

USER MANUAL

ENGI Live JoyControl

Any gamepad – DualShock 4, DualSense, Xbox, steering wheel, or HID joystick – can be transformed into a virtual Xbox gamepad, which is recognized by any game. Every trigger, stick, and button can be customized: dead zones, sensitivity, curves, macros, combinations, and sequences. You can have as many gamepads as you want, each with its own unique configuration.

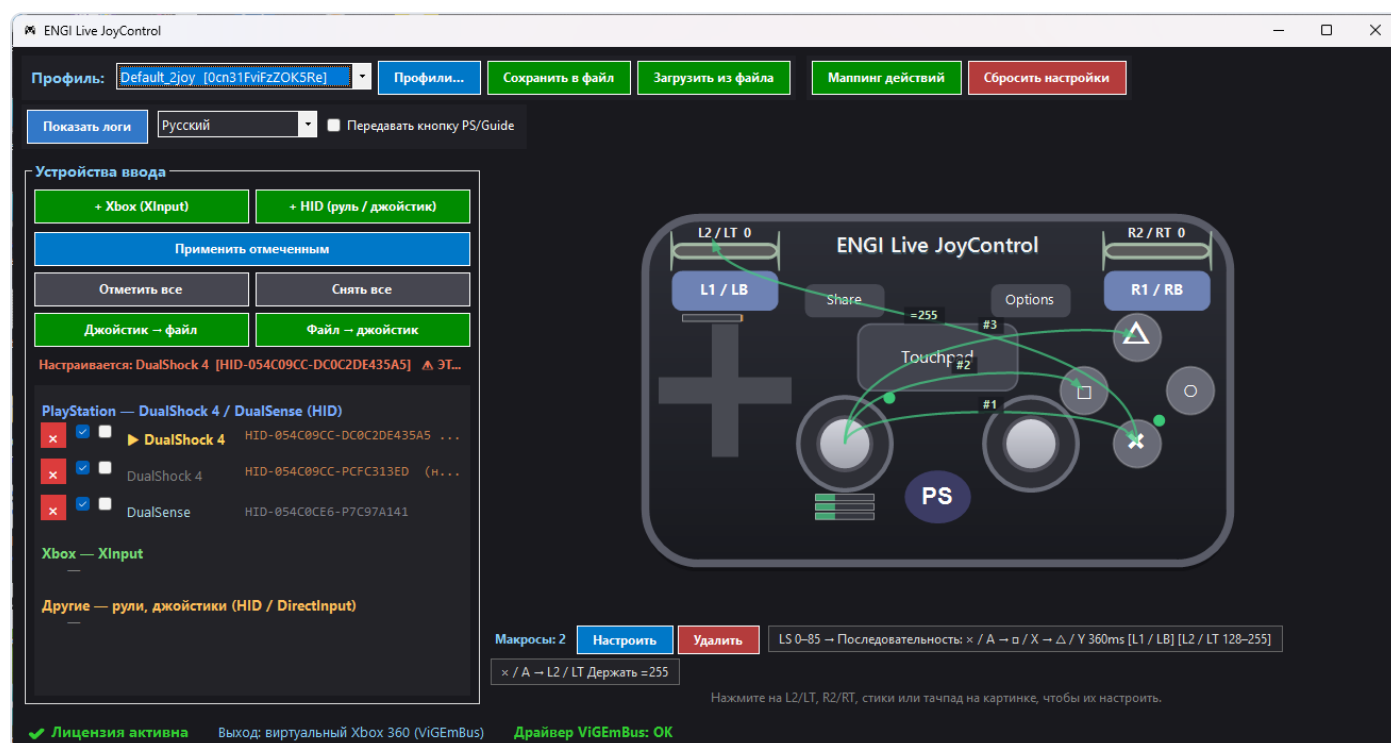


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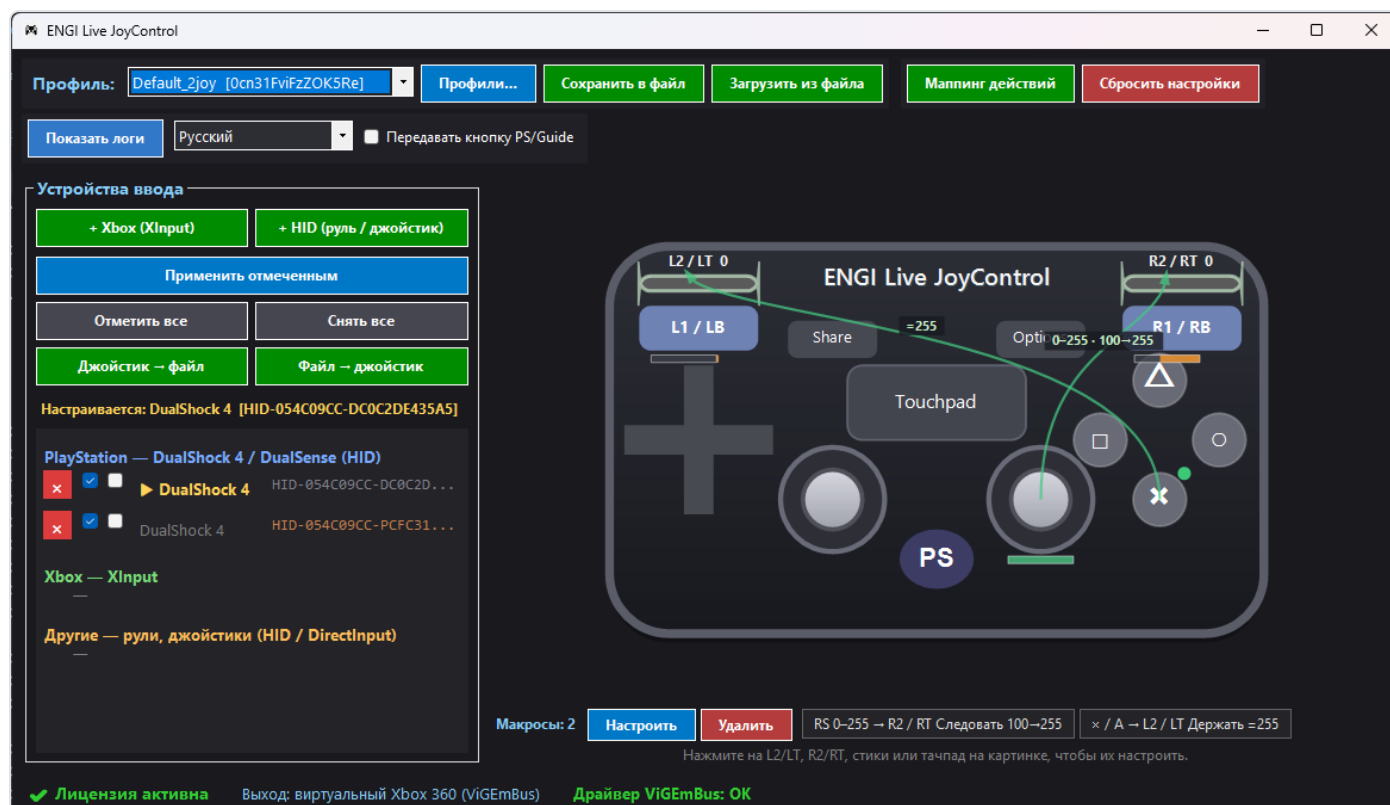
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1. What you need to get started

