SafePace® Pro

Traffic Logix® Radar Sign Software User Manual

***For SafePace® Pro Version 1.5.1.6 - Manual Version 1.1**

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SafePace® Pro

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Introduction

The **SafePace® Pro** software application by **Traffic Logix®** is intended for use with all ***SafePace® radar speed signs*** and the ***School Zone System***. It is designed to help you manage your SafePace® radar speed sign, download and analyze collected traffic data, as well as generate and print statistical reports. By default, SafePace® Pro also comes with two utilities, such as Bluetooth Manager and the Custom Messages Editor which can also be run and used separately.

Overview

This document serves to identify, define, and explain all the user interfaces providing the functionality in SafePace® Pro (version 1.5.1.6) and provides instructions to:

- Install SafePace® Pro
- Select, install, and initialize the communication mode used to connect to your radar sign
- Initialize the speed units for the sign and software interface
- Manage SafePace® Pro general and advanced software settings
- Program and upload the radar sign configuration settings and schedules to the radar sign (including optional School Zone Beacon System schedules)
- Program variable standard traffic messages or create and program custom messages and animations (for SafePace® 600/625/650/700/800 signs only)
- Download, import or export collected traffic statistics
- Generate and print various reports and charts based on downloaded and imported statistics
- Share collected traffic statistics with others

Installing SafePace® Pro

The SafePace® Pro installation instructions in this manual focus mainly on users installing SafePace® Pro for the first time. For users needing to re-install or upgrade their present installation please refer to the section called ***Backing up before re-install/upgrade*** for help with backing up the SafePace database, custom message library, maps, fonts, and templates.

Overview of installation procedures

1. Review this section of the manual for an overview of installation procedures, system requirements, and about the location of the system files that are installed with SafePace® Pro
2. Prior to installing and starting up the SafePace® Pro software, your PC must be set up to communicate with your SafePace® radar sign using Bluetooth, Wi-Fi, or GPRS (SIM card). The setup varies and depends on your PC's operating system, and the communication module (Bluetooth, Wi-Fi, GPRS) installed in your sign. Please refer to the ***Appendix*** for further details.
3. ***Contact us*** for a username and password to download the SafePace® Pro setup file from the "***Customer Downloads***" page of the ***Traffic Logix®*** website.
4. Download and copy the setup executable to a temporary file directory on your hard drive
5. Double-click to run the set up executable
6. Follow the instructions in the SafePace® Pro installation wizard to complete the installation
7. When the wizard completes, keep the selected option to **"Run SafePace® Pro now**", and click **"Finish".**

8. Initialize SafePace® Pro by selecting and saving your radar sign's communication mode and speed units
9. Wait for the signal indicator to turn green indicating SafePace® Pro is connected and ready to program and manage your sign.

System Requirements

- **Operating System:** Windows 7/8.1
- **Permissions:** Administrator rights to install software on your PC
- **Screen Resolution:** 1024 x 600 pixels or higher
- **Disk Space:** A minimum of 25 Megabytes of free disk space
- **Communication Interface:** SENA UD100 Bluetooth Class 1 USB Adapter with Stub Antenna
- **Device Drivers:** Windows Bluetooth Stack option

Location of database file, and system files

After executing the setup file and completing the installation wizard, the database file, and other system files can be found on your machine. The following table lists the types of files installed and the location paths where they will be installed by default.

Files installed	Default path location
System files like SafePacePro, Matrix Editor, Bluetooth Manager executables, sound, font, localisation, and help files	Program Files (x86)\Traffic Logix \SafePace\ (32 bit) Program Files \Traffic Logix \SafePace\ (64 bit)
Custom message library files, maps, and templates	ProgramData\Traffic Logix\SafePace Pro\
SafePace database (single file used to store downloaded traffic data, scheduled settings, school zone beacon schedules, and calendars of holidays and exceptions etc.)	ProgramData\Traffic Logix\SafePace Pro\Database\SafePace.db

Figure 1 – locations for files installed in Windows

The database file location is set by default at the path shown above in Figure 1, but after the installation completes, it can be changed in SafePace® Pro Software settings.

The setting can be accessed from the Software Settings tab in SafePace® Pro, and the database file location can be modified by selecting the Advanced Settings tab in the SafePace® Pro dialog (see ***Figure 2 – Edit database file location in SafePace® Pro settings dialog – Advanced settings tab***.

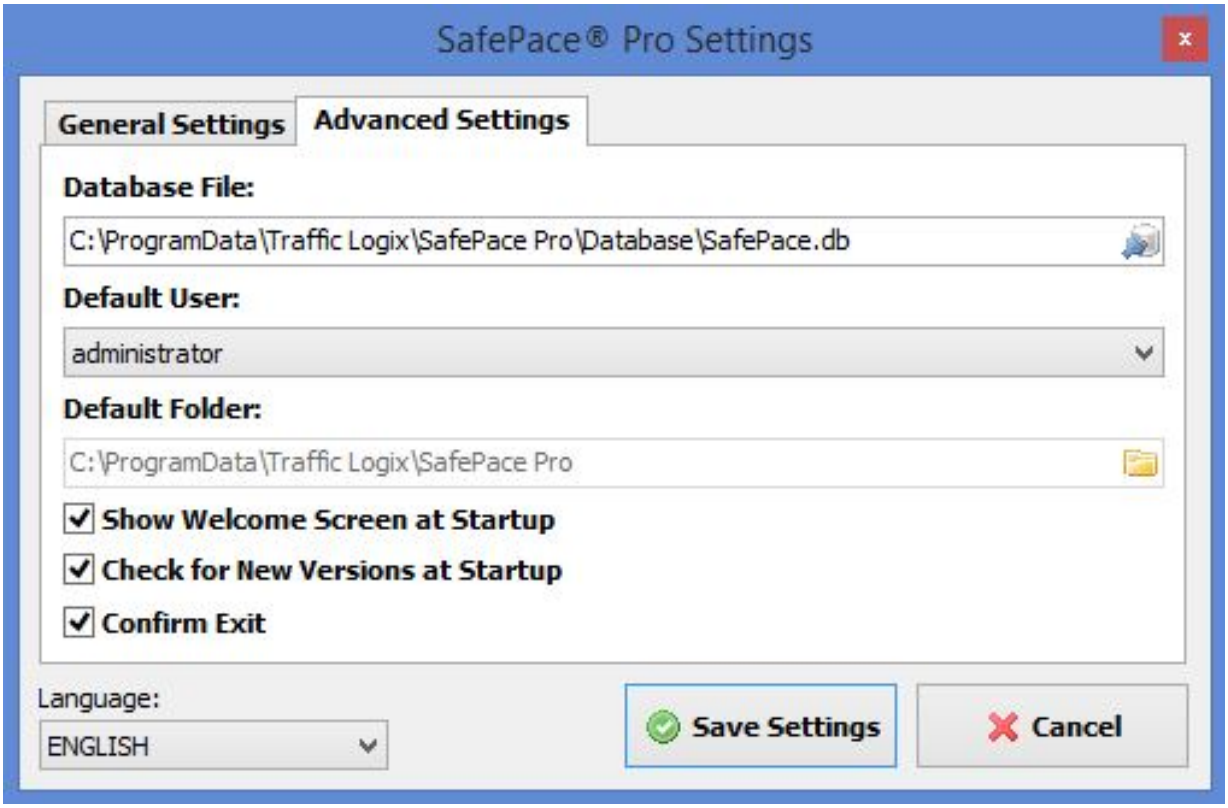


Figure 2 – Edit database file location in SafePace® Pro settings dialog – Advanced settings tab

Backing up before re-install/upgrade

If you are re-installing or upgrading SafePace® Pro, a good idea would be to back up your database, custom message library, maps, and templates. They can be found at: ProgramData\Traffic Logix\SafePace Pro\.

Note

*To backup/restore COM labels and Wi-Fi labels that are set up in the Connection settings dialog window (see **Connection settings**), you can export your registry settings at HKEY_CURRENT_USER\Software\Traffic Logix\SafePace\COMLabels and HKEY_CURRENT_USER\Software\Traffic Logix\SafePace\WiFiLabels.*

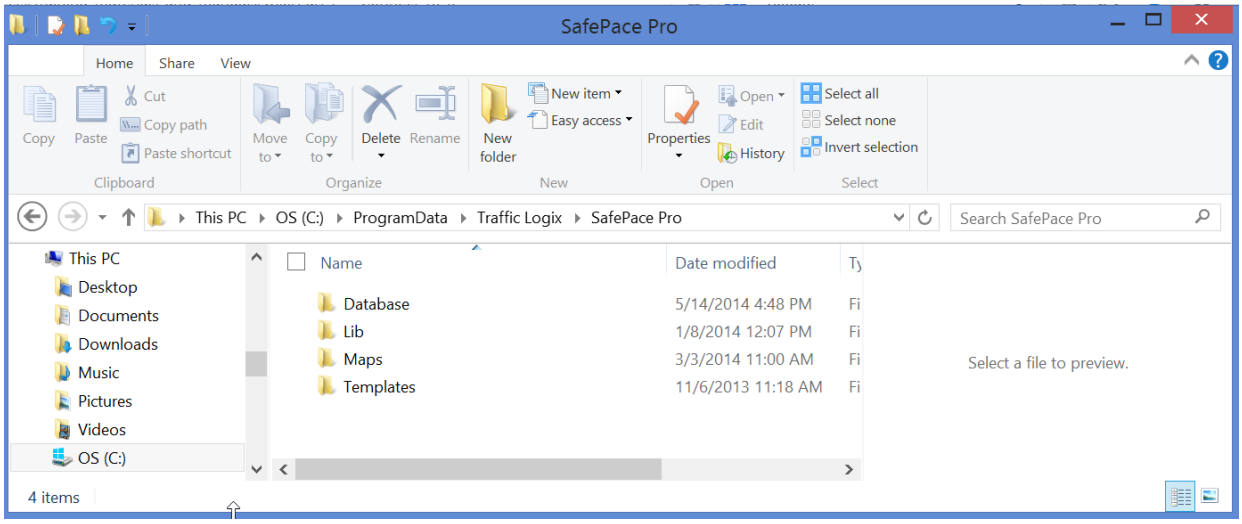


Figure 3 – Folders containing database, custom message library, maps, and templates

Before trying to backup (using copy and paste to a backup directory in Windows), ensure that you close out of any instances of SafePace® Pro currently running to avoid files being locked up.

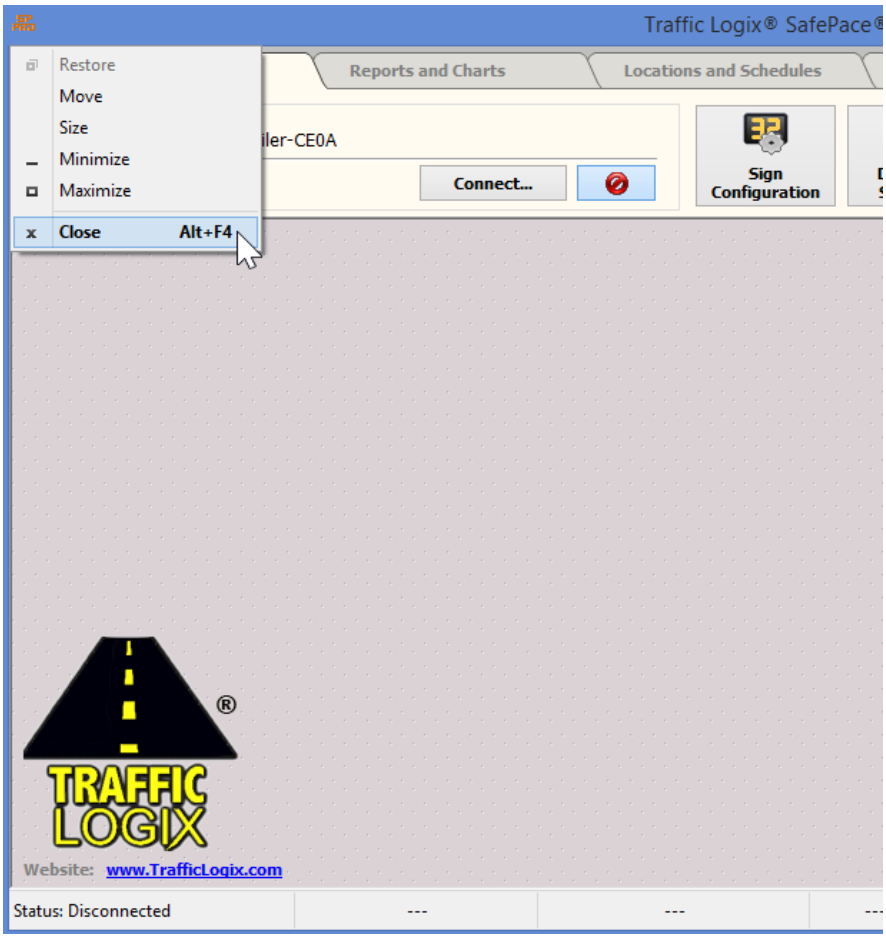


Figure 4 – Close out of instances of SafePace® Pro before backing up files

Upgrading SafePace® Pro

Sometimes when upgrading to the latest version of SafePace® Pro, all that is needed is to download the executable (not the setup file), and to replace it within the folder at: **"Program File (x86)\Traffic Logix \SafePace\"**. The procedure for doing this, is as follows:

1. Download the executable and save it to a temporary directory (e.g. c:\temp)
2. Close out of any instances of SafePace® Pro running on your PC, then go to the directory **"Program File (x86)\Traffic Logix \SafePace\"**.
3. Rename the **"SafePacePro.exe"** file to **"SafePacePro.exe.bak"** or **"SafePacePro.exe.1506"** (add the version number you are upgrading from)
4. Go back to the temporary directory you downloaded the latest version to, and right-click on the file to copy the file
5. Go back to the directory **"Program File (x86)\Traffic Logix \SafePace\"**, and paste the new executable into the directory
6. Double-click on it, and verify the new version has been installed when the splash screen appears.

Figure 5 – Splash screen showing software version

Note

If you miss the splash screen you will be able to see the new or latest version installed in the application's header.

About the installation setup file

The SafePace® Pro application software is distributed as a single extractable installation file named "SafePacePro_Setup.exe".

Downloading and preparing the setup file for installation

To begin the installation, navigate to http://trafficlogix.com/customerarea/customerdownloads, download and copy the SafePacePro_Setup.exe file to a temporary file directory on your C:\ drive.

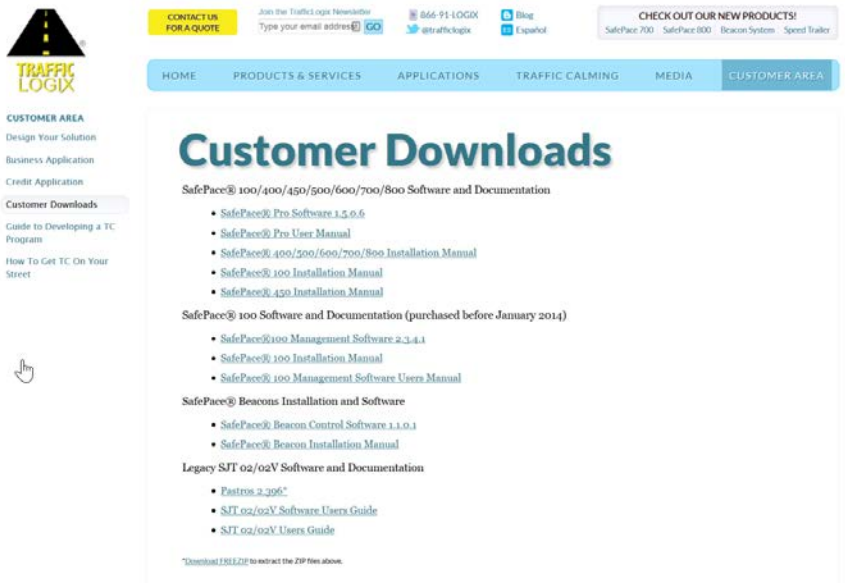


Figure 6 – Setup file located at Customer downloads

The file is approximately 16MB large and may take a while until it copies to the temporary file directory you create on your hard drive.

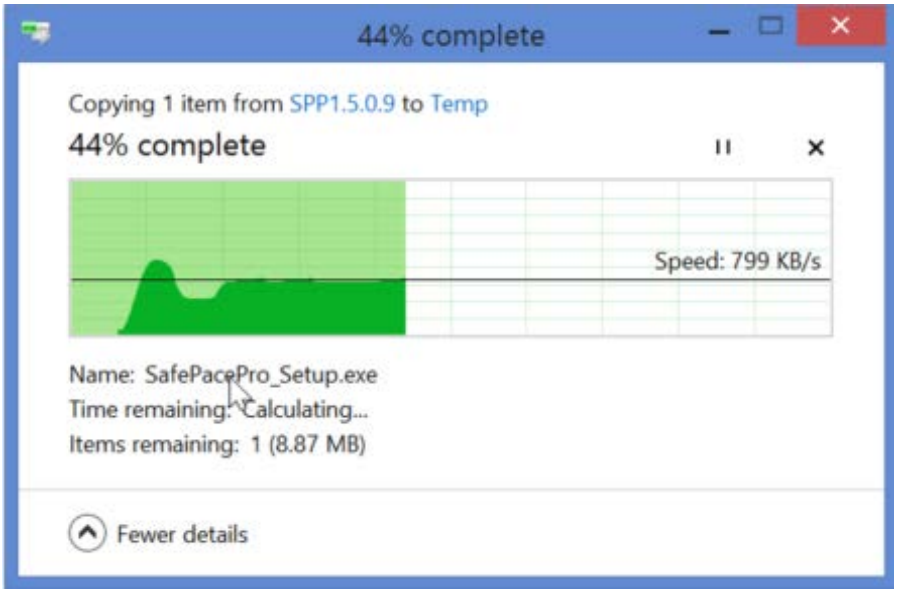


Figure 7 – Copying Setup file to C drive

After copying to the temporary directory on C drive, double-click on it to begin the installation Wizard. An easy to use Installation wizard will guide you through the installation process.

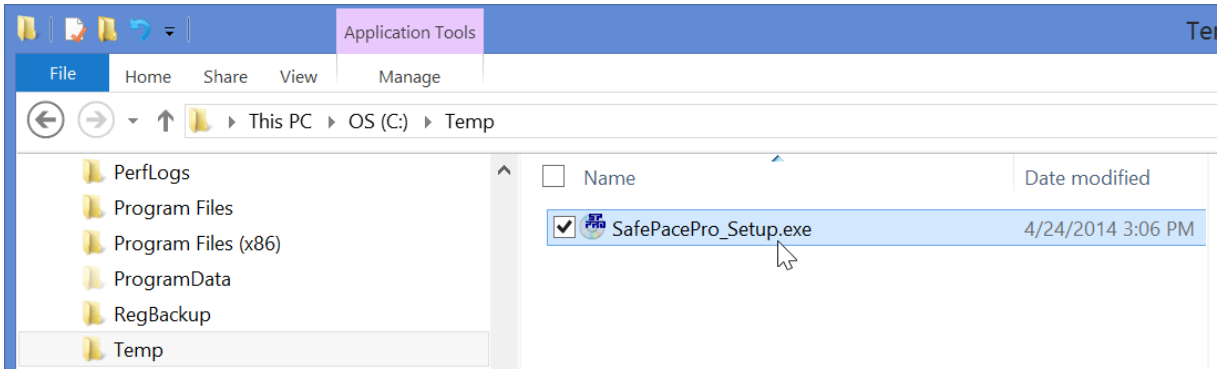


Figure 8 – Double-click on Setup file to install

NOTE

The user must have adequate rights (administrator privileges) to proceed with the installation of the software on the computer. ***Please check with your administrator if you encounter any difficulties.***

The SafePace® Pro Installation Wizard

Select Setup Language

The SafePace® Pro Installation Wizard provides step-by-step instructions, which begins with a prompt to select the language to translate the wizard installation instructions; Choose English or a language of your choice (Portuguese, Spanish) from the drop list menu.

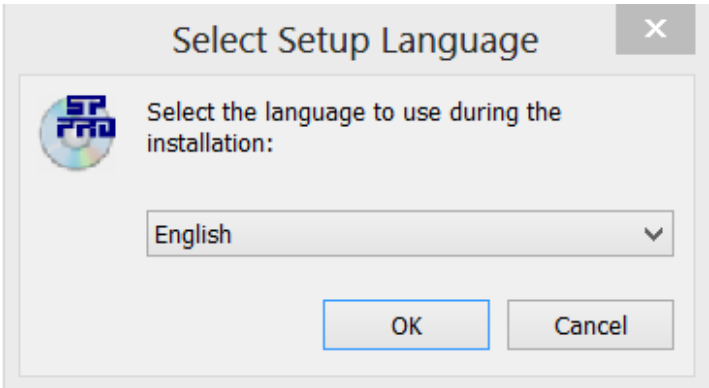


Figure 9 – Select language

Note

*This option will only translate the wizard to set up SafePace® Pro. To change the language for the SafePace® Pro interface after installation, please see "**Changing the interface language**".*

Setup Wizard Welcome dialog

After selecting the preferred language for the software, the "Welcome dialog" appears on the screen. **Click the "Next >" button to continue.**

Figure 10 – "Welcome dialog" of installation wizard

Software License Agreement

Click "Next >" and then read and opt to accept the license agreement.

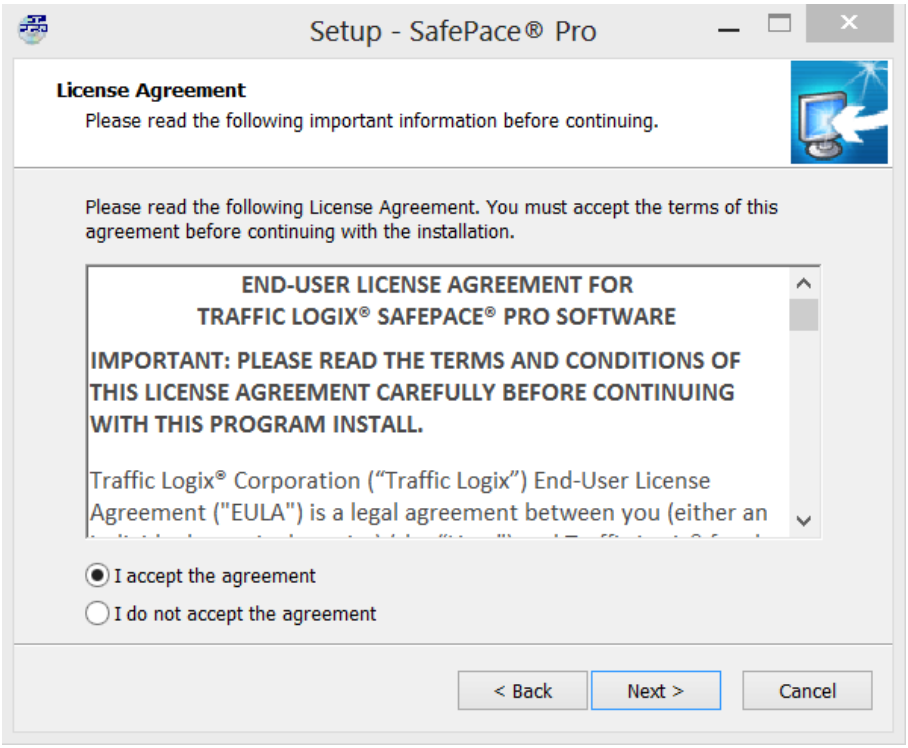


Figure 11 – Select to accept license agreement

Select Destination Location

The SafePace® Pro software Installation Wizard will then suggest to the user to select a folder where the software will be installed. By default, the SafePace® Pro software is installed in the **"Program Files (x86)\ SafePace"** folder.

If another file destination is desired to install the software files, click the **"Browse..."** button to select the path to the new location.

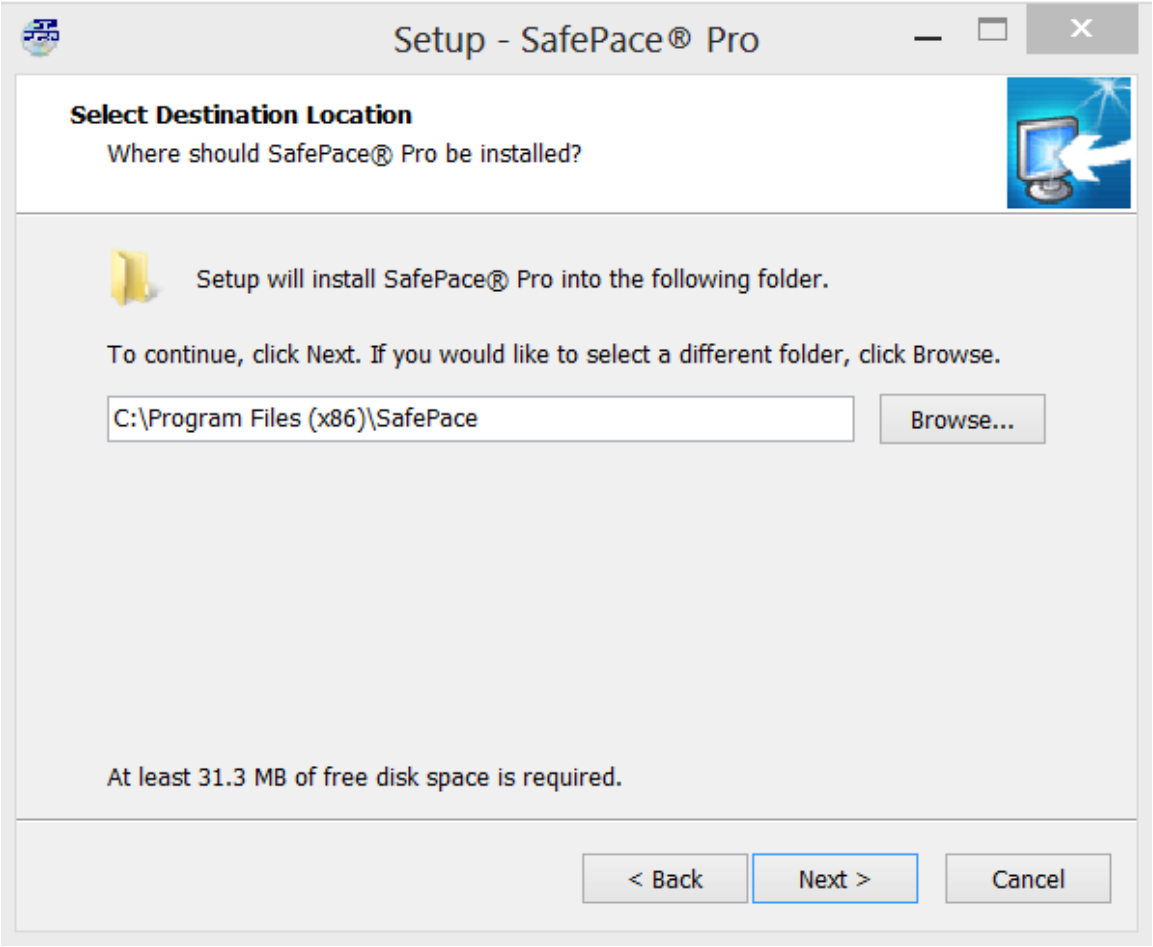


Figure 12 - SafePace® Pro setup wizard - Select Destination Location

The Setup program will automatically create a new folder if one does not already exist. When the desired destination folder is located and selected, click the **"Next >"** button to proceed to the Start Menu folder selection page.

Select Start Menu Folder

The Start Menu Folder selection interface is similar to Select Destination Location. By default, shortcuts to the software application will be created in the "SafePace® Pro" Start Menu folder**.**

The user can enter another folder name or select the folder by clicking the **"Browse..."** button. To proceed to the next step, click the **"Next >"** button.

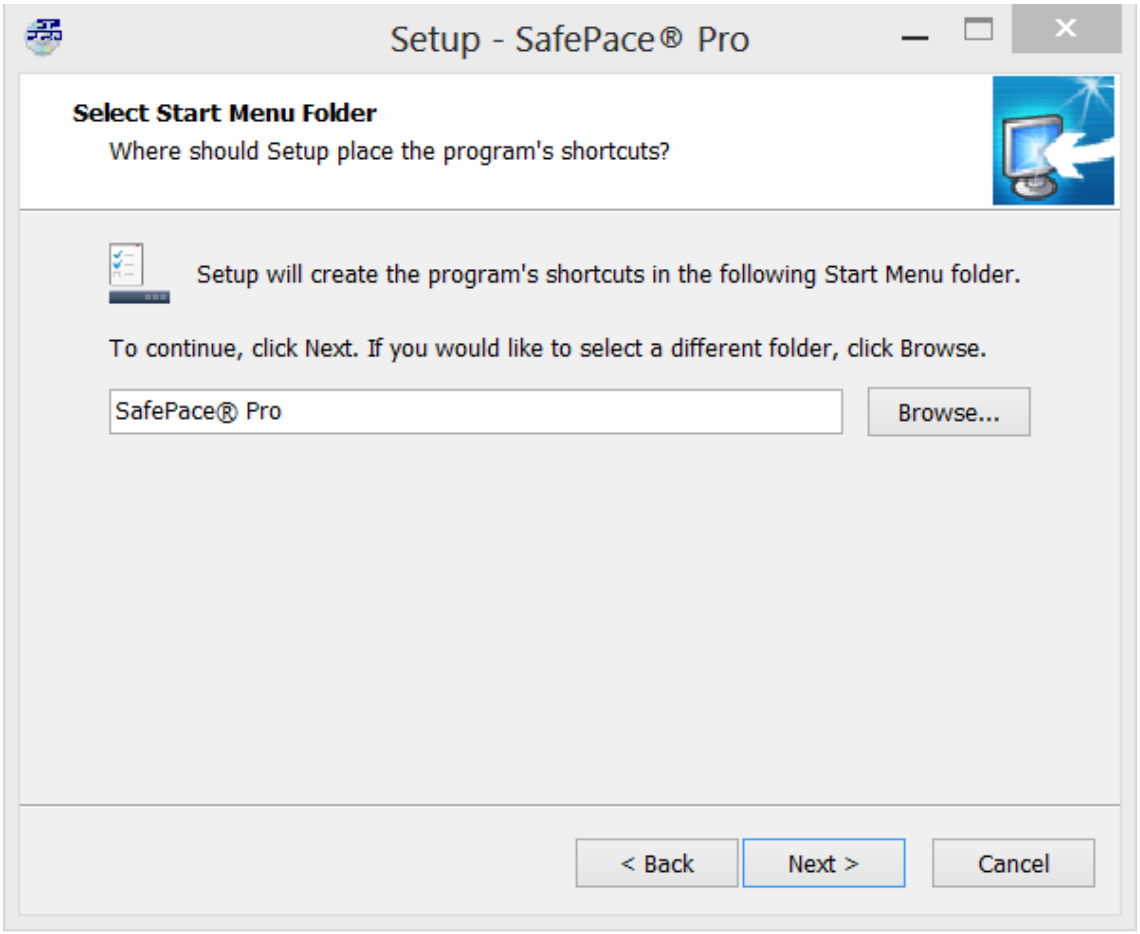


Figure 13 – Keep or modify Start menu folder name

Select Additional Tasks

In **"Select Additional Tasks**", by default, the option is not selected to create a desktop icon shortcut for the SafePace® Pro software application. Opt to create, and click **"Next >"** to proceed to the **"Setup summary dialog".**

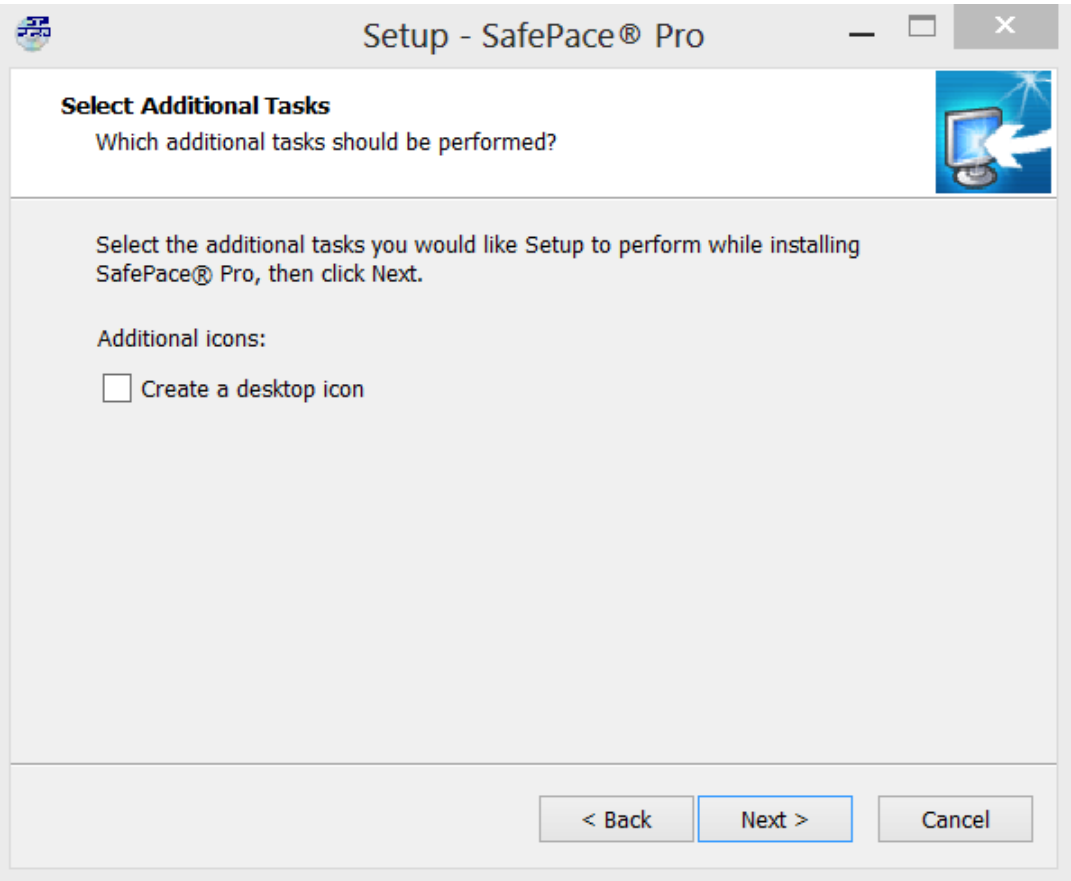


Figure 14 – Select to create desktop icon

Setup Summary dialog

The Installation Wizard will display the Setup summary dialog showing the selected setup options before proceeding. You can review your parameter selections and modify them if necessary.

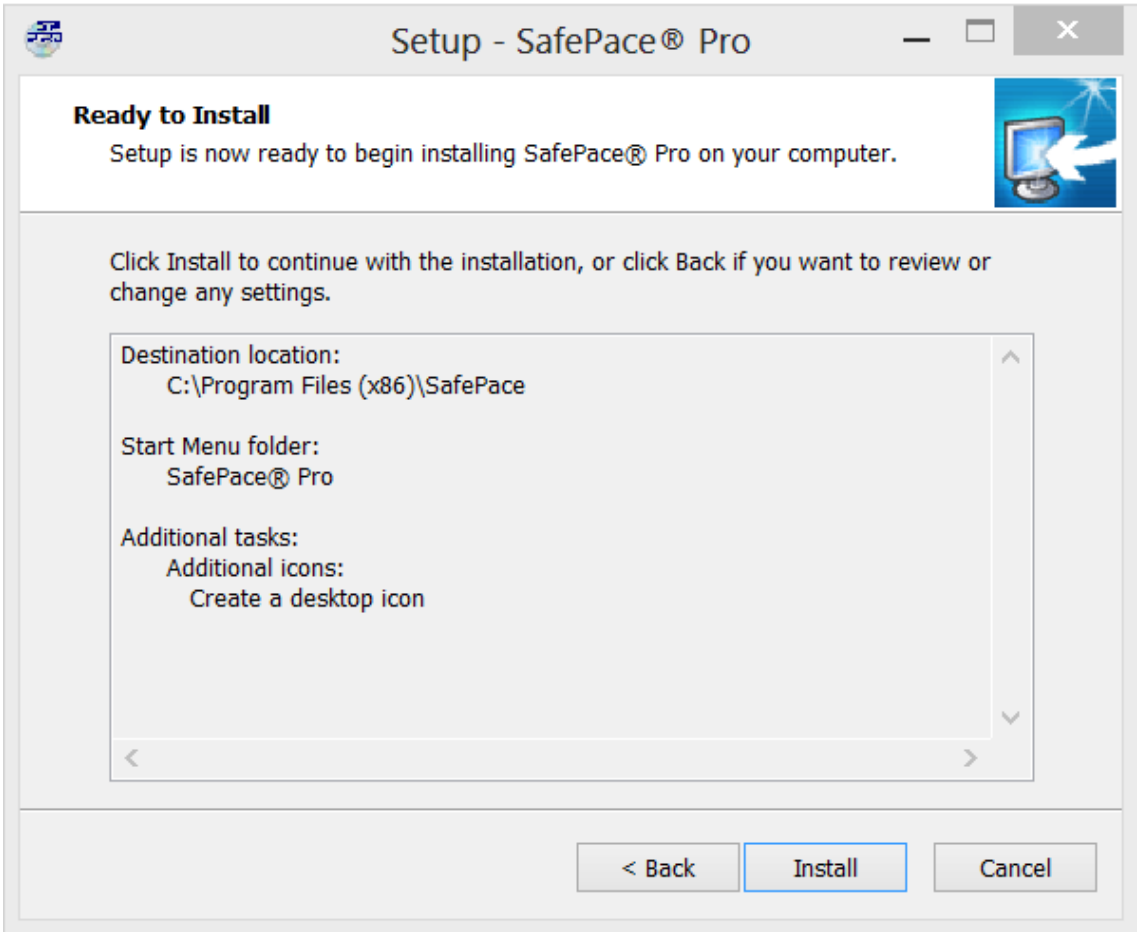


Figure 15 – Setup summary dialog

Use the **"< Back"** button to roll back to the page with the parameter you would like to modify. Click the "Install" button when ready to install the SafePace® Pro software.

NOTE

*The Installation Wizard can be terminated at any point in the process before the setup process initiates by clicking the **"Cancel"** button.*

Setup Wizard Complete

Upon completion of the short setup process, the Installation Wizard will propose to start the SafePace® Pro software.

If you have not set up your PC to connect to your SafePace® radar sign **using Bluetooth, Wi-Fi, or GPRS**, defer running SafePace® Pro and de-select the option to **"Run SafePace Pro now".**

Visit ***Section 1 - setting up your PC to connect using Bluetooth*** in the ***Appendix*** of this document for instructions on setting up your PC to connect using Bluetooth.

Visit ***Section 2 - setting up your PC to connect using Wi-Fi*** in the ***Appendix*** of this document for instructions on setting up your PC to connect using Wi-Fi.

Visit ***Section 3 - setting up your PC to connect using GPRS*** in the ***Appendix*** of this document for instructions on setting up your PC to connect using GPRS.

Figure 16 – Deselect option to run SafePace® Pro immediately after installation

If you have already setup your PC to connect to your SafePace® radar sign using Bluetooth, Wi-Fi, or GPRS, then select the option to **"Run SafePace Pro now",** and click **"Finish".**

Running SafePace® Pro for the first time

SafePace® Pro, upon its first execution, will prompt you with the **"Initial settings"** window prior to loading the SafePace® Pro application. Select the connectivity mode and speed units that your sign is configured with to allow for the correct speed units to appear in the software interface, and for an smooth instant connection to your radar sign upon running SafePace® Pro.

Figure 17 – Initial settings window – set communication mode and speed units

IMPORTANT

After completing the SafePace® Pro installation wizard, to apply settings in the **"initial settings"** window, ensure that you have already:

- paired your PC to your Bluetooth configured sign (see ***Section 1 - setting up your PC to connect using Bluetooth***)
- or connected your PC to the SafePace® Wi-Fly network access point to connect to your W-Fi configured sign (see ***Section 2 - setting up your PC to connect using Wi-Fi***)
- or if you have a radar sign with a SIM card (GPRS configuration) installed (see ***Section 3 - setting up your PC to connect using GPRS***)

When selecting Bluetooth as the mode (of connection), select the COM port assigned by Windows, then click Save. SafePace® Pro will then load and automatically connect to your Bluetooth configured radar sign.

Figure 18 – Initial settings window – select COM port menu

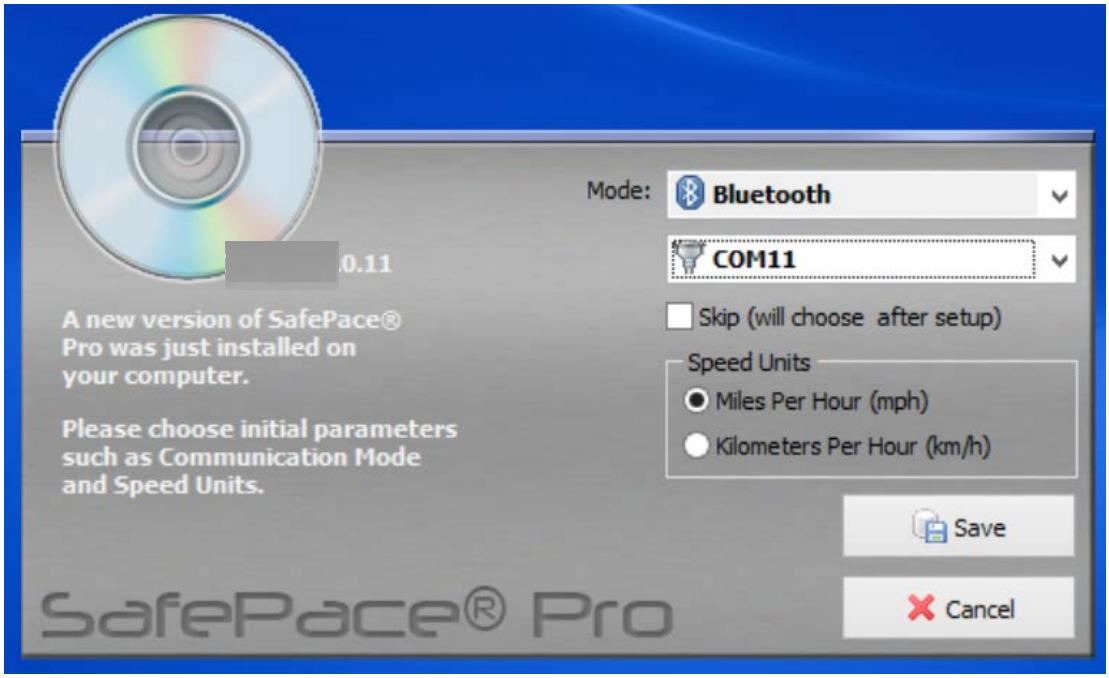


Figure 19 – Initial settings window – COM port and speed units selected

As in the figure below, SafePace® Pro loads, with a status of "**Open**" with the color green to signify and confirm that SafePace® Pro has made a connection with your radar sign.

The top left corner also shows the connected COM port selected earlier in "**Initial Settings**" based on the COM port number designated by windows after pairing with your Bluetooth configured sign.

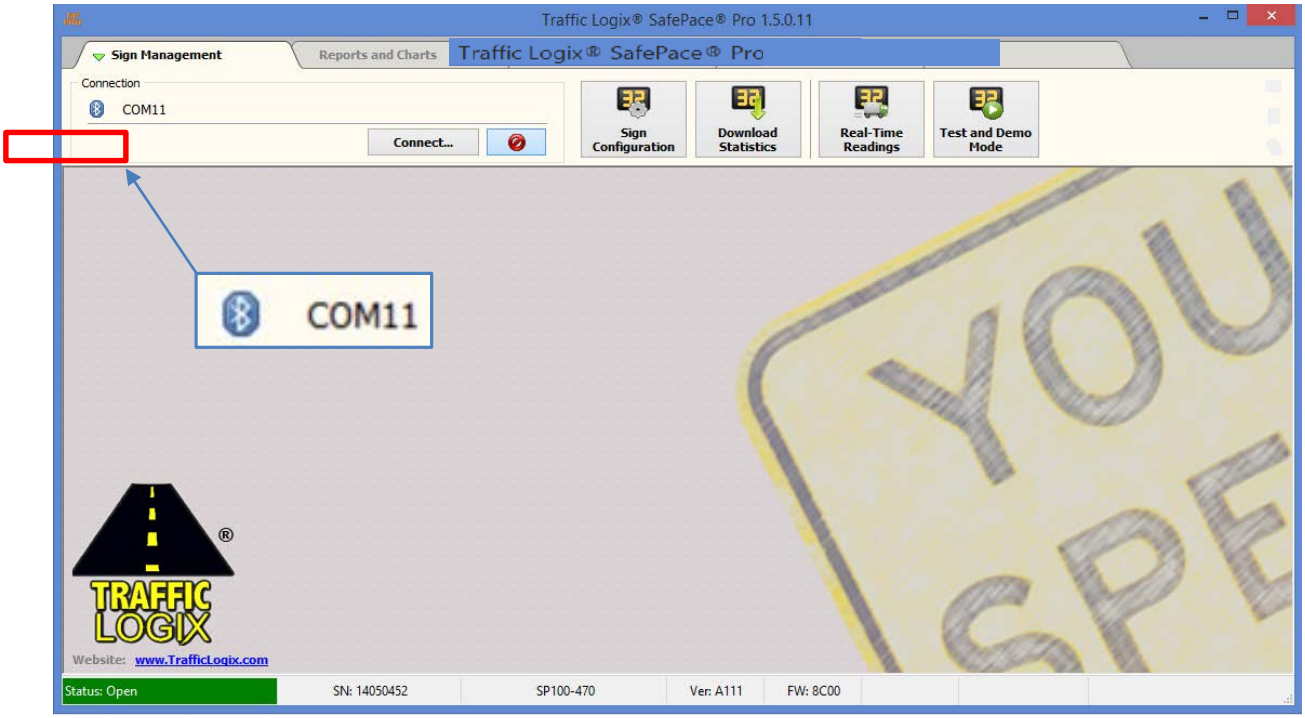


Figure 20 – SafePace® Pro Main Window – status is open and green when connected to radar sign connected to your PC with Bluetooth using pre-configured Windows COM port 11

When selecting W-Fi/GPRS, as the mode (of connection), enter the pre-programmed IP address in the field below the mode menu. Click Save, then SafePace® Pro will load and automatically connect to your Wi-Fi configured radar sign.

*Note

This field will show 000.000.000.000 upon installing for the first time, but will populate with the previously used IP address after upgrades and/or re-installation.

Figure 21 – Initial settings window – Wi-Fi mode –IP address field

If your sign is configured with a SIM card, click into the text box to edit and add the static IP address configured with the SIM card module. Click Save, then SafePace® Pro will automatically connect to your GPRS configured sign.

Figure 22 – Initial settings window – GPRS mode – enter static IP address for SIM card module

If you have not set up your PC to connect **to** your SafePace® radar sign **using Bluetooth, Wi-Fi, or GPRS**, at this point, you can skip entering any of the above settings.

Select the option to "Skip (will choose after setup), or click the "Cancel' button.

Figure 23 – Initial settings window – Skip option

In this case, SafePace® Pro will not automatically connect to your radar sign upon loading. The main interface will load with the "Welcome Window".

Click to close out of this window, as you will have to select the paired COM port designated by Windows in the "Connection Settings" window, in order to connect to your radar sign.

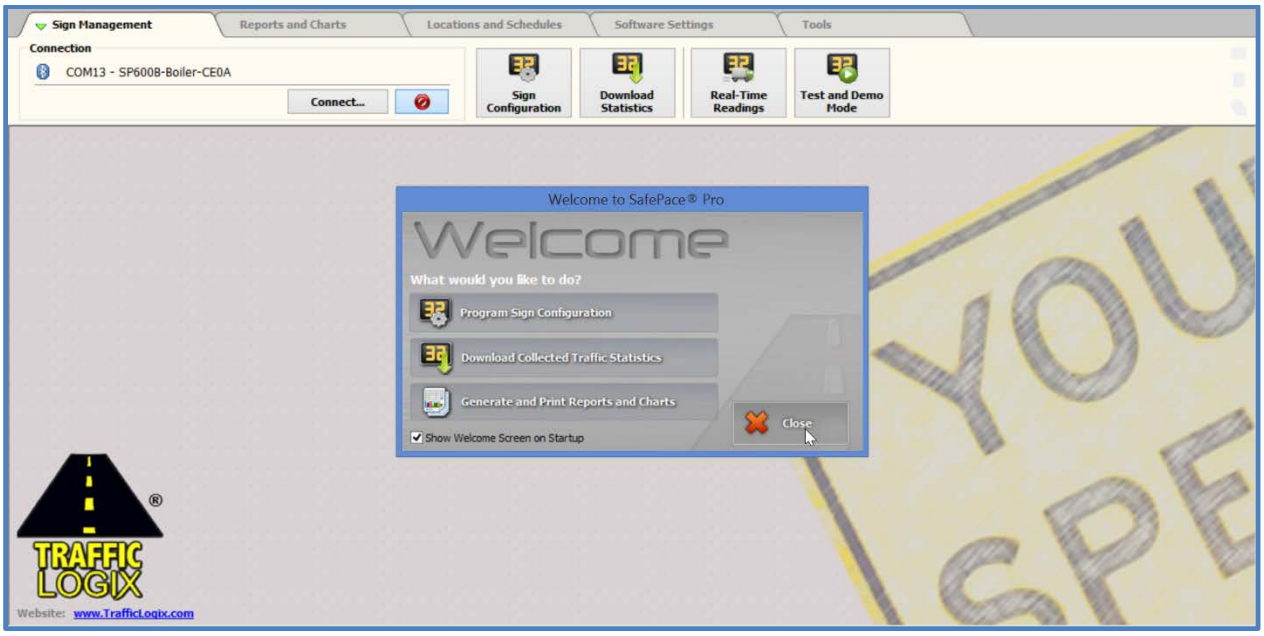


Figure 24 – SafePace® Pro – Welcome Window

SafePace® Pro - Main Window

The main window for SafePace® Pro is a multi-tabbed interface. Navigate each tab to get access to multiple buttons that open 'child' interfaces to provide further control of your radar sign.

Two interfaces remain static throughout navigation:

- the "Connection" control box at the top left of the "Main Window"
- and the "Status Bar" at the bottom of the "Main Window"

Traffic Logix® SafePace® Pro 1.5.0.15

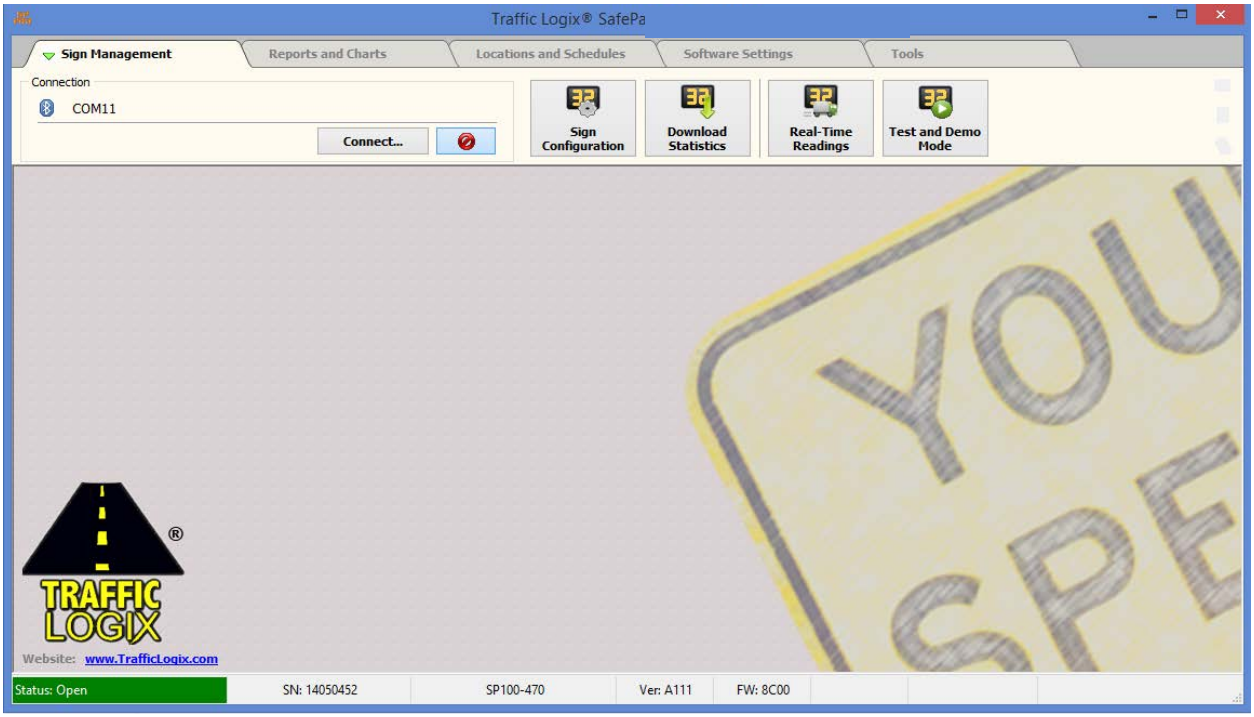


Figure 25 – SafePace® Pro – Main Window

The Connection control box

The "Connection" control box displays the currently selected COM port in the "Connection Settings" window.

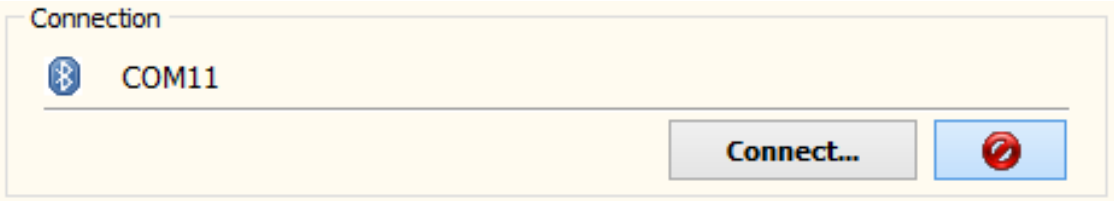


Figure 26 – "Connection" control box

Click the "Connect" button to open the "Connection Settings" Window.

Click the "Disconnect" button to disconnect from the currently selected COM port (designated by Windows for the radar sign) if connected.

The Status Bar

The “Status Bar” at the bottom of the window, confirms whether a connection has been made to the radar sign with the currently selected COM port (if designated to your radar sign by windows).

The status field will display a status of “Disconnected” when there is no connection between SafePace® Pro and a radar sign.

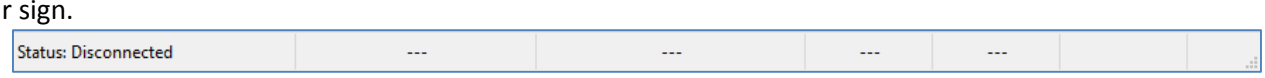


Figure 27 - “Status Bar” with ‘Disconnected” status

The status field will display a status of “Connected” and the color green (see Figure 28) to confirm when a connection is made between SafePace® Pro and a radar sign.

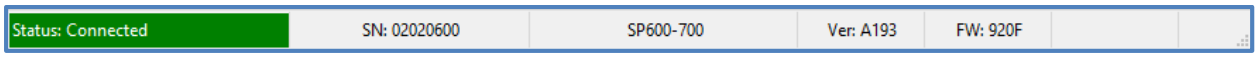


Figure 28 – “Status Bar” with “Connected” status

When connected to a radar sign, the “Status Bar” will also display, the following information in an abbreviated format, from right to left:

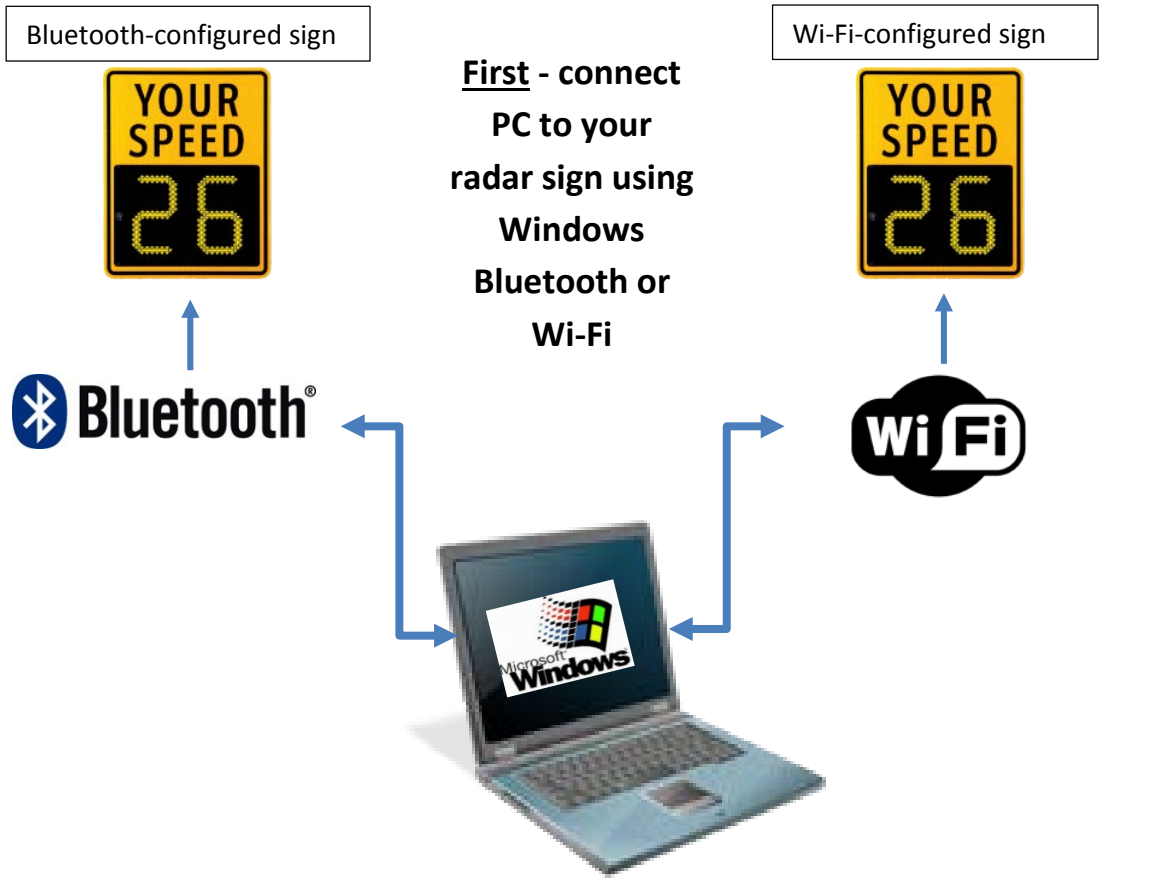
“Status Bar” abbreviations	Description
SN	**The serial number of the connected radar sign**
SP100-475	**The sign model family the sign belongs to (in this case the sign you are connected to is either an SP100, SP250, SP400, SP450 or SP475 model)**
SP500-570	**The sign model family the sign belongs to (in this case the sign you are connected to is an SP500 (Variable Speed Limit sign model)**
SP600-700	**The sign model family the sign belongs to (in this case the sign you are connected to is either an SP600, SP625, SP650 or SP700 model)**
SP800	**The sign model family the sign belongs to (in this case the sign you are connected to is an SP800 model)**
Ver	**The radar sign’s internal controller card’s version number**
FW	**The current version of the firmware that is running on the radar sign controller card**

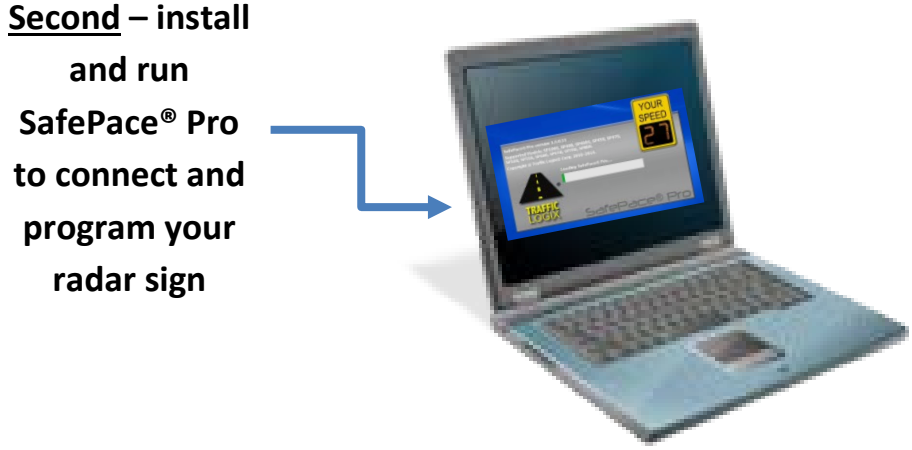
Figure 29 – Understanding the information on the “Status Bar”

Connecting to your radar sign with SafePace® Pro

Connection settings

To connect to your radar sign using the "Connection Settings" window (see ***Figure 30 – "Connection Settings" window***), ensure that you have set up your PC's Bluetooth or Wi-Fi connection to your radar sign first with Windows (see ***Appendix***), otherwise, SafePace® Pro will not be able to connect with your radar sign.





Connecting to a Bluetooth sign

To connect with a Bluetooth configured sign, select Bluetooth from the "Mode" menu, then click on the **"Description"** field to select the COM port (designated by Windows after you have paired to your radar sign using Windows), then click the **"Connect"** button.

