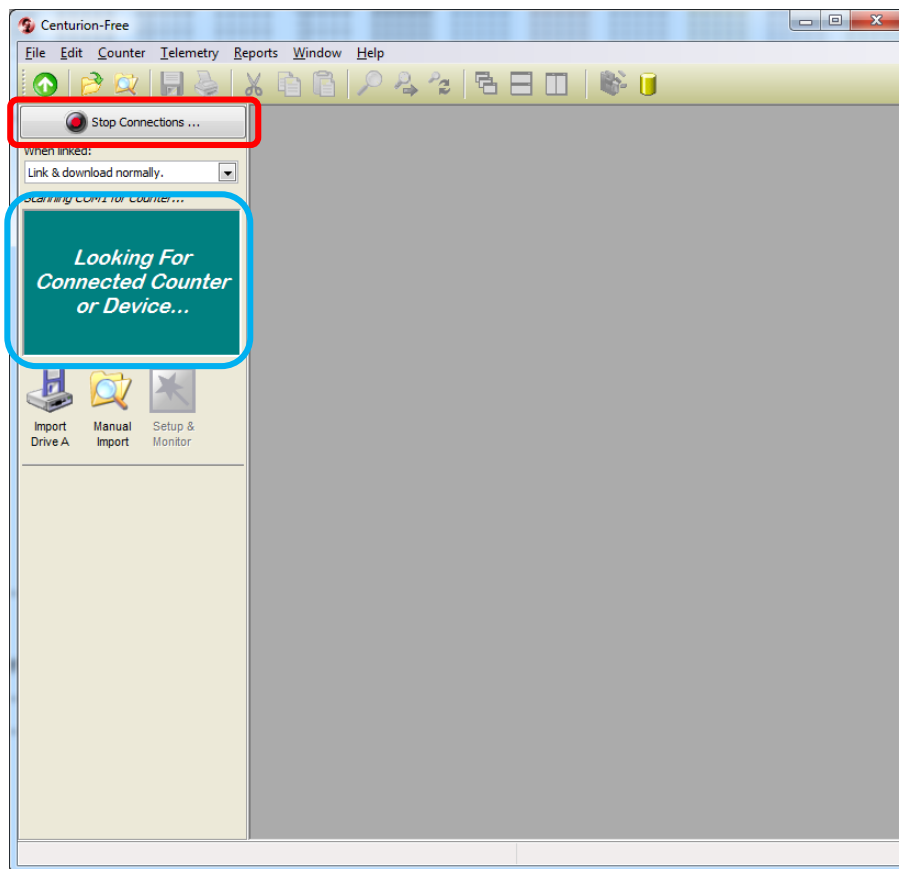


Centurion Free & the RoadRunner III

When the Centurion Free software is started, the following splash screen is displayed temporarily:



Shortly afterwards, the main Centurion Program is displayed, (similar to below):