- **ViGEmBus** is a virtual gamepad driver. Without it, the program will not create an Xbox controller. In the status bar at the bottom of the window, it should display `ViGEmBus driver: OK`. If it doesn't, an "Install" button will appear there.
- **HidHide** is not a mandatory component. It is only needed if the game detects both a physical gamepad and a virtual one simultaneously, which can cause the character to appear twice. More details can be found in section 15.

Games that work through XInput (most modern games) do not detect the physical DualShock controller at all – only the virtual gamepad from JoyControl is recognized. HidHide is not needed for these.

2. Main Window



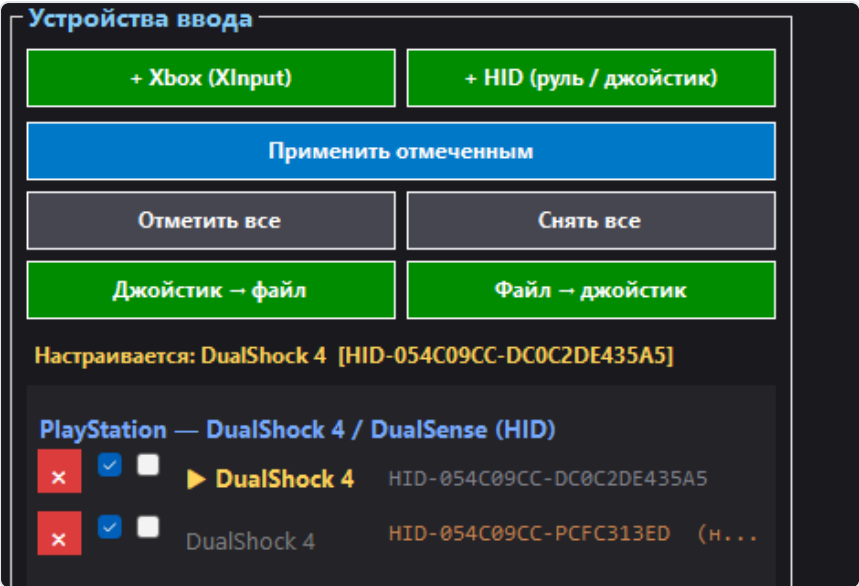
Main window: At the top, you'll find the profile and general buttons. On the left are the joysticks, and on the right is an image of the gamepad.

- The **top panel** includes options for selecting a profile, accessing the "Profiles..." menu, saving and loading entire profiles, managing action mappings, resetting to the default settings, and selecting the interface language.
- **On the left are the input devices.** This section displays all the configured joysticks, their IDs, checkboxes, and options for group operations.
- **On the right is a diagram.** It shows, in real-time, what data the game is receiving from the selected controller. **You can click on the diagram:** clicking on a trigger, stick, or button will open its corresponding settings.
- **Below the image are the macros** for the selected joystick: each icon represents a rule, and clicking on it reveals its source.

The divider between the left and right sections can be moved with the mouse. The window size and the position of the divider are saved when you release the mouse button.

3. Multiple Joysticks and their IDs

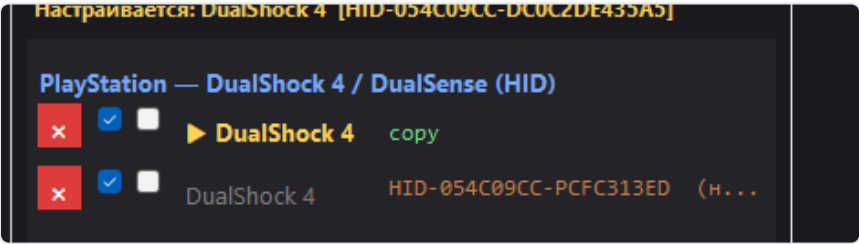
The program supports **any number of joysticks**. Each joystick is assigned a unique **ID**: for Bluetooth controllers, this is their MAC address, so even two identical DualShock controllers will be recognized as distinct. Using this ID, the program automatically finds the joystick's settings upon connection, even if it's plugged into a different USB port.



Device list: ► – indicates the joystick that is currently being configured.

List item	What it does:
✕	Removes the joystick from the profile along with its settings.
First checkbox	Functionality: A virtual Xbox controller is created for the joystick.
Second checkbox	Selected: Participates in group operations.
Name	Click: configure this joystick. Double-click: rename.
ID	Click: copy the ID to the clipboard.

Where to click: Click on the "Joystick ID" field. A green "**copy**" icon will briefly appear, indicating that the full ID has been copied to the clipboard.



Confirmation of ID copy.

