



Skip-Line Road Marking Data Online Report Generator 2

Usage Manual

https://reportgen2.skip-line.com/

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Leading the industry since 1972.

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Stay up to date with the latest news from Skip-Line, including best practices, support issues, and product announcements by following the **Skip Time Blog** at:

www.skipline.com/blog

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DISCLAIMER

The primary source of application rate verification depends on regular comparison of actual inventory quantities loaded and consumed against logger values displayed and recorded. Do not continue reliance on electronic records when significant discrepancies exist between inventory consumption and logged quantities.

Improper calibration settings cause erroneous results. Calibration problems may stem from operator error, electrical spikes, hard physical impacts, or component failure. Footage calibration values may be affected by truck tire diameter, large payload variation, or integrity of motion sensors and sensor plates.

All electronic equipment is subject to failure. On equipment with on-vehicle hard drives, improper shutdown procedure can lead to intermittent failure or loss of data. Most sensors, such as motion sensors, weigh scales, flow meters, and pump-stroke switches are provided by third parties, and their performance is not under the control of Skip-Line, Inc.

Skip-Line, Inc. will not be responsible or liable for any loss as a result of the use of this software, including but not limited to: loss of time, money, compensation, opportunity reputation, nor due to re-work.

IMPORTANT NOTE

The Report Generator is a dynamic web entity. Some graphics contained in this manual may show formatting, functions, or features that are not present or are in a different form on the current revision of the website, and may also depend upon the web browser and operating system used to access the site.

Contents of this manual are subject to change without notice.



1. Overview

The Skip-Line Online Report Generator 2 provides report viewing, road marking analysis tools, and data export to a variety of file formats. This web-based tool provides instant online access to the most recent data received from your road marking vehicle fleet. Monitoring data is simplified, reporting is more accurate, and the ability of supervisors and inspectors to succeed in their roles is maximized with minimal effort.

The unique mapping feature outlines striping work accomplished, and then highlights any areas that have deficiencies, overages, or other out-of-spec environmental or operating parameters. As a supervision tool, this helps minimize work done out of spec, reducing costly overages, rework, or material failures. Accomplishing supervision from an office environment reduces travel and workload significantly.

Data can be uploaded into the system with the following devices:

- DL-08 or DL-09 Data Logging and Monitoring System.
- CVO-312 with GlassCockpit and Data Logging upgrades.

Records from these devices can be automatically uploaded to the website with optional wireless upgrades. Alternately, data may be exported from a Skip-Line data logger system and uploaded to the website from a USB drive.

A device with Internet access and a modern browser is required. The latest version of <u>Google Chrome</u> is the recommended browser for optimal performance and experience.

An active subscription to the Skip-Line Online Report Generator software is required. Subscriptions are provided on an annual basis. For renewal information or account access assistance, please contact Skip-Line.

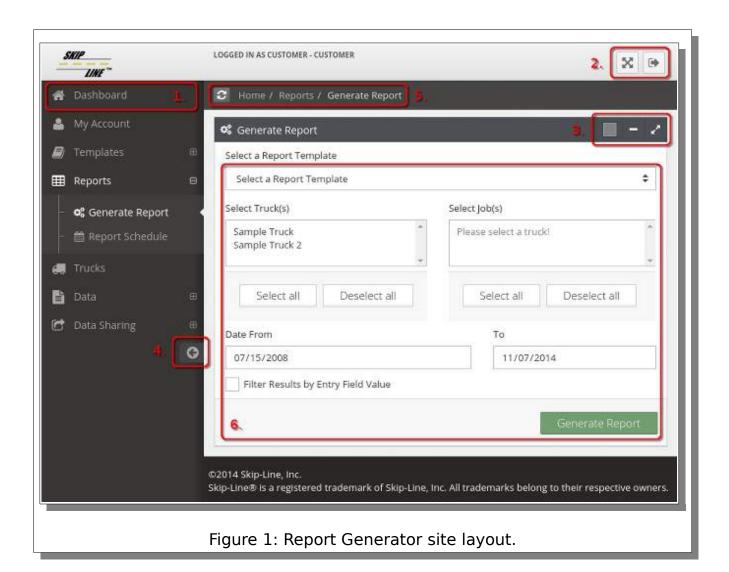
The Skip-Line Online Report Generator 2 can be accessed at:

http://reportgen2.skip-line.com/



1.1 Navigation Overview

The functionality in the Report Generator is interconnected by several navigation components. Familiarizing yourself with all of these components will allow you to use the site more quickly and efficiently. The following image outlines all of the main components of the site, and the table below explains what each one does.



1.	Navigation item. Clicking navigation items will take you to a different section of the website. If a navigation item has a small "plus" [+] icon next to it, it indicates that this is a category of items. Clicking will expand this item to show you the pages within this navigational category. See the table below for more information.
2.	Full screen and sign out buttons. The full screen button will make the Report Generator website fill your screen, giving you more room to work. Press the Escape key on your keyboard to return to a normal view. The sign out button will sign you out of the Report Generator, returning you to the Sign in Page.
3.	Color, contract, and expand buttons. Clicking the color button will display a palette of colors to choose from, which affects the header color for this section of the site. The contract button minimizes this section, clicking it a second time will return it to normal. The expand button makes this section of the site fill the page, clicking it again returns it to its original size.
4.	Minimize navigation button. Clicking this will minimize the navigation pane, making each navigation item into a small icon. The button can be clicked again to revert back to normal navigation. Note: The navigation is automatically minimized when a report is generated to give you more room on-screen.
5.	Clear local storage button and breadcrumb. The clear local storage button will reset all local website settings to default. This includes section header colors, contracted/expanded section settings, and section positioning. The breadcrumb shows you, at-a-glance, where you currently are on the website.
6.	Page content. Each page of the Report Generator contains different content. See the relevant section of this manual for more information on the page you are viewing.

