



MATRIX FLAG BOX LED PROFILES

Instructions

Daniel Newman Racing is where cutting edge technology meets the thrill of online racing. We specialise in crafting some of the most advanced SimHub compatible LED profiles designed to elevate your Sim Racing performance to new heights. Whether you're a seasoned pro, or just starting out, our products are meticulously engineered to immerse you in the heart pounding action of the track.

DNR profiles are built to be different, and used by those serious about winning. The purpose is to make you fast and give you what's important, when, it's most important. Not only used by Sim Racers worldwide, but also trusted by real life Formula One race winners, IndyCar champions, Daytona 24 winners and a plethora of industry leading manufacturers.

The below tutorial will explain the DNR Matrix Flag Box LED profiles installation and customisation options.

In order to use the Daniel Newman Racing Steering Matrix Flag Box LED profiles you will need to ensure you have SimHub installed and the latest version installed.

You can download SimHub here - <https://www.simhubdash.com/>

In addition to installing SimHub, you will need to ensure you have a set of SimHub compatible Matrix Flag Box device.

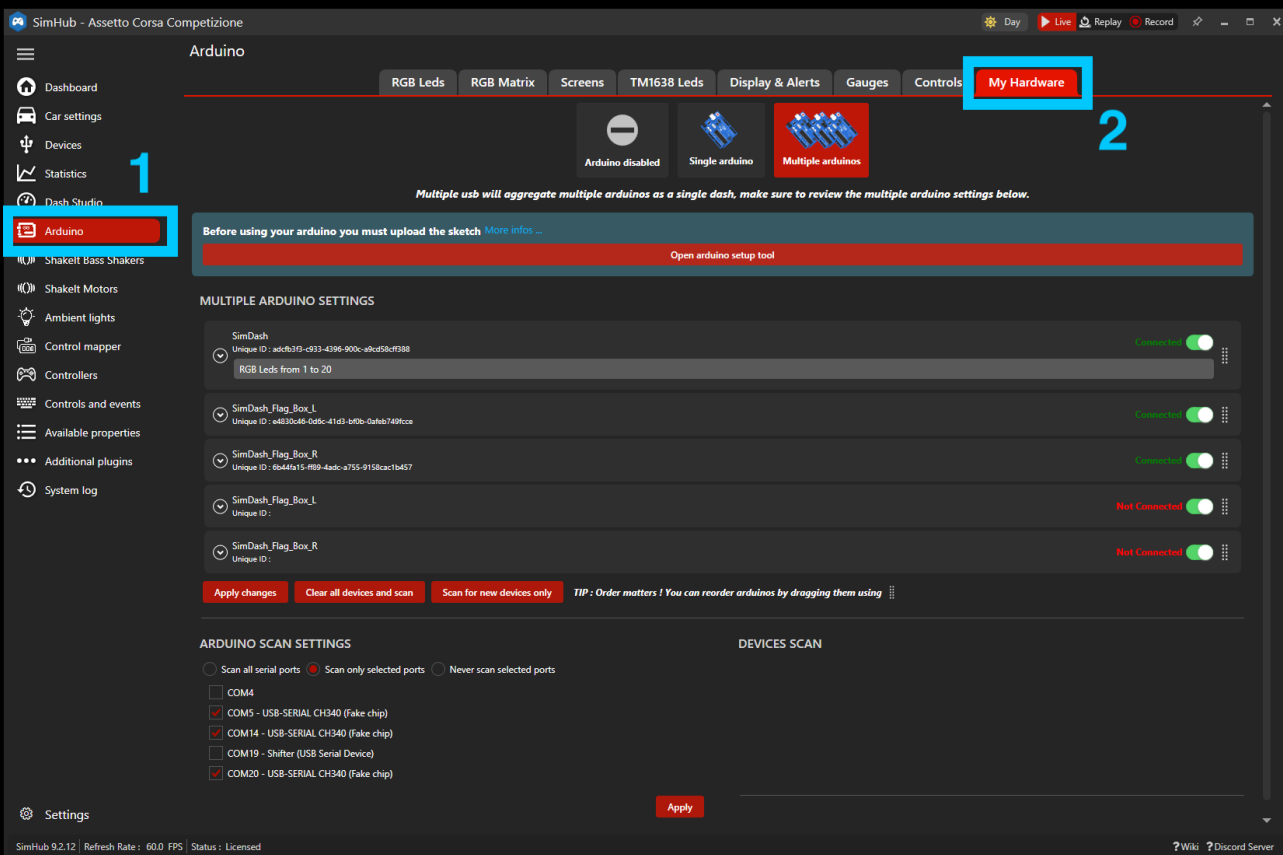
A pair of Flag Box LED profiles are available on the website to suit both:

Single Flag Box
Pair of Flag Boxes

Step 1 - Set up your Flag Boxes

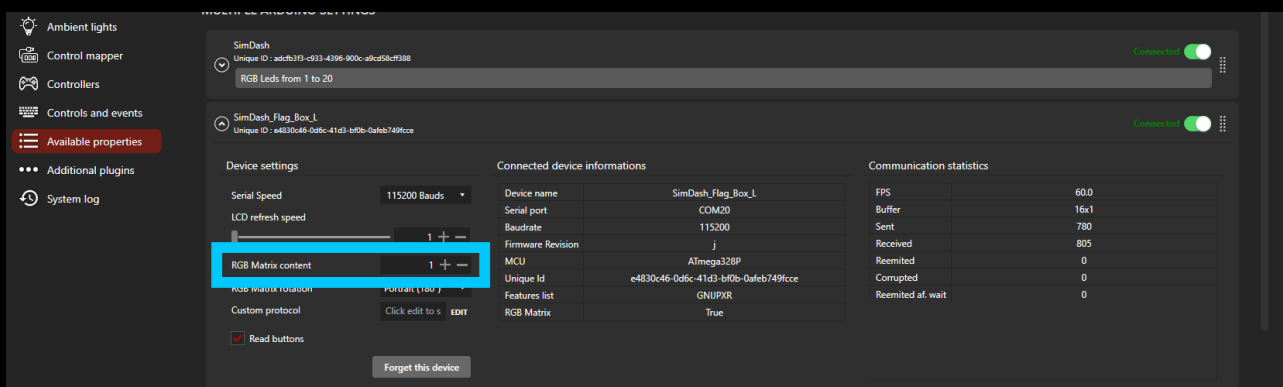
The first step of setting your Daniel Newman Racing Matrix profile, is actually to set up your matrix hardware. The process for which is slightly different to other Arduino based devices.