Important. All of the settings menus apply to the **selected** (►) joystick. If a joystick is disconnected, the "Configuring" line will turn orange with a warning "**this joystick is not connected**" – any changes you make will not affect the controller you are currently holding. Click on the name of the connected joystick.

Batch operations

- Apply to selected — Copies all settings from the selected (►) joystick to the joysticks that have the "selected" checkbox enabled.
- Select all / Clear all — Quickly set or clear all checkboxes.
- Joystick → file - Save the settings of a specific **single** joystick to a separate file with the extension .joy.json.

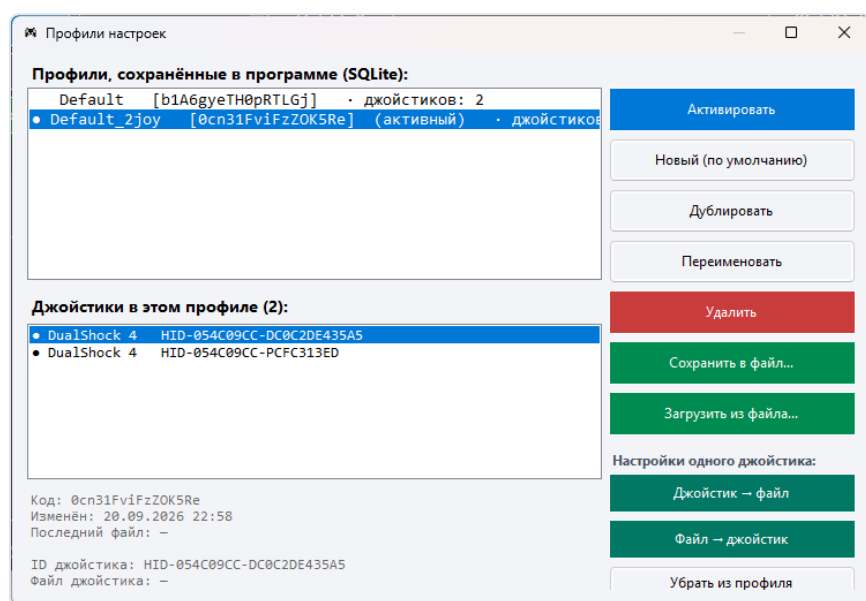
- **File → Joystick** — Loads settings from a file, applying them only to the selected joystick. If other joysticks are selected, the program will ask if you want to apply the settings to all of them. This option also works with standard profile files: if the file contains settings for multiple joysticks, the program will prompt you to choose which joystick's settings to use.

Windows only allows games to recognize a maximum of **four** XInput gamepads. The program supports more, but the game will only detect the first four.

4. Profiles and Files

A profile is a complete set: all the joysticks and the settings for each. You can have as many profiles as you like, for example, for different games.

Where to click: Click on "Profiles..." in the top menu bar.



Profile window: for each profile, you can see the number of joysticks, and below are the joysticks selected for that profile, along with their IDs.

- **Activate**, **New**, **Duplicate**, **Rename**, **Delete** — actions related to profiles.
- **Save to file...** / **Load from file...** — Saves/loads the entire profile.
- The "**One joystick's settings**" block allows you to save or load a specific joystick's configuration file into **any** profile, even an inactive one, and to **remove it from the profile**.
- ●: The joystick has its own settings. ○: The joystick has not been configured and is using the default settings of the profile.

Each joystick has its own **associated file**, and when saving again, the program will suggest overwriting the same file.

5. L2 / R2 Triggers

Where to press: Click on the **L2 / LT** or **R2 / RT** button in the image.

Правый триггер — R2 / RT (газ)

Правый триггер — R2 / RT (газ)

Сейчас: сырое 0 → выход 0

Ограничение выхода и кривая

Мин (ниже → 0, выше растягивается): 0

Макс: 255

Мёртвая зона (сырое ниже → 0): 0

Кривая чувствительности (−20 плавный старт ... +20 резкая, по 20 делений): 0

Поведение

☐ Полностью отключить этот триггер (всегда 0)

☐ Мгновенно в 0, когда триггер полностью отпущен

☐ Мгновенно в максимум, когда триггер дождёт до упора

ВЗАИМОДЕЙСТВИЕ L2 → R2 (ОБЩЕЕ ДЛЯ ОБОИХ ТРИГГЕРОВ)

☐ Вычитать L2 из R2 (тормоз ослабляет газ)

☐ Вычитать R2 из L2 (газ ослабляет тормоз)

Множитель: 1,00

Вживую: нажимайте курок и смотрите, как выход отстаёт

НАЖАТИЕ — плавный рост (значение растёт)

До 10 участков на диапазоне 0–255. Вне участков значение меняется мгновенно. Задержка = мс на единицу (255 × 1 мс ≈ 0.26 с). Где участки пересекаются, задержки СКЛАДЫВАЮТСЯ. Клик по номеру участка (#) — добавить макрос: пока источник в диапазоне участка, действие над другим элементом. Макросы работают, даже если участок выключен.

✓	#	От	До	Задержка, мс/ед.
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+ Участок

Очистить

Разбить 0–255 на N

3

мс: 1,0

ОТПУСКАНИЕ — плавное падение (значение падает)

До 10 участков на диапазоне 0–255. Вне участков значение меняется мгновенно. Задержка = мс на единицу (255 × 1 мс ≈ 0.26 с). Где участки пересекаются, задержки СКЛАДЫВАЮТСЯ. Клик по номеру участка (#) — добавить макрос: пока источник в диапазоне участка, действие над другим элементом. Макросы работают, даже если участок выключен.