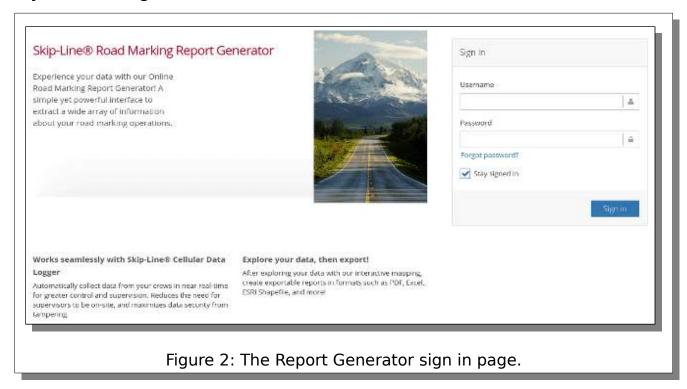


The Navigation Panel provides access to most functions of the website. Use the table below to find the section that corresponds with each function.

Edit your account information. Refer to Section 4, " <u>Account Settings</u> ".	🚨 My Account
Create or edit report templates. Refer to Section 5, "Report Templates".	/ Templates ⊞
Generate or schedule reports. Refer to Section 6, "Generating Reports" Section 7, "Report Scheduling".	Ⅲ Reports ⊕
View or edit truck information. Refer to Section 8, " <u>Managing Trucks</u> ".	Trucks
Upload or archive logged data. Refer to Section 9, " <u>Managing Data</u> ".	B Data ⊞
Share data, or view incoming/outgoing data shares. Refer to Section 10, "Sharing Data".	

2. Sign in Page

The sign in page is the first page you will see when accessing the Report Generator. From here you can sign into the website, or reset your password if you have forgotten it.

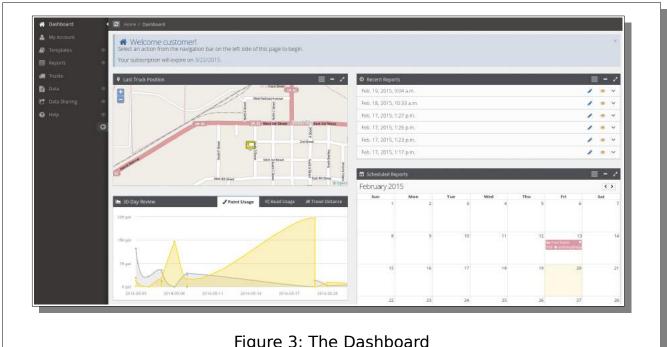


Enter the username and password you were provided into their respective fields. If you have forgotten your password, click the Forgot password link. If you would like to stay signed into the website after closing your browser, select the Stay signed in check box. Once all information has been entered correctly, click Sign in to enter the Report Generator. The Dashboard page will appear.



3. Dashboard

The Dashboard shows you a collection of useful information about your recent site activity. From here, you can also use any of the navigation items on the left to access other parts of the site.



4. Account Settings

The My Account page contains your account settings. It is strongly recommended that you keep all of this information up-to-date, both for security purposes and to ensure you can receive Skip-Line notifications. Service interruption and account expiration notifications will be sent to the email address entered here.

The table below described each available option.

Username	The username used to sign into your account.	
E-mail Address E-mail Address Enter your e-mail address her (Skip-Line will only use this add contact you with important no about this software.)		
Telephone Number	Enter your telephone number here.	
Timezone	Enter your current time zone.	
Excel Export Format	Here you can select from various report formats that are used when exporting reports to Excel spreadsheets.	
Password	Here you can change your password. Enter your current password in the Current password field, and your desired new password in the New and Confirm password fields.	

5. Report Templates

Report templates are a collection of rules that govern how your generated reports will appear. They contain information on how your logged data will be segmented, and what data will show in each column of your reports. A report template will need to be created before any reports can be generated. Refer to Appendix B: Template Columns for descriptions of template columns.

5.1 Creating Templates

Distance First, enter a name for this report Pattern Changes template in the Template Name field. Time Entry Field Job Name Create new segments when counters are deared Select a segment type for this report template. Fill in any additional required values. Time Include in Report Column Sort Order Date Start Time Click check marks next to each field Stop Time \$ you want to appear on your reports. The column order field will populate ✓ Start Date/Time automatically. ✓ End Date/Time Total Time × Painting Time

Some fields allow you to set exception values for that field. Click the Create Exception check box and fill in the Min 10.0 and Max values. If your data falls ~ outside of this range, it will be marked 10.0 in red on your generated reports. Column Sort Order Click the Save button at the bottom of the page to save your report template. If there are any errors in the report template, they will be shown on-screen. Alternatively, a template may be loaded from a template file by clicking Segment By the Upload button. After uploading, the template may be edited/saved as Distance normal. Pattern Changes

5.2 View / Edit Templates

 ■ Report Templates Template name Created by Creation date Last modification A list of all available report templates Test Template 2 jan. 23, 2015, 2:52 p.m. jan. 23, 2015, 2:52 p.m Jan. 23, 2015, 2:36 p.m. jan. 23, 2015, 2:36 p.m. will be shown on this page. modification Download Edit Delete Click the Edit icon to edit a template you have created, or the Delete icon to 4, 2015, 1:04 p.m. ÷ × delete a template you have created. Click the View icon to view a template 23, 2015, 2:52 p.m. × created by another user. 23, 2015, 2:36 p.m. × Click the Download icon to download the template to a file. × 12, 2015, 2:13 p.m. 10, 2015, 8:23 a.m. 0 ×

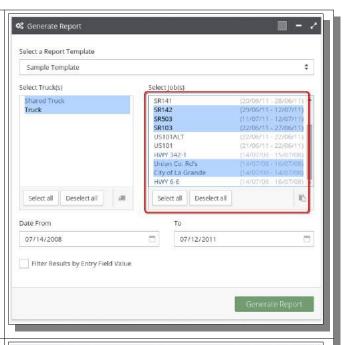
6. Generating Reports

It is important to understand how to generate reports, and what options are available to you. The following procedure will guide you through the process of generating, viewing, and exporting a report.

