Optimizing Mouse Control

In a typical keyboard-mouse control system, mouse is always used to control aiming and turning around. It is simple, but this is the core of FPS games.

And **mouse control** on game consoles will be affected by the following items:

Step 1. Mouse Settings (DPI/CPI and USB report rate)

Recommended DPI/CPI: 4000-16000.
5000 DPI will be a safe starting point.
bigger DPI gives you faster turning speed,
smaller one gives you more stable aiming.

Recommended USB report rate: 250 - 1000
500HZ will be acceptable for most of the situations.

For some mice, proper software or driver from the mouse manufacture will be in need to change DPI and USB report rate.

Step 2. Game settings in console(PS/Xbox/SWITCH)

The goal is to set the highest sensitivity for gamepad right stick to harness all the potential of your game, for our mouse movement is mapped to the right stick.
Please do put this in mind.

There might be many settings in a game, which will show their effect on mouse control. Here are some recommendations:

Sensitivity = MAX
It is called by various names, such as Look Sensitivity,
Aim Sensitivity or just Sensitivity.
It's recommended to set all sensitivities to MAX.

Acceleration = MAX (unless otherwise specified)

Response Curve = Default (unless otherwise specified)

Dead zone = Default
Our Engine is trained on this, so please keep it as default.

Button Layout = Default
It's better to leave **Button Layout** as defaults to avoid confusion.

More recommendations for game settings can be found in our APP.
Or in this video list:
https://www.youtube.com/playlist?list=PL_W7SvvWDzBOgxdSxBSr11E7rg7czSpYV

Step 3. ReaSnow S1 Settings

HIP/ADS Sensitivity:

When **mouse** and **game** have been set properly,
if turning speed is acceptable in game, please choose smaller values for HIP and ADS sensitivities to have a fine aiming.
if turning speed is too slow, just add some to these 2 sensitivities.

Other settings such as **YX Ratio**, **MIN Speed**, **Curve** will also change the behavior of mouse control, leave them as default unless you know the effect.

Activated Config:

Every preset game config contains a special Engine which is trained and designed for this game, please DO use the corresponding config to play your game.

For games which are not in this preset list, please choose the most similar one.

Scenarios:

Scenarios can also be treated as sub configs, there are 5 scenarios in one config.
HIP and ADS are for infantry,
TBD1/2/3 are for vehicles, such as tank, plane or for inventory and map control.

Each scenario has a sensitivity of its own, and when this scenario is activated by a hotkey, the corresponding sensitivity will take effect.

By default, HIP and its sensitivity will be effective.
And when the ADS/TBD1/TBD2/TBD3 is released, HIP will be resumed too automtically, so generally speaking, there is no need of a hotkey to activate HIP manually.

PS1. Advanced Settings – Curve Editor

"Curve" here is used to represent the relationship between mouse speed and cursor speed on screen.

By default, a straight line will be provided by ReaSnow Intelligent Engine, which means there is a 1:1 relationship between mouse speed and cursor speed. But under certain circumstances, a non-straight-line relationship will be in need to boost velocity, acclerate, decelerate or set speed limits. These can not be fulfilled by changing the sensitivities directly.

PS. Please do not play around the Curve unless the above **3 Steps** are followed properly and the sensivitities of your mouse is acceptable.