✓	#	От	До	Задержка, мс/ед.
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+ Участок

Очистить

Разбить 0–255 на N

3

мс: 1,0

Пресеты: — нет —

— взять из L2

Отменить изменения и закрыть

Заккрыть

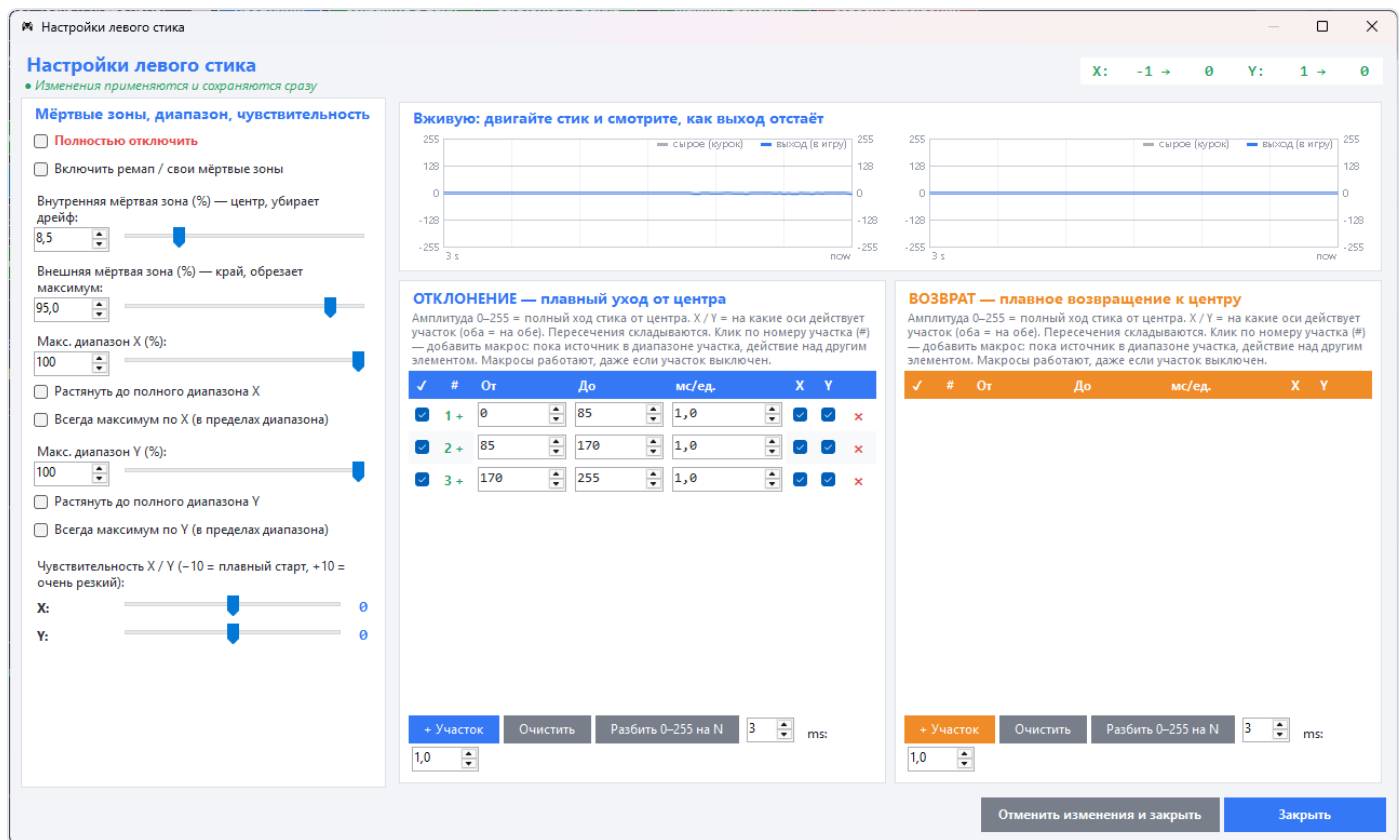
Right Trigger Settings: All changes are applied and saved immediately.

Configuration	How it works
Min	Input Threshold: Anything below this value is treated as zero, and the remaining range is stretched across the full 0-255 scale. Example: Setting Min = 10 eliminates noise, but the trigger still provides full throttle.
Max	Output Limit: The game will never receive a value higher than this.
Dead zone	Raw values below the threshold are converted to 0 without scaling.
Curve	-20: Provides a smooth start and precise control at the beginning of the trigger's movement. +20: Provides a more responsive and immediate reaction.
Instantly to 0 / to the maximum	The trigger, when fully released or fully pressed, activates without delay.
Subtract L2 from R2	For racing: the brake reduces the throttle, and the <code>multiplier</code> determines the force. There is also a reverse option.
PRESS / RELEASE	Smoothing Segments: In the selected portion of the trigger's range, the value increases or decreases not instantaneously, but with a delay of milliseconds per unit. Up to 10 segments can be used, and overlapping segments are combined.

How to add segments: `+ Segment` — adds a single segment; `Split 0–255 into N` — creates N equal segments immediately. The live graph at the top shows how the output lags behind the trigger.

6. Sticks and Drift

Where to click: Click on either the left or right stick in the image.



Left Stick Settings: On the left, you'll find dead zones and range settings; on the right, you'll find smoothing segments and a live graph.

- **Enable remap / custom deadzones** - This is the main checkbox. **Without it, the dead zone settings will not be applied.**
- **Inner dead zone** – This setting eliminates stick drift in the center position. It is typically set between 8% and 15%.
- **Outer dead zone** – the extreme end of the stroke path, where the stick is considered to be fully extended.
- **Max. X/Y range, Stretch, Always maximum** - used to limit or expand the movement range along each axis.
- **X/Y Sensitivity** - response curve.
- **OFFSET / RETURN** — Smoothing segments, similar to those found in triggers; each segment has X and Y checkmarks indicating which axes it affects.

If the stick is drifting, and a macro is assigned to it, the drift will trigger the macro. Enable the remapping feature with the internal dead zone – when the stick is at rest, it should output a clean zero value.

7. Macros: The Basics

A macro is a rule that states: "If **source** is in a certain state, then perform **action** on another element." The source can be:

- **Trigger condition** or trigger – the macro executes as long as the value within its specified range meets the condition.