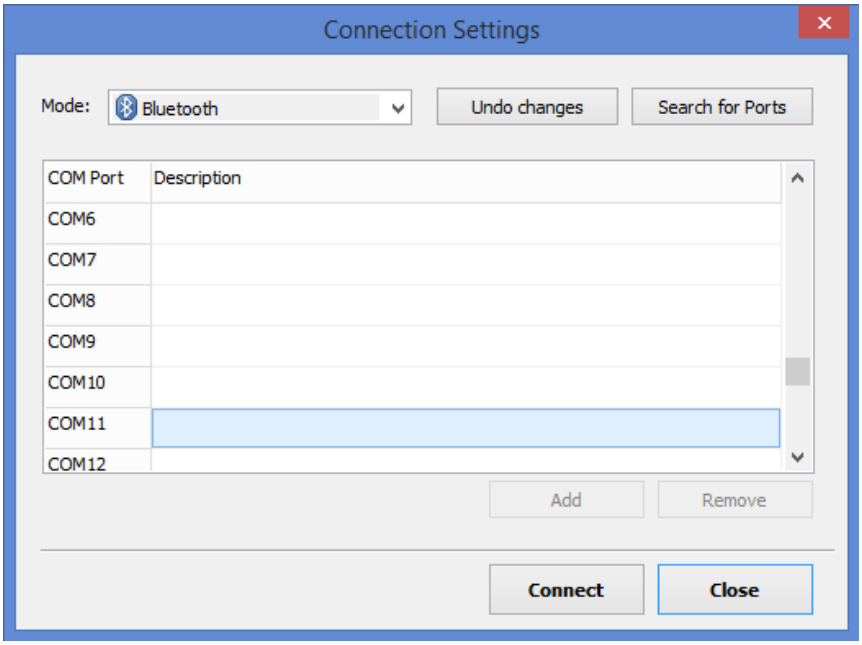


Figure 30 – "Connection Settings" window

Adding a description for your connection setting

Double-click on the **"Description"** field to add any type of distinguishable description to define the radar sign further.

Click the **"Undo changes"** button to undo any edits prior to closing out of the "Connection Settings" window.

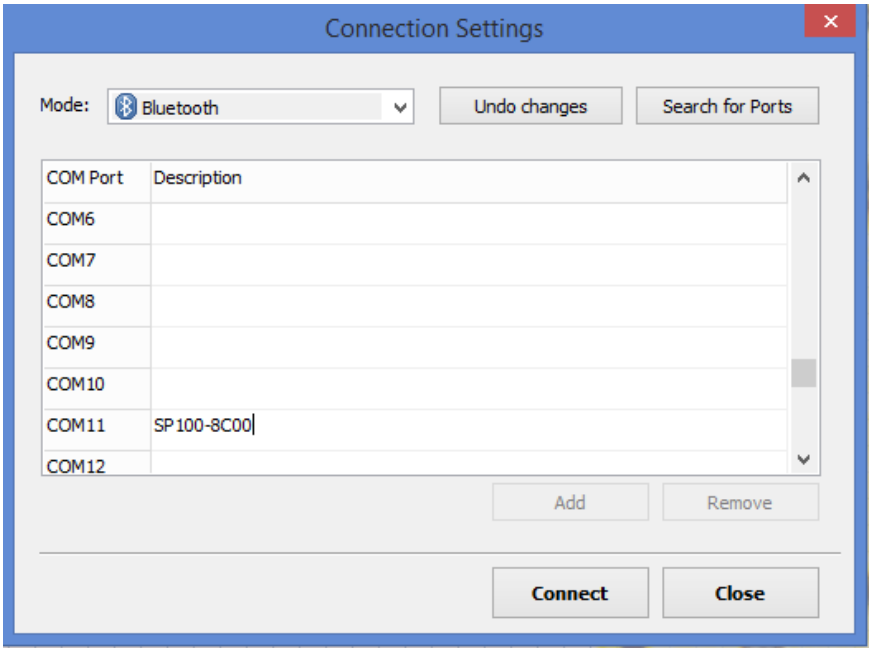


Figure 31 – "Connection Settings" – adding a connection description

Search for Ports button

If you have already paired your radar sign with Windows, but do not know the COM port number, click the Search for Ports button, and SafePace® Pro will search and find the COM port your sign is connected to.
Click OK on the message, select the port and click the "Connect" button to connect to your radar sign.

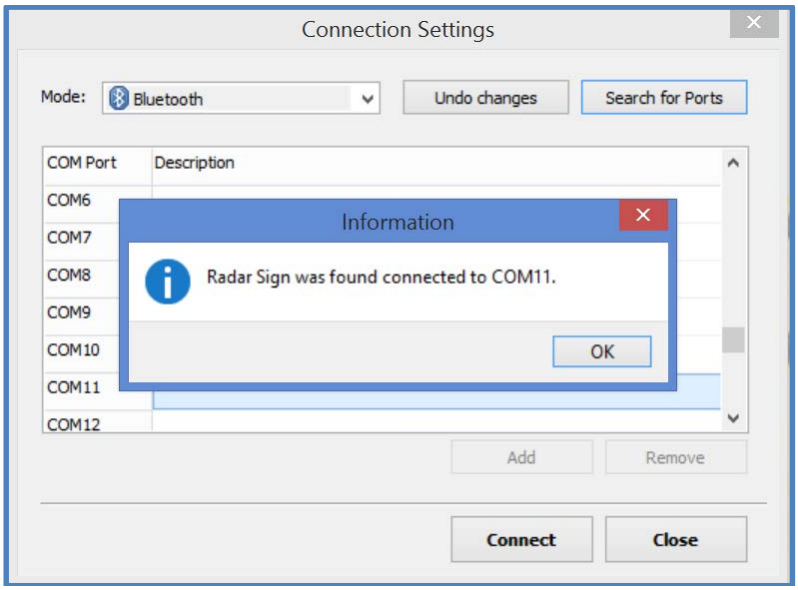


Figure 32 – "Connection Settings" – "Search for Ports" button

Connecting to a Wi-Fi or GPRS sign

To connect with a Wi-Fi configured sign;

1) Ensure your Windows PC is already connected to the Wi-Fly network access point (see ***Section 2 - setting up your PC to connect using Wi-Fi***).
2) Run SafePace® Pro and select the Wi-Fi/GPRS option from the **"Mode"** menu. Optionally, enter an appropriate description of your sign in the description field, then click the **"Connect"** button to connect to your radar sign.

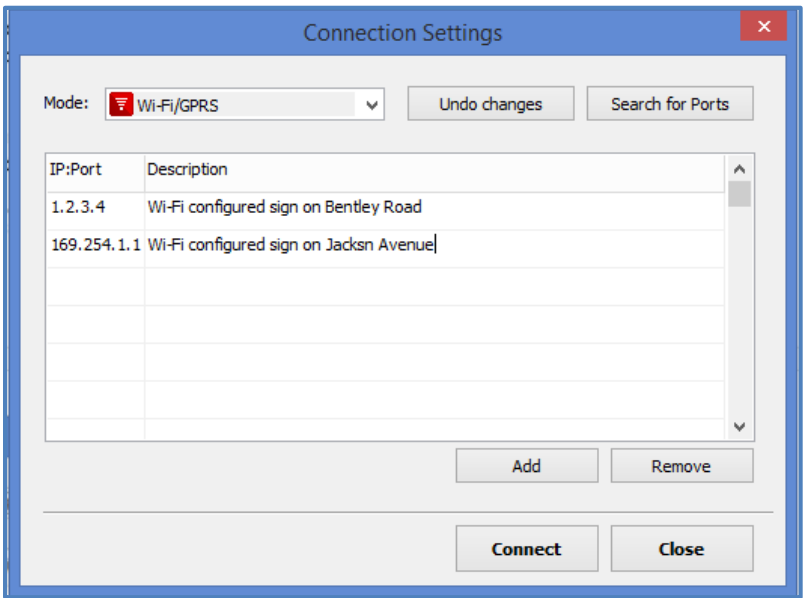


Figure 33 – "Connection Settings" – Wi-Fi/GPRS mode

3) Enter the "**pre-programmed IP address"** (for the Wi-Fi card installed inside your radar sign) into the "**IP: Port"** column in the "Connection Settings" window. (See ***Figure 33 – "Connection Settings" – Wi-Fi/GPRS mode***).

NOTE

All WiFly *modules installed in the radar signs have a pre-programmed* ***IP address*** *–check the documentation that comes with your radar sign or call Traffic Logix support for assistance. The IP address is entered along with the port number. E.g.* ***1.2.3.4:2000****.*

To connect with a GPRS (SIM card) configured sign;

1) Run SafePace® Pro and select the Wi-Fi/GPRS option from the **"Mode"** menu. Optionally, enter an appropriate description of your sign in the description field, then click the **"Connect"** button to connect to your radar sign.
2) Double-click into the "**IP: Port"** field to edit the default pre-programmed IP address (used to connect to a Wi-Fi configured sign), and enter the **"static IP address"** of the **"SIM card module"**.

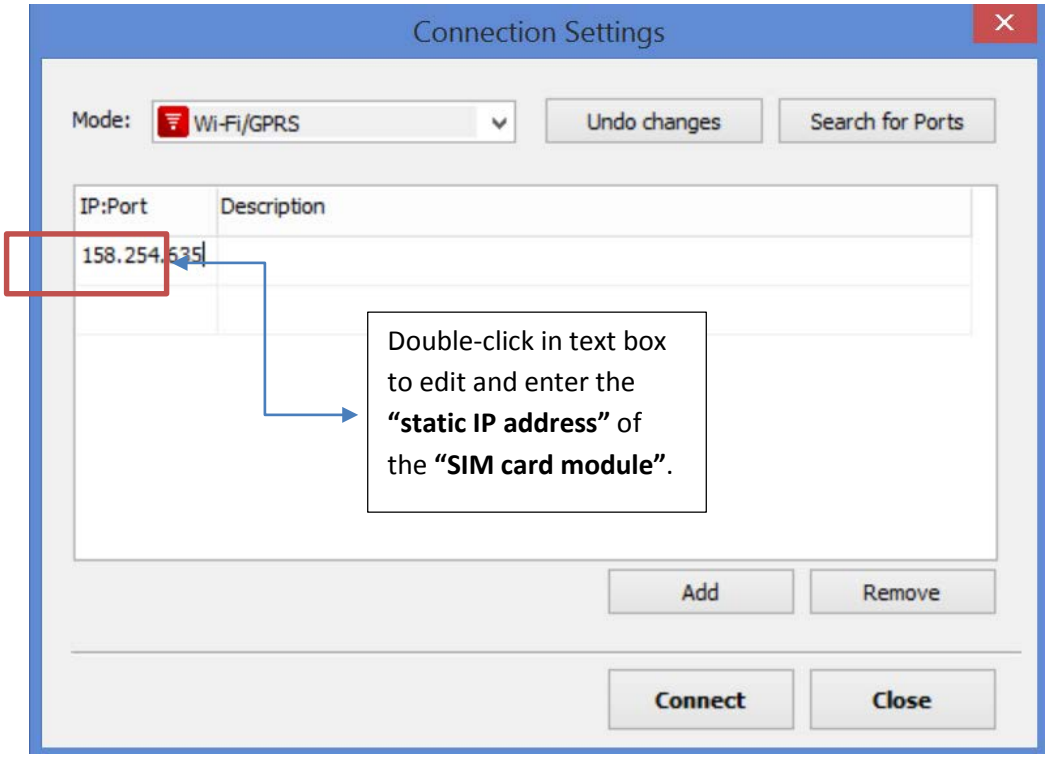


Figure 34 – "Connection Settings" – Enter static IP address of SIM card module

Welcome Window

The "**Welcome Window**" is displayed by default when SafePace® Pro software is started. It contains shortcuts to most commonly used interfaces to carry out the following functions:

- "**Program Sign configuration**"
- "**Download Collected Traffic Statistics**"
- "**Generate and Print Reports and Charts**"

The "**Welcome Window**" can remain open as long as you need it.

Click the "**Close**" button to close this window.

Figure 35 – SafePace® Pro Welcome window

You may choose not to display the "**Welcome Window**" on the next SafePace® Pro software startup. To do this, un-check the check-box located at the bottom-left corner of the "**Welcome Window**".

NOTE

*When the "**Welcome Window**" is closed, there is no direct way to re-open it again in the same session (without restarting of the SafePace® Pro software). If "**Show Welcome Screen on Startup**" check-box is checked, the "**Welcome Window"** will pop-up automatically when the software application is restarted. You can otherwise restore this option in the "**Figure 169 - SafePace® Pro - Software Settings - Advanced Settings tab**".*

Multi-Document Interface

The SafePace® Pro interface also implements a **Multi-Document Interface (MDI)** model where all "**child**" windows are opened within the **Main Window** and can be arranged differently.

As mentioned above (see ***SafePace® Pro - Main Window)***, the "Main Window in SafePace® Pro also has a "multi-tabbed" or "**Tab Menu**" interface at the top of the window with the **"Connection control box"** on the top left, and the **"Status Bar"** at the bottom of the window.

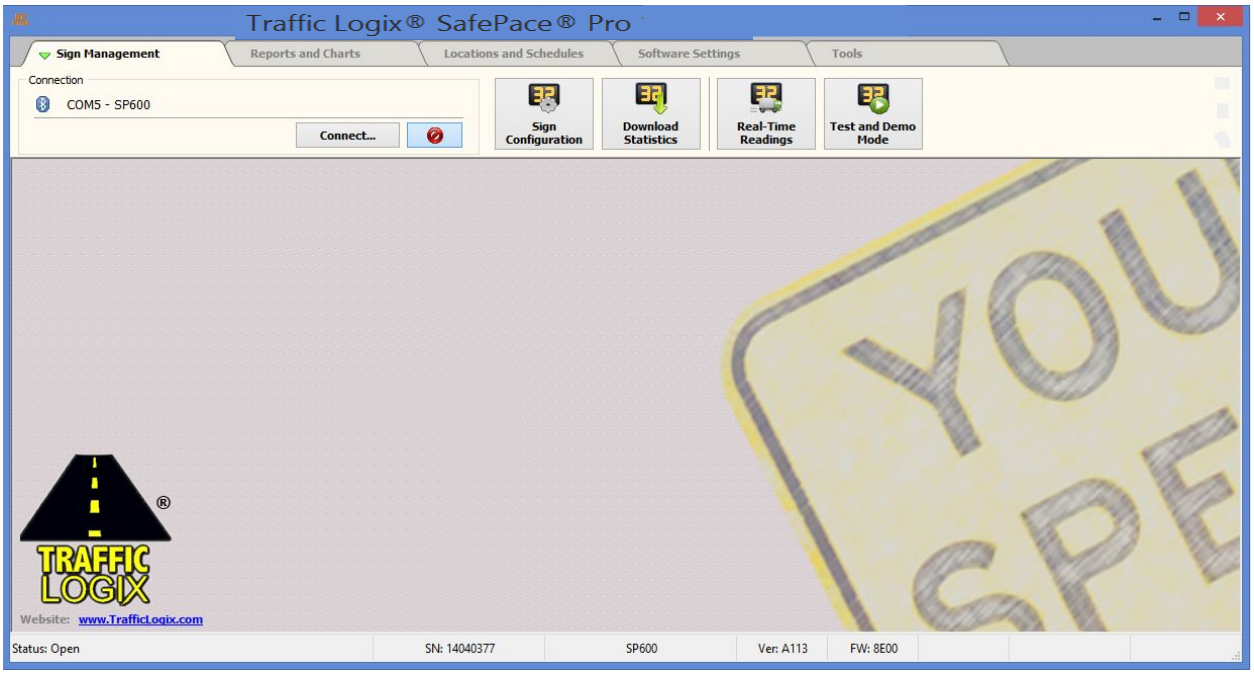


Figure 36 – SafePace® Pro – Multi-Document Interface with tabs and connection control bar

Multi-document controls

Controls for arranging the opened "**child**" windows, are not activated or visible initially, as by default, the Sign Management tab is exposed upon startup, and does not contain button controls that open child windows but functional dialogs that retain focus.

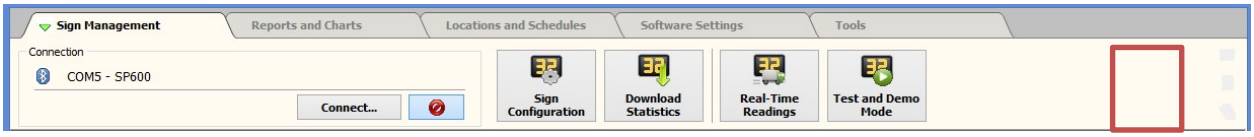


Figure 37 – Controls not visible initially

The controls become activated and visible inside the button bar at the top right, mainly when any reports and charts are generated and allow for the windows the reports are generated into, to be arranged vertically, and horizontally with a cascade option to bring order.

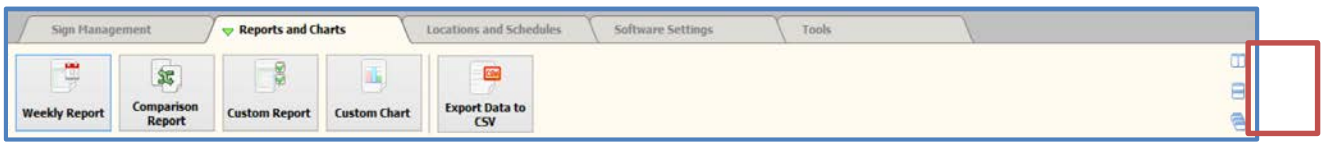


Figure 38 – Controls visible when report windows generated

Arrange report windows vertically

The split vertical control at the top right of the main interface gives you the opportunity to work with multiple windows.

Open two reports or charts and perform side-by-side data comparisons at the same time, for various locations at any time interval.

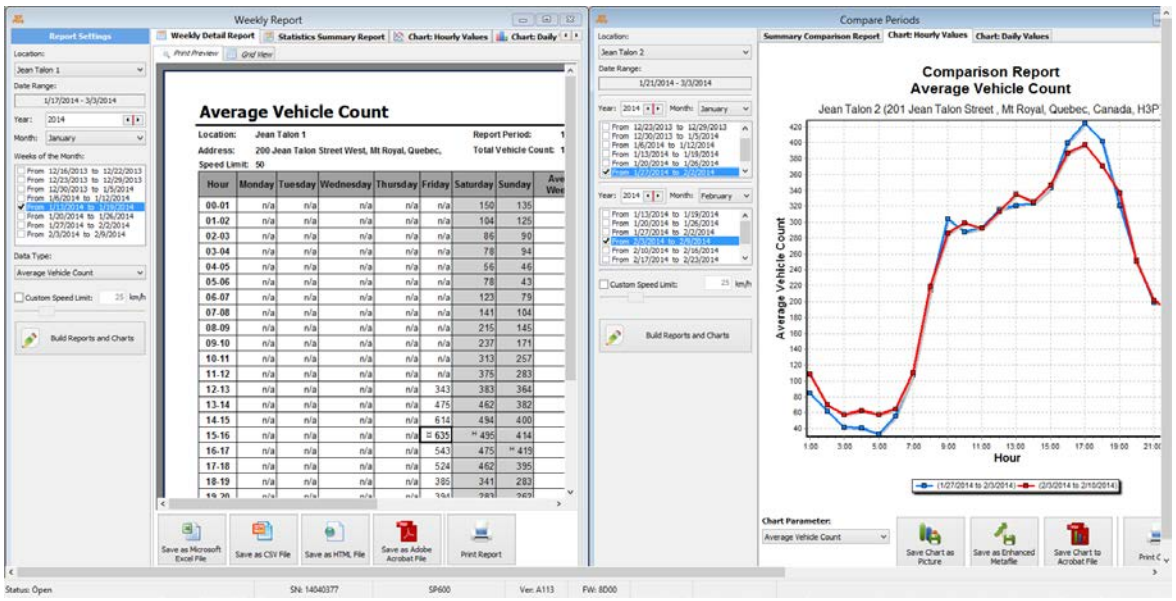


Figure 39: MDI - Weekly report and comparison chart side-by-side

Open multiple charts, weekly reports and custom reports, and the windows arrange automatically to extend the statistical analyzing capabilities of the software even further.

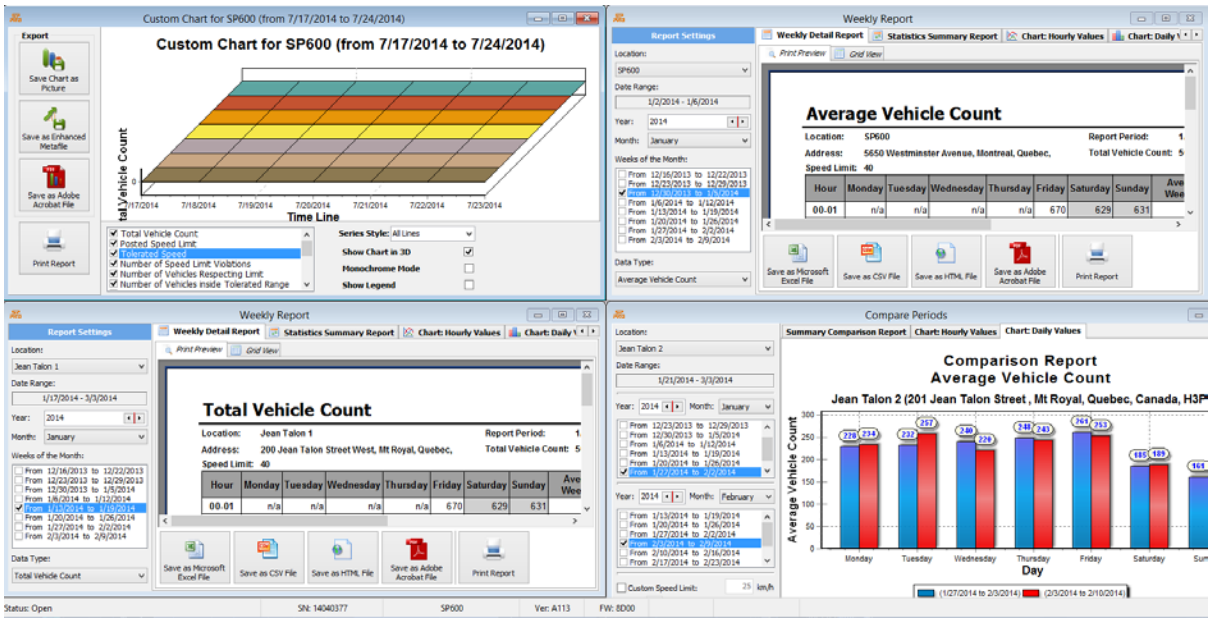


Figure 40: MDI – Show multiple reports and charts

Arrange report windows horizontally

After building multiple reports and charts, the split horizontal control provides a wider view of your open reports and charts by arranging them horizontally. Perform top/bottom data comparisons at the same time, for various locations at any time interval.

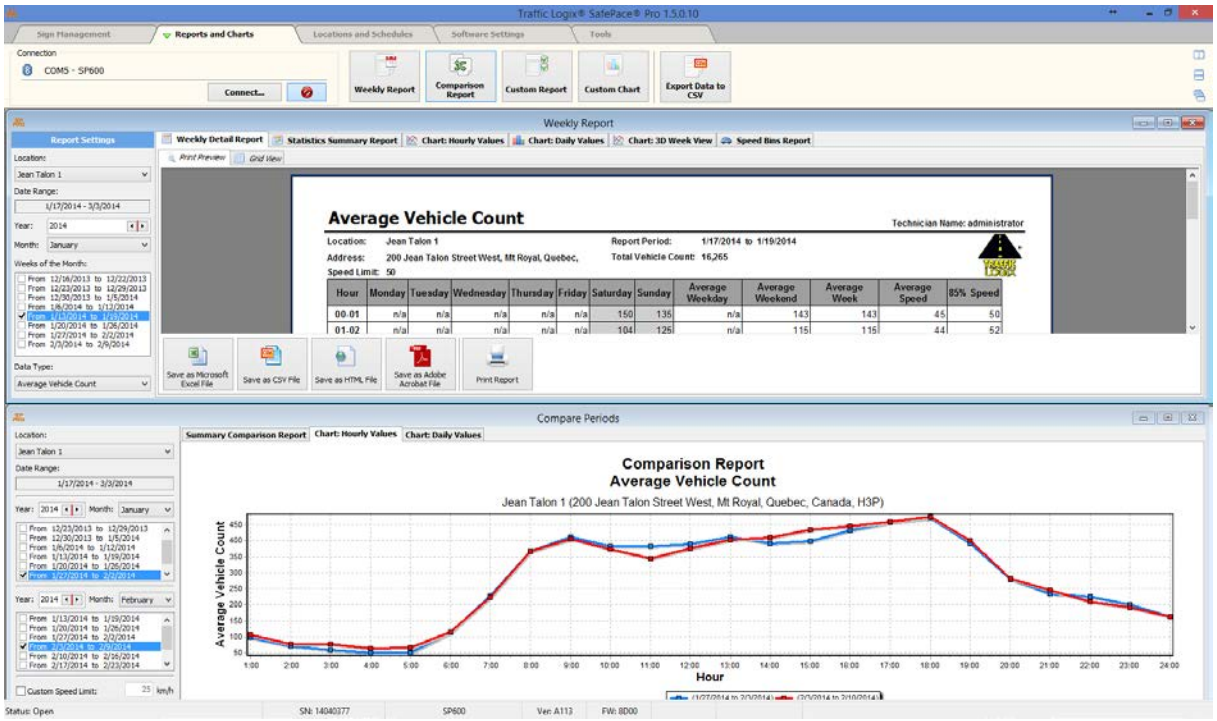


Figure 41: MDI - Weekly report and comparison split horizontally for wider view

Arrange cascade

When opening too many reports, choose the cascade option to restore and re-arrange.

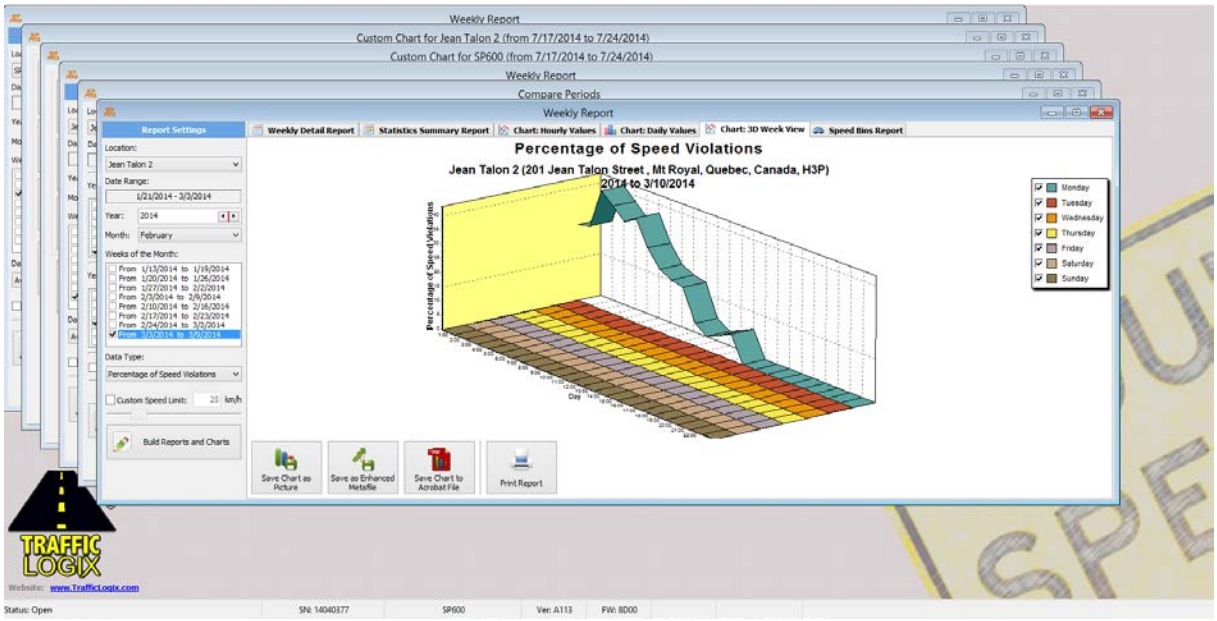


Figure 42: Cascade to re-arrange multiple reports and charts opened

Tab Menus

Each "**Tab**" contains a set of buttons providing access to specific functions;

The "**Sign Management**" tab contains buttons to access functions related to managing your sign. Click ***The Sign Management tab*** to see more information.

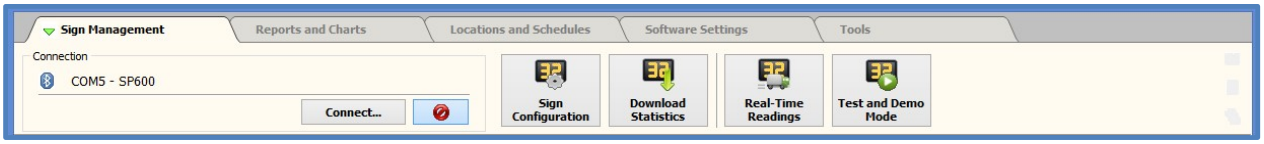


Figure 43 – Tab menu – Sign Management

The **"Reports and Charts"** tab contains buttons to access functions for generating, analyzing and exporting various kinds of reports. Click ***The Reports and Charts tab*** to see more information.

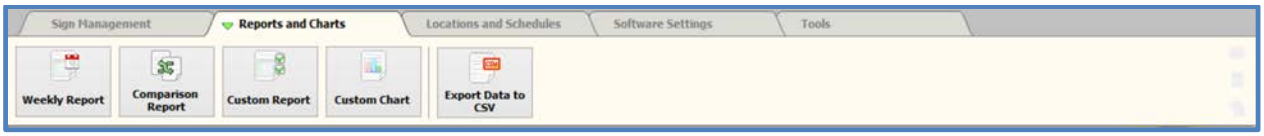


Figure 44 – Tab Menu – Reports and Charts

The **"Locations and Schedules"** tab contains buttons to access functions for setting up locations and preparing schedules. Click ***The Locations and Schedules tab*** to see more information.

Figure 45 – Tab Menu – Locations and Schedules

The **"Software Settings"** tab contains buttons to access functions for configuring the SafePace® Pro software. Click ***The Software Settings tab*** to see more information.

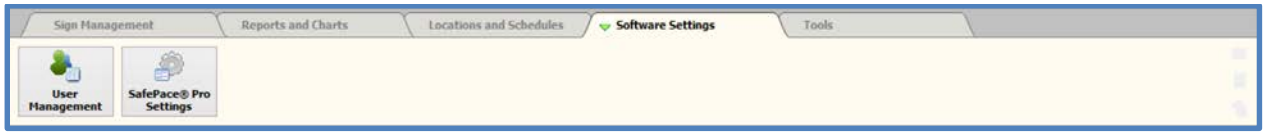


Figure 46 – Tab Menu – Software Settings

The **"Tools"** tab contains access buttons to access various tools and utilities. Click ***The Tools tab*** to see more information.

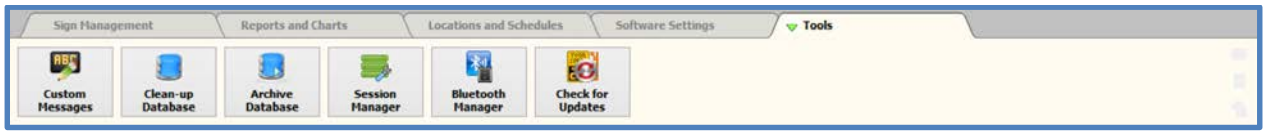
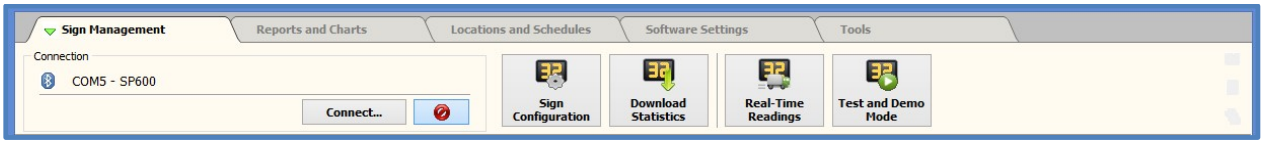


Figure 47 – Tab Menu - Tools

The Sign Management tab



Sign configuration button

The "**Sign Configuration**" button opens the radar sign configuration window. This interface can be opened whether you are connected to the sign or not.

It is a portal for managing your sign location(s), sign settings, custom messages, and advanced settings.

The bottom of the window contains a button panel allowing you to manage and test your configurations before uploading them to the sign.

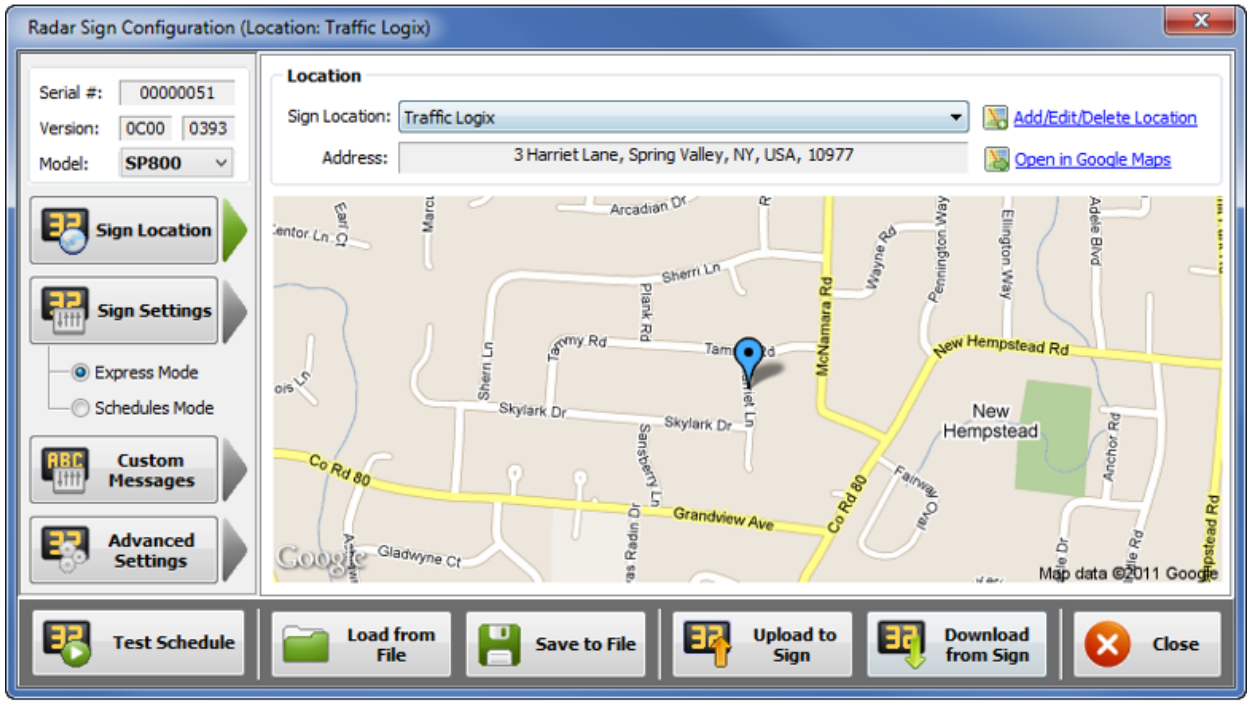


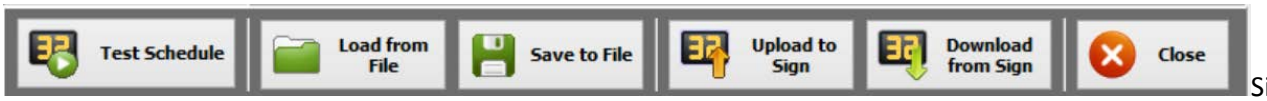
Figure 48 – SafePace® Pro – Radar Sign Configuration window

Programing your radar sign

SafePace® Pro's radar sign configuration window provides an easy to use interface to quickly access your sign location, sign configuration, custom messages and advanced settings.

After the parameters are selected, all configurations can be programmed to the connected radar sign by clicking the "**Upload to Sign**" button or saved to file by clicking the "**Save to File**" button.

To download all configurations from the connected radar sign use the "**Download from Sign**" button. Otherwise, a configuration can be loaded from a previously created file using the "**Load from File**" button.



Sign settings can be verified with a displayed simulation by clicking on the "**Test Schedule**" button. This could be useful when complex schedules and calendars are used to control the radar sign. For more details see ***Test a Selected Schedule***.

Managing your sign locations

Each sign stores information about the location where it is installed. This is important for data integrity. Traffic Statistics collected by a sign is attributed to the location where it is collected and is therefore properly merged with previously downloaded data from the sign for that specific location.

Use the "**Sign Location**" drop-down menu to change the location where the sign will be installed. If the location does not already exist in the list, click on the "**Add/Edit/Delete Location**" button to add and manage locations.

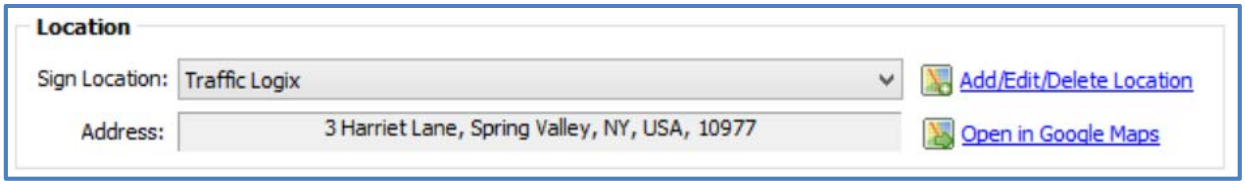


Figure 49 – Sign location Management

The selected location can be viewed using "**Google Maps**" by clicking the "**Open in Google Maps**" button. This is a very useful feature that allows the user to get a view of where the sign is installed.

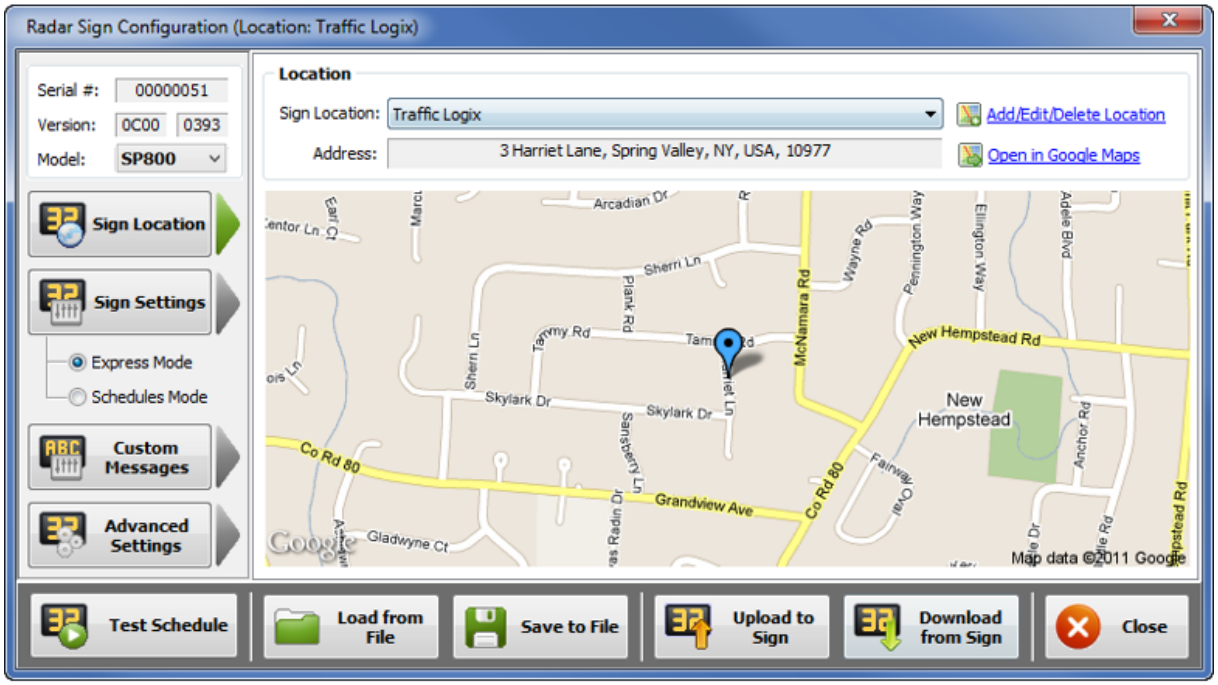


Figure 50 - SafePace® Pro - Radar Sign Configuration - Sign Location

All signs shipped to customers are pre-programmed with a default location called "**Traffic Logix®**". The same location exists in SafePace® Pro software by default. This helps to avoid the "**synchronization process**" (see ***Sign Synchronization***) when you are programming the interface for the first time. It is recommended to keep this location in the database at all times.

Sign connection status

SafePace® Pro can connect to and program all SafePace® 100-800 signs. The connection status can be determined by looking for the sign's serial number at the top leftmost corner of the "**Radar Sign Configuration**" window.

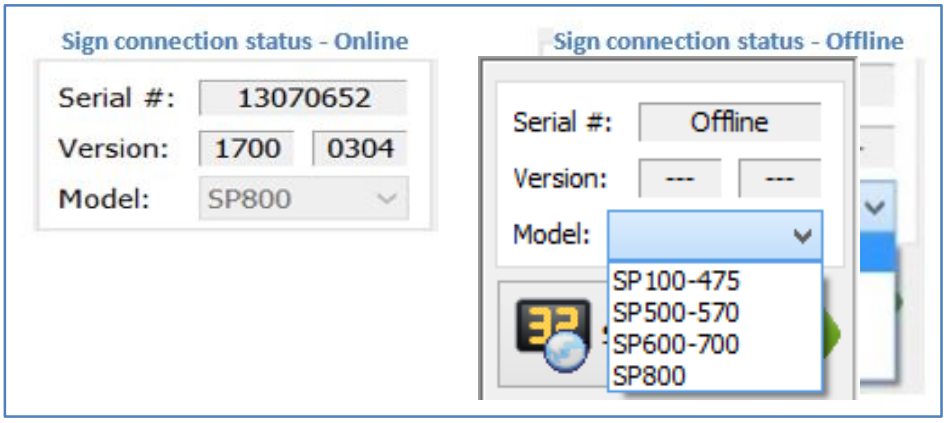


Figure 51 - SafePace® Pro - Sign Configuration window - Sign Connection Status

NOTE

*If there is no sign connected, the '**Serial#'** textbox will show as '**Offline**", and the "**Model**" drop list menu will be '**enabled'** and available to program the sign of your choice. Otherwise, when connected to a sign, the "**Model**" drop list menu is '**disabled'**, and displays the connected sign's model number.*

Sign Settings

The set of available parameters will depend on the selected sign in the "**Model**" drop list menu. When connected to SafePace® 100-5xx signs, only parameters to control display settings are available.

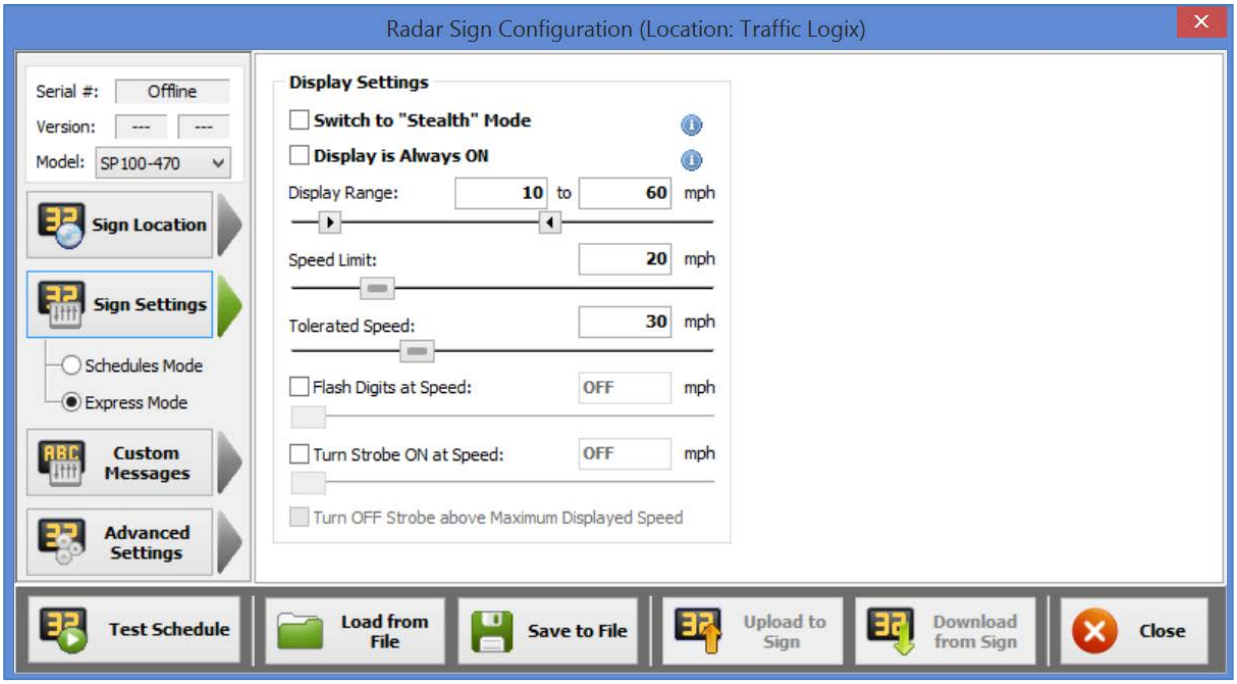


Figure 52 - SafePace® Pro - Sign settings - Parameters for SafePace® 100-500 signs

Additional parameters for controlling message settings are available for SafePace® 600-800 signs.

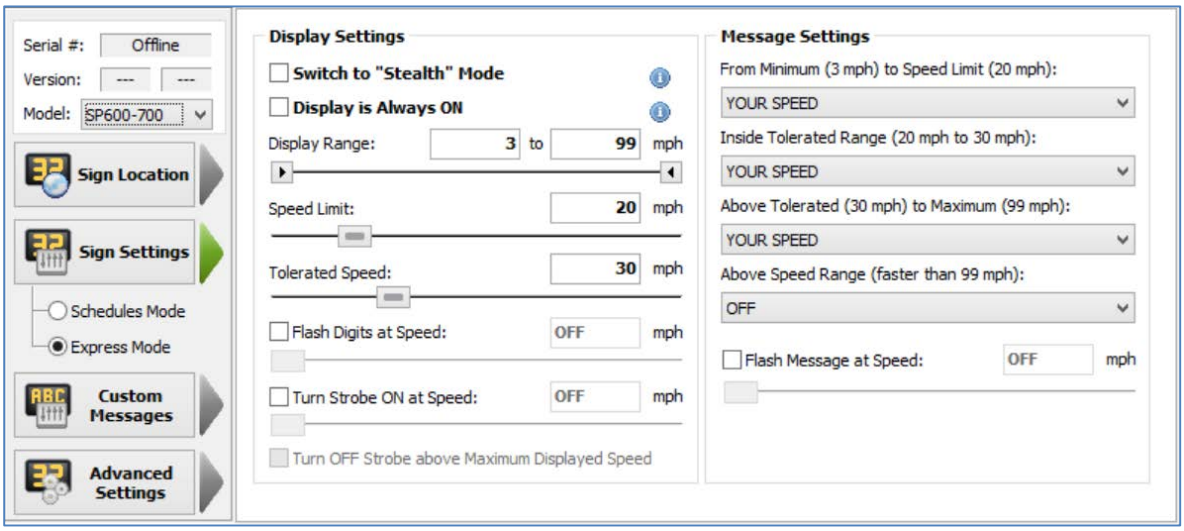
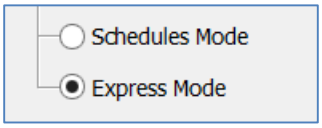


Figure 53 - SafePace® Pro - Sign Settings - Parameters for SafePace® 600-800 signs

Express Mode - Setting up an express configuration



Express Mode is the quickest, simplest and most common way to set constant (non-scheduled) settings such as **Speed Limit**, **Display Range** and **Message Settings** to the sign.

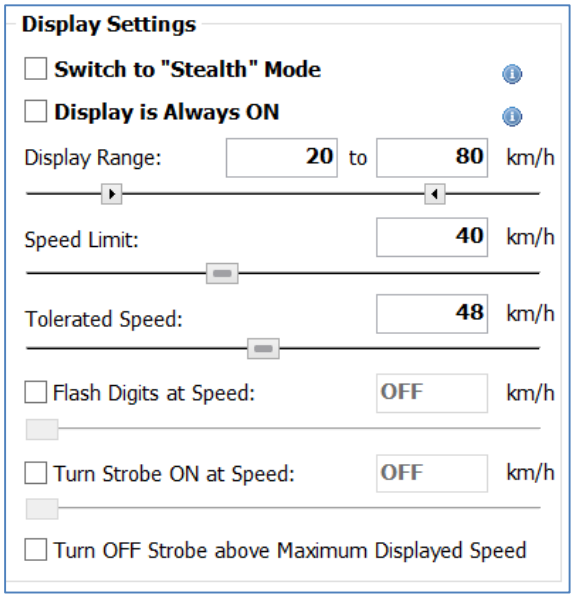


Figure 54 - SafePace® Pro - Sign 'Display Settings'

Most of the controls utilize ***sliders*** which are used to set various speed points. Alternatively, settings may be keyed in directly into corresponding ***setting boxes***.

Display settings

Display Range

The **Display Range** control is enabled when the **DISPLAY IS ALWAYS ON** control (see) is turned OFF. When connected with the family of SP100-SP475 signs or the SP500 and SP550 Variable Speed Limit signs, driver feedback (driver's speed on static YOUR SPEED signs, and SPEED LIMIT on static SPEED LIMIT signs) is limited to the range parameters set using the arrow controls.

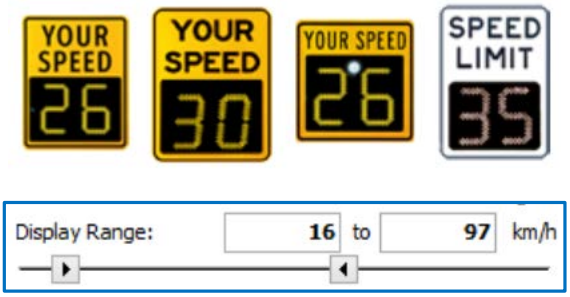


Figure 55 - SafePace® Pro - Display range

For SP600-SP800 signs (signs displaying driver feedback using standard and custom messages), the **Display Range** control is used together with the **Message Settings** controls (see ***Message Settings (SafePace® 600-800 signs only***), to configure what message or custom message is displayed and when.

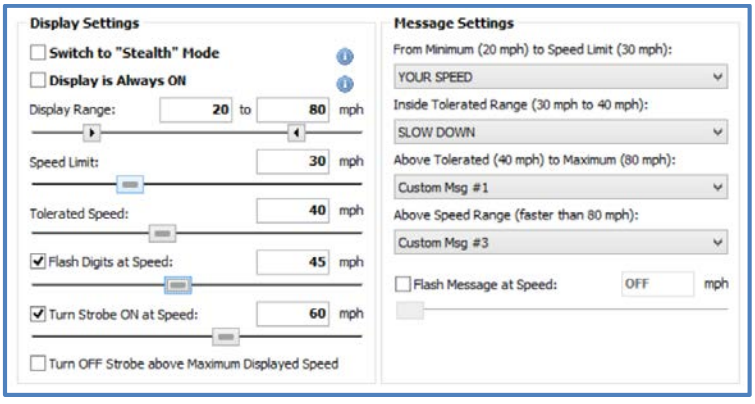


Figure 56 – SafePace® Pro – Display range with Message Settings

The sign will not display messages below the minimum speed in the range set. The sign, however, can display the strobe light and messages when the vehicle speed is above the maximum limit.

Note

The range for the Display Range controls adjusts automatically based on the speed units set for the radar sign. If setting to miles per hour (mph), then the display range is 5-99. When setting speed units to kilometers per hour (km/h), the display range is 5-160.

Speed Limit

Set this parameter and select whether to flash the digits and/or strobe and change the displayed message when the vehicle is traveling faster than the speed limit (SafePace® 600-800 signs only).

The **Speed Limit** is also used for reporting purposes (number/percentages of the speed violations) as well as for the "**Speed Limit**" message by the SafePace® 500 (***Variable Speed Limit sign***) and SafePace® 600 signs.

Figure 57 - SafePace® Pro - Speed Limit

Tolerated Speed

This is used for an additional point of programming (for SafePace® 600-800 signs) and in reports as an additional speed limit.

Figure 58 - SafePace® Pro - Tolerated Speed

Flash Digits at Speed

When this option is checked, it specifies the speed point at which the digits will start to flash to grab a driver's attention (disabled for SP800 signs which display Full Custom messages only).

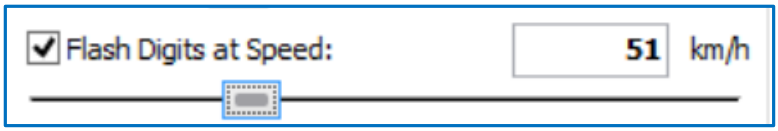


Figure 59 - SafePace® Pro - Flash Digits at Speed

Turn Strobe ON at Speed

This parameter turns **ON** the Speed Violator Strobe when a vehicle is traveling with the speed above a certain value.

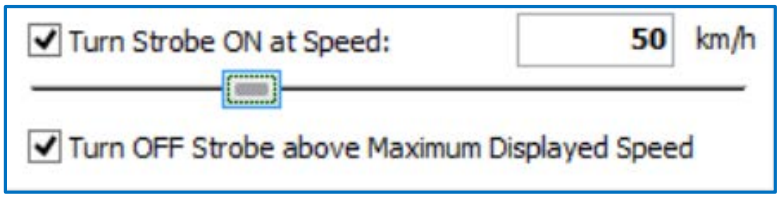


Figure 60 - SafePace® Pro - Turn Strobe ON at Speed

*Optionally, you can choose to turn OFF the strobe when vehicle speed is above the maximum set for display range by checking "**Turn OFF Strobe above Maximum Displayed Speed**" box (disabled when **DISPLAY IS ALWAYS ON** option turned **ON**).

Stealth Mode

This special mode allows you to collect traffic data to analyze the effectiveness of the radar sign without displaying the speed or messages to the vehicle driver. In this mode, the sign will register and collect traffic statistics. You can then compare in a side-by-side format the average speed of vehicles when the speed and messages were displayed to the drivers and when they were not.

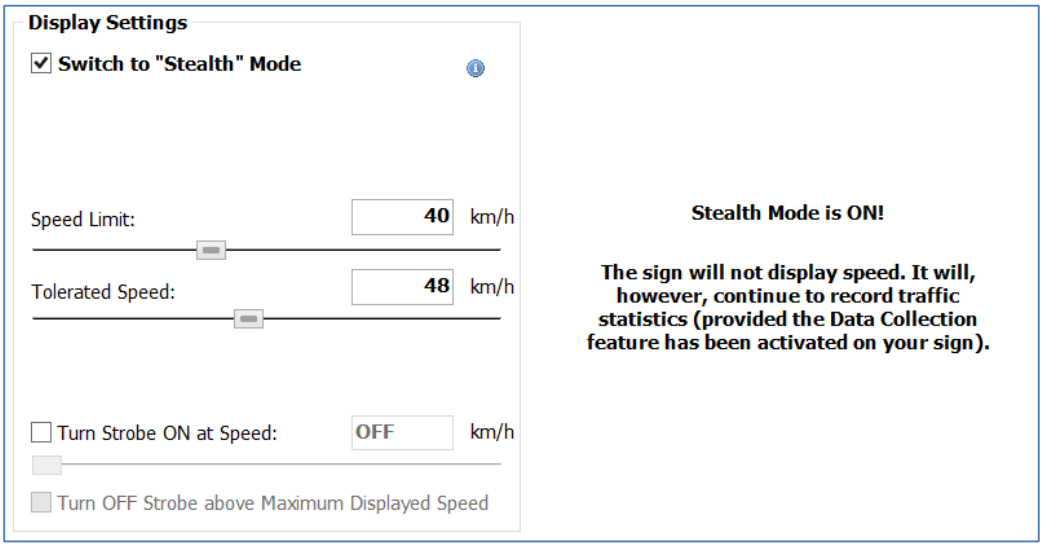


Figure 61 - SafePace® Pro - Stealth mode feature

When **Stealth Mode** is selected, you should specify the **Speed Limit** and the **Tolerated Speed** for reporting purposes.

Additionally, you can choose to activate the **Speed Violator Strobe** alone in **Stealth Mode** to alert drivers that they are speeding.

Display is Always ON

For SP100-SP475 static YOUR SPEED signs, this option is not applicable.

For SafePace® 500 and SafePace® 550 static SPEED LIMIT signs, it sets the sign to display the speed limit all the time while the sign is powered ON.

Figure 62 - SafePace® Pro - 'Display is Always ON' feature for SP5xx signs

Note

Display is Always ON *is set by default for the SafePace® 5xx* static SPEED LIMIT signs*. (You have the option to disable this setting and specify the display range for which to display the speed limit. This reduces the power consumption of the sign.)*

For SafePace® 600-800 Message signs – the **DISPLAY IS ALWAYS ON** control sets the sign to display messages as driver feedback based on speed limit and tolerated speeds set and message settings configured for drivers passing the sign at or above speeds 0-99 mph or 0-99 km/h on a 2-digit sign/0-160 for km/h on a 3-digit sign.

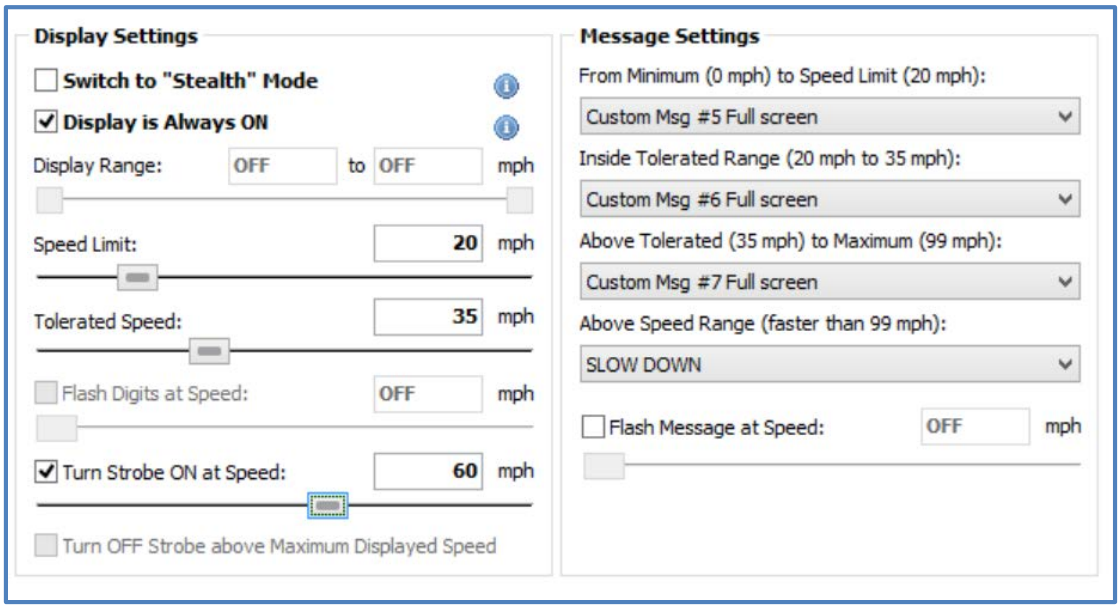


Figure 63 – DISPLAY IS ALWAYS ON control for SP600-SP800 signs

This enables the sign to display a message even if no vehicle is detected, and therefore can be useful if you want to display a custom message or animation for pedestrians, stationary vehicles etc.

Figure 64 – Horizontal full screen custom message on SP800 sign

Once again, keep in mind that when a sign is programmed to work in the "**Display is Always ON**" mode, it will consume much more power.

Message Settings (SafePace® 600-800 signs only)

This set of parameters are used to attribute specific messages to each of four speed intervals:

- From Minimum Displayed Speed to Speed Limit
- From Speed Limit to Tolerated Speed
- From Tolerated Speed to Maximum Displayed Speed
- Above Speed Range

*Minimum Displayed Speed, Speed Range, Speed Limit, Tolerated Speed all set in ***Display settings***

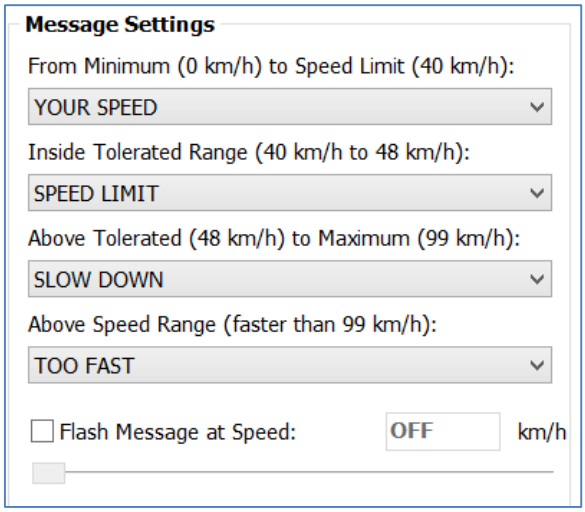


Figure 65 - SafePace® Pro - Sign 'Message Settings – select static messages'

Programming the message panel

Program using standard static messages

SafePace® Pro comes with 4 pre-designed standard static messages. The standard static messages can be easily assigned to each of the four speed intervals without having to select them first in the Custom Messages interface.