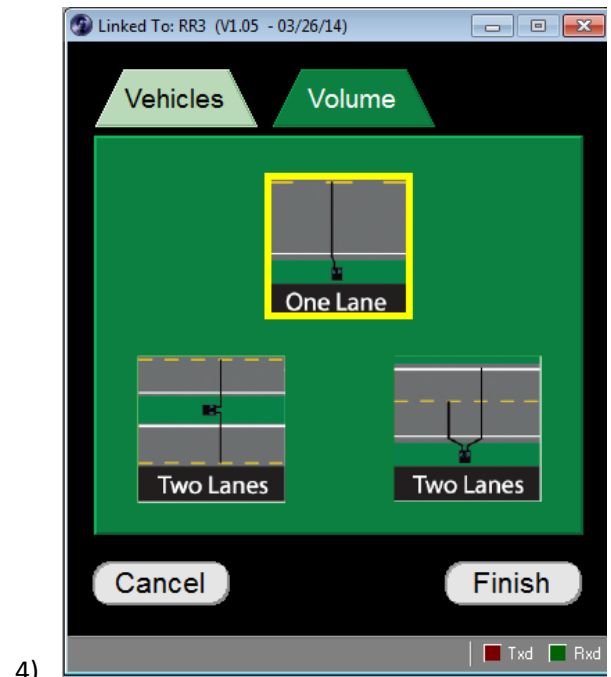
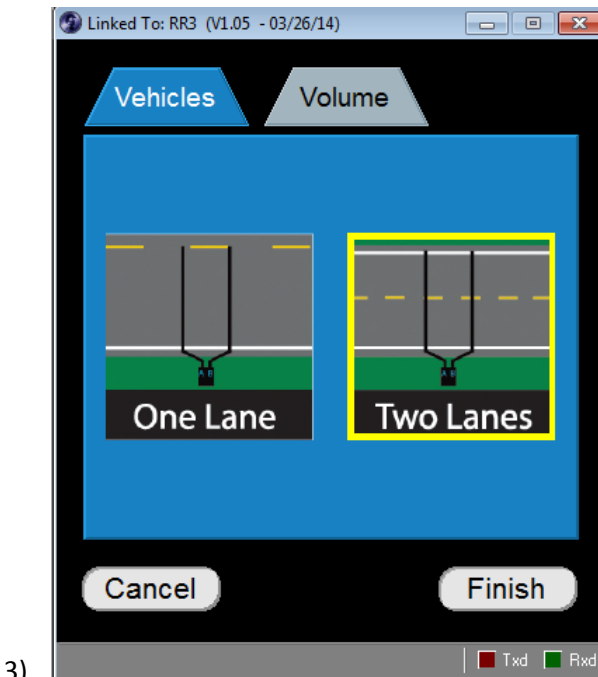
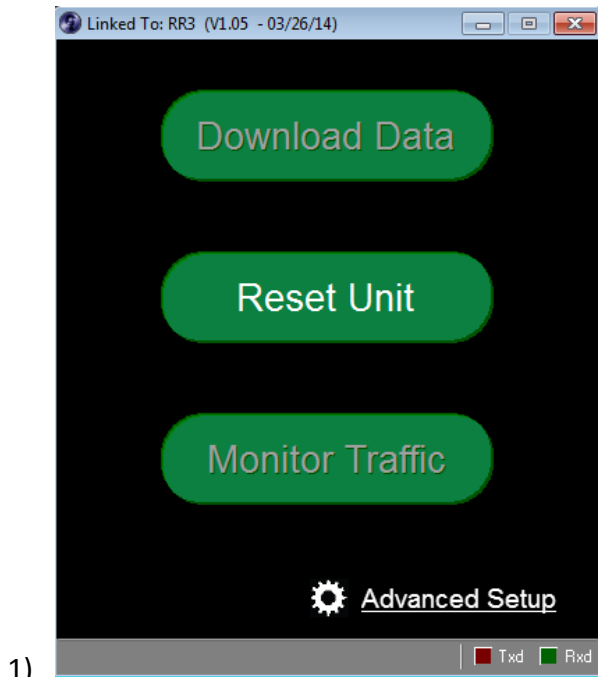
There are 2 important areas of note:

- 1) The Connections button, either displaying a stop or start option (Red Box).
- 2) The status window, providing information as to the current search results and/or the counter or device that centurion is presently talking with (Blue Box).

It is important to remember that the USB-to-Serial adapter cable **must first** be plugged in prior to starting the Centurion Free software, as Windows will need to configure and make it available for use. After the cable has been plugged in and the software started, any RoadRunner 3 (RR3) may be plugged in or unplugged as needed. Please note that to help prolong the battery of the RR3 it is recommended that, once study data has been retrieved from the counter –or– a new study has been started, that the RR3 be unplugged.