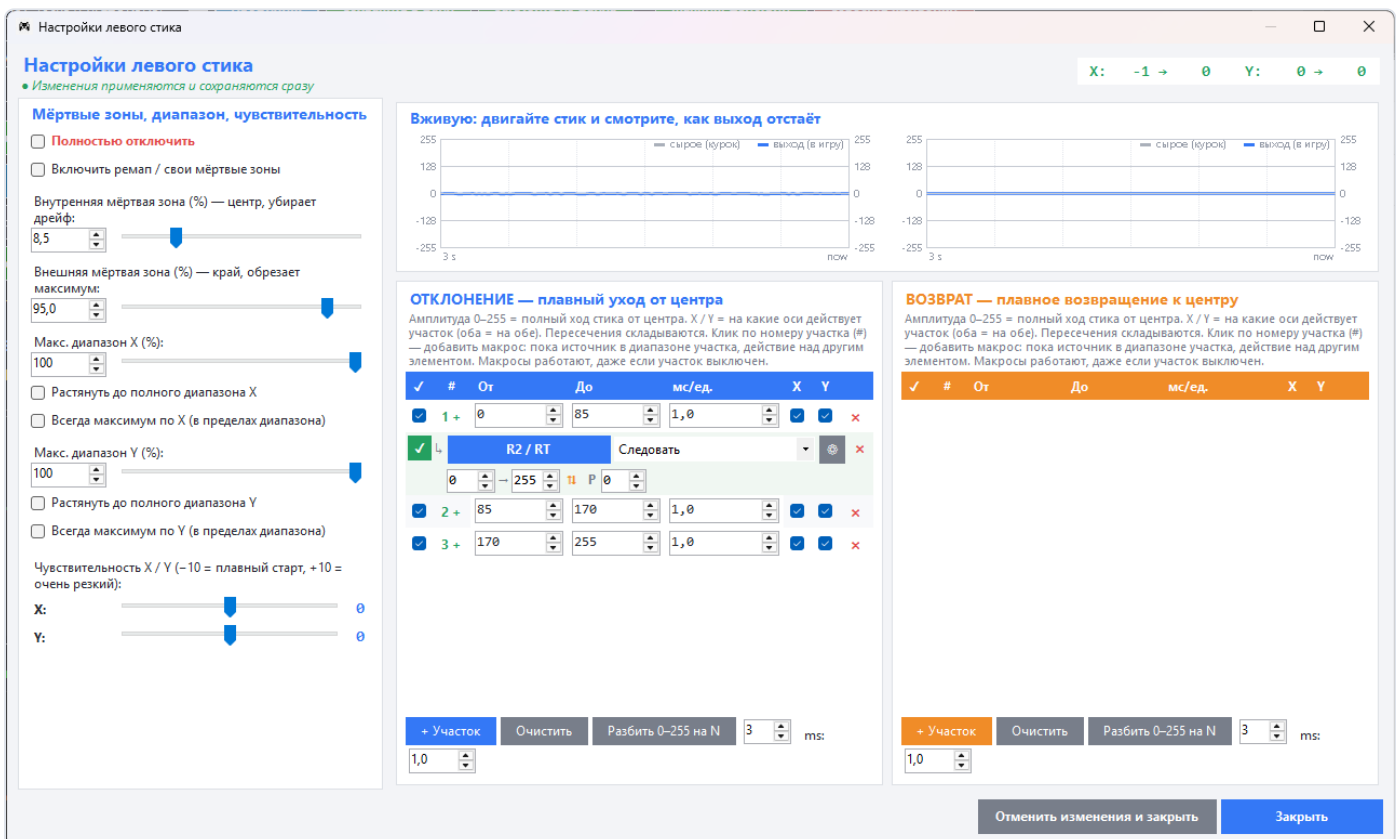
- **Button** — The macro runs as long as the button is pressed (section 11).

Macro for a trigger or switch

1. Open the stick or trigger window and create a region.
2. Click on the **plot number** – 1 +.
3. An image will appear showing the target. Click on the **target**: this could be a button, a trigger, or a joystick. If it's a joystick, then select the direction.



Choosing the macro's target.



Below the selected cell, a row of macro options appeared: "Enabled ✓", "Target", "Mode", "Output Range", "Priority P", "⚙ - All Parameters", "× - Delete".

All rule parameters

Where to click: The ⚙ button in the macro bar.

П

Параметры макроса

✕

Параметры макроса

Источник: LS

Цель: R2 / RT

Режим: Следовать

Цель повторяет источник: диапазон участка [От, До] — выход [Вых. от, Вых. до]. С реверсом — наоборот (источник растёт, цель падает).

Направление сгика: Любое направление (по модулю)

Вых. от (0-255): 0

Вых. до (0-255): 255

☐ Реверс: источник растёт — цель падает

Сочетание с физическим: Больше из двух

Приоритет: 0

Приоритет: если на одну цель действует несколько макросов, побеждает больший. При равных «Отключить» сильнее, иначе большее значение.

тайминги

Задержка срабатывания: 0 µs

Задержка отпускания: 0 µs

Микросекунды: 10000 = 10 мс. Срабатывание — источник должен пробыть в диапазоне это время; отпускание — выйти из диапазона на это время.

условия

Макрос работает, только когда выполнены ВСЕ условия. Условием может быть кнопка, триггер или стик — у аналоговых задается диапазон. До 4 условий.

условий нет — правило работает всегда

+ Добавить условие

Отмена

ОК

"Macro options" window.

Parameter	Meaning
Goal	Which element is the macro acting upon?
Mode	What exactly happens with the target – Section 8.
Stick direction	For the stick source: any, but only up/right or only down/left.
Output from / to	What values are assigned to the target. Reverse — the source is increasing, the target is decreasing.
Combine with physical	Larger of the two; Replace physical; Add – this adds to the value you are physically pressing, and to other macros , with the same priority and the same "Add" mode.
Priority	If multiple macros are acting on the same target, the macro with the higher priority wins. In case of a tie, "Disable" overrides all others.
Delays	Activation and release times in microseconds: 10,000 = 10 milliseconds. Activation means the source must remain within the specified range for that duration.