⇔ Generate Report Select a Report Template Sample Template Select Truck(s) Select Job(s) Shared Truck Please select a truck! First, select a report template from the report template dropdown. See Section 5.1, "Creating Templates" for information on creating report Select all Deselect all Select all Deselect all templates. Date From 07/14/2008 07/12/2011 Filter Results by Entry Field Value 📽 Generate Report Select a Report Template Sample Template Select one or more truck from the Select Job(s) Select Truck(s) trucks selection box. This will populate Shared Truck Truck SR401 the Jobs selection box. Trucks that Yard TEST have been shared from another SR141 SR142 account are in blue text. SR503 US101ALT U5101 (21/06/11 - 22/06/11) • Note: If the truck selection box is empty, your Select all Deselect all Select all Deselect all 13 account has no logged data associated with it. See Section 9.1, "Uploading Data Files" for Date From more information, or contact Skip-Line to help 07/14/2008 07/12/2011 associate a road marking vehicle data logger Filter Results by Entry Field Value with vour account.

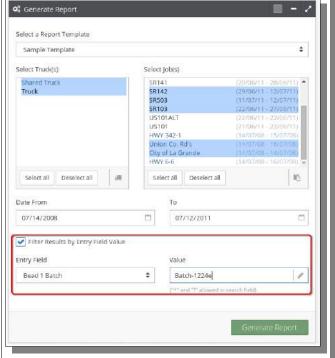
Now select one or more job from the job selection box. Jobs that have been shared from another account are shown in blue text. The date range for each job is shown on the right side of the list.

Tip: Click and drag or use the "Select all" button to select multiple jobs at once.



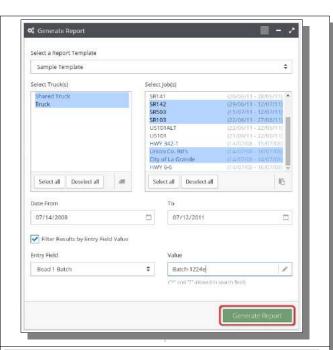
Optionally, select the filter check box to apply a filter to this report. Now select an entry field to filter by, and enter a query in the filter value field.

Note: This feature is a tool provided for research and investigation, for example to discover what roadways may have been marked using a particular batch of material. Results should not be used for normal report requirements.



Click the *Generate Report* button to create a report from the selected options. The View Report screen will appear.

Note: Depending on how much data has been selected, this process may take several minutes!



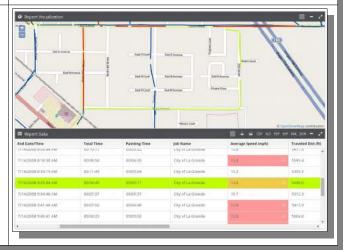
The map and report table will now appear.

Click and drag to move the map, use the mouse wheel or the on-screen zoom controls to zoom in and out.

Note: If the report does not contain any GPS information, a message will be overlaid on the map. In this case, the map will not be usable. This is usually due to poor GPS antenna installation or location.

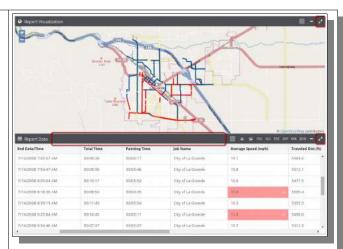


Click on any row of data to select that row. The map will highlight and zoom to the corresponding map data.



Click and drag the separator between the map and data rows to resize the map. Clicking the expand buttons on each section can also change the view.

Refer to section 1.1, "Navigation Overview" for more information.

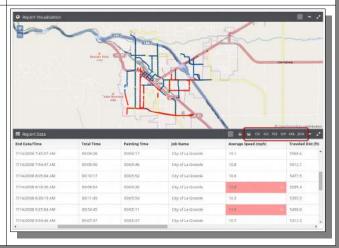


Optionally, the full screen button in the upper right corner of the site can be clicked to give you more room to view the map and report table.



Reports can be exported to several different formats. Click on an export button to save the report in the indicated format to your computer.

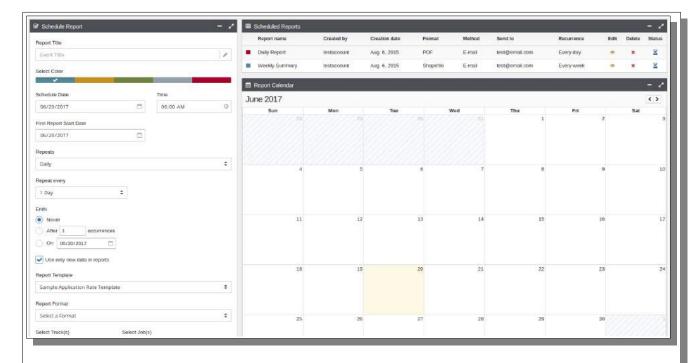
Refer to <u>Appendix A: File Formats</u> for information about supported file formats. See Account Settings for information on changing Excel export format.



7. Report Scheduling

The Report Scheduling feature allows you to set an automated report schedule to generate reports at specific times, in one of the many supported export formats. These generated reports will be e-mailed to any e-mail address or uploaded to an FTP server of your choice.

Report scheduling is often used to automate or semi-automate contractual reporting requirements, or the import process to a GIS system.



The report scheduling screen is divided into three sections. The section on the left is used to set up new scheduled reports. The section on the upper-right shows a list of scheduled reports with details, while the lower-right is a calendar that displays all currently-scheduled reports.

7.1 Creating a Scheduled Report

Enter a title for this report schedule, and choose a color. Now pick a date and time that this report will be generated.

Notes: The title you enter will be used as part of the file name for your generated reports. The color has no effect on the report, it is purely aesthetic. If your report schedule is recurring, the date and time designate when the first report will be generated.

Click the Repeat check box If you would like your report to be generated periodically. A new section will appear with many different options for how and when your schedule will repeat.