Manually starting Data Collection

If you are using the simplified interface, click the 'Reset Unit' button



Screen #2 will appear, please enter in a unique Site ID (if you are collecting at the same physical location, the same Site ID may be re-used). Info Lines 1, 2, & Operator are considered optional and are not required.

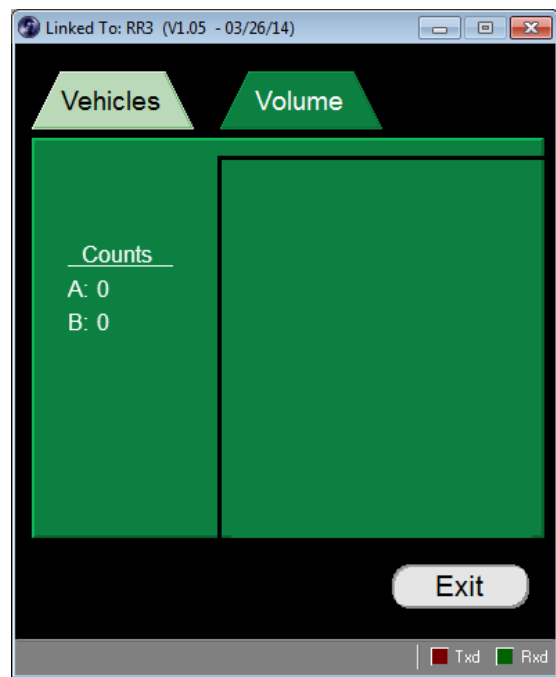
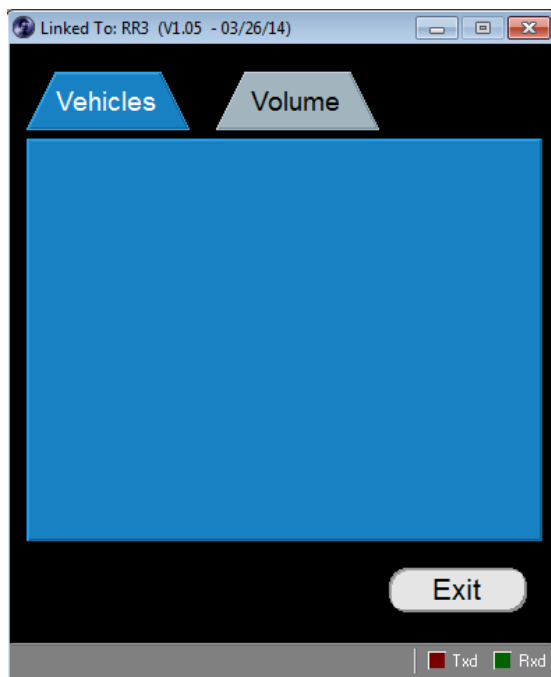
Once you have entered the needed information, click the button 'Choose Layout'. This will display the available road tube layouts that the RR3 supports in either Vehicles (Class, Speed, or Per-Vehicle) or Volume. Choose the one that best matches the road type and the data type you would like to collect. When finished, click the 'Finish' button.

At the end of programming the RR3, you will be returned to the first screen. You should notice that the top and bottom buttons are now available to be clicked on (the text is now white vs grey).

Your RR3 unit is now ready to be placed at the data collection location. If you are using a laptop, the option for 'Monitor Traffic' can be used to verify that the vehicles displayed match those you observe while at the data collection site. If the vehicles are grossly mis-reported, it is recommended you verify that the tube layout matches that which you chose and the tube spacing is at a 4 foot spacing (Default for the RR3). When addressed, the vehicles should then match on the screen to those that are observed on-site...

REMEMBER SAFTY FIRST!!!