First you need to open SimHub and navigate to the Arduino page (1) and then select the My Hardware tab (2) on the right hand side of the top of the page. The below screen will then be displayed.



This is where all of your Arduino based devices are shown. These could include DDU LEDs, Wheel Button LEDs etc, depending on how your other peripheral devices are connected. Within this screen you need to locate your Flag Boxes (shown in this demonstration as SimDash_Flag_Box_L & SimDash_Flag_Box_R). You can then open each flag box device using the drop down arrow to the right of its name.

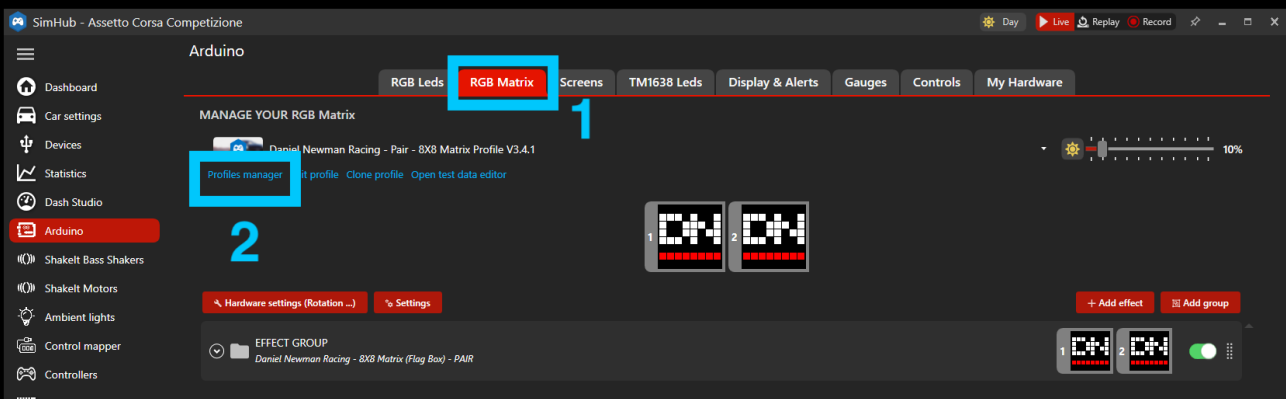
Importantly you now need to select the position of the Flag Box Matrix.



If you have a single Flag Box matrix, the RGB Matrix content number should be 1. If you have a pair of Flag Box matrix, you need to ensure the LEFT box is RGB Matrix content number 1 and the RIGHT box is RGB Matrix content number 2. This will ensure that the correct effect is sent to the correct box.

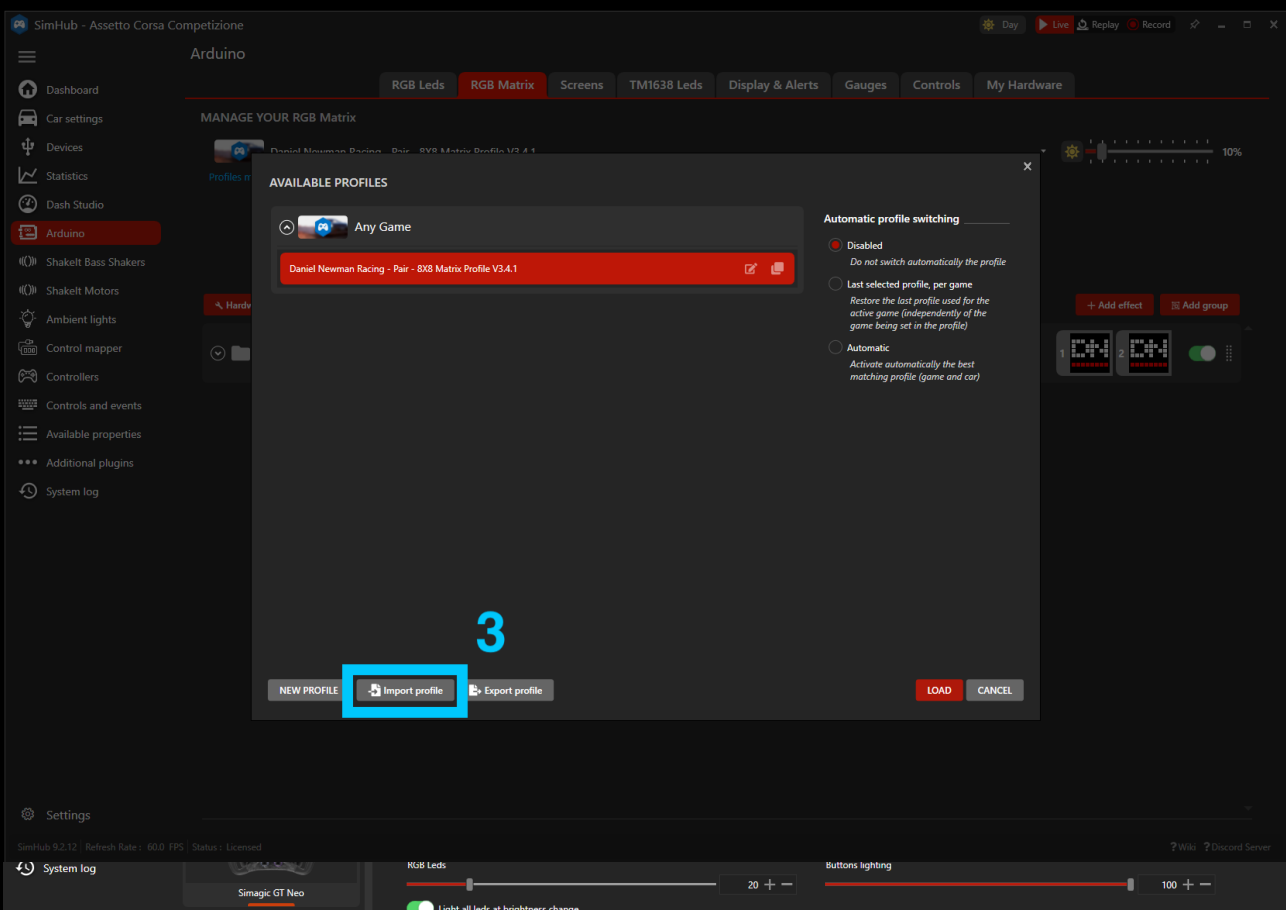
A common mistake at this step, is people do not change these numbers and both boxes are left as 1, meaning the boxes do not operate as intended, only showing you half of the desired effects.