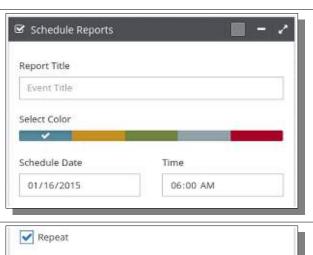
Note: If you would like your scheduled reports to only use data that has been logged since the last report in that schedule, ensure the "Use only new data in reports" checkbox is selected.

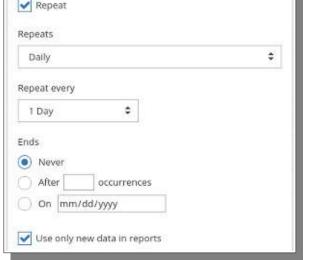
As an example, a report that recurs every week on Friday at 7PM will only include data since last Friday at 7PM to this Friday at 7PM, within the truck and job constraints given.

Select a report template and a file format to use for this scheduled report.

If no templates are available, refer to Section 5.1, "Creating Templates".

For information on supported export formats, refer to Appendix A: File Formats.

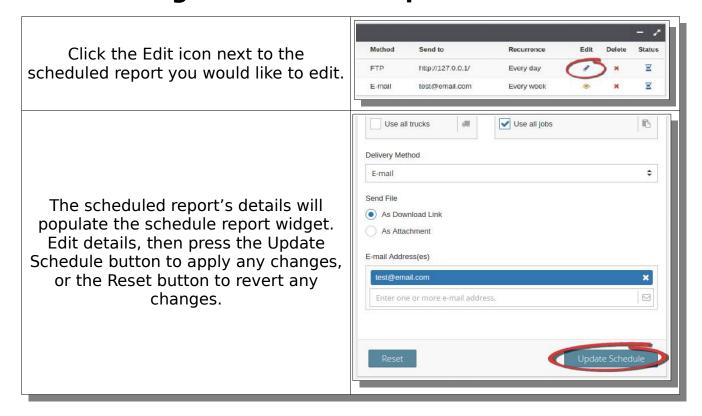






Select Truck(s) Select Job(s) Sample Truck Sample Job Sample Truck 2 Sample Job 2 Select which trucks and jobs you would Sample Job 3 Sample Job 4 like to appear on your scheduled Sample Job 5 reports. If you would like all trucks or Sample Job 6 all jobs, including those added in the Sample Job 7 Sample Job 8 future, select the "Use all trucks" or Sample Job 9 "Use all jobs" check box. Sample Job 10 Sample Joh 11 Use all trucks Use all jobs Select a delivery method. If you select E-mail, choose a report delivery method. Reports can be sent via Delivery Method download links or as e-mail E-mail attachments. Now, enter one or more Send File e-mail addresses. If you select FTP, As Download Link enter an FTP server hostname or As Attachment address, as well as a username, and a password. Note: Download links will expire after 5 days. ✓ Include Report Summary in E-mail Click the Set Schedule button once you E-mail Address have filled in all options. If there is a problem with some information that has Delivery address been entered, it will be highlighted in red. The new scheduled report will now appear on the calendar.

7.2 Editing a Scheduled Report

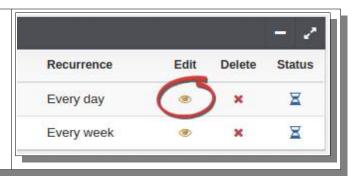


7.3 Viewing Scheduled Report Details

Recurrence Edit Delete Status Every day This scheduled report is pending. Every week The Scheduled Reports List contains basic information about a scheduled Recurrence Delete Status report. The Status icon shows one of Every day three states about the most recent This scheduled report has completed successfully. Every week report delivery. Recurrence Delete An error occurred during the last scheduled report: 530 Login authentication failed Every week

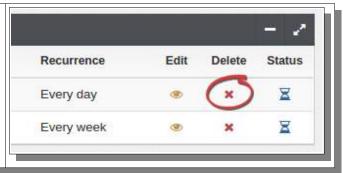


If a scheduled report was created by another user, you cannot edit it. You can still view the details of this scheduled report by clicking the View icon.



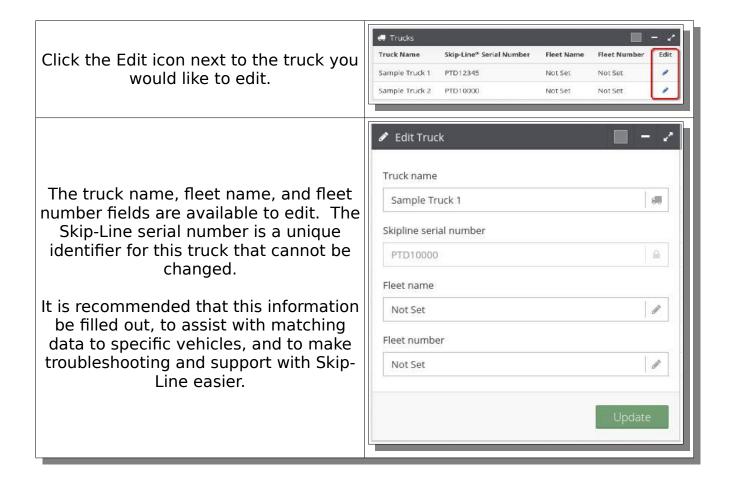
7.4 Removing a Scheduled Report

Click the Delete icon of the scheduled report you wish to delete. If this is part of a series of recurring reports, all scheduled reports in that series will be deleted.



8. Managing Trucks

Trucks are automatically added to your account the first time data associated with them is uploaded. Certain information about a truck may be edited.

