

DATA COLLECTION
USER GUIDE
V8



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Introduction.

Thank you for choosing a Westcotec data equipped sign. We are sure that you will be happy with your purchase and satisfied with the data that will be collected. However, should you find that something is amiss or that you have a query about the sign or the data, please do give Westcotec a call on 01362 853124 and we will be happy to help.



Items may change subject to sign purchased.

- | | |
|--------------------------|--------------------------------|
| 1) Sign. | 5) Tamtorque driver bit. |
| 2) Sign Cover. | 6) Tamtorque fixings. |
| 3) Battery (2 supplied). | 7) Additional Bracket (Option) |
| 4) Battery Charger. | |

Installation of Software.

As part of the data package, you will have been supplied with a Westcotec USB flash drive for your Windows computer. The flash drive holds two folders containing software that will need to be installed on your computer to enable download of the data from the sign.

To install the Stats software

- Insert the Westcotec USB flash Drive in to your computer
- Open the USB folder to view files
- Open the **“Data Collection Software”** Folder.
- Double click on **“HoustonRadarStatsAnalyzerUpgrade_v09.00.0109”***
- A Houston Stats Analyzer screen will open. Click **“Next”**.
- Setup Wizard window: Click **“Next”**.
- Setup Wizard Window: Tick **“Everyone”** then **“Next”**.
- Setup Wizard Window: Click **“Next”** to start install.
- You will then see the installation progress bar.
- You may get a User Account Control window pop up: Click **“Yes”**.
- Installation Complete window: Click **“Close”**.

The Houston radar Software is now ready to use.

To install the USB Device Driver Software (For cable download only)

- Make sure the USB to Serial Device is **NOT** plugged into your computer.
- Insert the Westcotec USB flash drive into your computer.
- Open the USB folder to view files.
- Open the **“Serial Lead Software”** folder.
- Double click on **“PL2320_Prolific_Driverinstaller_v1200”***
- InstallShield Wizard window- Click **“Next”**.
- You will then see the installation progress bar.
- Click **“Finish”** when the install is complete.

The USB serial Device is now ready to use.

This is not required if your sign is equipped with Bluetooth.

**Software version may differ as updates are applied.*

Basic Connections.



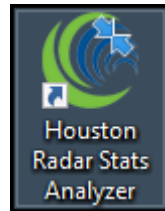
If you are connecting via Bluetooth, please refer to that section found from page 13.

- Connect the supplied grey serial lead to the USB/RS232 converter.
- Connect the other end of the grey serial lead to the RS232 interface located on the sign.
- Plug the USB end into your computer.
- Connect a **fully charged** battery to the sign. (Portable signs)
- Switch the sign on.

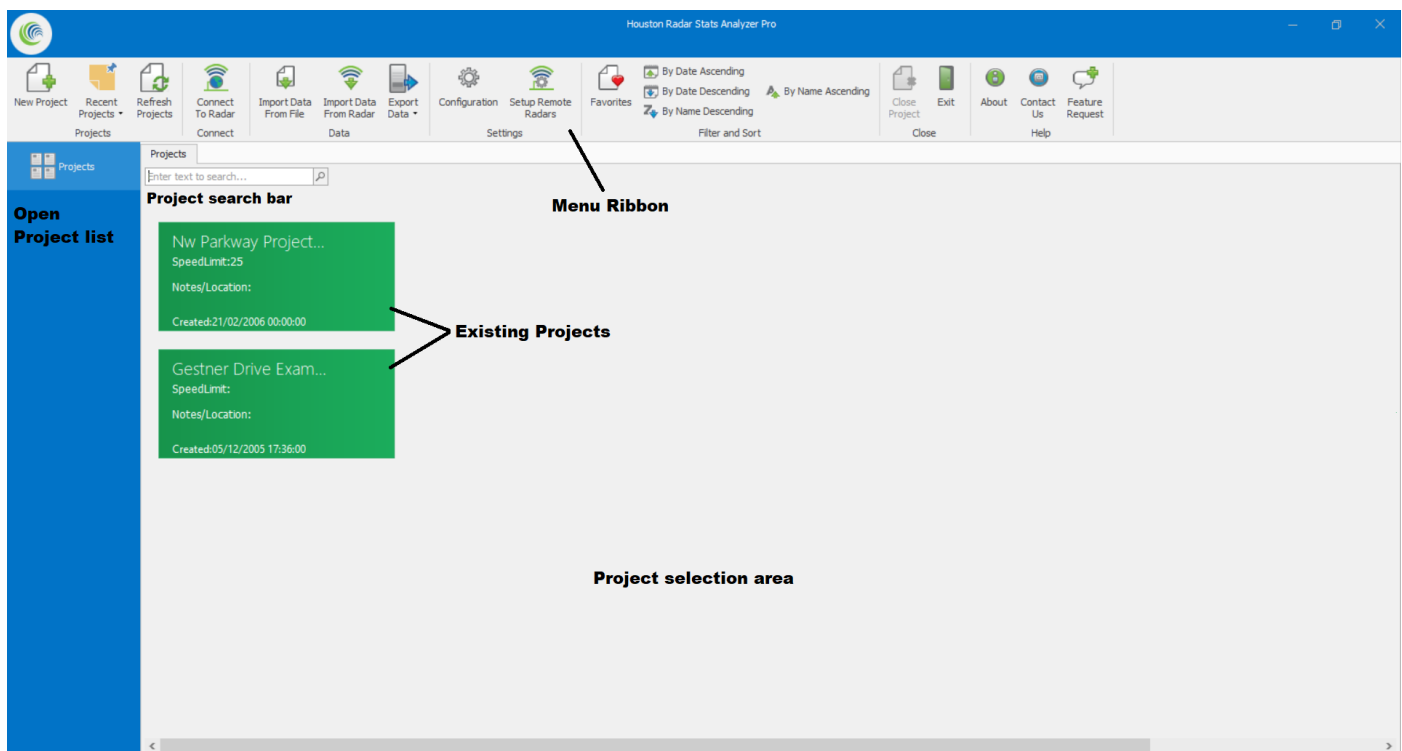
Please note that all Westcotec portable signs are equipped with a Low Voltage Disconnect device (LVD) which cuts power to the sign once the battery voltage reaches **11.5V**. In order to deactivate the LVD, a battery with a voltage **greater than 12.6V** must be connected.

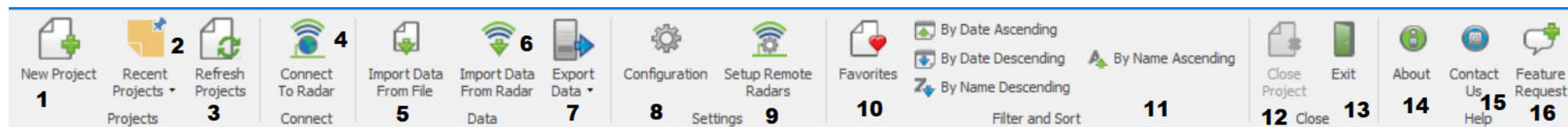
Getting Started with the Houston Radar Stats Software.

Click on the shortcut for the Houston radar software, now installed on your desktop.



The main screen shows saved data projects in the main part of the window, along with the menu ribbon along the top.





Menu Ribbon.

1) New Project.

Click this button to create a new project.

2) Recent Projects.

Click this button to show a list of recently opened projects

3) Refresh Projects.

Click this button to refresh the projects window.

4) Connect to Radar.

Click this button to bring up the Radar Connection Window.

5) Import Data From File.

Imports data into a project from an existing .dat file into a project.

6) Import Data From Radar.

Opens Connect to radar window ready to import data into project.

7) Export Data.

Performs raw data export from currently selected project.

Drop down list chooses export format.

8) Configuration.

Click this button to bring up the Stats Analyzer Configuration Window.

9) Setup Remote Radars.

Click this button to configure remote radar that can be accessed over TCP/IP networks.

10) Favourites.

Click this button to show only those project that have been marked as favourites.

11) Project sorting.

Using these four buttons allows the user to sort the Projects in the display window by name or number.

12) Close Project.

Closes currently selected open project.

13) Exit.

Closes the Analysis software.

14) About

Click this button to display the software version number.

15) Contact Us.

Generates an email to Houston Radar.

16) Feature Request

Generates an email to Houston Radar to request a feature.

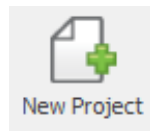
Before Downloading the Data: Creating a Project.

All data requiring analysis must first be downloaded into a project. A project is simply a place to organise the different sets of data together.

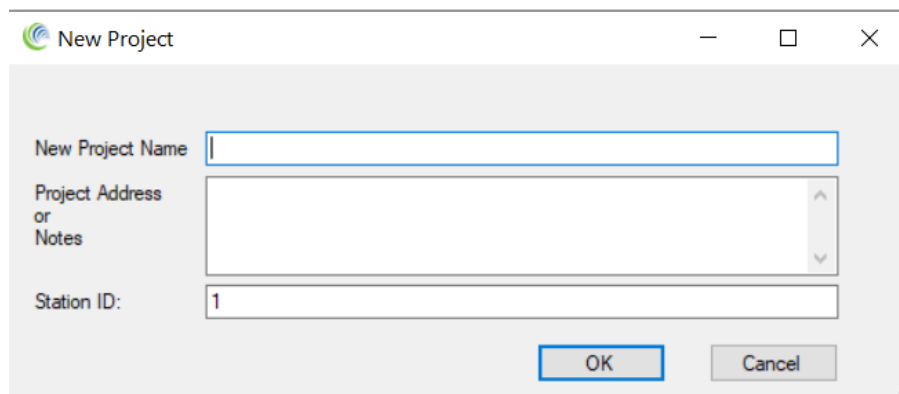
It is recommended that a project is made for each site that the sign is deployed at, as this will assist the user in making comparisons for each data set. It will also make managing data much easier as the data will then be stored in folders using the project name.

To create a project:

- From the menu ribbon click “**New Project**” found in the left-hand side of the Menu Ribbon.



- A new window will open:

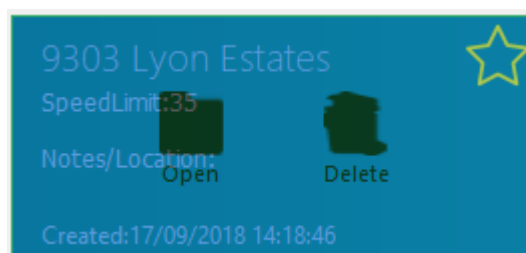

 A screenshot of a "New Project" dialog box. It has a title bar with a green icon and the text "New Project". Inside, there are three input fields: "New Project Name" (a text box), "Project Address or Notes" (a text area with a scroll bar), and "Station ID:" (a text box containing the number "1"). At the bottom right, there are "OK" and "Cancel" buttons.

Simply give the project a name, add any extra details and click OK. This information can be edited at any time by clicking the “**Project settings**” button within the open project screen.

- The new project will be shown as a new box in the Project Selection area. To open, hover the mouse over the project and click the **Open** icon to open the project.

Top Tip:

Click on the Star to add the Project to Favourites.

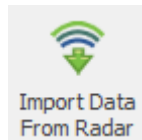


Data Download.

In order to download the Data, it is necessary to first refer back to “**Basic Connections**” and ensure that the computer and sign are correctly set up.

Open the destination project.

Once you are happy that all connections are in place, Click the “**Import Data From Radar**” button on the menu ribbon.



This will open a new window.

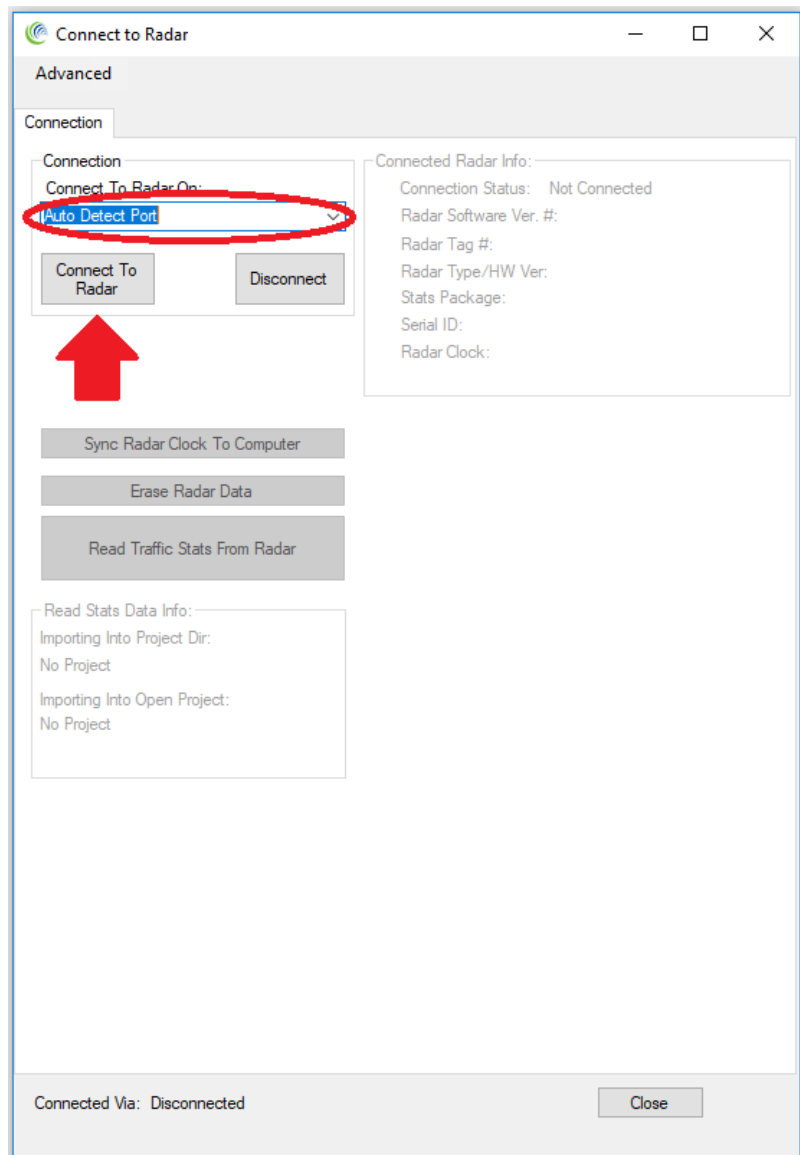
If using a wired connection, the user can select the specific Com port that is in use. This will say something like: “COM4:Prolific USB-to-Serial Comm Port”.

Although there is no difference in connection speed, it may be useful if Auto detect port doesn't initially connect with the radar. It will also confirm that the computer has registered the connection.

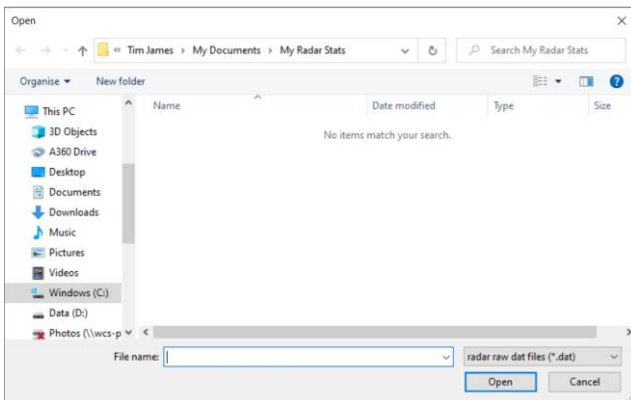
If using a Bluetooth connection, continue to use **Auto Detect Port**. See page 13 for more details.

When ready to proceed, click the “**Connect to Radar**” Button.

The connection status will then scroll through the available com ports as the software searches for the radar.



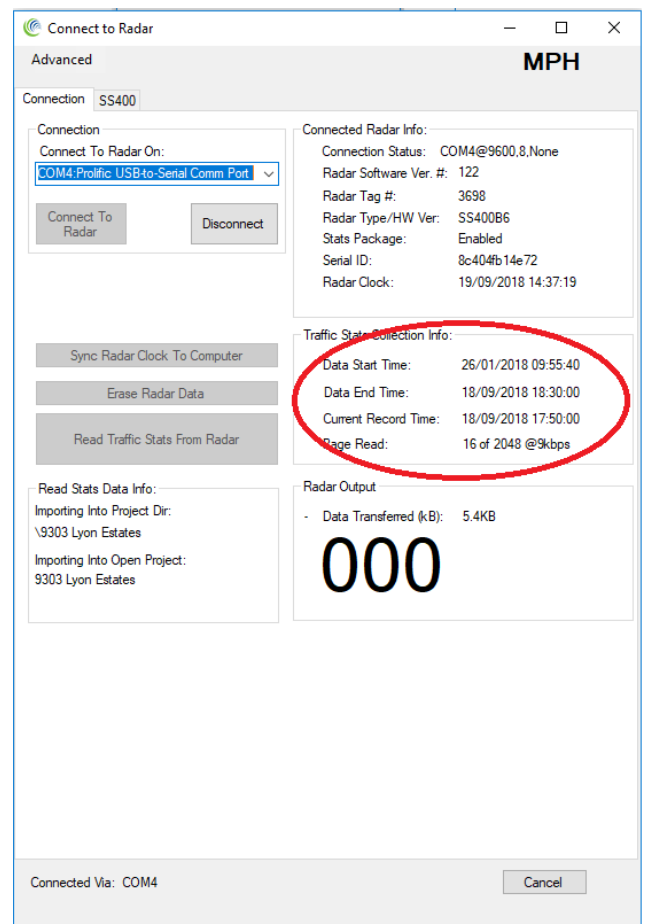
Data Download Cont.



A save screen will then pop up. The default location will usually be a folder of the same name as the project, within the **User> Documents> My Radar Stats** pathway.

The data will then start to download, as displayed in the *“Traffic Stats Collection Info”* Box.

The data read progress is shown in the highlighted box. When no more data is present, the read will stop. Please note that not all pages may be read if the memory isn't full.