8. Macro Modes

Mode	What it does:	Example
Follow	The target replicates the source: its range is recalculated into the target's output range. This only applies to stick or trigger sources.	The stick smoothly presses the accelerator.
Hold	While the source is active, the target is pressed with the value "Output Delay."	L1 holds L2 down.
Impulse	When entering a range, the target is pressed once for a specified duration.	A short press triggers an action when the stick is moved rapidly.
Switch	Each input toggles the target on or off.	One press crouches, another press stands up.
Turbo	While the source is active, the target is pressed and released with a specified period.	Auto-fire.
Disable	The target is locked, even if physically pressed. This also applies to the entire stick.	Disable the stick while L2 is held down.
Sequence	Sequence of actions: element, value, duration, pause – section 10.	A combo attack with a single button.

9. Combinations: conditions

The conditions address the question of "what to do **when two or more elements are selected.**" The macro will only execute if all the conditions are met. A condition can be:

- **button** - it is pressed;
- **Trigger or stick** — its value falls within a certain range, for example, "L2 button pressed more than halfway: 128–255".
- Any of them with a checkmark indicating the opposite means that the button is not pressed or the value is outside the specified range.

One rule: up to four conditions.

Where to click: ⚙ In the macro settings, go to the **CONDITIONS** block → + Add condition → click on the element in the image. For analog inputs, specify a range.

УСЛОВИЯ

Макрос работает, только когда выполнены ВСЕ условия. Условием может быть кнопка, триггер или стик — у аналоговых задаётся диапазон. До 4 условий.

L1 / LB

☐ наоборот

✖

L2 / LT

в диапазоне

128

-

255

☐ наоборот

✖

+ Добавить условие

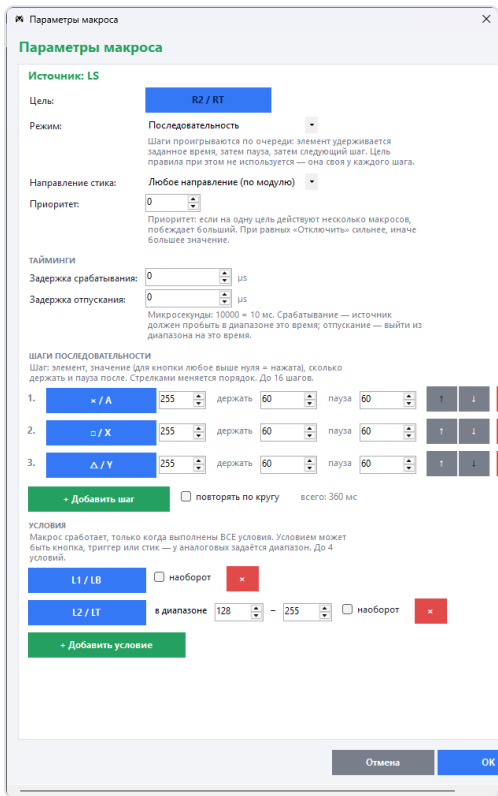
The macro only functions while the L1 **and** buttons are pressed, and the L2 button is pressed more than halfway.

Two-button combo "L1 + R1 → action": open the R1 button macros (section 11), add a macro with the desired action and the L1 condition. For three buttons, add another condition.

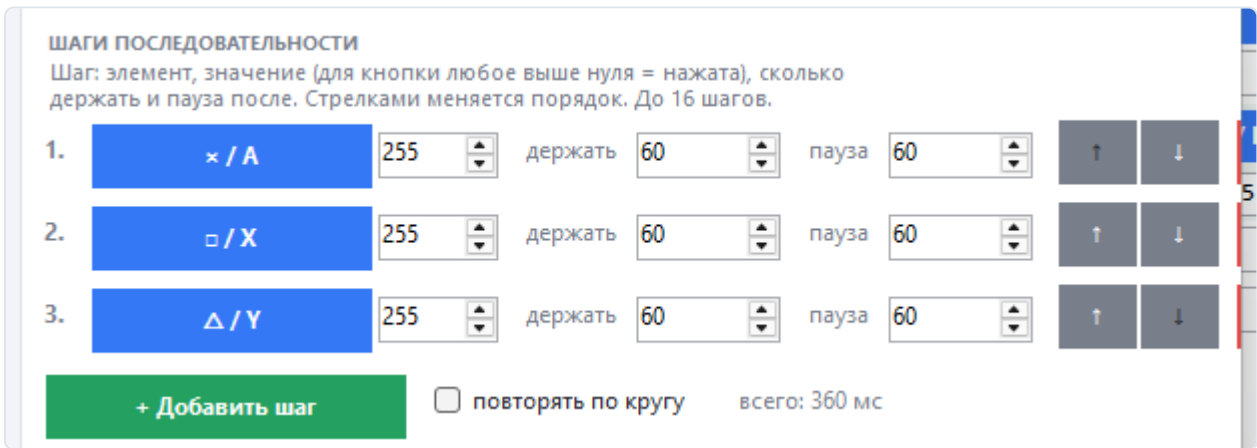
10. Sequences

A single trigger initiates a sequence of actions performed over time. Each step includes: an element, a value (for a button, any value greater than zero indicates it's pressed), the duration, and a pause. Up to 16 steps can be defined. The **loop** checkbox enables the sequence to repeat as long as the source and conditions remain active.

Where to click: ⚙ on the macro → **Mode: Sequence** → + Add step → click on the element in the image.
The arrows ↑ ↓ change the order, and × deletes the step.