Following this step, you need to navigate to the RGB Matrix tab shown as (1) below.

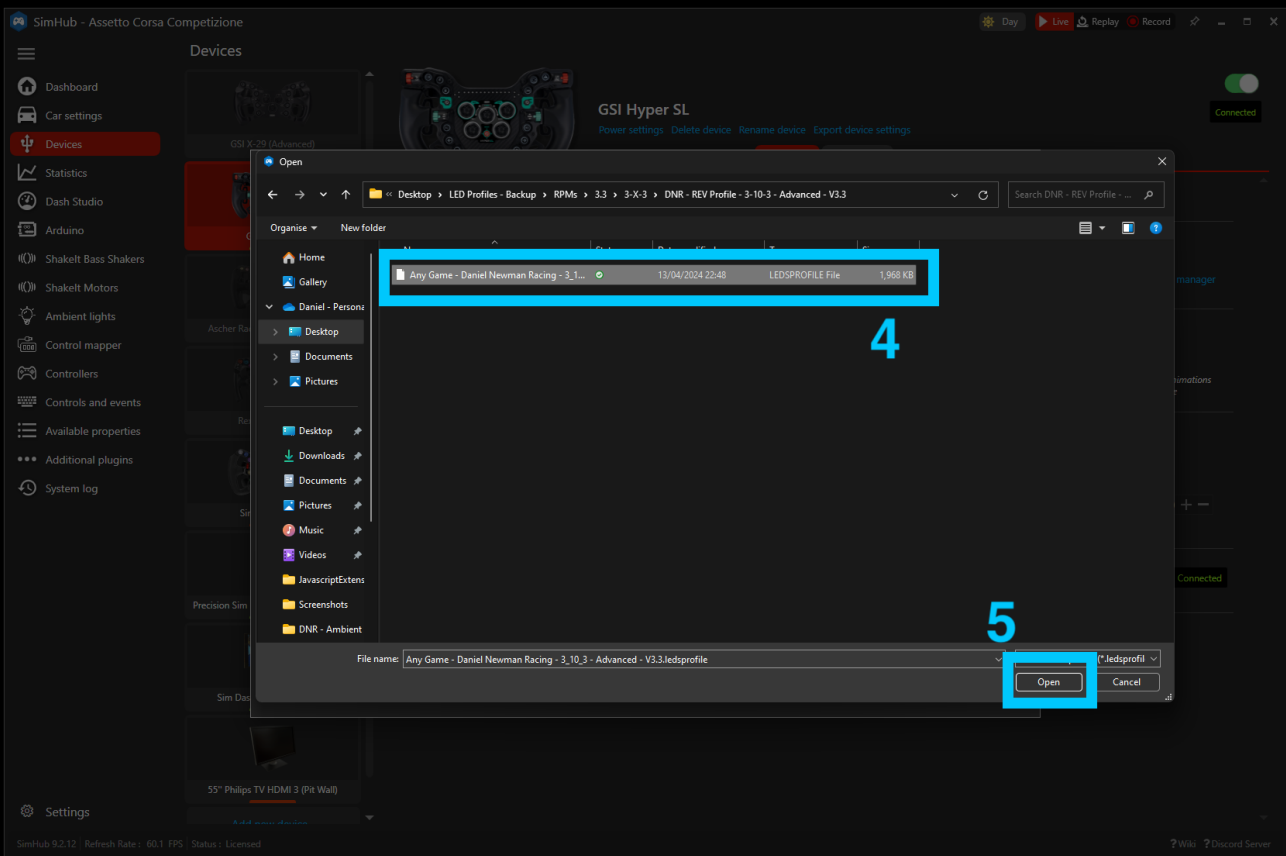


You'll then need to select profile manager (2) to open the import window.

