



SIMXPERIENCE

SIMVIBE TUNING GUIDE

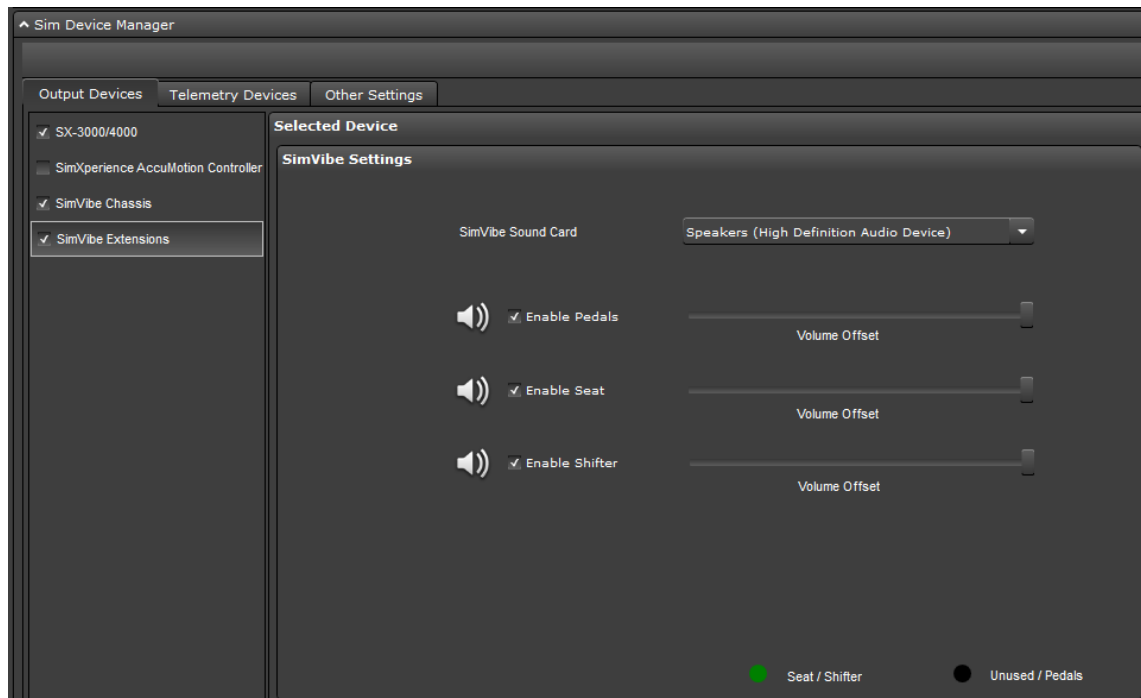
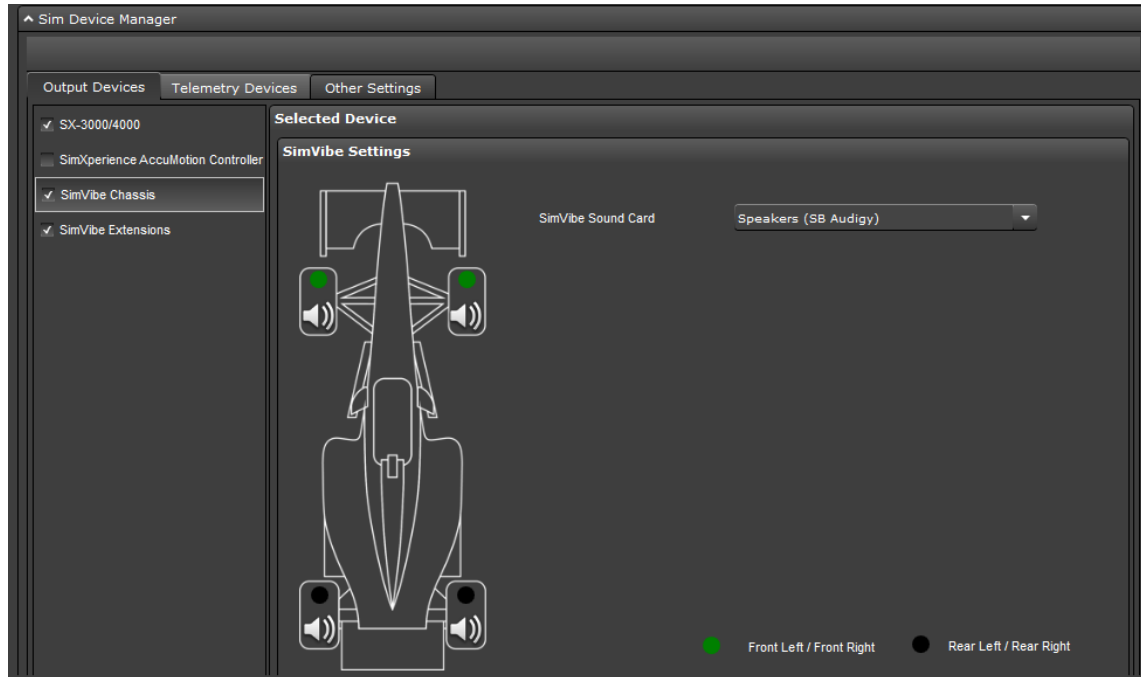
System Setup

