

- Steering wheel configurations for PC and Consoles -

Every player has personal expectations when it comes to driving a racing wheel. Some prefer strong feedback; others prefer more emphasis on tyre slip feedback while driving on gravel for example. While developing WRC Generations we wanted to make sure you can configure axes and wheel feedback to have your racing wheel behave as you want it to. This documentation explains how to optimize racing wheel settings in WRC Generations.

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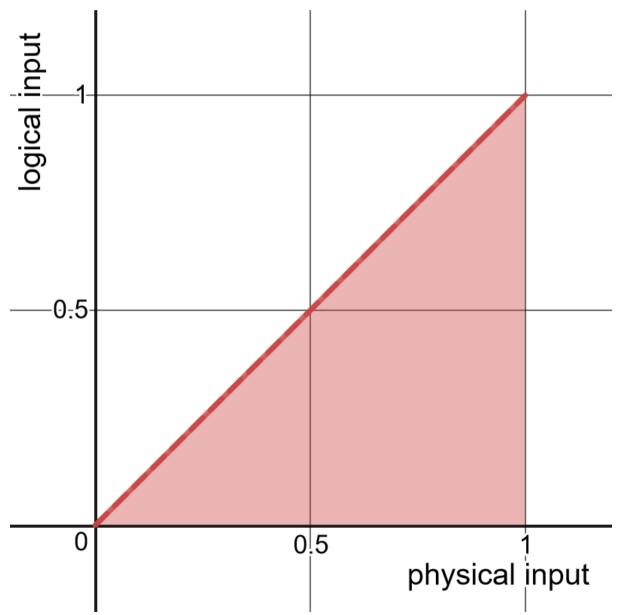
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1. In-game settings

A. Axes

Each axis (throttle, brake, clutch, steering) can be configured using multiple parameters.

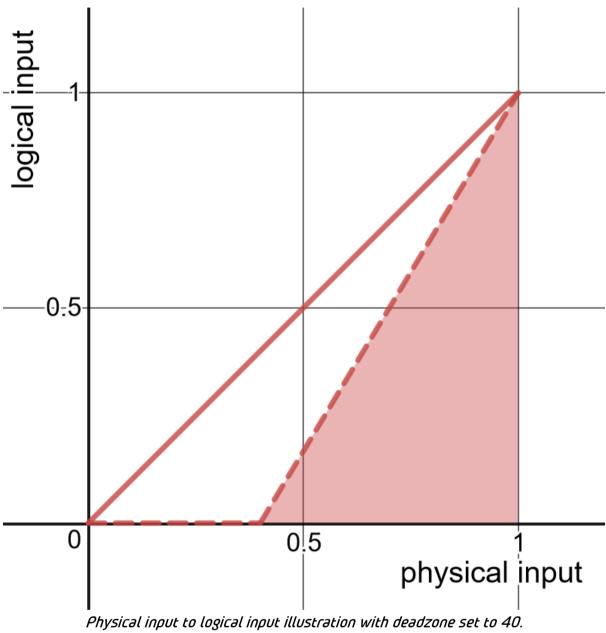
The first 3 parameters provide a way to change how much the logical (in-game) axis input is detected depending on how much the physical axis is depressed. With the default values, the logical input exactly matches the physical input, which means depressing your pedal halfway results in a 50% logical input as well. In other words the game handles your raw axis input without filtering it.



For various reasons you may want to adjust this using deadzone, saturation, or sensitivity.

• Deadzone

The deadzone is a "no input" zone at the beginning of the axis. With a 10% deadzone, you won't get any logical input unless your physical axis is pressed by at least 10%.