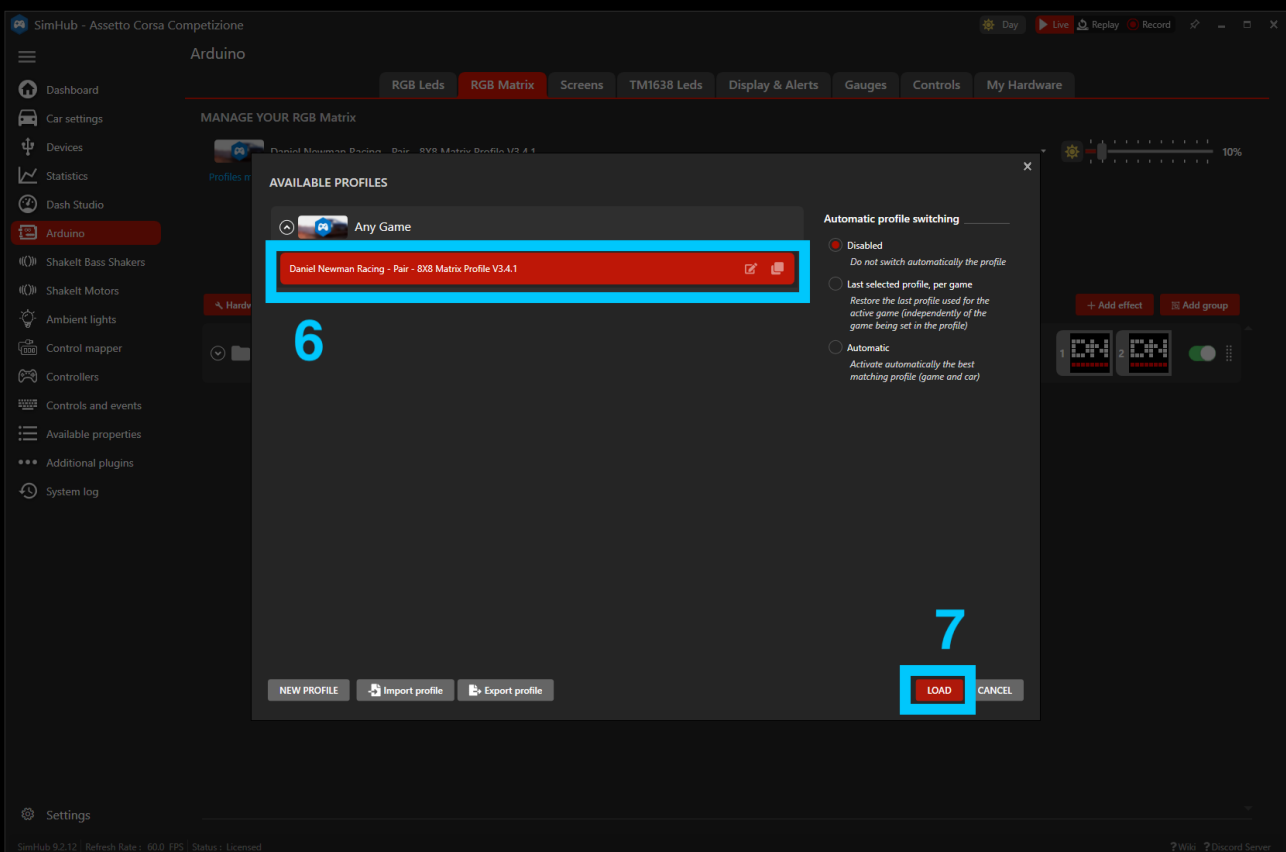
After pressing profiles manager, you will see the screen below, where you can now press 'Import profile' (3).



You now need to navigate your file explorer to the location of the saved profile, select it as shown in number (4), and then press open as per number (5).

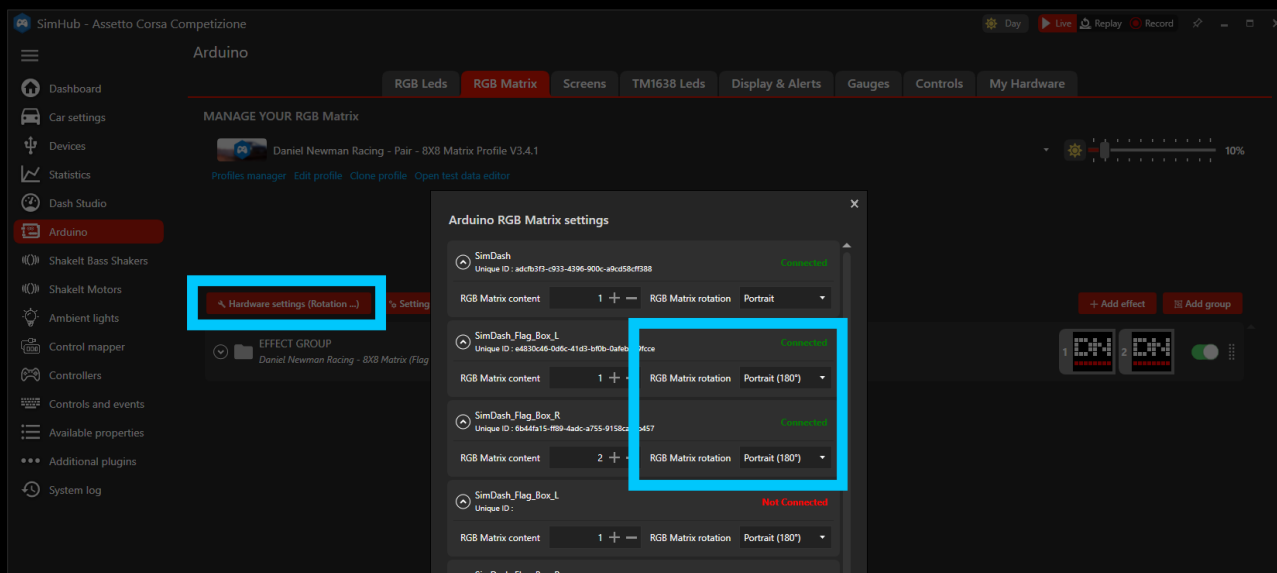


Lastly, select the profile in number (6) ensuring you select the correctly named profile, and then press load as per option (7).



