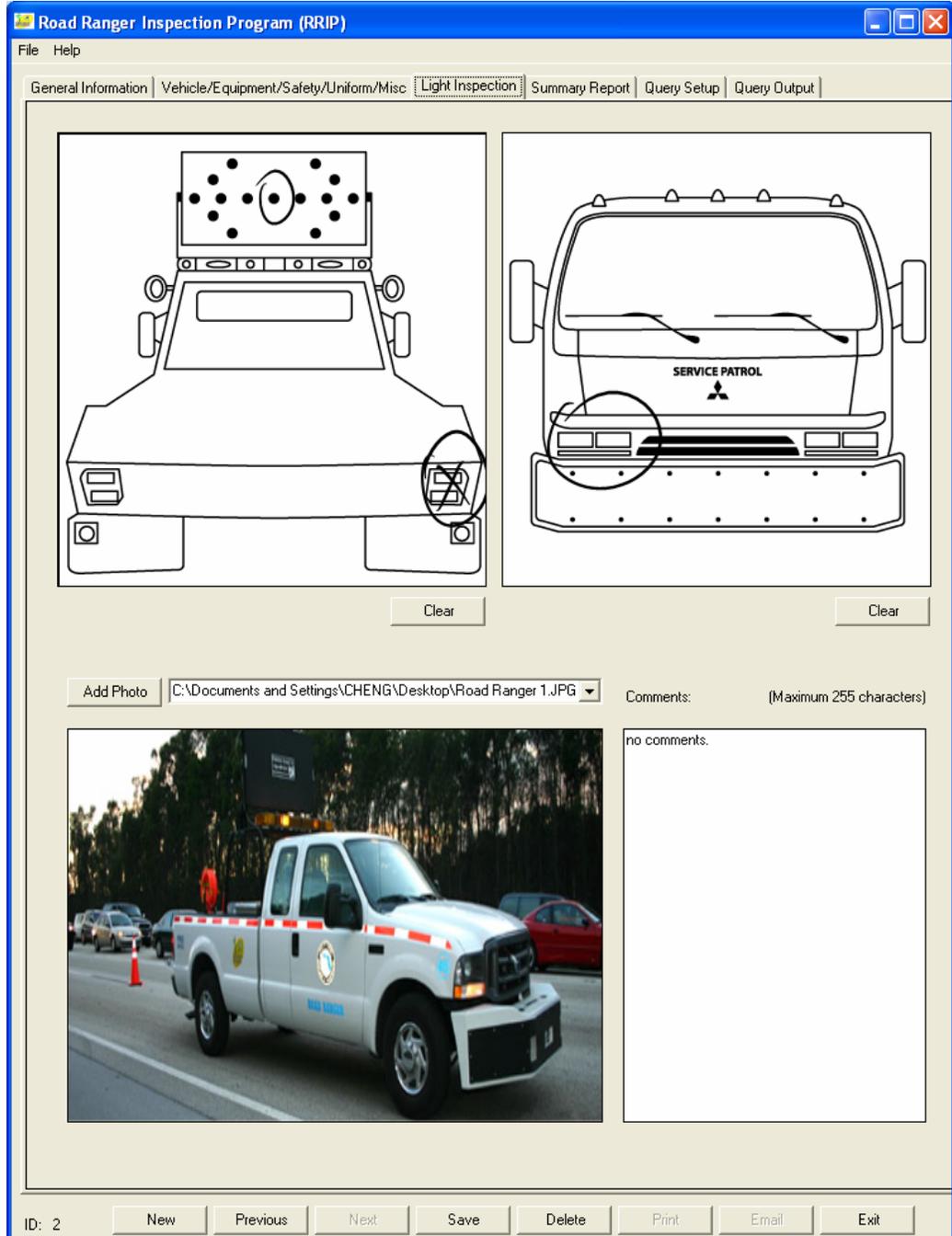
The **Summary Report** tab, as shown in Figure 7, allows you to view the standard summary report, which summarizes the complete inspection results and shows the total fine for all violations. The driver can review the report in the field before signing it to acknowledge that the inspection took place and that the report is accurate.