- "YOUR SPEED" - actual vehicle speed is displayed
- "SPEED LIMIT" - speed limit is displayed
- "SLOW DOWN" - actual vehicle speed is displayed
- "TOO FAST" - no speed is displayed

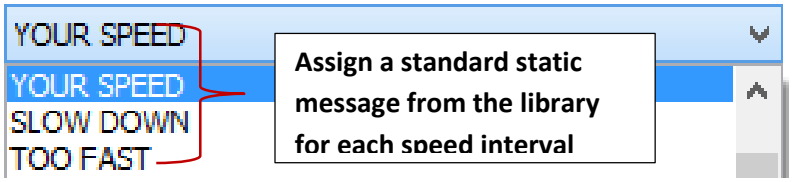


Figure 66 – SafePace® Pro standard static messages

Program using the standard custom message library

SafePace® Pro also comes with a library of 22 standard pre-designed custom messages. The library also stores and makes available all custom messages created using the ***Custom Messages Editor***.

Figure 67 - SafePace® Pro - 22 pre-programmed custom messages

Programming messages to the SafePace® 600-700 radar signs

The standard custom messages must be selected and assigned first using the Custom Messages interface. Select a custom message from the first **"Top Message"** menu on the left to assign and to be used as **Custom Msg #1**.

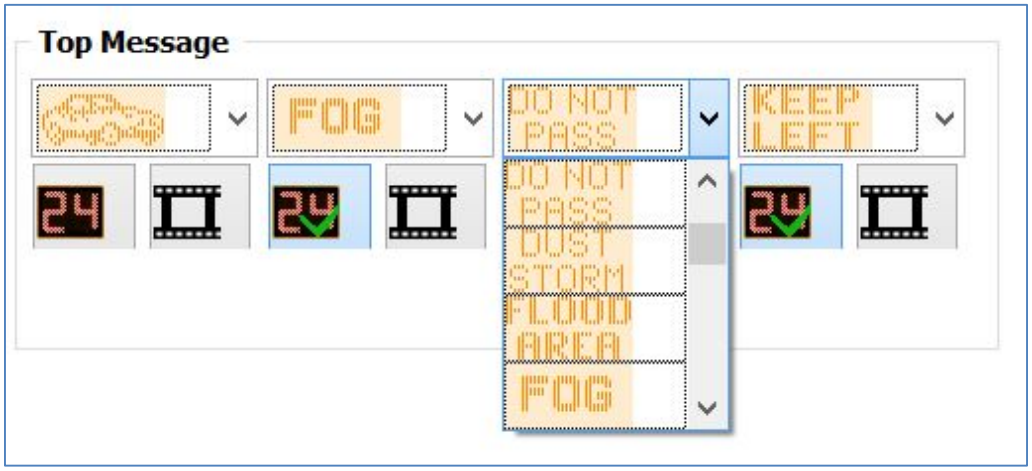


Figure 68 – SafePace® Pro – Top Message menus in Custom Messages interface

Based on your location requirements, continue selecting the custom messages from the other menus for **Custom Msg #2**, **Custom Msg #3**, and **Custom Msg # 4**. There are also two options below the menus;

Click to select the left control (**Show speed with this message**) to allow the driver's speed to be shown when the custom message is displayed for the interval, and/or click to select the right control (Include in animation), to allow the custom message to be included in an animation.

See ***Show speed with this message setting***, and ***Include in animation setting*** for more details.

NOTE

The 'Top Message' menus at the top of the Custom Messages interface load custom messages to the top message panel on SafePace® 600 signs (not the digit panel), and only the top part of the full matrix of SafePace® 700 and 800 signs. 'Full Message' menus are only used for SafePace® 800 radar signs, and explained further below.

Even though the SafePace® 700 sign is a full matrix sign like the SafePace® 800, it works more like an SafePace® 600 sign that uses the top menu custom messages only to display what the SafePace® 600 does in a split matrix, except in full matrix.

SP600 - Split Matrix SP700 - Full Matrix SP800 - Full

Figure 69 - Split Matrix for SP600 versus Full Matrix for SP700 versus Full Matrix for SP800

Next, go to the ***Message Settings*** menus of the ***Sign Settings*** interface, and assign the standard custom message chosen earlier in the ***Custom Messages*** interface, for each speed interval. Ensure that you select and assign the appropriate custom message for each speed interval.

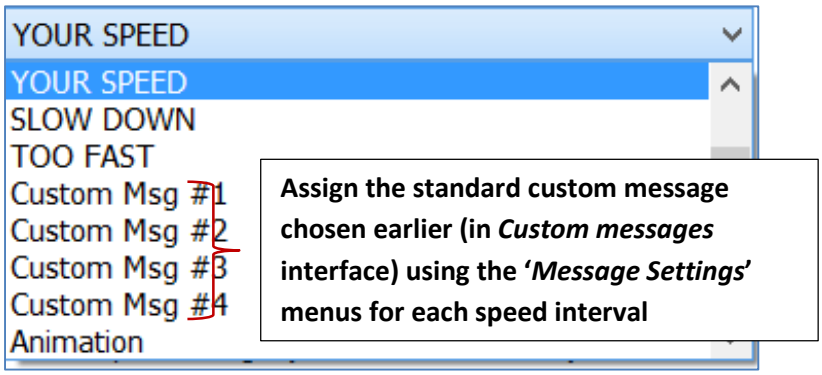
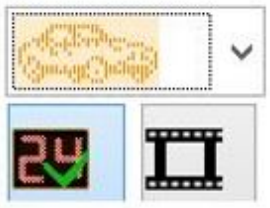


Figure 70 - SafePace® Pro – Message Settings menus in Sign Settings interface

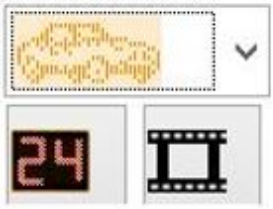
Program to show drivers speed when custom message is used

Show speed with this message setting

You can choose to display or not to display actual vehicle speed together with each variable message. To do this, check or un-check the corresponding digit check-box.



Show digits/speed with message



Do not show digits/speed with message

NOTE

The show digits option is not available when programming the SP625, SP650 and SP800 signs. The SP625 and SP650 displays are limited to display either the custom message or speed with a custom message.

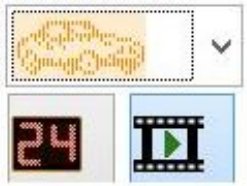
The SP800 sign cannot show speed driver feedback with a 'Full screen custom message', as it would conflict with the use of a full screen message.

Figure 71 – SP800 sign – show speed with custom message

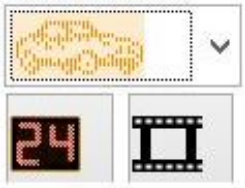
Program to display custom message as part of animation

Include in animation setting

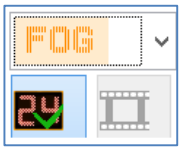
Use the animation option to display the top matrix custom messages as an animation. Up to four custom messages can be combined to form an **"Animation"**. To specify which messages will be played as an **"Animation"**, check the appropriate check-boxes located to the right of the digit check-box.



Animation ON



Animation OFF



NOTE

*The animation option is not available to set for the top matrix using the "**Top Messages**" for the SafePace® 800 sign. However, the animation control is available beneath the "**Full Message**" menus, to use with full (matrix) messages.*

Adjust speed of animation

Use the **"Animation Speed"** control to set or adjust the speed of the animation between 1-4 frames per second (fps). You can "test" and preview your animation setting by clicking the "**Play**" button. Click the "**Stop**" button if you want to stop the animation test. The SafePace® 800 sign works the same way, using the *full matrix* graphic display of the sign.

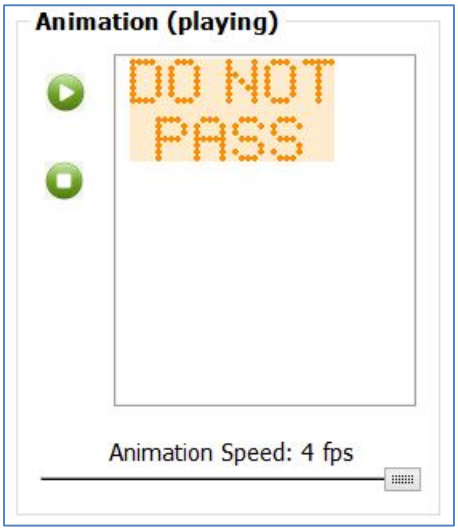


Figure 72 - Animation can play between 1-4 frames per second (fps)

Programming messages to the SafePace® 800 radar sign

First select the 4 messages you want your message panel to display using the "**Full Message**" menus in the **Custom Messages** interface. Alternatively, you can also program top area of its *full matrix* using any static and/or custom messages from the "**Top Message**" menus.

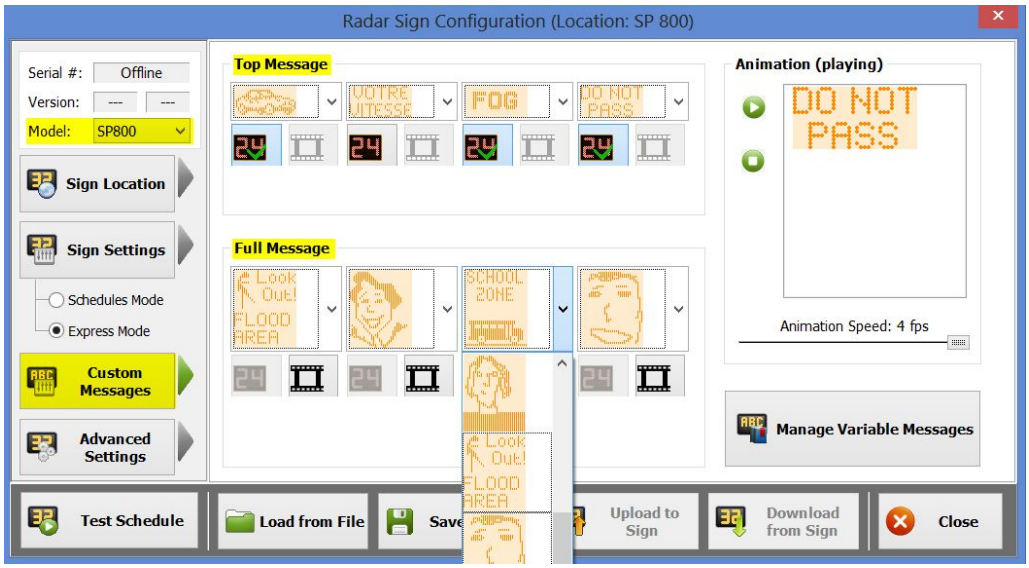


Figure 73 – Custom Messages interface with 'Top Message' and 'Full Message' menus

Options to display the messages as an animation or to display vehicle speeds while displaying the messages are available too.

NOTE

It is recommended to create custom messages and save them to the library before programming and uploading any message to the sign.

(Optional) A custom message for any of the 4 speed intervals can be left unassigned, select the blank message slot from the "**Custom Message Library**" menu. If a blank message slot is not available in your library, it can be created using the Custom Message Editor.

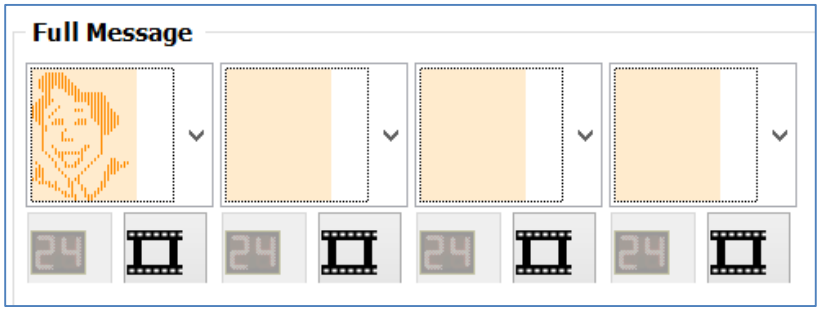


Figure 74 - Blank message slots in Custom Message Library menus

Next, assign the custom messages chosen to each speed interval in Sign Settings. For SafePace® 800, an additional four "**full screen**" custom messages are available to cater to the sign's *full matrix* capability

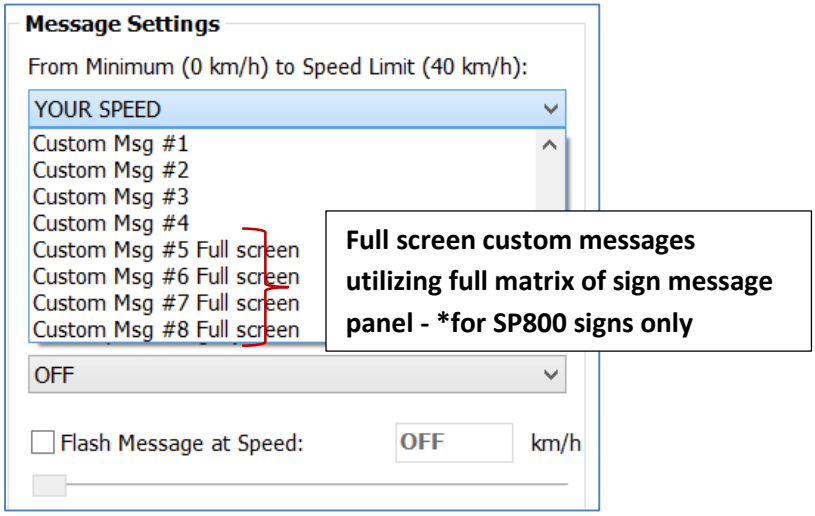


Figure 75 - SafePace® Pro - Sign 'Message Settings - Full screen Custom messages'

Program using your own customized messages

SafePace® Pro can also be programmed with your own pre-designed custom messages. You can create them using the Custom Messages Editor.

Custom Messages Editor

The "**Custom Messages Editor**" is a separate executable program which is supplied and installed together with SafePace® Pro software. The "**Custom Messages Editor**" can be accessed by clicking the "**Custom Messages**" button located in the "**Tools**" tab of the SafePace® Pro main menu.

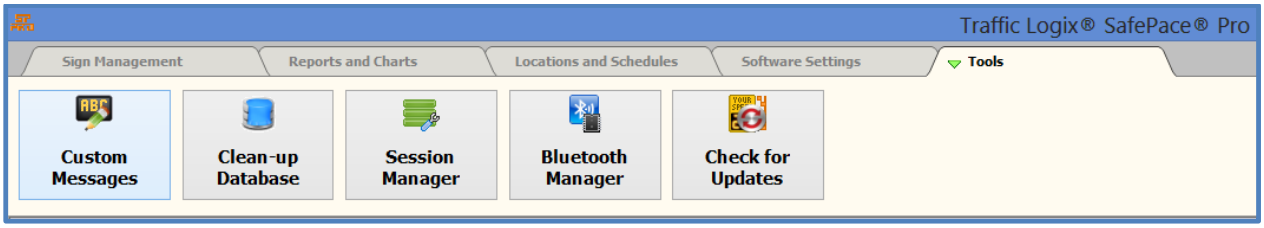


Figure 76 - SafePace® Pro main menu - Tools tab/Custom Messages

This software is used to edit custom messages which can be programmed and displayed by the SafePace® 600, SafePace® 625, SafePace® 650, SafePace® 700, and SafePace® 800 signs.

Custom Message Editor – Main Window

The main window of the "**Custom Messages Editor**" has a system menu and a tool-bar located at the top of the window. It includes a "**message board**" where you can manually edit your message. The "**message board**" edit buttons are located on the left side of the window.

Figure 77 - SafePace® Pro - Custom Messages Editor - Write Message

You can use the main menu to get to the:

- "File" menu:
  - Save your message to a file – see ***Save to File***
  - Save a message to the library for future use in SafePace® Pro software – see ***Save to Library***
  - Load a message from a file or from the library – see ***Open File*** and ***Load from Library***
  - Open a template (to edit and save a message) – see ***Load from Template***
- "Tools" menu:
  - Drop a "shadow" to any direction (top, bottom, right or left) to make the text bolder
  - Invert the LEDs for a message or drawn image

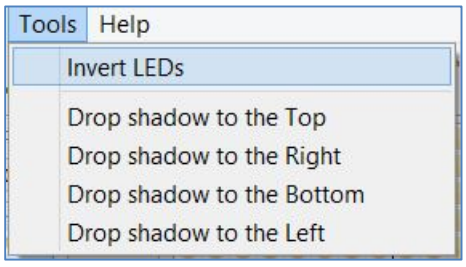


Figure 78 - SafePace® Pro - Custom Message Editor - Tools Menu

On the sidebar to the left, you can use the drop list menu to get to the:

- "Select device" drop list:

- Choose device SP600-700 for SafePace® 600, SafePace® 650 and SafePace® 700 signs to design the 4 custom messages
- Choose device SP800 options for SafePace 800 sign to design 4 custom messages, and 4 “full screen” custom messages
- SP800 options (Vertical, Right, Left) are for customizing your messages based on the sign’s rotation positioning

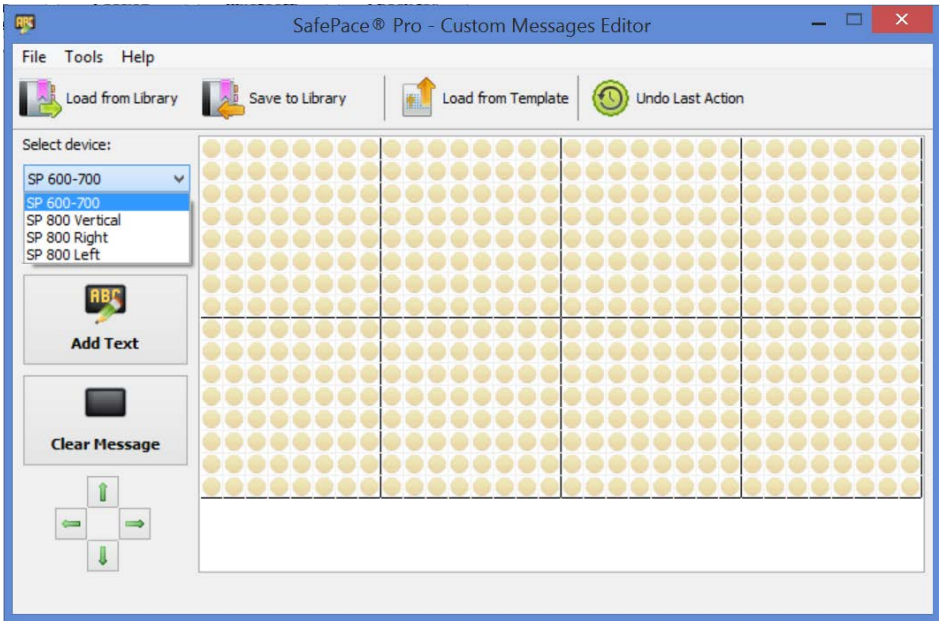


Figure 79 - SafePace® Pro - Custom Messages Editor - Device selection

Managing the custom message library files

The Custom Messages Editor is supplied with sample custom messages, as well as templates which can be used to create your own messages.

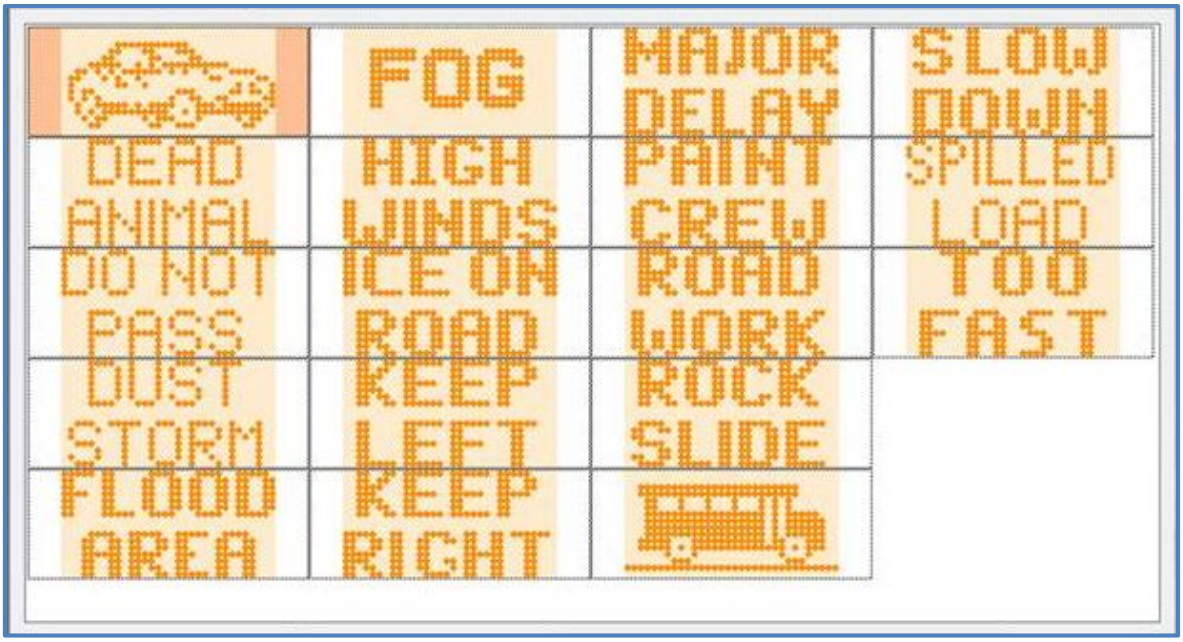
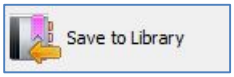


Figure 80 - Custom Messages Editor - sample custom messages

Save to Library



Messages created while using the "**Custom Messages Editor"** in SafePace® Pro are saved to the *virtual library*, as a "**Library radar message**" (.lrm) file which is automatically linked to the SafePace® Pro software. These files are stored in the *program* or *application data* folder called "**Lib"** on the machine that SafePace® Pro is installed. See ***Figure 81 - SafePace® Pro - Library folder - default path locations*** for the path location based on your version of Windows.

Windows Version	Default path location
Windows7 or Windows Vista	ProgramData\Traffic Logix \SafePace Pro\Lib
Windows 8/8.1	ProgramData\Traffic Logix\SafePace Pro\Database\Lib

Figure 81 - SafePace® Pro - Library folder - default path locations

Matrix Preview

Click the "**Save to Library**" button, and the "**Save to Library**" window opens. A "**Matrix Preview**" (see ***Figure 82 - SafePace® Pro - Custom Message Editor - 'Save to Library' dialog - Matrix Preview*****)** of your message is shown on the right. Enter a name for your message, and click the "**OK**" button to save your custom message.

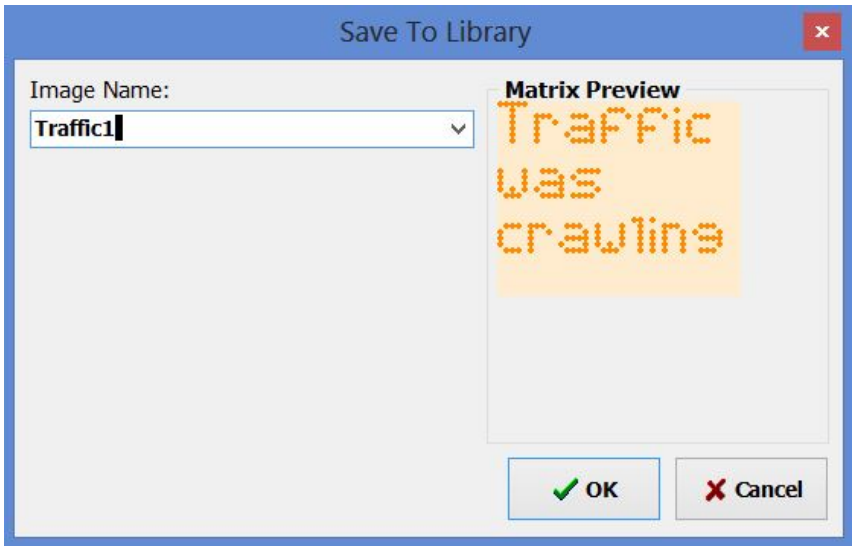
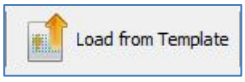


Figure 82 - SafePace® Pro - Custom Message Editor - 'Save to Library' dialog - Matrix Preview

Load from Library

Click on the "**Load from Library"** button, and it opens the custom message library containing all the library messages available for editing. Use the "**Select Device**" drop list to select the type of message to edit, based on the messages that have been created for SafePace® 600, 650 and 700 signs, and the different **SafePace® 800 rotation options** (see ***SafePace® 800 Rotation Options***).

Load from Template

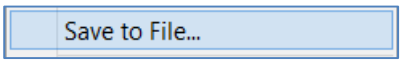


Click on the "**Load from Template**" button, and a library of templates is available to load and edit a message. Templates can be used as a base to design new custom messages. These files are stored in the program or application data folder called "**Templates"**" on the machine that SafePace® Pro is installed. See ***Figure 83 - SafePace® Pro - Templates folder - default path locations*** for the path location based on your version of Windows.

Windows Version	Default path location
Windows7 or Windows Vista	ProgramData\Traffic Logix \SafePace Pro\Templates
Windows 8/8.1	ProgramData\Traffic Logix\SafePace Pro\Database\Templates

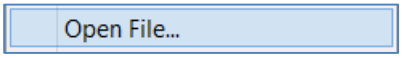
Figure 83 - SafePace® Pro - Templates folder - default path locations

Save to File



Click the "**Save to File**" option in the "'**File menu**" to save your custom message to your hard drive to share with other users, or to use and assign in "**Custom Messages**" and "**Message Settings**" for a sign location in "**Web Director"** (Please contact ***Technical*** Support for more details). The file is saved with a different extension, as a "**radar sign message**" **(.rsm)** file.

Open File



Both types of radar message files (**.lrm, and .rsm**) can be opened in the "**Custom Messages Editor**". Click the "**Open file"** option from the "**File menu**" to load the message into the "**Custom Messages Editor**".

> ***NOTE***
>
> *Once the file is loaded into the "**Custom Messages Editor"**, it must be saved to the library to be used and uploaded to the sign. When saved to the library, it will be saved with the (**.lrm**) extension in the "**Lib"** folder.*

Tools for creating custom messages

The Message Board

The **message board** provided has been sized to contain the amount of pixels, rows and columns allowed to be used for each device or sign model. The size of the message board shown below appears after selecting to create a custom message for a SafePace® 600, SafePace® 650 or SafePace® 700 sign. Only the top portion of the sign matrix can be programmed with a custom message, whereas, the *full matrix* of the SafePace® 800 sign can be programmed. For more details, see ***Creating Top (matrix) custom messages*** and ***Creating Full (matrix) custom messages***.

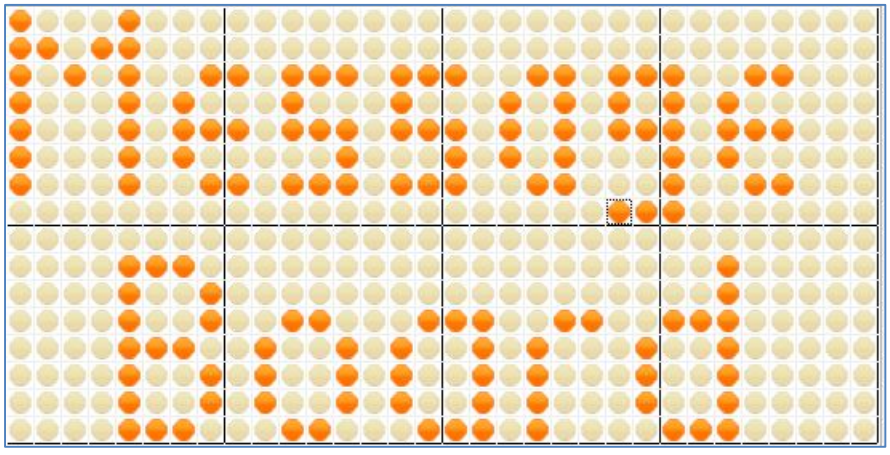


Figure 84 - Message board matrix for SafePace® 600/700 signs

Freestyle drawing/editing controls

Use the "**Pen"** and "**Erase"** buttons to create or edit a custom message by clicking the virtual LEDs on message board.

The Pen button

When the "**Pen**" button is selected, the LEDs clicked with the left mouse button will change its state to "**On**" and when clicked with the right mouse button, it will switch the state to "**Off**".

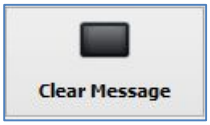
The Eraser button

When the "**Eraser**" button is selected, the mouse button will be inverted – the right button click will turn the LED "**Off**" and a left click will turn it "**On**".

Undo Last Action button

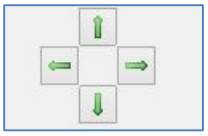
You can undo your last action applied to your message by clicking the "**Undo Last Action**" button.

Clear message button



An entire message can be erased at once by clicking the "**Clear Message**" button.

Multi-directional arrow move buttons



The message can be shifted up, down, left or right by clicking the "**Multi-directional arrow move buttons**" at the bottom-left corner of the window.

Adding text

You can write a text message by clicking the "**Add Text**" button. Once clicked, the "**Add Text**" window will pop-up.

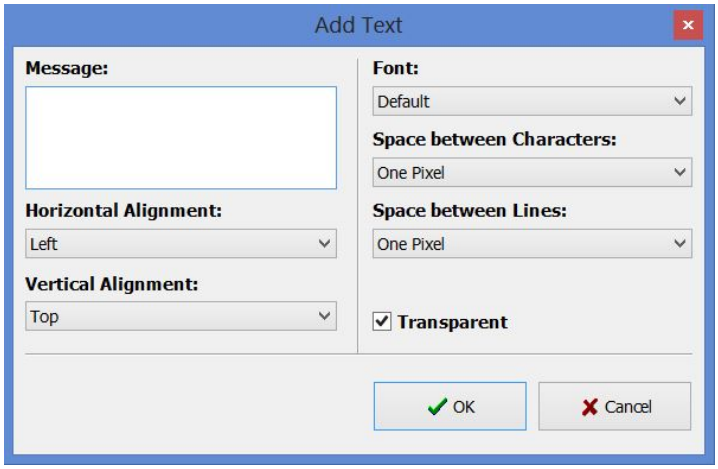
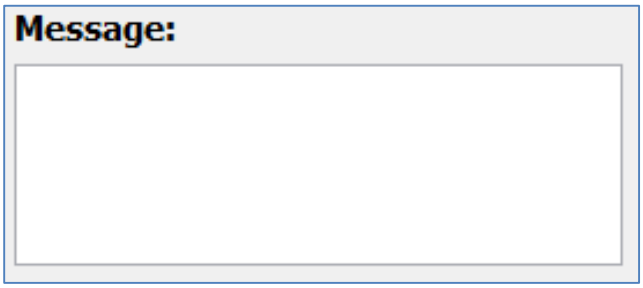


Figure 85 - SafePace® Pro - Custom Messages Editor - 'Add Text' window

Message Edit box



Use the "Message" edit box to enter lines of text. The number of lines depends on the text options used, such as font, alignment, space between characters and lines.

It also depends on the device you are creating the message for – see ***Creating Top (matrix) custom messages***, and ***Creating Full (matrix) custom messages***.

Press the "**OK**" button to place text on the message board or click the "**Cancel**" button to cancel out of the dialog.

NOTE

*When using the "**Add Text**" option to design your message, the letters and numbers will be added with the following pixel dimensions:*

Text added	Default Height (in pixels)	Default Width (in pixels)	Using Narrow font option (H/W in pixels)
Uppercase (A, B, C)	7	3-5**	7/4
Lowercase (a, b, c)	5-7*	1-5**	5/4
Numbers (1, 2, 3)	7	3-5***	7/3-5***

Figure 86 – SafePace® Pro - Pixel-size when adding text to message board

*Depending on the letter and punctuation
**Depending on the letter
***Depending on the number

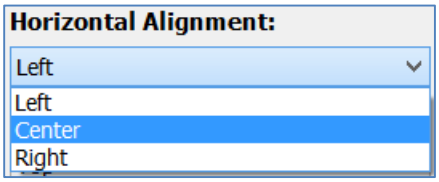
Add Text options

The following options are available in the "**Add Text"** window. They can be used at their default settings to help design the custom message, or at the different settings offered to maximize content in the sign matrix to its full capacity.

For e.g. When designing a message for a *full matrix* sign, a top (matrix) message that was designed for a SafePace ® 600/700 can first be added to the message board. By default, when opening that custom message in the *full matrix*, it will be added to the bottom half of the *matrix*.

The "**Multi-directional arrow move buttons**" (see ***Multi-directional arrow move buttons***) can then be used to position it further. Then additional text can be added to the top left side, center or bottom right side of the message board or free-style content using the "**Pen**" button (see ***The Pen button***) could be applied to maximize the use of all the area in the *full matrix*.

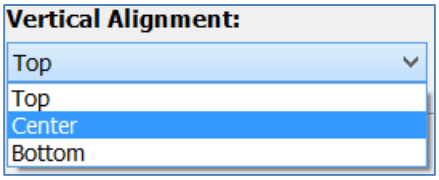
Aligning text - Horizontal Alignment



Default setting - Left

When adding text to the message board, the message will appear to the left, center or the right side of the board using this setting. This option is and often used in combination with the vertical alignment setting.

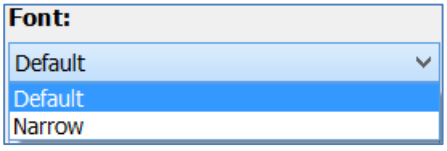
Aligning text - Vertical Alignment



Default setting - Top

When adding text to the message board, the message will appear to the top, center or the bottom of the board using this setting.
This option is and often used in combination with the horizontal alignment setting.

Font width



Default setting – Default

Default in this case means it will add uppercase text, lowercase text or numbers as per the width specified in the 'Add Text pixel-size chart'. See Figure 86 – SafePace® Pro - Pixel-size when adding text to message board for pixel size height and width definitions for default and narrow options.

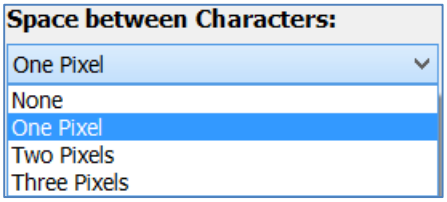
Spacing for text

Default setting = One Pixel

The difference between no space, one or 3 pixels could mean a lot when trying to design that perfect custom message.

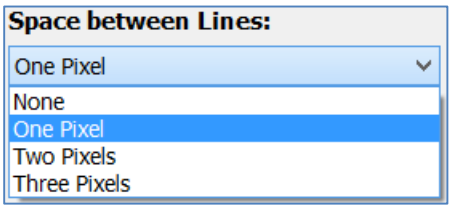
There are two options to space the text applied to the message board. The first is to set the number of pixels between characters, and the second to set the number of pixels between the lines of text.

Space between characters



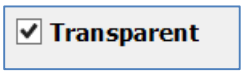
*Adjusting the space between characters could be the difference between 4 and 6 letter word.

Space between lines



*Adjusting the space between lines could allow for more lines of text, or more space between a line of text, and a freehand draw to the message board matrix.

Transparent setting



Default setting = ON

Transparent setting	Setting definition
ON	message board is open to more editing
OFF	message board is cleared between instances of adding text to the message board

Figure 87 - SafePace® Pro - Add text - Transparent setting definition

This option when turned on, helps to add random text to different areas of the message board matrix. An example of this can be seen below, as the horizontal and vertical alignment options are changed each time a different letter has been added while the transparent option is turned on and the message board is open to more editing. See ***Figure 88 - SafePace® Pro - Add Text - Adding multiple texts to message board using 'Transparent' option***

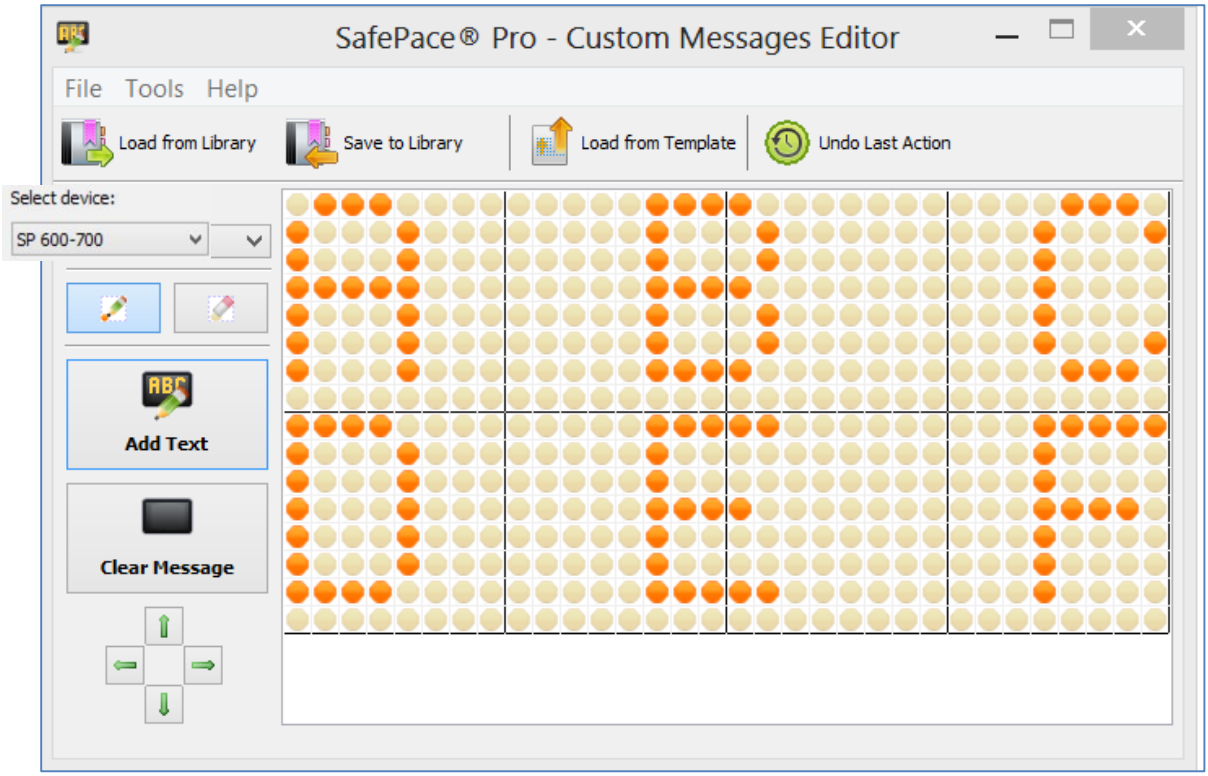


Figure 88 - SafePace® Pro - Add Text - Adding multiple texts to message board using 'Transparent' option

Creating Top (matrix) custom messages

The Top Matrix Message Board

The pixel message board shown below is a depiction of the top matrix area available for a custom message displayed with the SafePace® 600-800 signs. The letters were added freestyle using the "**Pen**" and "**Eraser**" buttons. The word '**Message**' has a total of '**7**' letters. Had they been added to the top row, as the first line of text using the "**Add Text**" tool with default options, the word would be cut off at '**5'** letters, only showing '***Messa***'.

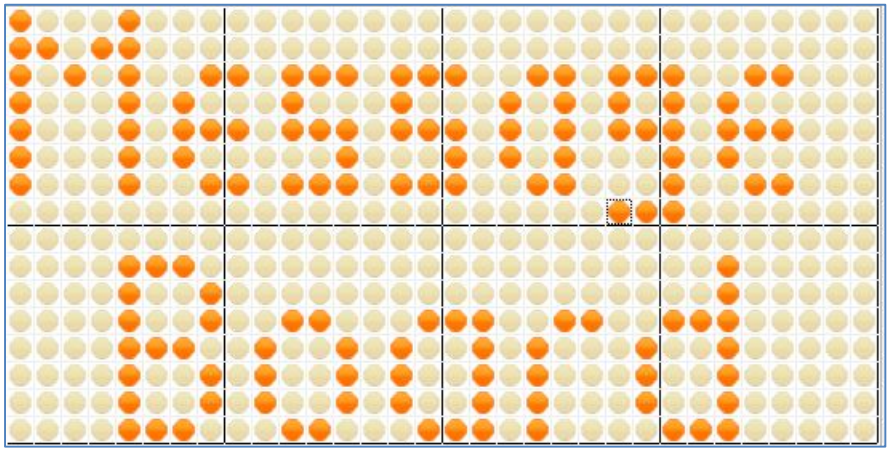


Figure 89 - SafePace® Pro - Depiction of 'Top (matrix) Message Board

The "**Top (matrix) Message board**" consists of a total of '**512**' pixels in '**4'** columns, and '**2**' rows. The top matrix generally can handle '**2**' lines/rows of text depending on the tool/method used when designing the message. See ***Tools for creating custom messages***.

Each line of text has '**256**' pixels to work with. The message board is divided into '**8**' quadrants of '**64**' pixels each.

As shown below, the top matrix message board can be programmed with '**3**' lines of text by utilizing the "**Pen"** and "**Eraser"** button tools to effectively maximize the use of all pixels available in the matrix space provided.

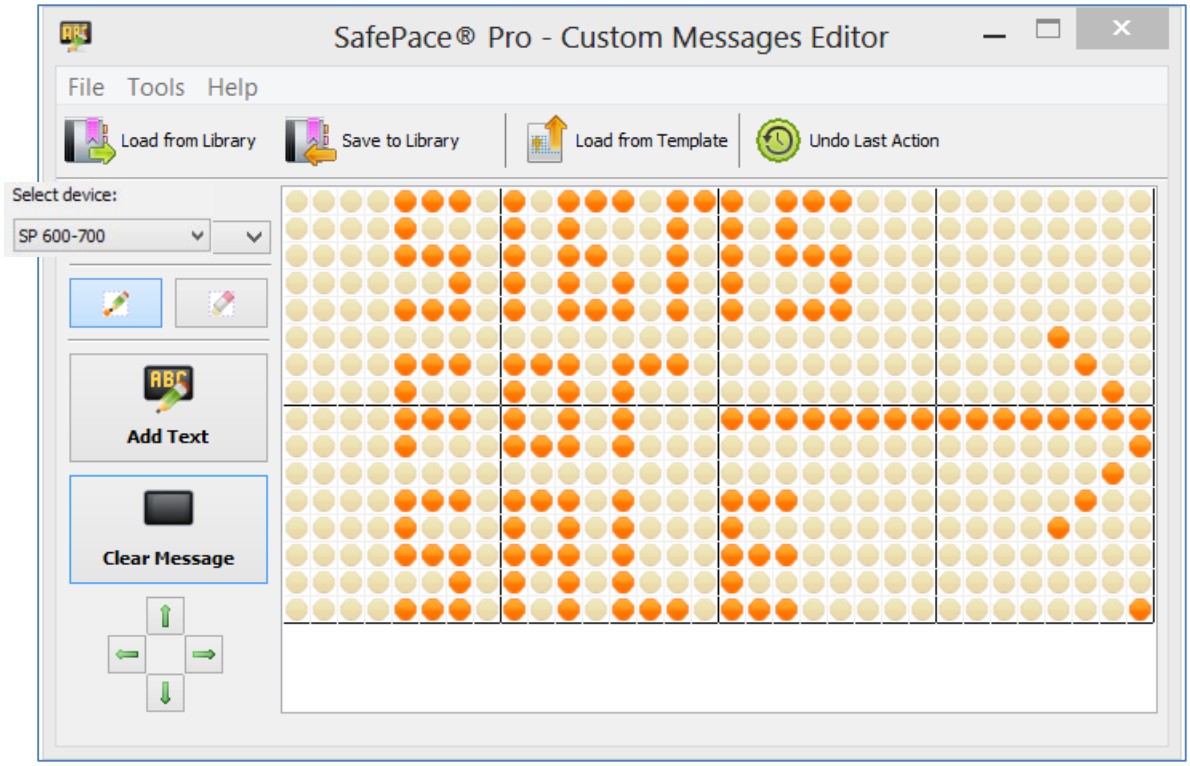


Figure 90 - SafePace® Pro - Top (matrix) Message board with 3 lines of text

Creating Full (matrix) custom messages

The *matrix* space available for the SafePace® 800 *full matrix* sign provides a canvas for designing custom messages outside the boundaries set by the SafePace® 600, SafePace® 650 and SafePace® 700. The "**Custom Message Editor**" delivers the capability of designing and creating custom messages to apply to the *full matrix* when the sign is used vertically or horizontally. Top (matrix) custom messages designed previously with SafePace® 600, SafePace® 650 and SafePace® 700 signs can also be added and positioned in its *full matrix*, to quickly assist in designing *full matrix* custom messages.

The Full Matrix Message Board

The *full matrix* message board has three display options to coincide with the SafePace® 800's sign rotation options. See ***SafePace® 800 Rotation Options.*** When positioning the sign vertically, it consists of a total of '**1280'** pixels in '**4'** columns, and '**5**' rows. The *full matrix* generally can handle '**5**' lines/rows of text depending on the tool/method used when designing the message. See ***Tools for creating custom messages***. Each line of text has '**256**' pixels to

work with. The message board is divided into '**20**' quadrants of '**64**' pixels each. When positioned horizontally, the sign has '**5**' columns and '**4**' rows.

SafePace® 800 Rotation Options

SafePace® 800 – Vertical sign rotation option

"**SP800 Vertical**" is used when you have chosen to use and install your sign in the ***vertical*** position, with ***strobe lights*** flashing at the bottom, **below** your custom (text or image) message

Figure 91 - SP800 Vertical

When adding text for a "***Full (matrix) Message***" using the ***vertical*** option, you can use the "**Message'** edit box to enter up to '**5**' lines of text, and up to '**6**' letters wide, depending on the text options chosen.

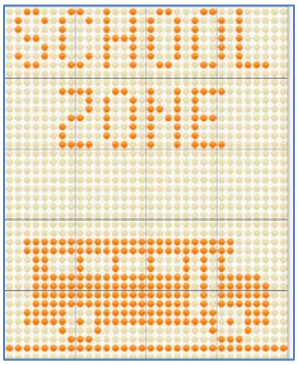


Figure 92 - SafePace® Pro -Full (matrix) vertical custom message

SafePace® 800 - 'Right' sign rotation option

"**SP800 Right**" is used when you have chosen to use and install your sign in a ***horizontal*** position, with ***strobe lights*** flashing on the **right** of your custom text/image

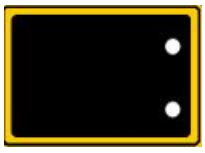


Figure 93 - SP800 Right

When adding text for "***Full (matrix) Message***" using the '***Right***' option, you can use the "**Message**" edit box to enter up to '**3'** lines of text, and up to '**8**' letters wide, depending on the text options chosen.

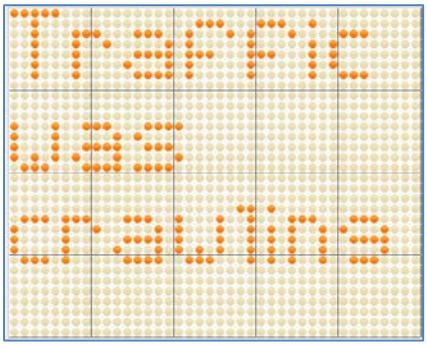


Figure 94 - SafePace® Pro - Full (matrix) "Right' or 'Left' custom message

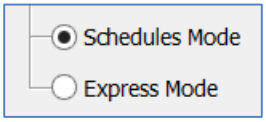
SafePace® 800 – 'Left' sign rotation option

"**SP800 Left**" is used when you have chosen to use and install your sign in a ***horizontal*** position, with ***strobe lights*** flashing on the **left** of your custom text/image

Figure 95 - SP800 Left

When adding text for "***Full (matrix) Message***" for the '***Left'*** option, you can use the "**Message**" edit box to enter up to '**3**' lines of text, and up to '**8**' letters wide, depending on the text options chosen.

Schedules Mode – Setting up a schedule configuration



Alternatively, the sign can be programmed in "Schedules Mode". This mode can be used if you want the sign to act differently depending on the day of the week, time of day, etc. Furthermore, the "Schedules Mode" allows you to program schedules for School Zone beacons (optional feature).

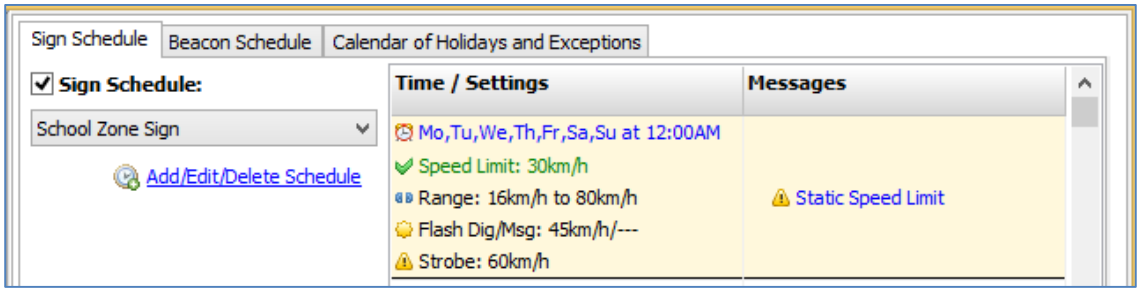


Figure 96 - SafePace® Pro - Schedule Mode - To assign schedule for the sign

When in "Schedules Mode", you can navigate between three tabs ("Radar Schedule", "Beacon Schedule" and "Holidays and Exceptions") to select a previously created schedule or calendar.

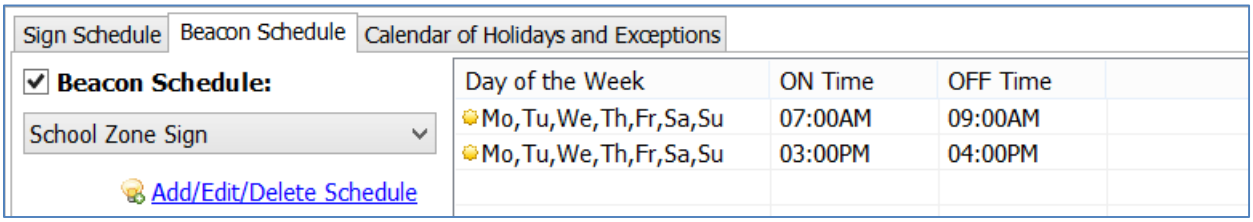


Figure 97 - SafePace® Pro - Schedules Mode - To assign schedule for the beacons

Before using "**Schedules mode**", appropriate schedules and calendars should be created in "**Radar Sign Schedules**", located under the "**Locations and Schedules**" tab via the "**Main Menu**" of the main window.

It is possible to create a schedule or calendar directly from the "Sign Configuration" interface; however, in the majority of cases, this will not be the most convenient way to perform this task.

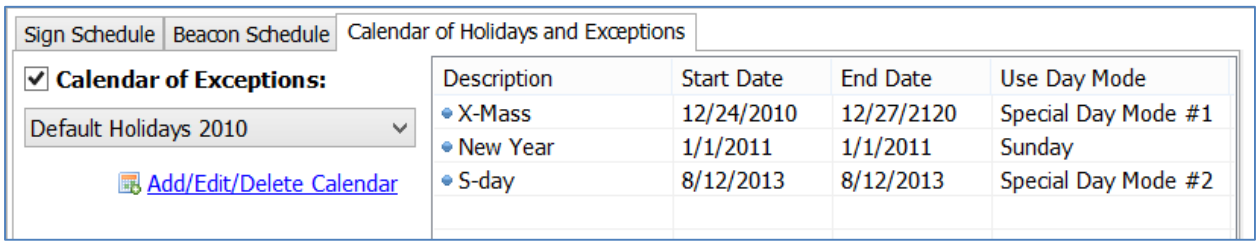


Figure 98 - SafePace® Pro - Schedules Mode - To configure holidays and exceptions for sign schedules

Radar Sign Schedules

Click the "**Radar Sign Schedules**" button located in "**Location and Schedules**" tab of the main menu to open the "**Radar Signs Schedules**" window.

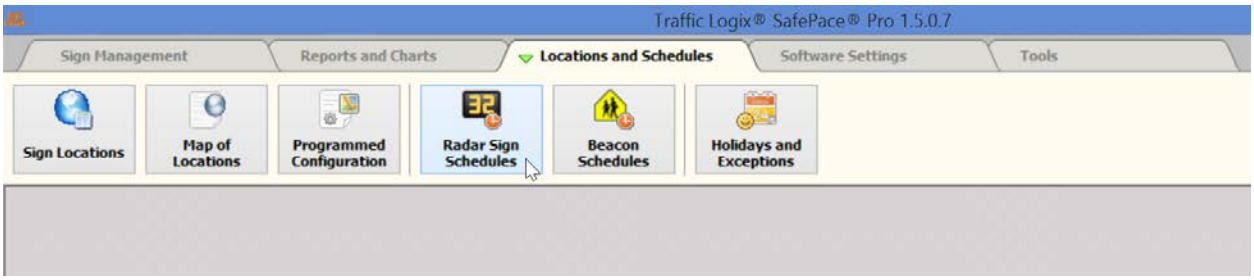


Figure 99 – 'Radar Sign Schedules' button under the 'Locations and Schedules' tab

Radar Sign Schedules are used to program a sign with settings which will vary according to the day of the week and time of the day. This can be practical if the sign is used together with the ***School Zone Beacon system*** (optional) or if you want to turn off the sign during the periods of time when it is not needed.

Figure 100 – School Zone Beacon System together with sign

Each schedule is represented by its name and may contain up to 16 records.

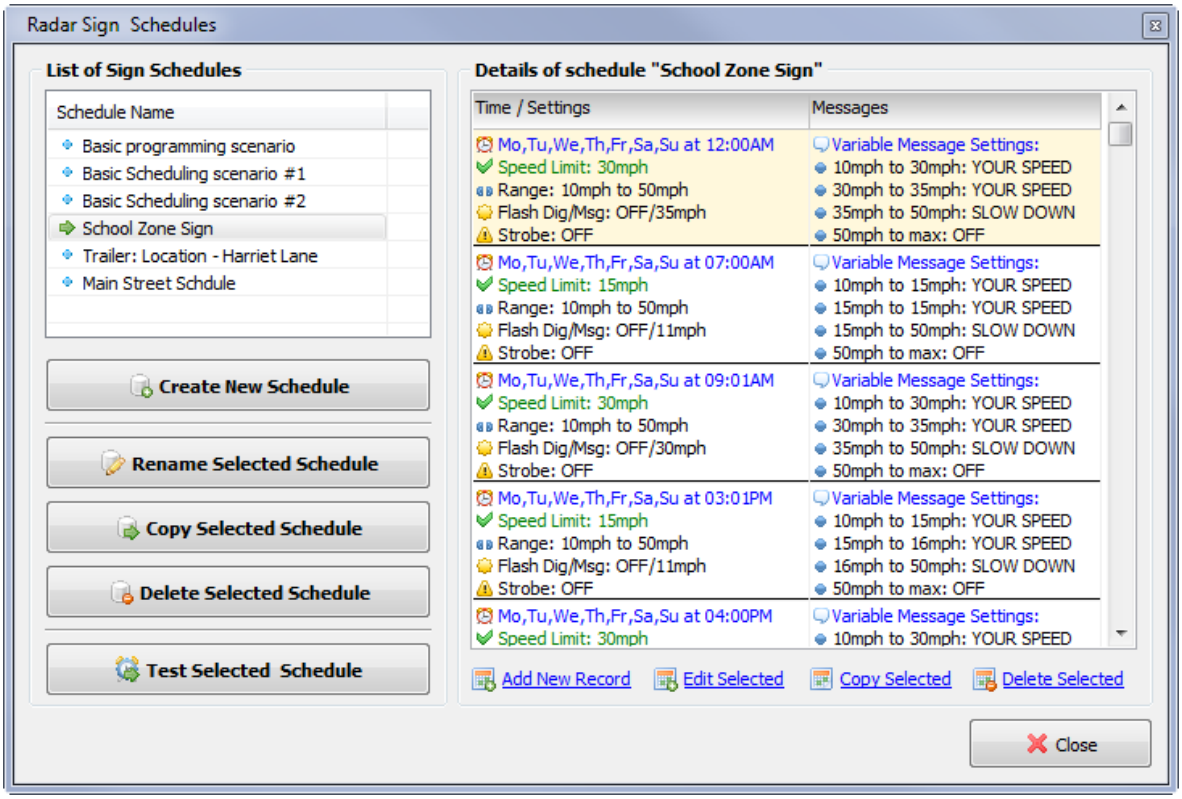


Figure 101 - SafePace® Pro - Radar Sign Schedules window

You will find the list of the previously created schedules at the left side of the window. To select the schedule, click on its name. Using the "**Radar Sign Schedules**" window you can:

- Create a New Schedule
- Rename a Selected Schedule
- Copy a Selected Schedule
- Delete a Selected Schedule
- Test a Selected Schedule (see ***Figure 103 - SafePace® Pro - Test Schedule Window***)

Each time you create, rename or copy a schedule, you will be prompted to enter a new schedule name.

The list of the records of the selected schedule will be displayed in the "Details of Schedule" grid. Using the buttons located at the botom of the list you can:

- Add a new record to the selected schedule ("**Add New Record**" button)
- Edit a selected record ("**Edit Selected**" button)
- Copy a selected record ("**Copy Selected**" button)
- Delete a selected record ("**Delete Selected**" button)

The "**Radar Sign Schedule Record**" is used to add, edit and copy a schedule record.

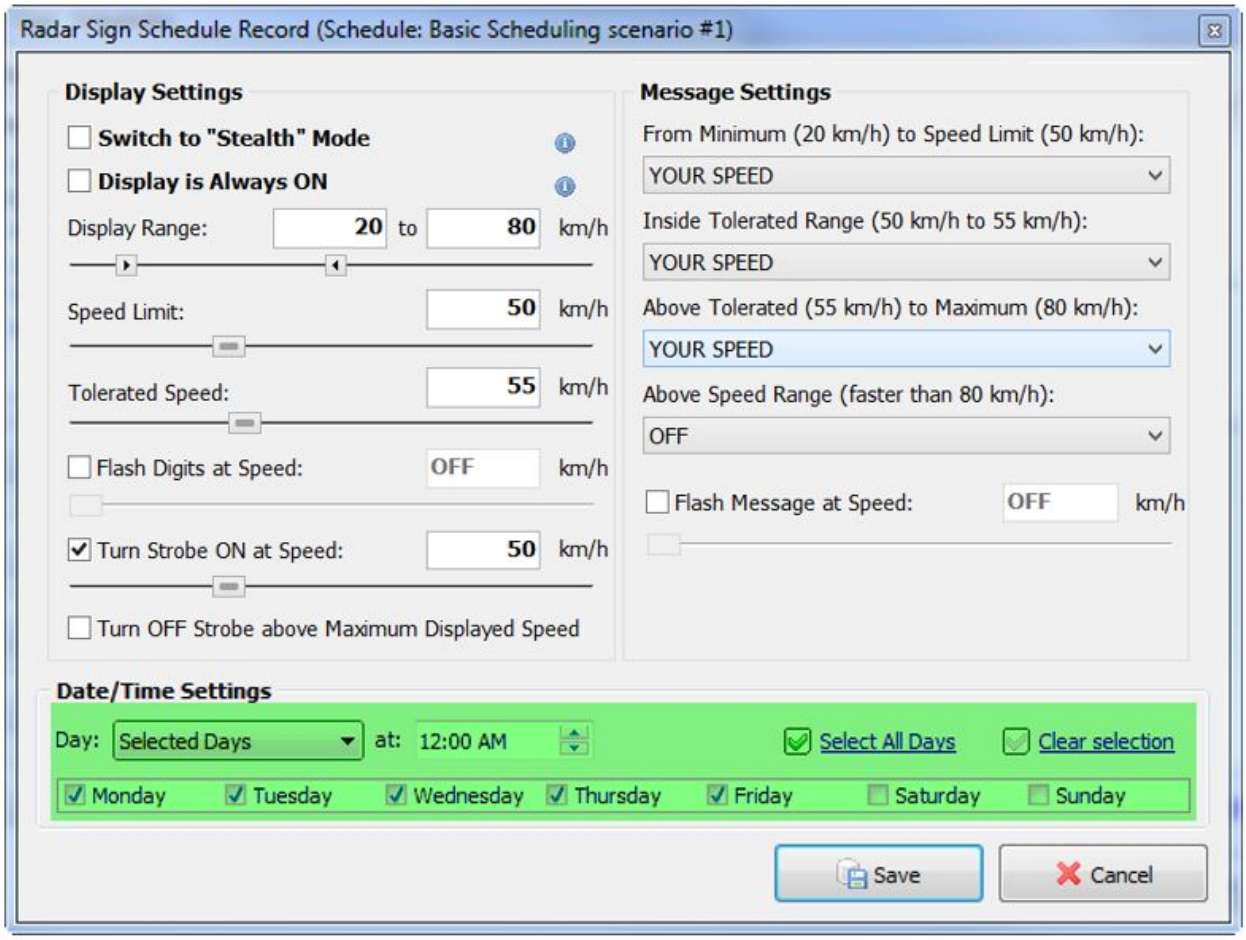


Figure 102 - SafePace® Pro – Radar Sign Schedule Record window

Most of the controls in this window are identical to one explained in express mode. Additionally at the bottom of the window you will find the set of controls to set the days of the week and time of the day when these settings should come into effect. In addition to the normal days of the week, you can create a schedule for up to three "**Special Day Modes** which represent "*virtual*" week days and can be used in the calendar of "**Holidays and Exceptions**".

Click the "**Save**" button to save modifications you have made and close this window or click on the "**Cancel**" button to close the window and disregard any changes.

Test a Selected Schedule

After creating your radar sign schedules, the option to simulate what will occur after uploading the schedule to the sign, is available. The "**Test Schedule**" option can be accessed from the **"Radar Sign Configuration"** window under the "**Sign Management**" tab, or when creating your schedules in "**Radar Sign Schedules**" under the "**Locations and Schedules**" tab.