Before beginning this guide, please ensure that you have thoroughly followed the instructions in the SimVibe Setup Guide and have properly configured Windows Sound for use with SimVibe.

Testing Your Configuration

The Sim Commander 3 provides a simple test tool for each enabled SimVibe option. This option can be found in the 'Control Center' → 'Sim Device Manager'.

Simply click the audio icons (shown below) to test that you have connected your speakers correctly and have placed your transducers in the correct locations.



Effect List / Purposes

- **Engine Vibrations** – Simulates engine vibrations as they would transfer through the chassis of a vehicle.
- **Impacts** – Provides directional crash and collision feedback.
- **Road Bumps** – Simulates road bumps and deeper tones as they would transfer through the chassis of a vehicle.
- **Road Texture** – Simulates road detail, including higher frequencies, as they would transfer through the chassis of a vehicle.
- **Gear Shift** – Simulates the vibrations caused by gear engagement throughout the vehicle.
- **Gear Grinding** – Provides grinding sensation for missed gear shifts. *
- **Front Suspensions Bumps** – Provides directional (left / right) individual front suspension bumps as they would affect the chassis.
- **Rear Suspensions Bumps** – Provides directional (left / right) individual rear suspension bumps as they would affect the chassis.
- **Front Suspensions Texture** – Provides directional (left / right) individual front suspension details, including higher frequencies as they would affect the chassis. This effect accurately portrays road surface details as depicted by the game developer. *
- **Rear Suspensions Texture** – Provides directional (left / right) individual rear suspension details, including higher frequencies, as they would affect the chassis. This effect accurately portrays road surface details as depicted by the game developer. *
- **Vertical Bumps** – Provides vertical bumps as they would affect the chassis.
- **Vertical Texture** – Provides vertical road surface details.
- **Wheel Slip** – Provides directional wheel slip information at all four corners. *