Should you have questions on the placement of Road Tubes, please refer to our road tube installation guide available on our website: Diamondtraffic.com



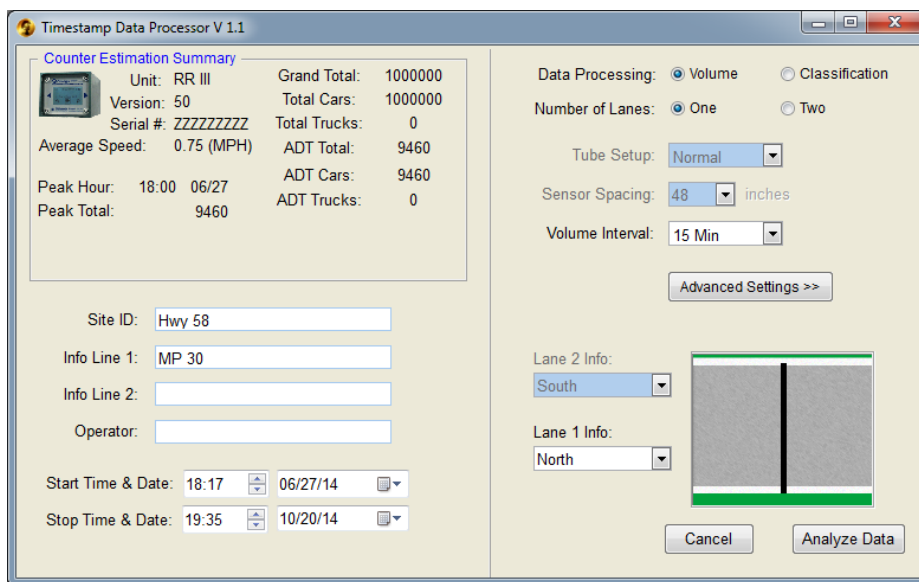
The above screen shots will display Vehicle information (Left) and Volume information (Right). The Vehicles tab will include the speed of the vehicle, number of axles, and the spacing of those axles.

If the above information appears to be good, it is save to disconnect the Data cable from the RR3 and then re-attach the screw cap to protect the pins. Remember to secure the RR3 to a sturdy anchor with a quality chain and lock. Any excess road tube may be gently coiled up around or near the RR3.

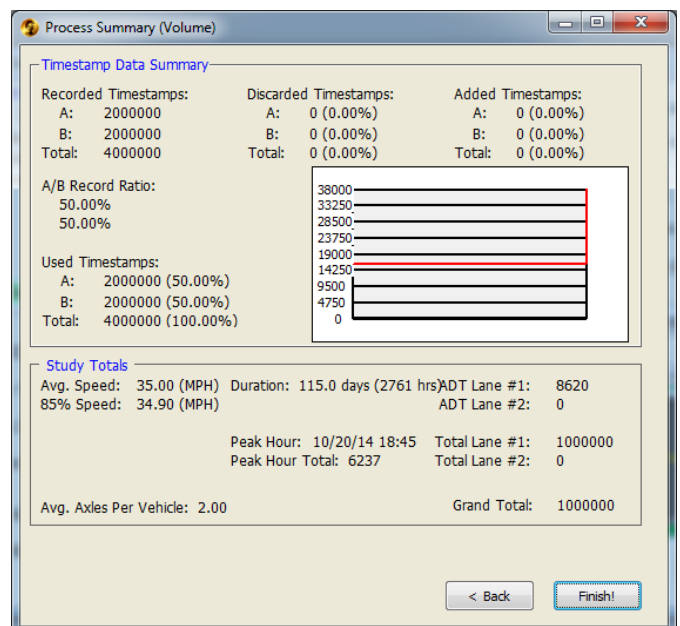
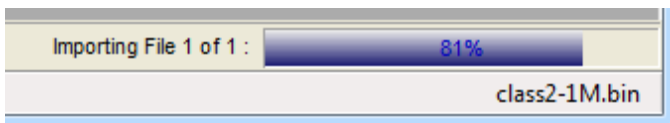
Data collection at end of Study

When you are ready to retrieve the RR3 from the field, simply disconnect the road tube from the unit, unsecure it from the sturdy anchor and pack it away. Retrieve your road tube and make sure that the road tube anchors will not cause damage to passersby and/or vehicles, if necessary pound flush any anchor that is un-retrievable.