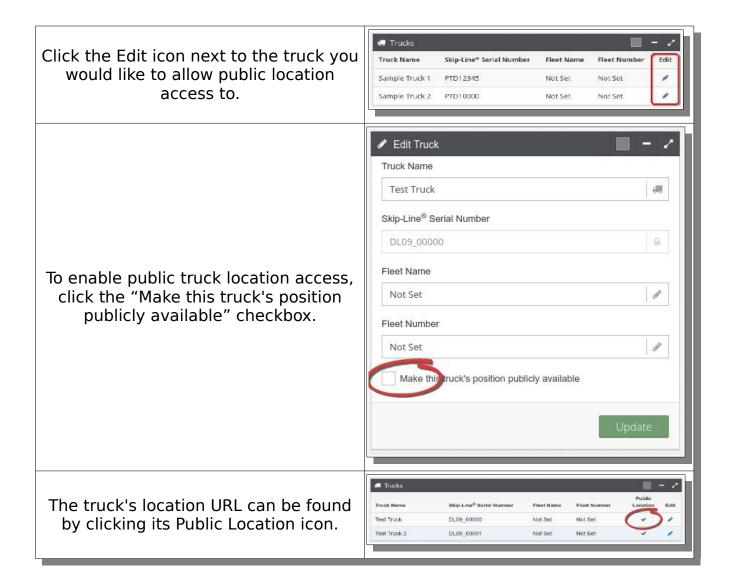


8.1 Truck Location API

Note: This section contains information for software developers intending to take advantage of public truck location information. It is not intended for normal users.

The truck location API allows you to access the most recent paint truck GPS location and associated timestamp for any paint truck with the "public location" option enabled. There is also an "isPainting" flag that indicates if the truck was painting at the time of the associated timestamp.





8.1.1 API Response HTTP Status Codes

When accessing the truck location API, you will receive a response with an HTTP status code. The code indicates either an error or success result, as shown in the following table.

Status Code	Meaning
404	A truck with the given ID was not found. Please check the URL and try again.
401	The given truck's location is not public. If you are the owner of this truck, please set the location to public.
405	Only GET requests are allowed at this time. Please access the truck location API using a GET request.
204	The given truck does not have any position information. Please ensure the given truck has a working GPS module. There may or may not be response content.
200	Location found and returned. Read response content.

8.1.2 JSON Format

Successful API requests will result in a JSON-formatted response. This response will be in the following format:

9. Managing Data

9.1 Uploading Data Files

Data exported from a supported Skip-Line Data Logger device can be uploaded to the Report Generator, and used to generate reports. Follow the instructions in your device's manual for exporting your logged data to a USB flash drive, then insert the drive into your computer. The following procedure will show you how to upload this data to the Report Generator.

The Upload page is split into two sections. The top section allows you to upload new files, while the bottom section shows you a list of all files that have already been uploaded.

Click the browse button to open a file upload dialog box. Now locate your exported data files.

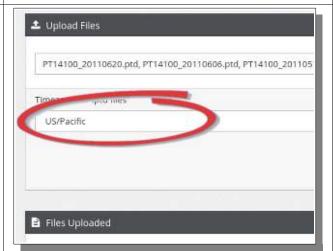
Once you have located your data files, select one or more to upload, then press the Open button.

Tip: Select multiple files by holding the CTRL key on your keyboard and clicking on file names, or by clicking on a blank area and dragging over all the files you wish to select. You can even press CTRL-A on your keyboard to select all files in the current folder.



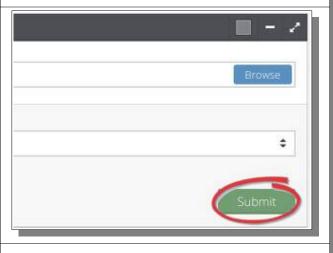
Select a timezone from the Timezone drop down box.

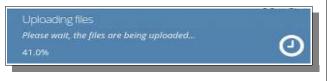
Note: The timezone you select should be the timezone that these data files were captured in. This may or may not be the same as your current timezone. Time discrepancies may occur if this is not set correctly at the time of import.



Click the Submit button to upload the selected data files.

An informational pop-up will appear in the upper right corner of the screen with the progress of the upload. If any errors occur, they will be shown after the upload completes.

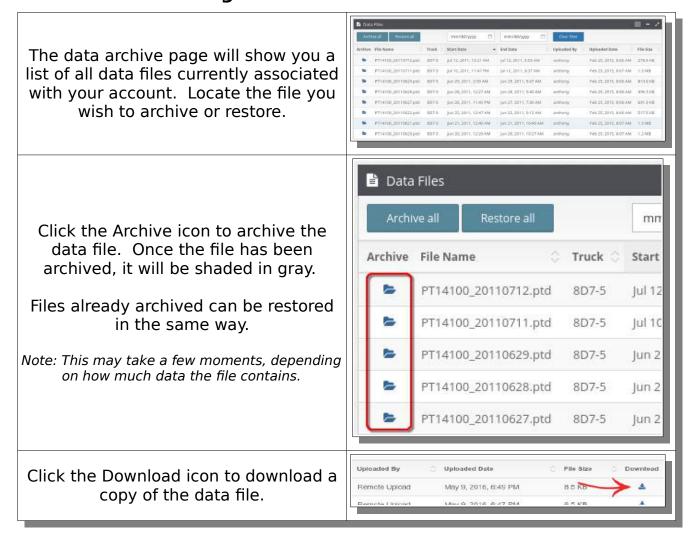




9.2 Archiving Data

Archiving is a way to remove data from the Report Generator in a safe way, that is entirely reversible. It can be used to remove a single data file, a day's worth of data, or all the data over a given date range. This may be desirable at the end of the year, to remove old data that has already been processed and is no longer needed. Not only will this reduce the amount of information you have to deal with at any one time, it can decrease the amount of time required to generate reports in some cases. If at any time you need access again, archived data can be restored or downloaded back in its original form.

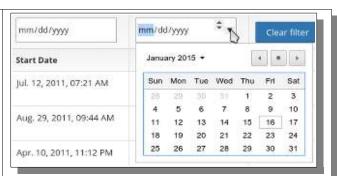
9.2.1 Working with Individual Files



9.2.2 Archiving or Restoring a Date Range

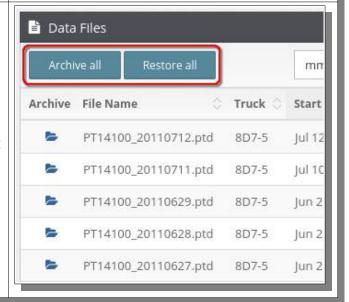
Fill in the date fields above the Start Date and End Date columns. You can either type in the dates or click the down arrow and select them from the calendar.