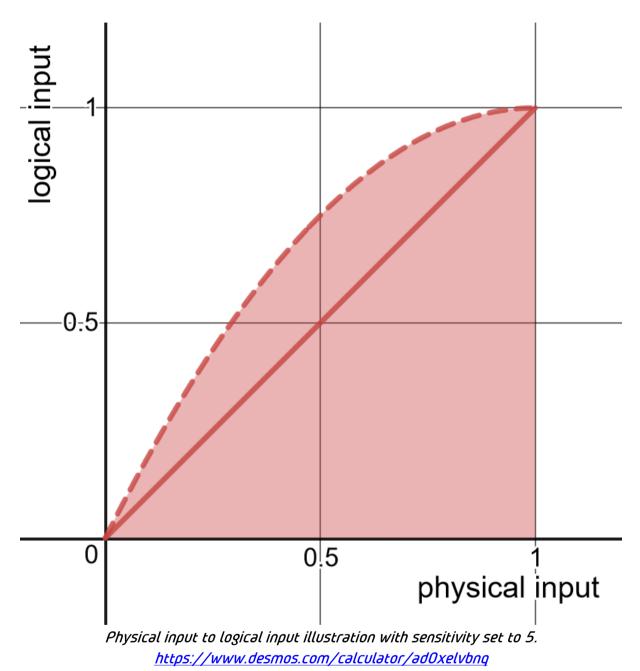


https://www.desmos.com/calculator/qbv0aptsdl

Usage: Typically, you'll want the smallest deadzone possible for the best precision, but you may require one for some axes. When an axis sends unwanted small input signals to the game even when it's not being pressed at all, a small deadzone will be needed to filter those out.

• Sensitivity

Also called linearity, sensitivity allows to get more logical input either at the start or at the end of the physical axis. Using sensitivity, you can make logical inputs more reactive when you depress your axis lightly, or on the contrary when you depress your axis further.



Usage: For instance, if you feel like your car is braking too hard even when you depress your pedal lightly, decreasing the brake sensitivity will help.

Another example may be if you feel like your car is not turning enough when you turn your steering wheel lightly, but you don't want to change the maximum angle (which is the basically saturation by the way), increase the steering sensitivity.

• Putting it all together

Deadzone and saturation all together create an "active zone" of the physical input outside of which the logical input will be either zero (deadzone) or maxed-out (saturation) in-game. Inside your active zone, you can tweak the sensitivity to make the axis more reactive either for smaller inputs or for bigger inputs, as you prefer.

• Invert, combine axis

Those two parameters are useful if you are using a device which is not officially supported by the game. If the device sends negative numbers to the game for an axis, "invert" must be toggled on.

If the axis fully pressed sends value lower than 1, you can toggle on Rescale button to have access to full logical range.

Usage: If depressing your physical axis results in no in-game input, try checking "Invert". If by fully pressing your axes, the logical response doesn't go up to 1, try checking "Rescale"

B. Wheel effects and feedback

Along with axes settings, the in-game menus are here to help you configure your wheel effects. There are three types of effects: force, damping, and vibration.

- Force is an effect that will turn your wheel if you're not holding it.
- Damping is a feedback that makes the wheel harder to turn.
- Vibration makes your wheel rumble, either with a high frequency or low frequency (shakier).

i. General Tab:

In the General tab you will find 4 options:

• Main Controller

The main controller option will allow the FFB and vibrations update of a device. You can have multiple main controllers. By default, the main controller will be (if plugged in before the start of the game) a steering wheel, then a pad and finally keyboard and mouse. If this option is switched off, the steering wheel will NOT receive FFB, vibrations and axis input.

• Vibrotacticle force feedback

At the moment, this option is only available for Logitech True Force steering wheels. It will allow you to switch between True Force mode (when on) and Standard mode (when off).

• Adaptive triggers

This option is only available on PC and PS5 with DualSense PS5 pad. It allows you to switch on or off the adaptive trigger of the pad to feel the brake pedal, damage on the car, ABS or punctures.

• Max wheel angle

This slider will change the max wheel angle you can achieve. Most of the steering wheels have 980° or more, but the slider allows you to change the max wheel angle needed to go from full left to full right.

Usage: I would like to achieve full lock (e.g full right or full left) by only turning the wheel by 180° , I will change this slider to 360° . So -180° will be full left, and $+180^{\circ}$ will be full right.

Tips: If this option is not available, try to update drivers and firmware and, if it's not already the case, download your wheel's manufacturer software (Logitech G HUB, Fanalabs, ...).

ii. Force and effects

Overall force

This slider scales the overall force of your racing wheel, which will give it a lighter or heavier feeling.

Usage: If you feel like your wheel is too heavy and you need too much force to steer it, reduce the overall force. If you don't like your wheel being too light and easy to steer, increase it.