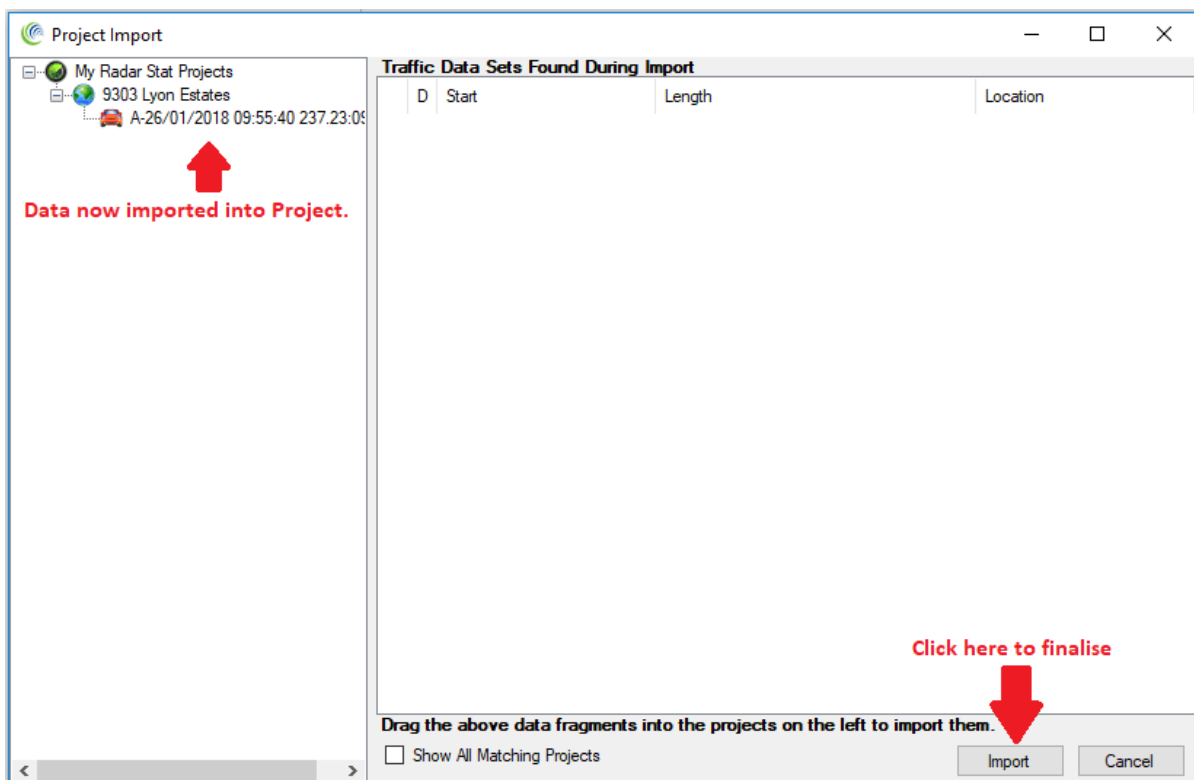
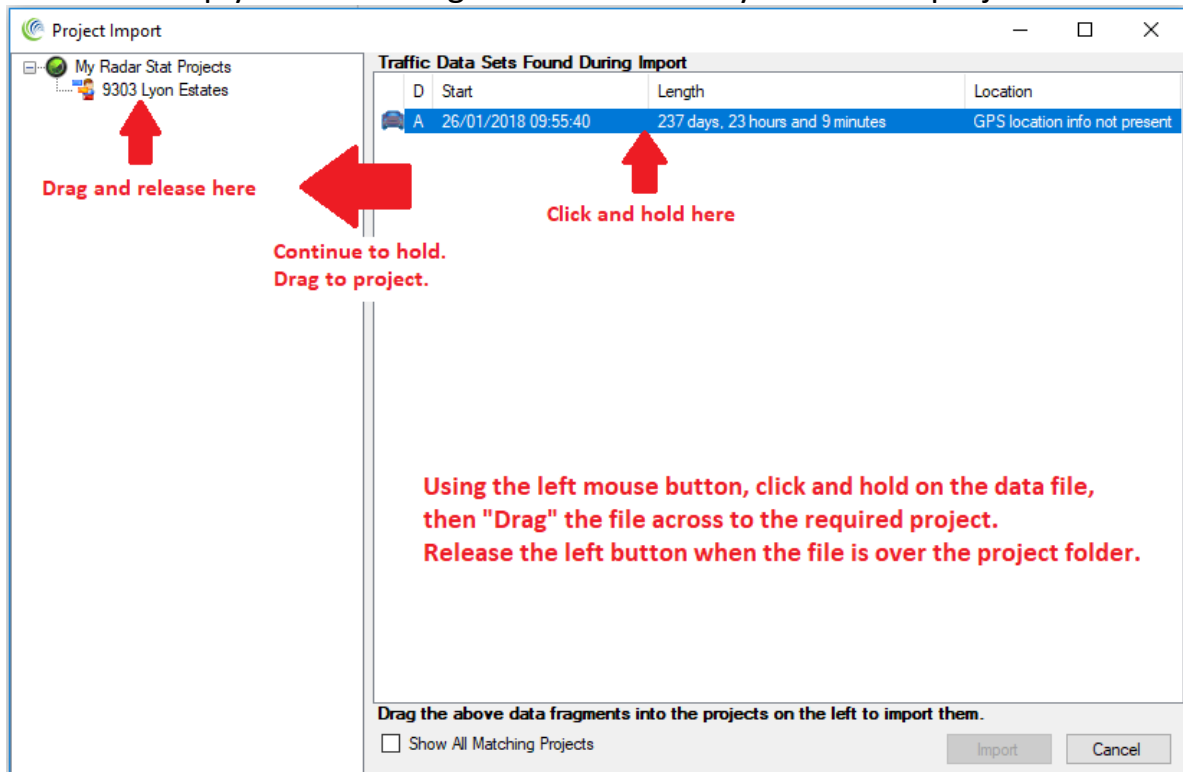


Once the data has downloaded, a new window will open.

Top Tip: Using the default setup, the radar will store approximately 60 days of data before over writing the oldest files.

Data Download Cont.

The new screen will look something like the below screenshot.
Simply click and drag the Data file into your chosen project.



Once the data is showing in the project, Click **IMPORT** to finalise.

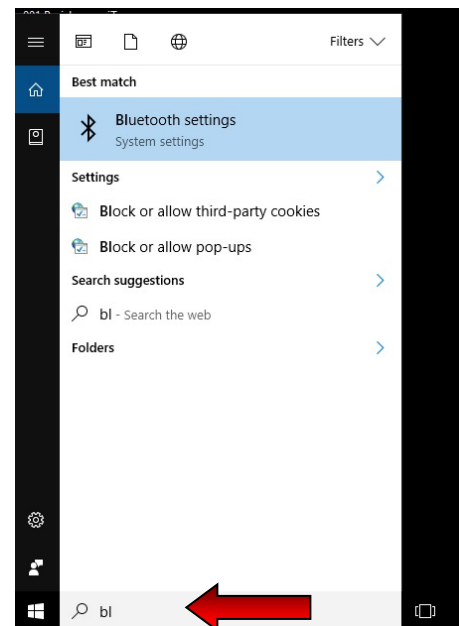
Please note: If **IMPORT** is not clicked then the operation will not have been completed.

Data Download: Using Embedded Bluetooth on a Windows Tablet.

If your sign is equipped with Bluetooth data download and have access to a Bluetooth enabled Windows Tablet, then this can be used to analyse as well as download the data. The first time connection to a sign is made, it is necessary to pair with the sign Bluetooth. For subsequent connections, connect in the normal manner.

Method shown uses a Windows 10 tablet. Alternative versions of Windows may vary.

- Position within 3-8 meters of the sign. Ensure that sign is switched on and is connected to power.
- On your PC/ Tablet, go to search tab (bottom left on your screen) and type BLUETOOTH, as pictured.
- Tap **Bluetooth settings**.
- The Bluetooth settings window will be displayed as below



Bluetooth needs to be **ON**

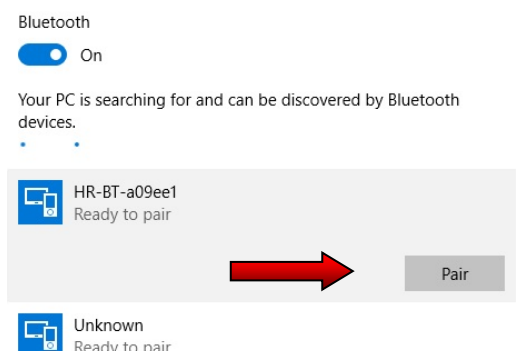


The Sign Bluetooth Device should appear,
Tap on it and **PAIR** button will appear



Press **PAIR** button

Manage Bluetooth devices



Related settings

[More Bluetooth options](#)

[Send or receive files via Bluetooth](#)

Top Tip: The Bluetooth name should be HR-BT-xxxxx, where xxxx is the serial number of the sign.

The pairing process should take a moment, as indicated by the progress bar.

If requested during the pairing process, the pin code is 0000.

Manage Bluetooth devices

Bluetooth

 On

Your PC is searching for and can be discovered by Bluetooth devices.



If requested during the pairing process, the **Pin Code** is **0000**

Once pairing has been completed, the status will change to CONNECTED.

Manage Bluetooth devices

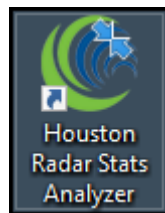
Bluetooth

 On

Your PC is searching for and can be discovered by Bluetooth devices.



- Close the BLUETOOTH settings window, and run the Houston Radar Stats Software.



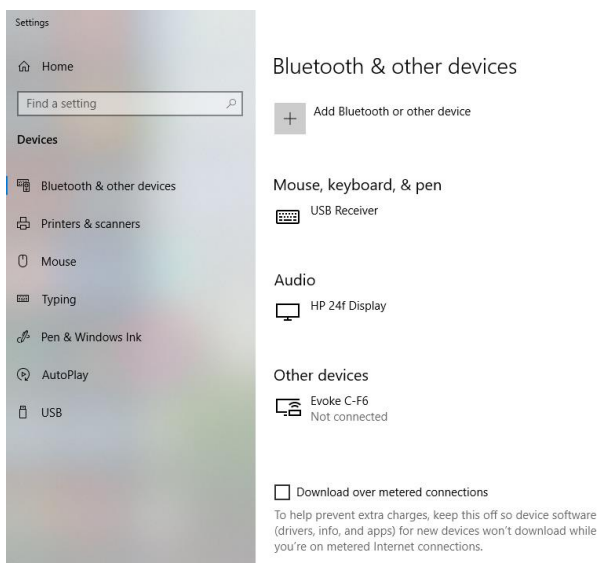
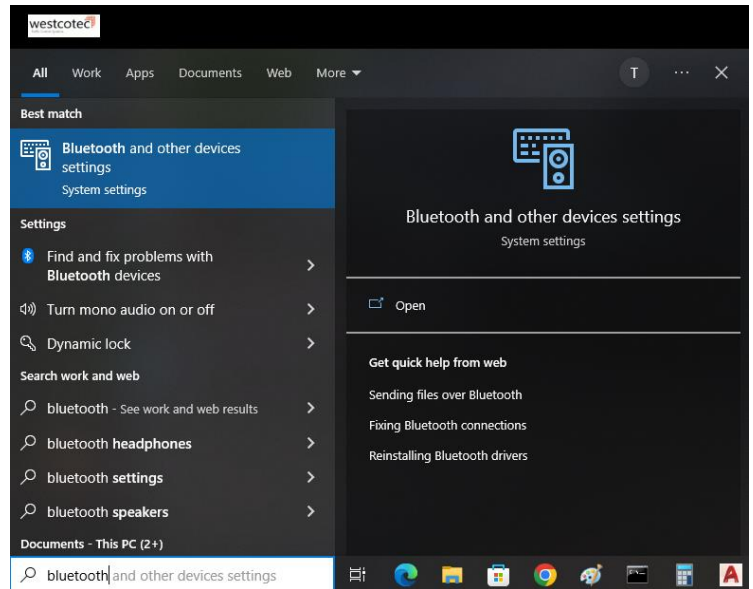
- For connection and download of data, please refer to previous chapter as the method is identical. This pairing process only needs to be performed once. For future connections, simply connect in usual manner.
- Once finished, it is important to end the connection with the **“Disconnect”** Button.

Data Download:

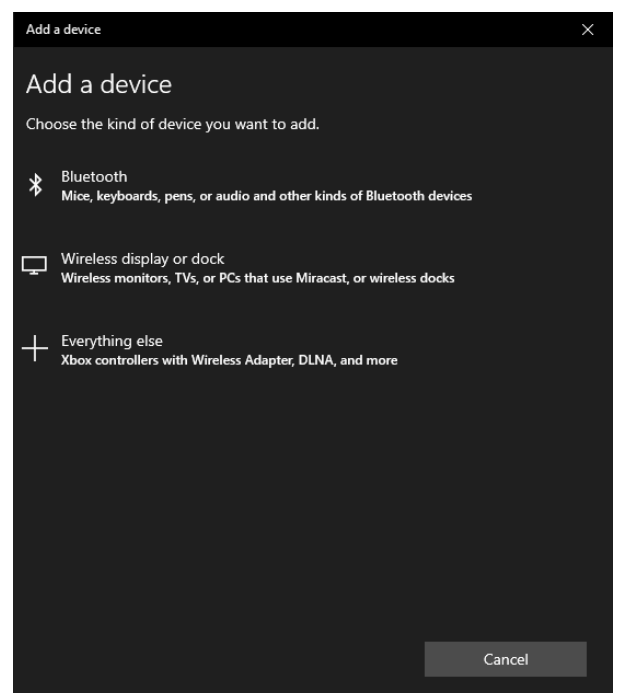
Using Embedded Bluetooth on a Windows Computer.

Connecting using a Windows Computer is very similar to a tablet but laid out slightly differently.

- Position within 3-8 meters of the sign. Ensure that sign is switched on and is connected to power.
- Type “Bluetooth” into the Search bar, usually found in the bottom left corner, next to the windows icon.



- Click on “Add Bluetooth or other device”

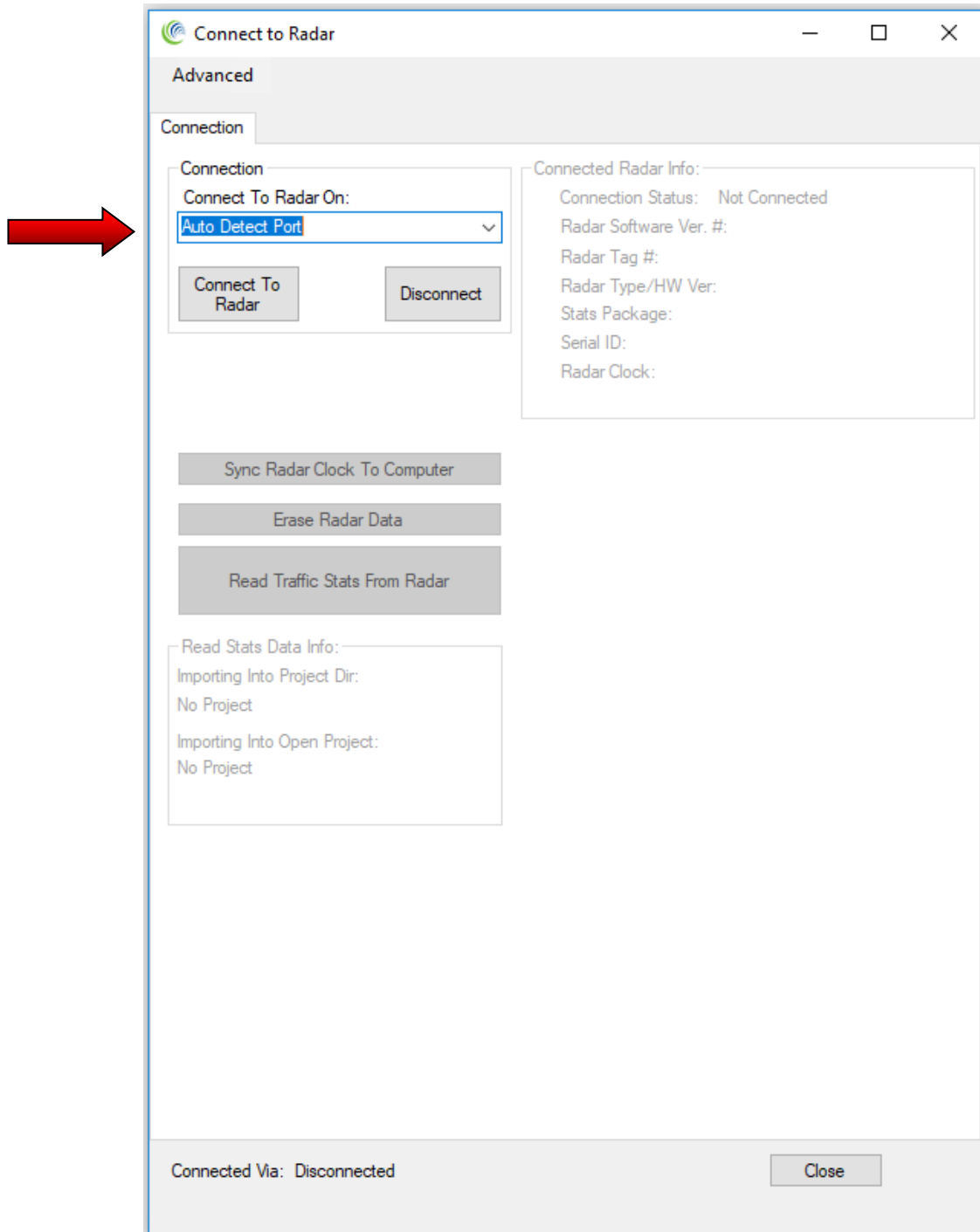


- A pop-up window will appear.
- Click on the top Bluetooth option. (Mice, Keyboards, etc.)
- The computer will then search for Bluetooth devices in the area.
- Select the sign from the list to pair.

If requested during the pairing process, the **Pin Code** is **0000**

Important Notice!

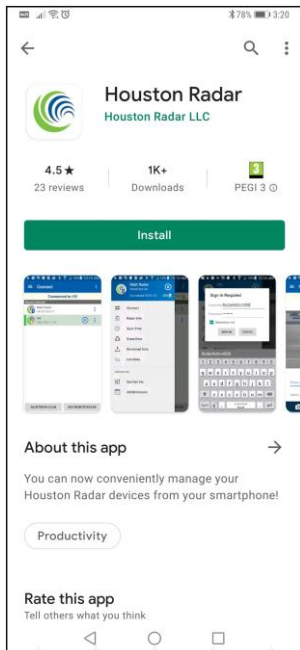
When using Bluetooth connection to download data, please choose AUTO DETECT connection in Houston Radar SW as shown below:



See also “Data Download” on page 9.

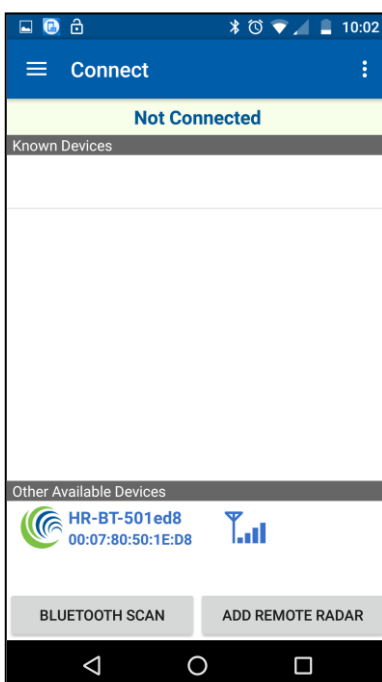
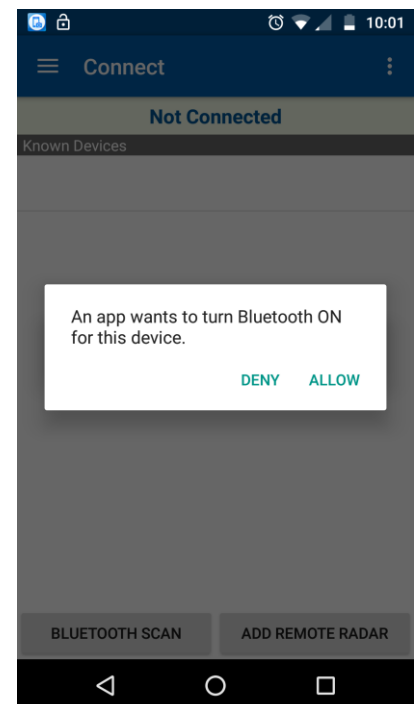
Data Download: Using the Bluetooth App. on an Android Device.

If your sign is equipped with Bluetooth, then the user has the option to download and install the Android App from the Google Play store. Simply search for “Houston Radar LLC” and install on your **Android** device.



Once the App has successfully installed, you will need to be close to the sign to use it. The sign must be powered up and switched on in order to connect and download the data. When you are in close proximity to the sign, open the Houston Radar App.

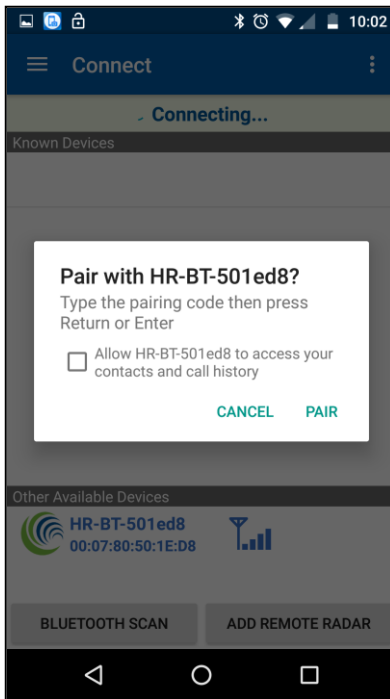
If there is a prompt to turn on your device’s Bluetooth, press **Allow**, as Bluetooth will need to be enabled.



Tap on “**Bluetooth Scan**”. When the Bluetooth unit inside the sign has been detected, it will look something like the image to the left.

The Bluetooth will be named by the serial number of the sign.