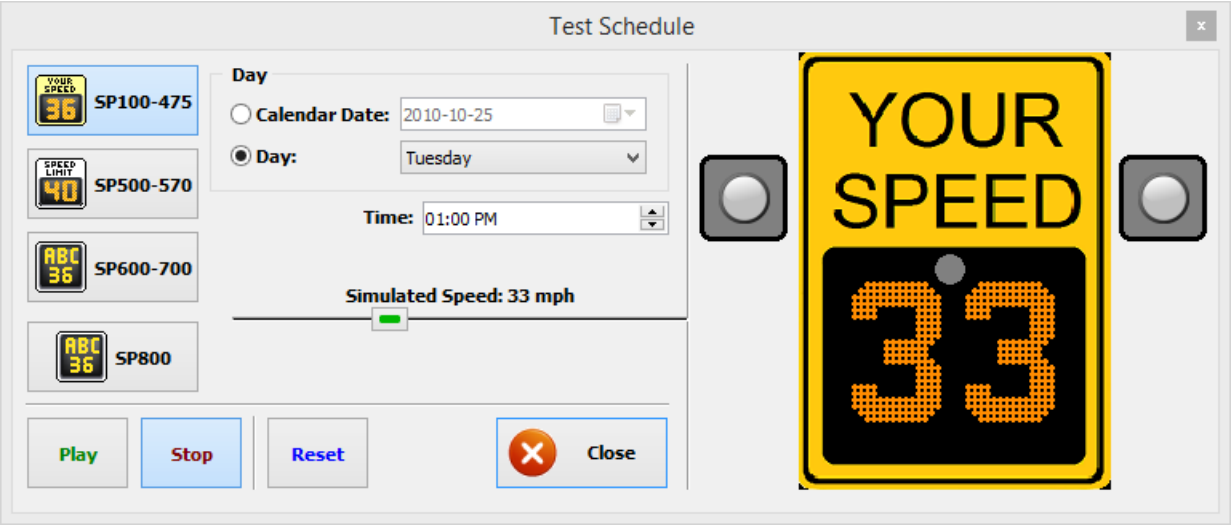


Figure 103 - SafePace® Pro - Test Schedule Window

In the "**Test Schedule**" window (see *Figure 103 - SafePace® Pro - Test Schedule Window*), click on the "**Sign**" button representing your sign model (see *Figure 104 - SafePace® Pro - Test Schedule - Click to see sign model*). Set the "**Day**" or "**Calendar date**" and "**Time**" to simulate, then click play to run a visual simulation of the settings applied in your radar sign schedule. Click the "**Stop**" button to stop the player, or the "**Reset**" button to start the simulation again from the beginning. Optionally, drag the "**Speed simulator control**" to verify or validate the message or option is applied at a particular speed.

Figure 104 - SafePace® Pro - Test Schedule - Click to see sign model

School Zone Beacon Schedules

As an option, your sign can be equipped with a "**School Zone Beacon**" system. If this option has been purchased, you can configure your sign to turn on and turn off "**School Zone Beacons**" that are directly wired to and powered by your sign at a pre-programmed time and day of the week.

Each "**School Zone Beacon Schedule**" is represented by its name and may contain up to '**16**' records.

Click the "**Beacon Schedules**" button located in the "**Schedules and Calendars**" tab of the main menu to open the "**School Zone Beacon Schedules**" window.

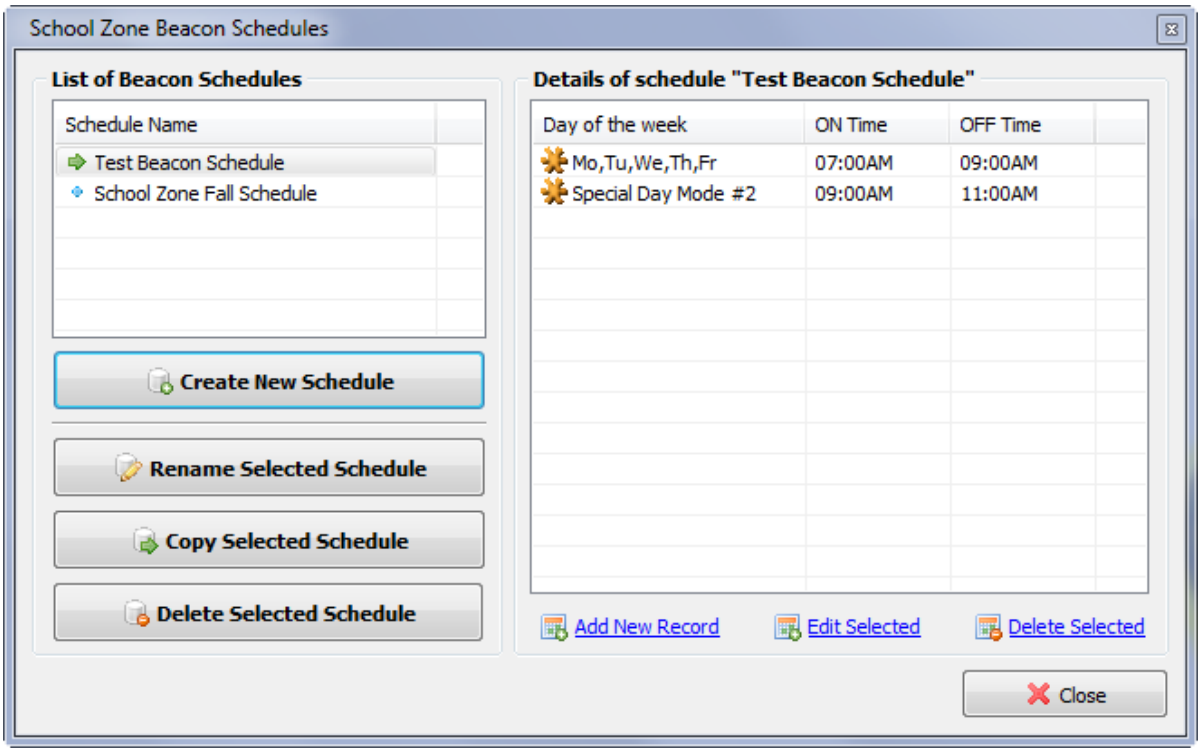


Figure 105 - SafePace® Pro - School Zone Beacon Schedules window

The "**School Zone Beacon Schedules**" window is similar to the "**Radar Sign Schedules**" window (see ***Figure 101 - SafePace® Pro - Radar Sign Schedules window***). At the top-left side of the window, you will find the list of created "**School Zone Beacon Schedules"**. Using buttons below you can:

- Create New Schedule
- Rename Selected Schedule
- Copy Selected Schedule
- Delete Selected Schedule

Each time you create, rename or copy a schedule, you will be prompted to enter a new School Zone Beacon Schedule name.

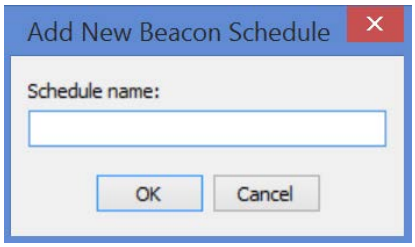


Figure 106 - SafePace® Pro - Add New Beacon Schedule dialog

The list of the records of the selected schedule will be displayed in the "Details of Schedule" grid. Using the buttons located at the bottom of the list you can:

- Add a new record to the selected schedule ("**Add New Record**" button)
- Edit a selected record ("**Edit Selected**" button)
- Delete a selected record ("**Delete Selected**" button)

The "**School Zone Beacon Schedule Record**" window (see ***Figure 107 - School Zone Beacon Schedule Record window***) is used to add, edit and copy a schedule record.

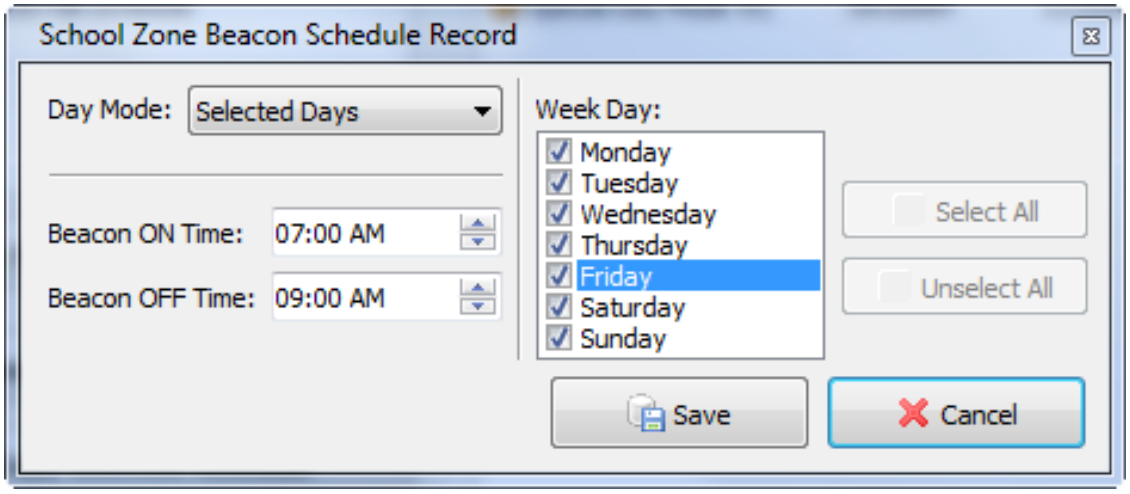


Figure 107 - School Zone Beacon Schedule Record window

You can select the day(s) of the week, and the time of the day when the School Zone Beacon goes on and off. In addition to the normal days of the week you can create a schedule for one of three Special Day Modes which represent a "virtual" week day and can be used in the calendar of Holidays and Exceptions.

Click the "**Save**" button to save modifications you made and close this window or click on the "**Cancel**" button to close the window and disregard any changes.

Holidays and Exceptions

Sometimes, you may need to make exceptions for your schedules. For example, you may want the radar sign to act differently during public holidays, school holidays or special designated days for your organization or special situation.

The "**Exceptions and Special Days**" window is used for this purpose, and is similar to the "**Radar Sign Schedules**" and the "**School Zone Beacon Schedules**" windows (see ***Figure 101 - SafePace® Pro - Radar Sign Schedules window***).

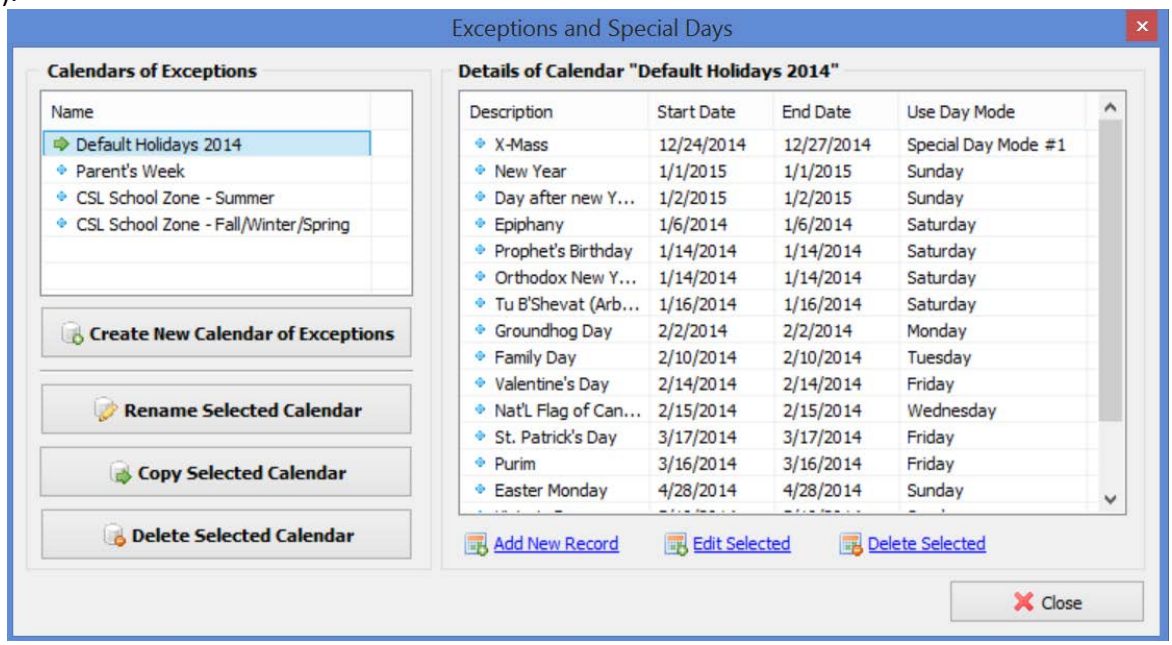


Figure 108 - SafePace® Pro - The 'Exceptions and Special Days' window

At the top-left side of the window you will find the list of already created calendars. Using the buttons on the left side you can:

- Create New Calendar of Exceptions
- Rename Selected Calendar
- Copy Selected Calendar
- Delete Selected Calendar

Each time you create, rename or copy a Calendar, you will be prompted to enter a new Calendar name.

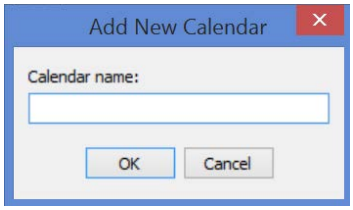


Figure 109 – Add New Calendar dialog

The list of the records of the selected Calendar will be displayed in the "Details of Calendars" grid. Using the links located at the bottom of the list you can:

- Add a new record to the selected Calendar (Click on "**Add New Record**" link)
- Edit a selected record (Click on "**Edit Selected**" link)
- Delete a selected record (Click on "**Delete Selected**" link)

The "**Exception / Special Day**" window (see ***Figure 110 - SafePace® Pro - 'Exception and Special Day - Add New Record' window***) is used to add, edit and copy a schedule record.

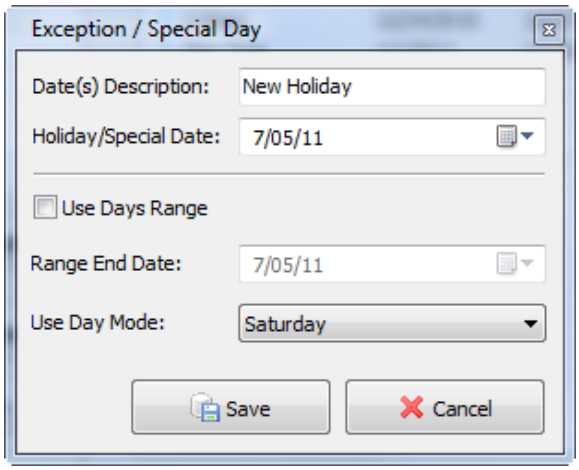


Figure 110 - SafePace® Pro - 'Exception and Special Day - Add New Record' window

You can select the day(s) for the exception, and which **Day Mode** you want to use for this day. You can also choose to use a range of days by checking the "**Use Days Range**" checkbox. In this case, you have to enter the last day of the range.

For example, you would most likely assign an exception like a public holiday when the school is closed to act like a Saturday or Sunday in the schedule.

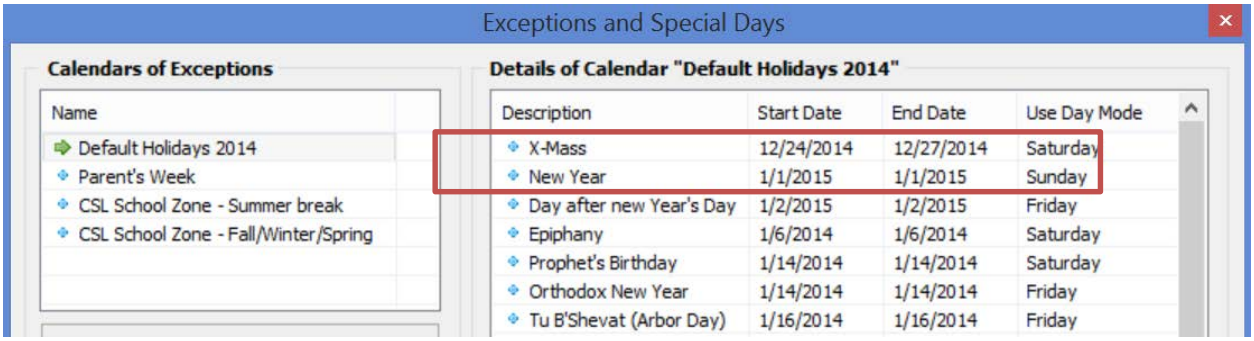


Figure 111 – Example of calendar with exceptions set for one day or range of days

If you want, however, you can program an exception to follow a unique schedule. To do this, you would first create a "**Special Day**" mode (1, 2, 3, or 4) record in your schedule and assign your exception day to that "**Special Day**" in a calendar in the "**Exceptions and Special Days**" window. See ***Figure 112 – Example of X-Mass holiday using special day mode record from schedule***.

Finally, click the "**Save**" button to save modifications you made and close this window or the "**Cancel**" button to close the window and disregard any changes.

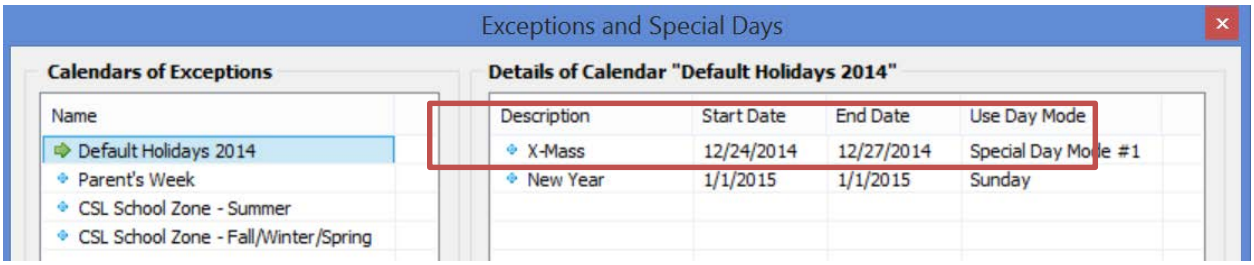


Figure 112 – Example of X-Mass holiday using special day mode record from schedule

An unlimited amount of calendars can be created in the "**Exceptions and Special Days**" window, however, each calendar may contain a maximum of 16 records (holidays and/or exceptions).

NOTE

Upon attempting to add or upload more than 16 records (holidays or exceptions), a message warning will appear to prevent you from adding more.

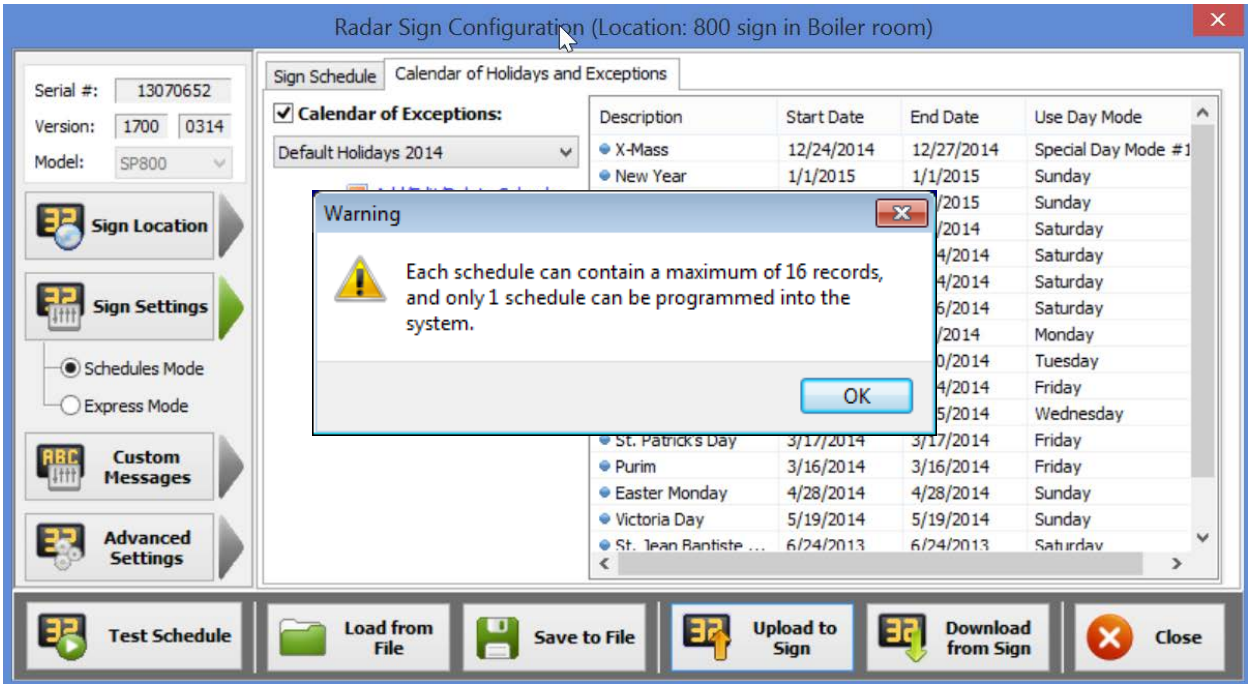


Figure 113 – Warning message when attempting to add or upload to sign more than 16 records (holidays, exceptions, or special days)

Advanced Settings – Ensuring optimum sign performance

You can choose to fine-tune your sign by modifying Advanced Settings.
This includes:

- LEDs brightness variation
- Digits, Message and Strobe flashing speeds and modes
- Daylight Savings Time (DST) settings
- Radar Head Parameters

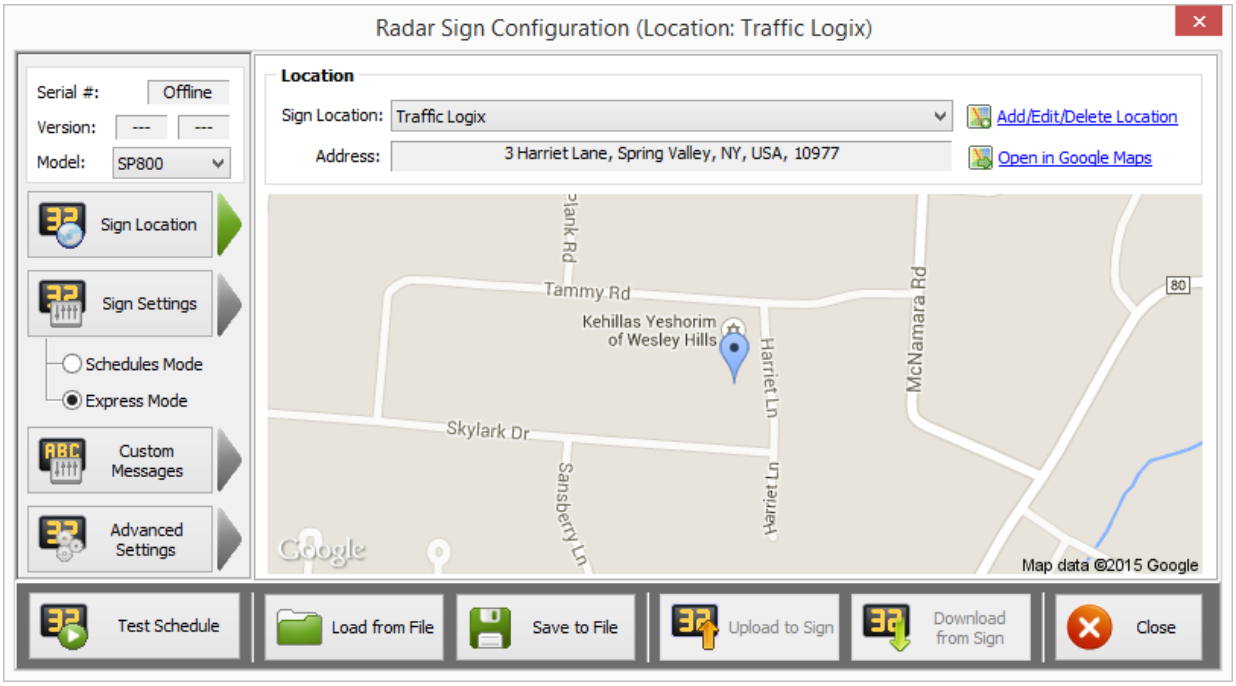


Figure 114 - SafePace® Pro - Advanced Settings

Flashing settings

LEDs Flashing Setting – allows for customization of the flashing speed of the radar sign's LED digits or messages to slow, medium, or fast.
Strobe Flashing Setting – allows for customization of the flashing speed for the radar sign's strobe(s) to slow, medium, or fast.
Strobe Series Length Setting – further customize the strobe to flash 2-5 flashes for every time it flashes

DST Settings

Daylight Saving Time (DST) settings – allows you to program an upcoming DST time switch. This includes the date when the time is switched to DST and back to Standard Time. You can click the "**Auto Set**" button to copy Time Zone settings from your computer to the sign.

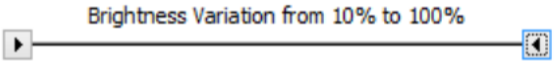
(LED) Brightness (variation) settings

LEDs Brightness Variation – specifies the range in which the sign will adjust the LEDs brightness, taking into account the brightness of the ambient light. By decreasing brightness you can extend the battery runtime between charges and reduce overall power consumption.

Adjusting level of LED Brightness variation

LED brightness varies by location and climate therefore, (as mentioned above) adjustments to the brightness variation can be made to increase the sign's battery power autonomy. The maximum variation for LED brightness is 10% to 100%.

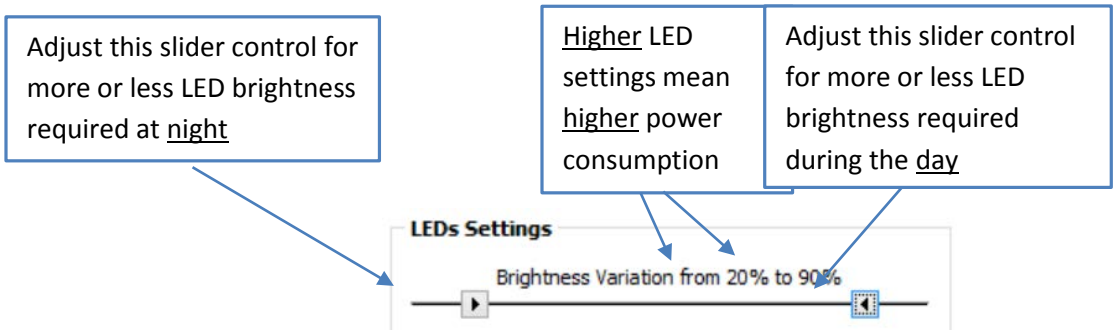
When the ambient light sensor in the sign detects more light outside, more LED brightness is required to offset the light, increasing LED brightness to 100%.



When the ambient light sensor detects less light or darkness at night, less LED brightness is required decreasing LED brightness to 10%.

Using slider controls to adjust night and day variation

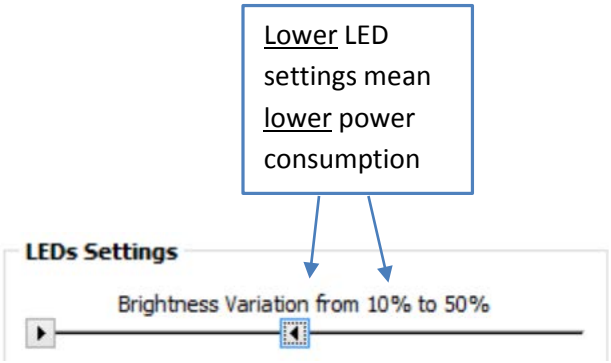
When changing the variables to adjust LED brightness, use the left slider control to adjust for more or less LED brightness required at night, and use the right slider control to adjust for more or less brightness required during the day.



The higher the values set for brightness variation, the more battery consumption.

E.g. If Brightness Variation is set to 20% to 90%, where the LED brightness is adjusted to 90% during the day, and to 20% at night, an increase in power consumption should be expected.

The lower the values set for brightness variation, the less power consumption should be expected.



E.g. If Brightness Variation is set to 10% to 50%, where the LED brightness is adjusted to 50% during the day, and then to 10% at night, a decrease in battery consumption should be expected.

Vehicle Detection

Vehicle Detection – specifies the radar sign's range of Vehicle Detection (can be reduced in some cases) and Vehicle Detection Mode (Closest Vehicle or Fastest Vehicle).

Maximizing sign battery power autonomy

As shown above, SafePace® Pro provides options to adjust the variation of LED brightness to maximize power autonomy in a battery-powered sign. Decreasing the sign's range of vehicle detection (see ***Adjusting range of vehicle detection***) can also serve to lower power consumption, as it may reduce the sign's LED activity at a location with lower traffic volume. Display settings uploaded to the sign (DISPLAY IS ALWAYS ON setting versus setting a display range) can also impact autonomy – see ***Adjusting Display settings***.

Recommended default settings

The following recommended default settings are provided in SafePace® Pro to ensure the best combination of performance and power autonomy for a battery powered sign:

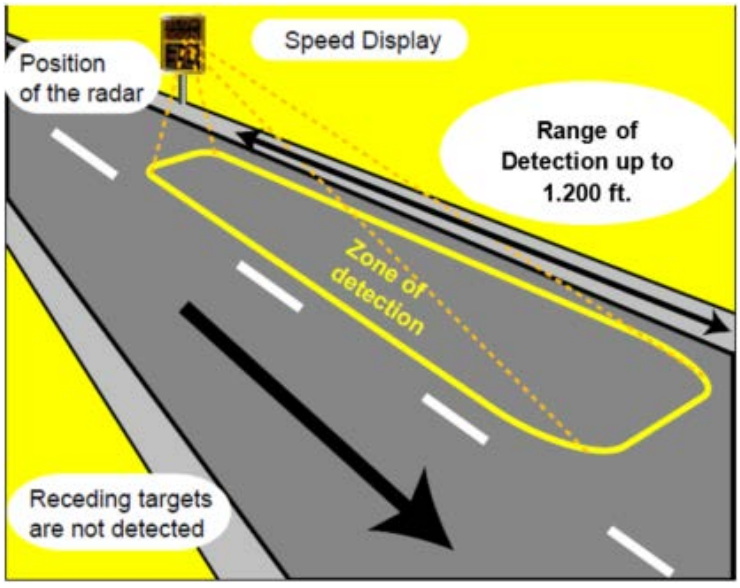
Radar Sign	Range of Vehicle Detection	LED brightness variation
SafePace® 100	50%	20% to 50%
SafePace® 400-800	70%	20% to 70%

***Not applicable to AC powered signs.**

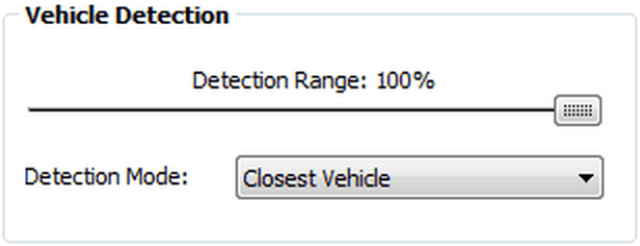
However, in some situations, because localization denominators may vary, adjustments can be made, to achieve customized configurations for differing sign locations. If you choose to change the recommended default settings, instructions are provided below for adjusting range of vehicle detection to help you understand how to modify the settings for your particular location requirements. For instructions on adjusting LED brightness variation see '***Adjusting level of LED Brightness variation'.***

Adjusting range of vehicle detection

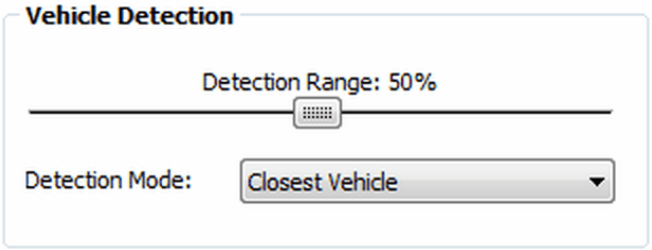
The zone of detection varies for different sign locations. The greater the zone of detection, the greater power consumption may be required. The radar sign can detect vehicles at a range up to 1200 feet for the closest or fastest vehicle, when the vehicle detection setting is set in SafePace® Pro to 100%.



Therefore, when the vehicle detection range is set to a higher value (e.g. 51-100%) higher power consumption could be expected, as, driver feedback is increased causing the LEDs for the radar sign to be more active (without taking the amount of traffic volume into consideration).



Conversely, when the vehicle detection range is set to a lower value (e.g. 1-50%), lower power consumption could be expected, as the range for the zone of vehicle detection is less.



Adjusting Display settings

The settings used for adjusting the sign's display settings can also have an impact on power autonomy.

Display is Always ON mode

If the option **'Display is Always ON'** is selected, the display range is unlimited as it is set to **'OFF'** for both display range values.

This means the display remains on all the time displaying a message (SafePace 600-800 signs) or speed limit (SafePace® 500 Variable Speed Limit sign) even if no vehicle is detected.

Since the display is always on and working, using this feature can significantly increase power consumption.

NOTE

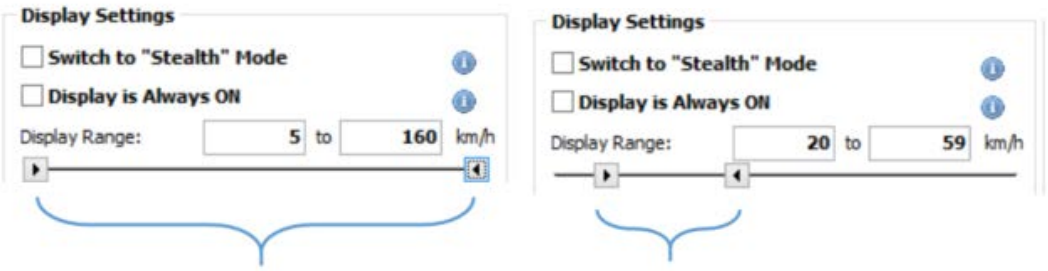
"Display is Always ON" mode is a default mode of the SafePace® 500-550 Variable Speed Limit signs, and does not apply to SafePace® 100 - 475 family of radar speed signs.

Display range has no values – display is always ON

Display range set mode

Turning the 'Display is Always ON' option OFF, allows for a display range to be set. This means that the display showing speed and messages remains on only when vehicles are detected within the speed range set in for "Display range". Left and right slider controls are used to manually increase or decrease this display range.

As the display is not on and working all the time, a decrease in power consumption should be expected, however, as shown below, higher power consumption can still occur when a greater range of speeds are displayed by the sign.



Speed range set for "Display range" is greater thereby increasing power consumption

Speed range set for "Display range" is less, thereby decreasing power consumption

Download Statistics button

The **"Download Statistics"** button opens the **"Download Traffic Statistics"** interface.
The button is only enabled when connected to a sign and is used to download collected traffic data from your radar sign.

Note

*The feature is only available when the optional Data Collection package is purchased. Please contact **Customer Service** if you would like to know more or order this option.*

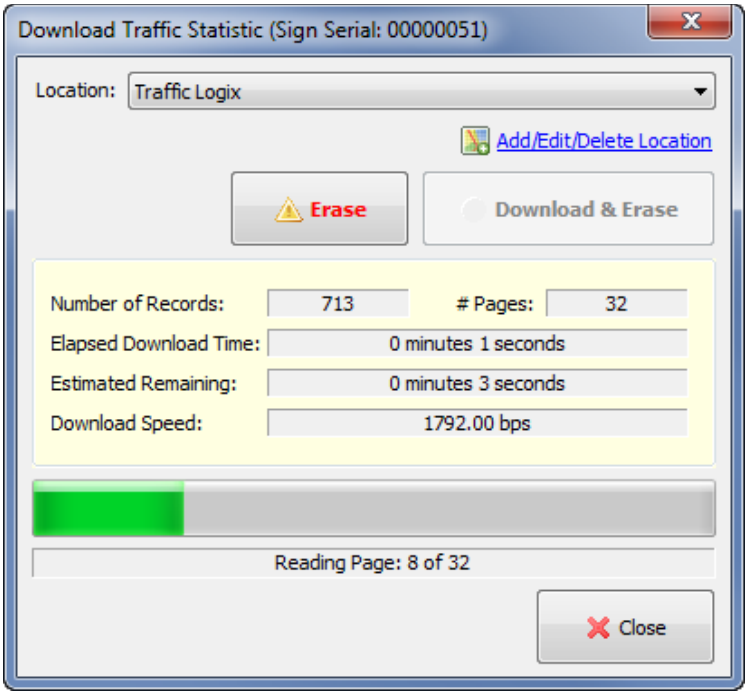


Figure 115 – Download Traffic Statistics interface

SafePace® Pro software will download information in three steps:

1. Sign settings, configuration and schedules are synchronized with information in SafePace® Pro database before download. A request prompting for some information will appear if settings programmed to the sign are not in the database. See ***Sign Synchronization*** for more details.
2. When the "**Download**" button is clicked, the software will start reading collected traffic statistics page-by-page. This process can take several minutes.
3. After information is downloaded from the connected sign, it will be erased from the memory in the sign. This may take up to two minutes. During this time, the connection to the sign will be dedicated to the download and the sign will not respond to other commands. You can, however, continue to use the software (e.g.: build and print reports, create charts etc.).

You can choose to erase traffic statistics without downloading by clicking the "**Erase**" button. This can be useful if the sign contains information that you do not want have in the database (e.g.: data collected during tests or an evaluation period).

NOTE

In case of a communication error during the downloading process, the software will not issue a command to erase collected statistics from the sign and will rollback any changes made in the database to the time before the start of this downloading session. You can then repeat your attempt to download the data once again.

Sign Synchronization

Sometimes the settings programmed to the connected sign may not exist in your database. This can happen if your sign was programmed from another computer or if the location or schedules programmed into the sign were deleted.

In this case, you must synchronize your sign with information you have in your database.

This includes:

- Sign Location
- Sign Schedule (if the sign was programmed in “Schedules Mode”)
- Calendar of Exceptions (if the sign was programmed in “Schedules Mode”)
- School Zone Beacon Schedule (if the sign was programmed in “Schedules Mode”)

When such a state is detected (during the sign programming or statistics download process), the “**Sign Synchronization**” window (see *Figure 116 - SafePace® Pro - Sign Synchronization window*) will pop-up automatically.

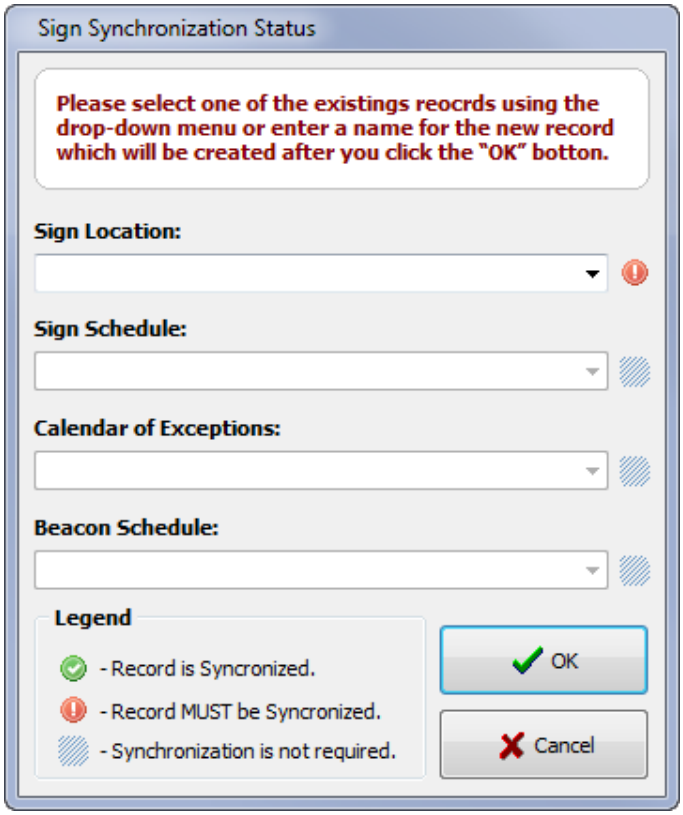


Figure 116 - SafePace® Pro - Sign Synchronization window

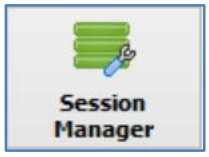
Using this window, enter new names for the items which must be synchronized or select one of the existing items using the appropriate drop-down box.

When this procedure is complete click the “**OK**” button to proceed to the next step. You can cancel this operation by clicking “**Cancel**” button.

NOTE

If during the synchronization procedure you enter a new location name, you will be prompted to provide additional information about the new location (address, city, state/province, etc.).

Managing your session files with Session Manager



SafePace® Pro software keeps track of *traffic statistics* (data) downloads for each *location*. It is, therefore, possible to manipulate data (*import*, *export*, *move*, *trim* etc.) downloaded in one *session*.

Each time you download *data* from the connected sign, SafePace® Pro software will create the record to identify the downloading session. This record contains the location where traffic statistics were collected, date and time when they were downloaded and the *time interval* downloaded during this *session*.

Click the "**Session Manager**" button located in the "**Tools**" tab of the "**Main menu**" to open the "**Session Manager**" Window (see ***Figure 117 - SafePace® Pro - Tools - Session Manager***). Using the "**Session Manager**" you can:

- ***Export*** a session for backup purposes or to share session data with your colleagues
- ***Import*** previously exported data or import data saved in previous versions of the software (Including **PASTROS**)
- ***Trim session*** – partially delete traffic statistics
- ***Delete*** an entire session
- ***Remove Duplicates*** ('overlapped data') from multiple sessions
- *'Attribute'* an existing session to another location with ***Change Location***

"**Session Manager**" consists of a "**Location**" combo-box and a list of sessions for the selected location. You can navigate between sessions by changing location in the combo box.

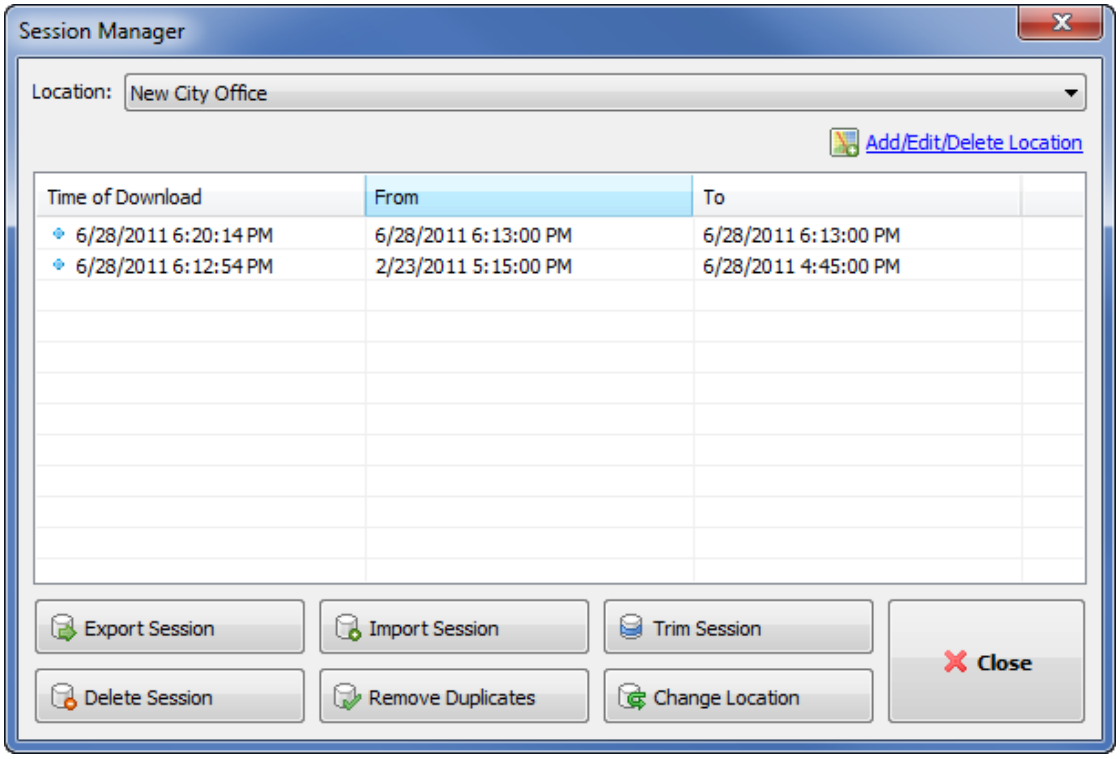


Figure 117 - SafePace® Pro - Tools - Session Manager

Export Traffic Statistics

You may wish to export traffic statistics downloaded from the sign to share it with your colleagues or for backup purposes. To do this, select the session you wish to export and click the "**Export Session**" button (see ***Figure 117 - SafePace® Pro - Tools - Session Manager***). You will be prompted to enter a file name for the exported data.

Import Traffic Statistics

Previously exported traffic statistics can be imported to your database and attributed to the selected location. To do this click the "**Import Traffic Statistics**" button (see ***Figure 117 - SafePace® Pro - Tools - Session Manager***). The "**Open File**" window will appear. Select the type of file you wish to import and the file itself. You can import SafePace® Pro software data files as well as *binary* **PASTROS** files and *comma-separated-values* generated by '**PASTROS**' or '**StatAnalyzer**' (see ***Figure 118 - SafePace® Pro - Session Manager - Selecting the type of data file to import***). The entire process may take a few minutes, depending on the size of the file.

NOTE

Do not import the same file twice otherwise the data in the database will be duplicated. As a result, the generated reports and charts will not be accurate.

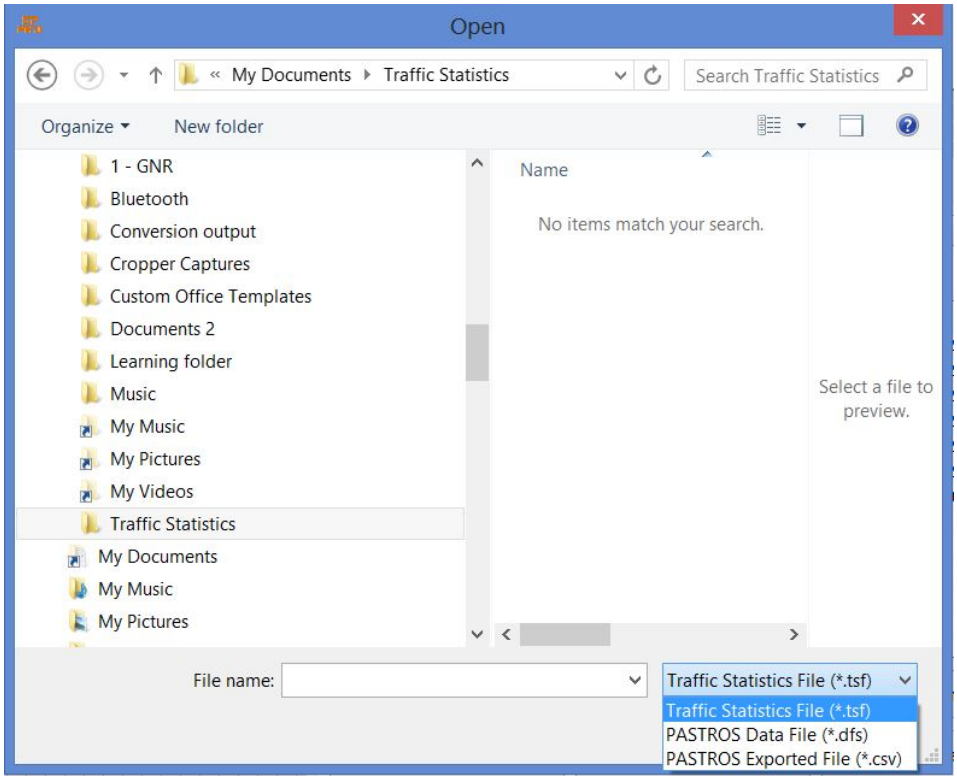


Figure 118 - SafePace® Pro - Session Manager - Selecting the type of data file to import

Trim Session

In some cases you may wish to "trim" existing data to remove a part of traffic statistics which is not needed. For example it can be data collected during a test period or while a trailer was installed in a temporary location. Select the session you want to trim and click the "**Trim Session**" button (see ***Figure 117 - SafePace® Pro - Tools - Session Manager***). You will then be prompted to enter a new date and time range for the session. All data outside this range will be permanently deleted from the database.

Delete Session

You can permanently delete sessions from the database traffic statistics that you do not need anymore. Select the session you wish to delete and click the "**Delete Session**" button (see ***Figure 117 - SafePace® Pro - Tools - Session Manager***). You will be prompted to confirm your action.

Remove Duplicates

In some cases collected traffic statistics can contain "overlapping" sessions. SafePace® Pro software can automatically detect and remove "overlapping" data from the database. To execute this procedure, select the location and click the "**Remove Duplicates**" button (see ***Figure 117 - SafePace® Pro - Tools - Session Manager***). The entire process can take a few minutes, depending on the number of sessions for the selected location.

Change Location

You may need to assign previously downloaded traffic statistics to another location (e.g. if the wrong location was selected during the download or import process). To do this, select the session you want to move and click the

"**Change Location**" button (see ***Figure 117 - SafePace® Pro - Tools - Session Manager***). You will be prompted to select a new location for the session.

Clean-up Database

During normal operation and usual data modification, the database file can become fragmented - where data for a single table or index is scattered throughout the database file. Running the "Clean-Up" function ensures that each table and index is largely stored contiguously within the database file. In some cases, this process may also reduce the number of partially filled pages in the database, reducing the size of the database file even further.

Click the "**Clean-Up Database**" button located in the "Tools" tab of the main menu to start the cleaning procedure. This process may take a few minutes, depending on size of your database. You should clean up your database once every 3 months to ensure database efficiency.

NOTE

The database clean-up works by copying the contents of the database into a temporary database file and then overwriting the original with the contents of the temporary file.

When overwriting the original, a rollback journal or write-ahead log file is used just as it would be for any other database transaction.

This means that when cleaning-up a database, as much as twice the size of the original database file is required in free disk space.

Be sure you have enough disk space to complete this procedure.

Real-Time Readings button

The **"Real-Time Readings"** button opens the **"Real-Time Readings"** interface. This feature is only available when connected to a radar sign, and provides a dashboard status of the radar sign you are connected to.

"Real-Time Readings" provides the following Radar Sign status information:

- **Sign Date/Time:** the sign has an internal clock battery to associate its current date and time to collected traffic data. A **"Synchronize Clock"** button is provided to synchronize the sign's date and time with your PC's date and time.
- **Vehicle Speed:** the captured actual vehicle speed currently detected by the sign's radar component – this can also be seen in the virtual sign located in the center of the window. A log of the actual vehicle speeds is also available and can be saved to a file for further analysis and reporting
- **Current (custom) message/image name:** the current (custom) message/image being displayed by the radar sign is shown concurrently with the vehicle speed shown in the log, as programmed by the sign express mode configuration or schedule mode configuration
- **Speed Limit:** the current speed limit programmed to the radar sign
- **Ambient Light:** the radar sign has light sensors to detect the amount of light at the sign location. It is shown as a percentage to help adjust LED settings for the sign's display panel
- **Voltage:** Voltage reported by sign controller measured in "Volts"
- **Current:** Current measured in "mA (mill amperes)" reported by sign controller
- **Power:** Current voltage multiplied by current mA measured in "Watts"

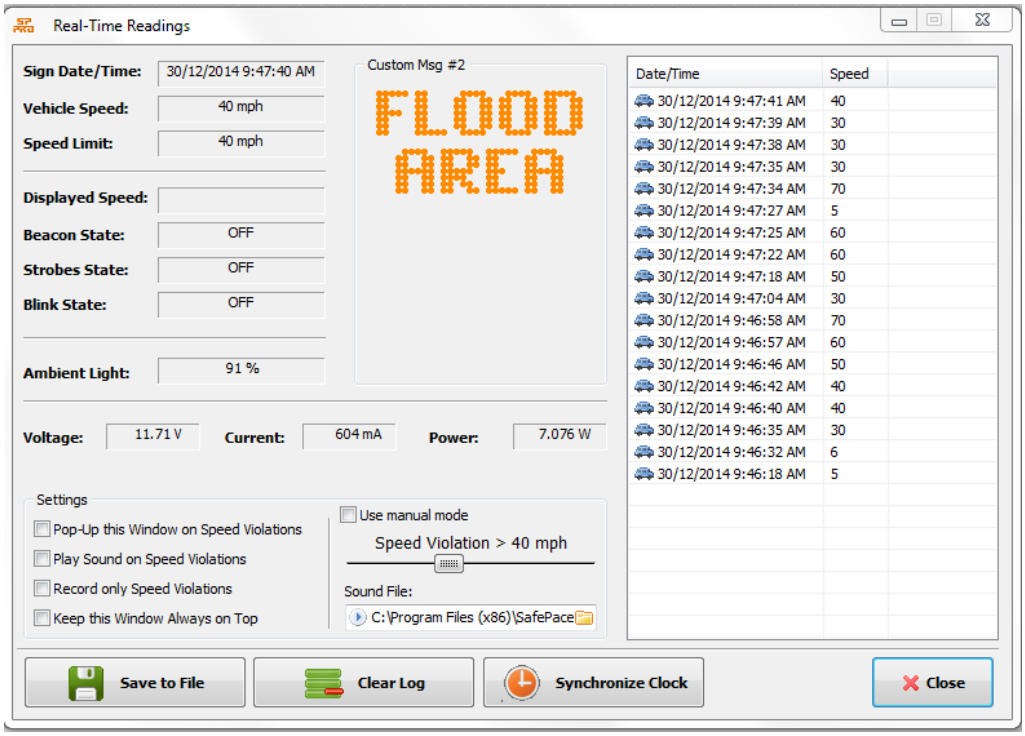


Figure 119 – Real-Time Readings Windows interface

Real-Time Readings Window Settings

The Real-Time Readings window can be configured to behave in the following ways:

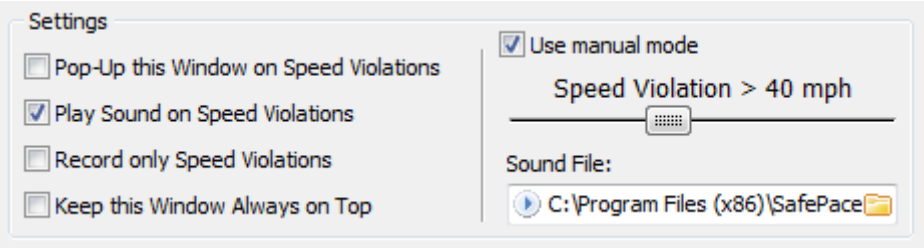


Figure 120 – Real-Time Readings Window Settings

Pop-Up this window on Speed Violations

While connected and monitoring your radar sign, have the Real-Time Readings window pop up only when a driver violates the speed limit set.

Play Sound on Speed violations

Alternatively, you can set a sound to play whenever a driver violates the speed limit. Optionally, change the sound with your own sound file.

Record only Speed Violations

Optionally, you can also customize the log to display vehicle speeds only when a driver violates the speed limit

Use Manual mode

Further customize the log to display vehicle speeds based on a speed limit you set manually. The log will ignore the sign's speed limit set in this mode

Keep this Window Always on Top
Optionally, maintain this window on top of all windows in SafePace® Pro while connected to your radar sign to always have real-time readings at hand.

Test and Demo Mode button

The **"Test and Demo Mode"** button opens the **"Test and Demo Mode"** interface. This feature is only available when connected to a radar sign, and provides an interface to help test and troubleshoot your sign.

Real Mode

This is the default mode that appears when running **"Test and Demo Mode**". In **"Real Mode"**, your sign will continue to function using its currently programmed configuration or schedule.

However, while in this mode you can send a command to the sign and momentarily interrupt the programmed configuration to conduct the tests on your radar sign.

> ***Note***
>
> *Ensure there is no traffic at the time while you are testing in **"Real Mode"**, as the sign's driver feedback will be momentarily interrupted wile obeying the above commands sent to the sign*

Send a momentary command to:

- display a particular speed to test a digit segments
- display a particular message to test the message panel
- test the strobe function
- test beacons by turning them on or off if attached to your radar sign as in a ***School Zone System***

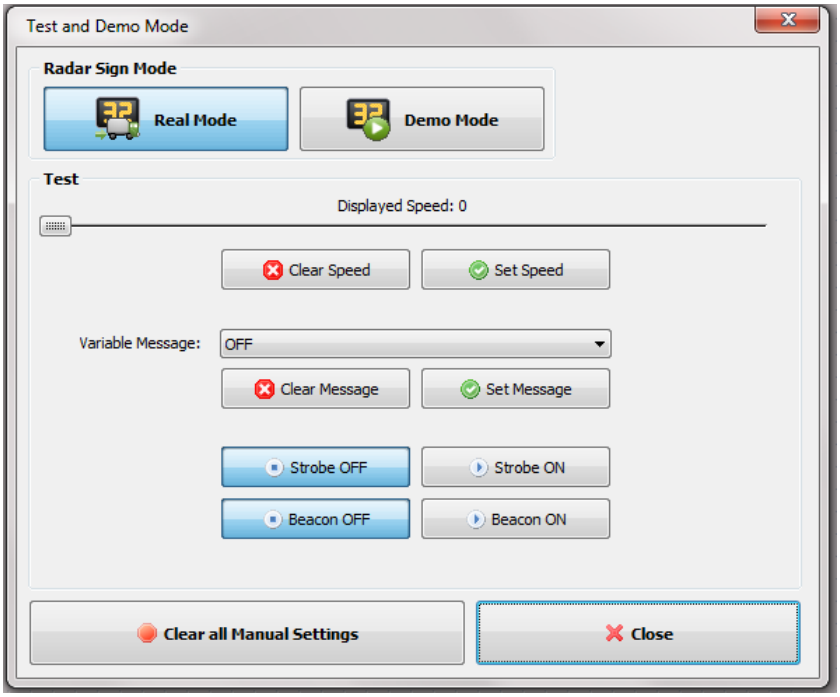


Figure 121 – Test and Demo Mode – Real Mode

Demo Mode

When switching to **"Demo Mode"**, you will receive a confirmation that the mode you have switched to is active.

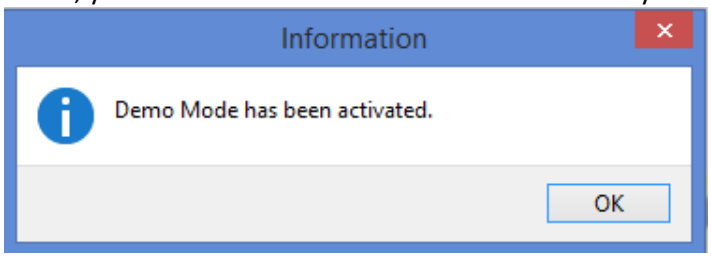


Figure 122 – Confirmation when switching to Demo Mode

In **"Demo Mode"**, the radar sign's programmed configuration will be de-activated and replaced by a set of pre-programmed speeds and/or messages.

The radar sign's original programmed configuration will only resume once switched back to **"Real Mode"** and closing out of the **"Test and Demo Mode**" window.

The sign will remain in **"Demo Mode"** even after closing out of the **"Test and Demo Mode**" window.
You must activate and bring up the **"Test and Demo Mode**" interface again to switch the sign back to **"Real Mode"**.

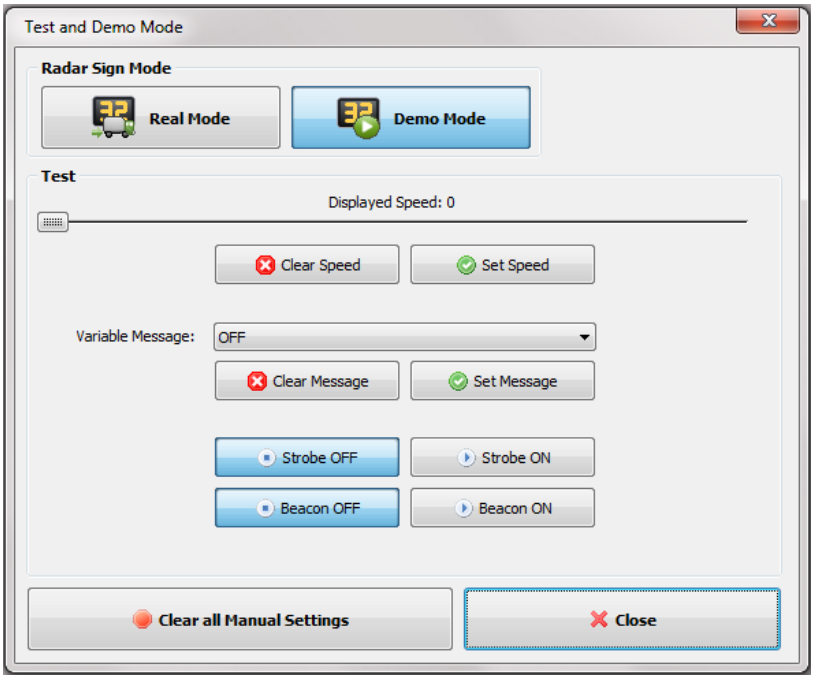


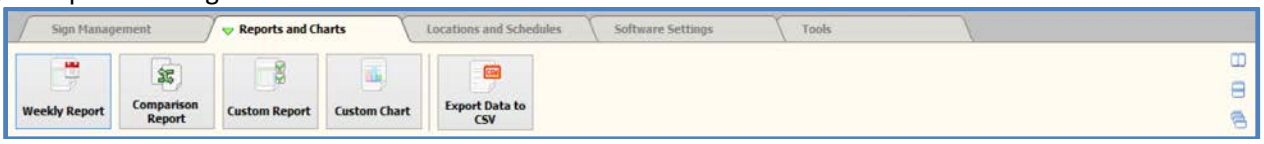
Figure 123 – Test and Demo Mode – Demo Mode

Note

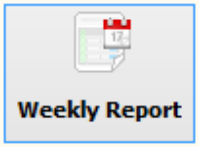
*The "**Demo Mode**" interface appears the same as in **"Real Mode"** however, you cannot send "real-time" commands like in **"Real Mode"**.*

The Reports and Charts tab

The reports and charts interface is always available when connected or disconnected to a radar sign. It provides access to powerful environment for auto-generating or customizing a wide variety of reports, using a dynamic array of reports settings.