• Self-aligning torque

Self-aligning torque (SAT for short) is the most important component of the racing wheel effects. In a real car, SAT is the force applied on the vehicle's wheels that make them turn left or right, depending on parameters like velocity and friction. This force is transferred to the steering wheel and to the driver's arms and can give you information to counter-steer efficiently for instance.

Usage: If you feel like your wheel is too violent and is sending too much active force to your arms in situations like steering at high speed, move this slider down. Move it up if you would like the road and car information being transferred to your arms with more intensity.

• Tyre Load

In a real car, tyre load is the force applied on the wheel due to suspensions and steer depending on the velocity of the car. It's a constant effect, so it will add constant force to your wheel when turning at high speed for example, or when the suspensions are compressed on bumps. It scaled SAT on speed.

Usage: If you feel the steering wheel is too "hard to turn" when turning at medium/high speed corners, you can reduce this parameter. If you feel it too loose at high-speed corners, you can increase it.

• Self Centre

In a real car, caster angle and the frictions of the tyres will make the steering wheel try to go back in neutral position when accelerating, braking or steering.

Usage: If the force that tries to bring back the wheel in neutral position is too violent when your wheels are turned while accelerating, turn this slider down. If you feel like you don't have enough resistance in the wheel when turning while braking or accelerating, try to turn it up.

Recentre Force

The center force sets your racing wheel back to neutral position when you start a race or when your car is respawned.

Usage: Set this to 0 if you don't want your racing wheel to be automatically reset or scale the force according to your liking.

• Ground surface

The ground surface force is a constant force that pushes your wheel out when jumping, hitting rocks, going off track, etc.

Usage: If you feel it too violent bursts when jumping or going off track, reduce this parameter.

iii. Vibration

• Overall vibration

The "overall vibration" slider simply scales up or down the vibration from all effects. Just as "overall force", it is useful for a really quick tuning but at some point, you'll probably want to use other sliders to be more selective. This slider will impact the vibration sent by the "Suspension", "Tyre slip", "Collision", "Ground surface", and "Engine" effects.

Usage: Tweak the overall vibration if your racing wheel is vibrating with too much or not enough intensity in general. If you just want to change the vibration intensity in a specific situation (like when your car is drifting) and you're fine with it in other situations, try checking out the other sliders.

• Tyre slip

This slider scales the intensity of the vibration effect applied when your tires are slipping on the ground.

Usage: Move it up if you want to feel the tyre slip vibration with more intensity, move it down if you think it's too strong.

• Suspension

This slider will scale the intensity of the vibration effect that informs you about shocks being received by your car's suspension.

Usage: Move it up if you can't feel clearly enough the car suspension in your racing wheel, move it down if you don't want to feel this information with so much intensity.

• Ground surface

This slider scales the vibration intensity of the effect applied when you're driving on certain surfaces, mainly gravel or off-road.

Usage: Move it up if you want more intense vibration when your car is on chaotic surfaces, move it down if you want less intense vibration.

• Engine

This slider scales the vibration applied by the wheel during certain engine situations like overrevving.

Usage: increase this if you want to feel stronger vibration when your engine is over revving, decrease this if you don't want to feel this vibration that much.

Collision

This slider scales the intensity of the vibration applied when your car collides with an obstacle or another car.

Usage: Move it up if you want more vibration intensity during collisions, move it down if you prefer less.

Pedal vibration

Some pedal devices are equipped with vibration motors. When such hardware is used connected to a racing wheel, these specific sliders may be used to scale vibration being applied to the pedals.

Usage: Increase this if you can't feel the vibration being applied by your pedals as strong as you want.

2. Configuration File

THIS SECTION IS ONLY FOR ADVANCED PC USERS AS YOU WILL MODIFY GAME FILES

The "Force and vibration" menu provides quite advanced options to configure your racing wheel experience. If despite this you're still not fully satisfied, you can try editing the following configuration file with a text editor:

SteamLibrary\steamapps\common\WRC11\Common\Settings\InputFFBSoftwareConfig.c fg

SteamLibrary\steamapps\common\WRC11\Common\Settings\InputFFBHardwareConfig.c fg

Remember to save it and relaunch the game after making any changes to this file.

A. Hardware config

The InputFFBHardwareConfig file contains parameters which allow you to tweak the intensity of the effects applied by your racing wheel, per hardware manufacturer.

There are six types of hardware effects handled by WRC11.