Only data files with data between these two dates will be shown.



Once both dates have been filled in, click the Archive All or Restore All button. This will archive or restore all data files that are currently shown (but ONLY those currently visible).

Note: This process will take a long time for large date ranges.



10. Sharing Data

The Data Sharing feature allows you to share trucks or jobs with another user, so that they may use that data to generate reports. This is useful any time road marking data needs to be provided to another entity, such as a contractor reporting work completed to a state agency, or a state agency releasing detailed information from previous road marking records to contractors bidding on a job.

🗷 Share Data Share to Select Truck(s) First, enter the username of the user elect Job(s) Sample Truck 1 Sample Job 1 you wish to share your data with. Sample Job 3 Sample Job 4 Sample Job 5 Sample Job 6 Sample Job 7 06/29/11 - 07/12/1 07/11/11 - 07/12/1 Sample Job 8 Select Job(s) Select Truck(s) Sample Truck 1 Sample Job 1 Sample Truck 2 Sample Job 2 Sample Job 3 Sample Job 4 Select trucks and/or jobs that you wish Sample Job 5 to share. Sample Job 6 Sample Job 7 Sample Job 8 Sample Job 9 Sample Job 10 Optionally, select a date range to allow access to. If you would like to share all dates, including future dates, select 07/12/2011 06/20/2011 Share All Dates. Share All Dates Click Share Data when you are done. Note: The default values for the date ranges cover all of the data currently available. If you wish to allow access to all of the current data, these dates do not need to be altered.

Appendix A: File Formats

The Report Generator supports exporting to a variety of file formats. The following table shows a summary of each format.

PNG	<u>Portable Network Graphic</u> - This export option will save an image of the current map view to your computer.
CSV	<u>Comma Separated Values</u> - This option will save a comma- separated text file to your computer. This file can be used in spreadsheet programs, or other proprietary software.
XLS	Excel Spreadsheet – Exports a spreadsheet compatible with Microsoft Excel. The format of this file will depend on the Excel Export Format selected in Account Settings.
PDF	<u>Portable Document Format</u> - This will export an Adobe- compatible PDF document that includes an image of the current map view, as well as a table of report data.
SHP	Esri Shapefile - This will export a .zip file containing all the files that comprise an Esri Shapefile. This file is GIS-compatible, and can be imported into ArcGIS, ArcGIS Online, QGIS, and other Shapefile supporting mapping tools.
KML	<u>Keyhole Markup Language</u> – Exports to the XML-based Google format KML. This file can be imported into Google Earth, Google Maps, ArcGIS and other KML supporting mapping tools.
JSON	Javascript Object Notation - Export the report's input data to a JSON-format text file. This option is used only for debugging and troubleshooting purposes.

Appendix B: Template Columns

Column	Description	Units
Serial Number	The Skip-Line serial number for this truck.	
Truck Name	The user-entered truck name.	
Date	The date of the first paint application in a segment.	
Start Time	The time of the first paint application in a segment.	
Stop Time	The time of the final paint application in a segment.	
Start Date/Time	The date and time of the first paint application in a segment.	
End Date/Time	The date and time of the final paint application in a segment.	
Total Time	The total elapsed time between the start and stop times.	
Painting Time	The total time with patterns engaged. In general, this is the total time with paint guns activated, but also includes the gap.	
Job Name	Operator-entered job name(s).	
Symbol	Operator-entered symbol(s).	
Travel Direction	Operator-entered travel direction.	
Paint Type	Operator-entered paint type.	
Yellow Material Batch	Operator-entered yellow material batch number.	
White Material Batch	Operator-entered white material batch number.	
Black Material Batch	Operator-entered black material batch number.	
Bead 1 Type	Operator-entered bead type in bead tank 1.	
Bead 1 Batch	Operator-entered bead batch number in bead tank 1.	
Bead 1 Gun Type	Operator-entered bead gun type for bead tank 1.	
Bead 2 Type	Operator-entered bead type in bead tank 2.	



Bead 2 Batch	Operator-entered bead batch number in bead tank 2.	
Bead 2 Gun Type	Operator-entered bead gun type for bead tank 2.	
Yellow Element Type	Operator-entered bead type in yellow element tank.	
Yellow Element Batch	Operator-entered bead batch number in yellow element tank.	
Yellow Element Gun Type	Operator-entered bead gun type for yellow element tank.	
White Element Type	Operator-entered bead type in white element tank.	
White Element Batch	Operator-entered bead batch number in white element tank.	
White Element Gun Type	Operator-entered bead gun type for white element tank.	
Project Number	Operator-entered project number.	
Left Line Type	Operator-entered left line type.	
Right Line Type	Operator-entered right line type.	
Route System	Operator-entered route system.	
Route Number	Operator-entered route number.	
Striper Code	Operator-entered striper code.	
Marking Type	Operator-entered marking type.	
Paint Vendor	Operator-entered paint vendor.	
Grooved Pavement	Operator-entered grooved pavement.	
Groove Depth	Operator-entered groove depth.	
Rumble Strip	Operator-entered rumble strip.	
Average Speed	The average speed of the paint truck over a segment.	mph, km/h
Traveled Distance	The total distance traveled with the skip timer START switch turned on.	ft, m, mi, km
Left Lane Distance	The total distance traveled while painting on the left side.	ft, m, mi, km
Right Lane Distance	The total distance traveled while painting on the right side.	ft, m, mi, km
Total Lane Distance	The total distance traveled while painting on the left plus the total distance traveled while painting on the right.	ft, m, mi, km