Figure 7: Summary Report Screen

Road Ranger Inspection Program (RRIP)

File   Help

General Information | Vehicle/Equipment/Safety/Uniform/Misc | Light Inspection | Summary Report | Query Setup | Query Output

Road Ranger Quality of Service Report

Inspector:	Inspector2
Contractor:	Contractor1
Contract Number:	Contractor1_11
State Road:	SR836

Date:	2/17/2007
Vehicle / Driver:	611
Type of Assist:	Inspection
Location:	FIU

Vehicle / Equipment	Yes	No	N/A
Spot Light / Flash Light	X		
Battery Cables (3 gauge,25 ft)	X		
Tow Slings / Safety Chains	X		
Hydraulic Jack (2 ton)	X		
Motorcycle Straps		X	
Public Address System	X		
First Responder Kit	X		
Shovels (1 round, 1 square)	X		
24 in. Street Broom (1 set)	X		
Diesel (5 gal)	X		
Gas (5 gal)	X		
Water (5 gal)	X		
Tablet PC	X		
Flares (24)	X		
Air Compressor (full)			X
Air Impact Wrench (1)	X		
Tool Box (Equiped)	X		
Reflectorized Cones (15)	X		
Speedy Dry (10 gal)	X		
Container (5 gal)	X		
Working Air Conditioner	X		
Wood Blocks (4x6x12, 2 each)	X		
PTO Working	X		
DMS Working	X		
Arrow Panel Functional	X		
Drinking Water (12 bottles)	X		
Fire ext. 20 lbs. ABC exp date		Ok	

Safety	Yes	No	N/A
Control Panel Position	X		
Wearing Safety Vest / Gear	X		
Use of Amber Lights	X		
Use of Arrow Board	X		
Proper Alignment of Cones		X	
Proper Alignment of Front Tires	X		
Truck Properly Parked	X		
Motorist away from Harm	X		
Bald Tires	X		

Uniform	Yes	No	N/A
Wearing Uniform	X		
Cleanliness	X		
Attire	X		
Grooming	X		
Name Tag	X		
Work Boots	X		
Brand Markings	X		

Misc	Yes	No	N/A
Cell Phone	X		
Proper Vehicle Logos	X		
Firearms / Weapons	X		
Radio (vol up)	X		
"Move It" Cards	X		
Citizen Comment Cards	X		
Soliciting Towing	X		
Soliciting Gratuity	X		
Courteous to Motorist	X		
Sleeping on Duty		X	
AVL Locating	X		
AVL Tampering	X		
Vehicle Neat and Clean	X		

Comments: no comments.

Total Invoice Reduction Amount :

$ 1,200

Driver Signature:

ID: 2   New   Previous   Next   Save   Delete   Print   Email   Exit

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At the bottom of the tabs described above, the following buttons are available:

- The **New** button allows you to add a new record. The current record must be saved first before a new record can be added.

- The **Previous** button allows you to go to the previous record.

- The **Next** button allows you to go to the next record.

- The **Save** button allows you to save/update the current record.

- The **Delete** button allows you to delete the current record. **Important**: *A deleted record is deleted permanently from the database and cannot be recovered. The deleted Case ID cannot be reused.*

- The **Print** button (or **File > Print Report Form** menu item) allows you to print the current summary report form. Before printing, you can also select **File > Print preview…** to preview and print the report.

- The **Email** button allows you to send an email to the contractor with cc: to the inspector. RRIP will automatically start the default email system with the current summary report form attached as a PDF file. Figure 8 shows such an email.