- 1. Constant force: this is a force that will turn your racing wheel if you're not holding it.
- 2. Spring force: This is like the constant force with an intensity varying depending on how far the racing wheel is being steered from its center.
- 3. Damping: this is a force that will make the racing wheel resist when you're steering it but will not steer it actively if you let it go.
- 4. High frequency vibration: this makes your racing wheel rumble.
- 5. Low frequency vibration: this makes your racing wheel rumble in a shakier way.
- 6. Specific vibration: some hardware provides additional vibration effects in the pedals.

For each of these effects, there are 3 parameters. These are all clamped to [0;2] (0 to 200%). Setting a value higher than 1 may saturate the effect. When the hardware motor is applying max intensity, the effect is saturated which means that if the game sends an even higher intensity effect, you won't feel any change until it gets back under the max hardware intensity.

By keeping values under the saturation threshold, you get more precise effects, adapted to the intensity range of the hardware motor.

• **Factor**: this is a number that will be multiplied to the effect intensity.

Usage: For instance, increase ConstantForceFactor in the block of your racing wheel's manufacturer (Thrustmaster, Fanatec, Logitech, or Default for others) if you think that its force motor is delivering a constant force which is too weak. Another example: decrease VibrationHighFreqFactor if you think that the high frequency vibration should be more intense in general (independently of any specific in-game effect).

• **RangeMin**: this sets the minimum intensity that the effect can have when it's active.

Usage: Increase this if you can't feel the effect at all when it's supposed to be low intensity but still be noticeable.

 RangeMax: this sets the maximum intensity of the effect when it's active. If "RangeMin" is 0, "RangeMax" has the same effect than "Factor".

Usage: Decrease this if you think a hardware effect is delivered with too much intensity by your racing wheel.

B. Software config

The InputFFBSoftwareConfig file, provides you with ways to change the force and vibration settings more in-depth than in the option menu. Tweak these if you could not reach a satisfying config by just using the in-game sliders in the option menu.

Note: All values are displayed as per thousand. So, 1000 is equivalent to 1.

• Slider factors

These factors work with the sliders in the option menu "force and vibration". They change how a specific value on the corresponding slider will act on the associated effect. In some cases, a single slider is associated with multiple sub-effects, you can also change these subeffects with these factors.

As always, beware of saturating effects by setting a combination of factors that will result in a final value higher than 1 (100%), which may saturate the effect. When an effect is already saturated and the game wants to apply more intensity, you won't feel it because the hardware is already applying maximum intensity.

- BrakePedalVibration : defines the overall vibration strength for compatible brake pedal vibrations.
- *CenterForce* : defines the overall factor for center force.
- CenterForceDuration : defines the time the wheel will take to recenter itself after a respawn.
- *CollisionFlatTire* : defines a factor for flat tires' vibrations.

Usage: Tweak this to change intensity of low frequencies vibrations created by a flat tyre ingame.

- *CollisionImpactVibrationMax* : defines a factor for collision impact vibrations.
- *CollisionMaxImpactForce*: defines the maximum impact force produced by a collision.

Usage: Tweak this if you can't feel enough vibrations when colliding with small objects.

- CollisionMaxImpactMass : defines the maximum mass of an object hit during a collision.
- *CollisionSlideVibrationMax*: defines a factor for vibrations while sliding on objects.
- **EngineGearChangeVibration**: defines a factor for vibrations when shifting up or down.
- EngineIdleDamageFactor: defines a factor for vibrations while idling with a damaged engine.

- EngineIdleDamageThreshold : defines a threshold when idle vibrations with a damaged engine will start.
- *EngineOverRevVibration* : defines a factor for overrev vibrations.

Usage: Tweak this if you want to increase or decrase overrev vibrations.

- EngineRPMvibrationMaxInRace : defines a factor for RPM vibrations during the race.
- EngineRPMvibrationMaxStartRace: defines a factor for RPM vibrations on the start line.
- EngineSteeringDamageFactor: defines a factor for spring offset when steering is damaged.

Usage: When steering is damaged, the spring force will not bring back the wheel to neutral position but to an offset position. Tweak this if you want more or less offset in your wheel.

- *EngineTyreDamageFactor*: defines a factor for spring offset when a tyre is punctured.
- *EngineVibration* : defines an overall factor for vibrations
- *FadeInDuration* : defines a factor that fade in effects at the start of a race.
- *FadeOutDuration* : defines a factor that fade out the effects at the end of a race.