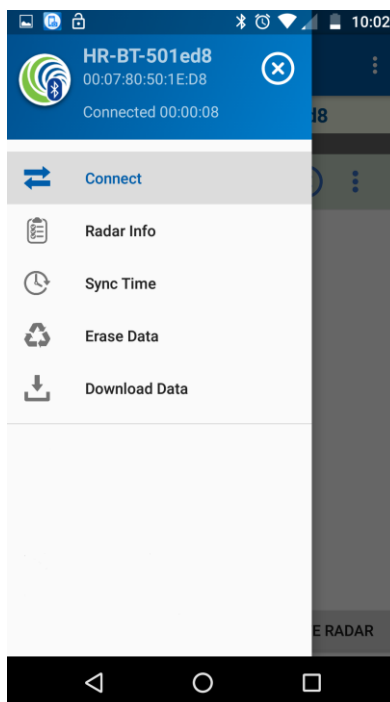
Tap on the device mentioned under “Other available devices”.



The User will be asked to pair with the Bluetooth unit. Click “Pair”. The phone will now connect to the sign. Once the Android device has been paired with the sign, it is not necessary to scan for the device again. Simply rename the device, and tap the selected sign from the “known devices” list when connection is required again.

If requested during the pairing process, the **Pin Code** is **0000**

Once paired and connected, the main menu will be displayed. This can be accessed at any time by touching the 3 horizontal lines in the top left-hand corner.



Connect: Back to the main connection screen.

Radar Info: Displays information about the radar, including time.

Sync Time: Syncs the time of the radar to your Android Device.

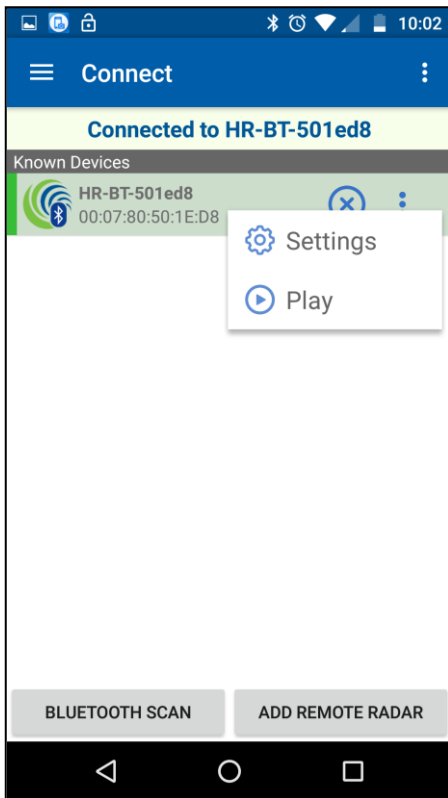
Erase Data: Enables user to erase data from radar.

Download Data: Enables user to download data from radar.

Top Tip: You can pair with the sign using the normal Bluetooth settings as you would any other device.

Renaming the Bluetooth Device.

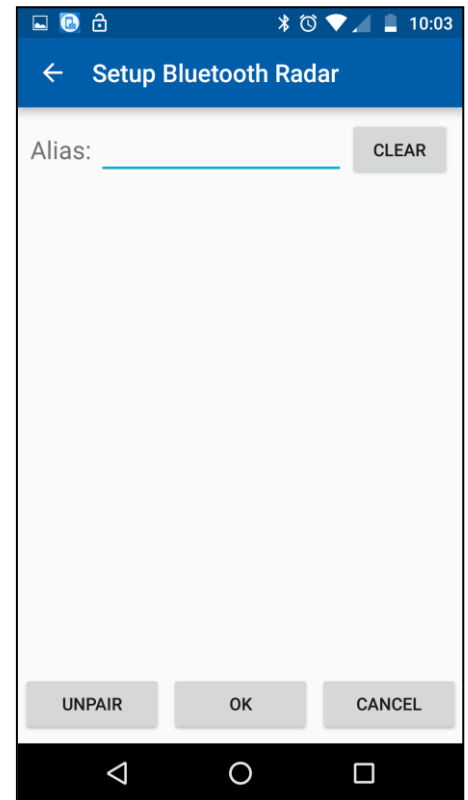
If there are multiple units deployed, or simply for ease of use, the user may wish to rename the Bluetooth device to something easily recognisable. To do this, tap the three dots affiliated with the Bluetooth device to open the menu.



Tap **“Settings”**.

Enter required name

Tap **“OK”**

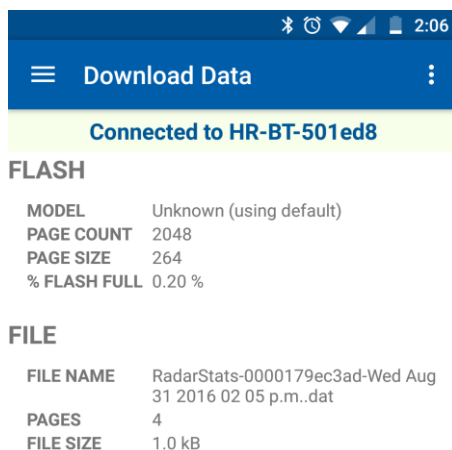



Renaming the device will only have an effect within the App, and will not change the original name as determined at the factory. The Factory default name usually contains the sign serial number.

Data Download.

To start the data download, tap on “Download Data” found on the main menu. The data will then immediately start to download to a temporary file within your Android device.

Please note that it may be necessary to allow the Houston Radar App storage permissions within the Android device’s App settings menu, as individual devices vary.



Once the data is downloaded, you can then share the data via email or other method as required. To do this, tap the  icon at the bottom of the screen.

A list of installed Apps will then be displayed. If you wish to email, select your email App. An email will open, pre-filled with only the recipient field required to be filled. It is possible to add a default email address. Please see page **21**.

Tap to send as you would normally.



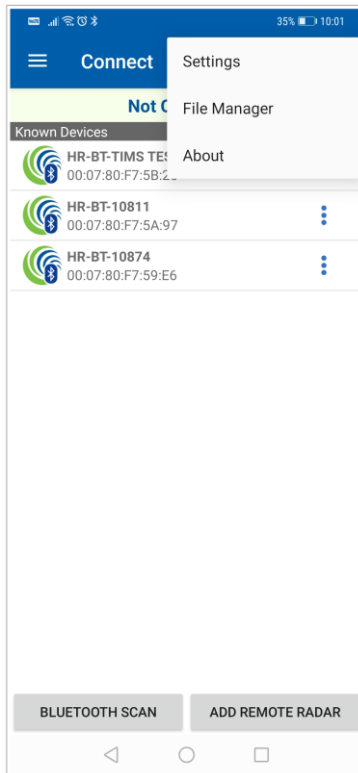
Once you have performed this action once, you will see a shortcut to the App in the bottom right hand of the screen. In future, just tap this icon to perform the same action.

Please note that the Houston App is for data download only, NOT analysis of data.

Top Tip: *When sending the email, we recommend adding the location the data was collected from. This will make life much easier for anyone receiving the email!*

Retrieving Downloaded Files on Android Device.

It may be that the user's Android device is unable to send the file at the time of downloading the data, or there was a problem retrieving the data from the email. The data is stored on the Android device, and the files accessed using the App.

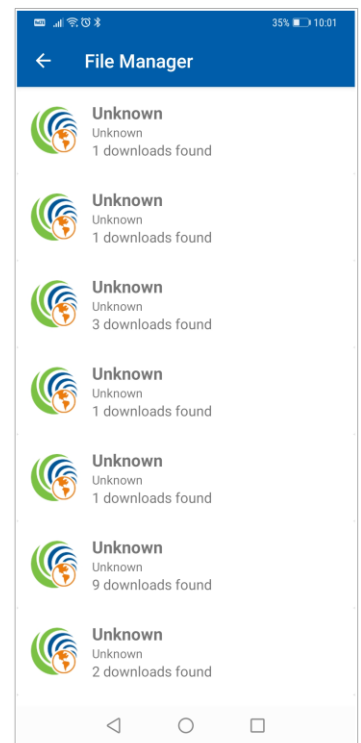


Open the Houston Radar App. It is not necessary to connect to a sign for this action. Tap on the three vertical dots in the top right-hand corner of the screen. This will bring up the menu.

Tap "File manager".

The screen will then change to show a list of folders.

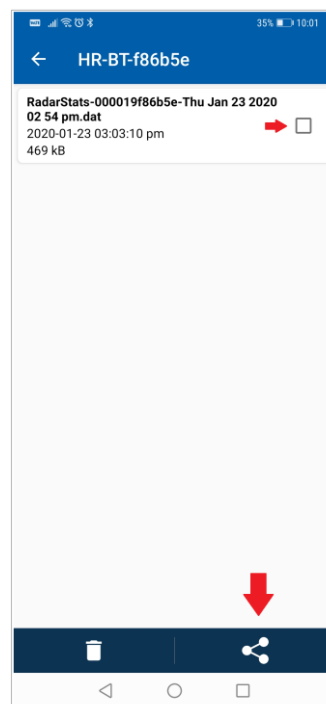
Click on a folder to access the data file.



All dat files in the folder will be shown, along with the download date and time.

Select the required file by ticking the adjacent box.

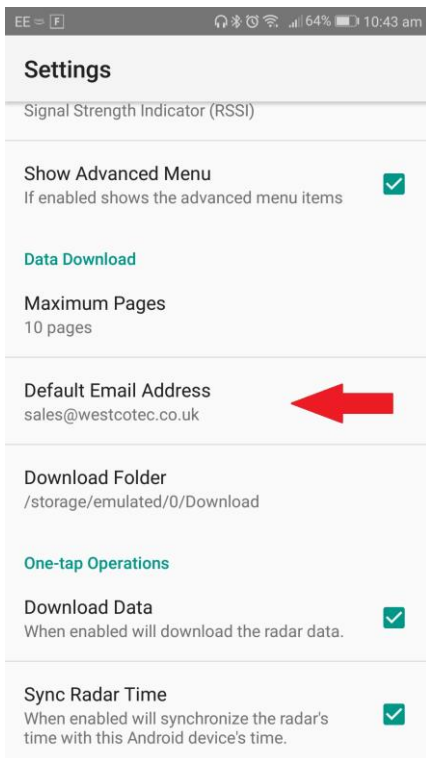
Once the files are selected, tap the share button and select the required App.



Setup Email Recipient.

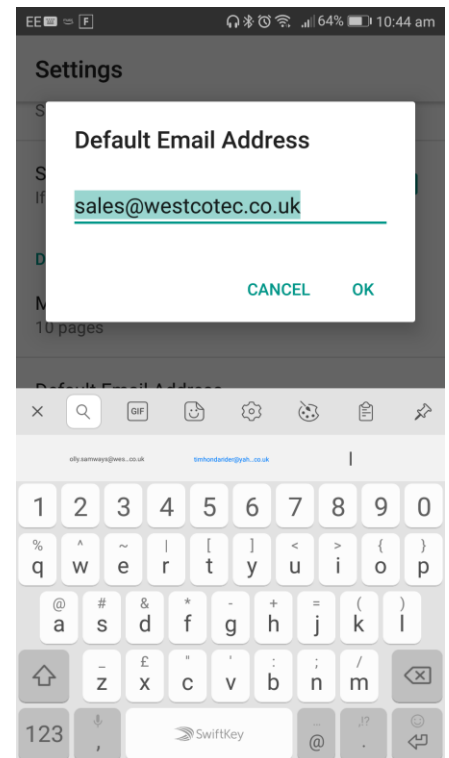
Within the App, it is possible to set up a single email address that will automatically populate any email generated by the App. This is particularly handy if one recipient is used for every download.

To set the recipient email, go to the settings menu as described on the previous page.



Tap on the “**Default Email Address**” option.

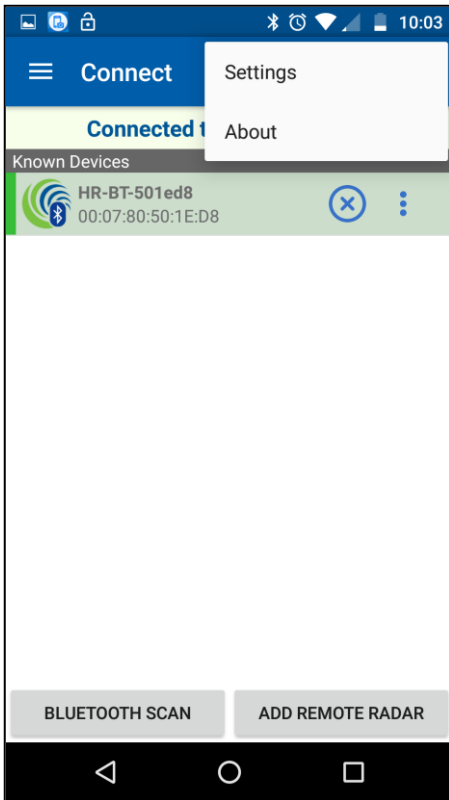
Fill in the pop up as required and press **OK** when ready.



Once this has been completed, any email generated to send data from this App will have that email pre-filled in the address line. Further addresses can be added to the email, of course.

Enabling One Touch Data Download.

The App has a very useful function that will, at the touch of a button, Connect, Download, Sync the time, Erase the data, Share the data and Disconnect. Very handy! To enable all the functions, it is necessary to go into the settings menu.

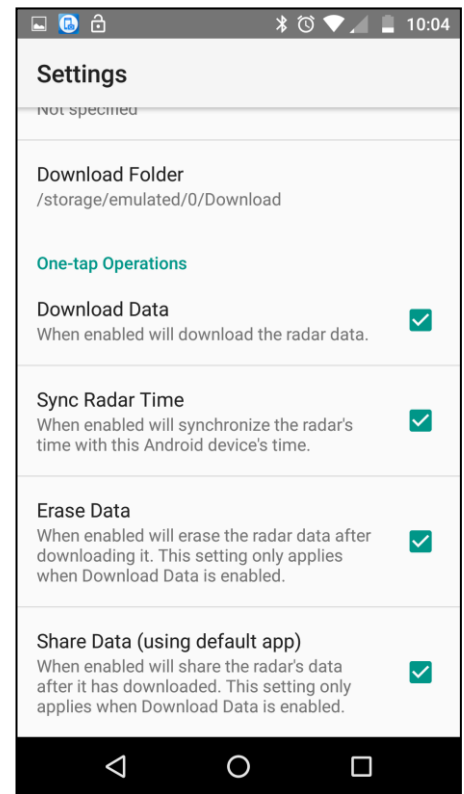


This is found by tapping the three dots at the top right of the screen.

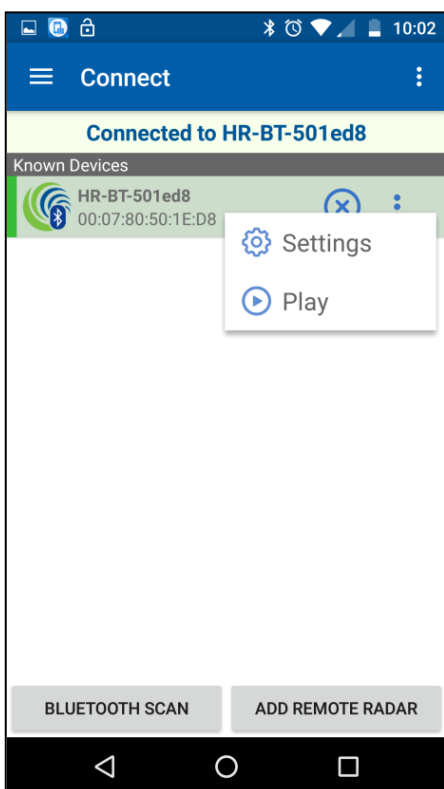
Tap “Settings”

Scroll to the bottom of the menu, and ensure all four boxes are ticked. Once enabled, it should not be necessary to repeat this set up.

From the main connection screen, tap the three dots affiliated with the device.



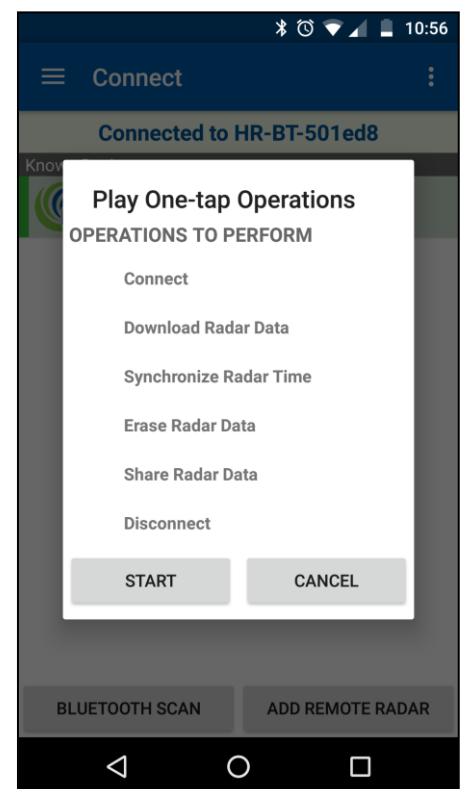
Tap “Play”



A new screen will pop up, with a list of operations.

Tap “Start”

As the operations are completed, a tick will appear beside each one. The App will share as described previously.

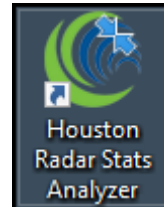


Importing Data From File.

Once the data has been emailed, it will be necessary to view it using the Houston Stats Analysis software on a Windows computer.

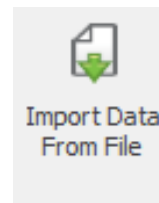
If you have downloaded the data and emailed it from the Android App, it will be necessary to save the data attachment to the user computer. Use the “**Save As**” option to save the file somewhere easy to find.

Open the stats software by clicking on the icon



Open the required stats project.

From the Menu ribbon, click on the “**Import Data From File**” button.



A new screen will open allowing the user to browse to the location the data file is saved. Once the saved data file has been selected, click **Open**.

The method of actually importing the file into the project is exactly the same as when downloading directly from a radar. Please see page **12** for further details.

Data Analysis.

Once the data has been imported into the project, there are two choices of how select the data set.

Option 1: Analysis Over Specified Dates.

The first option allows the user to select the data set using selected start/end dates to run the analysis. Using this option automatically applies to all imported data files within the specified time frame.

It may not be advisable to use this option if the data within the project is sourced from differing locations.

The screenshot shows the Houston Radar Stats Analyzer Pro interface. The 'Configuration' menu item is circled in red, with a red arrow pointing to the 'Date Selection View' tab. The 'Date Selection View' tab is active, displaying a calendar for February, March, April, and May 2018. The dates 19, 20, 21, 22, 23, 24, and 25 are highlighted in blue. The 'Analyze' button is circled in red. The 'Project Settings' panel on the right shows the 'Analyze' checkbox checked, and the 'Speed Limit' dropdown is set to '35'. The 'Analyze All' checkbox is unchecked.

Opens Stats analyzer Configuration settings

Selection of additional charts and graphs, created on activation of Analyze button. These graphs apply to the entire data set.

Speed limit should be as per road data was collected from.

Selected dates for analysis are highlighted. Selected dates apply to ALL data files in project.