Now your Matrix LED profile is loaded, you may notice that depending on the orientation of your Flag Box installation the screen content is not in the correct position. This happens when a Flag Box is not mounted the correct way up due to mounting constraints, but is easily rectified.

Simply open the Hardware settings open shown below and adjust the RGB Matrix rotation until the Flag Box displays the content in the correct orientation.



Your Matrix Flag Box installation is now complete. The profile has a series of default options loaded within it, but if you wish to customise these to your own preference and taste, please move onto Step 2 below.

Step 2 - Customise Your Preferences.

The Daniel Newman Racing website (<https://www.danielnewmanracing.com>) provides an easy to use and automated configurator tool to allow you to customise your profiles. Once the tool has been used a JSON file (the settings file) is generated and used to tell SimHub which preferences you wish to follow. As the Daniel Newman Racing library is large, the JSON file will adjust the preferences of all your DNR profiles, so ensure when making changes, you do them with all devices in mind.

In this section we will skip to the relevant configurator options for this profile ('Eyebrow' LEDs) and describe what each of the options does.

Flag Box Idle Screen Off / Static / Animated (Default)

This setting allows you to select the behaviour of the DNR logo on the idle screen of the Flag Boxes for when SimHub is launched but a game is not in session (i.e Desktop, game menus etc).

Flag Box Idle Screen

Animated

This setting allows the DNR logo to display when the matrix box is idle, or in menus.

Flag Box Gears ON (Default) / OFF

This setting allows you to turn ON/OFF in gear number animations on your Flag Boxes.

Flag Box Gears

ON

OFF

This setting allows you to turn ON/OFF the gear and accompanying redline display on the Matrix Flag Box/s.

Flag Box Gear Colour Red / Blue / Green / Yellow / Orange / Purple / Pink / White (Default)

This setting allows you to select the colour of gear numbers used on the Flag Box (when enabled in the setting above).

Flag Box Gear Colour

White (Default)

This setting allows you to select the colour of the gear animation on the Matrix Flag Box/s. By default, White is selected.

Flag Box Redline Colour

Red / Blue / Green / Yellow / Orange / Purple / Pink / White (Default)

This setting allows you to select the colour of gear numbers used on the Flag Box when the car hits the redline and maximum RPMs are achieved in that specific gear (when enabled in the setting above).

Flag Box Redline Colour

Red (Default)

This setting allows you to select the colour of the redline animation on the Matrix Flag Box/s. By default, Red is selected.

Flag Box Redline Behaviour

Static / Flashing (Default)

This setting allows you to set the behaviour of the gear indicator when the car hits the redline and maximum RPMs are achieved in that specific gear (when enabled in the setting above).

Flag Box Redline Behaviour

Flashing

This setting allows you to choose whether your Matrix Flag box is static or flashing when gears hit the redline.

Flag Box Spotters

ON (Default) / OFF

This setting allows you to turn ON/OFF in game Spotter animations telling you whether there are cars to your left or your right on your Flag Boxes. These flash the left or right set Flag Box with arrow animations when a car is in your proximity.

Flag Box Spotters

ON

OFF

This setting allows you to turn ON/OFF the Spotter on the Matrix Flag Box/s.

Flag Box Pit

ON (Default) / OFF

This setting allows you to turn ON/OFF all of the Pit Lane effects that include:

A flashing animation telling you that you are in the pit lane with (blue) or without (red) your speed limiter activated. A flashing animation telling you that you are in the pit lane and need to activate (red) or deactivate as you have closed the line (green) your speed limiter. A flashing red animation telling you that you are in the pit lane you are exceeding the tracks speed limit. The traditional blue and white Speed/Pit Limiter animation.

Flag Box Pit

ON

OFF

This setting allows you to turn ON/OFF the Pit Lane effects on Flag Box/s. The effects include Pit Speed Limiter, Pit Entry & Exit Alerts, Pit Lane Speeding Alerts and the Pitbox 'in progress' animation.

Flag Box Pit Countdown

ON (Default) / OFF

This setting applies to iRacing ONLY and works only with the RomainRob additional settings Plug In. It will allow you to turn ON/OFF a pit lane countdown that counts down from 10 to 0 the amount of time (in seconds) until you reach your pit box.

Flag Box Pit Countdown

ON

OFF

This setting allows you to turn ON/OFF a Pit Box countdown (in iRacing ONLY when using the Romain Rob RCC Extra Properties SimHub Plugin) on the Matrix Flag Box/s.

Flag Box Temperature Warning

ON (Default) / OFF

This setting allows you to turn ON or OFF a warning for supported Sims, telling you when the cars Oil or Water temperature is exceeding its limit and needs to be monitored.

Flag Box Temperature Warning

ON

OFF

This setting allows you to turn ON/OFF the Oil & Water temperature warning in iRacing on the Matrix Flag Box/s.

Penalty Warning Duration

1-60 (seconds) / Default is 10

This setting allows you to set the maximum time period in seconds that the penalty warning is displayed for.

Penalty Warning Duration



10

This setting allows you to select the length of time (in seconds) the stop and go penalty alert is displayed for. 10 Seconds is the default.

True Dark Mode - Lovely Dashboard Behaviour

On (Default) / OFF

This setting allows you to mimic the behaviour of the Lovely Dashboard Settings file for those who use it as far as True Dark Mode is concerned. Turning it ON will automatically take the ON/OFF True Dark Mode state from the Lovely Dashboard settings file. It will also copy and match the corresponding True Dark Mode colour state from the Lovely Dashboard mirroring it on your LEDs also.