* Not available in all games

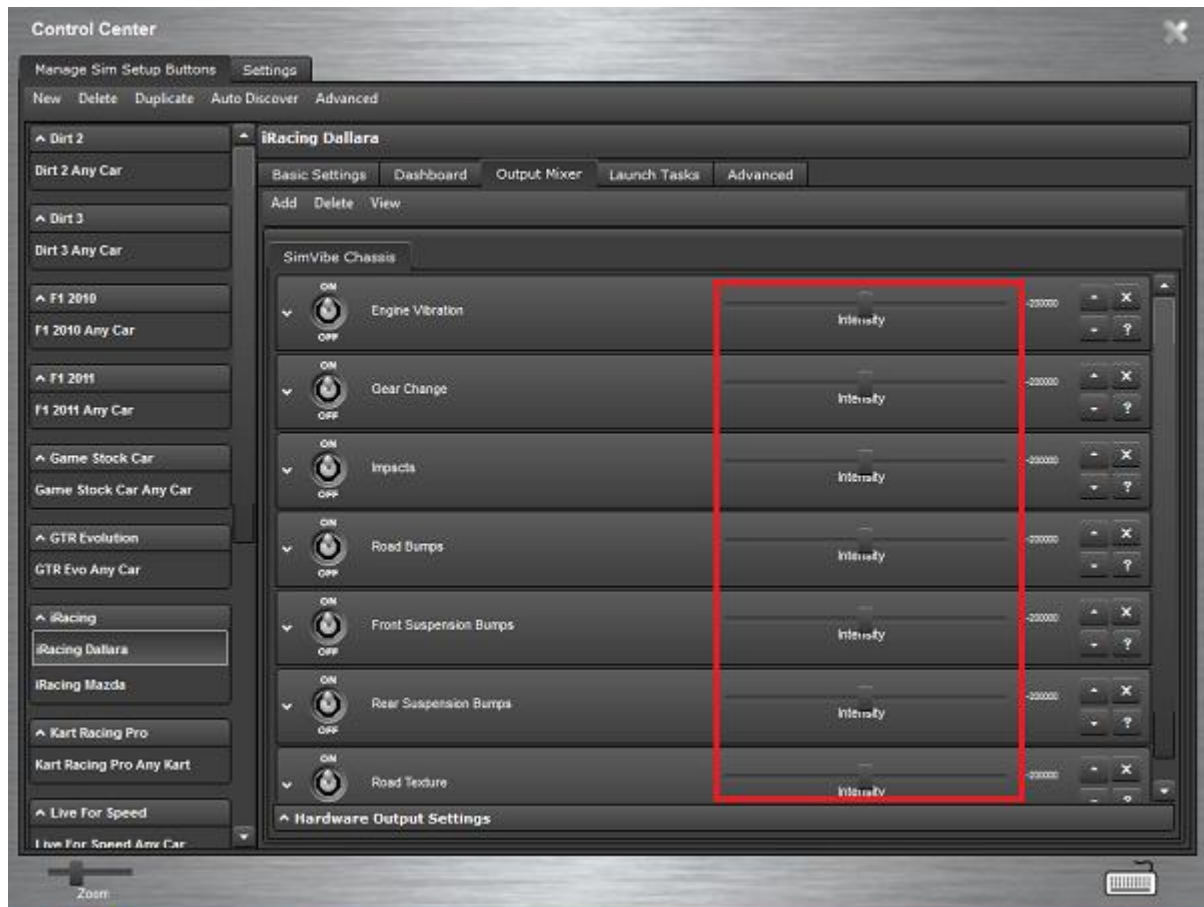
Individual Effect Tuning Options

SimVibe is an advanced audio based tactile feedback solution and as such, offers various levels of tuning capability for various levels of users.

For users that simply wish to click and drive, the Sim Commander 3 software will detect your installed games during the initial setup and will create default 'Sim Setups' for you. You may simply click and drive these Sim Setup Buttons from the main screen as depicted below.



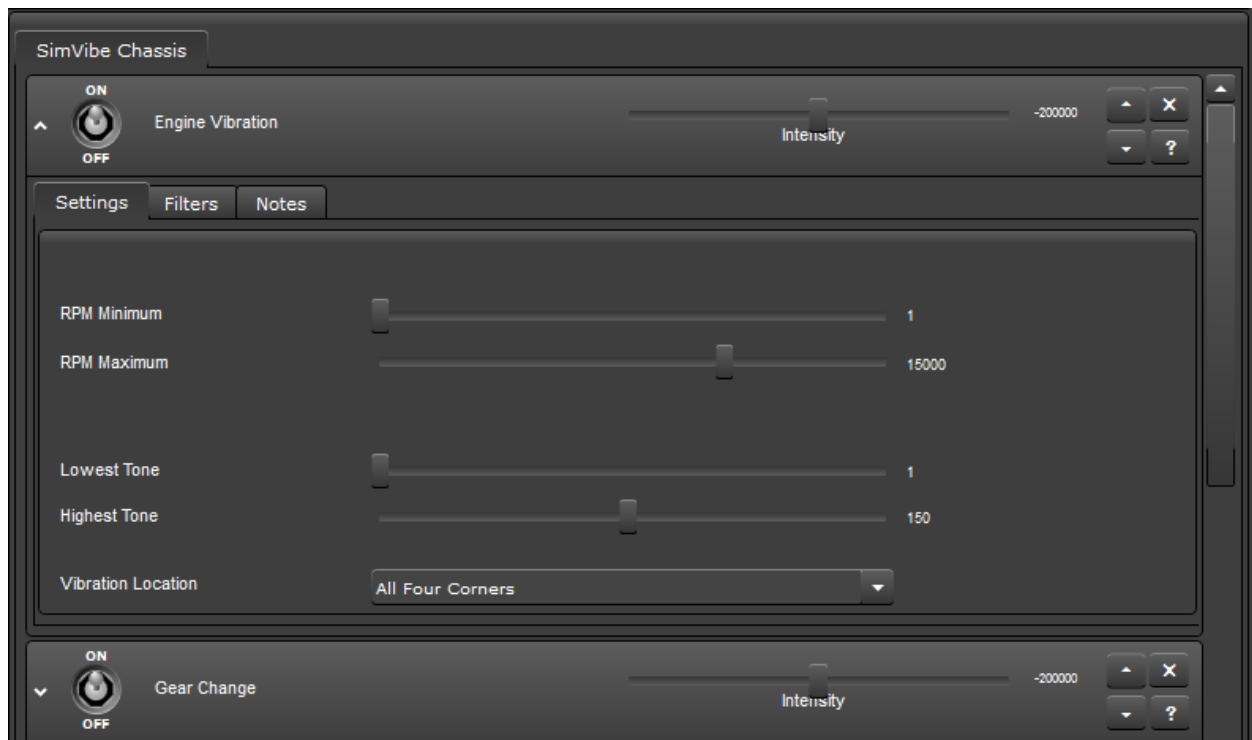
Users that desire additional tuning may take advantage of the Sim Commander's Output Mixer and utilize the first level of tuning, intensity sliders. By simply adjusting these sliders (depicted below), you will be able to feel more or less of a given effect.