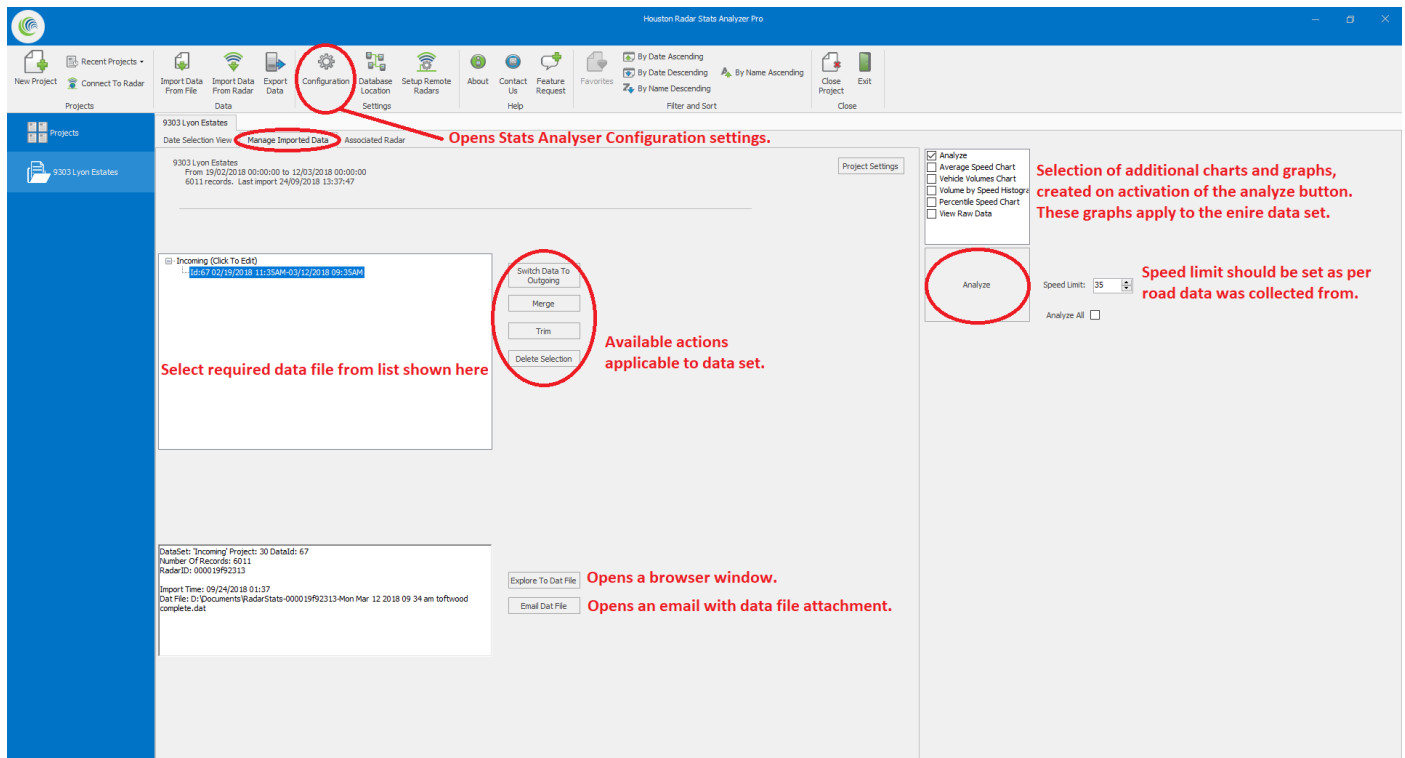
After opening the required project, choose Date Selection View. There is a calendar control where dates containing data are displayed in bold text. Simply choose the contiguous dates required, any additional graphs or charts and click the **Analyze** button.

Top Tip: Use the shift key to select an end date on the calendar.

Data Analysis Cont.

Option 2: Specific Data Sets.

To generate a report from a specific dataset, use the Manage Imported Data tab. From here it is possible to analyse one or more data sets by selecting from the list shown.



There are also additional actions that can be performed that apply to the data set. These are:

- **Switch data to Outgoing:** Changes data labelled as Incoming to Outgoing.
- **Merge:** Allows user to Merge multiple data sets.
- **Trim:** Allows user to trim the data set to specific times and dates.
- **Delete selection:** Deletes selected data set from project.

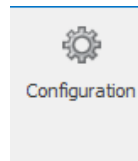
Westcotec recommends that the above actions are used with caution and applied to a copy of the original data set, **as all changes are final.**

- **Explore to Dat file:** Opens a browser window to allow user to locate saved Dat file.
- **Email Dat File:** Opens an email with the Dat file attached.

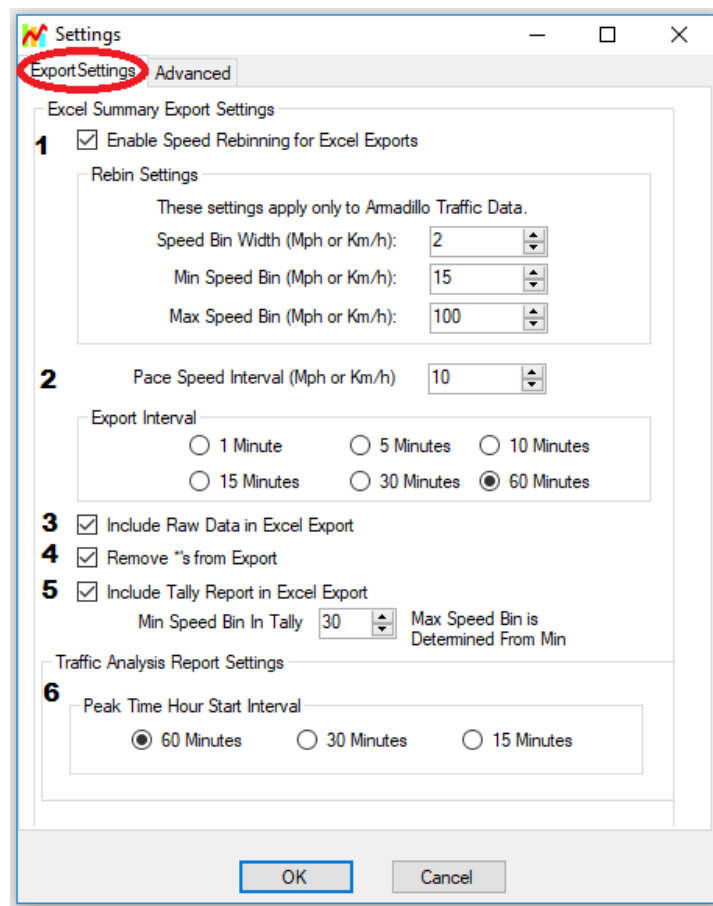
Select the required data set, any additional charts or graphs and click the **Analyze** button

Data Analysis Cont.

Stats Analyser Configuration.



To access the Configuration menu, click on the “**Configuration**” button on the menu ribbon



Settings (ExportSettings | Advanced)

Excel Summary Export Settings

1 ☒ Enable Speed Rebinning for Excel Exports

Rebin Settings

These settings apply only to Armadillo Traffic Data.

Speed Bin Width (Mph or Km/h): 2

Min Speed Bin (Mph or Km/h): 15

Max Speed Bin (Mph or Km/h): 100

2 Pace Speed Interval (Mph or Km/h): 10

Export Interval

☐ 1 Minute ☐ 5 Minutes ☐ 10 Minutes

☐ 15 Minutes ☐ 30 Minutes ☒ 60 Minutes

3 ☒ Include Raw Data in Excel Export

4 ☒ Remove *s from Export

5 ☒ Include Tally Report in Excel Export

Min Speed Bin In Tally: 30 Max Speed Bin is Determined From Min

Traffic Analysis Report Settings

6 Peak Time Hour Start Interval

☒ 60 Minutes ☐ 30 Minutes ☐ 15 Minutes

OK Cancel

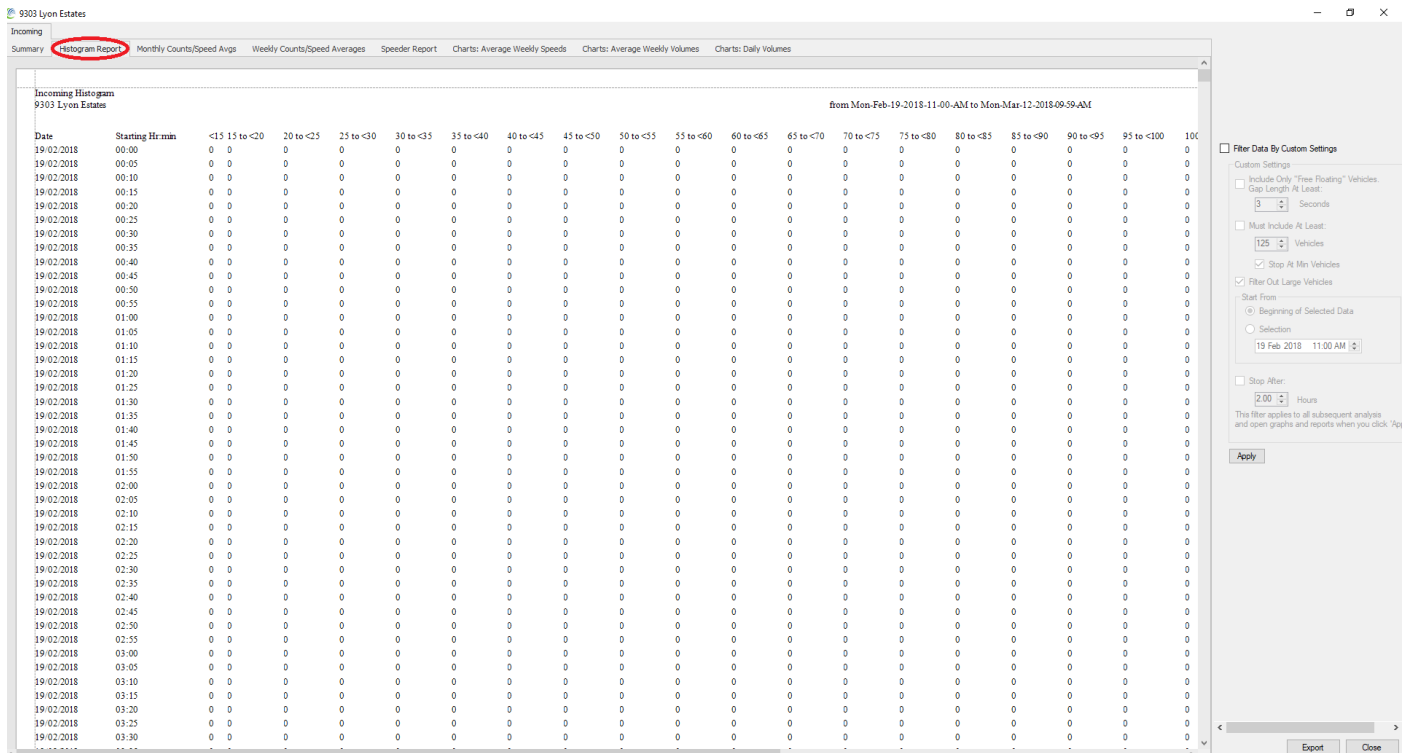
1. Specifies the Speed Interval for the exported summary report. *
2. Export Interval: Specifies the time interval to the exported summary report.
3. Include Raw Data: Yes/ No.
4. Removes * from exported summary report.
5. Include Tally report for the Armadillo Tracker. *
6. Specifies time interval for peak traffic analysis.

**Not applicable to radar fitted as standard to Westcotec signs.*

Interpreting the Analysis Report.

Once the “**Analyze**” button has been clicked, the software will generate the analysis report. Reports can be selected by clicking on the tabs at the top of the screen.

Histogram Report



The Initial screen is a histogram of the raw data.

The radar collects data in 5 minute “Bins” which are then sorted into 5mph columns. Each passing vehicle in that 5-minute bin is added to the count according to the speed it was captured at.

It is possible to select data to copy and paste elsewhere by using the mouse to highlight the chosen area, and then using Ctrl+C (copy) and Ctrl+V (paste) to add to your own document.

This is the same data that can be exported to Excel. Please see page 43 for further details.

Data Analysis Cont.

Monthly counts/ Speed averages.

Incoming

Analysis Report

Monthly Counts/Speed Aves

Weekly Counts/Speed Averages

Charts: Average Weekly Speeds

Charts: Average Weekly Volumes

Charts: Daily Volumes

Project: 9303 Lyon Estates

Location: Incoming

Project Notes:

Select Month:

February

March

Select Display Data:

Show Counts

Show Avg. Speeds

Show 85pct Speeds

Show Speeder Counts

Show Avg. Speeder

Hour	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday	Week Day Avg	Weekend Avg	Week Day 85% Avg Speed
0 - 1	9	49	39	31	31	46	51	31.8	48.5	48.3
1 - 2	13	31	27	11	27	22	18	21.8	20	45.2
2 - 3	6	37	37	14	17	26	7	22.2	16.5	44
3 - 4	15	46	32	17	25	7	6	27	6.5	45.3
4 - 5	24	39	32	13	16	12	2	24.8	7	46.7
5 - 6	58	102	105	59	53	34	19	75.4	26.5	44.7
6 - 7	180	360	316	183	165	53	28	240.8	40.5	40.6
7 - 8	344	696	504	324	326	158	65	438.8	111.5	38.6
8 - 9	435	793	647	447	426	274	94	549.6	184	37.1
9 - 10	428	730	556	393	448	421	248	511	334.5	36
10 - 11	328	615	471	386	367	470	406	433.4	438	35.8
11 - 12	482	626	499	353	358	478	350	463.6	414	37.1
12 - 13	632	602	474	334	398	409	354	488	381.5	37.3
13 - 14	650	659	466	354	409	382	317	507.6	349.5	37.7
14 - 15	637	491	503	335	386	328	296	470.4	312	37.1
15 - 16	757	705	501	385	434	327	214	556.4	270.5	37.5
16 - 17	856	824	601	398	443	268	234	624.4	251	38.3
17 - 18	887	865	613	494	470	251	218	665.8	234.5	36.6
18 - 19	711	593	462	399	407	234	199	514.4	216.5	34.7
19 - 20	337	316	247	203	236	141	137	267.8	139	37.1
20 - 21	220	209	193	179	178	115	79	195.8	97	37.6
21 - 22	199	198	148	166	163	87	51	174.8	69	38.4
22 - 23	165	133	122	107	123	63	51	130	57	39.7
23 - 24	63	62	62	47	52	46	28	57.2	37	41.9
Totals	8436	9781	7657	5632	5958	4652	3472			
% of Total	18.5%	21.5%	16.8%	12.4%	13.1%	10.2%	7.6%			

Filter Data By Custom Settings

Custom Settings

Include Only "Free Floating" Vehicles.

Gap Length At Least:

3

Seconds

Must Include At Least:

125

Vehicles

Stop At Min Vehicles

Filter Out Large Vehicles

Start From

Beginning of Selected Data

Selection

19 Feb 2018 11:00 AM

Stop After:

2:00

Hours

This filter applies to all subsequent analysis and open graphs and reports when you click 'Apply'.

Apply

Export

Close

The second screen is a table containing the Average Hourly counts over the selected month. At the top of the chart is an option to select between counts, average speed and 85th percentile*, Speeder Counts, and Average Speeder. It is also possible to select between the months.

All Analysis is done on an hourly basis and reported by the day of the week.

For example, if the user selects counts for the month of February, the value in the first cell (Hour 0-1, Day= Monday) is the Total of the counts from midnight to 1am on all Mondays in February (where data is present). This continues throughout the cells.

The *weekday 85% Avg Speed* column contains the average of that row but excludes weekends.

**For an explanation of the 85th Percentile, please refer to the FAQ section.*

Data Analysis Cont.

Weekly Counts/ Speed Averages.

This screen is very similar to the previous one, the difference being that this table shows the information for a specific week. Each day has a date, which means that each cell contains the actual count for each hour of a specific day. All the other selectable options continue in this manner.

Incoming

Analysis Report

Monthly Counts/Speed Aves

Weekly Counts/Speed Averages

Charts: Average Weekly Speeds

Charts: Average Weekly Volumes

Charts: Daily Volumes

Project: 9303 Lyon Estates

Location: Incoming

Project Notes:

Select Display Data

☒ Show Counts
 ☐ Show Avg. Speeds
 ☐ Show 85pct Speeds
 ☐ Show Speeder Counts
 ☐ Show Avg. Speeder

Weekly vehicle counts for the week of: 19/02/2018
Total Vehicles this week: 33502 Vehicles

Select Week of (Starting Monday):

19/02/2018

26/02/2018

05/03/2018

Hour	Monday 19/02/2018	Tuesday 20/02/2018	Wednesday 21/02/2018	Thursday 22/02/2018	Friday 23/02/2018	Saturday 24/02/2018	Sunday 25/02/2018	Week Day Avg	Weekend Avg	Week Day 85% Avg Speed
0 - 1	20	26	31	31	46	51	27	48.5	49.6	
1 - 2	17	22	11	27	22	18	19.3	20	46.5	
2 - 3	20	22	14	17	26	7	18.3	16.5	46	
3 - 4	12	19	17	25	7	6	18.3	6.5	47	
4 - 5	19	15	13	16	12	2	15.8	7	49.4	
5 - 6	49	55	59	53	34	19	54	26.5	47.2	
6 - 7	174	186	183	165	53	28	177	40.5	41.8	
7 - 8	334	307	324	326	158	65	322.8	111.5	39.5	
8 - 9	386	452	447	426	274	94	427.8	184	38	
9 - 10	361	394	393	448	421	248	399	334.5	36.4	
10 - 11	321	326	386	367	470	406	350	438	36.8	
11 - 12	158	342	354	353	358	478	350	313	37.9	
12 - 13	317	332	336	334	398	409	354	343.4	381.5	37.6
13 - 14	307	355	312	354	409	382	317	347.4	349.5	38.4
14 - 15	338	353	361	335	386	328	296	354.6	312	37.5
15 - 16	369	373	372	385	434	327	214	386.6	270.5	38.3
16 - 17	417	398	452	398	443	268	234	421.6	251	39
17 - 18	416	428	481	494	470	251	218	457.8	234.5	37.2
18 - 19	356	312	375	399	407	234	199	369.8	216.5	35.6
19 - 20	156	176	197	203	236	141	137	193.6	139	38.5
20 - 21	96	120	156	179	178	115	79	145.8	97	38.3
21 - 22	94	116	123	166	163	87	51	132.4	69	39.8
22 - 23	76	85	108	107	123	63	51	99.8	57	41
23 - 24	34	50	50	47	52	46	28	46.6	37	42.3
Totals	3134	5153	5501	5632	5958	4652	3472			
% of Total	9.4%	15.4%	16.4%	16.8%	17.8%	13.9%	10.4%			

Filter Data By Custom Settings

Custom Settings

☐ Include Only "Free Floating" Vehicles.
Gap Length At Least: 3 Seconds

☐ Must Include At Least: 125 Vehicles

☒ Stop At Min Vehicles

☒ Filter Out Large Vehicles

Start From

☒ Beginning of Selected Data
 ☐ Selection

19 Feb 2018 11:00 AM

☐ Stop After: 2.00 Hours

This filter applies to all subsequent analysis and open graphs and reports when you click 'Apply'.

Apply

Export Close

If there is more than one week of data, alternative weeks can be selected at the top right by selecting from the list.

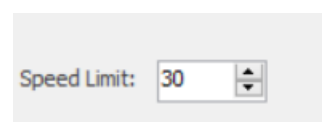
Filter data by custom settings

Activate these filtering options by clicking on the empty tick box.

Adjust these options to suit the user needs, then click **Apply** when ready.

Note: some of these functions are not available with the sign radar.

Top Tip: The Speeder counts and Average speeder columns are defined by the speed limit selection, found near the Analyse button. You can adjust this to any speed you require. Try setting it at the local Police speed reduction policy prosecution threshold! Tap Analyse when you are ready to see the results.



Data Analysis Cont.

Speeder Report

9303 Lyon Estates

Summary Histogram Report Monthly Counts/Speed Aves Weekly Counts/Speed Averages **Speeder Report** Charts: Average Weekly Speeds Charts: Average Weekly Volumes Charts: Daily Volumes

Summary of Violators
9303 Lyon Estates
from Mon-Feb-19-2018-11:00-AM to Mon-Mar-12-2018-09:59-AM

Starting Hour	Count	Average Speed of all Traffic	Violator Counts	Average Speed of Violators
00:00:00	0	N/A	N/A	N/A
00:01:00	0	N/A	N/A	N/A
00:02:00	0	N/A	N/A	N/A
00:03:00	0	N/A	N/A	N/A
00:04:00	0	N/A	N/A	N/A
00:05:00	0	N/A	N/A	N/A
00:06:00	0	N/A	N/A	N/A
00:07:00	0	N/A	N/A	N/A
00:08:00	0	N/A	N/A	N/A
00:09:00	0	N/A	N/A	N/A
00:10:00	0	N/A	N/A	N/A
00:11:00	0	N/A	N/A	N/A
00:12:00	0	N/A	N/A	N/A
00:13:00	0	N/A	N/A	N/A
00:14:00	0	N/A	N/A	N/A
00:15:00	0	N/A	N/A	N/A
00:16:00	0	N/A	N/A	N/A
00:17:00	0	N/A	N/A	N/A
00:18:00	0	N/A	N/A	N/A
00:19:00	0	N/A	N/A	N/A
00:20:00	0	N/A	N/A	N/A
00:21:00	0	N/A	N/A	N/A
00:22:00	0	N/A	N/A	N/A
00:23:00	0	N/A	N/A	N/A
00:24:00	0	N/A	N/A	N/A
00:25:00	0	N/A	N/A	N/A
00:26:00	0	N/A	N/A	N/A
00:27:00	0	N/A	N/A	N/A
00:28:00	0	N/A	N/A	N/A
00:29:00	0	N/A	N/A	N/A
00:30:00	0	N/A	N/A	N/A
00:31:00	0	N/A	N/A	N/A
00:32:00	0	N/A	N/A	N/A
00:33:00	0	N/A	N/A	N/A
00:34:00	0	N/A	N/A	N/A
00:35:00	0	N/A	N/A	N/A
00:36:00	0	N/A	N/A	N/A
00:37:00	0	N/A	N/A	N/A
00:38:00	0	N/A	N/A	N/A
00:39:00	0	N/A	N/A	N/A
00:40:00	0	N/A	N/A	N/A
00:41:00	0	N/A	N/A	N/A
00:42:00	0	N/A	N/A	N/A

☐ Filter Data By Custom Settings

Custom Settings

☐ Include Only "Free Floating" Vehicles

Gap Length At Least: Seconds

☐ Must Include At Least: Vehicles

☒ Stop At Min Vehicles

☒ Filter Out Large Vehicles

Start From: ☐ Beginning of Selected Data ☐ Selection

☐ Stop After: Hours

This filter applies to all subsequent analysis and open graphs and reports when you click "Apply"

This report is created by comparing the speed limit selected on the project screen and ignoring any data below that threshold.