Figure 8: Sample Email Screen

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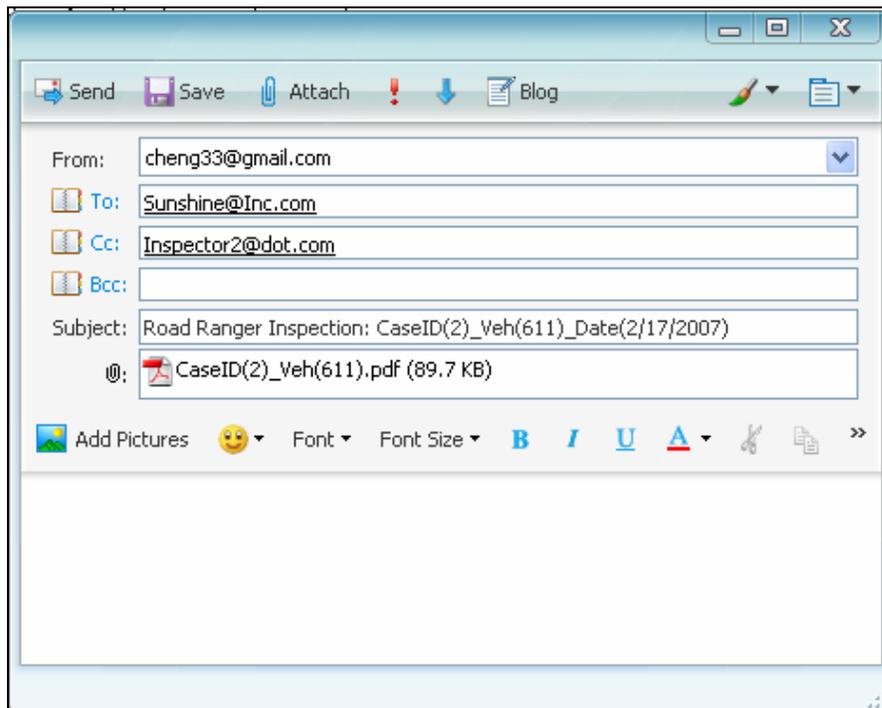
Customizing Selection Options

RRIP allows you to customize the list items for inspector, contractor, contract number, vehicle/driver, state road, and type of assist. For each list, you may view, update, delete its existing selections or add new selections to it.

To modify an existing selection list, tap the **File > General Info Setup…** menu item. This will bring up the **General Information Setup Form** shown in Figure 9. The form consists of a series of tabs, one for each of the selection lists that you can modify.

- The **Inspector** tab includes the inspector name and the inspector's email address (see Figure 9). The inspector's email address will be the default **cc:** email address.

- The **Contractor** tab includes the contractor name and the contractor's email address (see Figure 10). The contractor's email address is used as the default for the **To:** email address.

- The **Contract Number** tab includes the contractor name and the contract number (see Figure 11). All the available contract numbers for a selected contractor are listed in the **Contract Number** dropdown list.

- The **Vehicle/Driver** tab includes the contractor name and the vehicle number as well as some other detailed vehicle information (see Figure 12). All the available vehicle numbers for a selected contractor are listed in the **Vehicle/Driver** dropdown list.

- The **State Road** tab includes the ID and state road name (see Figure 13). All the state road names are listed in the **State Road** dropdown list.

- The **Type of Assist** tab includes the ID and the different assist types (see Figure 14). The assist types are listed in the **Type of Assist** dropdown list.

To add a new selection, tap the **New** button and then enter the requested information listed on top of the table.

To modify an existing selection option, select the record corresponding to the option by using the navigational buttons or by tapping the record in the table directly. Enter the new text in the textbox and then tap the **Save** button to save the changes.

To delete an existing record, navigate to the record or tap the record within the table directly and then tap the **Delete** button. After all the changes are made, tap **Ok** to close the form.

Figure 9: Inspector Setup

Figure 10: Contractor Setup

Figure 11: Contract Number Setup

Figure 12: Vehicle/Driver Setup

Figure 13: State Road Setup

Figure 14: Type of Assist Setup

Querying the Database

RRIP provides a simple query function to generate the following three summary reports:

- The **Total Summary** report lists the total number of inspections and the associated total amount of fines for each contractor.

- The **Vehicle Summary** report lists the number of inspections and the associated total amount of fines for each vehicle.

- The **Detailed Report** lists all the inspection records with a list of violation found in each inspection plus the total amount of fines for each inspection.