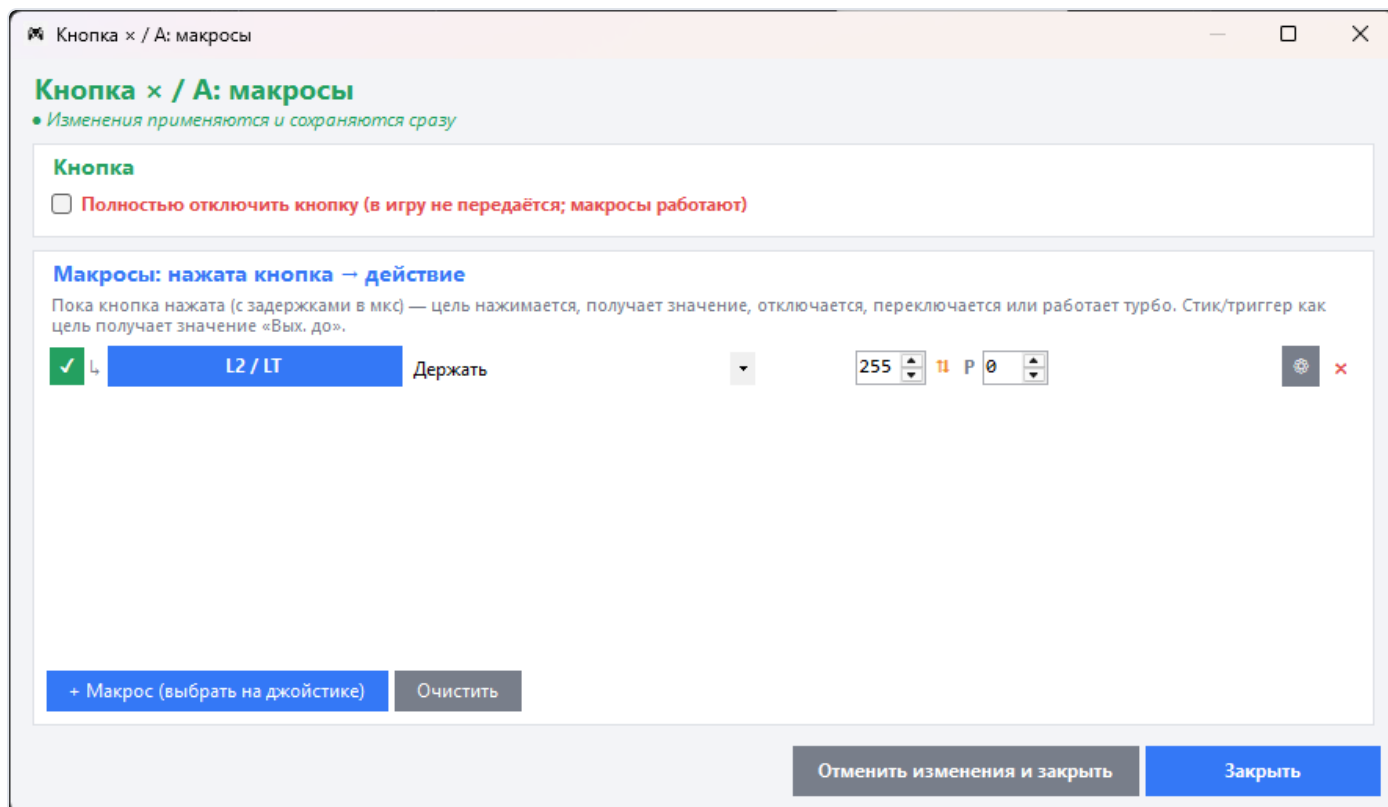
"Sequence" mode: the common target and exit fields are hidden; each step has its own. The conditions continue to work.



Three steps: × → □ → Δ, each lasting 60ms with a 60ms pause.

11. Button macros

Where to click: Click on the button shown in the image (×, ○, □, Δ, L1, R1, D-pad, Share, Options, PS button, touchpad).