TDM Lovely Dashboard Behaviour

ON

OFF

Where users of the Daniel Newman Racing LED profiles also have the Lovely Dashboard with settings file installed, copying the Lovely Dashboard True Dark Mode behaviour above, will automatically take the ON/OFF True Dark Mode state from the Lovely Dashboard settings file. It will also copy and match the corresponding True Dark Mode colour state from the Lovely Dashboard mirroring it on your LEDs also.

True Dark Mode On (Default) / OFF

This setting will enable or disable the use of True Dark Mode for users who do not have the Lovely Dashboard installed.

TDM

 ON OFF

This setting will enable or disable the use of True Dark Mode for users who do not have the Lovely Dashboard installed.

TDM Colour Red (Default) / Blue / Purple / Orange

This setting will allow you to change the colour of True Dark Mode used when activated between one of 4 colours listed above.

TDM Colour

Red

This setting will select the colour of True Dark Mode LEDs for users who do not have the Lovely Dashboard installed and thus are missing that settings file OR for when copying the Lovely Dashboard behaviour has been disabled.

TDM Hotkey User Configurable

This setting will allow you to set the hotkey used to activate True Dark Mode for where the Lovely Dashboard settings file is not present or detected. It will also allow you to turn on True Dark Mode independently if you wish to do so.

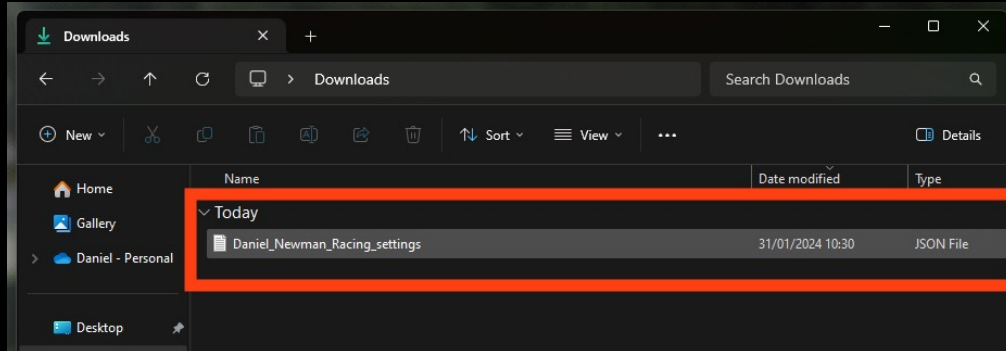
TDM Hotkey

Alt+Shift+D

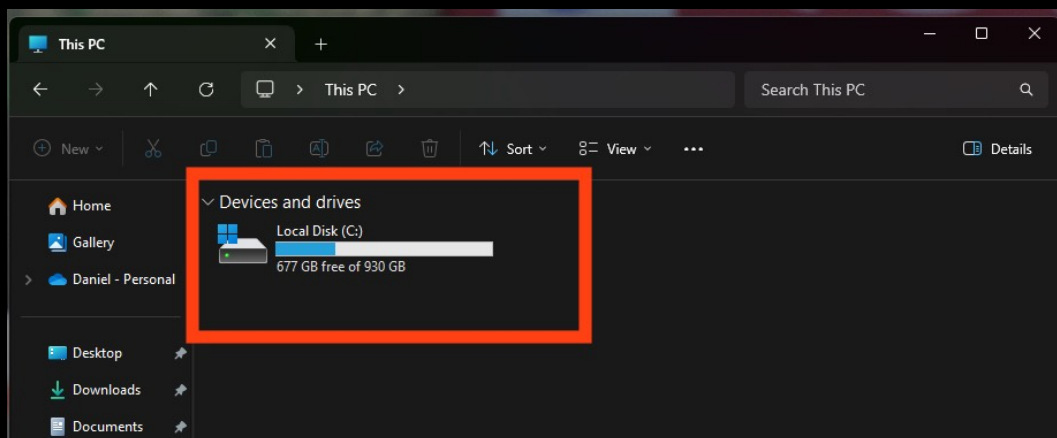
Put any hotkey here to be able to switch to TDM - This LED profile will automatically connect to the Lovely Dashboard settings file (if present) and mirror the True Dark Mode hotkey used by the Lovely Dashboard. For Users who do not have the Lovely Dashboard installed, this setting instead allows you to set your own independent hot key to turn on True Dark Mode.

Step 3 - Upload Your Preferences

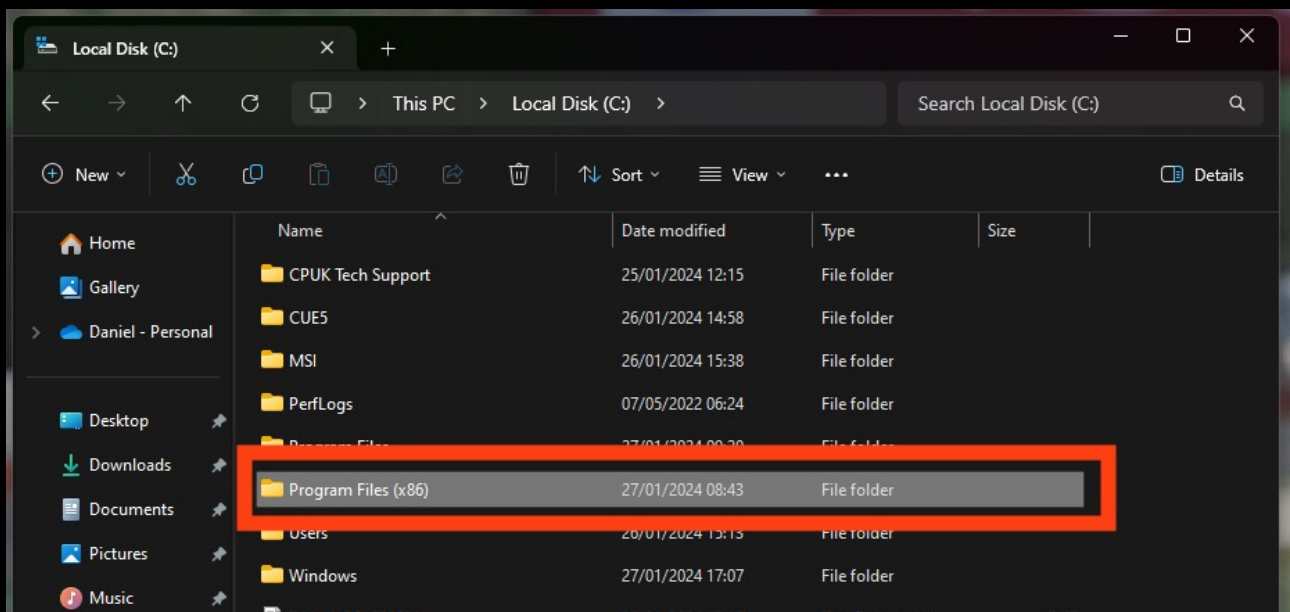
Once you have chosen your optimum settings in the Daniel Newman Racing configurator via the website, you can then press 'Download File' at the bottom of the page. A new file will then be saved to your computers designated download space and be named 'Daniel_Newman_Racing_settings.json'