Audiophiles and power users may wish to take advantage of the Commander's more advanced settings and can expand an effect (by single-clicking it) to see its detailed settings. Here, inbound physics data from the game can be scaled into frequency (tone) and volume. In some cases, additional effect specific features are also provided as depicted below.

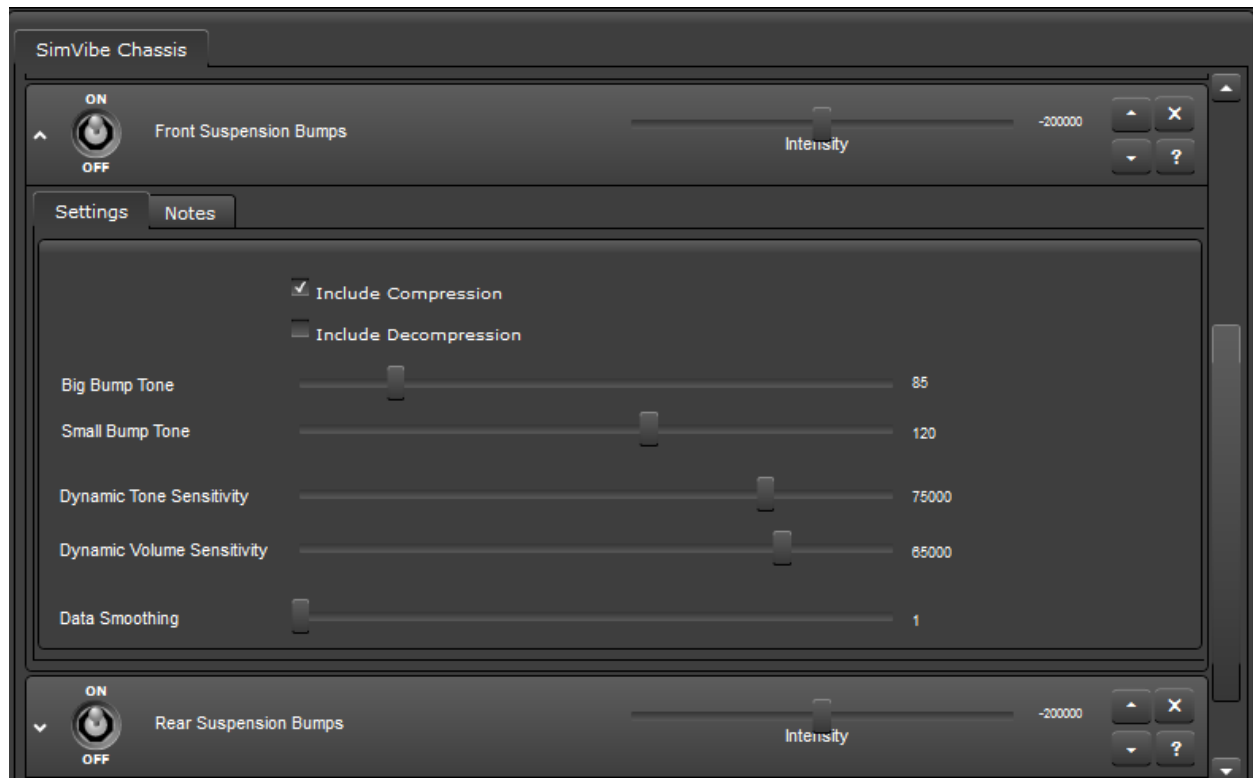
This remainder of this section focuses on understanding these advanced tuning options on a per effect basis.