Usage: Put Fade in/out duration to 0 if you want the effects to start instantly with their normal amplitude.

- FrictionDefaultPower: defines a factor which changes the influence of tyre friction on SAT effect.
- FrictionMax: defines the maximum value the tyre friction can take to influence SAT effect.
- *FrictionMin*. defines the minimum value the tyre friction can take to influence SAT effect.
- GroundSurfaceHighIntensity: defines a factor for ground surface high frequency vibrations.
- GroundSurfaceIntensity: defines an overall factor for ground surface vibrations (low and high frequency).
- GroundSurfaceThreshold: defines a threshold above which ground surface vibrations are triggered.
- GroundSurfaceVibration : defines a second overall factor for ground surface vibrations.
- *OverallForce* : defines an overall factor for force effect.

Usage: this will reduce/increase each force effect by the same value.

• *OverallVibration* : this defines an overall factor for vibrations effect.

Usage: this will reduce/increase each vibrations effect by the same value.

- RoadSmoothFactor: this is used to linearise vibration suspension response between two frames.
- RoadSuspensionFactor : this is used as a factor for low frequency vibrations generated by the road surface.
- *SATNoiseDeadzone* : Apply a deadzone for SAT.
- SATSmoothFactor: this is used to smooth SAT value as it varies too much between frames for certain steering wheels.
- *SelfCenterBrakeFactor* : this is a factor used to scale self center force while braking.
- SelfCenterFade : Unused
- SelfCenterGasFactor : this is a factor used to scale self center force while accelerating.
- SelfCenterLateralSlipFactor: this is a factor used to reduce self center force on front tire lateral slip.
- SelfCenterStandstillForce : this is used as a constant self center force for SimXperince/Simucube/LeoBodnar steering wheels.
- ThrottlePedalVibration : this defines the overall vibration strength for compatible throttle pedal vibrations.
- TireLoadFactor : Unused
- TireSlip: Per surface type: These surface factors are useful to increase and decrease the tyre slip effect depending on what surface is being driven on.

Usage: Change these if you want a more or less intense tyre slip effect on a specific surface.

- TireSlipDriveTiresFactor/TireSlipNonDriveTiresFactor: this factor is used to scale tire slip feedback applied when the car's drive/non wheels are slipping.
- TireSlipFrontTiresFactor/TireSlipRearTiresFactor: this factor is used to scale tire slip feedback applied when the car's front/rear wheels are slipping.
- TireSlipVibrationThreshold : This is a value that reduces tyre slip feedback to filter out small unwanted slip feedback.

Usage: Decrease this if you want earlier feedback in your drift, but this may also give you feedback when you're not really slipping in some situations.

• **OverallConstantForceMax**: defines the internal intensity of the constant force when the "overall force" slider is set to its maximum value (150).

Usage: Tweak this if you want to independently change the constant force and the spring force (both controlled by the "overall force" slider).

- *OverallSpringForceMax*. same thing with the spring force.
- BaseDampingMax: defines the internal damping intensity when the "base damping" slider is set to its maximum (150).

Usage: Tweak this if you want to change the scale of the whole "base damping" slider.

- **SATforceMax**. same thing with the "Self-aligning torque" slider.
- OverallVibrationHighFreqMax/OverallVibrationLowFreqMax: these factors respectively define the internal intensity of the high freq and low freq vibration effects when the "overall vibration" is set to its max (150).

Usage: tweak these to change the intensity of high and low frequency vibration independently from one another.

SuspensionVibrationMax/ TireSlipVibrationMax/ GroundSurfaceVibrationMax. these define the internal intensity of the in-game effects when the "Suspension", "TyreSlip", "Ground Surface" sliders are set to 150.

Usage: use these factors to change the meaning of the slider values in terms of effect intensity. If you want your default settings to be 100/150 in the menu, or increase the maximum, you can do this with these parameters.

 EngineIdleVibrationMax. defines the internal intensity of the idle engine effect (disabled by default), when the "engine" slider is set to 150.