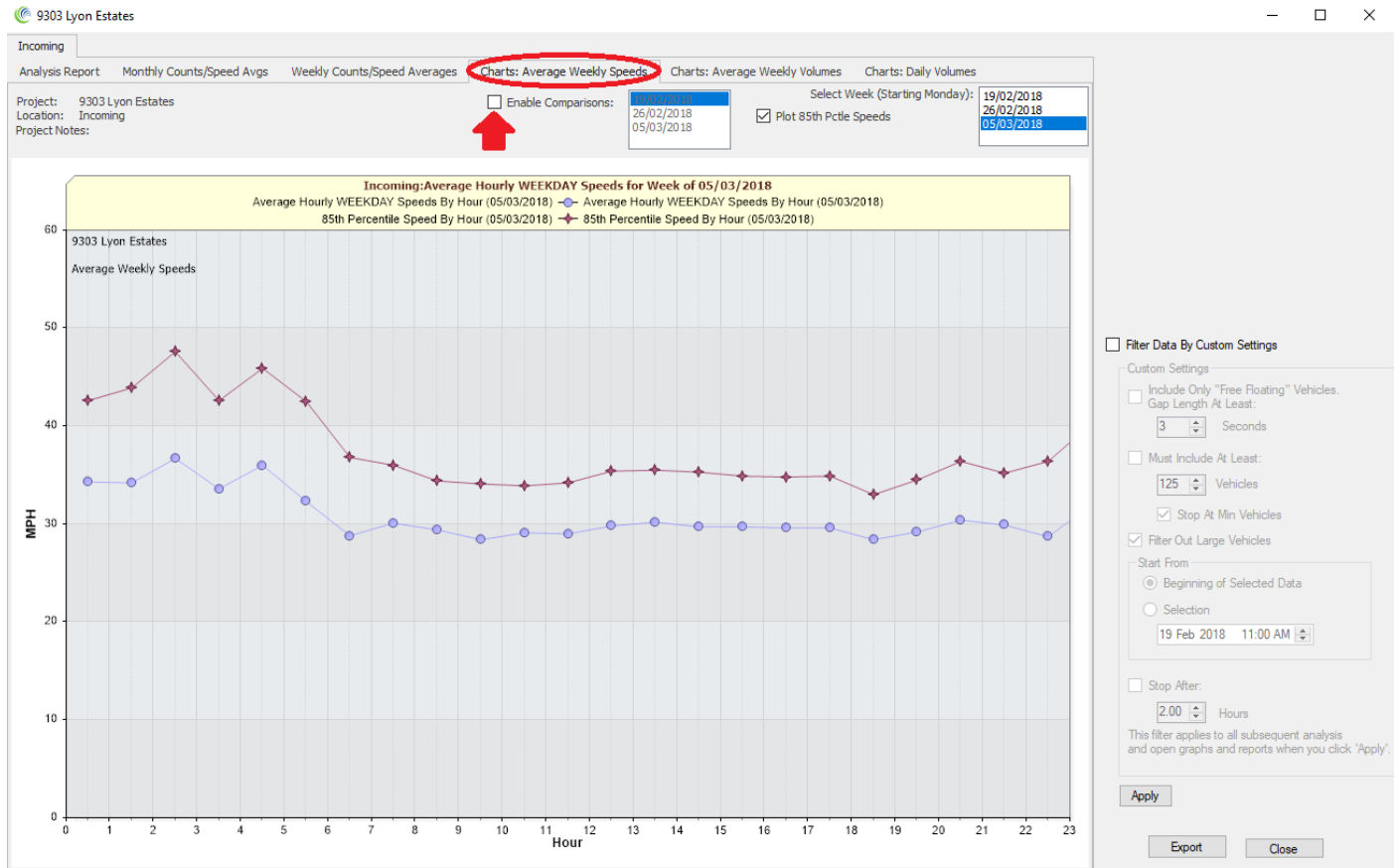
The data is displayed in minute format and shows N/A where no speeders are present.

Top Tip: An hourly summary that includes this data is found within the Traffic Analysis Report (See page 35)

Data Analysis Cont.

Charts: Average Weekly Speeds.

The next tab along is the first of the charts, Average Weekly Speeds.



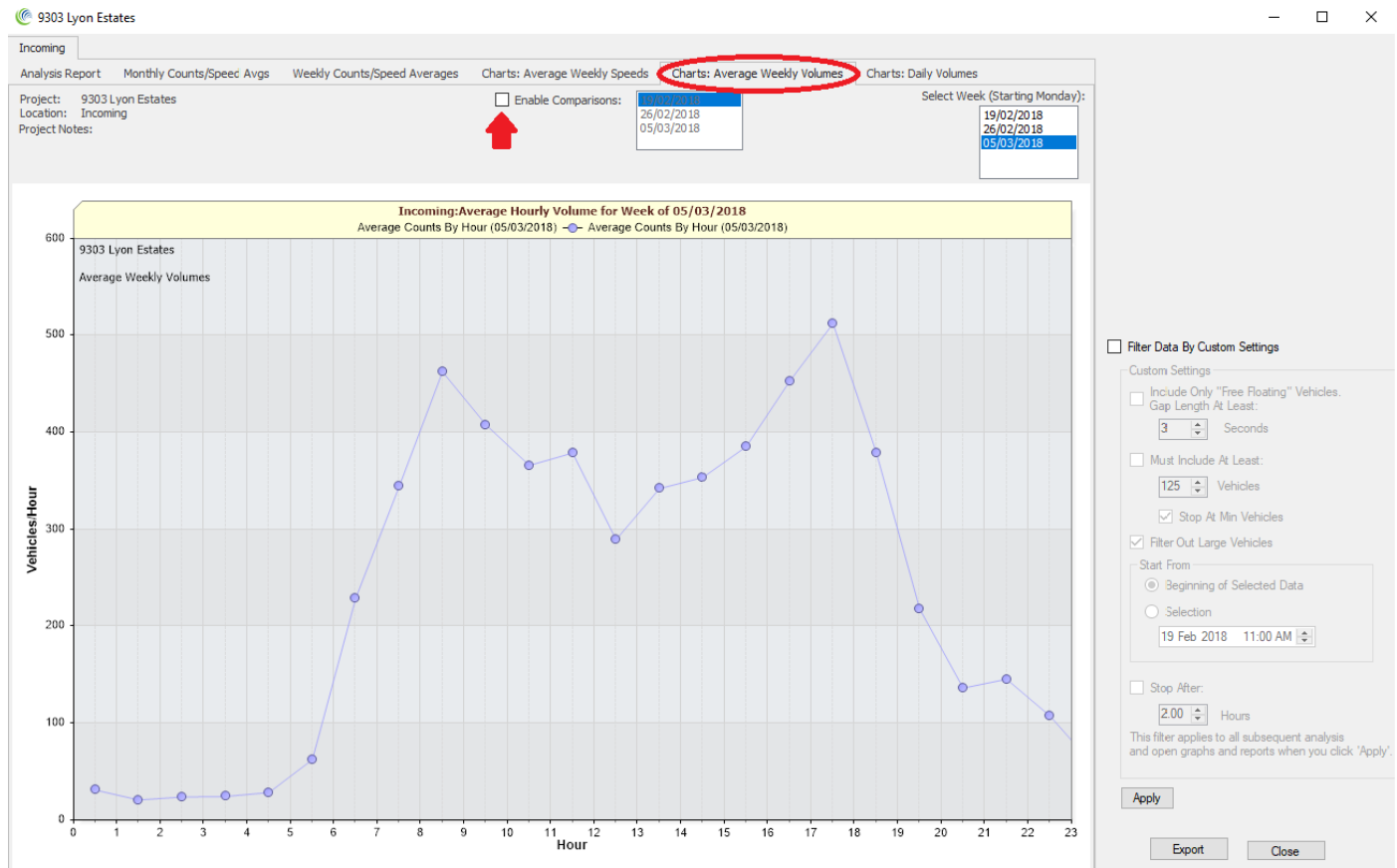
This graph displays the AVERAGE hourly speed of a selected week. By ticking each of the boxes at the top, it is possible to compare multiple weeks and also plot the 85th percentile speed of any selected week. Here, the darker of the two lines represents the 85th percentile, the blue line represents the Average speed.

Top Tip: To make a quick and simple presentation, use the copy and paste shortcuts (Ctrl+C Ctrl+V) to copy any graph or table within the Analysis software to paste into any Windows software, Word, Excel, Powerpoint etc.

Data Analysis Cont.

Charts: Average Weekly Volume.

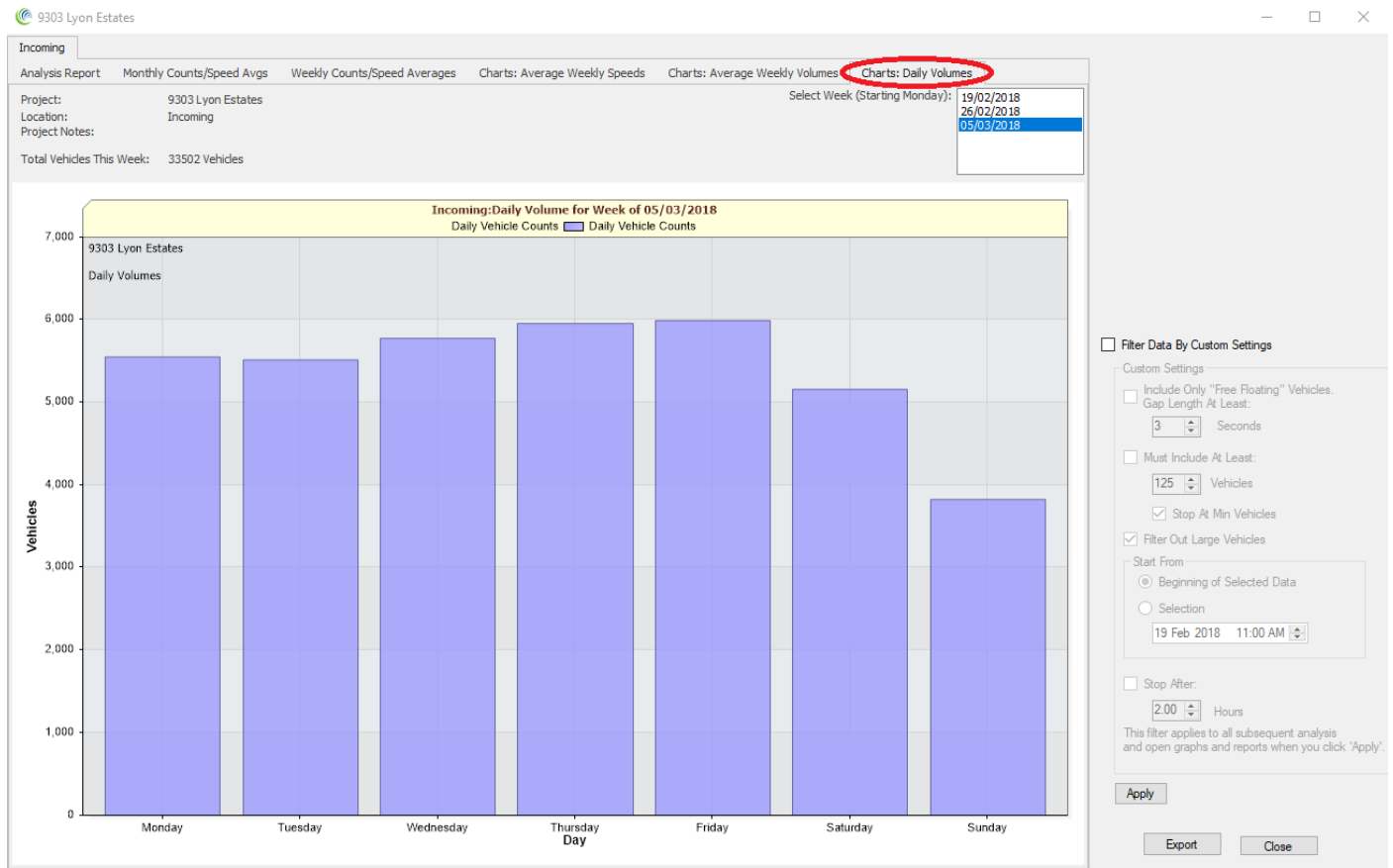
This is similar in layout to the previous chart.



This graph displays an AVERAGE hourly volume for a selected week. Once again, it is possible to compare multiple weeks' data on the same graph by ticking the box at the top.

Data Analysis Cont.**Charts: Daily Volumes.**

This is the final chart from the default analysis report. The additional charts and tables selected before the Analyze button was clicked will be presented further along the tab.

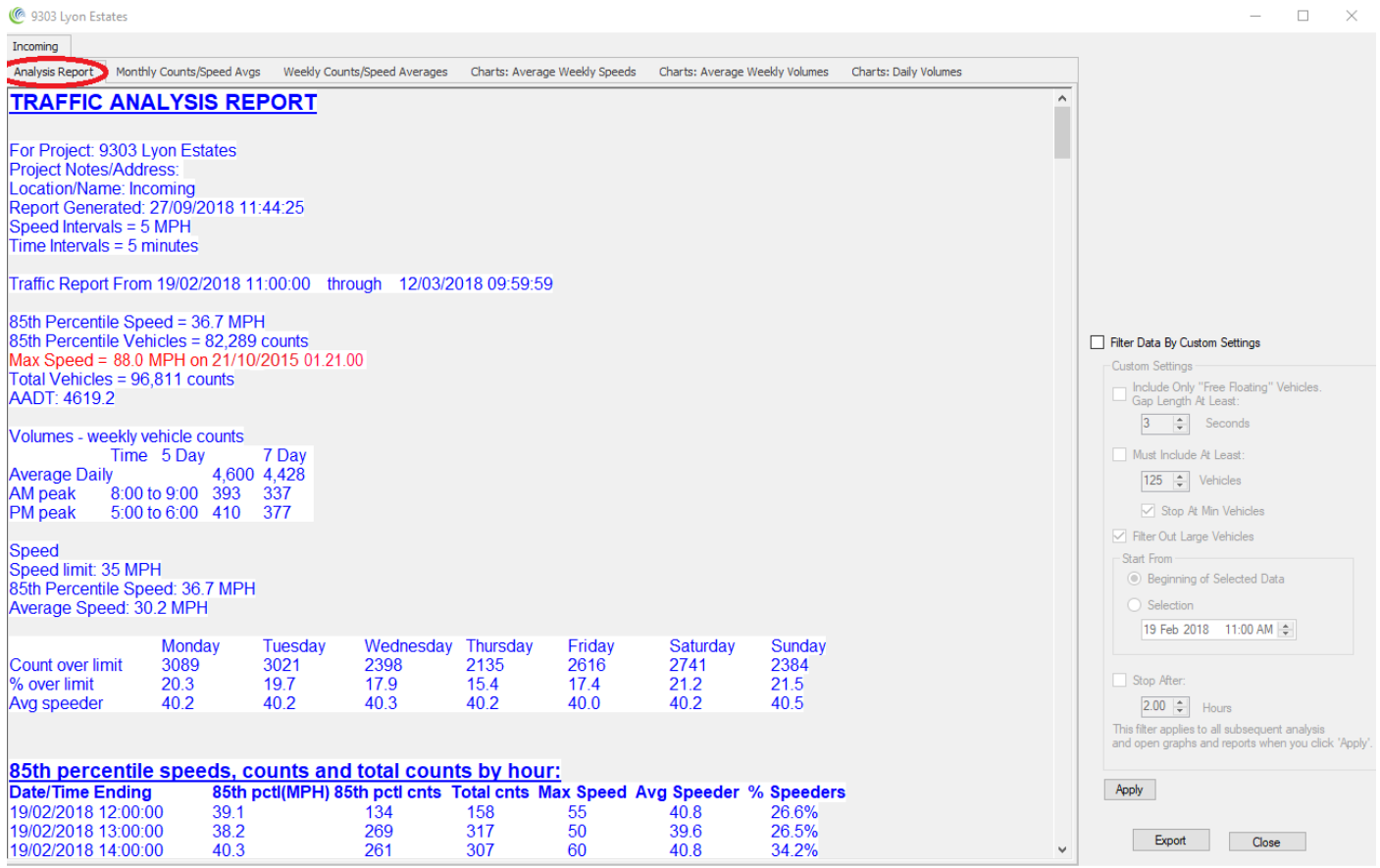


This is a very simple chart showing the vehicle volume per each day of a selected week. This allows the user to easily compare traffic volumes on a weekly and daily basis. Select each week from the list in the box in the top right of the screen.

Data Analysis Cont.

Traffic Analysis Report.

This report provides a summary of the data set.



TRAFFIC ANALYSIS REPORT

For Project: 9303 Lyon Estates
 Project Notes/Address:
 Location/Name: Incoming
 Report Generated: 27/09/2018 11:44:25
 Speed Intervals = 5 MPH
 Time Intervals = 5 minutes

Traffic Report From 19/02/2018 11:00:00 through 12/03/2018 09:59:59

85th Percentile Speed = 36.7 MPH
 85th Percentile Vehicles = 82,289 counts
Max Speed = 88.0 MPH on 21/10/2015 01:21:00
 Total Vehicles = 96,811 counts
 AADT: 4619.2

Volumes - weekly vehicle counts

	Time	5 Day	7 Day
Average Daily		4,600	4,428
AM peak	8:00 to 9:00	393	337
PM peak	5:00 to 6:00	410	377

Speed
 Speed limit: 35 MPH
 85th Percentile Speed: 36.7 MPH
 Average Speed: 30.2 MPH

	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
Count over limit	3089	3021	2398	2135	2616	2741	2384
% over limit	20.3	19.7	17.9	15.4	17.4	21.2	21.5
Avg speeder	40.2	40.2	40.3	40.2	40.0	40.2	40.5

85th percentile speeds, counts and total counts by hour:

Date/Time Ending	85th pct(MPH)	85th pct cnts	Total cnts	Max Speed	Avg Speeder	% Speeders
19/02/2018 12:00:00	39.1	134	158	55	40.8	26.6%
19/02/2018 13:00:00	38.2	269	317	50	39.6	26.5%
19/02/2018 14:00:00	40.3	261	307	60	40.8	34.2%

Filter Data By Custom Settings

Custom Settings

☐ Include Only "Free Floating" Vehicles.
 Gap Length At Least: 3 Seconds

☐ Must Include At Least: 125 Vehicles

☒ Stop At Min Vehicles

☒ Filter Out Large Vehicles

Start From: ☒ Beginning of Selected Data
☐ Selection
 19 Feb 2018 11:00 AM

☐ Stop After: 2.00 Hours

This filter applies to all subsequent analysis and open graphs and reports when you click 'Apply'.

Apply

Export Close

As well as a breakdown of key information taken from the entire data set, there is also an hourly break down of the data containing useful information such as traffic counts, 85 percentiles, and % of speeders.