Weekly Report button



The **"Weekly Report"** button opens the **"Weekly Report"** interface below the button bar on the **"Reports and Charts"** tab. Once clicked on, an empty report window with a series of tabs with different report layouts appears.

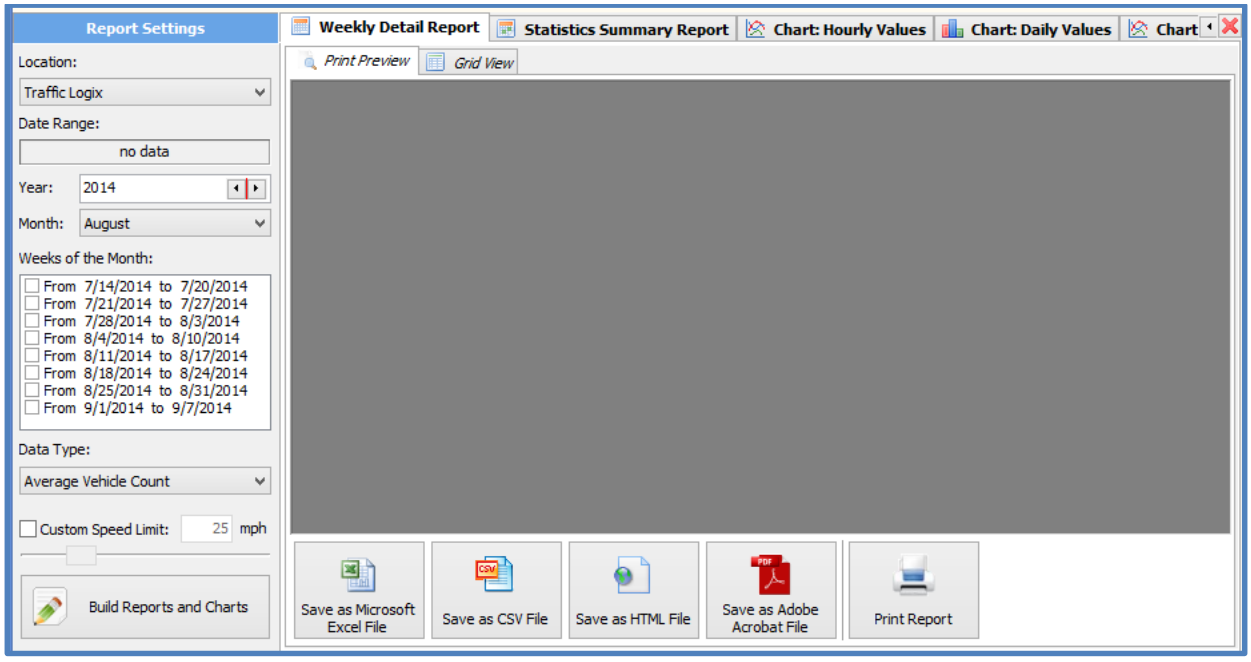


Figure 124 – Weekly Report interface – Empty report window

The **"Report Settings"** toolbar on the left, is used to specify the content of your "Weekly Report". Specify the weekly period session(s) by location and date, based on the date range available from your sign's collected data (session files imported into SafePace® Pro), and then choose the data type to build your reports and charts.

After clicking the **"Build Reports and Charts"** button, the report processor takes all the information you have specified, retrieves the data, and combines it with the various report layouts in the tabs to auto-generate a series of reports and charts. The **"Weekly Detailed Report"** generated displays your sign's collected traffic data in hourly, daily, weekday, weekend, and full week segments.

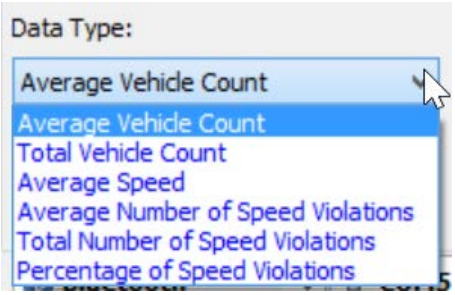
You can preview your reports using **"Print Preview"** or **"Grid View"**, and use the button panel at the bottom to save the reports and charts in different formats or use the **"Print Report"** button to output to a configured printer.

Creating standard weekly reports and charts

The following standard weekly **Reports and Charts** can be generated quickly and easily in SafePace® Pro.

- **Weekly Detail Report** – presents the selected parameter by the days of the week and by the hours of the day, together with average speed and 85 percentile speeds
- **Statistics Summary Report** – presents a summary of key parameters such as total and average vehicles count, minimum, maximum and average speed etc.
- **Chart of Hourly Values** – presents hourly values of the selected parameter in a line chart
- **Chart of Daily Values** – presents daily values of the selected parameter in a bar chart
- **3D Weekly Chart**– presents a 3-Dimensional view of the selected parameter, arranged by the days of the week and by the hours of the day
- **Speed Bins Report** – presents vehicle counters for each hour of the entire period placed in Speed Bins

Traffic data collection types as report parameters

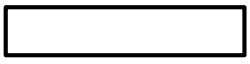


Each standard report or chart can be designed based on the type of traffic data that has been collected by your radar sign. The following parameters are available to further customize the data for the reports and charts listed above:

- Average Vehicle Count
- Total Vehicle Count
- Average Speed
- Average Number of Speed Violations
- Total Number of Speed Violations
- Percentage of Speed Violations
- Custom speed limit

Steps for generating weekly reports

1. After starting up SafePace® Pro, select the Reports and Charts tab.



2. Then click on the ***Weekly Report*** button. The ***Reports and Charts*** interface will appear with the ***Report Settings*** toolbar on the left and a container for the reports on the right.

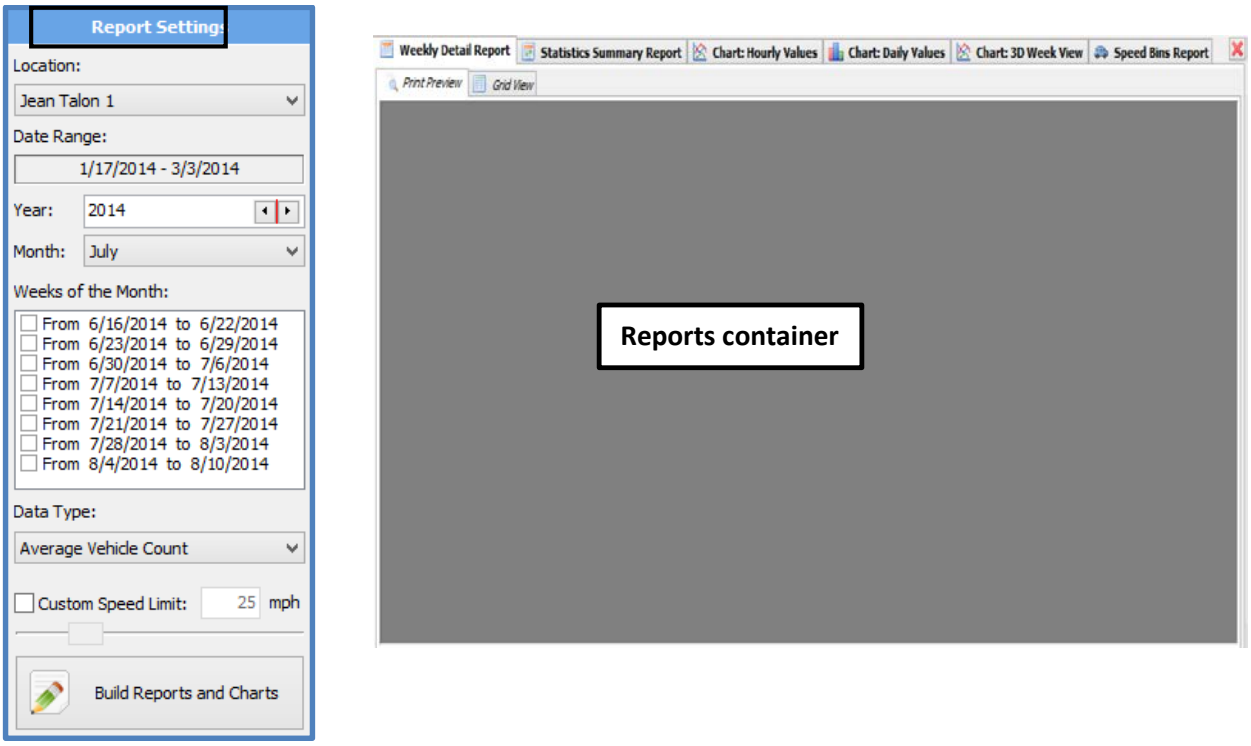


Figure 125 – Report Settings on left, Reports container on right

3. In the Reports and Settings toolbar, select the location you want to create the report about.

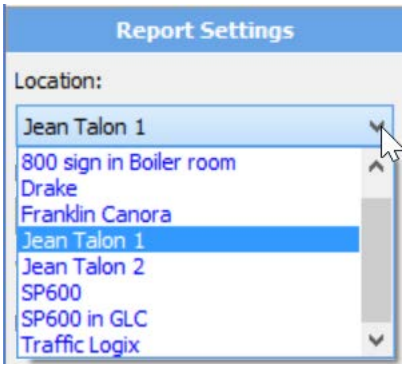


Figure 126 – Reports Settings – Select location

4. Check the Date Range field. Ensure that there is data available for the location to generate the report.

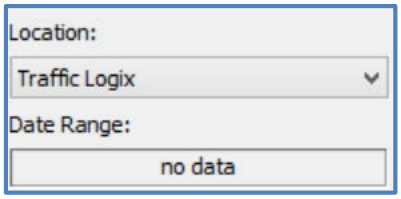


Figure 127 – Reports Settings – Date Range field – no data

5. Once a location is chosen containing data, choose the Weeks of the Month based on the date range specified above it.

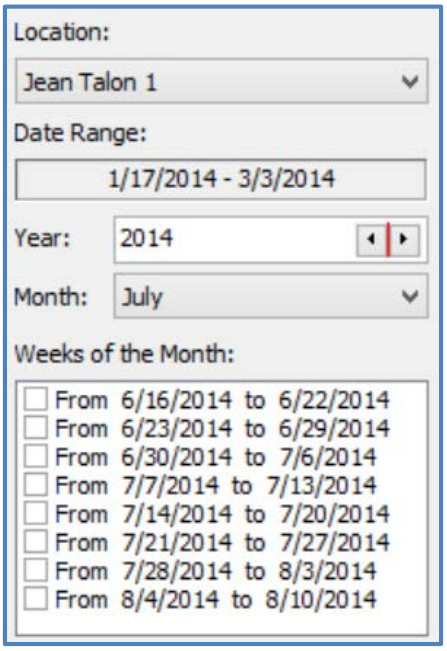
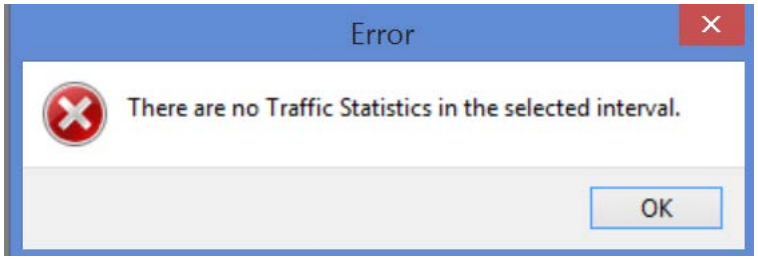
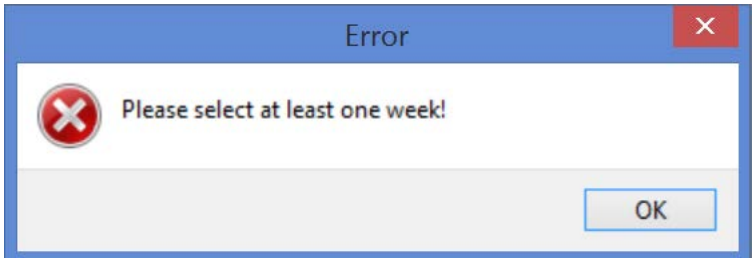


Figure 128 – Reports Settings – Date range field containing dates for location with data

If you do not, choose a correct week, you will be prompted with the following message:



If you do not choose a week, you will be prompted with:


Error
Please select at least one week!
OK

6. Once you choose a location with data, use the "**Year**", "**Month**" and "**Week**" selectors to choose the date range you want to include in your reports and charts. The date range corresponding to the amount of data that is available from the imported statistics in '**Session Manager**", is shown above the selectors. A range of up to 8 weeks may be selected provided the data is available.

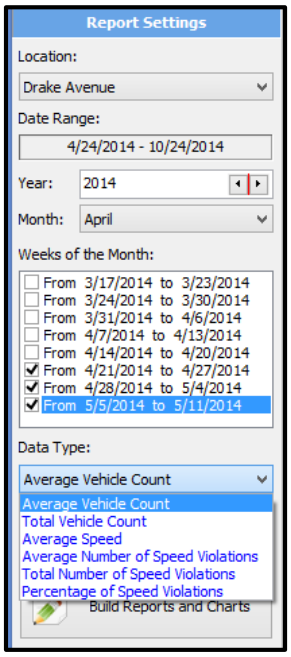


Figure 129 – Reports and Settings – Selecting contiguous date range and traffic data type

IMPORTANT! You can only select a contiguous date range, without gaps between the first date and the last date of the interval. SafePace® Pro will automatically fill in the gaps of the selection when attempting to select a series incontiguous dates.

Custom Speed Limit

Optionally, you can select a custom "**Speed Limit**" option for the location. The speed limit entered will be used to calculate all "**Speed Violation**" statistics instead of the speed limit originally assigned to the location.

Figure 130 – Customizing speed limit to analyze speed violation statistics

7. Click the Build Reports and Charts button to generate your report. The reports container will populate with the report generated based on the parameters selected.

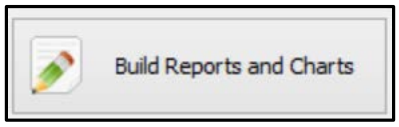


Figure 131 – Build Reports button

8. By default, a Weekly Detailed Report (in Print Preview) will be generated based on the traffic data collection type chosen. A grid view can also be generated, by clicking on the Grid View tab.

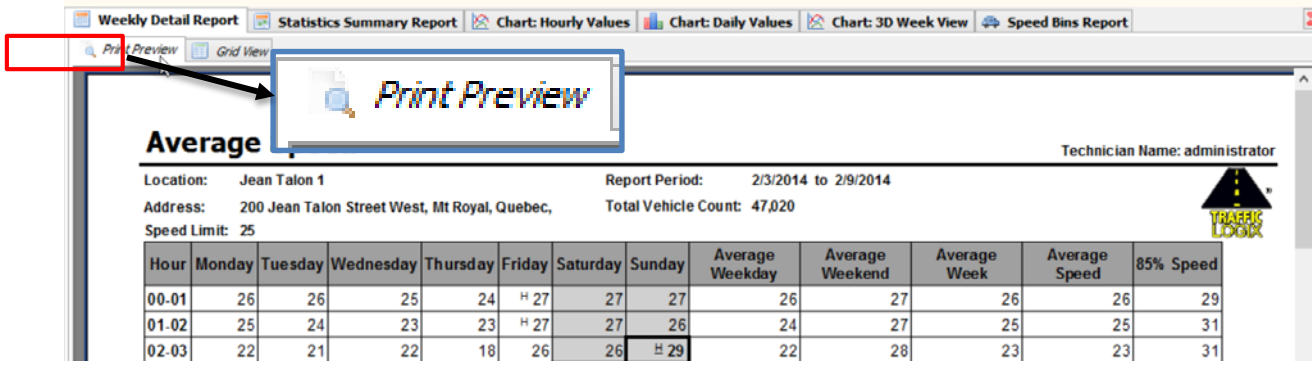


Figure 132 – Print Preview tab

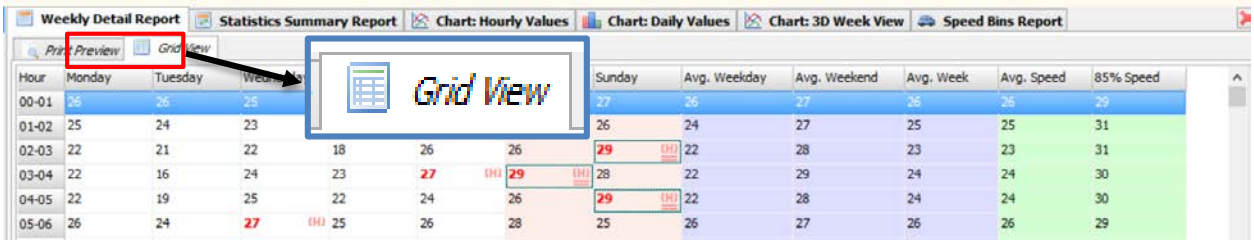


Figure 133 – Grid View tab

9. Use the tabs to navigate and to display any of the six types of reports generated by SafePace® Pro

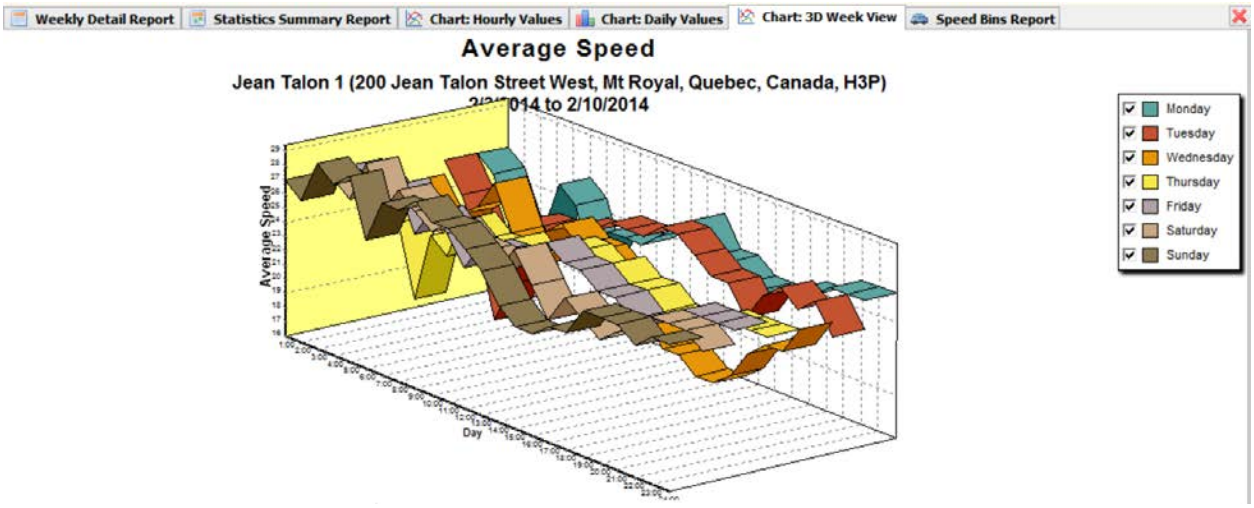


Figure 134 – Tab selected to display 3D Week View chart

Different formats available for saving reports

Reports may be saved as a **Microsoft Excel file**, **HTML**, **CSV** document or as an **Adobe Acrobat** file.

The reports may be printed directly as well. For any action desired, click on the corresponding button located at the bottom of each **print preview** window.

Figure 135 – Options for saving and printing reports

You may also export any of the charts to a BMP, EMF or Adobe Acrobat file format.

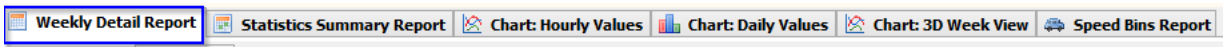
Using the tabs, navigate to the chart you wish to export and click on the corresponding button located below the chart. Additionally, you can print the chart directly using the **"Print Report"** button.

Figure 136 – Options for saving and printing charts

Weekly Detail Report defined

The "**Weekly Report**" represents traffic statistics arranged into hours of the day and days of the week.

The "**Weekly Report**" window can be accessed by clicking the "**Weekly Report**" button located in "**Reports and Charts**" tab of the main menu.



To create weekly reports, first select the '**Location**', '**Year**', '**Month**' and one or more ***contiguous*** weeks, and then click the "**Build Reports and Charts**" button.

An extract of the weekly report is shown below in ***Figure 137 - SafePace® Pro - Reports and Charts - Weekly report generated for Average Vehicle count traffic statistics***. The left side of the weekly report shows a column for each day of the week, and rows for each hour of the day in the week.

Hour	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday	Average Weekday	Average Weekend	Average Week	Average Speed	85% Speed
00-01	38	40	7	n/a	39	42	36	31	39	34	34	46
01-02	0	40	n/a	n/a	33	42	48	37	45	41	41	45
02-03	31	0	n/a	n/a	39	0	48	35	48	39	39	47
03-04	0	39	n/a	n/a	0	0	**H 51**	39	51	45	45	47
04-05	18	0	n/a	n/a	0	44	20	18	32	27	27	62
05-06	42	H 46	H 12	n/a	22	44	40	31	42	34	34	43
06-07	25	27	9	n/a	22	H 46	16	21	31	24	24	46
07-08	38	38	9	7	34	36	33	25	35	28	28	43
08-09	37	35	8	20	H 42	39	41	28	40	32	32	44
09-10	38	34	H 12	10	39	40	41	27	41	31	31	44
10-11	36	38	10	9	40	40	41	27	41	31	31	46
11-12	43	38	7	38	H 42	41	40	34	41	36	36	45
12-13	39	7	11	H 43	39	40	42	28	41	32	32	46
13-14	41	7	8	42	40	39	42	28	41	31	31	46
14-15	38	9	7	41	41	38	42	27	40	31	31	46
15-16	40	14	11	40	41	40	44	29	42	33	33	45
16-17	41	9	n/a	41	40	41	43	33	42	36	36	45
17-18	39	n/a	n/a	39	40	40	41	39	41	40	40	45
18-19	39	n/a	n/a	40	40	43	39	40	41	40	40	44
19-20	41	n/a	n/a	41	40	41	40	41	41	41	41	44
20-21	41	n/a	n/a	41	41	41	41	41	41	41	41	45
21-22	38	n/a	n/a	41	41	41	42	40	42	41	41	46
22-23	42	n/a	n/a	40	40	42	38	41	40	40	40	45
23-24	H 46	n/a	n/a	36	40	40	33	41	37	39	39	44
AVG:	38	28	9	33	38	41	39	33	41	35	35	46

Figure 137 - SafePace® Pro - Reports and Charts - Weekly report generated for Average Vehicle count traffic statistics

The cells are populated with the actual daily hourly averages, counts, or percentages for the week, based on the traffic data collection type selected.

The right side of the report provides hourly averages and average totals, based on the values on the left, for weekdays (for a 5 day week), weekends (Sat and Sun), and for a week (7 days). It also shows hourly averages of average speed and 85th percentile speed.

Column definitions for calculation of averages in Reports

Average Weekday = Average speed of the average speeds calculated over 5 days (Mon-Fri)
Average Weekend = Average speed of the average speeds calculated over 2 day week-end (Sat-Sun)
Average Week = Average speed of the average speeds calculated over 7 days (Mon-Sun)
Average Speed = Average speed of all the speeds captured/collected over 7 days (Mon-Sun)
85th percentile Speed = the speed at or below which 85 percent of vehicles travel over 7 days (Mon-Sun)

Highest values in column

The *highest* value in a column is marked with capital '**H**'
Highest '**H**' value in the report is marked with a bold capital '**H**'

How to interpret 'N/A' values in Reports

'N/A' means the sign did not collect any data at the time stipulated in the report.
'N/A' values are **NOT** included in calculations.

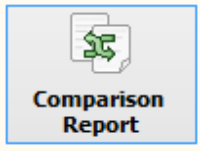
How to interpret '0' values in Reports

Zeros are **INCLUDED** in calculations when calculating "**Vehicle Count Statistics**".
Zeros are **EXCLUDED** in calculations when calculating "**Speed Statistics**".
E.g. when calculating averages, all values are added together, and divided by the number of values available
'**0**' + '**N/A**' + '**20**' + '**N/A**' + '**N/A**' + '**40**' + '**60**' = '**120**'
If calculating average vehicle count, Average for week consisting of 7 days = 120 divided by 4 values = 30
If calculating average speed, Average for week consisting of 7 days = 120 divided by 3 values = 40

Note

Zeros will appear in reports if there is no traffic for up to, but not exceeding 12 hours.
If no traffic appears for more than 12 hours, because it is unlikely, in most cases, that there would be no traffic within a 12 hour period, it is assumed that the sign has lost power or is malfunctioning somehow for the full 12 hours. Therefore, N/A's will appear in the report, for the full 12 hours and any hours following, until a possible power or malfunction issue has been resolved.

Comparison Report button



The **"Comparison Report"** button opens the **"Comparison Report"** interface and provides a quick way to auto-generate reports to compare statistics between two periods of time for one location.

Just like the **"Weekly Report"** button, once clicked on, an empty report window with a series of tabs with different report layouts appears.

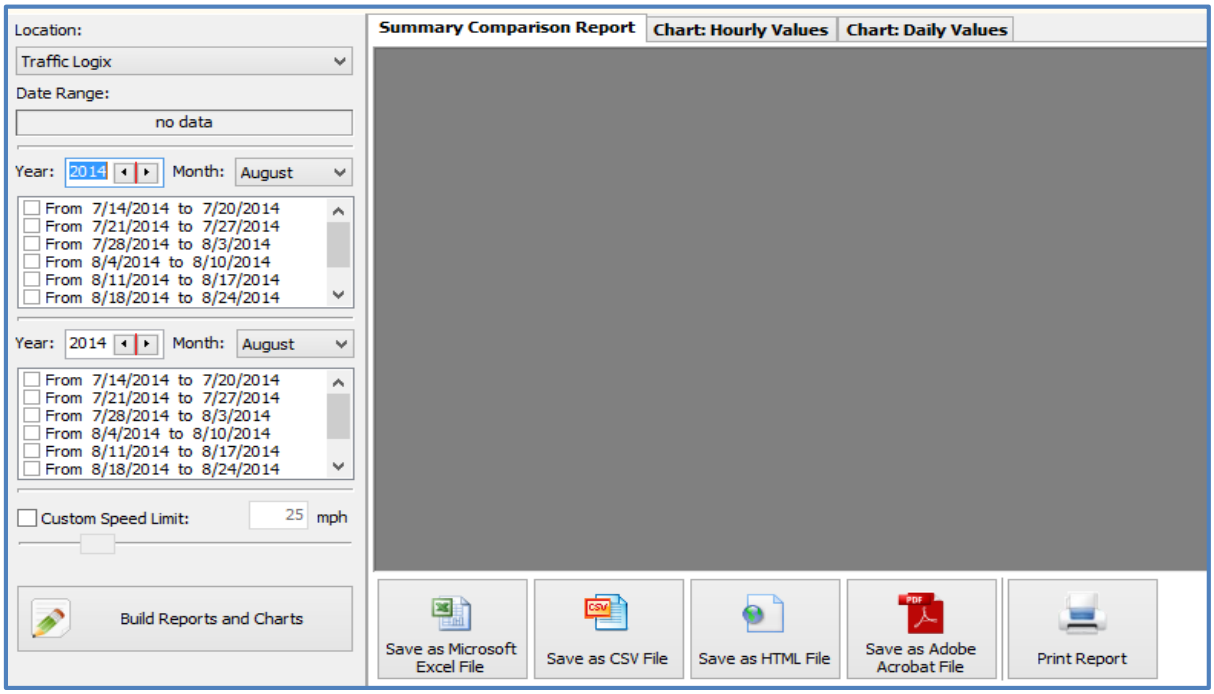


Figure 138 – Comparison Report interface – Empty report window

To allow for comparing two weekly time periods for a location, the **"Report Settings"** toolbar on the left becomes a **"palette"** for selecting weekly periods from different session files imported into SafePace® Pro from your sign's collected data. Ensure data is available before building a report or chart, by selecting a "Year" and "Month" based on the dates available in the "Date Range" field.

Note

*The **"Print Preview"** or **"Grid View"** options are not available in the **"Comparison Report"** interface.*

The steps to generate a Comparison Report is similar to the Weekly Reports interface. The only difference is that a selection is made of two or more weeks of the month (it could also be two periods within the same session) based on the date range available.

To compare, select the intervals of dates for the "**Year**", "**Month**" and "**List of the Weeks"** controls for each session.

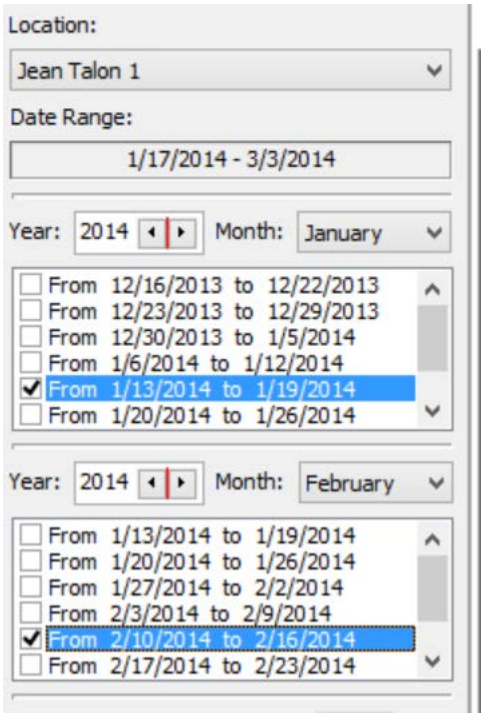


Figure 139 – Choosing from the two lists of weeks to compare data between two periods

Optionally, once again, you can select the **"Custom Speed Limit"** option. In this case the Speed Limit entered will be used to calculate all Speed Violation statistics instead of the speed limit originally assigned to the location.

Once all of the parameters have been set, click the **"Build Report and Charts"** button.

In order for comparison reporting to make sense, it is important that there are no missing days within the periods that are being compared.

Comparison Report

Technician Name: administrator

Location: Jean Talon 1
Address: 200 Jean Talon Street West, Mt Royal, Quebec, Canada, H3P
Speed Limit: 31

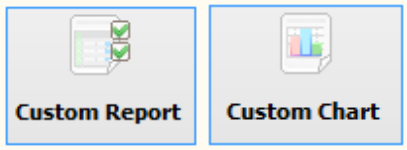
Report 1/17/2014 to 1/19/2014
Report 2/10/2014 to 2/15/2014

Summary

Day	Avg. Vehicle Count			Average Speed			Avg. Number of Speed Violations			% of Speed Violations		
	Period 1	*Period 2*	*Difference*	*Period 1*	*Period 2*	*Difference*	*Period 1*	*Period 2*	*Difference*	*Period 1*	*Period 2*	*Difference*
Monday	0	6,439	6,439	0	25	25	0	865	865	0 %	15 %	15 %
Tuesday	0	6,771	6,771	0	26	26	0	959	959	0 %	16 %	16 %
Wednesday	0	6,873	6,873	0	25	25	0	900	900	0 %	14 %	14 %
Thursday	0	7,116	7,116	0	26	26	0	1,071	1,071	0 %	16 %	16 %
Friday	4,864	6,223	1,359	25	22	-3	591	248	-343	13 %	4 %	-9 %
Saturday	6,202	3,825	-2,377	27	26	-1	1,086	588	-498	20 %	17 %	-3 %
Sunday	5,199	0	-5,199	27	0	-27	851	0	-851	19 %	0 %	-19 %
Average:	**2,324**	**5,321**	**2,997**	**26**	**25**	**-1**	**361**	**662**	**301**	**7 %**	**12 %**	**5 %**

Figure 140 – Comparison report with missing days

Custom Report and Custom Chart buttons



The **"Custom Report"** and **"Custom Chart"** buttons both open the **"Report Settings"** dialog. The interface has multiple options for optimum design and customization of your sign's collected data.

After choosing the location to base your report on, pinpoint the data in your report on a particular time interval taken from the date range available from your imported traffic data. Combine various traffic statistic parameters into one report and display them as columns in your report.

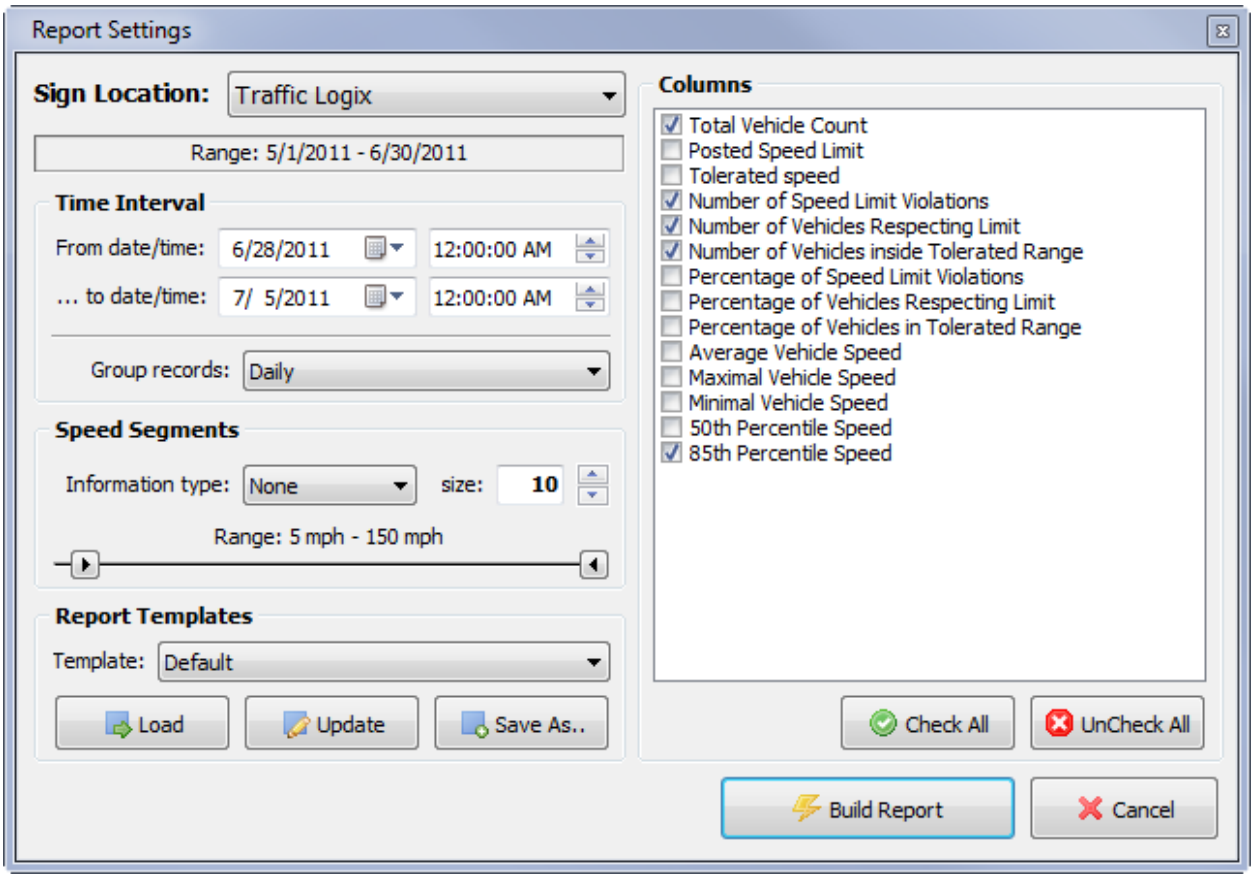


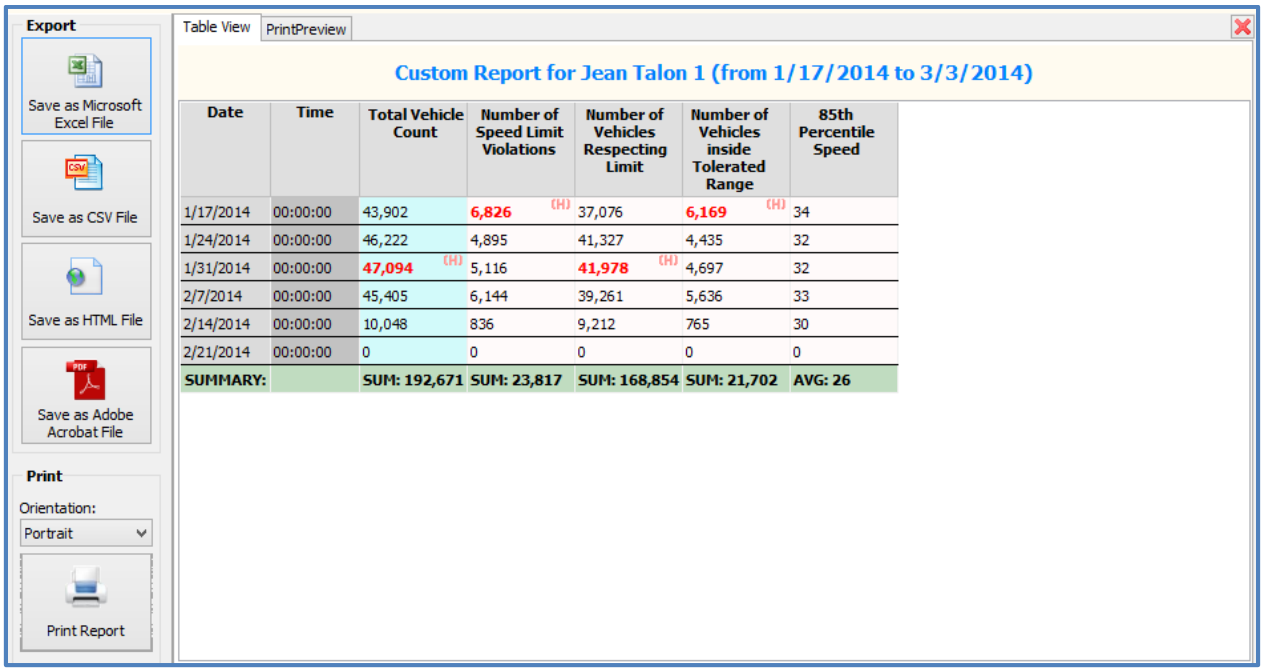
Figure 141 – Report Settings dialog

Optionally, fine-tune your report or chart by further grouping records by adjusting the time interval or have counts, percentages or average values calculated by speed segments. Settings you choose for your reports in the **"Report Settings"** dialog, can be saved to a template to be re-used in the future.

Note

Speed segments are not available for charts.

Once a report or chart is created, it can be printed directly to your printer or saved as a bitmap (BMP) or an Enhanced Metafile (EMF) using the buttons available on the left.



Date	Time	Total Vehicle Count	Number of Speed Limit Violations	Number of Vehicles Respecting Limit	Number of Vehicles inside Tolerated Range	85th Percentile Speed
1/17/2014	00:00:00	43,902	6,826 (H)	37,076	6,169 (H)	34
1/24/2014	00:00:00	46,222	4,895	41,327	4,435	32
1/31/2014	00:00:00	47,094 (H)	5,116	41,978 (H)	4,697	32
2/7/2014	00:00:00	45,405	6,144	39,261	5,636	33
2/14/2014	00:00:00	10,048	836	9,212	765	30
2/21/2014	00:00:00	0	0	0	0	0
SUMMARY:		SUM: 192,671	SUM: 23,817	SUM: 168,854	SUM: 21,702	AVG: 26

Figure 142 – Custom Report generated and displayed with Table View

Modify the traffic statistic parameters displayed in a chart dynamically by checking or un-checking parameters in the parameter list box below and its other menu options.

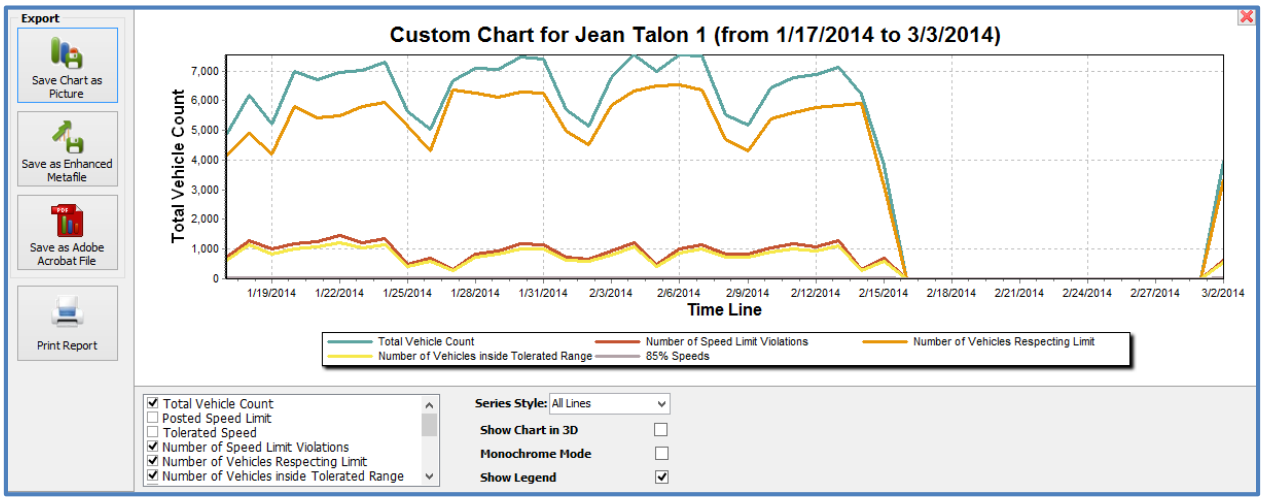
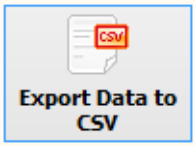


Figure 143 – Custom Chart generated – Update chart dynamically with parameter list box

Note

For more information on the Reports and Charts interface, its operation and understanding the different types of reports generated, please refer to and download: **SafePace® Pro - Reports and Charts**

Export Data to CSV button



The **"Export Data to CSV"** button opens the **"Export Data to CSV"** interface which provides a way to export a set of raw data as a Comma-Separated-Values (CSV) file to be used by other statistics analyzing tools such as Microsoft Excel.

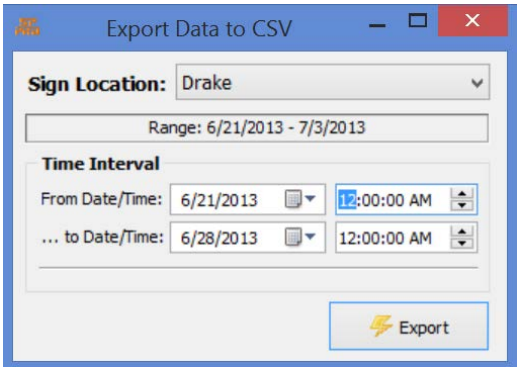


Figure 144 – Export data to CSV dialog

Click "**Export data to CSV**" button to choose location and date/time interval you want to export. After this click "Export" button and choose file name for exported statistics.

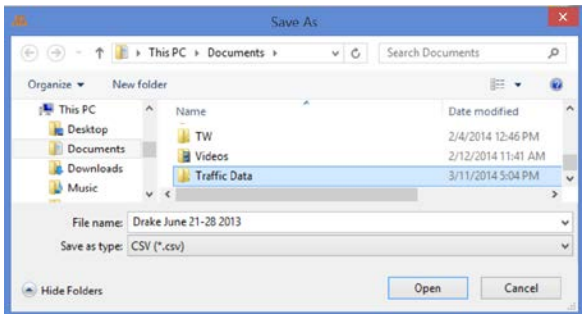


Figure 145 – Save as window to save traffic data to CSV file format

After saving the file in CSV format, a confirmation message will follow.

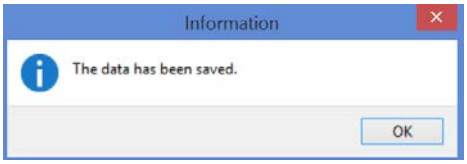


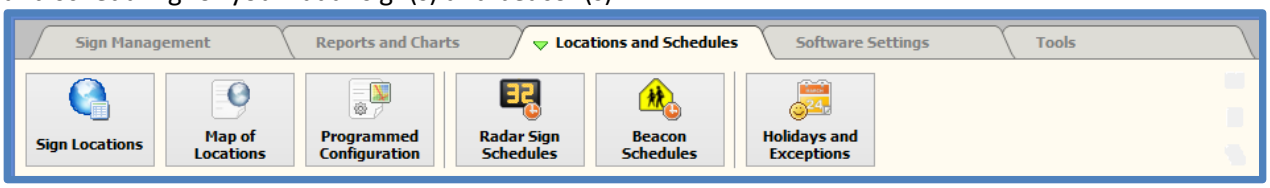
Figure 146 – Confirmation that CSV data file was saved

Note

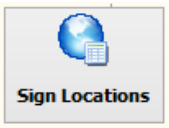
The speed units in the raw data is exported as kilometer speeds. Apply speed unit conversion when comparing data with reports generated while SafePace Pro is set to display miles per hour speed units.

The Locations and Schedules tab

The "Locations and Schedules" tab provides access to a virtual sandbox to plan, prepare, and manage the locations and scheduling for your radar sign(s) and beacon(s).



Sign Locations button



The "**Sign Locations**" button opens the "**Locations**" Dialog. It is used to set up and manage your radar sign location details. The location is used as the unique identifier for the configuration and traffic statistics collected from a radar sign at its unique location.

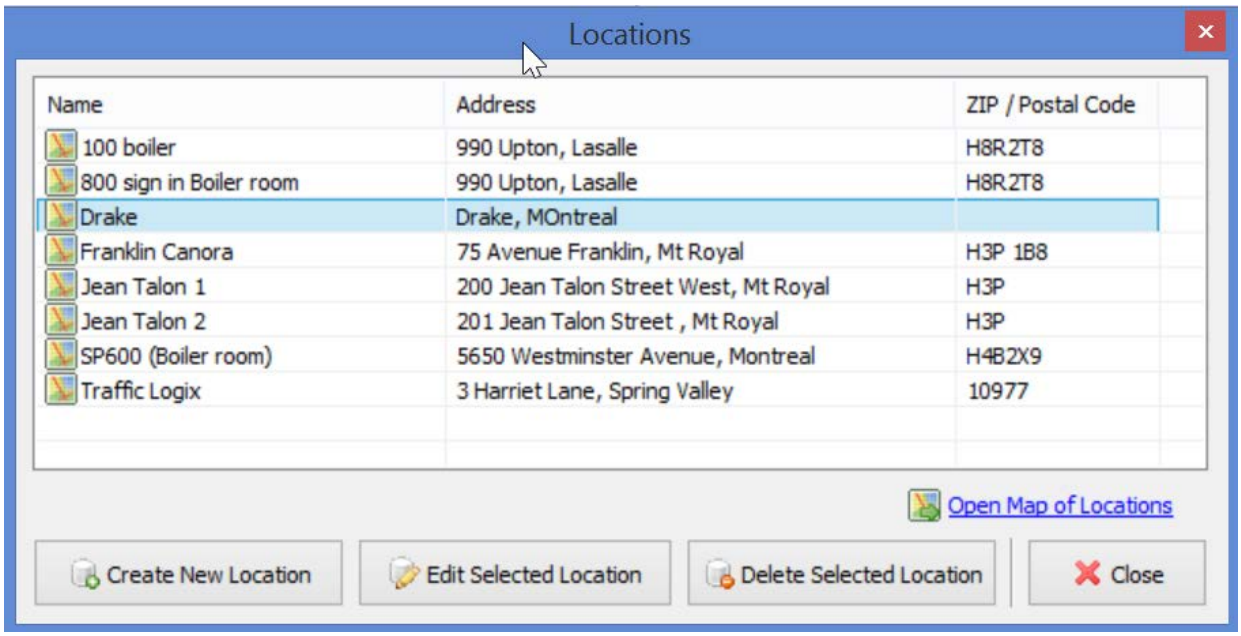


Figure 147 - SafePace® Pro - Locations window

Each location is identified by its name and address. You can manage the list of locations using the buttons located at the bottom of the window.

Click the "**Create New Location**" button to open window where you can enter parameters of the new locations.

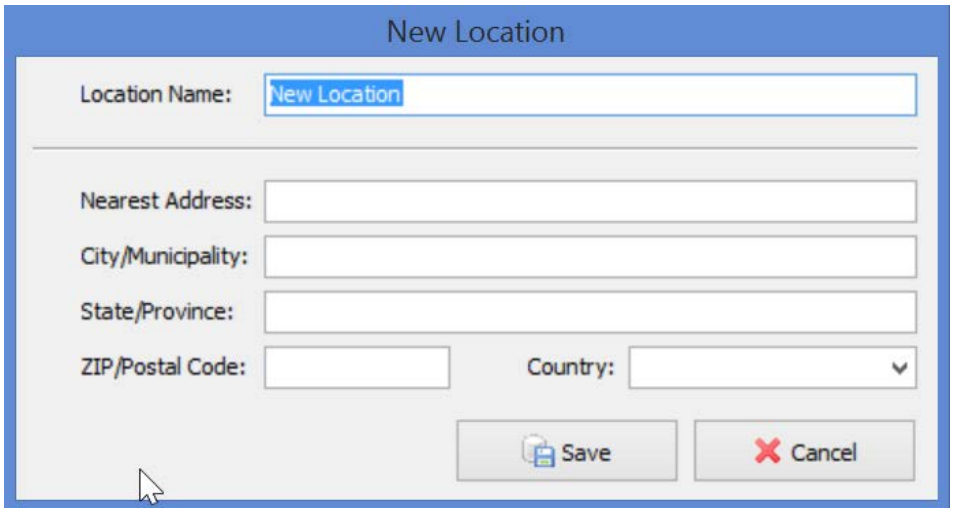
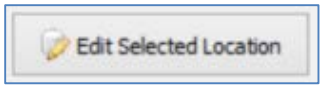


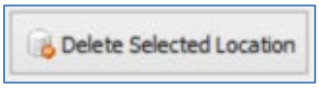
Figure 148 - SafePace® Pro - 'Create New Location' window

Click the "**Save**" button to save modifications you made and close this window or click on the "**Cancel**" button to close the window and disregard any changes.

The same window is used to edit an existing location.



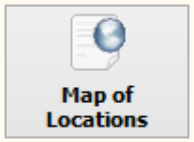
You can also choose to delete the selected location. To do this, click the "**Delete Selected Location**" button and confirm you action.



NOTE

If you delete a location you will not have the identifier you need to access traffic statistics collected at this location.

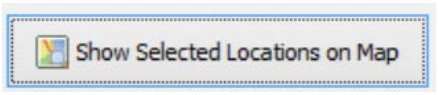
Map of Locations button



The Map of Locations button opens the "Map of Locations" window. It serves to share map and location information of your radar signs with others.

Map view tab

A list all the locations added in SafePace® Pro is available to select from on the left side of the **"Map of Locations"** window. After selecting a location, and clicking on the "**Show Selected Locations on the map"** button, **"Google Maps"** will output the map data of the location to the **"Map View"** tab.



A marker is placed on the location with a letter to correspond to the location name and address in the table provided below the map. The map and table below the map will conform to show all the locations selected in the locations list.

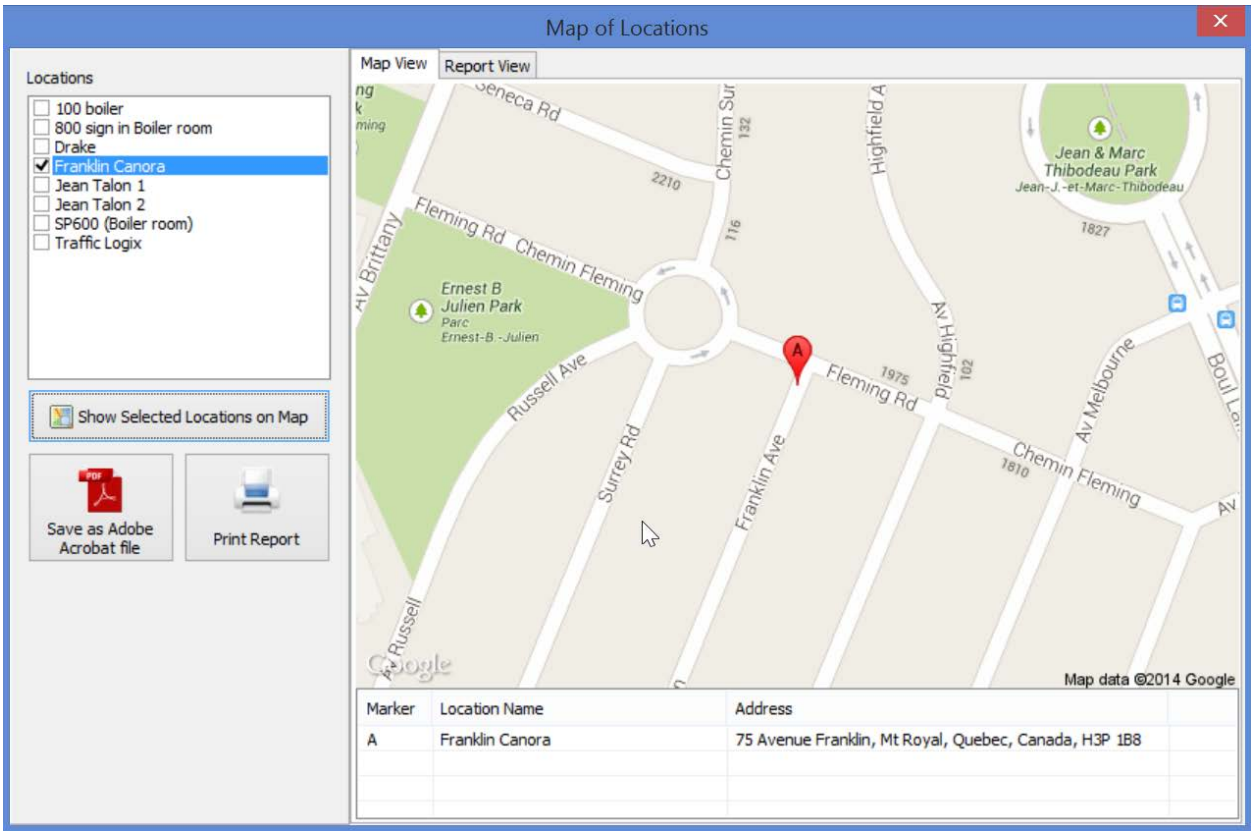


Figure 149 – Marked location with table of selected locations in Map View tab

Report View tab

The **"Report View"** tab in **"Map of Locations"** displays a **"print preview"** of the output that will be displayed when saving as an Adobe Acrobat (.pdf format), or when printing the selected output to a printer.

Note

The map and table information is shown in the report view output as a header.

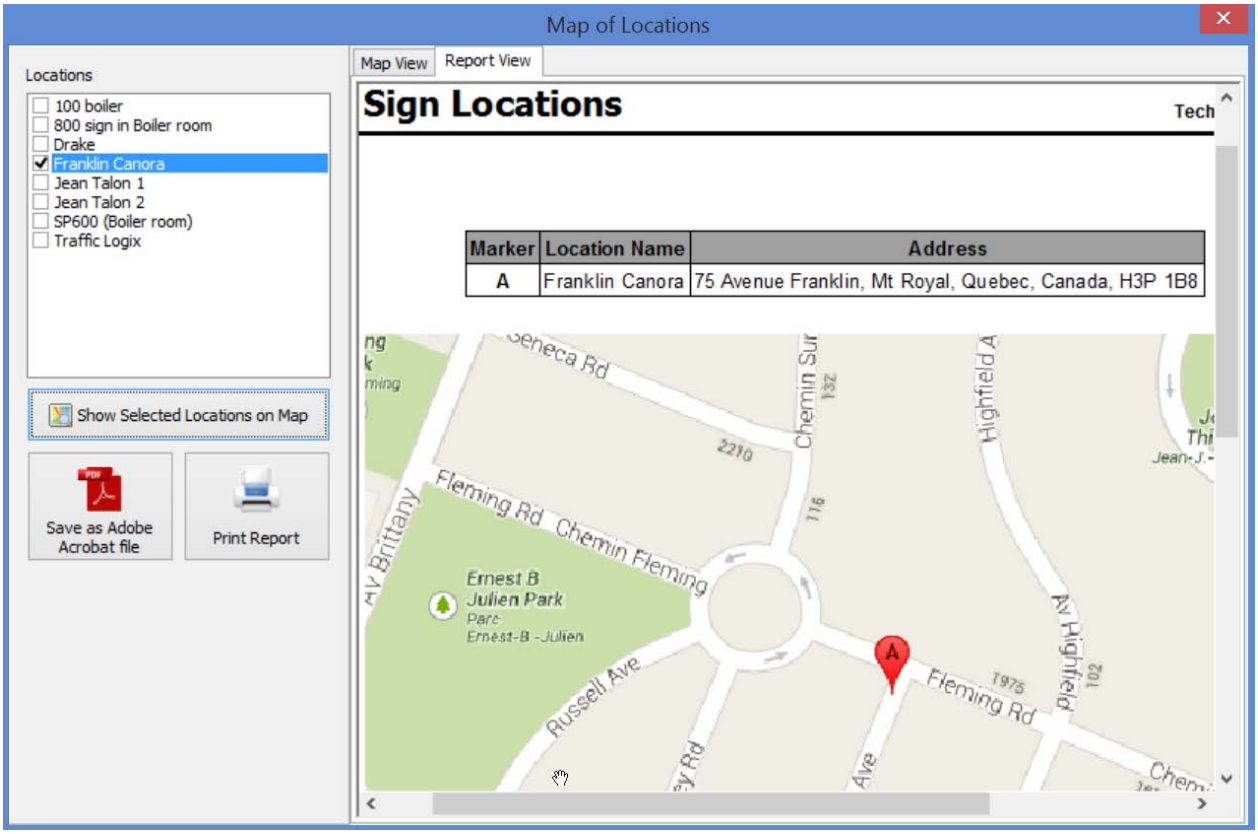


Figure 150 – Sign location output to Report View tab

When exporting to a .pdf format, many options are available to tweak and optimize your output.

When clicking on the **"Save as Adobe Acrobat file"** button, select from a series of tabs to modify export and information settings, authentication and permissions settings, viewer preferences and print scaling.

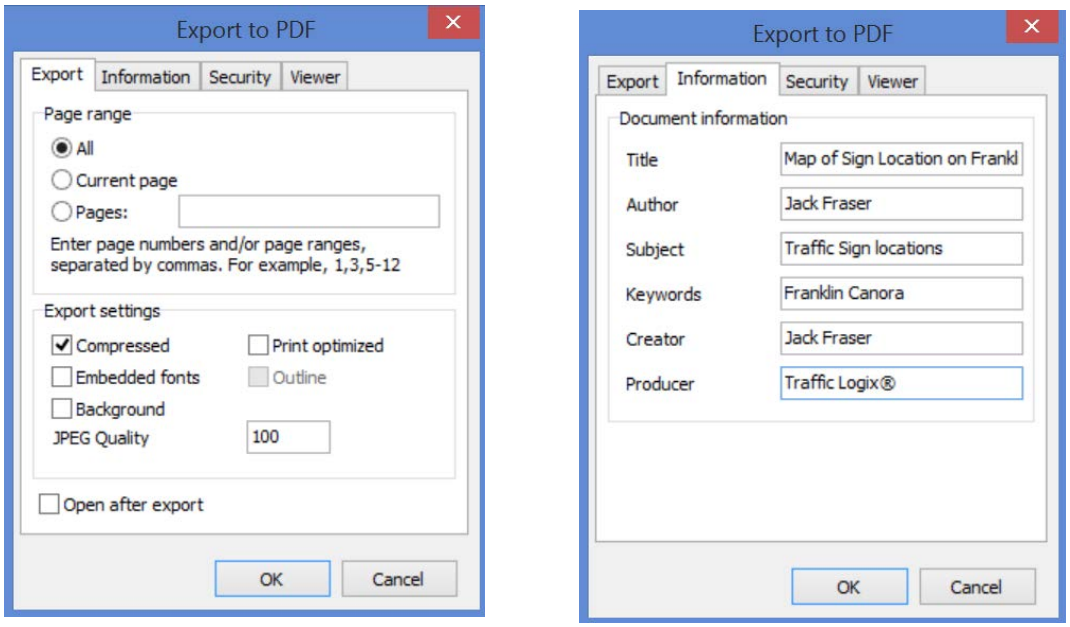


Figure 151 – PDF export and information settings

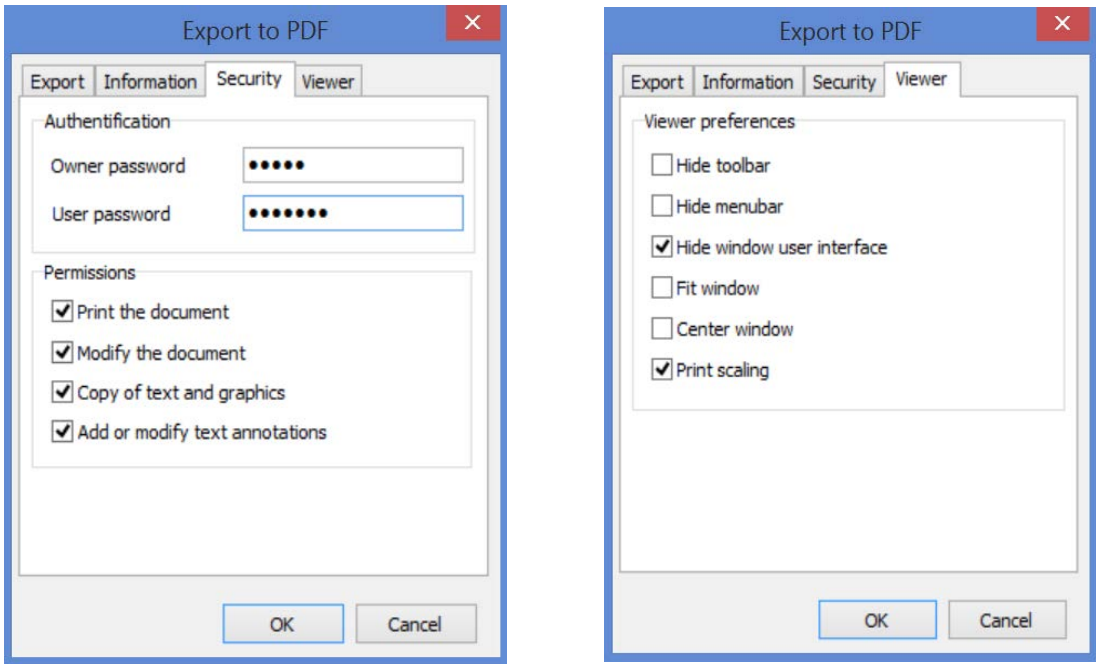
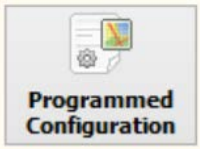


Figure 152 – PDF file security, viewer and print scaling settings

Note

When printing to a printer, the options available are based on the printer connected to the PC.