Engine Vibration



Like most SimVibe effects, you can scale the data, in this case engine rpm, into a tone (frequency). You may also choose to place the engine vibration in the front, rear or all four corners of the chassis.

Bump Based Effects (Road Bumps, Front / Rear Suspension Bumps & Vertical Bumps)



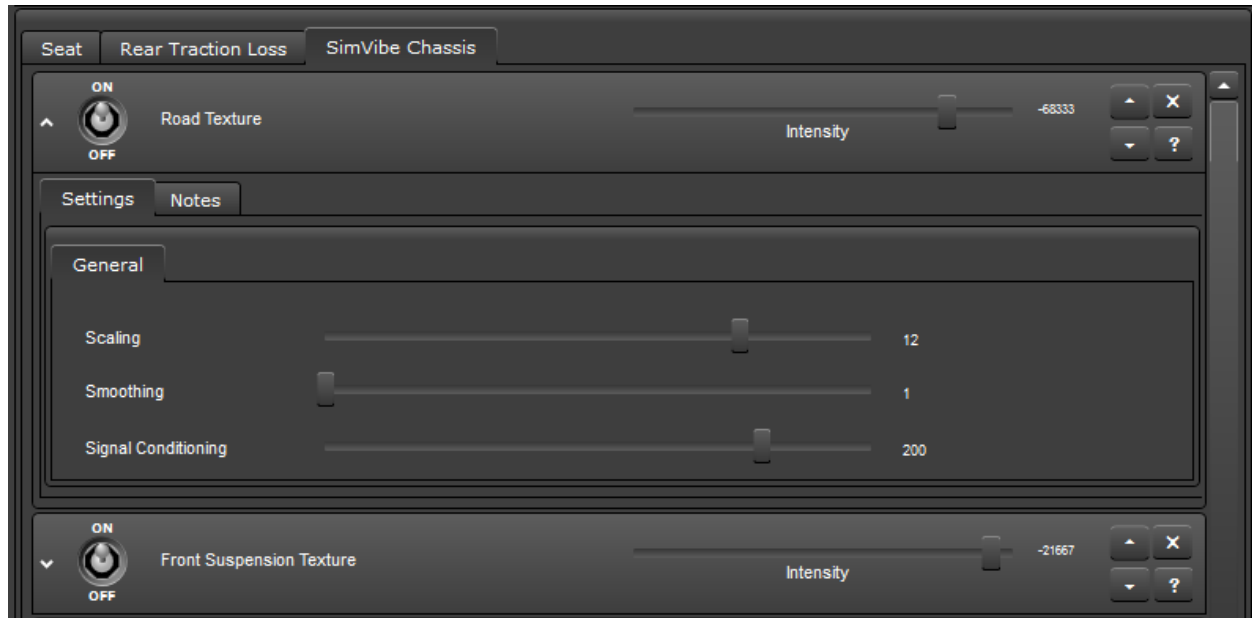
Like most SimVibe effects, you can scale the data, in this case engine rpm, into a tone (frequency). You may also choose to place the engine vibration in the front, rear or all four corners of the chassis.

Dynamic Tone Sensitivity determines how sensitive the effect will be to a change in incoming data for the purpose of manipulating frequency. This sensitivity determines how the Commander will scale between your big bump tone and small bump tone.

Dynamic Volume Sensitivity determines how sensitive the effect will be to a change in incoming data for the purpose of manipulating volume. This sensitivity determines how the Commander will scale the volume for this effect. The volume will be scaled up to the maximum value set on the Intensity slider. Dynamic Volume Sensitivity is the key adjustment for this style of effect.

Smoothing will simply smooth out rough edges or spikes. This is rarely required.

Texture Based Effects (Road Texture, Front / Rear Suspension Texture & Vertical Texture)



Texture based effects are not based on frequency scaling and as a result are more responsive and more able to reproduce rapid detail and texture.

Scaling determines how sensitive the effect will be to a change in incoming data for the purpose of manipulating volume. The volume will be scaled up to the maximum value set on the Intensity slider. Scaling is the key adjustment for this style of effect.

Smoothing will simply smooth out rough edges or spikes. This is rarely required.

Signal Conditioning applies a proprietary filter that can remove excessive noise without compromising critical detail. Although it is not a low pass filter, this is the best analogy for this type of conditioning.