Skip Channels By Gun # Painted skip distance (of only the actual skip length), by gun number. A column is created for each gun in the truck configuration. Painted solid distance, by gun number. A column is created for each gun in the truck configuration. Total Channels By Gun # Total painted distance, by gun number. A column is created for each gun in the truck configuration. Total painted distance, by gun number. A column is created for each gun in the truck configuration. Combines painted skip distances, grouped by line width and color. Creates a column for every gun width and gun color configured on the truck. Combines painted solid distances, grouped by line width and color. Creates a column for every gun width and gun color configured on the truck. Combines painted solid distances, grouped by line width and color. Creates a column for every gun width and gun color configured on the truck. Combined painted skip and solid distances, grouped by line width and color. Created a column for every gun width and gun color configured on the truck. Total Channels By Width distance, grouped by line width and color. Created a column for every gun width and gun color configured on the truck. The total distance of yellow skip painting from all paint guns. The total distance of yellow solid painting. The total distance of yellow painting. The total distance of yellow painting. The total pellow paint usage. The total yellow paint usage. The total yellow paint usage. The average wet thickness of yellow painting. The average wet thickness Refer to material vendor documentation for expected wet-to-dry shrinkage. The average application rate of yellow painting. The average application rate of yellow painting. The total distance of white skip painting. The total distance of white solid			
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Total Channels By Gun # column is created for each gun in the truck configuration. Skip Channels By Width Combines painted skip distances, grouped by line width and color. Creates a column for every gun width and gun color configured on the truck. Combines painted solid distances, grouped by line width and color. Creates a column for every gun width and gun color configured on the truck. Combines painted solid distances, grouped by line width and color. Creates a column for every gun width and gun color configured on the truck. Combined painted skip and solid distance, grouped by line width and color. Created a column for every gun width and gun color configured on the truck. The total distance of yellow skip painting from all paint guns. The total distance of yellow solid painting. The total distance of yellow solid painting. The total distance of yellow paint usage. The total yellow paint usage. The average wet thickness of yellow paint application. NOTE: Dry thickness may not match calculated wet thickness. Refer to material vendor documentation for expected wet-to-dry shrinkage. The average application rate of yellow paint. The total distance of white skip painting ft, m, mi, km White Skip Distance The total distance of white skip painting. The total distance of white solid painting. The total distance of white solid painting. The total distance of white painting. The total distance of white painting.	Solid Channels By Gun #	column is created for each gun in the	ft, m, mi, km
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Total Channels By Width distance, grouped by line width and color. Created a column for every gun width and gun color configured on the truck. Yellow Skip Distance The total distance of yellow skip painting from all paint guns. Yellow Solid Distance The total distance of yellow solid painting. The total distance of yellow painting. The total distance of yellow painting. The total distance of yellow painting. The total yellow paint usage. The average wet thickness of yellow paint application. NOTE: Dry thickness may not match calculated wet thickness. Refer to material vendor documentation for expected wet-to-dry shrinkage. Yellow App Rate The average application rate of yellow paint. The total distance of white skip painting from all paint guns. The total distance of white solid painting. The total distance of white painting.	Solid Channels By Width	grouped by line width and color. Creates a column for every gun width and gun	ft, m, mi, km
Yellow Solid Distance The total distance of yellow solid painting. Yellow Total Distance The total distance of yellow painting. Yellow Usage The total yellow paint usage. Yellow Thickness The average wet thickness of yellow paint application. NOTE: Dry thickness may not match calculated wet thickness. Refer to material vendor documentation for expected wet-to-dry shrinkage. Yellow App Rate The average application rate of yellow paint. White Skip Distance The total distance of white skip painting from all paint guns. The total distance of white painting.	Total Channels By Width	distance, grouped by line width and color. Created a column for every gun width and	ft, m, mi, km
Yellow Total Distance The total distance of yellow painting. Yellow Usage The total yellow paint usage. The average wet thickness of yellow paint application. NOTE: Dry thickness may not match calculated wet thickness. Refer to material vendor documentation for expected wet-to-dry shrinkage. Yellow App Rate The average application rate of yellow paint. Yellow App Rate The total distance of white skip painting from all paint guns. White Solid Distance The total distance of white solid painting. The total distance of white painting.	Yellow Skip Distance	, , , , , , , , , , , , , , , , , , , ,	ft, m, mi, km
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The average wet thickness of yellow paint application. NOTE: Dry thickness may not match calculated wet thickness. Refer to material vendor documentation for expected wet-to-dry shrinkage. Yellow App Rate The average application rate of yellow paint. White Skip Distance The total distance of white skip painting from all paint guns. The total distance of white solid painting. The total distance of white painting. The total distance of white painting. The total distance of white painting.	Yellow Total Distance	The total distance of yellow painting.	ft, m, mi, km
Yellow Thickness application. NOTE: Dry thickness may not match calculated wet thickness. Refer to material vendor documentation for expected wet-to-dry shrinkage. Yellow App Rate The average application rate of yellow paint. White Skip Distance The total distance of white skip painting from all paint guns. White Solid Distance The total distance of white solid painting. The total distance of white painting.	Yellow Usage	The total yellow paint usage.	gal, L
White Skip Distance The total distance of white skip painting from all paint guns. White Solid Distance The total distance of white solid painting. The total distance of white painting. The total distance of white painting. The total distance of white painting.	Yellow Thickness	application. NOTE: Dry thickness may not match calculated wet thickness. Refer to material vendor documentation for	mils, in
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White Total Distance The total distance of white painting. ft, m, mi, km	White Skip Distance	,	ft, m, mi, km
	White Solid Distance	The total distance of white solid painting.	ft, m, mi, km
White Usage The total white paint usage. gal, L	White Total Distance	The total distance of white painting.	ft, m, mi, km
	White Usage	The total white paint usage.	gal, L