Programmed Configuration button



When clicking the "**Programmed Configuration"** button, the **"Programmed Configuration"** interface appears with an empty report window, drop list to select a location, and a button called **"Read Last Programmed Schedule and Generate Report"**.

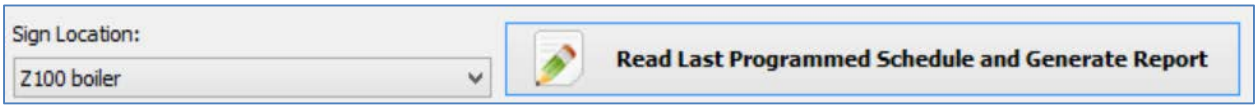
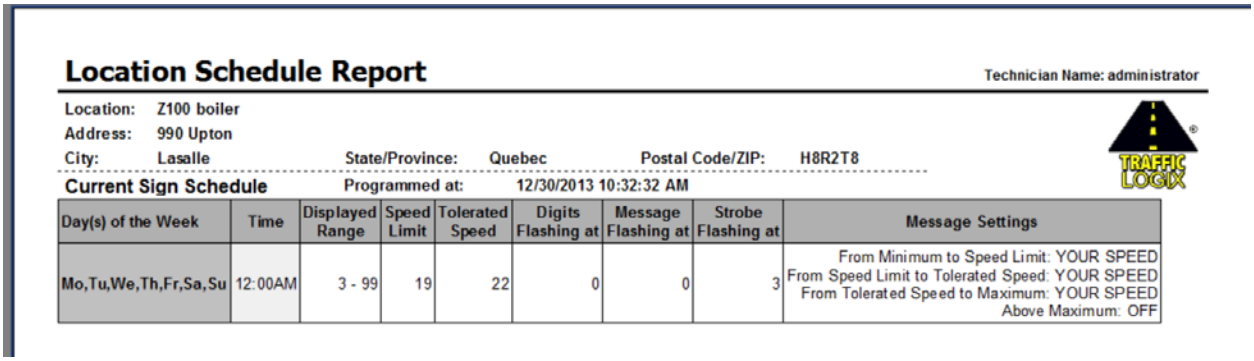


Figure 153 – Controls for generating last programmed configuration report

Upon selecting a location and clicking on the button, the **"Location Schedule Report"** report is generated showing the last programmed configuration schedule for the selected sign.

It includes parameter information about the "Display Settings", and "Message Settings", and the date and time they were last uploaded to the radar sign.



Location Schedule Report

Technician Name: administrator

Location: Z100 boiler
Address: 990 Upton
City: Lasalle State/Province: Quebec Postal Code/ZIP: H8R2T8

Current Sign Schedule Programmed at: 12/30/2013 10:32:32 AM

Day(s) of the Week	Time	Displayed Range	Speed Limit	Tolerated Speed	Digits Flashing at	Message Flashing at	Strobe Flashing at	Message Settings
Mo,Tu,We,Th,Fr,Sa,Su	12:00AM	3 - 99	19	22	0	0	3	From Minimum to Speed Limit: YOUR SPEED From Speed Limit to Tolerated Speed: YOUR SPEED From Tolerated Speed to Maximum: YOUR SPEED Above Maximum: OFF

Figure 154 – Report window displaying last programmed configuration at sign location

A button panel with multiple output controls for saving your data out with various options is also available.

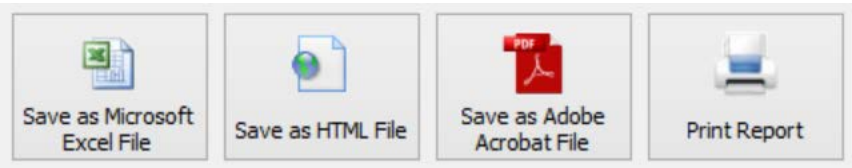


Figure 155 – Controls for methods of generating data output

Radar Signs Schedules button

The "**Radar Sign Schedules**" button opens the "**Radar Signs Schedules**" dialog for creating and managing the scheduling for your radar signs.

A **"List of Sign Schedules"** appears at the top left of the dialog. Upon selecting a location, the details of the schedule are shown. A scrollable window is built into the dialog on the right, to view the "Time settings", "Display settings and Message Settings, when more than one record has been added to a schedule.

The Radar Sign Schedules dialog

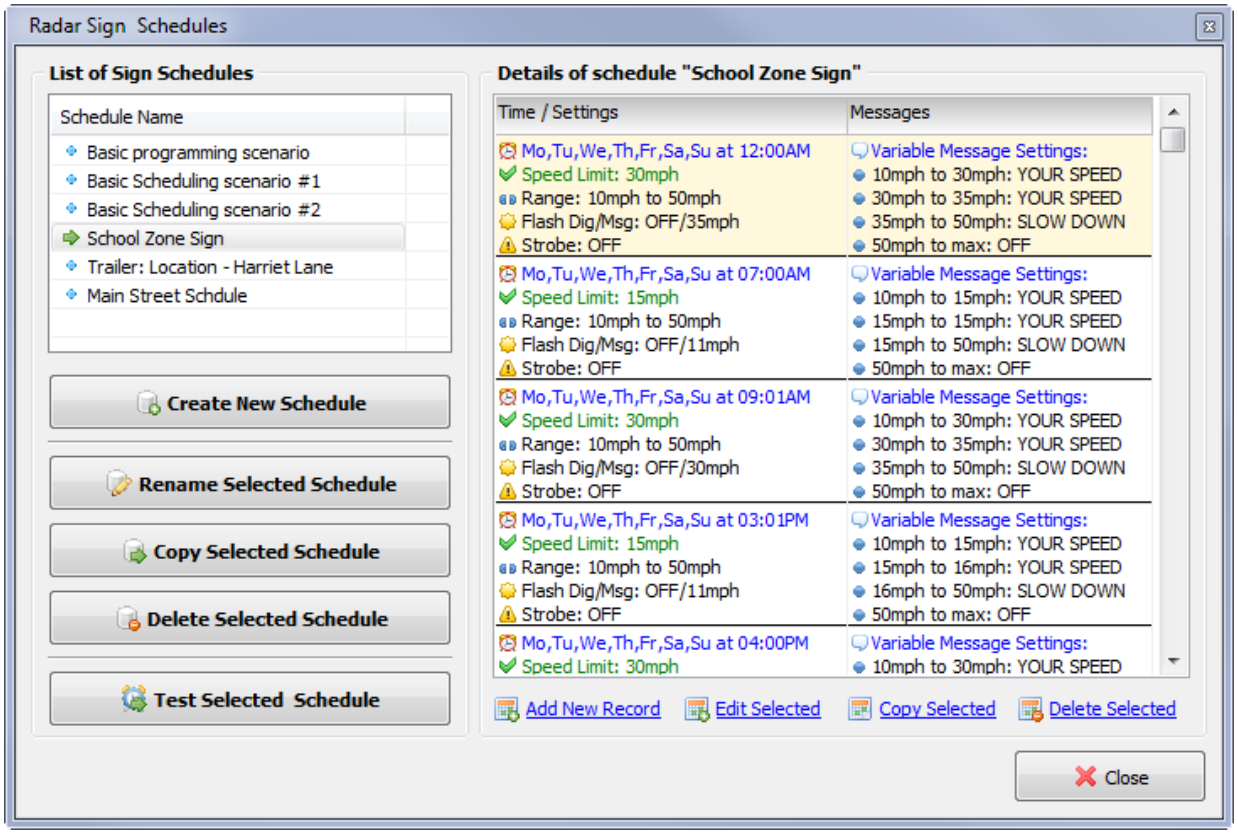


Figure 156 - SafePace® Pro - Radar Sign Schedules window

Buttons to create new schedules, rename, copy and delete schedules are on the bottom left, and links to add new, edit, copy, and delete records from the selected schedule, are available on the bottom right.

The Add/Edit Radar Sign schedule record dialog

A second dialog is used to add /edit records of each schedule. The settings to set and modify the display and message parameters to schedule the radar sign with are at the top, and "Date/Time settings" can be set at the bottom. See *Figure 157 – Edit Radar Sign Schedule record interface*.

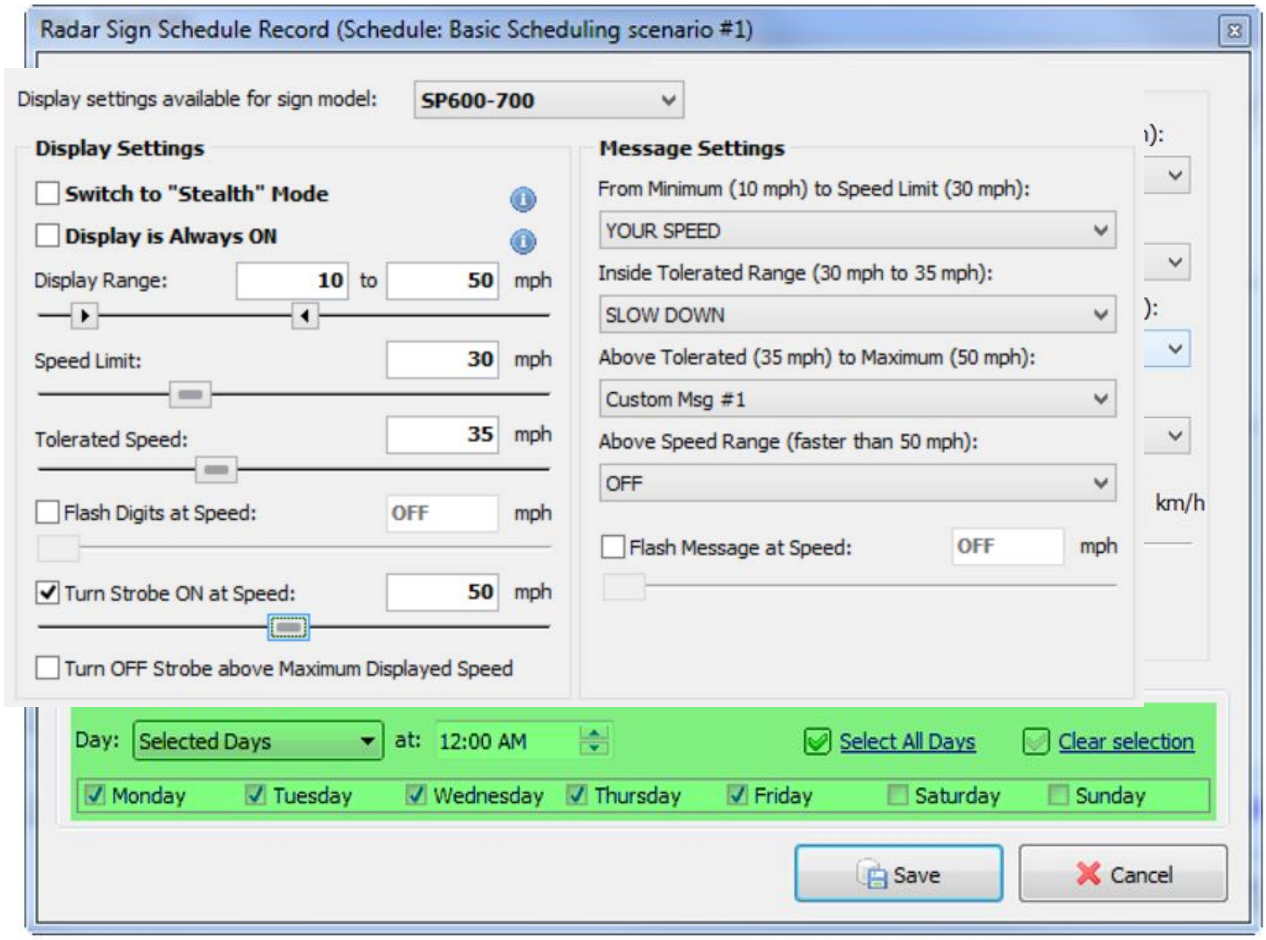


Figure 157 – Edit Radar Sign Schedule record interface

The Test Schedule dialog

Amongst other schedule management options, the Test Selected Schedule dialog helps to simulate what will occur before uploading the schedule to the sign.

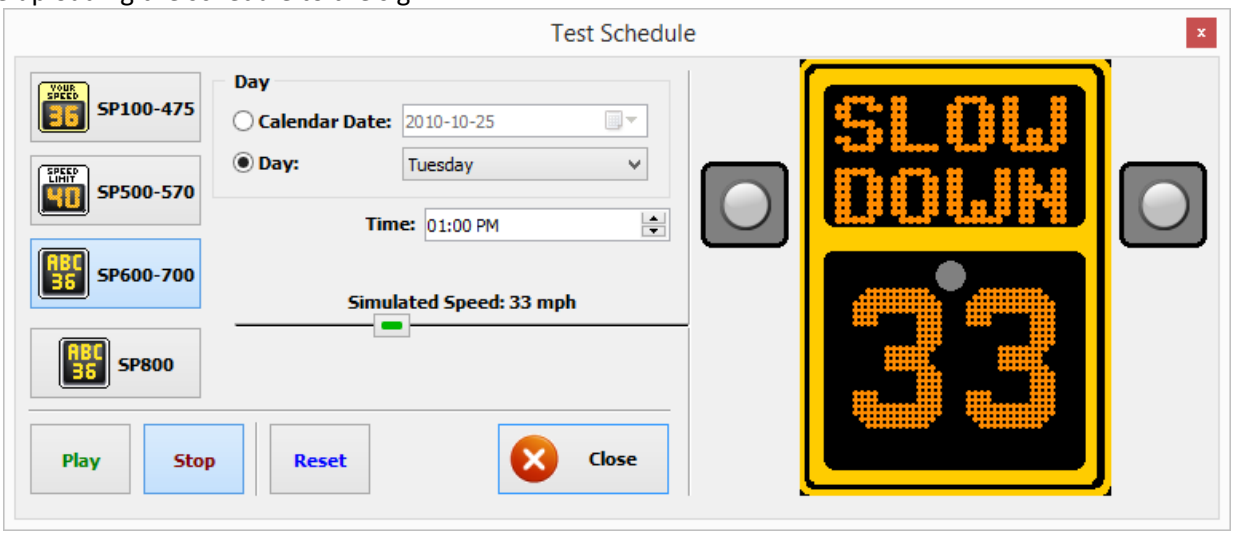


Figure 158 - SafePace® Pro - Test Schedule Window

*For more information and details about the above mentioned interfaces, please download and refer to ***Schedules Mode – Setting up a schedule configuration***.

Beacon Schedules button

As an option, your sign can be equipped with a "**School Zone Beacon**" system. If this option has been purchased, you can configure your sign to turn on and turn off "**School Zone Beacons**" that are directly wired to and powered by your sign at a pre-programmed time and day of the week.

The "**Beacon Schedules**" button opens the "**School Zone Beacon Schedules**" dialog for creating and managing the scheduling for your beacons.

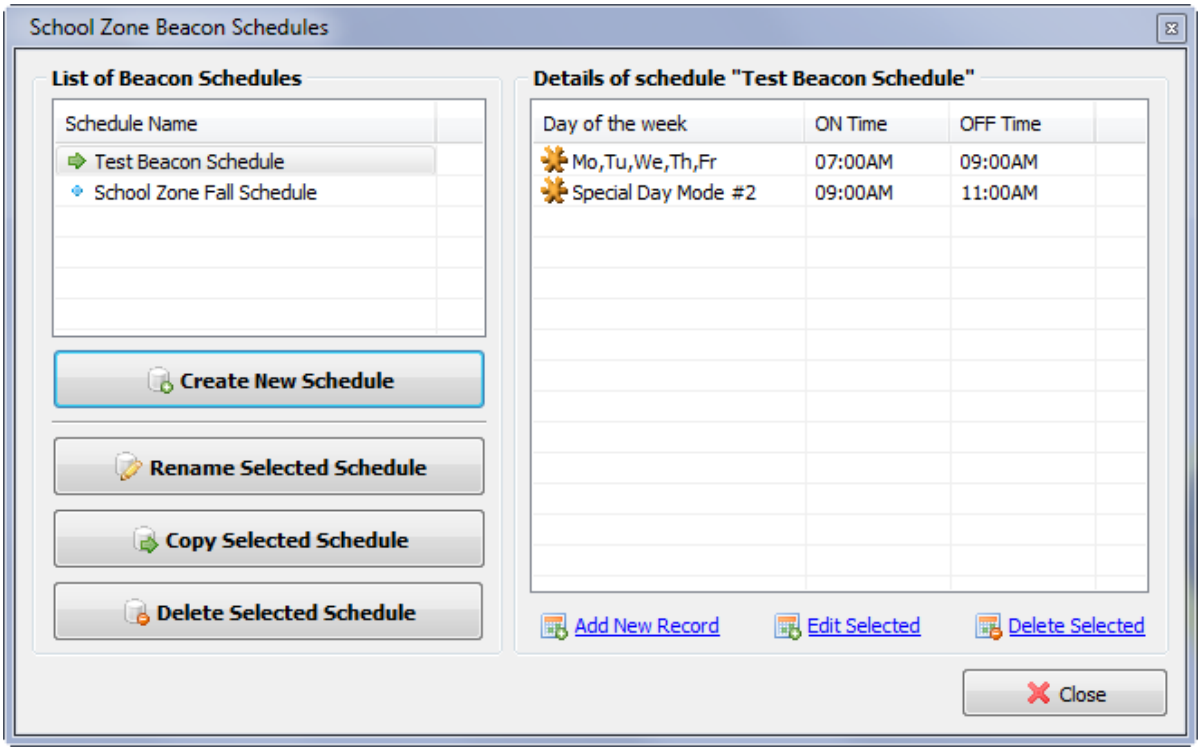


Figure 159 - SafePace® Pro - School Zone Beacon Schedules window

After adding a beacon schedule, records can be added with the "**School Zone Beacon Schedule Record**" window is used to add, edit and copy a schedule record.

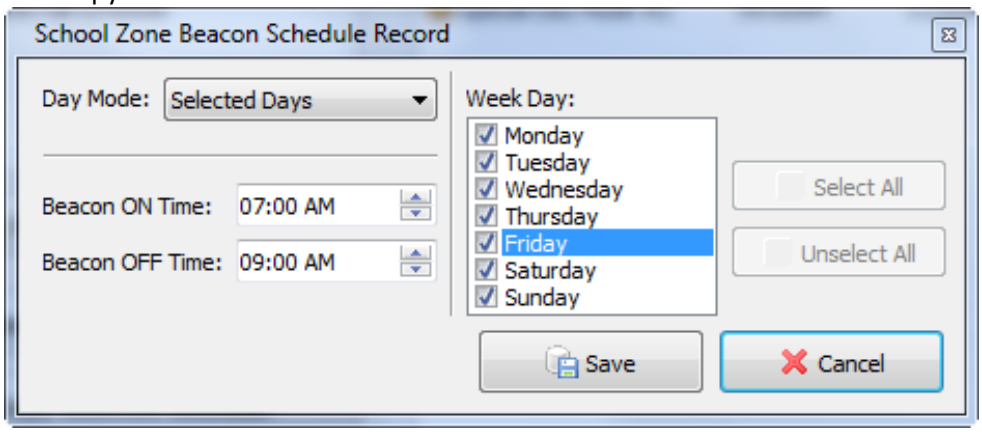


Figure 160 - School Zone Beacon Schedule Record window

Holidays and Exceptions button

Sometimes, you may need to make exceptions for your schedules. For example, you may want the radar sign to act differently during public holidays, school holidays or special designated days for your organization or special situation.

The "**Exceptions and Special Days**" window is used for this purpose, and is similar to the "**Radar Sign Schedules**" and the "**School Zone Beacon Schedules**" windows.

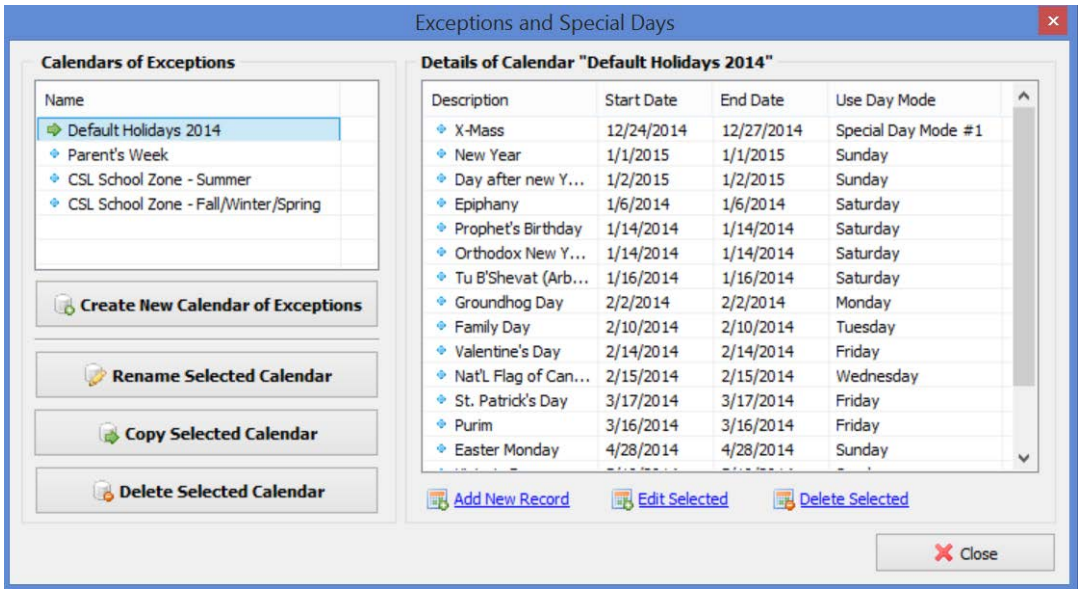


Figure 161 - SafePace® Pro - The 'Exceptions and Special Days' window

After adding a calendar of exceptions, the "**Exception / Special Day**" window is used to add, edit and copy a schedule record.

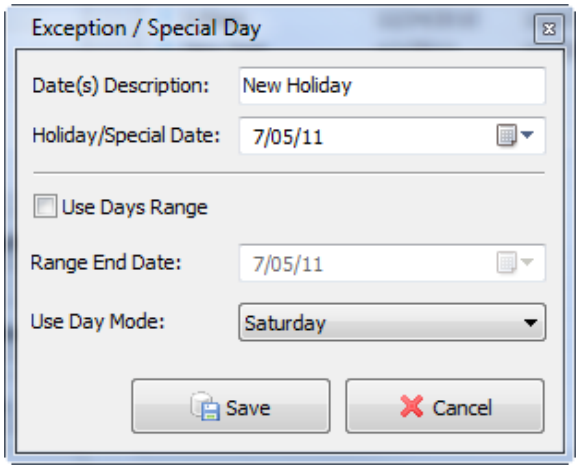


Figure 162 - SafePace® Pro - 'Exception and Special Day - Add New Record' window

You can select the day(s) for the exception, and which **Day Mode** you want to use for this day. You can also choose to use a range of days by checking the "**Use Days Range**" checkbox. In this case, you have to enter the last day of the range.

For example, you would most likely assign an exception like a public holiday when the school is closed to act like a Saturday or Sunday in the schedule.

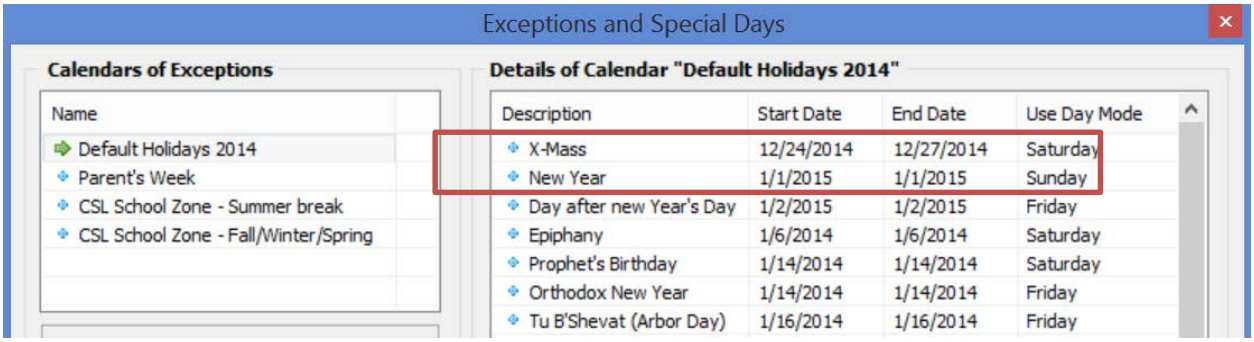


Figure 163 – Example of calendar with exceptions set for one day or range of days

If you want, however, you can program an exception to follow a unique schedule. To do this, you would first create a "**Special Day**" mode (1, 2, 3, or 4) record in your schedule and assign your exception day to that "**Special Day**" in a calendar in the "**Exceptions and Special Days**" window.

Finally, click the "**Save**" button to save modifications you made and close this window or the "**Cancel**" button to close the window and disregard any changes.

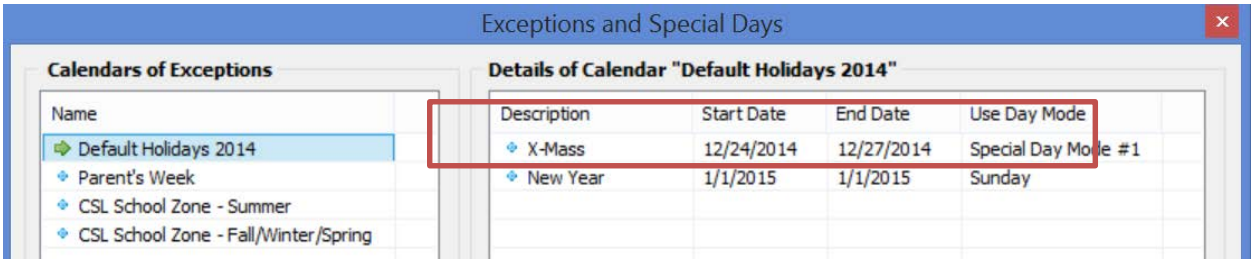


Figure 164 – Example of X-Mass holiday using special day mode record from schedule

An unlimited amount of calendars can be created in the "**Exceptions and Special Days**" window, however, each calendar may contain a maximum of 16 records (holidays and/or exceptions).

NOTE

Upon attempting to add or upload more than 16 records (holidays or exceptions), a message warning will appear to prevent you from adding more.

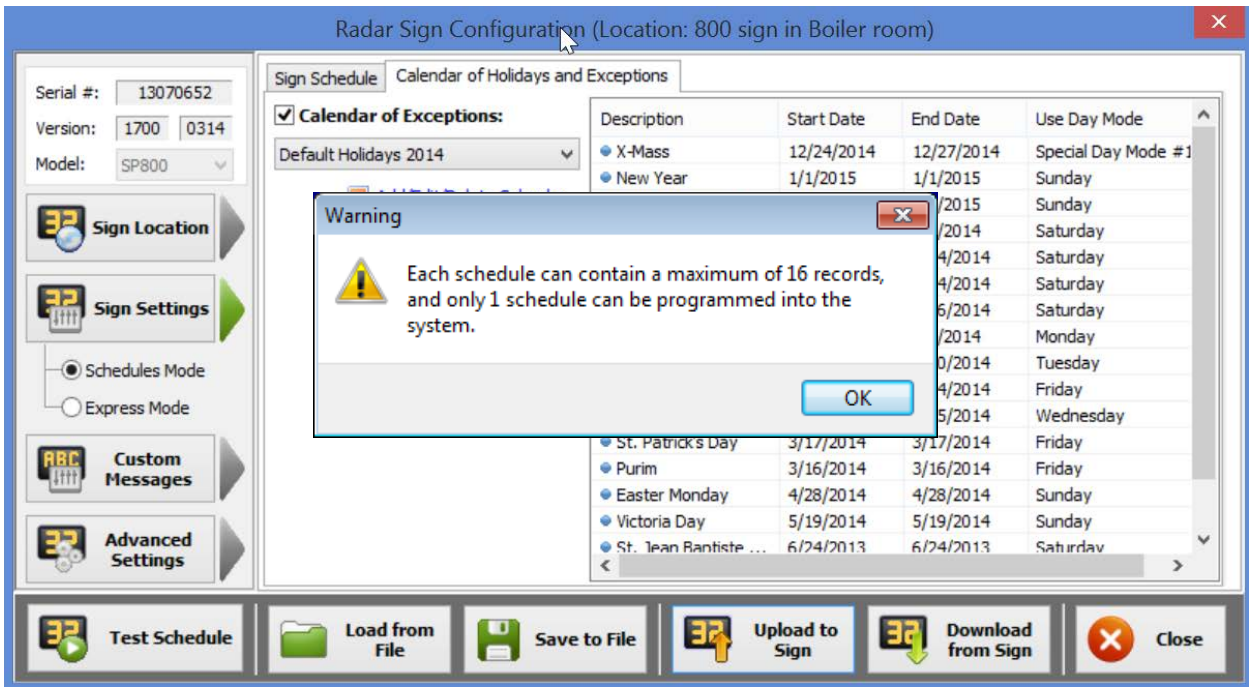
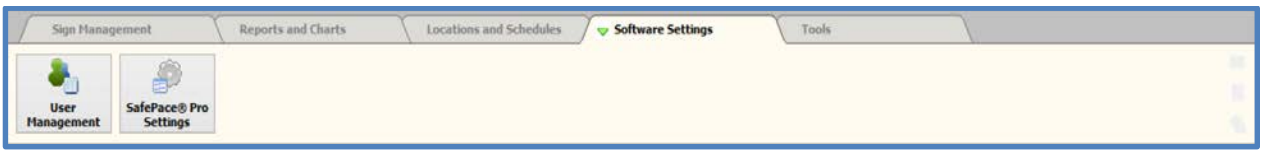


Figure 165 – Warning message when attempting to add or upload to sign more than 16 records (holidays, exceptions, or special days)

The Software Settings tab



User Management button

SafePace® Pro software can work in a multiuser environment. In this case, each time you start the SafePace® Pro software, you will be prompted to enter a user name and password.

At the same time, you will have the option to switch databases used by the software. Information about the users is stored in the same database with traffic statistics.

By default, the SafePace® Pro software is set to log-in automatically using the "Administrator" account. You can change this setting using the "SafePace® Pro Settings" interface.

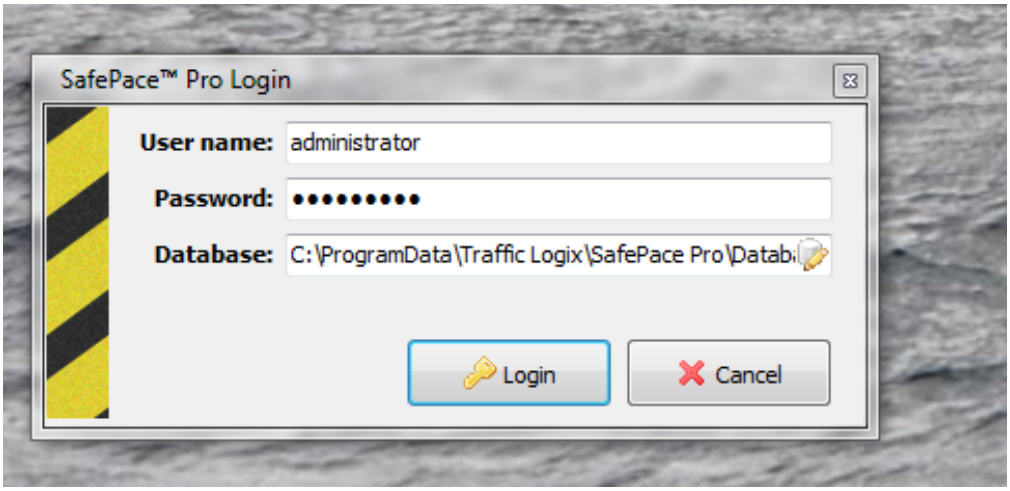


Figure 166 - SafePace® Pro – User Management - Login and Database selection window

Click the "**User Management**" button located in the **"Software Settings"** tab of the main menu to open the "**Users List**" window where you can create a new user account, edit properties of the selected account or delete an existing account.

The "**Users List**" window is divided into two parts: the top part of the window contains properties of a currently selected account; and the bottom part contains a list of the accounts and buttons to create a new user and delete a selected user.

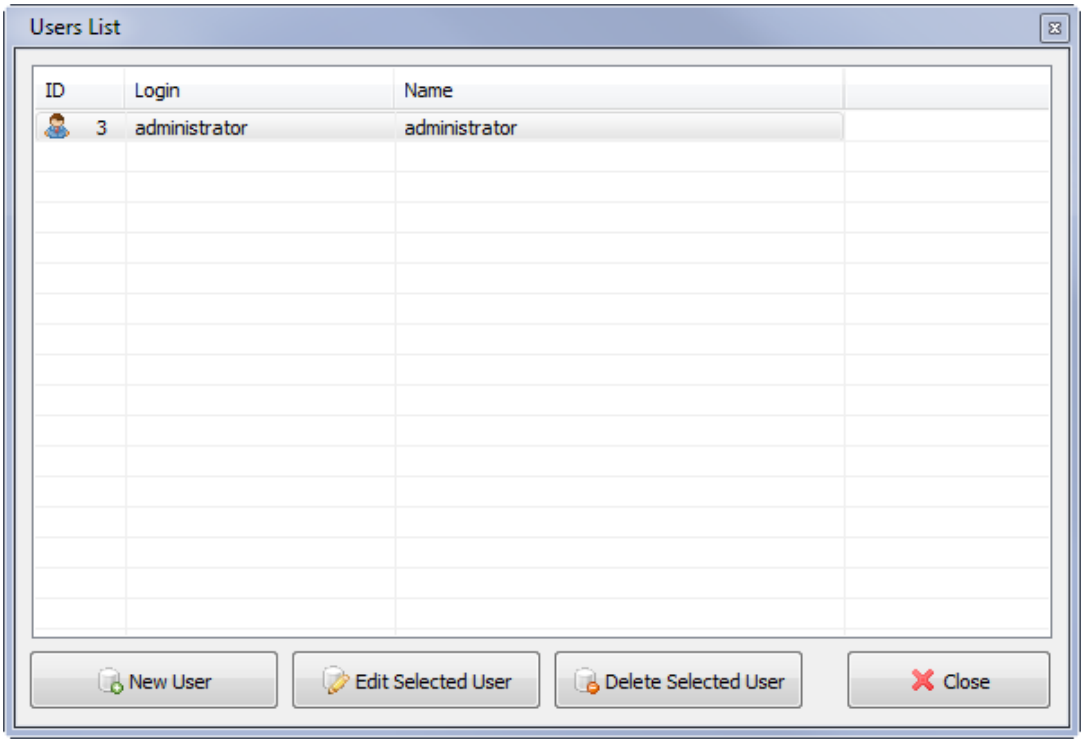


Figure 167 - SafePace® Pro - User Management - 'User List' window

You can edit properties of the selected account directly in this window. Click the "**Save**" button to save changes you have made. Take note of the following warnings related to passwords and disabling users as well:

WARNING! The password is not stored in the database; therefore, there is no way to restore your password.

WARNING! You cannot disable (make inactive) all users.

SafePace® Pro Settings button

There are a few system parameters which define the core behavior of the SafePace® radar signs. You can edit these parameters by using the "**SafePace® Pro Settings**" window. Click the "**SafePace® Pro Settings**" button located in the "**Software Settings**" tab of the "**Main menu**" to open this window.

The "**SafePace® Pro Settings**" window has two tabs: "**General Settings**" and "**Advanced Settings**".

Using the "**General Settings**" tab you can choose ***speed units*** (*mph* or *km/h*) which will be used throughout the *reports*, *sign settings*, etc.; the mode you want to use to access database (*automatic log-in* or via *log-in interface*) and the information about your company which will be used for *support* and *update* purposes, as well as for *license management*.

General Settings tab

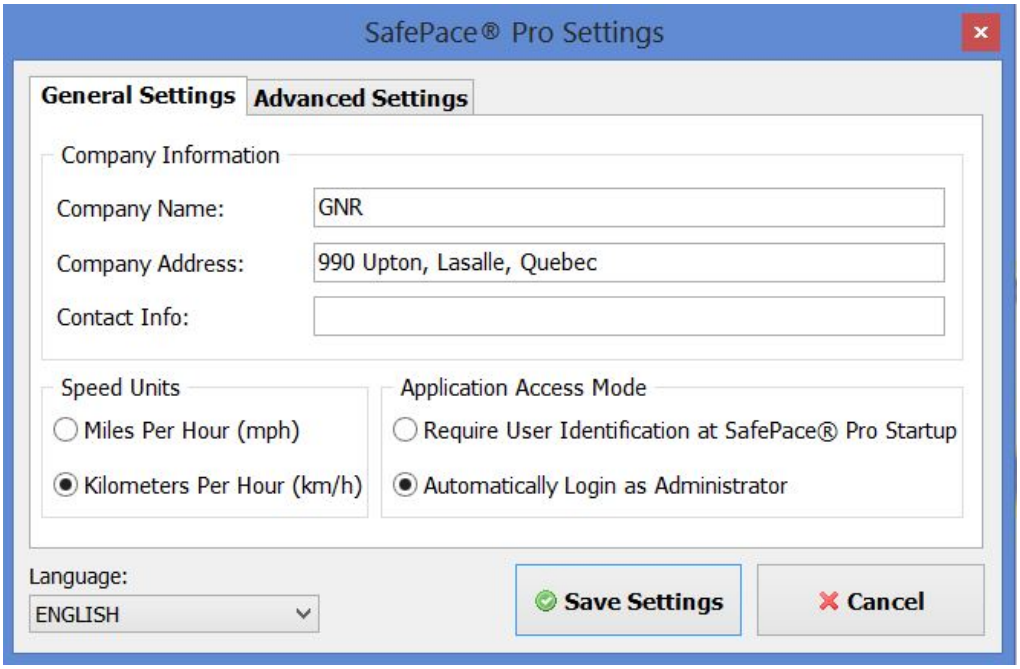


Figure 168 - SafePace® Pro - Software Settings - General Settings tab

Using the "**Advanced Settings**" tab you can change the default database file, choose "**Default User**" (*name*) for *automatic log-in*, change "**Default Folder**" location of the *system files* and opt to display the "**Welcome Window**" at the *application start-up*.

Advanced Settings tab

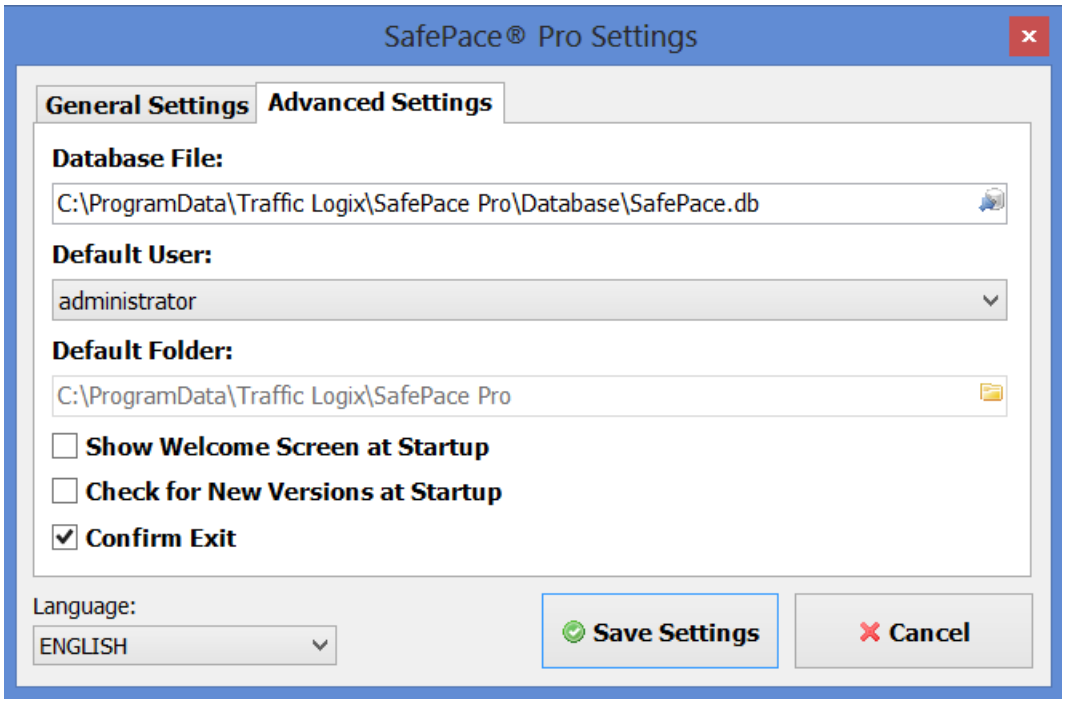


Figure 169 - SafePace® Pro - Software Settings - Advanced Settings tab

Changing the interface language

The SafePace® Pro interface can be translated into English, Portuguese and Spanish. To change the interface language, follow these steps:

1) Select the language of your choice from the menu located at the bottom of the SafePace® Pro settings window.

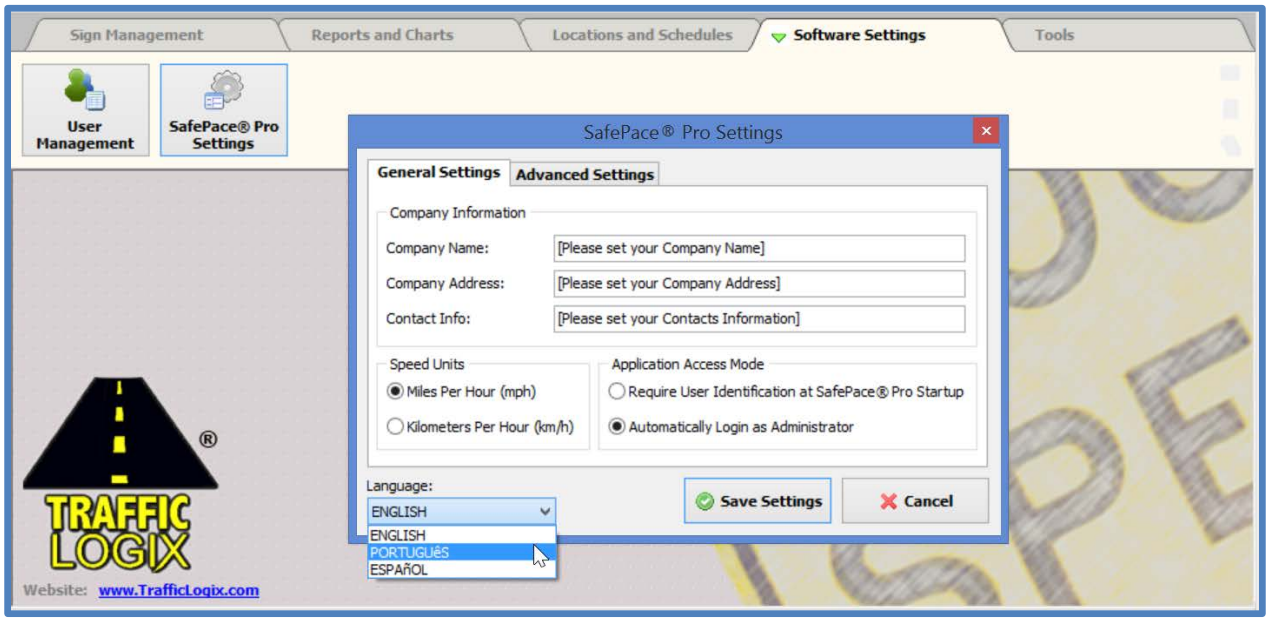


Figure 170 – Selecting language for SafePace® Pro interface

Once your choice is selected, a prompt will appear in the language chosen informing that the application needs to be restarted to reload the interface.

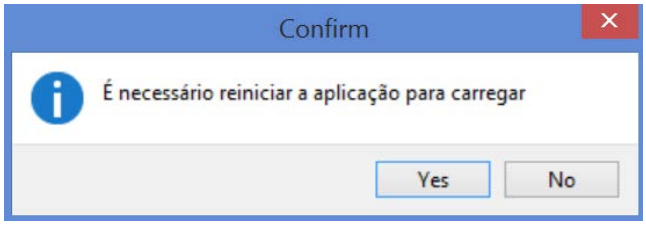
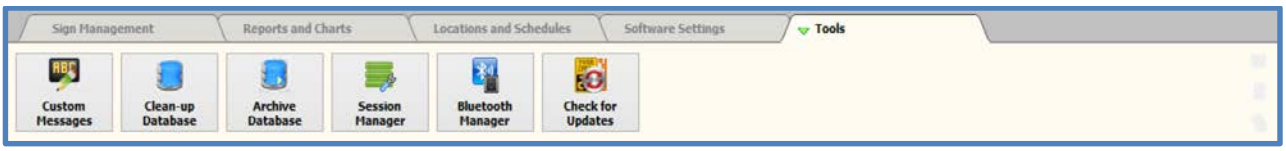


Figure 171 – Confirmation prompt to shut down SafePace® Pro in Portuguese

2) Select Yes, and SafePace® Pro application will close.
3) Restart SafePace® Pro with the shortcut on your desktop or with the executable named SafePacePro.exe located at: C:\Program Files (x86)\SafePace. The interface should then appear in the language you have selected.

Figure 172 – Restart SafePace® Pro with shortcut on desktop

The Tools tab



The "Tools" tab provides access to additional tools and utilities in SafePace® Pro. This section describes the interfaces provided when clicking the buttons available.

Custom Messages button

The **"Custom Messages"** button opens the **"Custom Messages Editor"**. The "**Custom Messages Editor**" is a separate executable program which is supplied and installed together with SafePace® Pro software. It can be used and distributed separately to create and to edit custom messages programmed to and displayed by the **SafePace® 600**, **SafePace® 650, SafePace® 700** and **SafePace® 800 signs**. For more information on its interface and operation, please refer to ***Custom Messages Editor***.

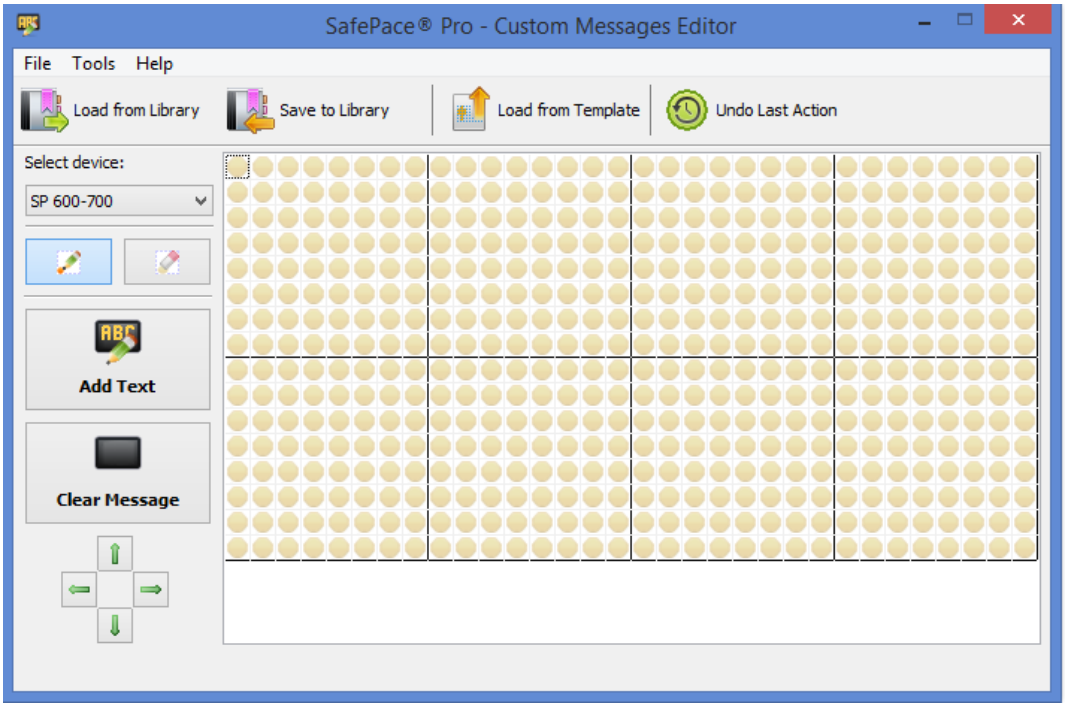
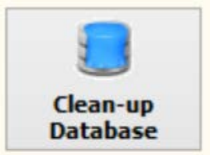


Figure 173 – SafePace® Pro – Custom Messages Editor interface

Clean-up Database button



During normal operation and usual data modification, the database file can become fragmented - where data for a single table or index is scattered throughout the database file. Running the “Clean-Up” function ensures that each table and index is largely stored contiguously within the database file. In some cases, this process may also reduce the number of partially filled pages in the database, reducing the size of the database file even further.

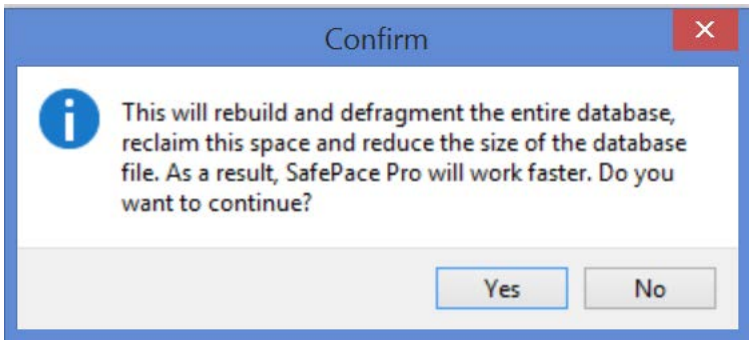


Figure 174 – Clean-up Database confirmation message

Click the "**Clean-Up Database**" button located in the "Tools" tab of the main menu to start the cleaning procedure. This process may take a few minutes, depending on size of your database. You should clean up your database once every 3 months to ensure database efficiency.

NOTE

The database clean-up works by copying the contents of the database into a temporary database file and then overwriting the original with the contents of the temporary file. When overwriting the original, a rollback journal or write-ahead log file is used just as it would be for any other database transaction. This means that when cleaning-up a database, as much as twice the size of the original database file is required in free disk space. Be sure you have enough disk space to complete this procedure.

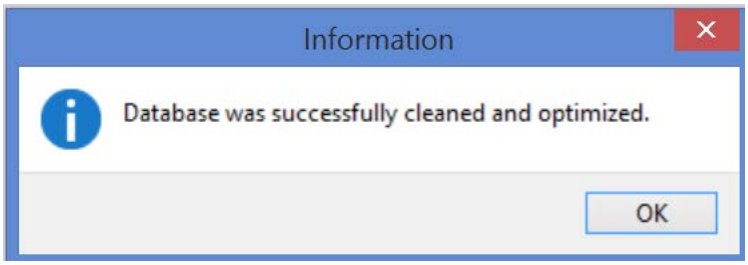
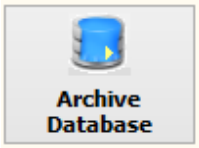


Figure 175 – Confirmation for successful completion

Archive Database button



The Archive Database button opens the Archive Database dialog. This interface provides the ability to back up the SafePace® Pro database to a directory on your PC.

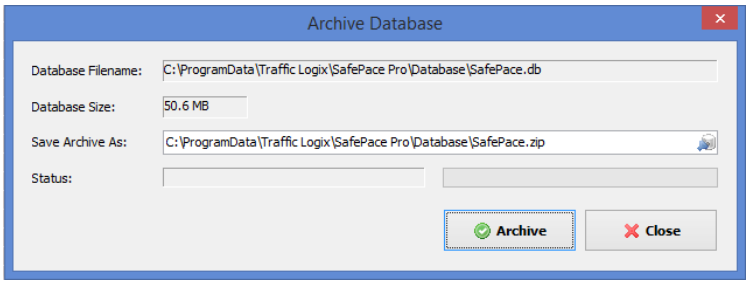


Figure 176 – Archive Database dialog

Your SafePace database is a single file used to store downloaded traffic data (session files), scheduled settings, school zone beacon schedules, and calendars of holidays and exceptions.

Click on the icon in the **"Save Archive as"** field to open windows explorer and navigate to the directory you want to save your database. The name of your database by default will be **"SafePace.zip"**.

Once the Archive button is clicked, the archiving status is displayed until the backup is complete.

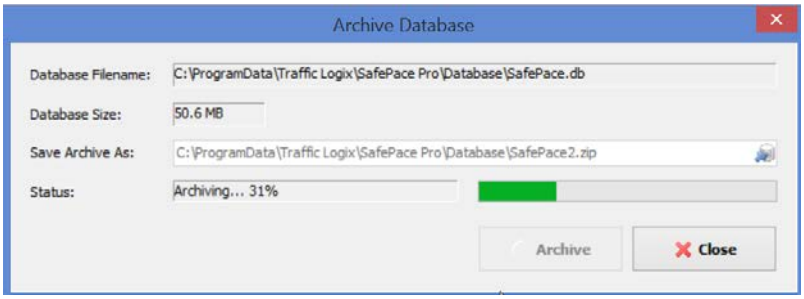


Figure 177 – Archiving processing status

Once archiving is complete, click the Close button to exit the Archive Database dialog.

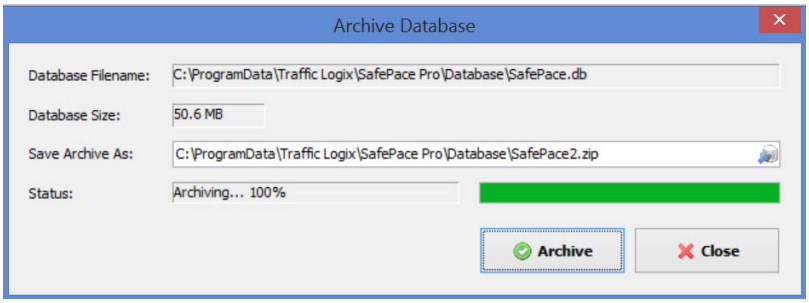
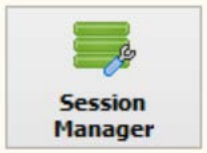


Figure 178 – Archiving status complete

***Note** – Please use a 3rd party archiving utility (WinZip, 7-Zip) to retrieve your SafePace database from the zip file produced. There are issues when using the default Windows archiving utility at this time.

Session Manager button



The “Session Manager” button opens the Session Manager interface. This interface is used to confirm and manage the traffic statistics data downloaded as session files when using the ‘Download Statistics” interface.

For more information on its interface and operation, please refer to and download the manual called: ***Traffic Statistics - Downloading and managing your data***

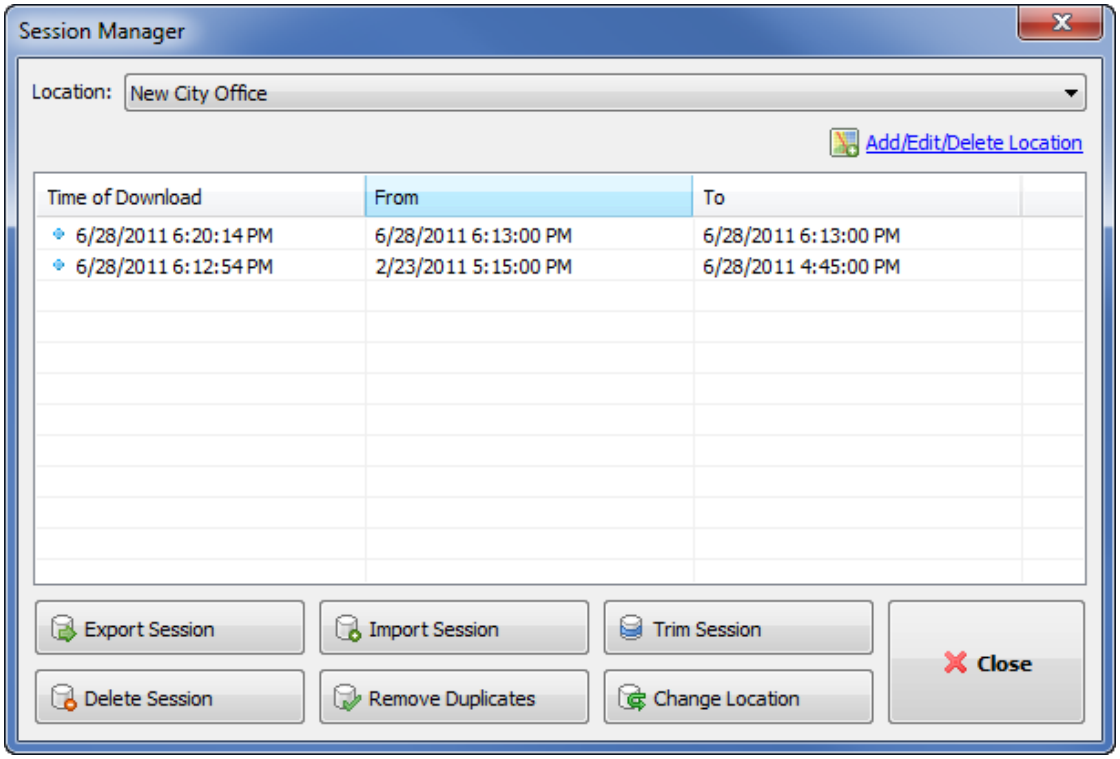


Figure 179 - SafePace® Pro - Tools - Session Manager

Bluetooth Manager button

The **“Bluetooth Manager”** button opens the **“Bluetooth Manager”** interface, another tool that can be executed and distributed as a separate utility from SafePace® Pro. This tool can be used to connect to your Bluetooth configured radar sign independently from SafePace® Pro.

In some cases you may wish to change the Bluetooth device name and/or Bluetooth pairing code. This is usually done to make the Bluetooth in the sign recognizable if you have several signs. Pairing codes could also be changed to further ensure you are connected to the right sign, and that the connection to the sign is secure so not just anyone can connect and change the sign's settings.

NOTE

There is no way to access the module without the pairing code. If you want to change the pairing code, please consider writing it down and keeping this code in a secure location. A Bluetooth module can only be reset by Traffic Logix ® customer support.

Click the "**Bluetooth Manager**" button located in the "**Tools**" tab of the main menu to open the "**SafePace® Bluetooth Manager**" window (see ***Figure 181 - SafePace® Bluetooth Manager Window***). If you have an active **Bluetooth** session open, it will be automatically closed before proceeding.

Connect to your sign

Choose the "**Bluetooth Port**" and click the "**Connect**" button to establish a connection with your **Bluetooth module** and to download the current parameters (module name and pairing code).

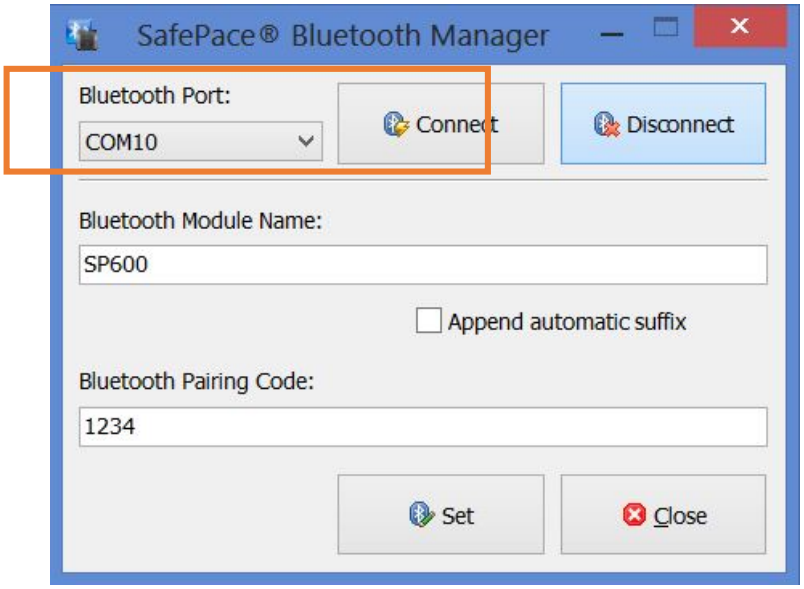
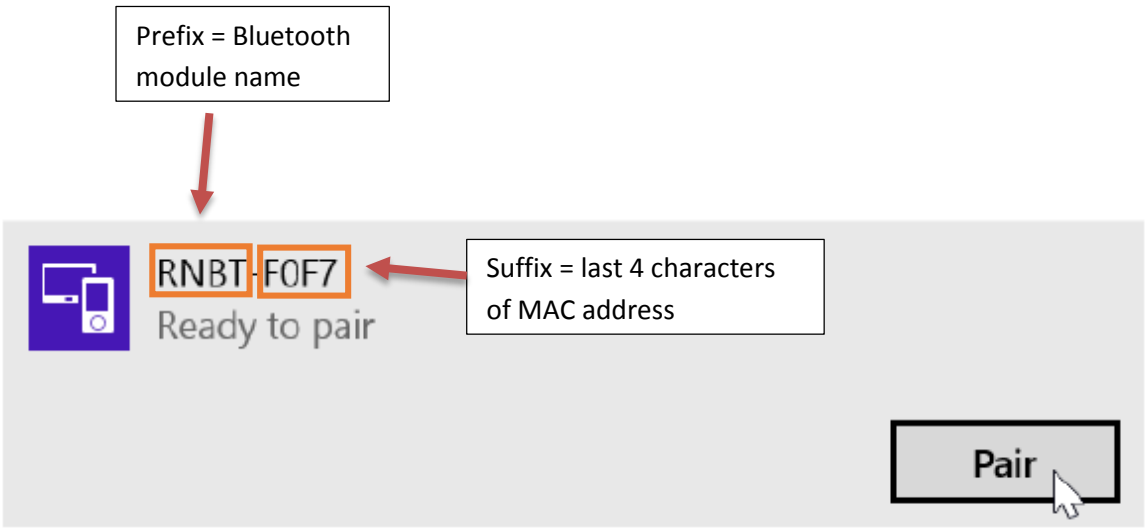


Figure 180 – Choose port assigned to your sign by Windows

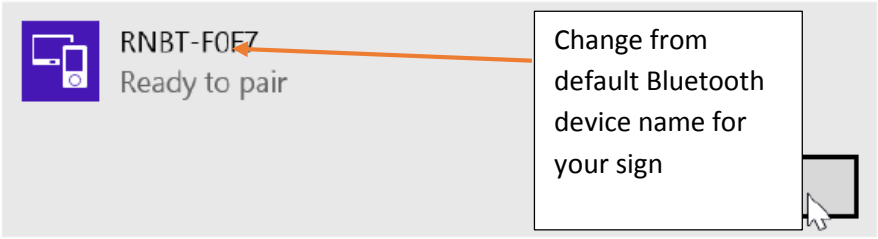
To choose the correct port, you must find out what COM port was assigned when your sign was paired in Windows. See ***Find the COM port to use to connect to your sign***.