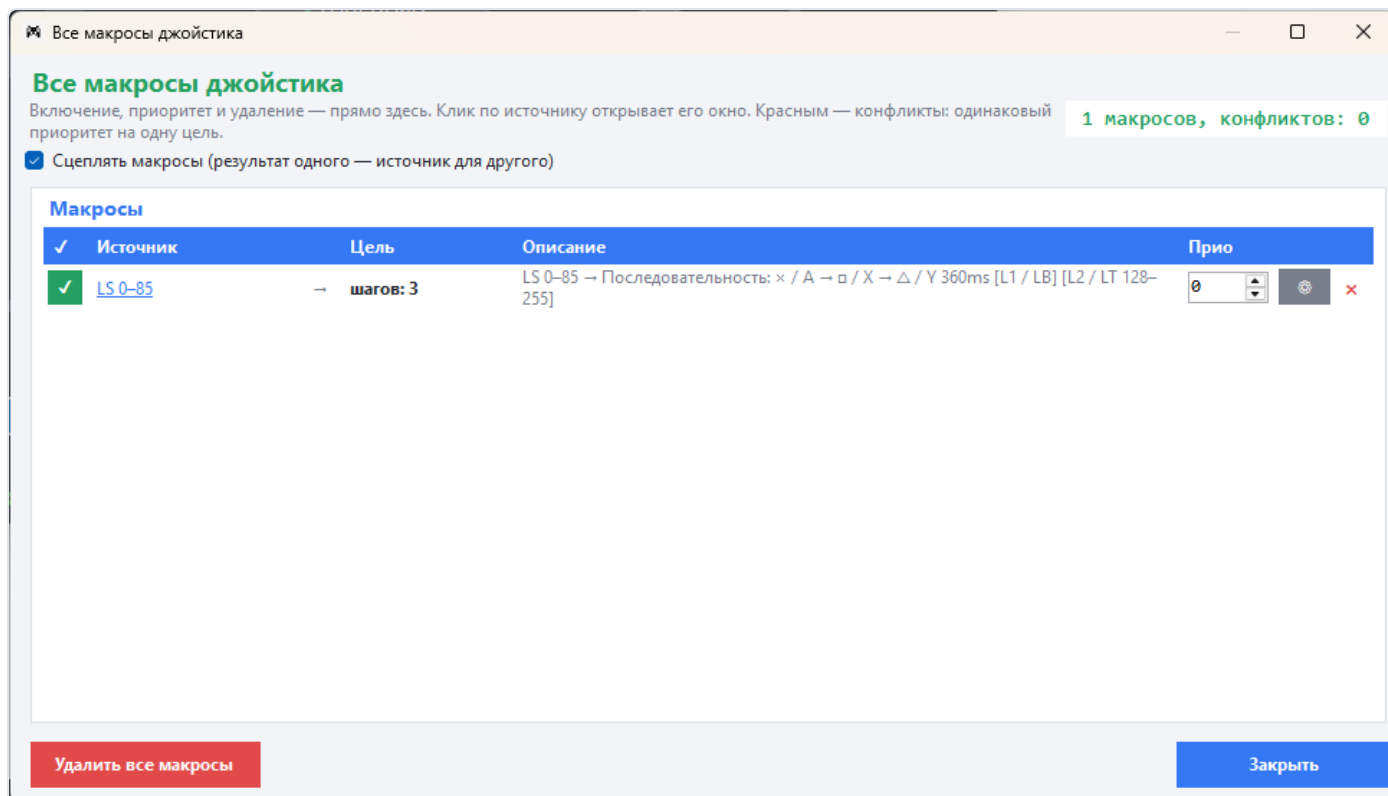


Button x / A: while pressed, L2 is held down for up to 255.

- **+ Macro (select on controller)** - Add a rule and choose a target.
- **Completely disable the button** — The button is not assigned to any in-game function, but its macros continue to operate. This allows you to completely reassign the button.
- All modes, conditions, and sequences work the same way as with the sticks and triggers.

12. All macros and linking

Where to click: Click the "Settings" button located below the image.



All macros for the selected controller are in one table.

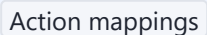
- Enable, priority, , and  are directly in the table. Clicking on the source opens its window.
- **Conflicts are highlighted in red:** This indicates situations where two macros are targeting the same object with the same priority, and it is unclear which one will take precedence.
-  — start with a clean slate.
- **Link Macros:** The result of one rule becomes the source for another. For example, " $x \rightarrow L2$ " and " $L2 \text{ within range} \rightarrow R1$ " will work as a chain triggered by a single press of x . By default, this feature is disabled, so existing profiles function as they did before. The depth is limited to three levels to prevent infinite loops.

The macros are displayed as shown in the image

- The **green lines** indicate the path from the source to the destination. The sequence of lines leads to each element, and the labels **#1, #2, and #3** represent the step numbers.
- **Stripes below the element** — Scale from 0 to 255: The green stripe near the source indicates the activation range, while the orange stripe near the target indicates the output range.
- **Green dot** - This element contains macros.

13. Action mappings

Simple remapping of "input $\rightarrow$ output" with a trigger threshold, hold duration, and timing – common to the profile.

To  a new action mapping, **click** on " " in the top panel and then click "Add."

Настройка действия

Элемент входа: None

☒ Требовать удержание входа (0.05–2 с)

0,05 с

Элемент выхода: None

Режим срабатывания

- ☒ Пока удерживается
- ☐ По времени (0.1–3 с)
- ☐ Задержка после отпускания (0.1–3 с)

Н/Д (режим удержания)

0,10 с

☐ Задержка перед срабатыванием (0.05–2 с)

0,05 с

Сохранить действие

Input element, output element, and mode: can be triggered while held, for a set duration, or with a delay after release.

For most tasks, macros (sections 7-12) are more convenient: they offer more modes, conditions, sequences, and a more visual representation.

14. Pre-made recipes

Eliminate stick drift

Stick → **Enable remapping / custom dead zones** → Internal dead zone: 10-12%. Check using the live graph: when at rest, the output line should be at zero.

Eliminate trigger jitter without losing the full range of motion

Trigger → **Min** = 5-10. Any value below this will be set to zero, and the remaining range will extend up to 255.

Smooth acceleration for racing games

R2 → Split the range 0-255 into $N = 3$ segments within the "PRESS" block, with a delay of 1-3 ms per segment in the initial section. Use a curve of -5 to -10 for precise start of movement. Optionally, **subtract L2 from R2**.

Two-button combination: L1 + x → R2

Press the "X" button, then "+", then "Macro", and select "R2" as the target. Set the mode to "**Hold**". Then, go to the settings (⚙) and set the condition to "**L1**". Without pressing "L1", the "X" button will function normally.

One button triggers a series of actions

Button → Macro → ⚙ → Mode: **Sequence** → Steps: × → □ → △, with a duration of 60/60 milliseconds. For a continuous sequence, select **loop**.

Auto-fire

Pressing the R1 button triggers a macro that sets the target to R2, then activates **Turbo** mode with a duration of 80-120 milliseconds.

Two players using two controllers

Connect both devices – each will appear in the list with its ID. Configure the first one, check the box next to the second one to select it, and then click "Apply to selected." After that, each device can be configured individually.

Transfer settings to a new controller

Old joystick → Joystick → file . New joystick — click on the name → File → joystick .

15. Troubleshooting: If something isn't working

Symptom	Cause and solution
Edits are not working	Most likely, a disabled joystick is being configured – the "Configuring" line is orange. Click on the name of the connected joystick.
The trigger is firing on its own	Check the macros assigned to this trigger on the joystick: joystick drift may be activating the macro. You need to adjust the joystick's dead zone (section 6) or set the source range for the macro to 10.
The character "duplicates" in the game	The game recognizes both real and virtual controllers. To configure this, install HidHide: go to the Applications tab, click the "+", and add "JoyControl.exe"; then go to the Devices tab and check the box next to "Wireless Controller"; finally, reconnect the gamepad. The order is important: first, add the program to the whitelist, then enable the hiding feature.
The game does not detect the gamepad	Please check the ViGEmBus driver: OK status and ensure that the first checkbox indicating "working" is selected for the joystick.
The fifth joystick is not visible in the game	Windows limitation: XInput only allows games to recognize a maximum of four gamepads.
The second DualShock is not connecting via Bluetooth	Delete any old "Wireless Controller" entries in the Bluetooth settings. Reset the controller using a paperclip (there's a hole on the back near the L2 button) and put it into pairing mode by holding down the Share + PS buttons until the light flashes rapidly. Alternatively, simply connect it with a cable.