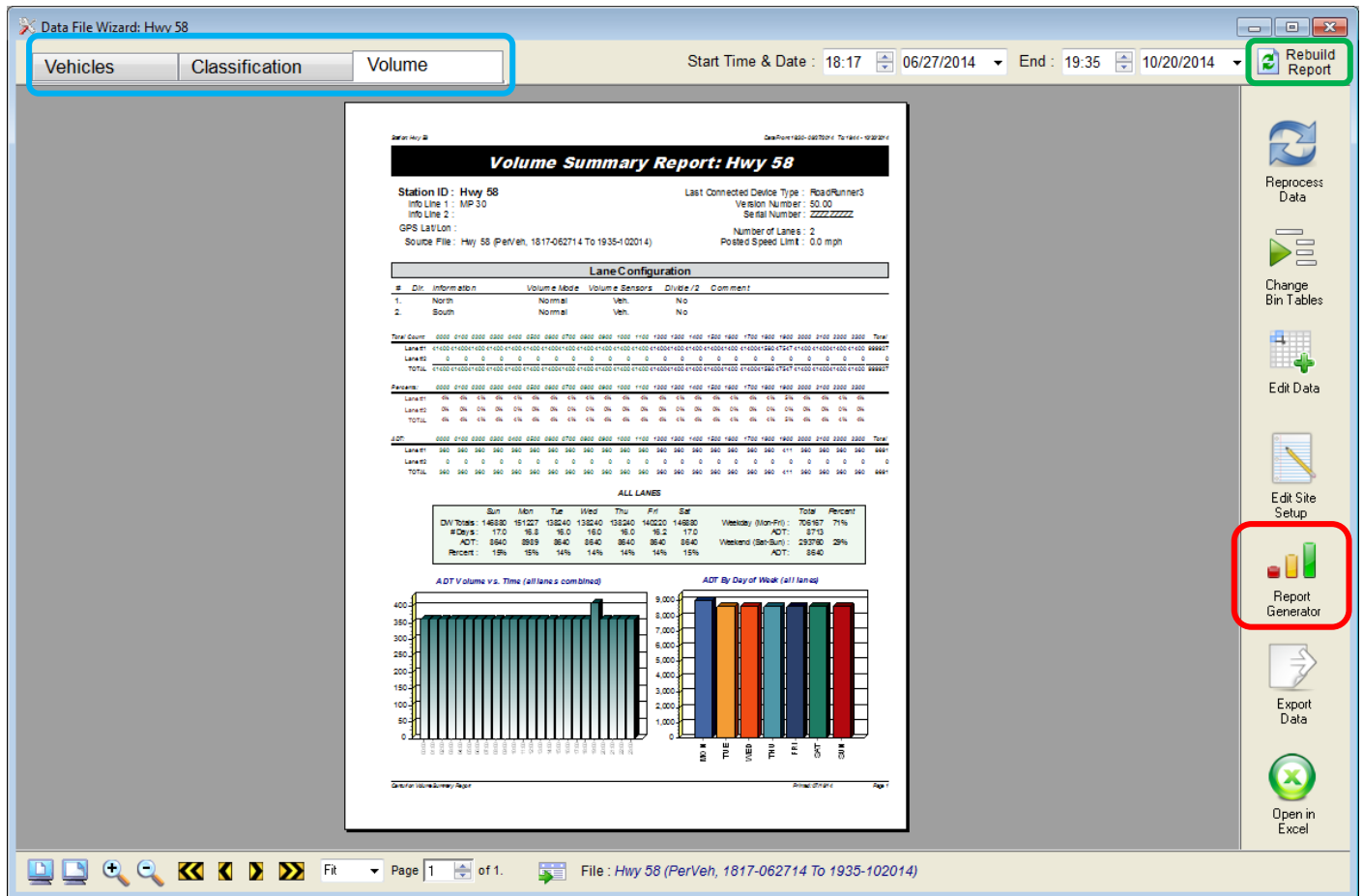
Data collection is achieved much the same way we took for manually programming the RR3. Verify that the data cable is plugged into the computer, remember to use the same physical USB port, and then start the Centurion Software. Once the software is running, Centurion should automatically find the RR3 and present the simplified interface. Click the Download button. If Centurion is configured correctly, it will find the current open file, close it and then download the new data and start the import process by displaying the Timestamp Data Processor window.