Usage: increase this if you want vibration when your car is idle. If you set this factor to 1, and the "engine" slider in the option menu is 100/150, you will have a `1*100/150=0.67` (67%) intensity vibration applied when the car engine is idle. The final value also takes in account the vibration factors (VibrationLowFreqFactor, VibrationLowFreqRangeMin, VibrationLowFreqRangeMax, OverallVibrationLowFreqMax, and the "overall vibration" slider).

- EngineOverRevVibrationMax. same thing for the overrev vibration.
- *EngineGearChangeVibrationMax*: same thing for the gear change effect.

Usage: Set this to 0 if you don't want the effect when you change gear.

- EngineRPMvibrationMaxStartRace. same thing for the effect applied when you're revving your engine during the countdown.
- EngineRPMvibrationMaxInRace. same thing for a vibration effect being applied depending on your current engine speed (disabled by default).

Usage: increase this if you want vibration informing you of how fast is revving your engine at all times.

• **CollisionImpactVibrationMax**: this defines the internal intensity of the effect when the "collision" slider is set to 150 and your car is colliding with an obstacle.

Usage: tweak this to change how intense is the collision vibration independently from the collision slide vibration.

- CollisionSlideVibrationMax. same thing for the effect when the car is sliding against an object like a fence.
- CentreForceMax. defines the internal intensity of the effect when the "center force" slider is set to 150.

Usage: Tweak this if you want a more or less intense wheel auto-recenter effect.

ThrottlePedalVibrationMax/ BrakePedalVibrationMax. Same thing for the specific hardware vibration.

EFFECT NAME	EFFECT TYPE	DESCRIPTION	USAGE
BrakePedalVibration	Pedal Vibration	Brake pedal vibration strength factor	
CenterForce	Spring Force	Internal intensity of center force effect	
CenterForceDuration		Time for the wheel to be back in neutral position after a respawn.	
CollisionFlatTire	Vibration Low	Flat tyres' vibrations strength factor	Tweak this to change intensity of low frequencies vibrations created by a flat tyre in- game.
CollisionImpactVibrationMax	Vibration Low	Collision impact's vibrations strength factor	
CollisionMaxImpactForce	Vibration Low	Maximum impact force produced by a collision	Tweak this if you can't feel enough vibrations when colliding with small objects.
CollisionMaxImpactMass	Vibration Low	Maximum mass of an object hit during a collision.	
CollisionSlideVibrationMax	Vibration Low	Vibrations Strength factor while sliding on objects	
EngineGearChangeVibration	Vibration Low	Gear change's vibrations strength factor	
EngineldleDamageFactor	Vibration Low	Damaged engine idling vibrations strength factor	
EngineldleDamageThreshold	Vibration Low	Threshold when idle vibrations with a damaged engine will start.	

EngineOverRevVibration	Vibration High	Overrev engine vibrations strength factor	
EngineRPMVibrationMaxInRac e	Vibration High	RPM vibrations during a race strength factor	
EngineRPMVibrationMaxStart Race	Vibration High	RPM vibrations on start line strength factor	
EngineSteeringDamageFactor	Spring offset	Spring force offset factor when steer is damaged.	When steering is damaged, the spring force will not bring back the wheel to neutral position but to an offseted position. Tweak this if you want more or less offset in your wheel.
EngineTyreDamageFactor	Spring offset	Spring force offset factor when tyre is punctured	
EngineVibration	Vibrations Low & High	Overall factor for engine related vibrations	
FadeInDuration		Time for the effects to fade in at the start of a race	Put Fade in/out duration to 0 if you want the
FadeOutDuration		Time for the effects to fade out at the end of a race	effects to start instantly with their normal amplitude
FrictionDefaultPower	Spring & Constant Forces	Factor to change influence of tyre friction on SAT effect	
FrictionMax	Spring & Constant Forces	maximum value the tyre friction can take to influence SAT effect	