Top Tip: Did you know that AADT means Annual Average Daily Traffic?

Data Analysis Cont.

Filter Data by Custom Settings.

Activate these filtering options by clicking on the empty tick box.

“Free floating” vehicles have no cars in front of them by the amount of time as per gap Length in Seconds.

“Include at least” forces a minimum number of vehicles to be included in the report.

“Filter out large vehicles” does exactly that.

“Start from” allows the user to change the start time of the report.

“Stop After” forces the report to stop after a specified amount of time from the Start From time.

Adjust these options to suit the user needs, then click **Apply** when ready.

The filter settings will be applied to the data and saved so that the next time the project is accessed the same filter settings will apply.

☒ Filter Data By Custom Settings

Custom Settings

☐ Include Only "Free Floating" Vehicles.
 Gap Length At Least:

3

 Seconds

☐ Must Include At Least:

125

 Vehicles

☒ Stop At Min Vehicles

☒ Filter Out Large Vehicles

Start From

☒ Beginning of Selected Data
☐ Selection

19 Feb 2018 11:00 AM

☐ Stop After:

2.00

 Hours

This filter applies to all subsequent analysis and open graphs and reports when you click 'Apply'.

Apply

Export

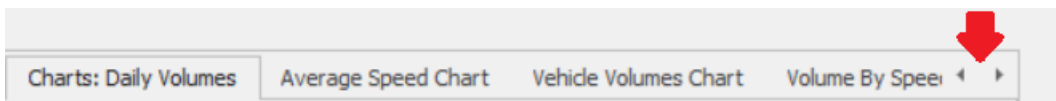
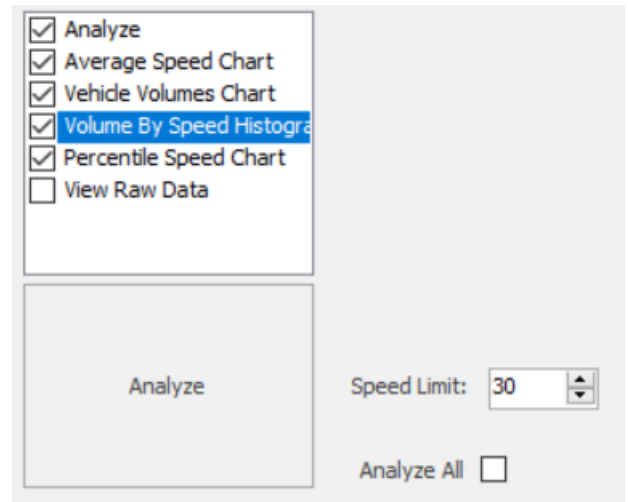
Close

Data Analysis Cont.

Additional Charts.

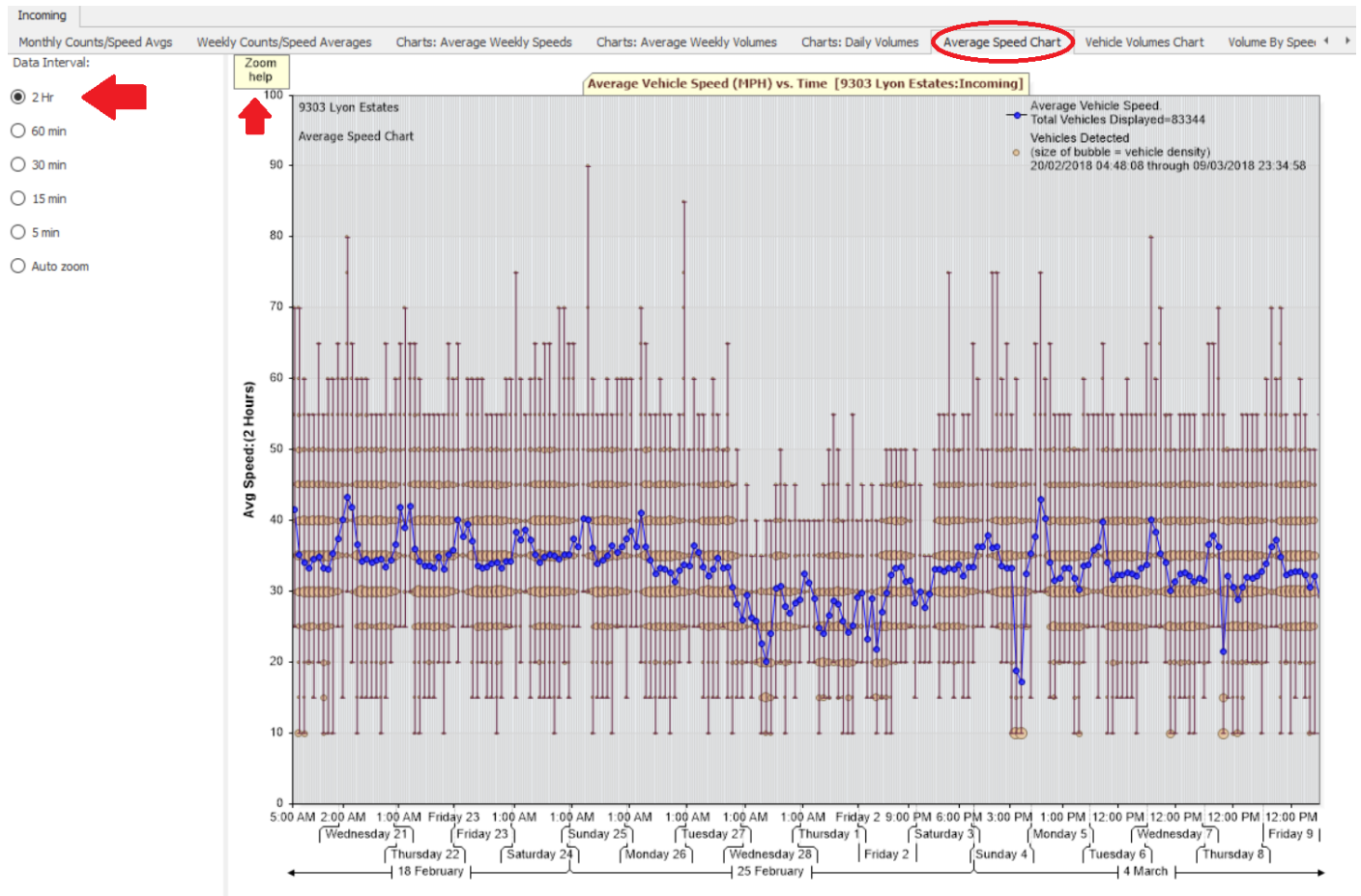
As well as the default charts and graphs produced by the software, there are 4 additional charts that the user can select. These charts are taken from the data set as a whole, so results will depend upon the selection of dates from the calendar or dataset, depending upon choice and requirements.

To select each graph, tick the adjacent box. Click Analyze when ready.



The additional charts are added to the end of the Tab list at the top of the screen. Use the small arrows to scroll along if necessary.

Average Speed Chart.

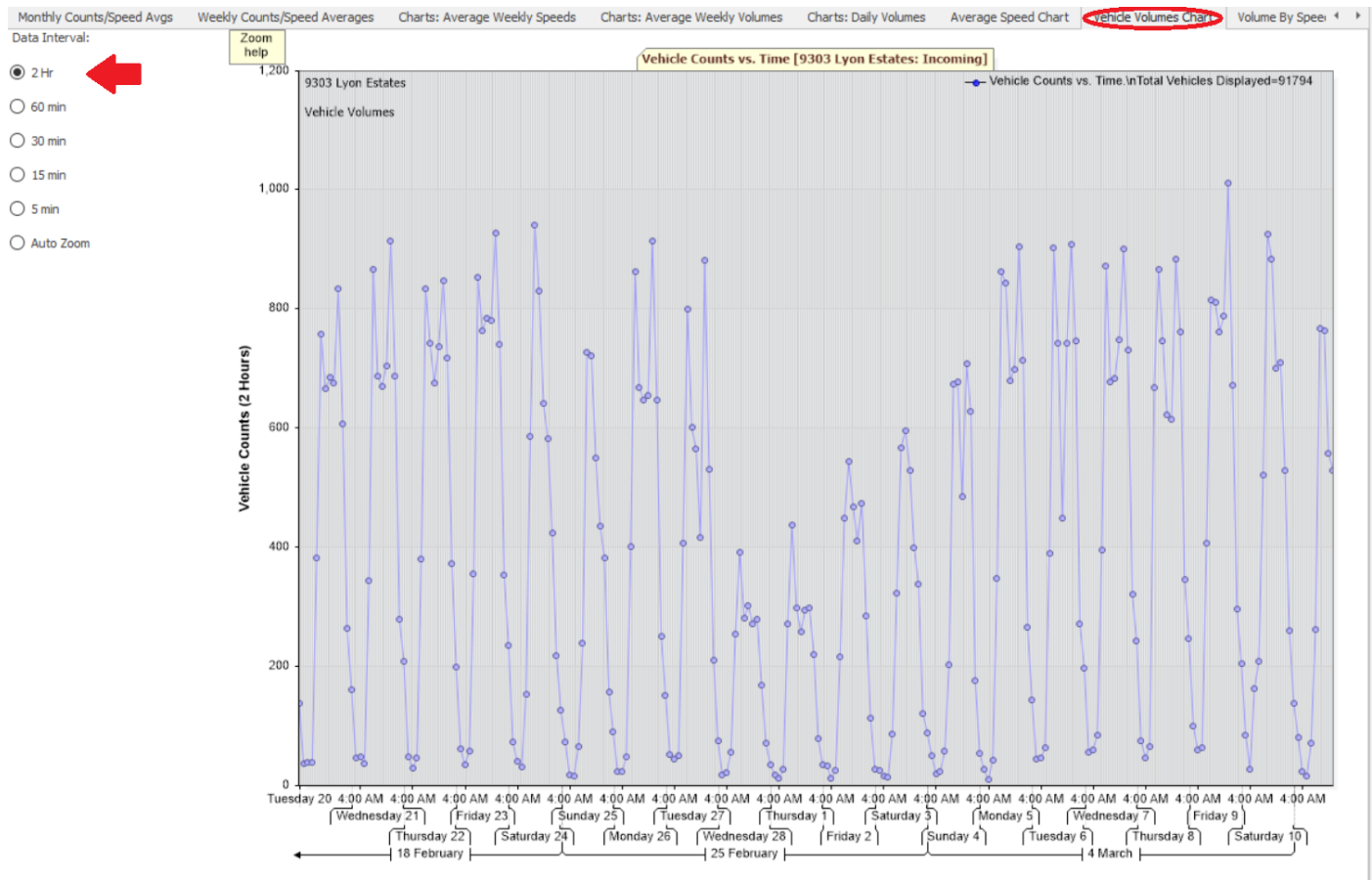


This chart contains a great deal of information: Vehicles detected (larger bubbles indicating higher vehicle density) and Average speed, broken down in 2hour intervals. These intervals can be changed using the buttons to the left of the screen. Hovering your mouse pointer over the graph should show the date and time of the mouse position, relative to the chart.

It is possible to select a specific part of the chart to examine, by clicking the start and end points on the chart. Alternatively, use the arrow keys to zoom and scroll along the chart. Click on the "Zoom Help" Button for details.

Looking at the Chart in the image above, we can clearly see that the average speed and volume of traffic dip from Monday 26th and recover from Friday 2nd.

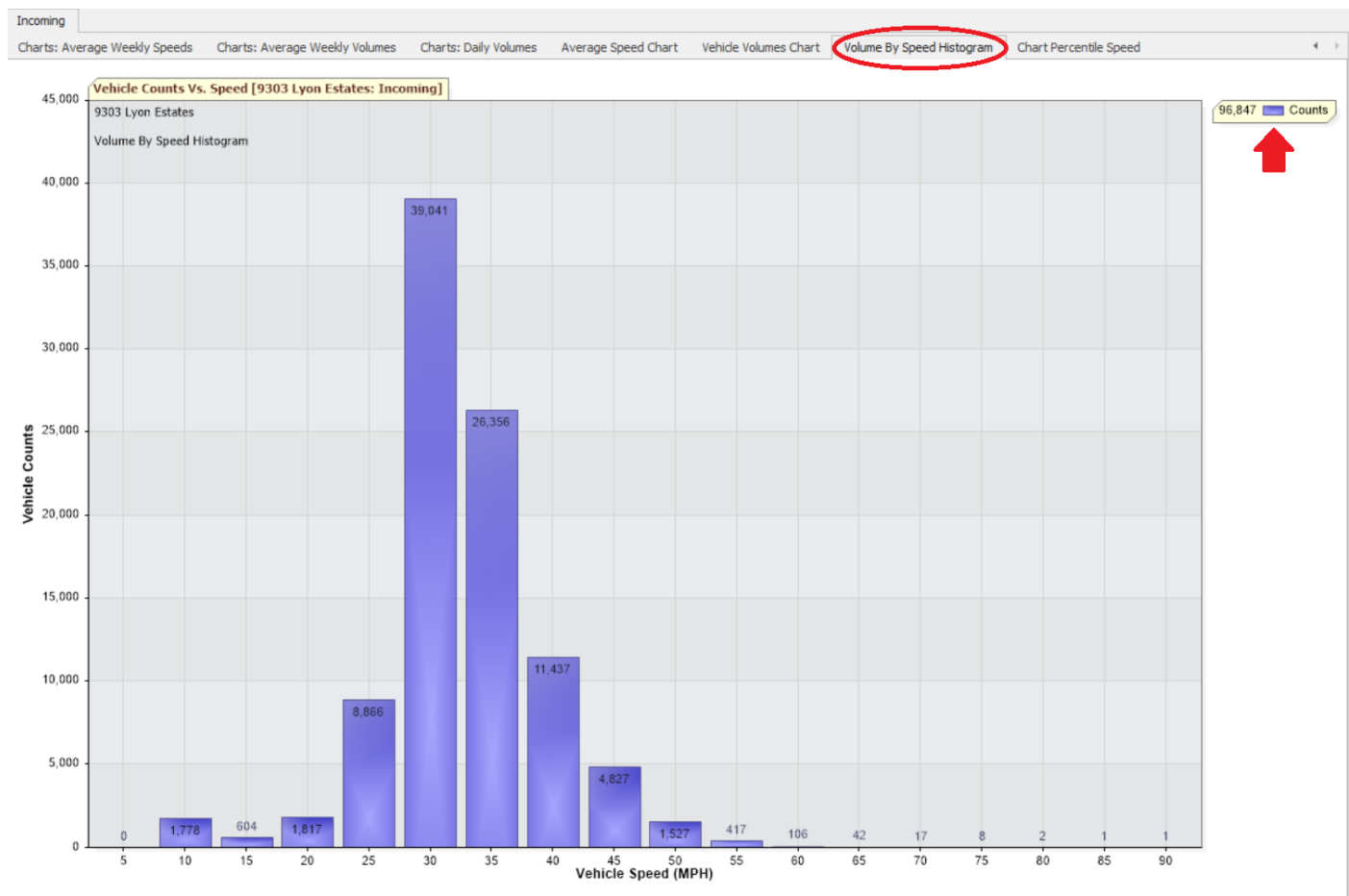
Vehicle Volumes Chart.



This is similar in design to the previous chart, although showing volumes rather than average speeds. The tools work in a similar manner, using the arrow buttons to zoom and scroll, and the mouse to select a focus point. Again, the Zoom help button is available.

Once again, we can see a dip in the Volumes as per the previous chart.

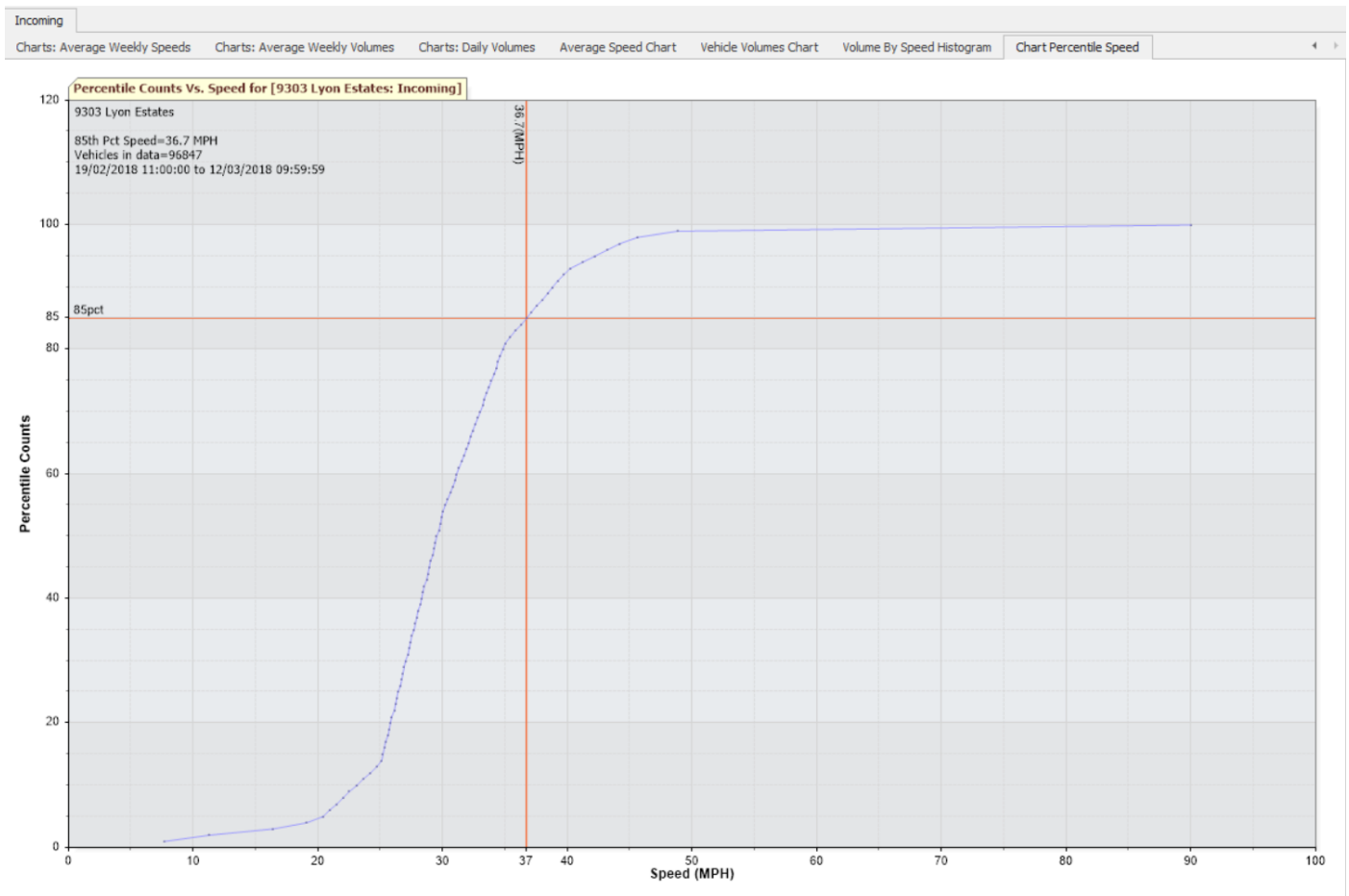
Volume By Speed Histogram.



In this chart, the total count (shown in top right corner) is separated into 5mph columns. Totals for each column are shown at the top. This gives a very clear presentation of how the traffic is behaving within the timeframe of the chosen dataset. In this example, we can see that 39,041 vehicles are in the 25-30mph column, and that 1 vehicle was detected at 90mph.

Top Tip: *Using the date selection view will allow the user to tailor the charts to show specific timeframes, allowing daily/weekly/ monthly comparisons.*

Percentile Speed Chart.



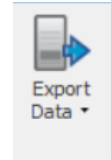
This chart plots the overall 85th percentile speed of the selected dataset. As you can see in this example, the 85th percentile speed is 36.7mph over the two selected weeks. Using the date selection method, it would be possible to create two separate charts comparing the two weeks.

Exporting Data.

There are two options of exporting the information contained in the Data set.

Exporting the Raw Data to Excel.

It will be necessary to open a project folder to enable **Export** button
To open the file, Microsoft Excel or similar software will be required.