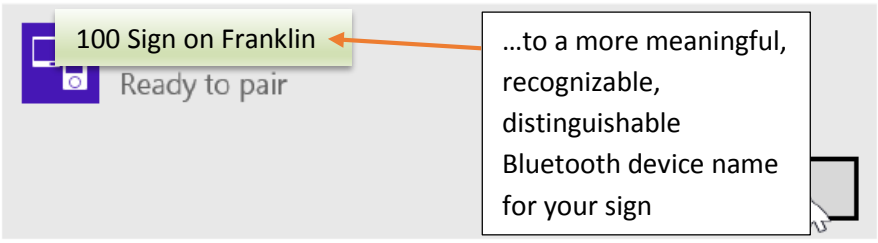
Changing the Bluetooth module device name

Change the Bluetooth module name to make your sign more distinguishable from other devices. The given Bluetooth module device name will be displayed in discovery with the last four characters of the MAC address appended to the name. (e.g. "**FireFly-E827**" or "**RNBT-F0F7**").



You can edit the "**Bluetooth Module Name**" to something more practical or recognizable.





To change edit the prefix or "**Bluetooth module name**", open Bluetooth Manager, choose the COM port designated by Windows to then click the "**Connect**" button to connect to the sign.

Once connected, Bluetooth Manager will display the sign's current Bluetooth module device name. Modify the current Bluetooth module device name in the text box to the chosen desired name to define your sign and/or location, and then click the "**Set**" button.

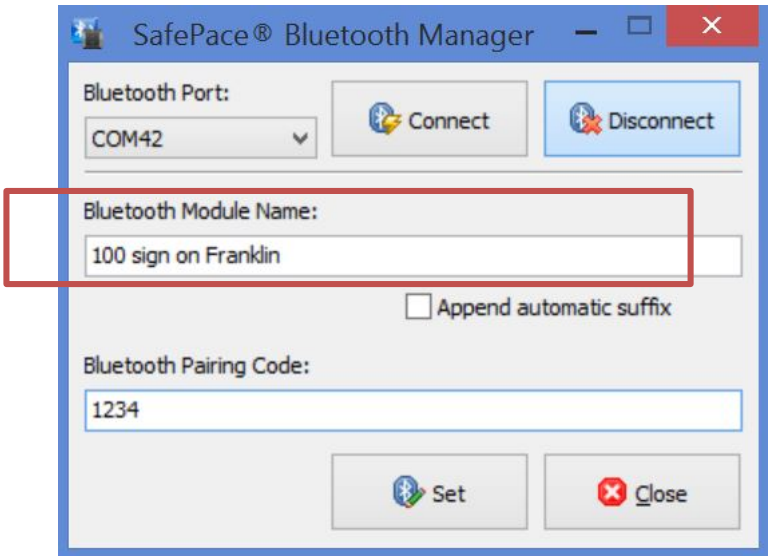


Figure 181 - SafePace® Bluetooth Manager Window – change module name

Append automatic suffix

Optionally, you can also append the original MAC address suffix (F0F7), by selecting the option "**Append automatic suffix**".

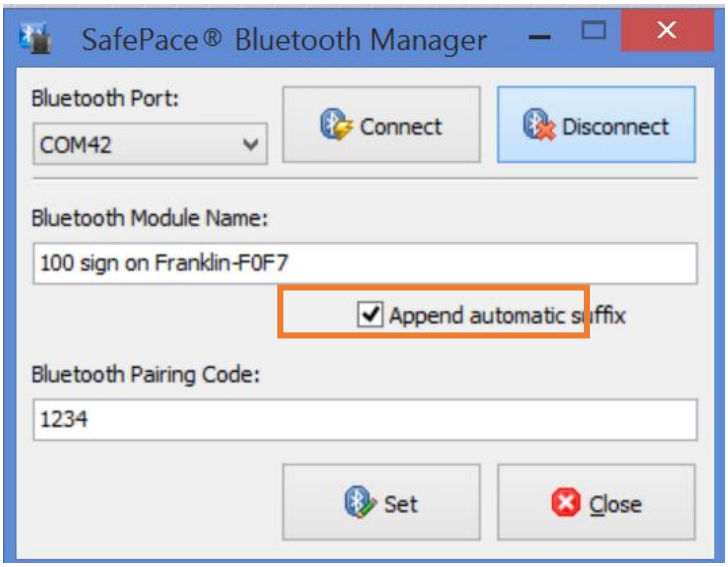


Figure 182 – MAC address suffix appended to modified module name

Changing the Bluetooth Pairing code

Apply a "**Bluetooth Pairing Code**" to help ensure that your computer is connecting to your sign and not a different sign or beacon or someone else' device that is located nearby. For more details see ***Using passkeys for Bluetooth enabled devices***. Click the "**Set**" button to upload changes to the Bluetooth module.

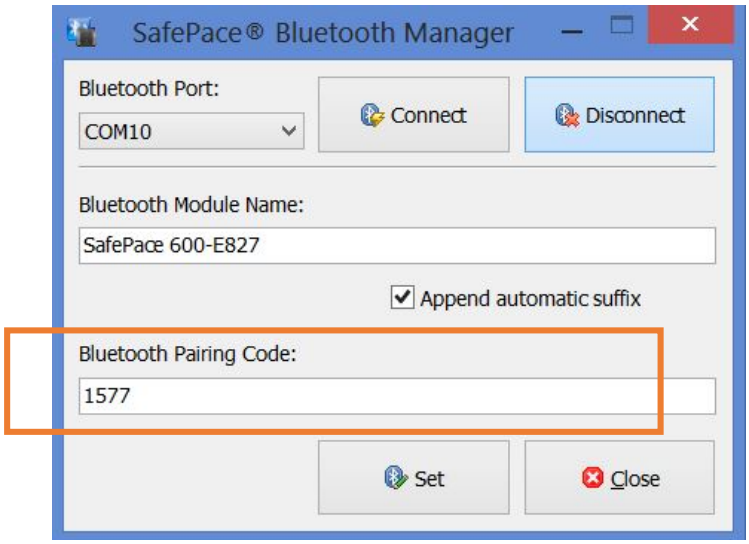


Figure 183 - SafePace® Bluetooth Manager - change name, code, and append suffix

Find the COM port to use to connect to your sign

Below, you will find how to find the COM port assigned to your sign by Windows for Windows 8 and Windows 7 users.

Windows 8.1

Before configuring the port, you need to know which COM (serial) port Windows installed your radar sign on as a Bluetooth device. Right-click on the Bluetooth icon in the taskbar to open the sub-context menu, and select to '**Open Settings**'.

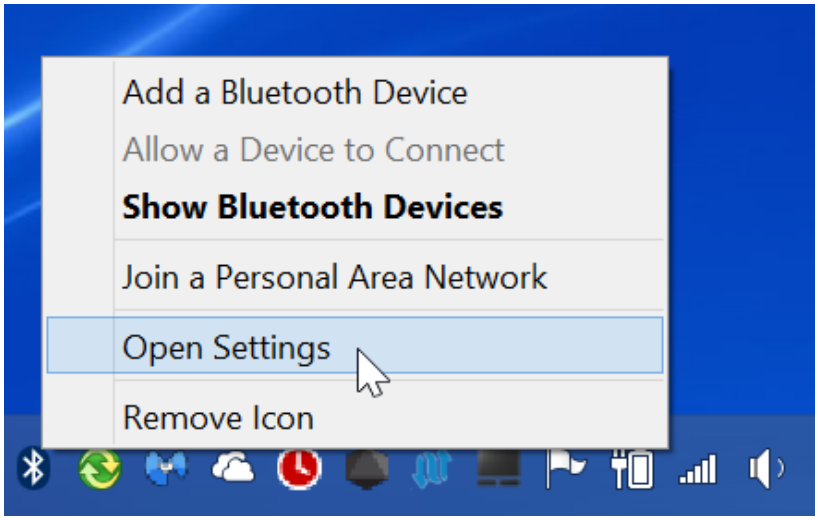


Figure 184 – Open settings

Select the COM ports tab in the Bluetooth settings window that appears. The COM ports tab lists the COM (serial) ports that Windows has configured for all the Bluetooth connections to devices made.

The COM port that you will use in SafePace® Pro are the ports listed as 'Outgoing'.

If the name assigned to your sign does not appear as a device in this list, the pairing process to connect your radar sign to the Bluetooth network must be repeated.

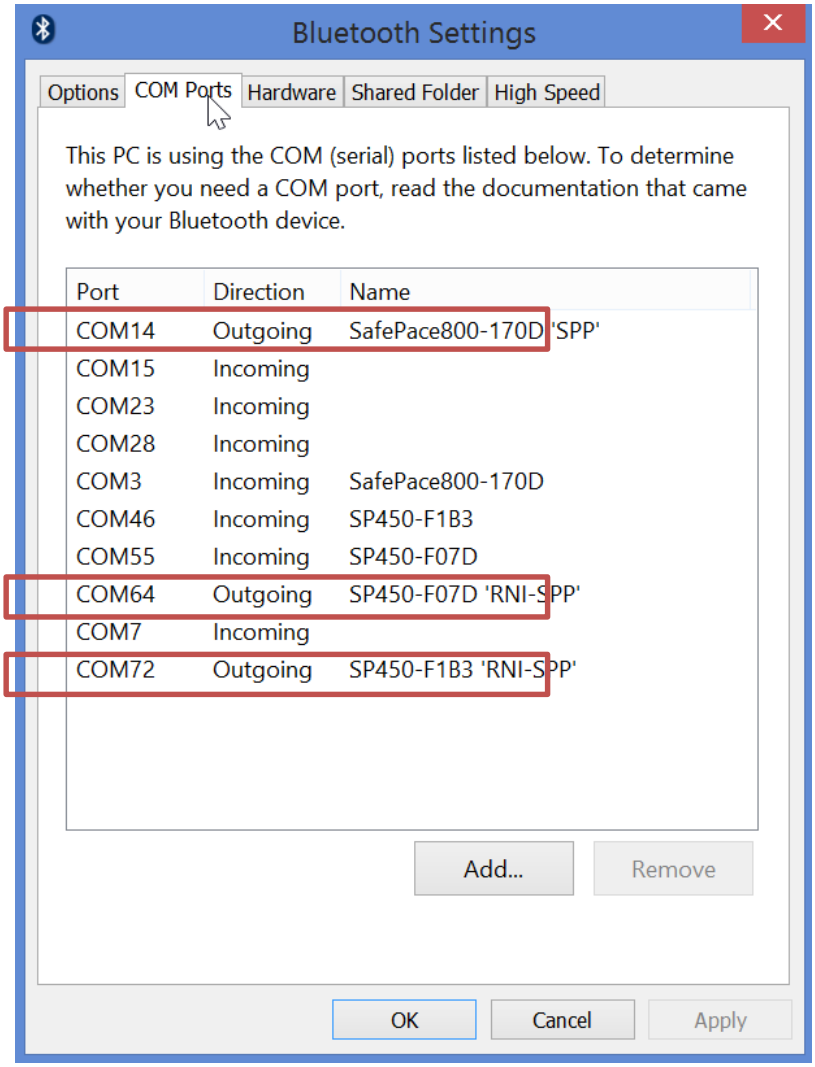


Figure 185 – Bluetooth settings – COM Ports tab

Windows 7/Vista

And finally, to verify what COM port your sign has been configured to use by Windows, click on the "**Show hidden icons**" menu on the "**Windows Taskbar**" again to reveal the **Bluetooth icon** for your Bluetooth software.

Right-click on the "**Bluetooth icon**" and click the "**Bluetooth settings**" option from the menu.

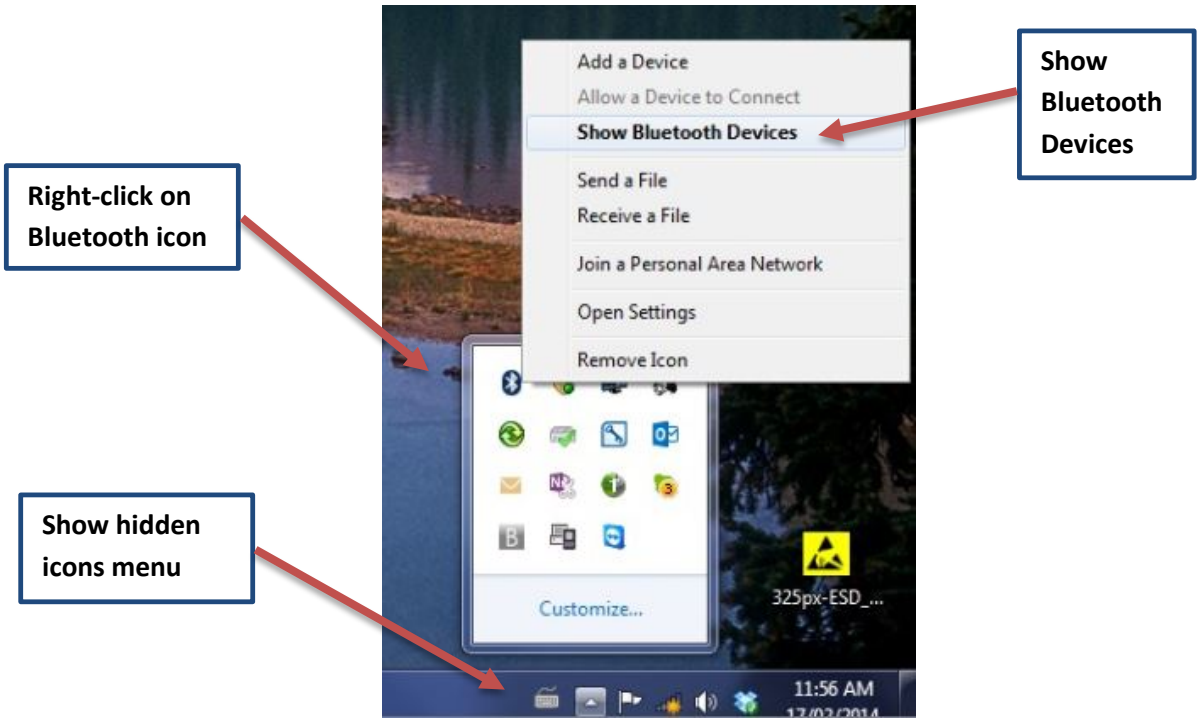


Figure 186 - Show Bluetooth devices

The **Bluetooth Devices** window will appear. Right-click on the device just added, and select '**Properties**'. Click on the '**Hardware'** tab, and the COM port will be shown under '**Device Functions**'.

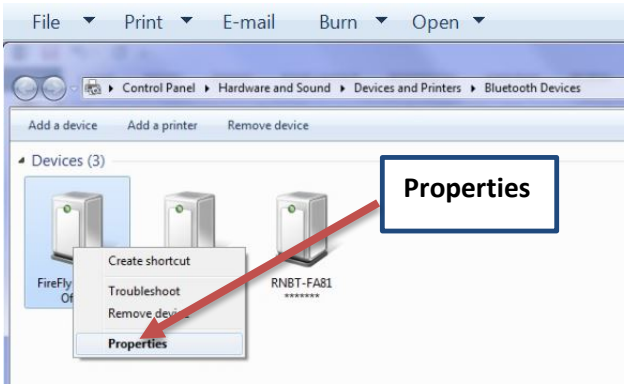


Figure 187 - Bluetooth devices window - Select Properties

Enter the COM port number in the ports list menu when running SafePace® Pro for the first time after installation or when configuring your connection using “Connection Settings” bar in SafePace® Pro’s main interface (see ***SafePace® Pro - Main Window***).

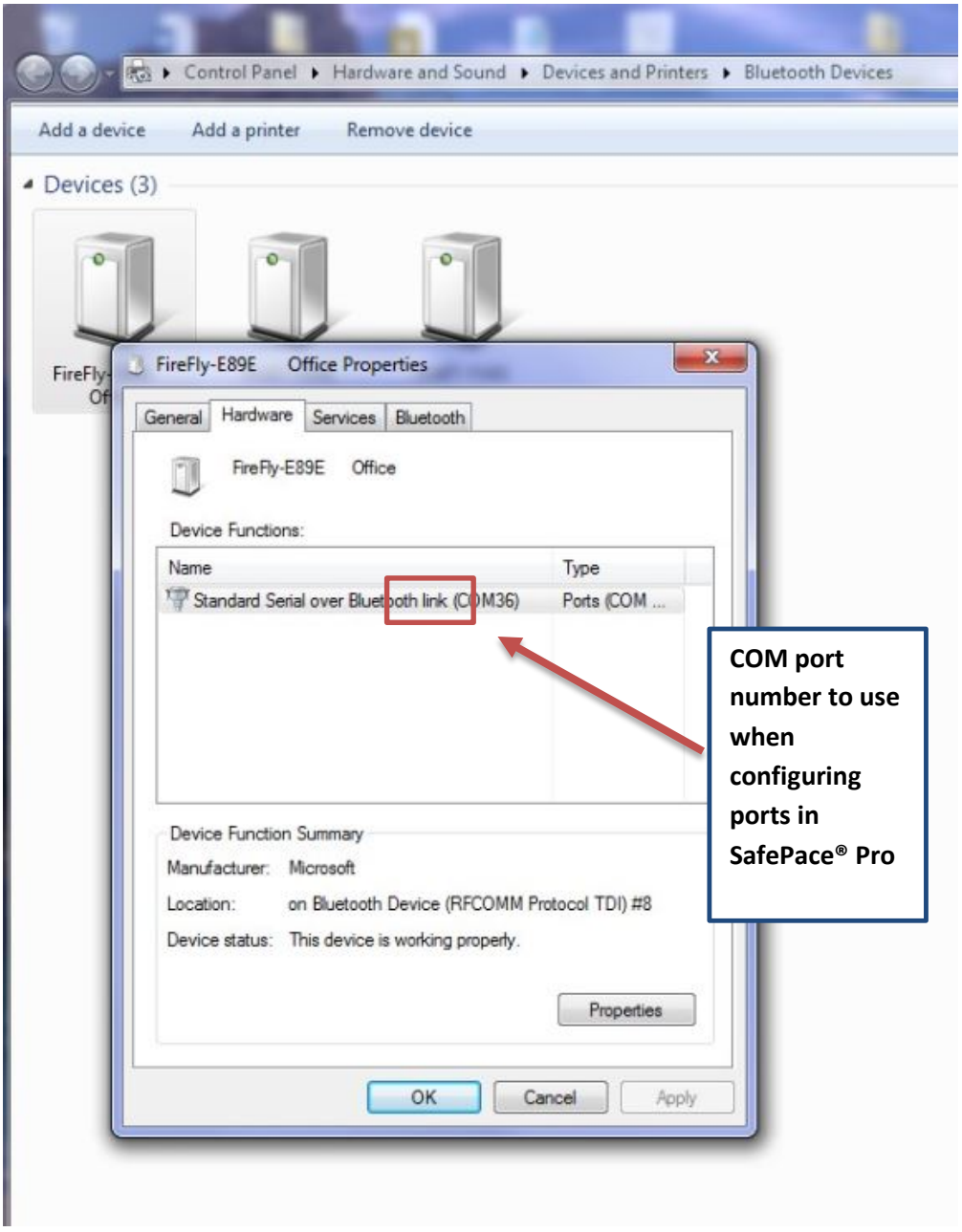


Figure 188 - Hardware tab in Properties for Bluetooth device showing COM port designation

Check for Updates button

The **"Check for Updates"** button checks the version installed, and informs when a new version is available for download from the **"Traffic Logix® Customer Downloads"** website.

If a new version is available, the following message appears.

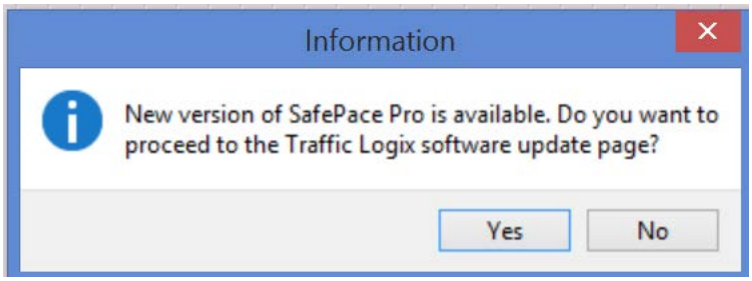


Figure 189 – New version available confirmation message

When clicking yes, the default browser will be redirected to the software downloads page to download the latest version of SafePace® Pro.

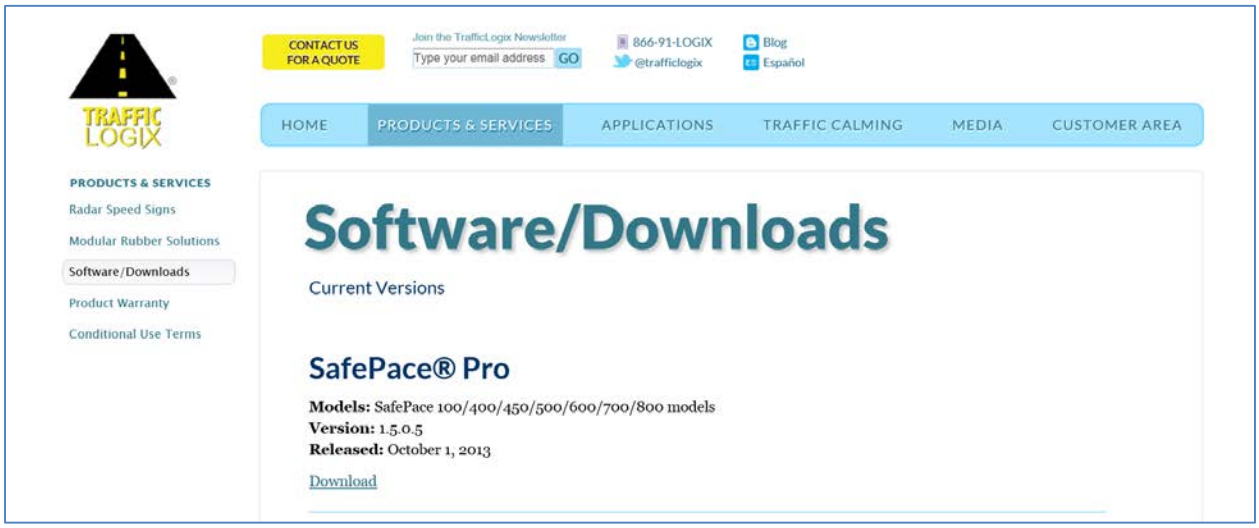


Figure 190 - Traffic Logix® Customer Downloads page

Prior to upgrading and install any new version of SafePace® Pro or any of its utilities, it is recommended to consult and review the section called ***Upgrading SafePace® Pro***.

Appendix A: Setting Up Your PC to Connect to Your Sign

Section 1 - setting up your PC to connect using Bluetooth

Windows 7/Vista - Pair your PC to your SafePace® radar sign

Prior to starting up the SafePace® Pro software to connect and manage your sign in Bluetooth mode, your PC must be set up to work with the supplied SENA Bluetooth adapter used to "*pair*" your PC to your SafePace® radar sign.

Below are the steps to setting up Windows on your PC to work with the supplied SENA Bluetooth adapter. The steps to pair your PC to your Bluetooth radar sign are also covered for Windows 7/Vista, as the interface for the pairing process varies across different versions of Windows.

Setting up Windows on your PC to work with the SENA Bluetooth adapter

Supplied with all SafePace® signs configured for Bluetooth communication, is a **Parani-UD100-G03 SENA Bluetooth Class 1 USB Adapter with Stub Antenna,** otherwise referred to as the **SENA *Bluetooth adapter or dongle*.**

Figure 191 - SENA Bluetooth Adapter/Dongle

IMPORTANT

It is highly recommended that you use the supplied SENA Bluetooth Class 1 Bluetooth adapter/dongle, rather than the integrated adapter that may have come already installed on your PC, as it is typically a **Class 2** model and has less range than **Class 1** models. The following table compares the available Bluetooth power classes:

Class	Maximum Power	Operating Range
Class 1	100mW (20dBm)	100 meters
Class 2	2.5mW (4dBm)	10 meters
Class 3	1mW (0dBm)	1 meter

NOTE

After March 2014, Traffic Logix® no longer ships the SENA adapter with the latest ***Bluetooth stack option for Windows by Blue Soleil.*** *If you have received a CD along with your SENA adapter, we* ***do not*** *recommend installing the software from the CD, as any updates for it are subject to limited functionality and licensing fees. If you have installed the Blue Soleil software and are experiencing any issues, please uninstall it to allow the SENA adapter to be configured and installed by Windows upon plugging it into the USB port of your PC.*

As shown below, when configured and installed by Windows, the SENA adapter will be represented as a **Generic Bluetooth Radio** in **Windows Device Manager**.

Some integrated adapters may conflict with the SENA adapter, thus we recommend that you disable the integrated adapter while using the SENA adapter to connect to your radar sign.

You can always re-enable the integrated adapter, after removing the SENA adapter from the USB port, to resume regular **Class 2** or **Class 3** Bluetooth operation with your PC's integrated adapter.

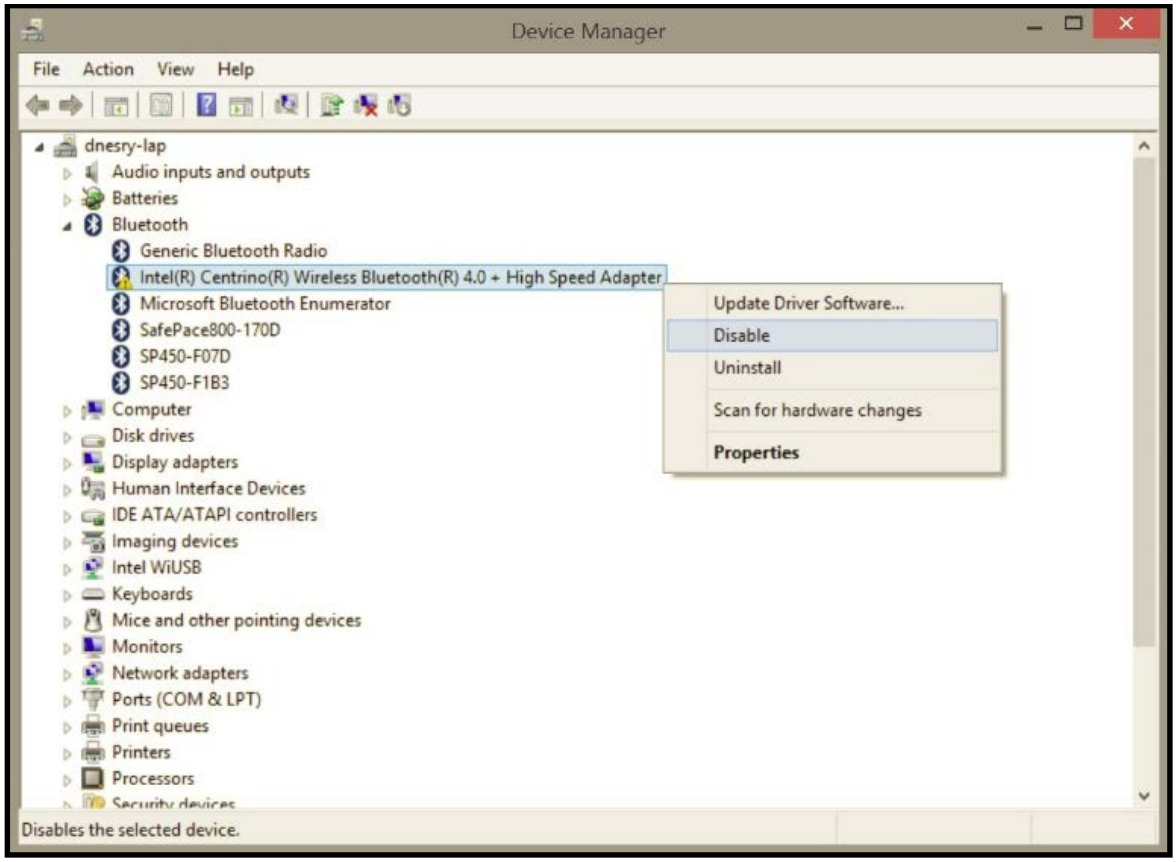


Figure 192 - Disable the integrated Bluetooth adapter in Windows Device Manager

***For using Bluetooth adapters and software other than those supplied and recommended for use with your sign, please refer to the appropriate documentation supplied with them.**

Windows 7/Vista - Steps for pairing your PC to your Bluetooth radar sign

Adding and pairing a device in Windows 7/Vista is a straightforward process. Follow the steps below to "pair" and add your radar sign as a Bluetooth device using the Windows 7/Vista Bluetooth Manager.

Click on the "**Show hidden icons**" menu on the "**Windows Taskbar**" to reveal the **Bluetooth icon** for your Bluetooth software. Right-click on the "**Bluetooth icon**" and click the "**Bluetooth settings**" option from the menu that appears.

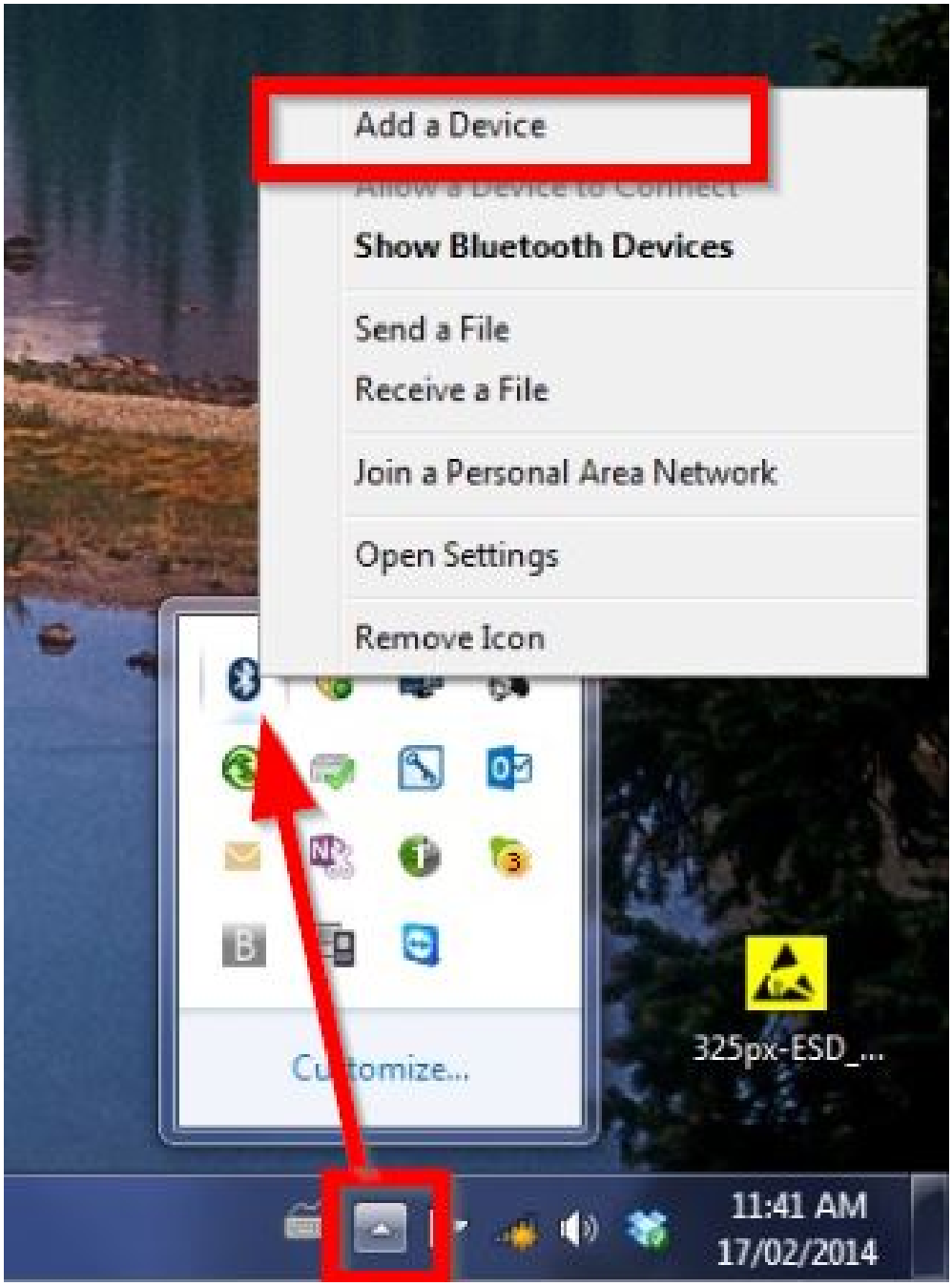


Figure 193 - Add a device in Windows 7

This will open the '**Add a device**' wizard. Select your radar sign which is being found by **Windows** as a **Bluetooth** device, and click '**Next**' or **double-click** on it to start the connection process.

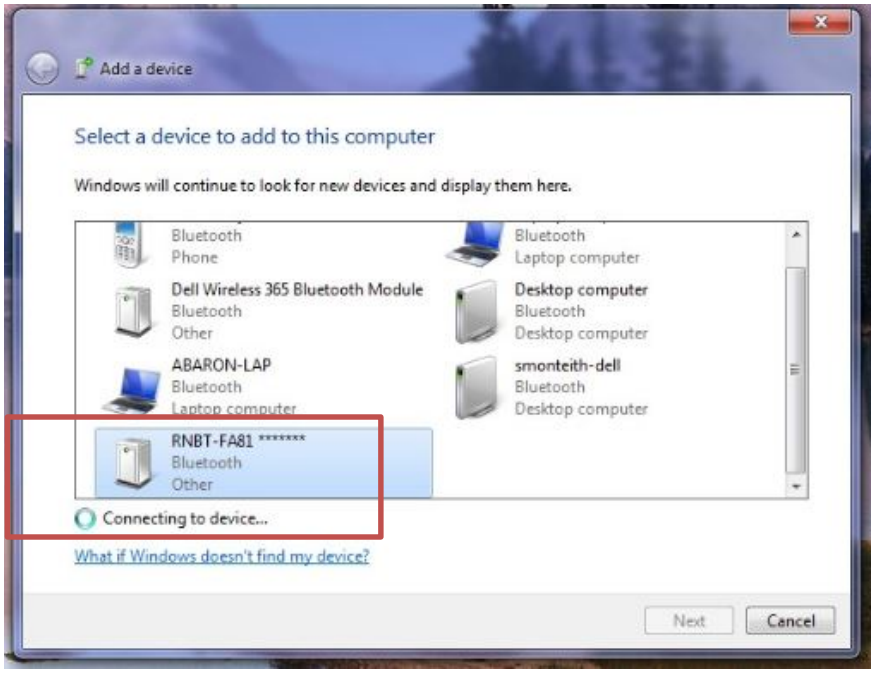


Figure 194 - Add a Device Wizard in Windows 7

Select to enter device's pairing code.

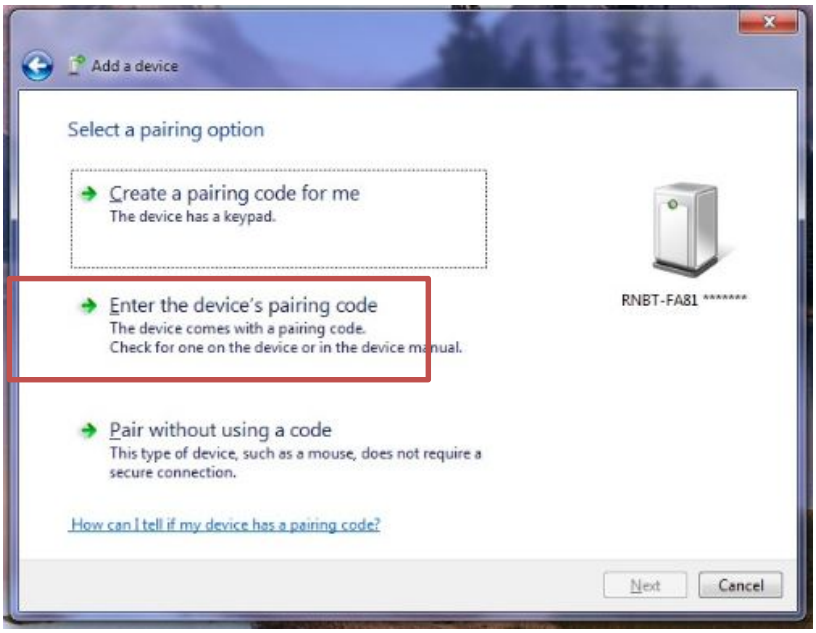


Figure 195 - Selecting a Pairing option in Windows 7

Enter the pairing code and click 'Next' and wait for the device to be configured and installed by Windows. Enter the default pairing code for SafePace® signs → '**1234**'.

Figure 196 - Enter the pairing code ('1234')

Subsequently, the 'Add a device' wizard will also confirm, that the device has been successfully added to the computer.

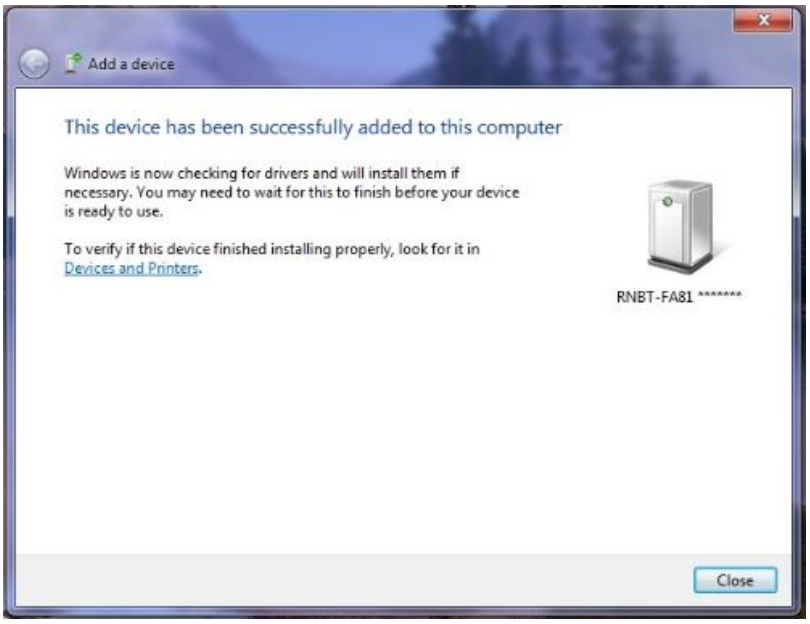


Figure 197 - Device successfully added confirmed in Add Device Wizard

After pairing your PC to your sign, check which COM port has been assigned by Windows to your sign in Bluetooth settings. You will need to know this port number when initializing SafePace® Pro to connect and manage your sign.

Finding the COM port number assigned by Windows 7/Vista to your radar sign

Click on the "**Show hidden icons**" menu on the "**Windows Taskbar**" again to reveal the **Bluetooth icon** for your Bluetooth software.

Right-click on the "**Bluetooth icon**" and click the "**Bluetooth settings**" option from the menu.

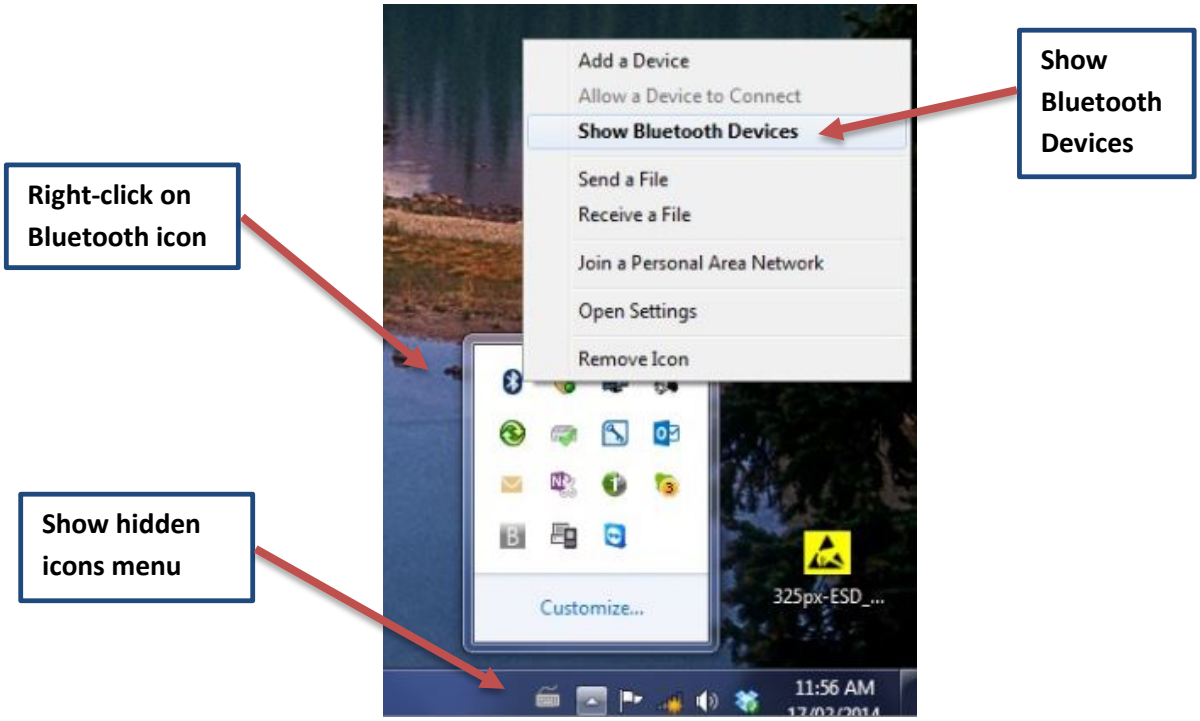


Figure 198 - Show Bluetooth devices

The **Bluetooth Devices** window will appear. Right-click on the device just added, and select '**Properties**'. Click on the '**Hardware'** tab, and the COM port will be shown under '**Device Functions**'.

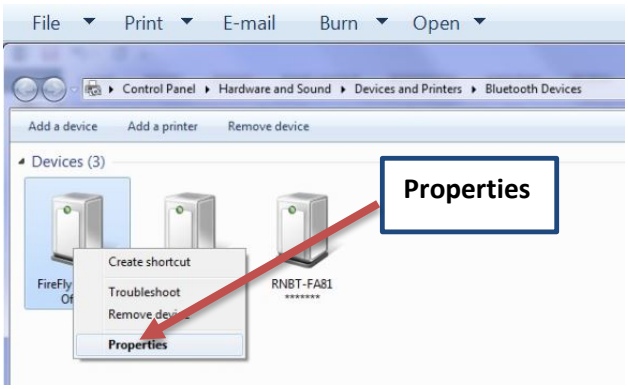


Figure 199 - Bluetooth devices window - Select Properties

Enter the COM port number in the ports list menu when running SafePace® Pro for the first time after installation or when configuring your connection using the connection bar in SafePace® Pro's main interface.

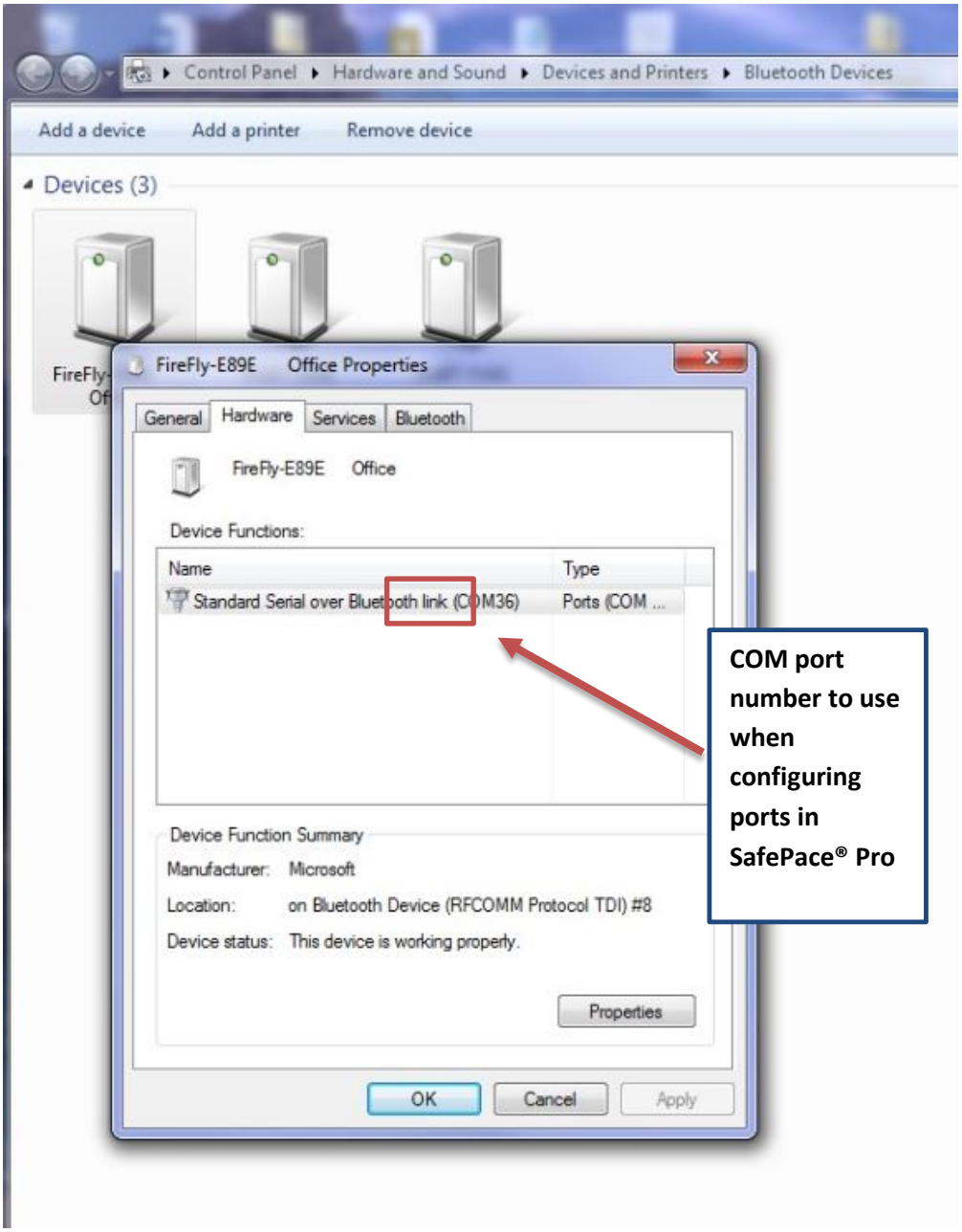


Figure 200 - Hardware tab in Properties for Bluetooth device showing COM port designation

Windows 8.1 - Steps for pairing your PC to your Bluetooth radar sign

Follow the steps below to "pair" and add your radar sign as a Bluetooth device using the Windows 8.1 Bluetooth Manager.

Swipe in from the right edge of your screen, then tap or click '**Settings**'. (If you're using a mouse, point to the upper-right corner of the screen, move the mouse pointer down, and then click '**Settings**'.

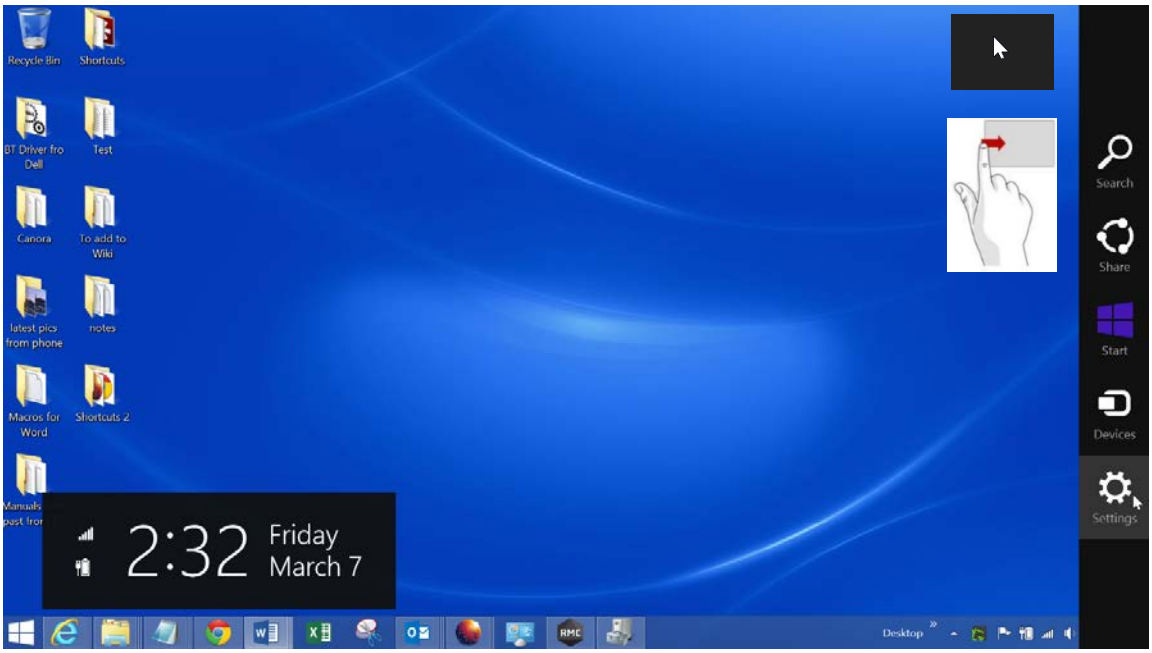


Figure 201 - Swipe to top right to get to 'Settings'

Tap or click on '**Change PC Settings**'.

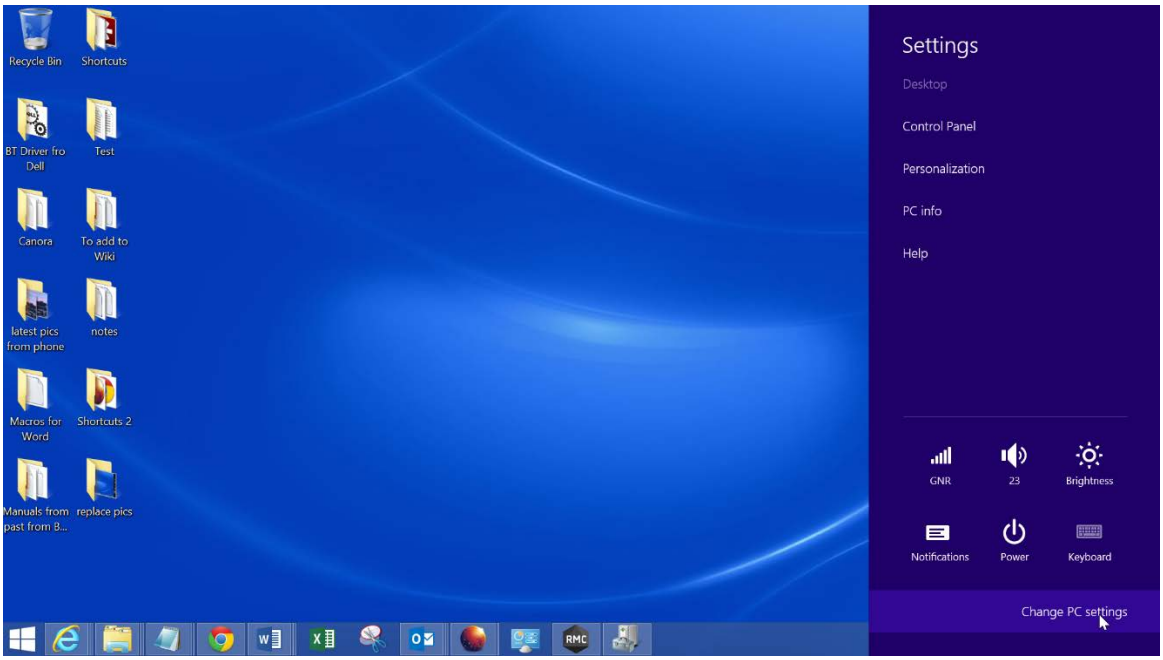


Figure 202 - Change PC Settings

Tap or click on '**PC and Devices**'.

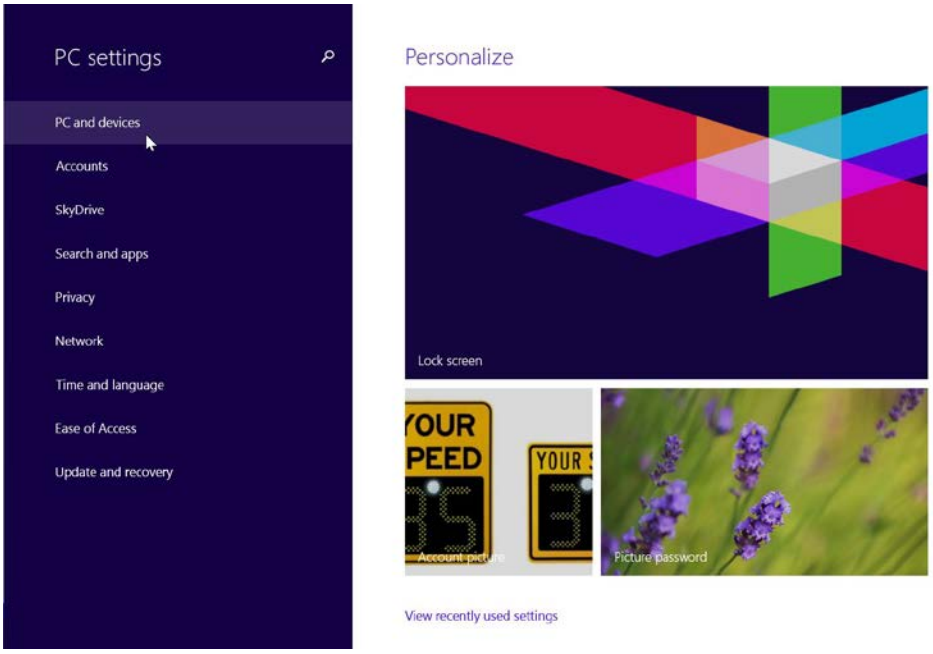


Figure 203 - PC and Devices

Tap or click on 'Bluetooth.

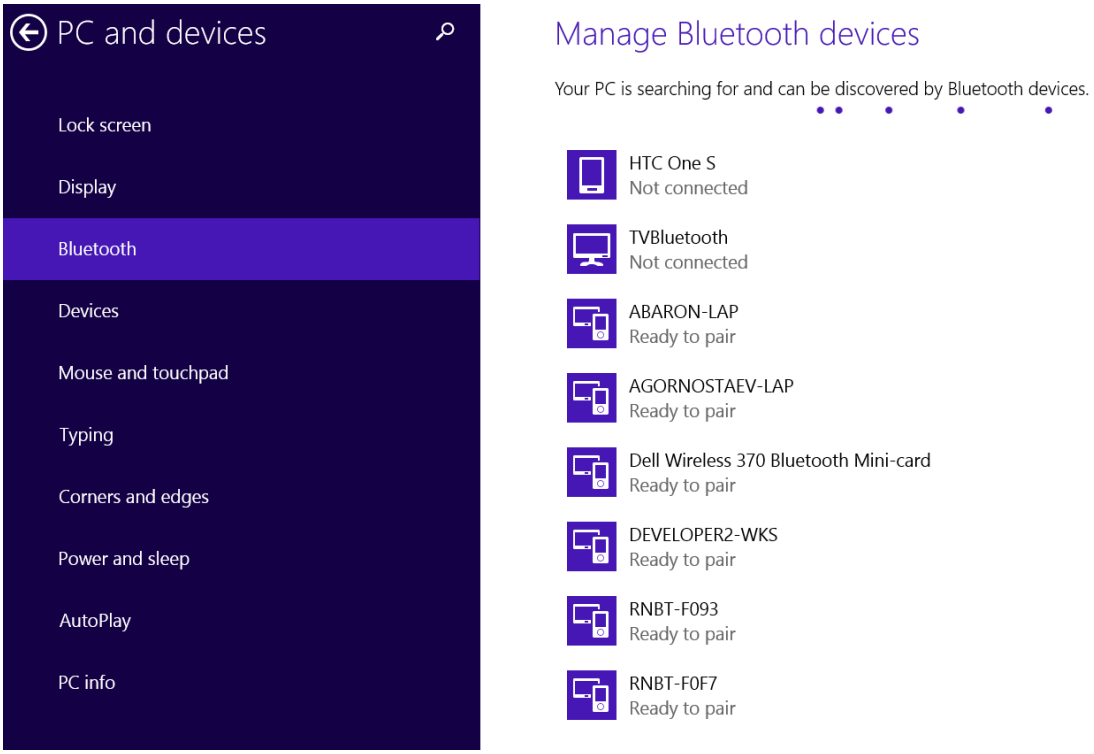


Figure 204 – Tap or click Bluetooth to show all Bluetooth devices

Scroll through the Bluetooth devices listed on the right. The device names for SafePace® radar signs usually begin with a prefix; '**RNBT**' or '**Firefly**'. They will have a status of '**Ready to Pair**'.

Click on the device in the list, and then click the 'Pair' button.

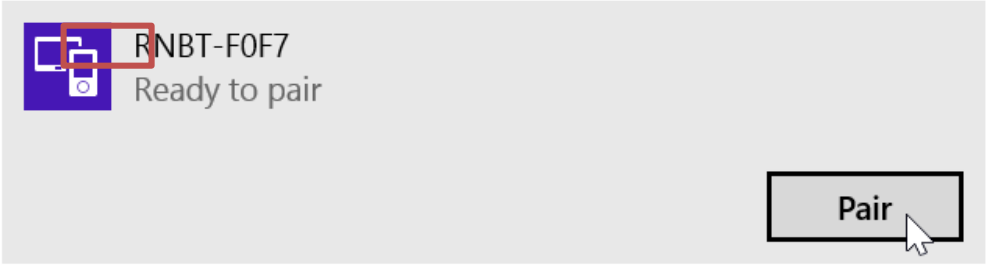


Figure 205 – Radar sign in device list is ready to be paired with your PC

A prompt will appear requesting to compare the passcodes.

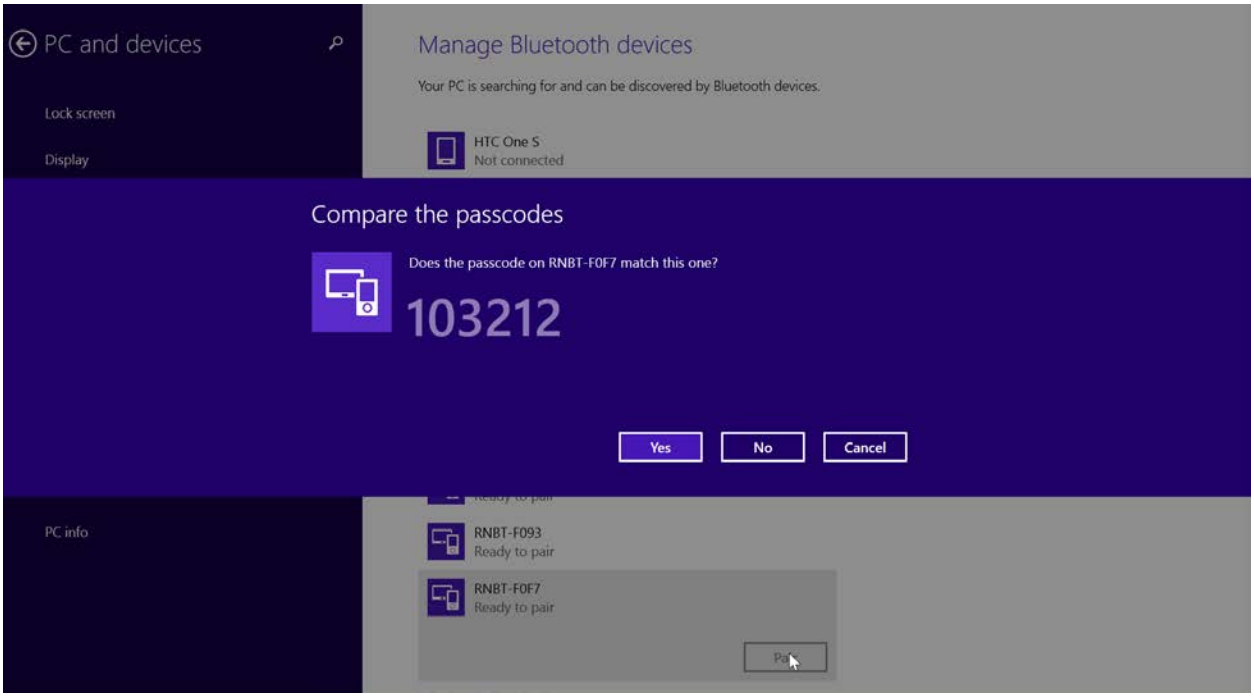


Figure 206 - Click 'Yes' to confirm comparison of passcodes

Click ‘Yes’ and Windows will start configuring and installing the device.