FrictionMin	Spring & Constant Forces	minimum value the tyre friction can take	
	101025	to influence SAT effect	
GroundSurfaceHighIntensity	Vibration High	Ground surface high frequency vibrations strength factor	
GroundSurfaceIntensity	Vibrations Low & High	Ground surface low & high frequency vibrations factor	
GroundSurfaceThreshold	Vibrations Low & High	Threshold above which ground surface vibrations are triggered	
GroundSurfaceVibration	Vibrations Low & High	Ground surface low & high frequency vibrations factor	
OverallForce	All Forces	All force effects overall factor	
OverallVibration	All Vibrations	All vibrations effects overall factor	
RoadSmoothFactor	Vibration Low	Road smoothness vibration strength factor	Tweak it if you want to feel more or less vibrations due to the noise of the road
RoadSuspensionFactor	VIbration Low	Suspension vibration low strength factor	Tweak it if you want to feel more or less vibrations due to suspension jounce speed
SATForce	Constant Force	SAT effect Overall strength factor	
SATNoiseDeadzone	Constant force	SAT effect deadzone	To reduce oscillations with some racing wheels, the SAT effect has a "O force zone" (similar to a

			deadzone) around the wheel center.
SATSmoothFactor	Constant force	Smooth SAT effects between frames to avoid too big differences from one frame to another	Tweak it if you feel kick in the wheel while playing
SelfCenterBrakeFactor	Spring force	On brake spring force strength factor	Tweak it if you feel too much/low spring force while braking
SelfCenterFade	Spring force	Fade out Self center effect when under 1kph	Tweak it if the self-center effect doesn't stop quickly enough.
SelfCenterForce	Spring force	Self-center effect overall strength factor	
SelfCenterGasFactor	Spring force	On throttle spring force strength factor	Tweak it if you feel too much/low spring force while accelerating
SelfCenterLateralSlipFactor	Spring force	Self-center due to lateral front slip strength factor	
SelfCenterStandStillForce	Spring force	Self-Center strength factor for when the car is stop	Tweak it if you have trouble to turn the wheel when the car is stop
SuspensionVibration	Vibration Low	Suspension related vibrations overall strength factor	
ThrottlePedalVibration	Pedal vibration	Throttle pedal vibration strength factor	
TireLoadFactor	UNUSED	UNUSED	

TireLoadForce	Damper Force	Tire Load related damper force overall strength factor	
TireSlip	Vibration High	Tyre slip vibrations strength factor depending on the surface.	Tweak it if you want more/less tire slip feedback on a specific surface
TireSlipDriveTireFactor	Vibration High & Constant force		Use for vibrations when car is sliding and for understeer improvement feeling
TireSlipNonDriveTireFactor	Vibration High	Strength factor used to scale tyre slip feedback	
TireSlipFrontTiresFactor	Vibration High	when the car's drive wheels are slipping	
TireSlipRearTiresFactor	Vibration High		recung
TireSlipVibration	Vibration High	Tire Slip vibrations overall strength factor	
TireSlipVibrationThreshold	Vibration High	Threshold on tyre slip feedback vibrations	Used to filter small unwanted slip feedback

3. Telemetry

WRC Generations comes with a new feature for all PC users, no matter if you are using a controller or a Force Feedback device, it's the telemetry.

The telemetry allows you to capture car data from the game to display them in real-time in a third-party app.

WRC Generations telemetry is compatible with other racing games dedicated tools such as:

- DR2_logger: <u>https://github.com/ErlerPhilipp/dr2_logger</u>
- Dirt Telemetry Tool : <u>https://www.racedepartment.com/downloads/dirt-</u> telemetry-tool-cortextuals-version.8246/

In order to use it you have to open C:\Users\MyName\Documents\My Games\WRCG\UserSetting.cfg and change WRC.Telemetry.EnableTelemetry to true.

Once it's done you can launch the third-party app. You have to check in the app which IP adress and port it is listening to and write it in WRC.Telemetry.TelemetryAdress and WRC.Telemetry.TelemetryPort

Ex: With dr2_logger: its listening to the address 127.0.0.1 and the port 20777, you just have to put these numbers in UserSettings.cfg

Once everything is set up you can launch the game and enjoy the telemetry.