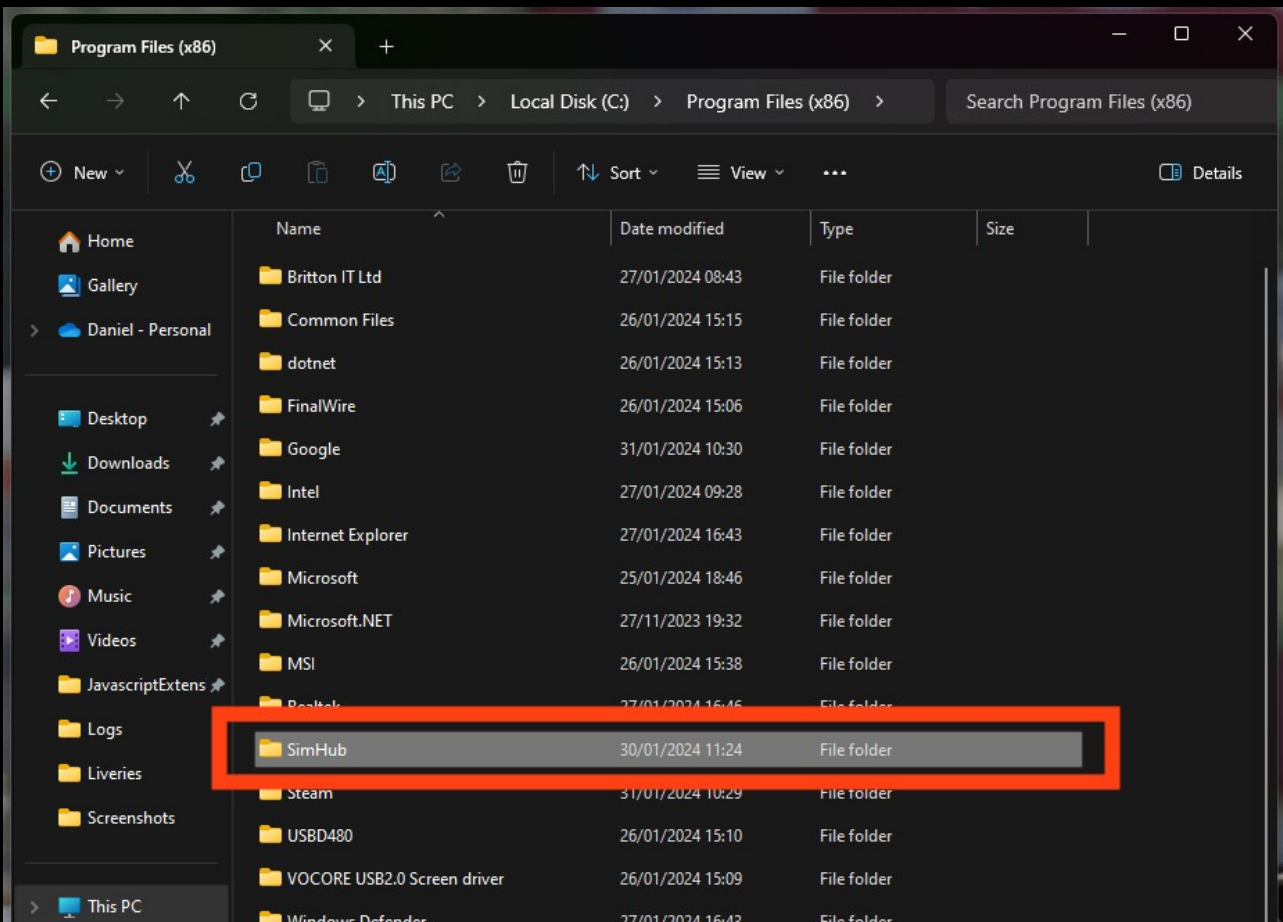
The file now needs copying to the SimHub JavascriptExtensions folder. Locate your PC's main C: Drive