From this screen it will be necessary to verify that the type of data (Classification or Volume) is selected as well as the number of lanes for which data was recorded. You can even label the vehicle flow (direction) with the counter on the bottom side of the graphic. Clicking the 'Analyze' button. The following screen will display an overall summary of the information prior to importing it into Centurion's internal database. All that should be required here is to click the 'Finish' button. A progress bar will be located in the lower right corner of the main Centurion Window.



Once the Import has completed, Centurion will display a data summary screen. Here you can select the different data types by TAB (Blue Box). Should you want more detailed information click the 'Report Generator' button (Red Box). Where you can select from the selection of included report types. Any Changes on those report types will require the report to be re-built, using the 'Rebuild' button at the top of the window (Green Box).



From here reports can be printed and/or saved. Please note that Centurion’s internal database will store an unlimited number of sites and/or data sets. The only limitation to this is the size of the drive and the available free space that is shared amongst any other applications and/or files.

With the Report Generator, you can choose the type of report that will best display your data. If necessary, you can limit the data to a specific time and/or date range (from the previously recorded data). Different reports are available for the different types of data, these can be selected by using the tabs (Blue Box). The Report Style drop down will show you the available reports available in the Centurion software. Once you have made your selection, you will need to click on the 'Rebuild' button located to the right of the Green Box. Anytime you make any changes to the available choices the Rebuild button will be shown.

Stepping through the report is easy to do, using the yellow and black chevron’s in the Orange box will allow you to go page by page (inside chevron’s) or directly to the first or last page (outside chevron’s). Changing the size of the preview page can be done by clicking on the spyglass, + to zoom in and – to zoom out.

For a quicker zoom use the either of the two monitors on the left side of the Orange box, the Top to view the entire page and the bottom to zoom to the width of the preview page. Adjusting the report generator window could also help in displaying the reports. If necessary click on the maximize button in the Purple Box.

Should you have multiple sites selected, through the database interface, two buttons will become available on the left side of the Red box. These buttons will allow you to step through each site using the same report settings.

Printing the report(s) can be done by clicking on the printer icon with in the Red box. The first one will print only the currently displayed report, while the second one will print all selected sites using the current report type. Saving the report is easy as well, using the last icon in the Red box will display the Save Report As window. The file name will be prefilled with the Site ID (this can be changed). Simply select the file format through the Save as type drop down and then click the Save button. Once the report is saved, Centurion will display a window showing you the path and file name where the report was saved.

Basic Axle Classification Report: Hwy 58

Station ID : Hwy 58
 Info Line 1 : MP 30
 Info Line 2 :
 GPS Lat/Lon :
 DB File : Hwy 58.DB

Last Connected Device Type : RoadRunner3
 Version Number : 50.00
 Serial Number : //
 Number of Lanes : 2
 Posted Speed Limit : 0.0 mph