Find below the packet format send to telemetry:

OFFSET			
0	floət m_time;	0	Total Time (not reset after stage restart)
4	float m_lapTime;	1	Current Lap/Stage Time (starts on Go!)
8	float m_lapDistance;	2	Current Lap/Stage Distance (meters)
12	float m_totalDistance;	3	? (starts from 0) - if distance then not equal to above!
16	float m_x; // World space position	4	Position X
20	float m_y; // World space position	5	Position Y
24	float m_z; // World space position	6	Position Z
28	float m_speed;	7	Velocity (Speed) [m/s]
32	floət m_xv; // Velocity in world space	8	Velocity X
36	float m_yv; // Velocity in world space	9	Velocity Y
40	float m_zv; // Velocity in world space	10	Velocity Z
44	float m_xr; // World space right direction	11	Roll Vector X
48	float m_yr; // World space right direction	12	Roll Vector Y

52	float m_zr; // World space right direction	13	Roll Vector Z
56	float m_xd; // World space forward direction	14	Pitch Vector X
60	float m_yd; // World space forward direction	15	Pitch Vector Y
64	float m_zd; // World space forward direction	16	Pitch Vector Z
68	float m_susp_pos_bl;	17	Position of Suspension Rear Left
72	float m_susp_pos_br;	18	Position of Suspension Rear Right
76	float m_susp_pos_fl;	19	Position of Suspension Front Left
80	float m_susp_pos_fr;	20	Position of Suspension Front Right
84	float m_susp_vel_bl;	21	Velocity of Suspension Rear Left
88	float m_susp_vel_br;	22	Velocity of Suspension Rear Right
92	float m_susp_vel_fl;	23	Velocity of Suspension Front Left
96	float m_susp_vel_fr;	24	Velocity of Suspension Front Right
100	float m_wheel_speed_bl;	25	Velocity of Wheel Rear Left
104	float m_wheel_speed_br;	26	Velocity of Wheel Rear Right
108	float m_wheel_speed_fl;	27	Velocity of Wheel Front Left
112	float m_wheel_speed_fr;	28	Velocity of Wheel Front Right
116	float m_throttle;	29	Position Throttle
120	float m_steer;	30	Position Steer
124	float m_brake;	31	Position Brake
128	floət m_clutch;	32	Position Clutch
132	float m_gear;	33	Gear [0 = Neutral, 1 = 1, 2 = 2,, -1 = Reverse]
136	float m_gforce_lat;	34	G-Force Lateral
140	float m_gforce_lon;	35	G-Force Longitudinal
144	float m_lap;	36	Current Lap (rx only)
148	float m_engineRate;	37	Engine Speed [rpm / 10]
152	float m_sli_pro_native_support; // SLI Pro support	38	Not used

156	float m_car_position; // car race position	39	Current Position (rx only)
160	float m_kers_level; // kers energy left	40	Not used
164	float m_kers_max_level; // kers maximum energy	41	Not used
168	float m_drs; // 0 = off, 1 = on	42	Not used
172	float m_traction_control; // 0 (off) - 2 (high)	43	Not used
176	float m_anti_lock_brakes; // 0 (off) - 1 (on)	44	Not used
180	float m_fuel_in_tank; // current fuel mass	45	Not used
184	float m_fuel_capacity; // fuel capacity	46	Not used
188	float m_in_pits; // 0 = none, 1 = pitting, 2 = in pit area	47	Not used
192	float m_sector; // 0 = sector1, 1 = sector2; 2 = sector3	48	Sector
196	float m_sector1_time; // time of sector1 (or 0)	49	Sector 1 time
200	float m_sector2_time; // time of sector2 (or 0)	50	Sector 2 time
204	float m_brakes_temp[4]; // brakes temperature (centigrade)	51	Temperature Brake in C
208	float m_wheels_pressure[4]; // wheels pressure PSI	52	Wheel pressure
212	float m_team_info; // team ID	53	Not used
216	float m_total_laps; // total number of laps in this race	54	Total laps of the race (if SSS)
220	float m_track_size; //	55	Not used

	track size meters		
224	float m_last_lap_time; // last lap time	56	Last lap time (if SSS)
228	float m_max_rpm; // cars max RPM, at which point the rev limiter will kick in	57	Max rpm
232	float m_idle_rpm; // cars idle RPM	58	Idle rpm
236	float m_max_gears; // maximum number of gears	59	Number of gears
240	float m_sessionType; // 0 = unknown, 1 = practice, 2 = qualifying, 3 = race	60	Not used
244	float m_drsAllowed; // 0 = not allowed, 1 = allowed, -1 = invalid / unknown	61	Not used
248	float m_track_number; // -1 for unknown, 0-21 for tracks	62	Not used
252	float m_vehicleFIAFlags; // -1 = invalid/unknown, 0 = none, 1 = green, 2 = blue, 3 = yellow, 4 = red	63	Not used