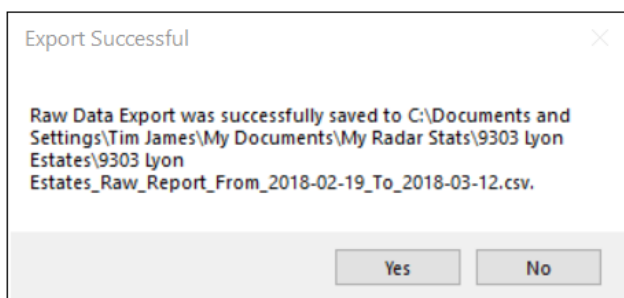
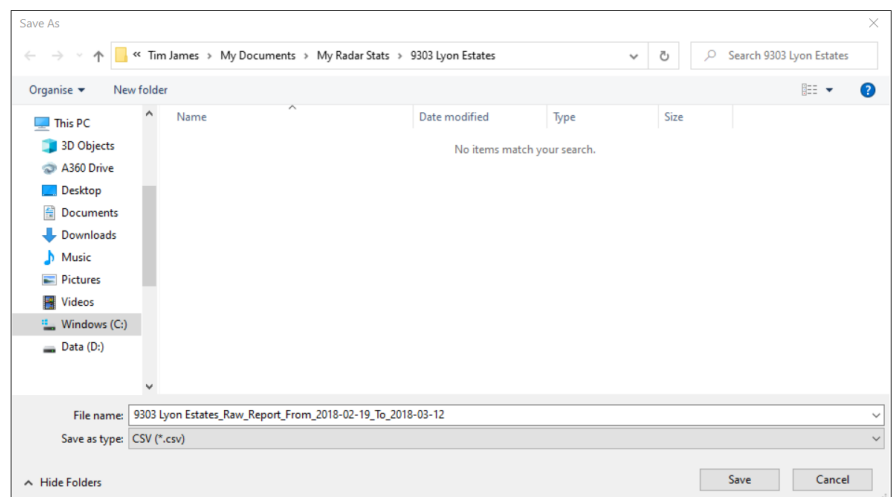


There is a drop-down box giving the option of CSV, Geocounts and MS2. For general use, CSV is recommended, but if you are looking to export into a different analysis software the user may wish to explore the other options for compatibility. CSV (Comma Separated Value) is the default setting.

Clicking on the Export button will bring up a save screen.

This will usually be a folder of the same name as the chosen project, and within the My Radar Stats folder.

Click save to continue.



Once the save has completed, this message box will confirm the save. Click YES to open the file in Excel.

Exporting the Data to Excel cont.

9303 Lyon Estates_Raw_Report_From_2018-02-19_To_2018-03-12 - Excel

FileHomeInsertPage LayoutFormulasDataReviewViewHelp

Tell me what you want to do

Share

CutCopyFormat PainterClipboard

Font

Alignment

General

Number

NormalBadGoodNeutral

Styles

InsertDeleteFormat

Cells

AutoSumFillClear

Editing

Sort & Find & Filter & Select

A1

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V
1		Speed 0 to Speed 5	Speed 5 to Speed 10	Speed 10 to Speed 15	Speed 15 to Speed 20	Speed 20 to Speed 25	Speed 25 to Speed 30	Speed 30 to Speed 35	Speed 35 to Speed 40	Speed 40 to Speed 45	Speed 45 to Speed 50	Speed 50 to Speed 55	Speed 55 to Speed 60	Speed 60 to Speed 65	Speed 65 to Speed 70	Speed 70 to Speed 75	Speed 75 to Speed 80	Speed 80 to Speed 85	Speed 85 to Speed 90	Speed 90 to Speed 95	Speed 95 to Speed 100	Speed 100 to Speed 105
2	19/02/2018 11:35	0	0	0	0	0	4	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0
3	19/02/2018 11:40	0	0	0	0	3	9	4	5	2	2	0	0	0	0	0	0	0	0	0	0	0
4	19/02/2018 11:45	0	1	0	0	3	13	10	2	1	1	0	0	0	0	0	0	0	0	0	0	0
5	19/02/2018 11:50	0	0	0	0	2	15	13	3	1	2	1	0	0	0	0	0	0	0	0	0	0
6	19/02/2018 11:55	0	0	0	0	1	11	10	5	6	1	0	0	0	0	0	0	0	0	0	0	0
7	19/02/2018 12:00	0	0	0	0	0	7	8	6	3	0	0	0	0	0	0	0	0	0	0	0	0
8	19/02/2018 12:05	0	0	0	0	0	5	15	7	3	1	0	0	0	0	0	0	0	0	0	0	0
9	19/02/2018 12:10	0	0	0	0	2	10	7	4	0	0	0	0	0	0	0	0	0	0	0	0	0
10	19/02/2018 12:15	0	0	0	0	0	8	13	6	1	0	0	0	0	0	0	0	0	0	0	0	0
11	19/02/2018 12:20	0	0	0	0	2	13	5	4	2	0	0	0	0	0	0	0	0	0	0	0	0
12	19/02/2018 12:25	0	0	0	0	0	7	11	6	0	0	0	0	0	0	0	0	0	0	0	0	0
13	19/02/2018 12:30	0	0	0	0	0	8	2	1	3	2	0	0	0	0	0	0	0	0	0	0	0
14	19/02/2018 12:35	0	0	0	0	0	5	15	6	0	1	0	0	0	0	0	0	0	0	0	0	0
15	19/02/2018 12:40	0	0	0	0	0	5	7	5	3	1	0	0	0	0	0	0	0	0	0	0	0
16	19/02/2018 12:45	0	0	0	0	7	13	7	5	0	1	0	0	0	0	0	0	0	0	0	0	0
17	19/02/2018 12:50	0	0	0	1	5	21	9	2	2	0	0	0	0	0	0	0	0	0	0	0	0
18	19/02/2018 12:55	0	0	0	0	2	7	8	3	2	2	0	0	0	0	0	0	0	0	0	0	0
19	19/02/2018 13:00	0	0	0	0	0	3	10	8	2	1	0	0	0	0	0	0	0	0	0	0	0
20	19/02/2018 13:05	0	0	0	0	2	6	5	6	4	0	0	0	0	0	0	0	0	0	0	0	0
21	19/02/2018 13:10	0	0	0	0	5	18	12	3	2	1	2	1	0	0	0	0	0	0	0	0	0
22	19/02/2018 13:15	0	0	0	0	1	4	2	5	2	0	1	1	0	0	0	0	0	0	0	0	0
23	19/02/2018 13:20	0	0	0	0	1	9	9	9	4	2	0	0	0	0	0	0	0	0	0	0	0
24	19/02/2018 13:25	0	0	0	0	0	6	6	2	5	2	0	0	0	0	0	0	0	0	0	0	0
25	19/02/2018 13:30	0	0	0	0	0	8	7	2	2	1	0	0	0	0	0	0	0	0	0	0	0
26	19/02/2018 13:35	0	0	0	0	0	5	7	3	0	0	0	0	0	0	0	0	0	0	0	0	0
27	19/02/2018 13:40	0	0	0	0	1	12	10	4	0	2	0	0	0	0	0	0	0	0	0	0	0
28	19/02/2018 13:45	0	0	0	1	2	7	7	7	5	0	0	0	0	0	0	0	0	0	0	0	0
29	19/02/2018 13:50	0	0	0	0	0	8	10	1	3	0	0	0	0	0	0	0	0	0	0	0	0

9303 Lyon Estates_Raw_Report_Fr

Display Settings

100%

Once the spreadsheet has loaded, it may be necessary to adjust the column widths, particularly the date/ time column, so that they are easier to read.

The radar collects data in 5 minute “Bins” which are then sorted into 5mph columns. Each passing vehicle in that 5-minute bin is added to the count according to the speed it was captured at. For example, we can see in the above screenshot that at 11:50 on 19/02/18, 15 vehicles passed the sign in the 25-30mph speed bracket.

This data can be configured in Excel to user requirements.

Exporting Data Cont.

Exporting the Data Analysis Report.

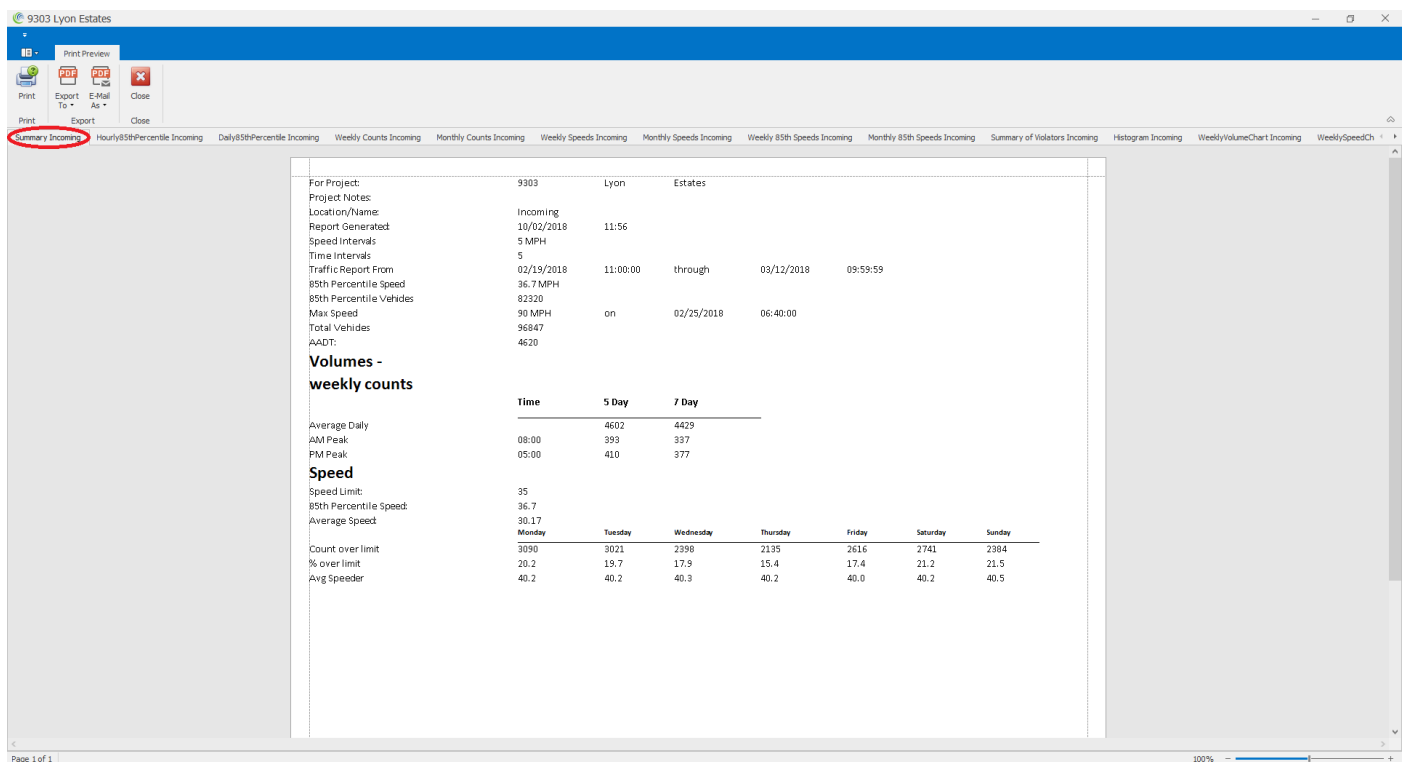
The second available option is to export the analysis report as the user has configured it. This means that it will show the graphs/charts using the weeks/months that have been selected.

Click on the **Analyze** button and go through the report as usual.

In the bottom right-hand corner of the screen, there are two buttons. The Export button may initially be greyed out as the computer compiles the report in the background. When the report is available, the button will be surrounded by blue. Click **Export** to open the report.



A new screen will open, similar to the main software. Along the top can be found tabs for each section of the report.



9303 Lyon Estates

Print Preview

Print Export To * E-Mail As * Close

Summary Incoming Hourly/85th Percentile Incoming Daily/85th Percentile Incoming Weekly Counts Incoming Monthly Counts Incoming Weekly Speeds Incoming Monthly Speeds Incoming Weekly 85th Speeds Incoming Monthly 85th Speeds Incoming Summary of Violators Incoming Histogram Incoming Weekly Volume Chart Incoming Weekly Speed Chart

For Project: 9303 Lyon Estates

Project Notes: Incoming

Location/Name: 10/02/2018 11:56

Report Generated: 5 MPH

Speed Intervals: 5

Time Intervals: 02/19/2018 11:00:00 through 03/12/2018 09:59:59

Traffic Report From: 85th Percentile Speed 36.7 MPH

85th Percentile Speed: 82520

Max Speed: 90 MPH

Total Vehicles: 96847

AADT: 4620

Volumes - weekly counts

Time	5 Day	7 Day
Average Daily	4602	4429
AM Peak	08:00 393	337
PM Peak	05:00 410	377

Speed

Speed Limit: 35

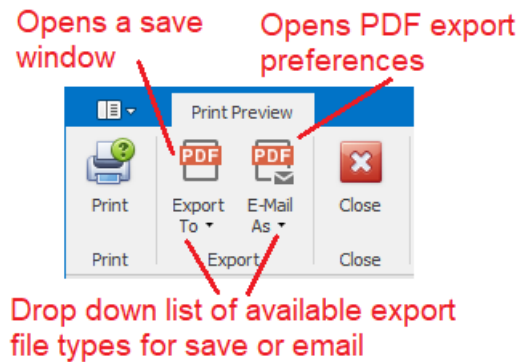
85th Percentile Speed: 36.7

Average Speed: 30.17

	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
Count over limit	3090	3021	2398	2135	2616	2741	2384
% over limit	20.2	19.7	17.9	15.4	17.4	21.2	21.5
Avg Speeder	40.2	40.2	40.3	40.2	40.0	40.2	40.5

Page 1 of 1

100%

Exporting the data analysis report cont.

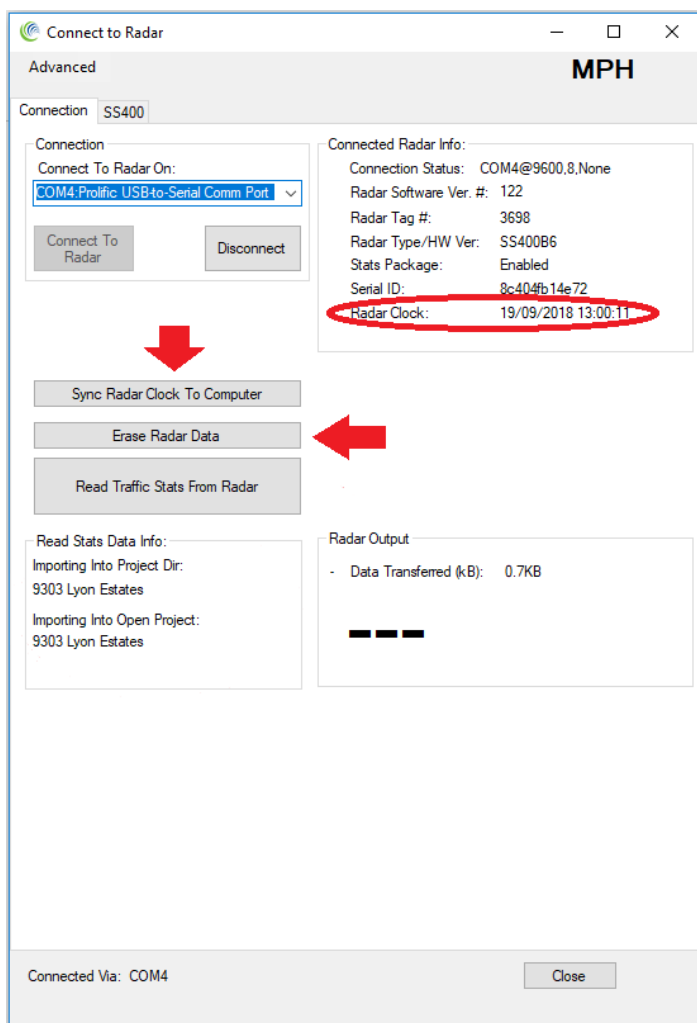
At the top of the screen there is a menu ribbon that will allow the user to select the format of the export, Print the entire report (not recommended!), email the report, or close the report.

There are also drop-down menus that will allow the format to be changed from the default PDF.

Preparing Data Collection Device for Redeployment.

Once the data has been successfully downloaded, the radar will need to be made ready for the next dataset to be collected. Typically, the next deployment will be in a different location so it would be of benefit to the end user if data obtained from previous locations was removed from the machine, else it is possible to end up with a dataset containing information from 2 or more different locations.

To delete the data from the radar, it is necessary to connect as normal.



To Erase the data held on the radar, click the **“Erase Radar Data”** button. There will be a small confirmation window pop up to confirm the deletion, click OK, and the radar will delete all existing data. A confirmation window will pop up once completed.

Westcotec recommends ensuring the internal radar clock is correct before redeploying the machine.

Simply click the **“Sync Radar Clock To Computer”** Button, and the time will be set to that of the user’s computer. If the radar time is more than 30 seconds adrift from the connected computer, the text will be displayed in red.

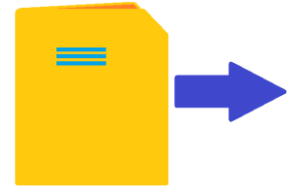
Please note, that the radar time will NOT automatically change for daylight savings.

Top Tip: *If you are using the Android App, options to delete data and sync the time are available from the menu. You can also configure the one touch function to do it automatically!*

Moving Files Between Computers.

Sharing .dat Files.

Moving an individual file or two, or sharing files around a group of users is relatively easy and straight forward. There are two ways that this can be performed, depending upon the specification of your equipment.



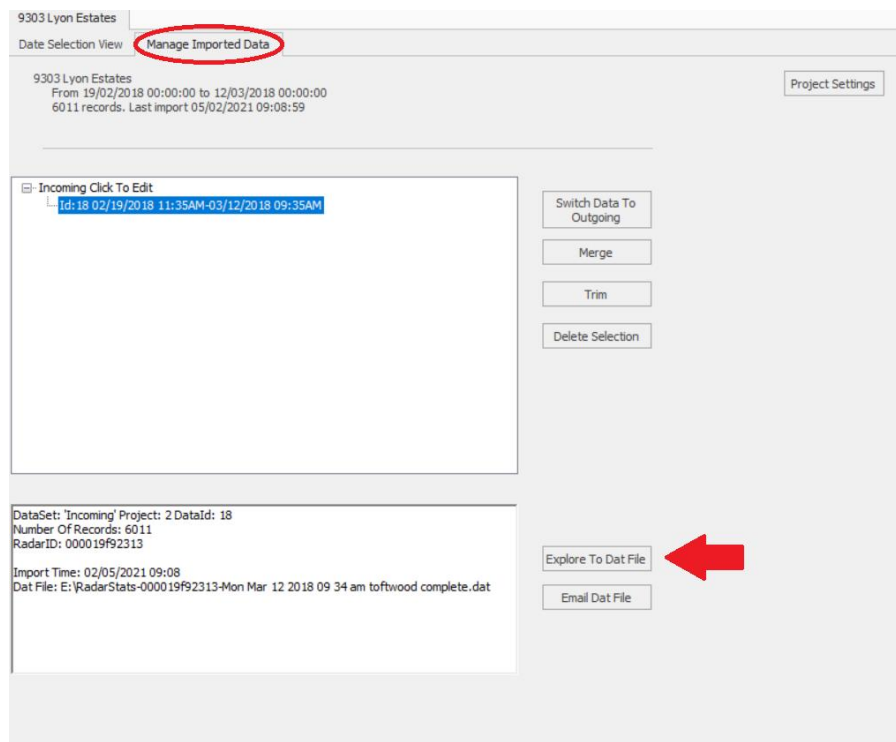
Please note: Any recipient must import the file into the Houston software to view the data. See page 23 for details.

Using the Bluetooth App.

This is possibly the simplest way, as the App creates an email that can be easily populated with additional addresses. Even if only one email address is used, that recipient can then forward the email to others in the group.