White Thickness	The average wet thickness of white paint application. NOTE: Dry thickness may not match calculated wet thickness. Refer to material vendor documentation for expected wet-to-dry shrinkage.	mils, in
White App Rate	The average application rate of white paint.	gal/mile, L/mile
Black Skip Distance	The total distance of black skip painting.	ft, m, mi, km
Black Solid Distance	The total distance of black solid painting.	ft, m, mi, km
Black Total Distance	The total distance of black painting.	ft, m, mi, km
Black Usage	The total black paint usage.	gal, L
Black Thickness	The average wet thickness of black paint application. NOTE: Dry thickness may not match calculated wet thickness. Refer to material vendor documentation for expected wet-to-dry shrinkage.	mils, in
Black App Rate	The average application rate of black paint.	gal/mile, L/mile
Beads 1 Usage	Total bead usage (by weight) from bead tank 1.	lb, kg
Beads 1 Usage Per Volume	Average bead usage (by weight) from bead tank 1 per volume of paint.	lb/gal, kg/L
Beads 1 Usage Per Distance	Average bead usage (by weight) from bead tank 1 per painted distance.	lb/mi, kg/km
Beads 1 Usage Per Area	Average bead usage (by weight) from bead tank 1 per surface area. Surface area calculated from gun width and total painted distance.	lb/100ft², kg/10m²
Beads 2 Usage	Total bead usage (by weight) from bead tank 2.	lb, kg
Beads 2 Usage Per Volume	Average bead usage (by weight) from bead tank 2 per volume of paint.	lb/gal, kg/L
Beads 2 Usage Per Distance	Average bead usage (by weight) from bead tank 2 per painted distance.	lb/mi, kg/km
Beads 2 Usage Per Area	Average bead usage (by weight) from bead tank 2 per surface area. Surface area calculated from gun width and total painted distance.	lb/100ft², kg/10m²
Yellow Elements Usage	Total bead usage (by weight) from yellow element tank.	lb, kg



Yellow Elements Usage Per Volume	Average bead usage (by weight) from yellow element tank per volume of paint.	lb/gal, kg/L
Yellow Elements Usage Per Distance	Average bead usage (by weight) from yellow element tank per painted distance.	lb/mi, kg/km
Yellow Elements Usage Per Area	Average bead usage (by weight) from yellow element tank per surface area. Surface area calculated from gun width and total painted distance.	lb/100ft², kg/10m²
White Elements Usage	Total bead usage (by weight) from white element tank.	lb, kg
White Elements Usage Per Volume	Average bead usage (by weight) from white element tank per volume of paint.	lb/gal, kg/L
White Elements Usage Per Distance	Average bead usage (by weight) from white element tank per painted distance.	lb/mi, kg/km
White Elements Usage Per Area	Average bead usage (by weight) from white element tank per surface area. Surface area calculated from gun width and total painted distance.	lb/100ft², kg/10m²
VisiLok Usage	Total bead usage (by weight) from VisiLok tank.	lb, kg
VisiLok Usage Per Volume	Average bead usage (by weight) from VisiLok tank per volume of paint.	lb/gal, kg/L
VisiLok Usage Per Distance	Average bead usage (by weight) from VisiLok tank per painted distance.	lb/mi, kg/km
VisiLok Usage Per Area	Average bead usage (by weight) from VisiLok tank per surface area. Surface area calculated from gun width and total painted distance.	lb/100ft², kg/10m²
Aux 1 Tank Usage	Total bead usage (by weight) from first auxiliary tank.	lb, kg
Aux 1 Tank Usage Per Volume	Average bead usage (by weight) from first auxiliary tank per volume of paint.	lb/gal, kg/L
Aux 1 Tank Usage Per Distance	Average bead usage (by weight) from first auxiliary tank per painted distance.	lb/mi, kg/km
Aux 1 Tank Usage Per Area	Average bead usage (by weight) from first auxiliary tank per surface area. Surface area calculated from gun width and total painted distance.	lb/100ft², kg/10m²
Aux 2 Tank Usage	Total bead usage (by weight) from second auxiliary tank.	lb, kg



Aux 2 Tank Usage Per Volume	Average bead usage (by weight) from second auxiliary tank per volume of paint.	lb/gal, kg/L
Aux 2 Tank Usage Per Distance	Average bead usage (by weight) from second auxiliary tank per painted distance.	lb/mi, kg/km
Aux 2 Tank Usage Per Area	Average bead usage (by weight) from second auxiliary tank per surface area. Surface area calculated from gun width and total painted distance.	lb/100ft², kg/10m²
Yellow Line Temperature	Average temperature of the material line from the yellow tank to the gun. Refer to actual sensor location on vehicle.	°F, °C
Yellow Tank Temperature	Average temperature of yellow material tank.	°F, °C
White Line Temperature	Average temperature of the material line from the white tank to the gun. Refer to actual sensor location on vehicle.	°F, °C
White Tank Temperature	Average temperature of white material tank.	°F, °C
Black Line Temperature	Average temperature of the material line from the black tank to the gun. Refer to actual sensor location on vehicle.	°F, °C
Black Tank Temperature	Average temperature of black material tank.	°F, °C
Average Air Temperature	Average outdoor ambient air temperature.	°F, °C
Average Road Temperature	Average surface temperature of the pavement.	°F, °C
Average Humidity	Average outdoor ambient humidity.	%R.H.
Average Dew Point	Average dew point. Calculated from average humidity and average air temperature readings.	°F, °C
Start GPS	GPS coordinates at start of segment. Adds columns for both latitude and longitude.	
End GPS	GPS coordinates at end of segment. Adds columns for both latitude and longitude.	
Distance Calibration	Distance per pulse from distance sensor.	
Yellow Pump Calibration	Volume of yellow paint per pump stroke.	



White Pump Calibration	Volume of white paint used per pump stroke.	
Black Pump Calibration	Volume of black paint used per pump stroke.	
Pattern	Pattern(s) applied during this segment.	
Truck Weight	Average weight of truck for thermoplastic data logging. Experimental.	lb, kg
Analog Inputs		
Analog Outputs		
Segment Event	Reason code for next segment to be created.	
Comments	Operator-entered comments.	
Painted Sides	Sides painted during a segment.	
Painted Colors	Colors used for painting during a segment.	
Line Width	Line width(s) used for painting during a segment.	in, cm