Lane #1 Configuration

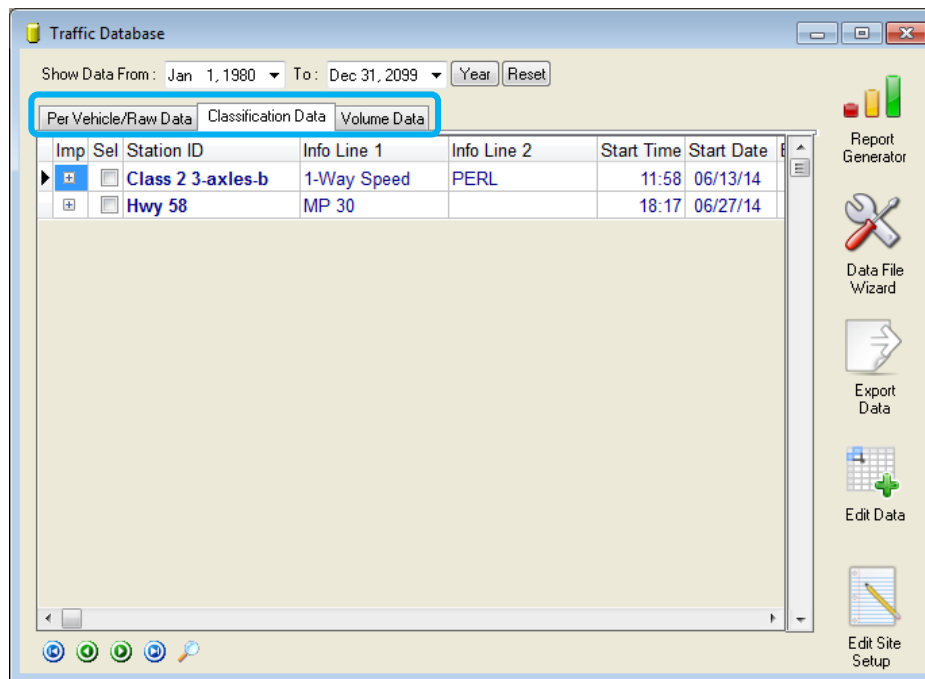
#	Dir	Information	Vehicle Sensors	Sensor Spacing	Loop Length	Comment
1.	North		Ax-Ax	4.0 ft	6.0 ft	

Lane #1 Basic Axle Classification Data From: 18:15 - 06/27/2014 To: 19:59 - 10/20/2014

(DEFAULT)	Date	Time	Cycle	Cars	24-47	24-SU	24-SU	44-SU	44-ST	5A-ST	5A-ST	5A-MT	5A-MT	Other	Total
	06/27/14	19:00	0	360	0	0	0	0	0	0	0	0	0	0	360
	Fri	20:00	0	360	0	0	0	0	0	0	0	0	0	0	360
		21:00	0	360	0	0	0	0	0	0	0	0	0	0	360
		22:00	0	360	0	0	0	0	0	0	0	0	0	0	360
		23:00	0	360	0	0	0	0	0	0	0	0	0	0	360
	Daily Total :		0	1800	0	0	0	0	0	0	0	0	0	0	1800
	Percent :		0%	100%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
	Average :		0	360	0	0	0	0	0	0	0	0	0	0	360

Centurion's Internal Database

Centurion has an internal database that stores any successfully imported dataset. To access the database, click on the Yellow Cylinder at the top portion of the main Centurion window. Here we see an example of the database view. You can view different types of data by clicking on one of the three tabs (Blue Box). Once you have found your Site ID you can single click on the row to select it, the example below is selected as indicated by a black triangle on the far left side of the top row. From Here click on the Report Generator to begin viewing the data in various report styles. Should you not be able to find the site id that you are looking for and you know the year the data was/should have been recorded in you can click the Year button at the top of the window and enter it in. When you press the enter/return key, the database will limit the data displayed to the year entered. When finished, click the 'Reset' button to restore all of the Site ID's.



It is important to remember to use a different Site ID for each site, with the exception if data is collected at the same physical location. If you use an existing Site ID for new data, the new data will be placed/located under the existing Site ID. In this manner it is possible to record data for a site throughout the year and then run a yearly report for that site and to see yearly totals.

For more details on the inner workings of Centurion, please refer to the Centurion Users Guide. A link to it can be found on your windows start menu under the Diamond folder.

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