Query Setup

RRIP provides two types of filters to limit the types of inspection records to include in your summary reports, i.e., with or without the case ID:

1. **With Case ID**: Tap the **Query Setup** tab and enter a specific case ID at the **Case ID** textbox. As soon as the first character is entered in the Case ID textbox, the system will disable all other fields on the screen (see Figure 15). After a case ID is specified, tap the **Query** button to run the query.

2. **Without Case ID**: If you leave the textbox for Case ID empty, the system will assume that you will use the other variables as your filters (see Figure 16). By default, no filters are applied, which means that all inspection records will be included in the reports. To limit your reports to, for example, a specific time period, specify the **From** and **To** dates for the period. You can further specify to include a specific type(s) of violation by checking the **Yes**, **No**, and **N/A** checkboxes, as appropriate. Tap the **Query** button to run the query.

   Note: *The query criteria among the dropdown and date variables are based on the "**and**" Boolean operator and the query criteria among the checkboxes are based on the "**or**" Boolean operator. The query criterion between these two groups of criteria is based on the "**and**" Boolean operator. For example, in Figure 16, this query will include all inspection records during the period of Jan 19, 2007and Feb 19, 2007, "**and**" were inspected by Inspector1, "**and**" the Contractor is Sunshine Towing Inc. "**and**" the violations include only those with No Spot Light / Flash Light **or** No Battery Cables.*

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Figure 15: Query with Case ID

| General Information | Vehicle/Equipment/Safety/Uniform/Misc | Light Inspection | Summary Report | Query Setup | Query Output |

Case ID: `2`   Date: From `1/19/2007` To: `2/19/2007`

Inspector: `All`   Vehicle/Driver: `All`

Contractor: `All`   Type of Assist: `All`

Contract Number: `All`   State Road: `All`

Vehicle / Equipment

	Yes	No	N/A
Spot Light / Flash Light			
Battery Cables (3 gauge, 25 ft)			
Tow Slings / Safety Chains			
Hydraulic Jack (2 ton)			
Motorcycle Straps			
Public Address System			
First Responder Kit			
Shovels (1 round, 1 square)			
24 in. Street Broom (1 set)			
Diesel (5 gal)			
Gas (5 gal)			
Water (5 gal)			
Tablet PC			
Flares (24)			
Air Compressor (full)			
Air Impact Wrench (1)			
Tool Box (Equiped)			
Reflectorized Cones (15)			
Speedy Dry (10 gal)			
Container (5 gal)			
Working Air Conditioner			
Wood Blocks (4x6x12, 2 each)			
PTO Working			
DMS Working			
Arrow Panel Functional			
Drinking Water (12 bottles)			
Fire ext. 20 lbs. ABC exp date	Ok	Emp	N/A

Safety

	Yes	No	N/A
Control Panel Position			
Wearing Safety Vest / Gear			
Use of Amber Lights			
Use of Arrow Board			
Proper Alignment of Cones			
Proper Alignment of Front Tires			
Truck Properly Parked			
Motorist away from Harm			
Bald Tires			

Uniform

	Yes	No	N/A
Wearing Uniform			
Cleanliness			
Attire			
Grooming			
Name Tag			
Work Boots			
Brand Markings			

Misc

	Yes	No	N/A
Cell Phone			
Proper Vehicle Logos			
Firearms / Weapons			
Radio (vol up)			
"Move It" Cards			
Citizen Comment Cards			
Soliciting Towing			
Soliciting Gratuity			
Courteous to Motorist			
Sleeping on Duty			
AVL Locating			
AVL Tampering			
Vehicle Neat and Clean			

[Query]   [Clear All]

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Figure 16: Query without Case ID

Query Output

After you tap the **Query** button to run the query, you can tap the **Query Output** tab to see the query output. As mentioned, the query output includes the following three summary reports: Total Summary, Vehicle Summary, and Detailed Report. An example output is shown in Figure 17. Tap the **Print** button to print all three tables at once or tap the **Print Preview** to preview and print individual tables.

Figure 17: Query Output

Help

Tap the **Help > User's Guide** menu item to access this User's Guide.

Exit

This button allows you to exit from RRIP completely. It serves the same function as the standard **Close** button on the top-right corner of the screen.