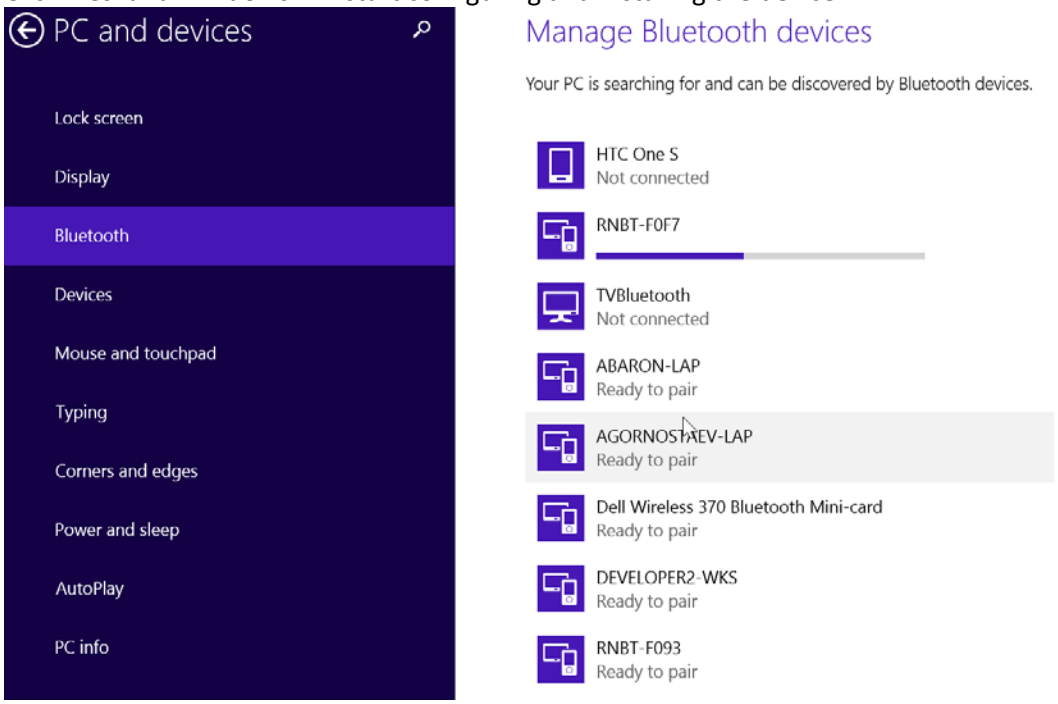


Figure 207 - Windows installing and configuring the device (your sign)

One installed, the device will be connected, and the device status will change from ‘Ready to pair’ to ‘Connected’.

NOTE

After pairing your PC to your sign, check which COM port has been assigned by Windows to your sign in Bluetooth settings.

You will need to know this port number when initializing SafePace® Pro to connect and manage your sign.

Continue to the next section for instructions on finding the port number in Windows 8.1.

Finding the COM port number assigned by Windows 8.1 to your radar sign

Right-click on the Bluetooth icon in the taskbar to open the sub-context menu, and select to '**Open Settings**'.

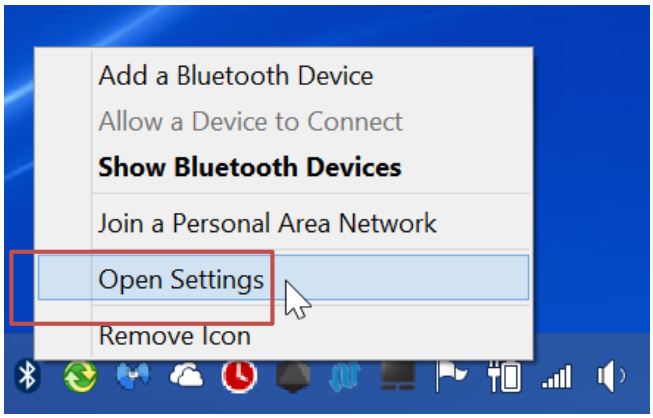


Figure 208 – Open (Bluetooth) settings

Select the COM ports tab in the Bluetooth settings window that appears. The COM ports tab lists the COM (serial) ports that Windows has configured for all the Bluetooth connections to devices made. The COM port that you will use in SafePace® Pro are the ports listed as 'Outgoing'.

If the name assigned to your sign does not appear as a device in this list, the pairing process to connect your radar sign to the Bluetooth network must be repeated.

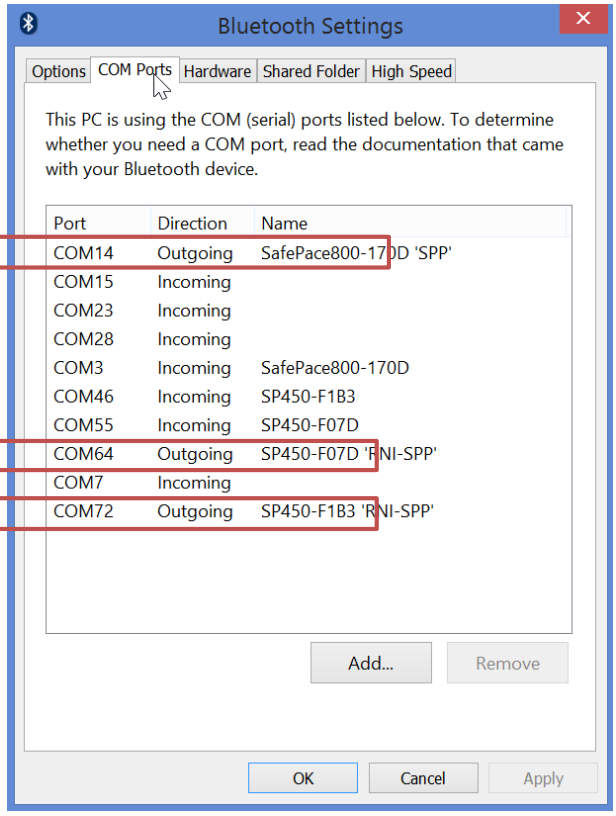


Figure 209 – Bluetooth settings – COM Ports tab

Section 2 - setting up your PC to connect using Wi-Fi

Windows 7 and Vista interface

The process to set up and connect is described below for Windows 7 and Vista users as the interface is the same. Use your computer's Wi-Fi manager to browse available Wi-Fi networks and access ports.

Connecting to your sign with the WiFly network access point

SafePace® radar signs are equipped with Wi-Fi modules called **WiFly**. They will be discovered by your computer's Wi-Fi management application as access points named **WiFly-GSX-XX** where "**XX**" represents last two digits of the unique address of the adapter. It will also appear as an unidentified network, and when connected will be a limited connection.

Figure 210 - Windows 7 - Wi-Fi Manager

Connect to this access point and wait about 30 seconds until the Automatic Private IP Addressing (APIPA) mechanism assigns an IP address to your computer. Once an IP address is assigned, you will be alerted that a connection to the network has been established. You can then start SafePace® Pro software and communicate with your sign using the Wi-Fi connection.

Connecting with SafePace® Pro

After connecting to the Wifly access point using Windows, upon running SafePace® Pro for the first time, you will be prompted with the **"initial settings"** window (see ***Figure 17 – Initial settings window – set communication mode and speed units***).

Select Wi-Fi mode in the **"Connection Settings"** window, and the preprogrammed IP address used to connect to the sign as a Wi-Fi network will automatically show (see ***Figure 21 – Initial settings window – Wi-Fi mode –IP address***

NOTE

All WiFly *modules installed in the radar signs have a pre-programmed* ***IP address*** *–check the documentation that comes with your radar sign or call Traffic Logix support for assistance. The IP address is entered in SafePace® Pro along with the port number. E.g.* ***1.2.3.4:2000****.*

IMPORTANT:

At times, it may take SafePace® Pro software up to one minute to recognize the established Wi-Fi Connection.

There are no messages in SafePace® Pro software to indicate that the connection process is taking place.

Please wait patiently. When the SafePace® Pro recognizes the connection, the signal indicator will turn green in the status bar at the bottom of the screen.

Windows 8.1 - Connect with Wi-Fi to your radar sign

Connecting to your sign with the WiFly network access point

Tap or click the network icon to view the list of network connections available.

Figure 211 – Network icon on your taskbar

SafePace® radar signs are equipped with **Wi-Fi** modules **called 'Wifly-GSX-XX**.

They will be discovered by your computer's **Wi-Fi** management application as access points named **WiFly-GSX-XX** where "**XX**" represents last two digits of the unique address of the adapter.

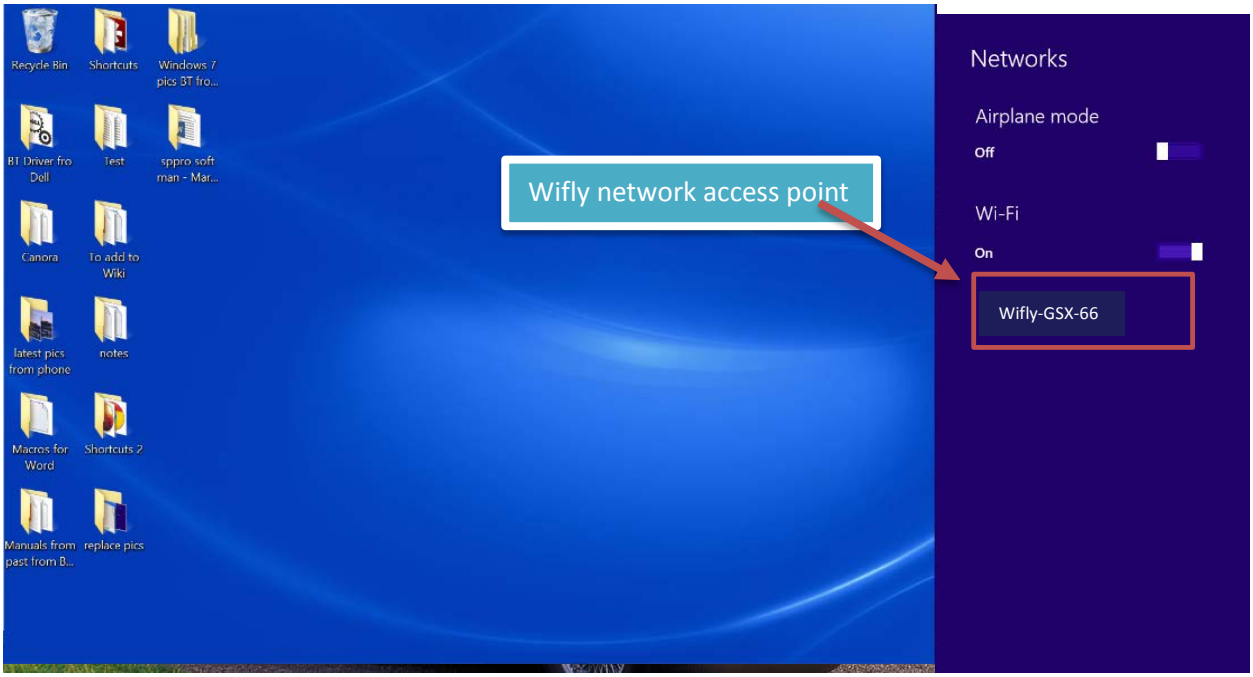


Figure 212 - Look for WiFly Connection in list of network connections

Tap on the WiFly network access point and click '**CONNECT'**.

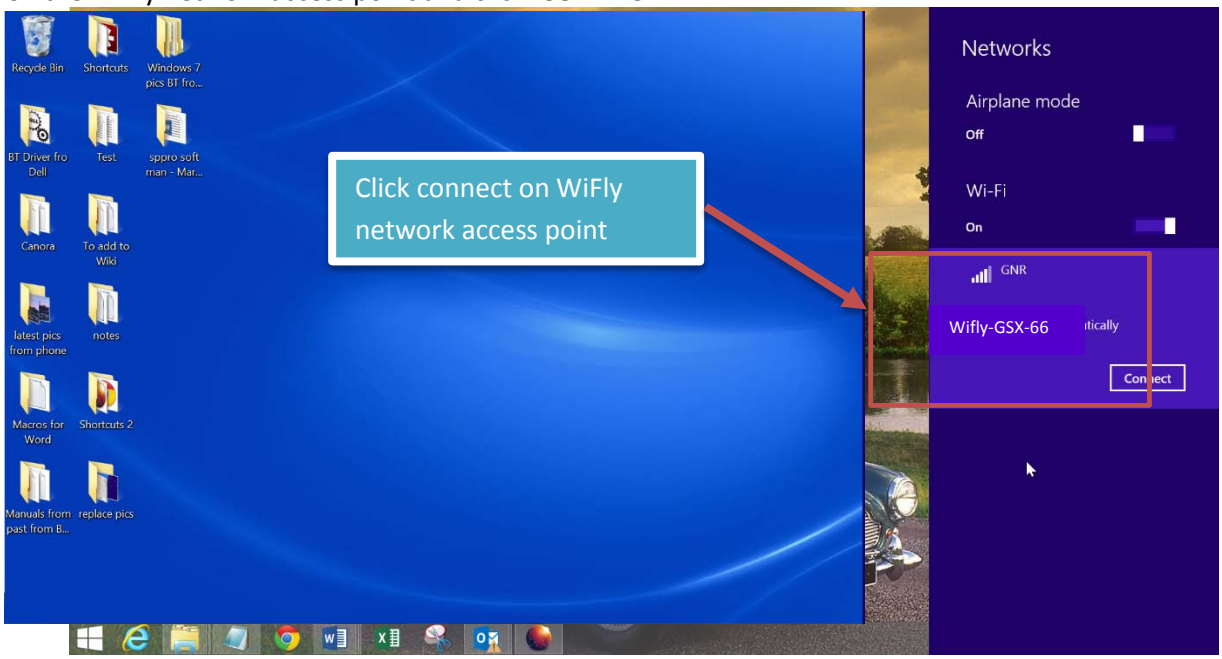
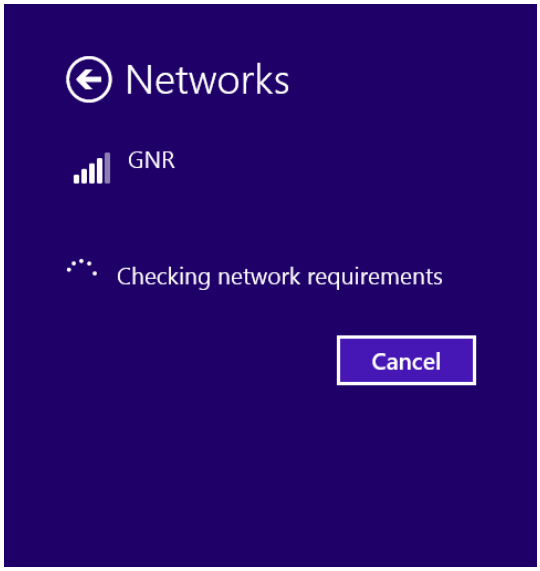
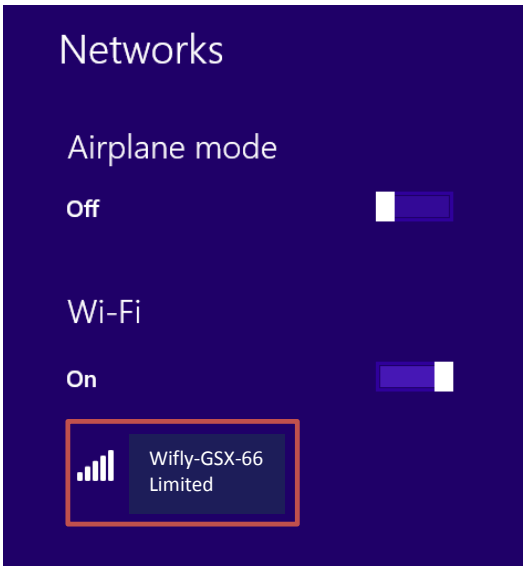


Figure 213 - Select WiFly connection and click 'CONNECT'

Wait about **30 seconds** until the **Automatic Private IP Addressing (APIPA)** mechanism will assign an **IP address** to your computer.





Once an **IP address** is assigned, you will be connected.

The connection will display as a **'Limited connection'** that is secure and that SafePace® Pro uses to access the Wi-Fi internet connection for connecting, configuring and downloading statistics to and from the sign.

To check on the status of your connection at any time, swipe to the right side of the screen and select 'Settings'.

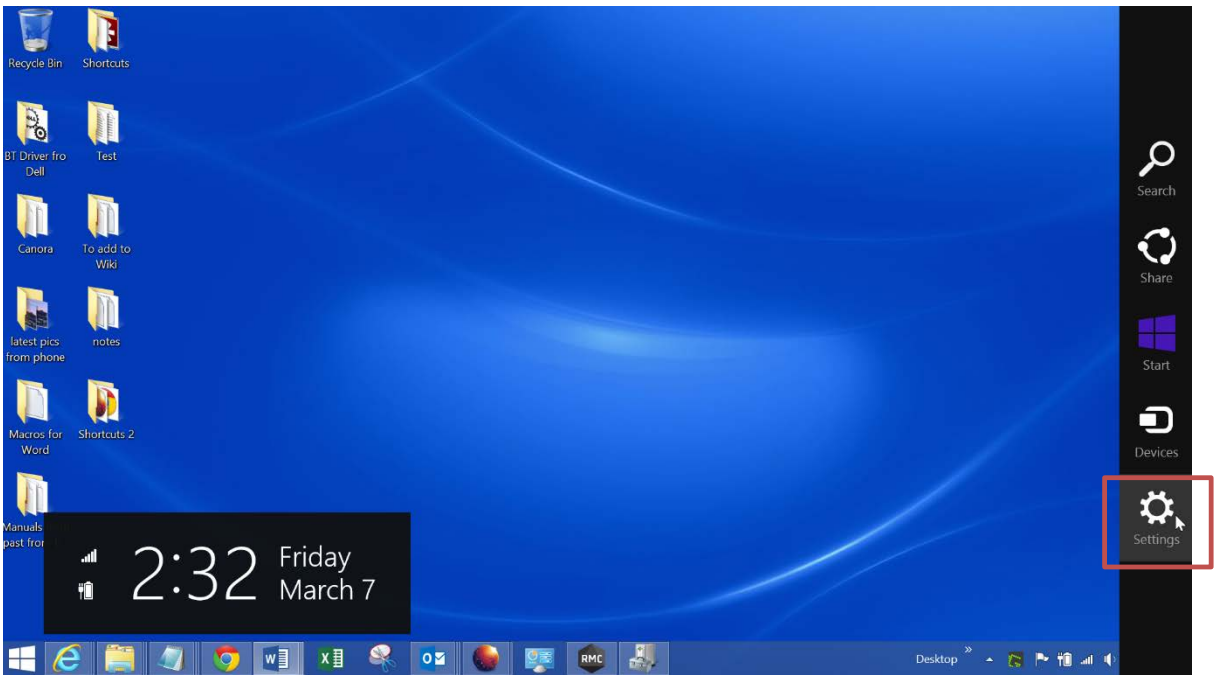


Figure 214 - Check status of connection - Swipe at top right, then tap 'Settings'

Then click on 'Change PC Settings'.

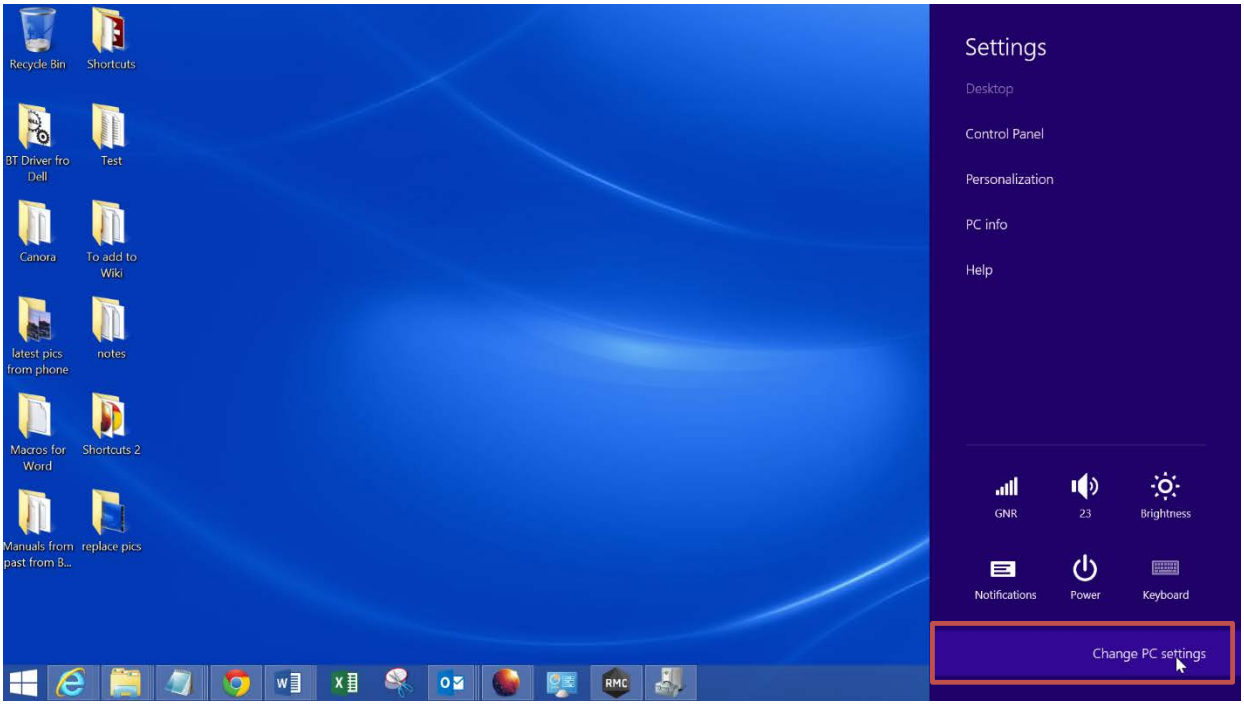


Figure 215 - Tap 'Change PC Settings'

Select Network…

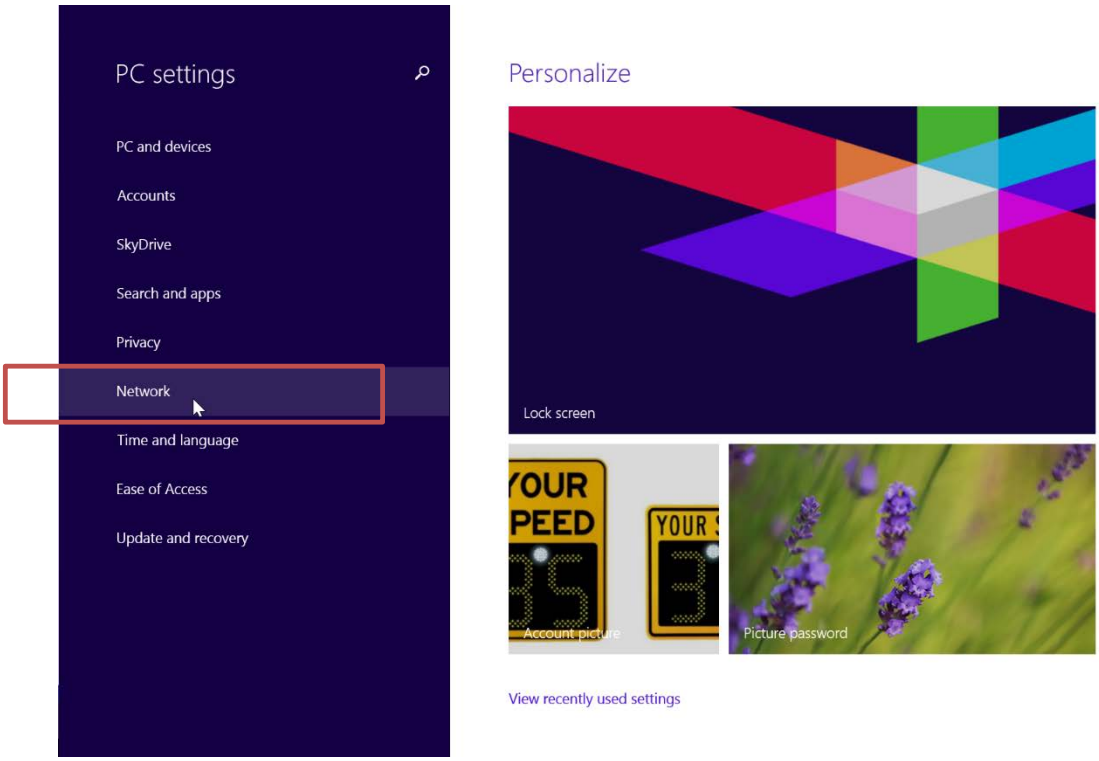


Figure 216 - Tap 'Network'

Select Connections….

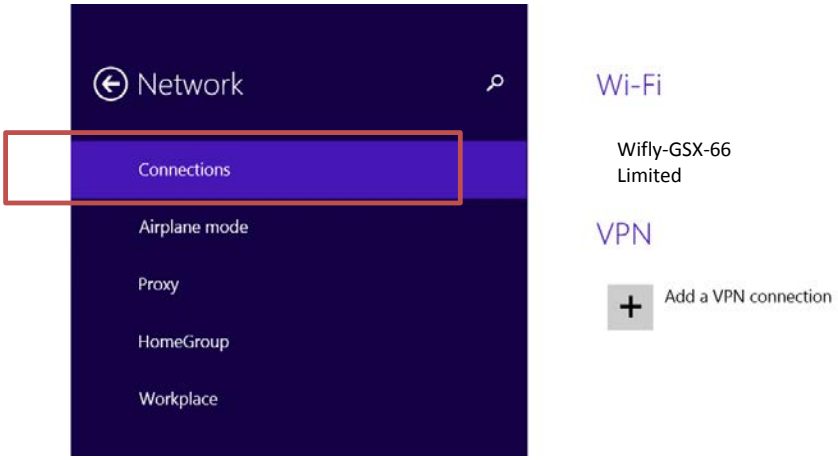


Figure 217 - Select 'Connections' to view network connections

Connecting with SafePace® Pro

After connecting to the Wifly access point using Windows, upon running SafePace® Pro for the first time, you will be prompted with the **"initial settings"** window (see ***Figure 17 – Initial settings window – set communication mode and speed units***).

Select Wi-Fi mode in the **"Connection Settings"** window, and the preprogrammed IP address used to connect to the sign as a Wi-Fi network will automatically show (see ***Figure 21 – Initial settings window – Wi-Fi mode –IP address***).

NOTE

All WiFly *modules installed in the radar signs have a pre-programmed* ***IP address*** *–check the documentation that comes with your radar sign or call Traffic Logix support for assistance. The IP address is entered in SafePace® Pro along with the port number. E.g.* ***1.2.3.4:2000****.*

IMPORTANT:

At times, it may take SafePace® Pro software up to one minute to recognize the established Wi-Fi Connection.

There are no messages in SafePace® Pro software to indicate that the connection process is taking place.

Please wait patiently. When the SafePace® Pro recognizes the connection, the signal indicator will turn green in the status bar at the bottom of the screen.

Section 3 - setting up your PC to connect using GPRS

No prior setup is required for GPRS. All that is required is the static IP address of the SIM card module.

See ***Connecting to a Wi-Fi or GPRS sign*** for instructions on connecting to your GPRS configured sign with SafePace® Pro.

Appendix B: Sample Reports

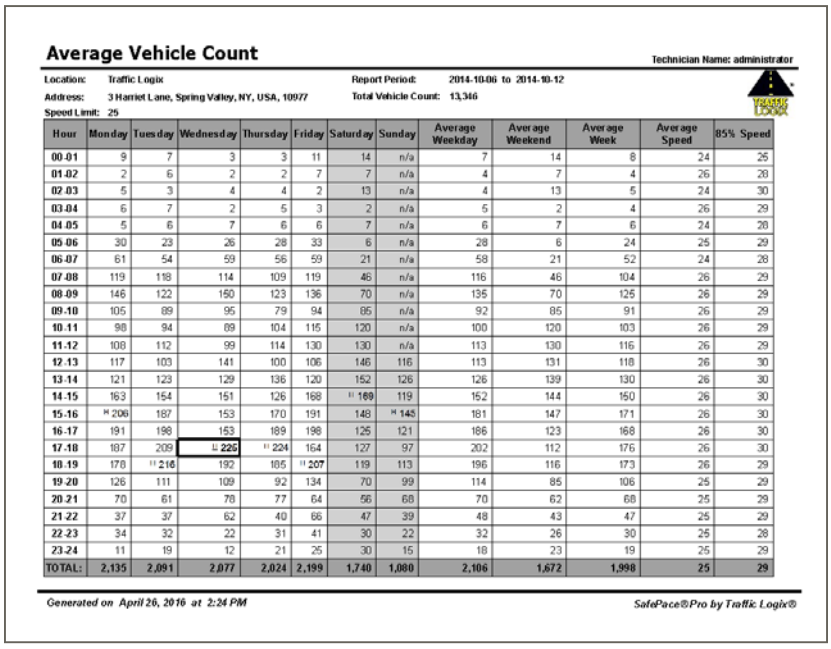
WEEKLY REPORTS AND CHARTS

Weekly reports and charts allow you to see various traffic statistics arranged by hours of the day and days of the week. The types of weekly reports and charts available in SafePace Pro are as follows:

- Weekly Detail Reports
- Statistics Summary Report
- Hourly Values Chart
- Daily Values Chart
- 3D Week View Chart
- Weekly Speed Bins Report

Weekly DetailReports

The following sample shows a weekly detail report for Average Vehicle Count.



Average Vehicle Count

Technician Name: administrator

Location: Traffic Logix
Address: 3 Harriet Lane, Spring Valley, NY, USA, 10977
Speed Limit: 25
Report Period: 2014-10-06 to 2014-10-12
Total Vehicle Count: 13,346

Hour	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday	Average Weekday	Average Weekend	Average Week	Average Speed	85% Speed
00-01	9	7	3	3	11	14	n/a	7	14	8	24	25
01-02	2	6	2	2	7	7	n/a	4	7	4	26	28
02-03	5	3	4	4	2	13	n/a	4	13	5	24	30
03-04	6	7	2	5	3	2	n/a	5	2	4	26	29
04-05	5	6	7	6	6	7	n/a	6	7	6	24	28
05-06	30	23	26	28	33	6	n/a	28	6	24	25	29
06-07	61	54	59	56	59	21	n/a	58	21	52	24	28
07-08	119	118	114	109	119	46	n/a	116	46	104	26	29
08-09	146	122	150	123	136	70	n/a	135	70	125	26	29
09-10	105	89	95	79	94	85	n/a	92	85	91	26	29
10-11	98	94	89	104	115	120	n/a	100	120	103	26	29
11-12	108	112	99	114	130	130	n/a	113	130	116	26	29
12-13	117	103	141	100	106	146	116	113	131	118	26	30
13-14	121	123	129	136	120	152	126	126	139	130	26	30
14-15	163	154	151	126	168	H 189	119	152	144	150	26	30
15-16	M 206	187	153	170	191	148	M 145	181	147	171	26	30
16-17	191	198	153	189	198	125	121	186	123	168	26	30
17-18	187	209	L 225	H 224	164	127	97	202	112	176	26	30
18-19	178	H 216	192	185	H 207	119	113	196	116	173	26	29
19-20	126	111	109	92	134	70	99	114	85	106	25	29
20-21	70	61	78	77	64	56	68	70	62	68	25	29
21-22	37	37	62	40	66	47	39	48	43	47	25	29
22-23	34	32	22	31	41	30	22	32	26	30	25	28
23-24	11	19	12	21	25	30	15	18	23	19	25	29
TOTAL:	2,135	2,091	2,077	2,024	2,199	1,740	1,080	2,106	1,672	1,998	25	29

Generated on April 26, 2016 at 2:24 PM

SafePace®Pro by Traffic Logix®

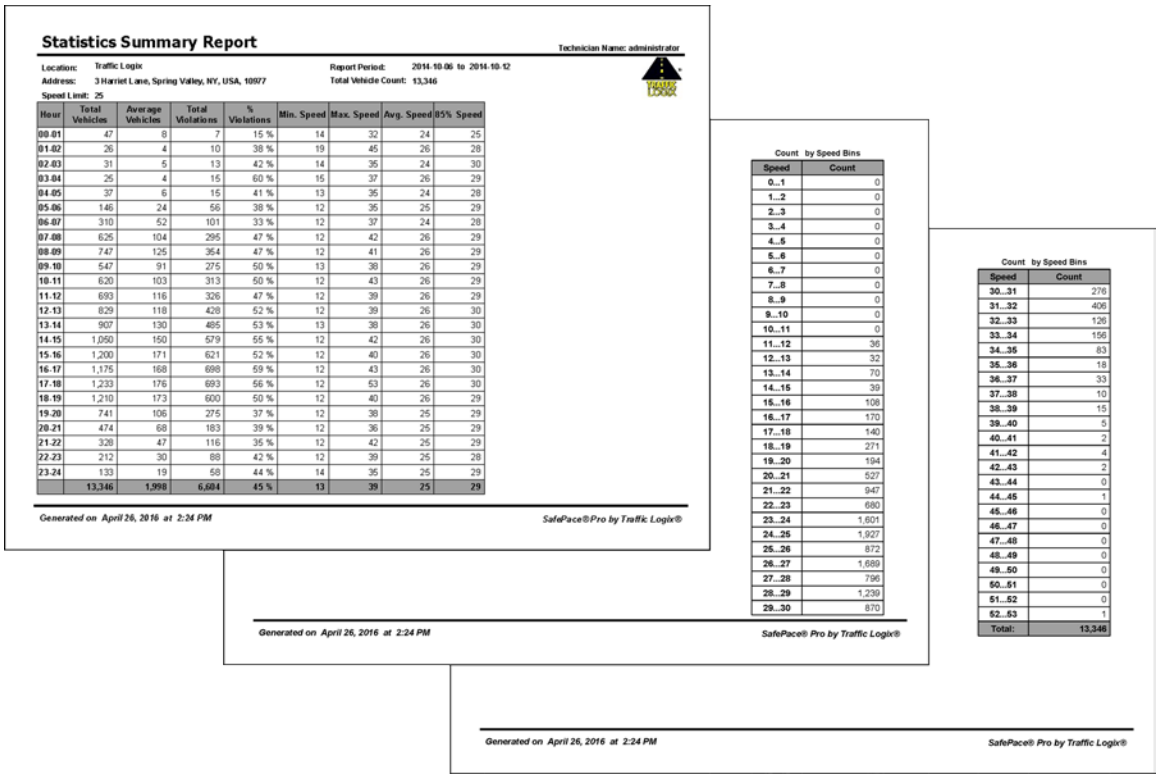
Figure 218 - Sample Weekly Detail Report for Average Vehicle Count

Statistics SummaryReport

The Statistics Summary report displays a summary of the following statistics for the specified weeks:

- Total Vehicles Count
- Average Vehicles Count
- Total Speed Violations
- Percentage (%) of Speed Violations
- Minimum Speed
- Maximum Speed
- Average Speed
- 85th Percentile Speed

The following sample shows a Statistics Summary report.



Statistics Summary Report

Technician Name: administrator

Location: Traffic Logix
Address: 3 Harriet Lane, Spring Valley, NY, USA, 10977
Speed Limit: 25
Report Period: 2014-10-06 to 2014-10-12
Total Vehicle Count: 13,346

Hour	Total Vehicles	Average Vehicles	Total Violations	% Violations	Min. Speed	Max. Speed	Avg. Speed	85% Speed
00-01	47	8	7	15 %	14	32	24	25
01-02	26	4	10	38 %	19	45	26	28
02-03	31	5	13	42 %	14	35	24	30
03-04	25	4	15	60 %	15	37	26	29
04-05	37	6	15	41 %	13	35	24	28
05-06	146	24	56	38 %	12	35	25	29
06-07	310	52	101	33 %	12	37	24	28
07-08	625	104	295	47 %	12	42	26	29
08-09	747	125	354	47 %	12	41	26	29
09-10	547	91	275	50 %	13	38	26	29
10-11	620	103	313	50 %	12	43	26	29
11-12	693	116	326	47 %	12	39	26	29
12-13	829	118	428	52 %	12	39	26	30
13-14	907	130	485	53 %	13	38	26	30
14-15	1,050	150	579	55 %	12	42	26	30
15-16	1,200	171	621	52 %	12	40	26	30
16-17	1,175	168	698	59 %	12	43	26	30
17-18	1,233	176	693	56 %	12	53	26	30
18-19	1,210	173	600	50 %	12	40	26	29
19-20	741	106	275	37 %	12	38	25	29
20-21	474	68	183	39 %	12	36	25	29
21-22	328	47	116	35 %	12	42	25	29
22-23	212	30	88	42 %	12	39	25	28
23-24	133	19	58	44 %	14	35	25	29
	13,346	1,998	6,684	45 %	13	39	25	29

Generated on April 26, 2016 at 2:24 PM
SafePace® Pro by Traffic Logix®

Count by Speed Bins

Speed	Count
0...1	0
1...2	0
2...3	0
3...4	0
4...5	0
5...6	0
6...7	0
7...8	0
8...9	0
9...10	0
10...11	0
11...12	36
12...13	32
13...14	70
14...15	39
15...16	108
16...17	170
17...18	140
18...19	271
19...20	194
20...21	527
21...22	947
22...23	680
23...24	1,601
24...25	1,927
25...26	872
26...27	1,689
27...28	796
28...29	1,239
29...30	870

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SafePace® Pro by Traffic Logix®

Count by Speed Bins

Speed	Count
30...31	276
31...32	406
32...33	126
33...34	156
34...35	83
35...36	18
36...37	33
37...38	10
38...39	15
39...40	5
40...41	2
41...42	4
42...43	2
43...44	0
44...45	1
45...46	0
46...47	0
47...48	0
48...49	0
49...50	0
50...51	0
51...52	0
52...53	1
Total:	13,346

Generated on April 26, 2016 at 2:24 PM
SafePace® Pro by Traffic Logix®

Figure 219 - Sample Statistics Summary Report

Hourly ValuesChart

The Hourly Values chart allows you to see the hourly values of the specified traffic statistic. The following sample shows an Hourly Values chart for the Average Vehicle Count statistic.

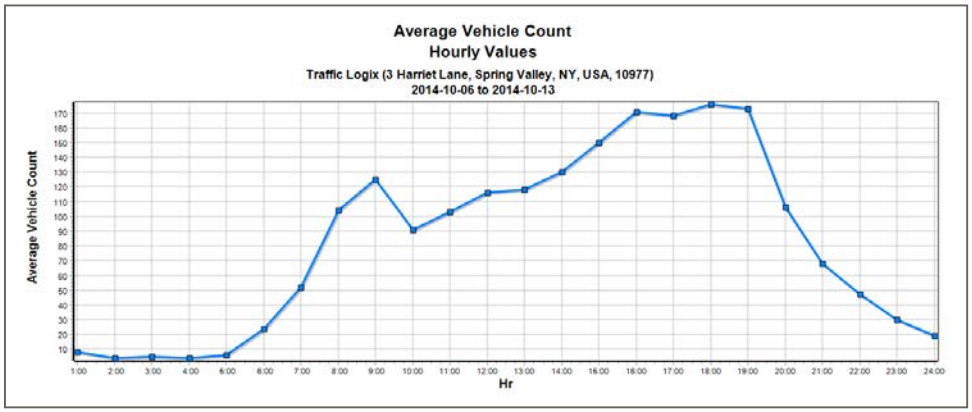


Figure 220 - Sample Weekly Chart of Hourly Values for Average Vehicle Count

Daily ValuesChart

The Daily Values chart allows you to see the daily values of the specified traffic statistic. The following sample shows a Daily Values chart for the Average Vehicle Count statistic.

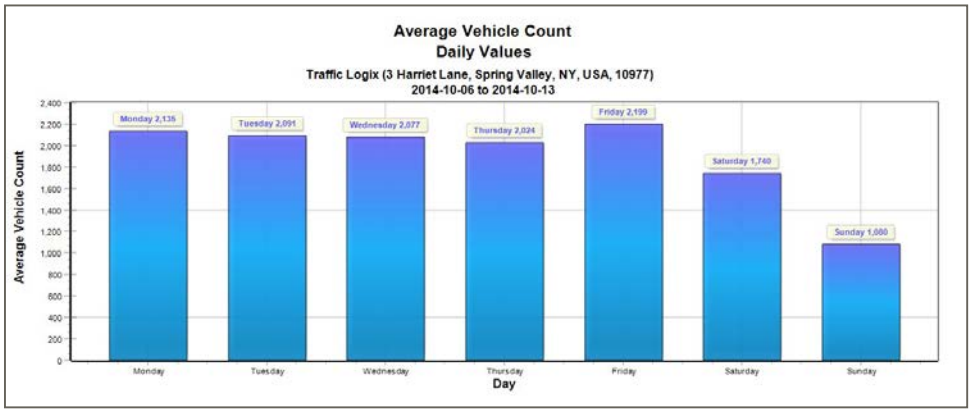


Figure 221 - Sample Weekly Chart of Daily Values for Average Vehicle Count

3D Week ViewChart

The 3D Week View chart allows you to see the hourly values of the specified traffic statistic for each day of the week during the specified period. This is an interactive chart in that you can use the legend to select which days of the week you want to display on the chart.

The following sample shows a 3D Week View chart for the Average Vehicle Count statistic.

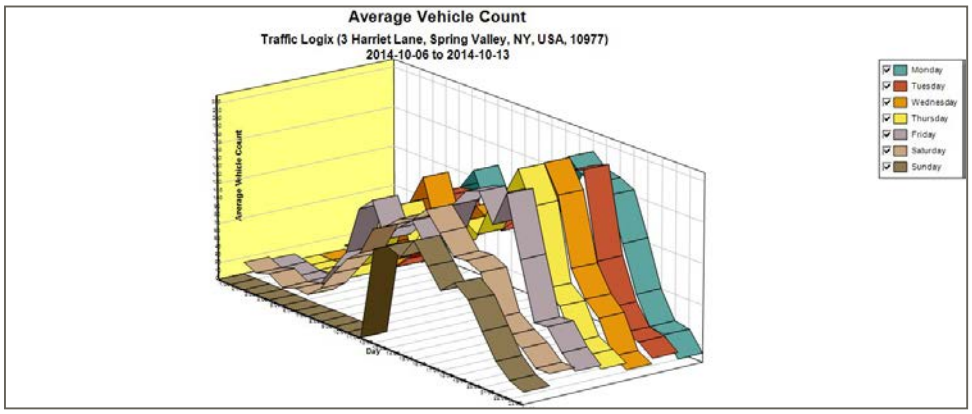


Figure 222 - Sample 3D Week View Chart for Average Vehicle Count

Weekly Speed Bins Report

The Speed Bins report provides a count of the number of vehicles detected in different speed ranges (speed bins) for the specified week(s). The following sample shows the first few pages of a Weekly Speed Bins report.

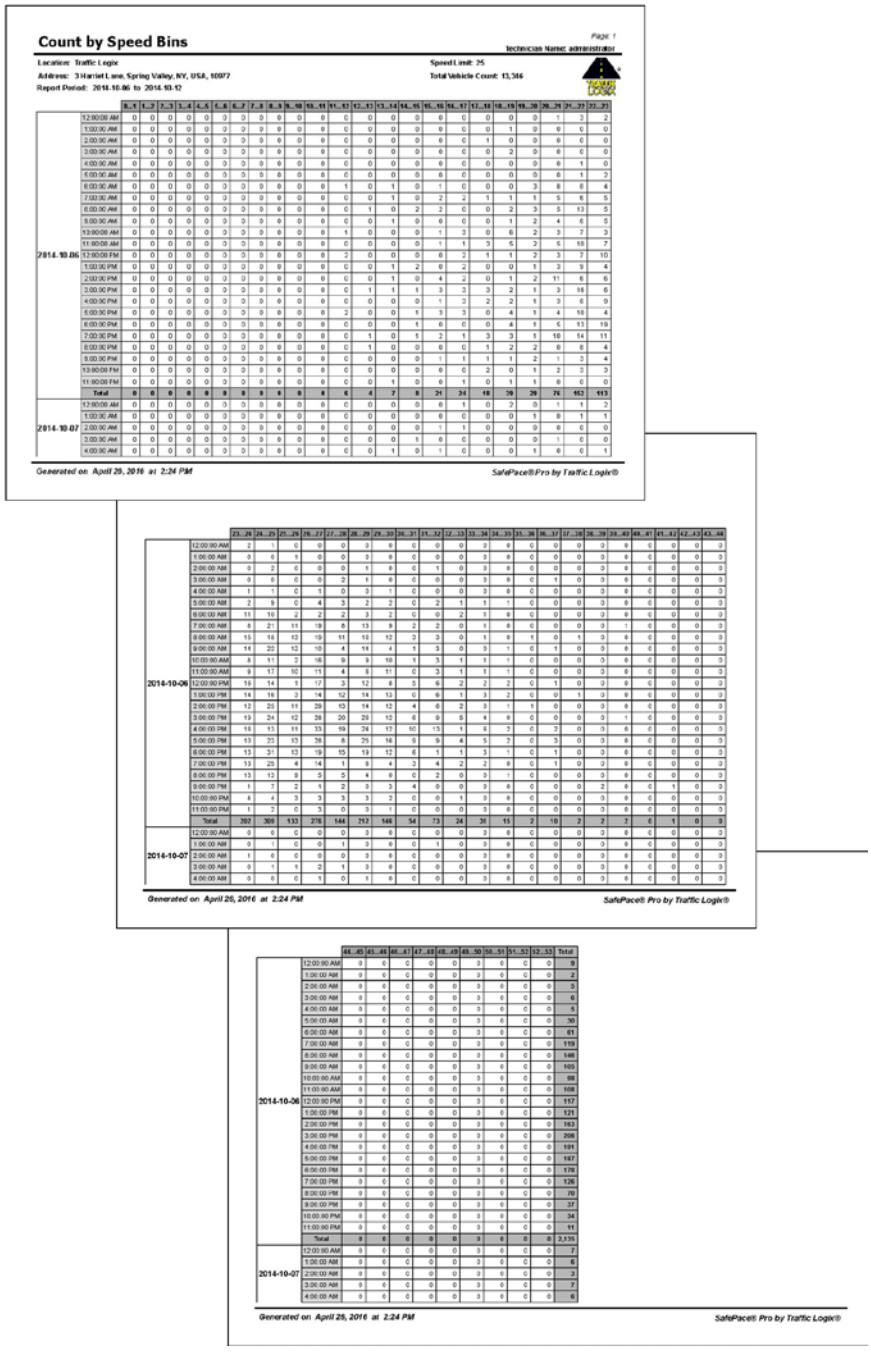


Figure 223 - Sample Weekly Speed Bins Report

COMPARISON REPORTS AND CHARTS

Comparison reports and charts allow you to compare statistics from two separate periods of time for a specified location. The types of Comparison reports and charts available in SafePace Pro are as follows:

- Summary Comparison Report
- Hourly Values Comparison Chart
- Daily Values Comparison Chart

Summary ComparisonReport

The Summary Comparison Report allows you to compare traffic statistics for two separate periods of time. This report allows you to compare the following types of data:

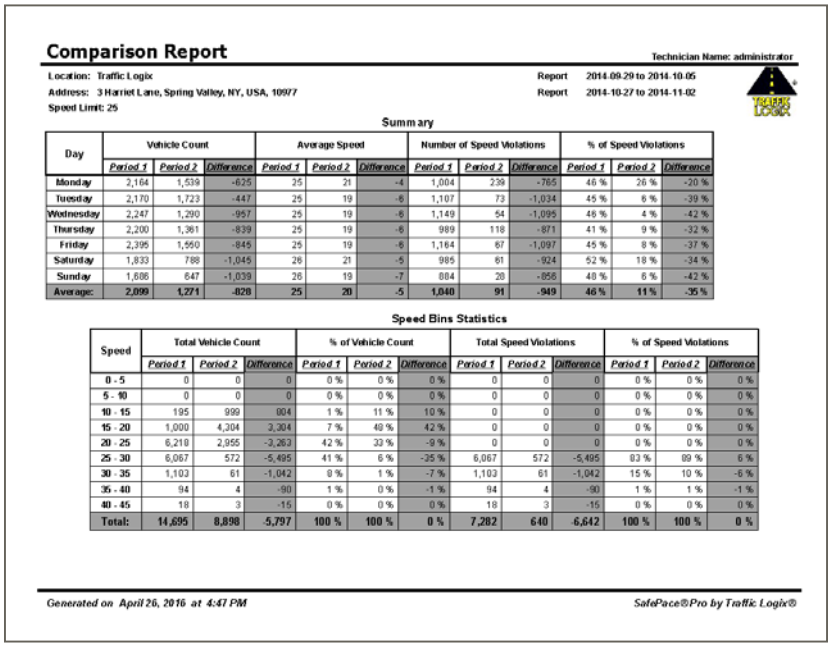
» Daily Summaries

- Vehicle Count
- Average Speed
- Number of Speed Violations
- Percentage(%) of Speed Violations

» Speed Bin Statistics

- Total Vehicle Count
- Percentage(%) of Vehicles
- Total Number of Speed Violations
- Percentage(%) of Speed Violations

The following sample shows a Summary Comparison report



Comparison Report

Technician Name: administrator

Location: Traffic Logix
Address: 3 Harriet Lane, Spring Valley, NY, USA, 10977
Speed Limit: 25

Report 2014-09-29 to 2014-10-05
Report 2014-10-27 to 2014-11-02

Summary

Day	Vehicle Count			Average Speed			Number of Speed Violations			% of Speed Violations		
	Period 1	Period 2	Difference	Period 1	Period 2	Difference	Period 1	Period 2	Difference	Period 1	Period 2	Difference
Monday	2,164	1,539	-625	25	21	-4	1,004	239	-765	46 %	26 %	-20 %
Tuesday	2,170	1,723	-447	25	19	-6	1,107	73	-1,034	45 %	6 %	-39 %
Wednesday	2,247	1,290	-957	25	19	-6	1,149	54	-1,095	46 %	4 %	-42 %
Thursday	2,200	1,361	-839	25	19	-6	989	118	-871	41 %	9 %	-32 %
Friday	2,395	1,550	-845	25	19	-6	1,164	67	-1,097	45 %	8 %	-37 %
Saturday	1,833	788	-1,045	26	21	-5	985	61	-924	52 %	18 %	-34 %
Sunday	1,686	647	-1,039	26	19	-7	884	28	-856	48 %	6 %	-42 %
Average:	2,099	1,271	-828	25	20	-5	1,040	91	-949	46 %	11 %	-35 %

Speed Bins Statistics

Speed	Total Vehicle Count			% of Vehicle Count			Total Speed Violations			% of Speed Violations		
	Period 1	Period 2	Difference	Period 1	Period 2	Difference	Period 1	Period 2	Difference	Period 1	Period 2	Difference
0 - 5	0	0	0	0 %	0 %	0 %	0	0	0	0 %	0 %	0 %
5 - 10	0	0	0	0 %	0 %	0 %	0	0	0	0 %	0 %	0 %
10 - 15	195	999	804	1 %	11 %	10 %	0	0	0	0 %	0 %	0 %
15 - 20	1,000	4,304	3,304	7 %	48 %	42 %	0	0	0	0 %	0 %	0 %
20 - 25	6,210	2,955	-3,263	42 %	33 %	-9 %	0	0	0	0 %	0 %	0 %
25 - 30	6,067	572	-5,495	41 %	6 %	-35 %	6,067	572	-5,495	83 %	89 %	6 %
30 - 35	1,103	61	-1,042	8 %	1 %	-7 %	1,103	61	-1,042	15 %	10 %	-6 %
35 - 40	94	4	-90	1 %	0 %	-1 %	94	4	-90	1 %	1 %	-1 %
40 - 45	18	3	-15	0 %	0 %	0 %	18	3	-15	0 %	0 %	0 %
Total:	14,695	8,898	-5,797	100 %	100 %	0 %	7,282	640	-6,642	100 %	100 %	0 %

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Figure 224 - Sample Summary Comparison Report

Hourly Values Comparison Chart

The Hourly Values Comparison chart allows you to compare the hourly values of the specified traffic statistic from two separate periods of time. The following sample shows an Hourly Values Comparison chart for the Average Vehicle Count statistic.

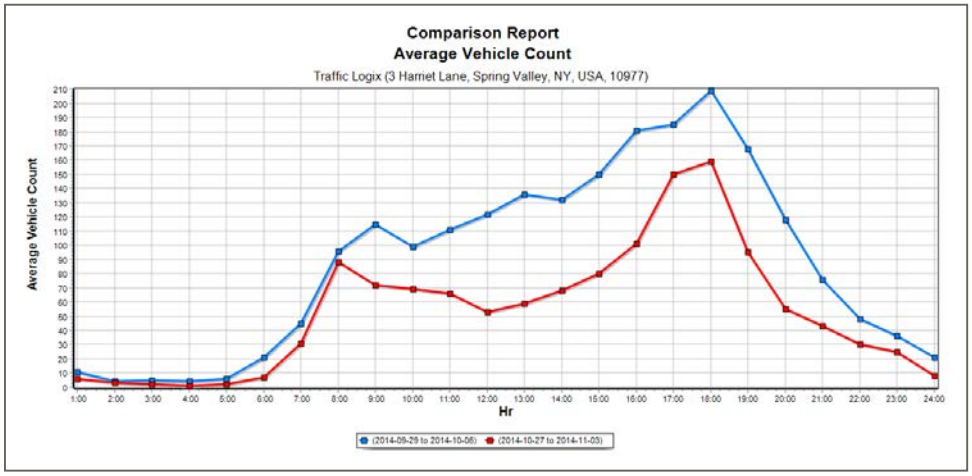


Figure 225 - Sample Hourly Values Comparison Chart for Average Vehicle Count

Daily Values Comparison Chart

The Daily Values Comparison chart allows you to compare the daily values of the specified traffic statistic from two separate periods of time. The following sample shows a Daily Values Comparison chart for the Average Vehicle Count statistic.

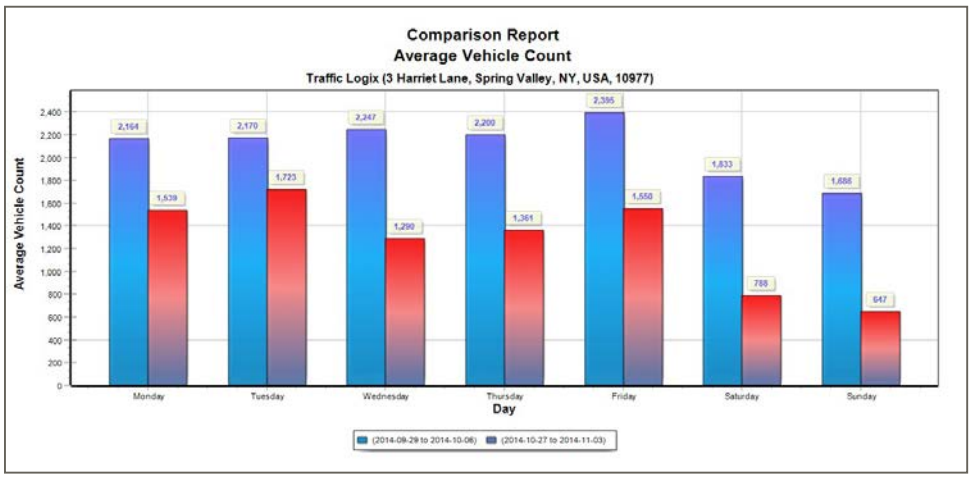


Figure 226 - Sample Daily Values Comparison Chart for Average Vehicle Count

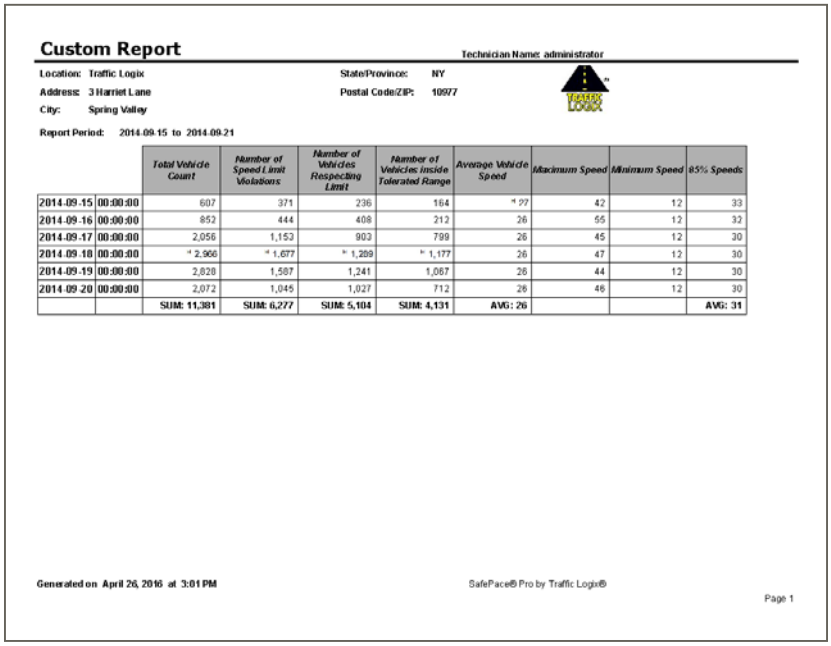
CUSTOM REPORTS AND CHARTS

Custom reports and charts allow you to combine various traffic statistic parameters in one report or chart. The available traffic statistic parameters are as follows:

- Percentage (%) of Speed Violations
- Percentage (%) of Vehicles Respecting Limit
- Percentage (%) of Vehicles in Tolerated
- Number (#) of Vehicles Respecting Limit
- Number (#) of Vehicles Inside Tolerated
- Number (#) of Speed Violations
- 50th Percentile Speed
- Minimum Speed
- Maximum Speed
- Tolerated Speed
- Posted Speed Limit
- Average Speed
- Total Vehicles Count
- 85th Percentile Speed

Custom Reports and Charts

The following samples show Custom reports and charts for several traffic statistics:



Custom Report

Technician Name: administrator

Location: Traffic Logix
Address: 3 Harriet Lane
City: Spring Valley
State/Province: NY
Postal Code/ZIP: 10977

Report Period: 2014.09.15 to 2014.09.21

		Total Vehicle Count	Number of Speed Limit Violations	Number of Vehicles Respecting Limit	Number of Vehicles inside Tolerated Range	Average Vehicle Speed	Maximum Speed	Minimum Speed	85% Speeds
2014.09.15	00:00:00	607	371	236	164	27	42	12	33
2014.09.16	00:00:00	852	444	408	212	26	55	12	32
2014.09.17	00:00:00	2,056	1,153	903	799	26	45	12	30
2014.09.18	00:00:00	2,966	1,677	1,289	1,177	26	47	12	30
2014.09.19	00:00:00	2,828	1,587	1,241	1,067	26	44	12	30
2014.09.20	00:00:00	2,072	1,045	1,027	712	26	46	12	30
		SUM: 11,381	SUM: 6,277	SUM: 5,104	SUM: 4,131	AVG: 26			AVG: 31

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Figure 227 - Sample Custom Report

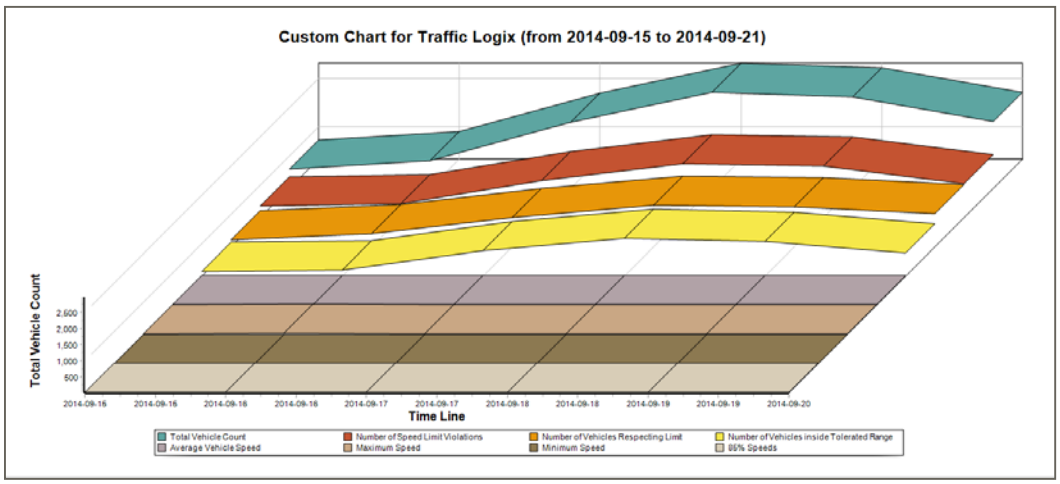

Figure 228 - Sample Custom Chart

Technical Support

If you have questions or comments regarding the SafePace® Pro software application or about the SafePace® 100-800 radar speed signs, please feel free to contact our customer support center by phone: **+1 (866) 915-6449** or by e-mail: **support@trafficlogix.com**.