Using the Analysis Software

Once the data has been downloaded into a project, open the “Manage Imported Data” (page 25) Tab in the open project. Select the required data file, and click the “Explore to Dat File” Button. This will open a window showing the location of the datafile, which will be highlighted. This can then be copied and pasted into the preferred file sharing method.



Top Tip: When sharing data between users, it is helpful if everyone agrees to use the same site names. This saves confusion at a later date!

Changing Database Location.

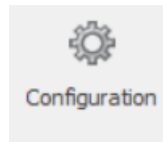
There may be occasions where it is necessary to change the database location, when upgrading to a new computer for example.

To change the database location, we first need to know where the current database is located.

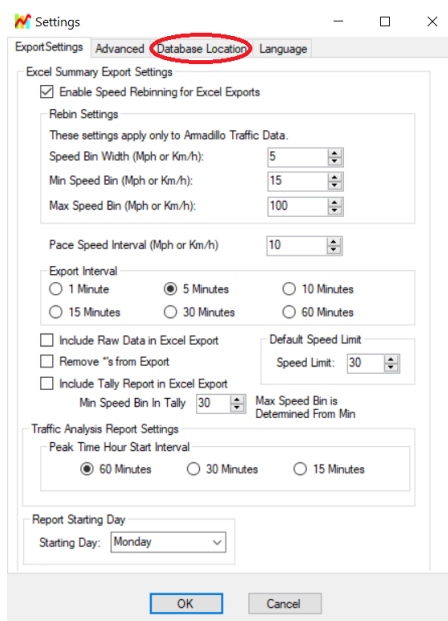
Before installing the analysis software on a new computer:

On the OLD computer:

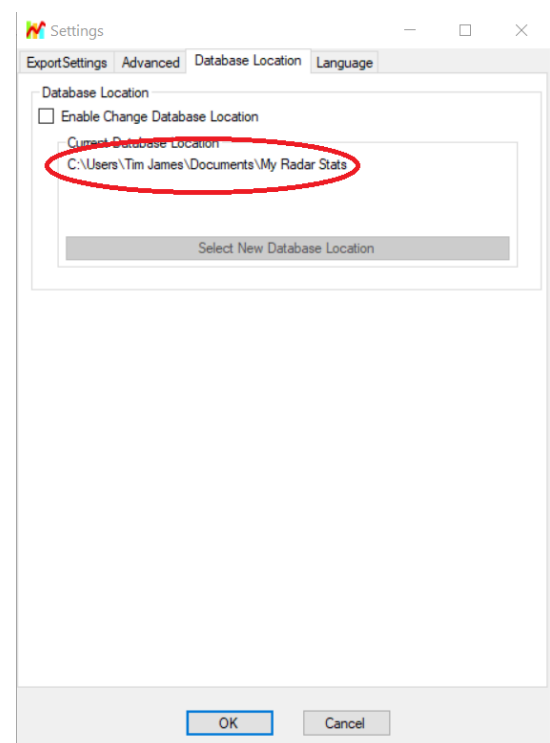
Open the stats software, and click on



the button.



A new window will pop up. Click on the Database Location tab, and tick the “Enable Change Database location” box.



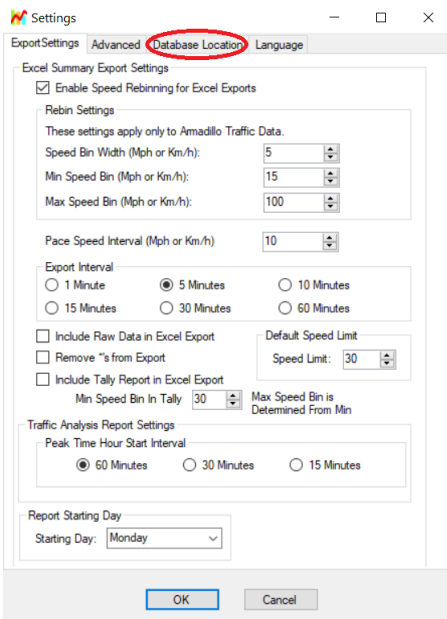
The Data location screen shows the existing pathway, and where the database is stored. The actual database will be a DB3 file within the folder, but you will need to copy the entire radar stats folder over to the new computer.

Install the Analysis software on the new computer. The My Radar Stats folder should be picked up by the new install, and the projects appear as on the old computer.

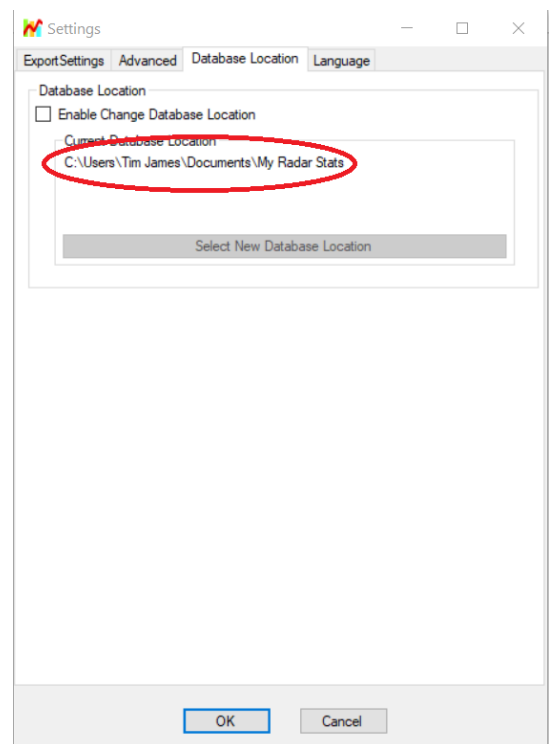
Changing the database location cont.

Should there be a need to change the Database Location locally on the same computer, or server, the process differs slightly from the previously described method.

Open the stats software, and click on the configuration button.



A new window will pop up. Click on the Database Location tab, and tick the “Enable Change Database location” box.



The Data Location screen shows the existing pathway, and where the database is stored. The actual database will be a DB3 file within the folder, but you will need to copy the entire contents of the radar stats folder.

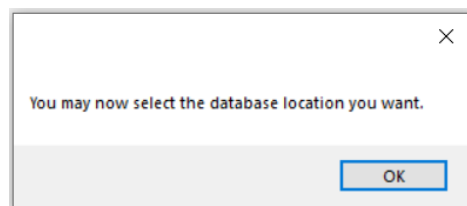
Paste the contents of the Radar Stats folder into the new locations folder.

Changing the database location cont.

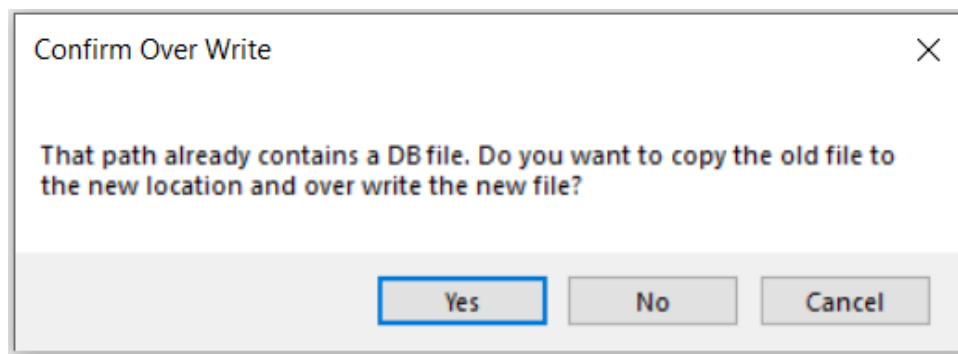
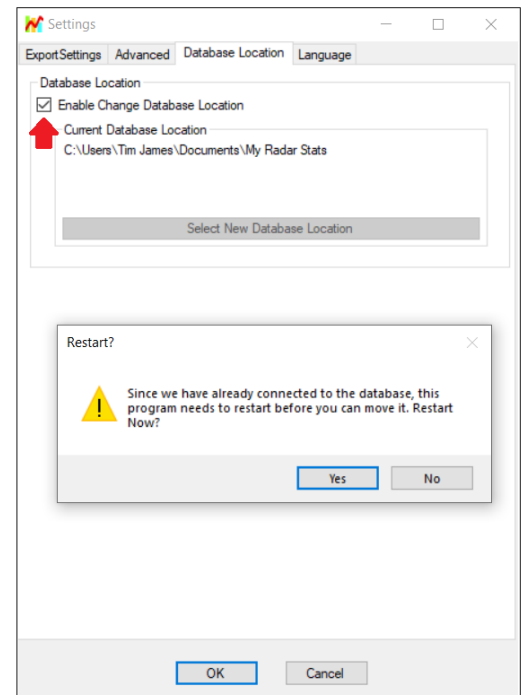
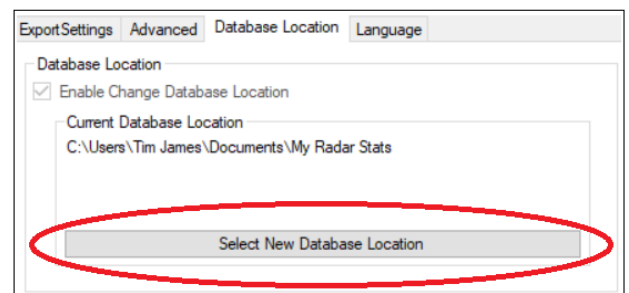
Returning to the Analysis software, Open the configuration> Database Location page and tick the “**Enable Change Database Location**” box.

A pop up will ask to restart the software. Click **yes**.

Once the software has restarted, there will be a message to say that that database location can now be changed. Click **OK** to continue.



Click the “**Select New Database Location**” button. Use the new pop-up window to browse to the new database location folder, containing the copied files. Click **OK** on that window, and then **OK** on the main Database Location window.



This Window will then pop up. **Click NO*** The Software will then load the original projects into the software.

*Clicking Yes will overwrite the DB3 file in the new folder. There are times when this is desirable, but not in this example.

FAQs/ Troubleshooting.

Q. I have got the sign connected to my computer, but the software keeps telling me that the radar is not found?

A. Please check the following:

- Is this the first time you have connected? If so, has the USB device driver been correctly installed?
- Has the sign and the computer been restarted?
- Is the battery connected?
- Is the battery fully charged? (Over 12.6V)
- Is the fuse intact?
- Is the sign switched on?

Q. What is this blue CD-Rom that comes with the serial lead?

A. This is the manufacturer supplied software disc. We have found that most computers come without a disc drive these days, so have supplied the software on the USB flash drive and made the software available on our website. The software on the flash drive is usually more up to date than that on the Disc, so we recommend using the flash drive anyway. All required files can be downloaded from www.Westcotec.co.uk

Q. This Guide mentions a USB flash drive. I can't find it?

A. Depending upon the specifications of the sign, if standard download was ordered then the flash drive is located in a small box at the front of the larger cardboard box that contains the leads. If Bluetooth download has been specified then the USB will be in the box the sign came in.

Q. Can I download the software I need?

A. Yes, it is now possible to download all files and software required from the Westcotec Website. Go to www.westcotec.co.uk/downloads

Q. How can I get the data into Excel?

A. The user computer MUST have Excel installed.

Please see the section on Exporting Data, found on page 32.

Q. How can I email the data?

A. Please see page 23 as there is a function that will generate an email for you. Alternatively, when the Houston Data software is installed it automatically creates a new folder in the computer's "Documents" Folder, called "My Radar Stats". Within the "My radar Stats" folder, a sub folder can be found for each Stats Project created. Within this sub folder, you will find a .DAT file. This is the file that contains the data. Each .DAT file has a time stamp to identify it. If you have exported the data to Excel, this file will also appear in the same project folder. You can send either file via email, but the recipient must have the Houston Stats software installed to open the .DAT file.

FAQs/ Troubleshooting cont'd

Q. My Android device can't "find" the Bluetooth enabled sign.

A. This does happen occasionally with Bluetooth. Please try the following:

- Are you in range?
- Restart the Android device
- Restart the sign
- Attempt to do a Bluetooth search without using the App. If it appears, pairing with it will automatically make it show in the Houston Radar App.

Q. There was a problem storing the data on the Android Device, so I am unable to share it via email.

A. You need to go into the Settings menu of your device, and allow the App access to Storage. Usually this is achieved by going to Settings> Apps> Houston Radar LCC> Permissions> then tap "storage" to change the switch setting.

Q. The speed limit on the project window says 35mph, but the sign should have been set to 30mph. Why is there a difference?

A. The speed limit selector on the project window is purely for the analysis software, and does not affect, or have any bearing on the sign. Simply set this to the speed limit within which the sign was deployed in when the current data set was recorded.

Q. I have a Bluetooth dongle that I can put in my Laptop to make it Bluetooth. Can I connect with that?

A. Possibly. Bluetooth Dongles are notoriously unreliable, so it would be a case of trying it and finding out. If the dongle will pair with the sign Bluetooth device, then it should be possible. Please note, that whilst Westcotec will always endeavour to provide support, we will not be able to help if a third-party Bluetooth dongle is used.

Q. What does the 85th percentile mean?

A. The 85th Percentile is used extensively in decision making as it is indicative of the speed that the majority of road users are travelling at.

Use of the 85th percentile speed concept is based on the theory that:

- the large majority of drivers:
 - are reasonable and prudent
 - do not want to have a crash
 - desire to reach their destination in the shortest possible time
- a speed at or below which 85 percent of people drive at any given location under good weather and visibility conditions may be considered as the maximum safe speed for that location.

User Notes

Addendum

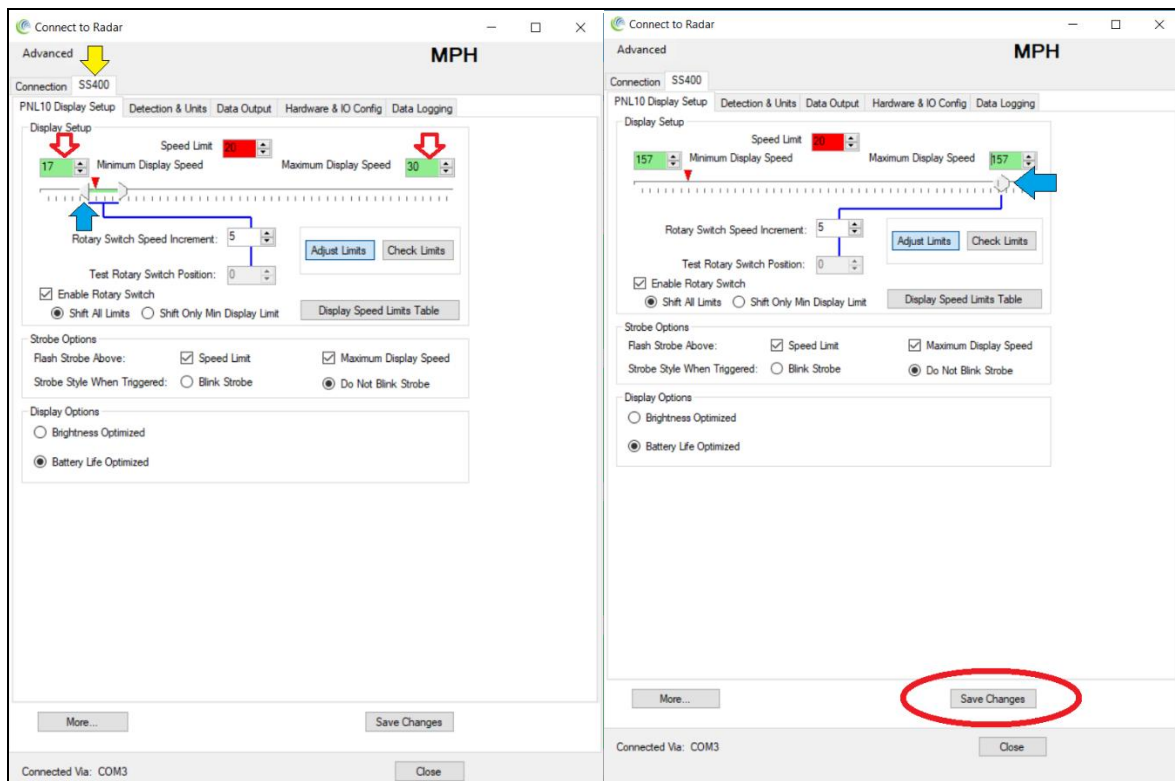
Data collection only (Covert) Mode

It is possible to turn the sign display off so that the radar is purely collecting data. This is useful if the sign is moved to a new location and a baseline set of data is required.

Using Houston Stats Analysis software

To enable covert mode, it is necessary to connect to the radar.

Once connected to the radar, look for the tab adjacent to the “Connection” tab. Indicated in pic 1 by a **yellow arrow**. Click on the tab.



The method is to increase the minimum display speed to above 99. This can be done simply by clicking on the minimum display slider and dragging all the way to the right, as indicated by the **blue arrows**. Alternatively, enter a speed in the boxes marked with **red/white arrows**.

Things to remember!

- Note the existing speeds BEFORE increasing them. This will allow the user to reset everything to correct positions once normal operations are to be resumed.
- Do NOT change any other settings within the radar. Doing so may stop the sign working.
- Changes are only applied once the **Save Changes** button is clicked.

To return to normal mode, simply return settings to their original values.

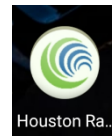
Addendum

Data collection only (Covert) Mode

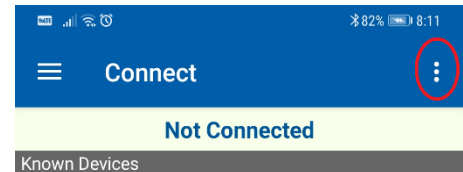
Using Houston Radar App

Using the Houston Android app is not quite as simple an operation as using the Stats analysis software but is still reasonably straightforward.

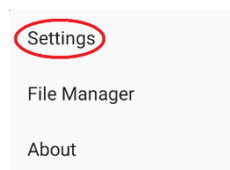
Start by opening the Houston Radar App.



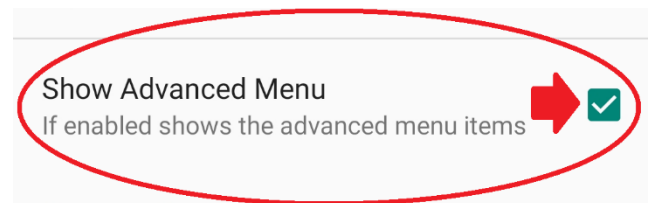
Tap the three vertical dots in the top right corner of the window to bring up the menu.



Tap Settings.

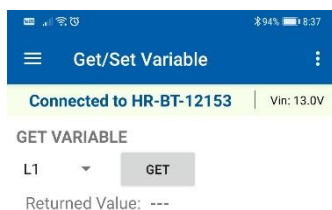


Put a Tick in the box to show advanced menu, and then tap the back arrow at the top of the screen.



Connect to the required sign as normal.

Once connected, tap the Get/ Set Variable option.



GET VARIABLE will show the current setting.

SET VARIABLE will change current setting.

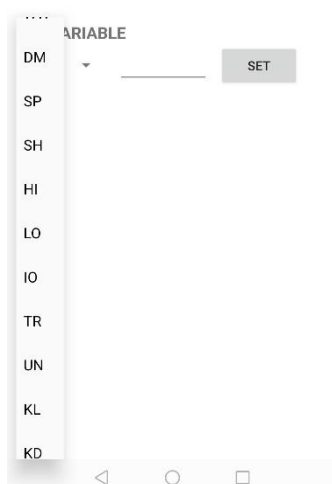
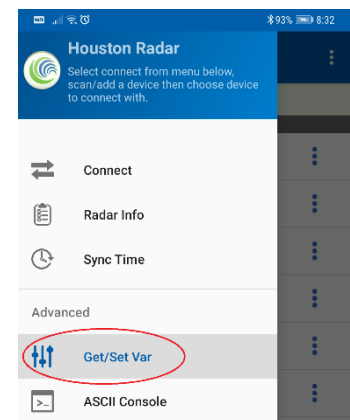
To put the sign in covert mode:

From the drop-down list, Get the settings for **LO** and **SH**. Make a note of these values as they will be needed when the sign is required to return to normal operations.

Set **LO** and **SH** to:

- **LO** to 100
- **SH** to 120

To return to normal operations, set **LO** and **SH** to the original setting.



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Data Collection User Guide
Eighth revision.

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