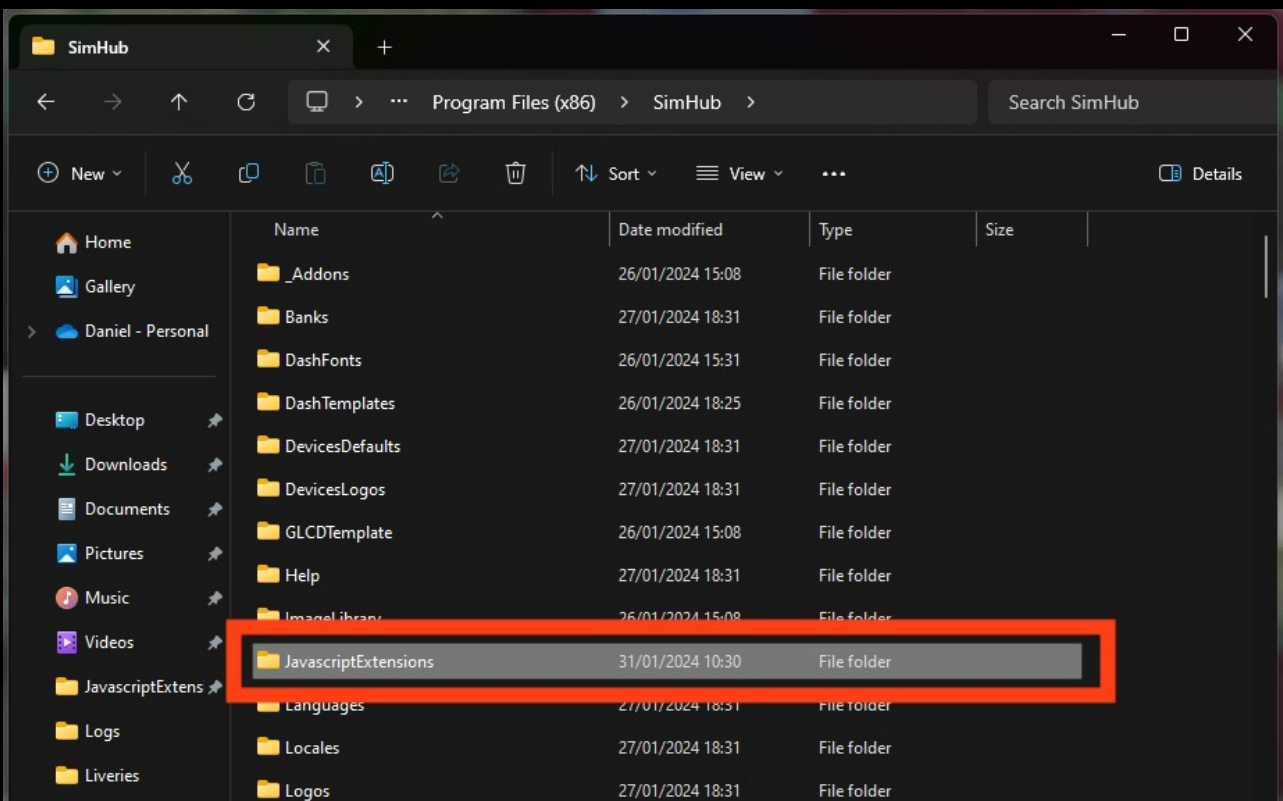
Enter the Programme Files section (x86)



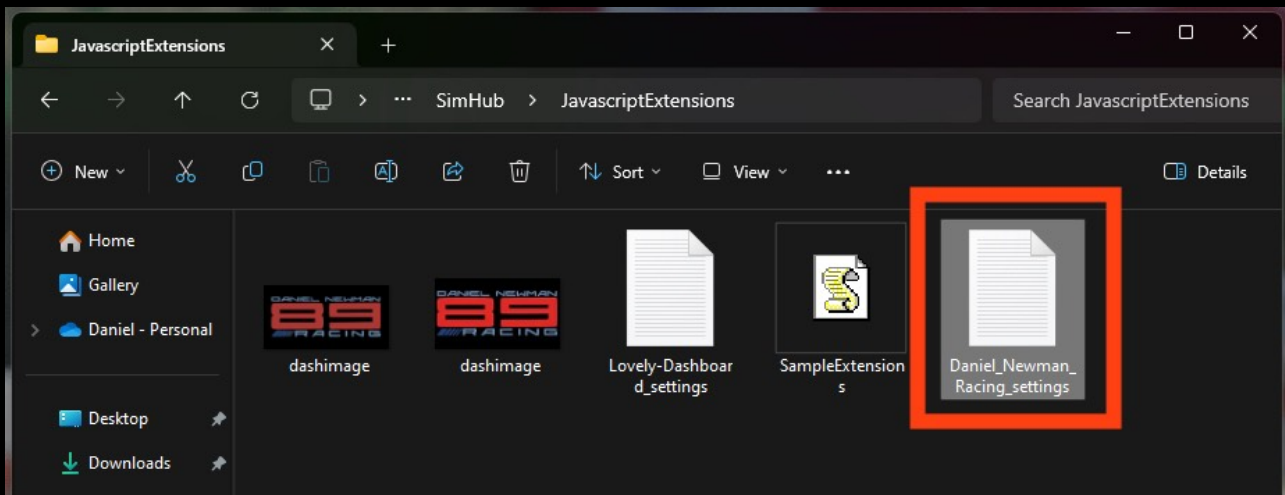
When in the Programme Files folder, locate the SimHub folder



Then locate the JavascriptExtensions folder



Now copy and paste (or move), your Daniel_Newman_Racing_settings.json file into this folder



Your JSON 'settings file' is now copied to its correct location. In order for the changes to take effect you will need to restart SimHub by ensuring the application is CLOSED, and then reopened.

For any further issues and troubleshooting you can contact Daniel Newman Racing via the website (<https://www.danielnewmanracing.com>) or via email at daniel@danielnewmanracing.com

Alternatively you could join the excellent Discord Community, where somebody will be able to assist you: <https://discord.gg/GAXEGnZawS>

If you like the work created by Daniel Newman Racing, you can also become a member of contribute towards the ongoing development here: <https://www.ko-fi.com/danielnewmanracing>