Let's take a look at the defaults curve:
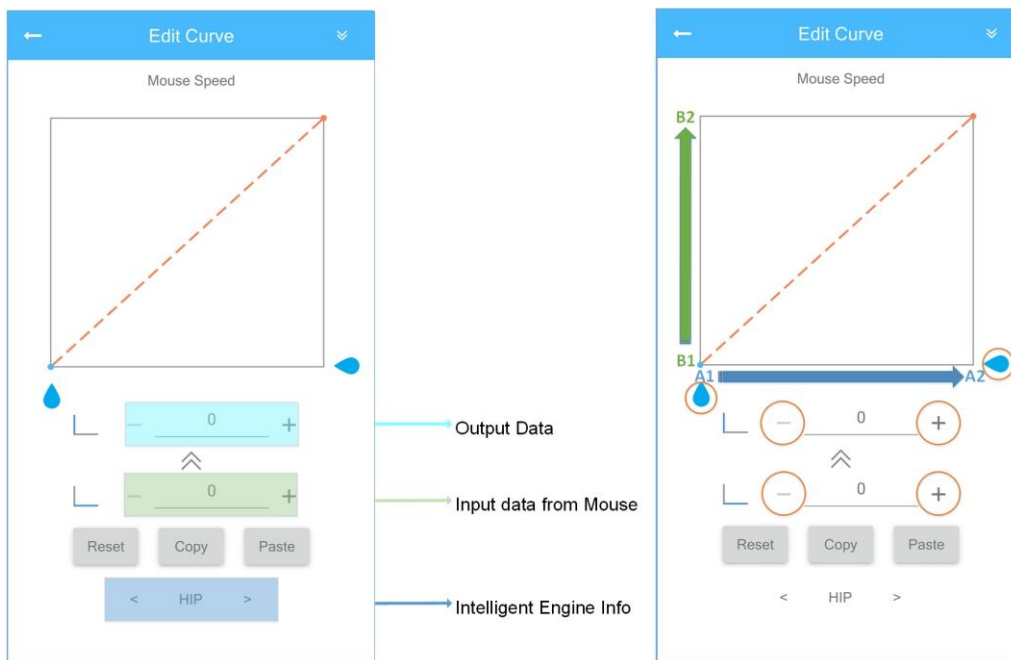
Intelligent Engine Info:

Currently, it is HIP. This is a sub engine of IE3.0 used for HIP scenario.

Curves are used to change the behavior this sub engine,

Generally speeking, there is no need to change this parameter.

Input Data from mouse(Mouse Speed)

This is the orginal speed ReaSnow S1 gets from a mouse when it is moving.

Output Data(Cursor Speed)

This is the output after the orginal mouse speed have been processed and changed by the curve.

In the end, this output data will be used to control cursor movement on screen.

The blue **Raindrop icons** and the **Plus and Minus icons** can be used to change the curve.
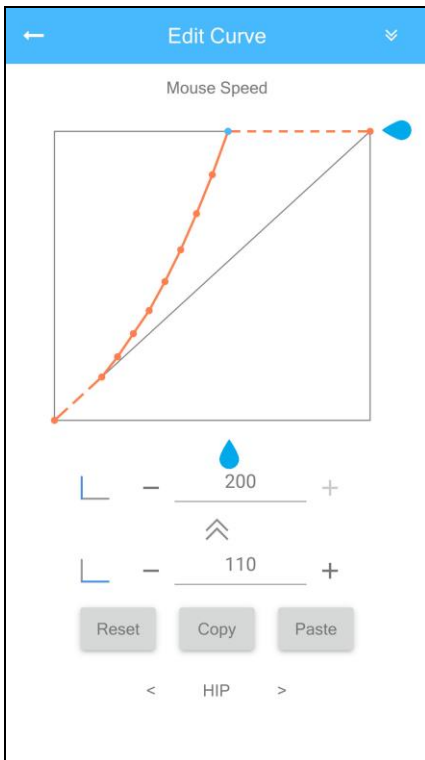
A1: MIN mouse speed
A2: MAX mouse speed
B1: MIN cursor speed
B2: MAX cursor speed
**Some useful curves:**
1. Vehicle control

This curve will be useful to get faster turning speed to control a vehicle, or some other circumtances where you need faster turnning.

This curve means it will keep 1:1 nature while mouse speed is low and that makes aiming easy. And when mouse speed is fast, the cursor speed will be boosted. That will help you to get a faster turning speed, but you will have no 1:1 control when these dots are not on the straight line.
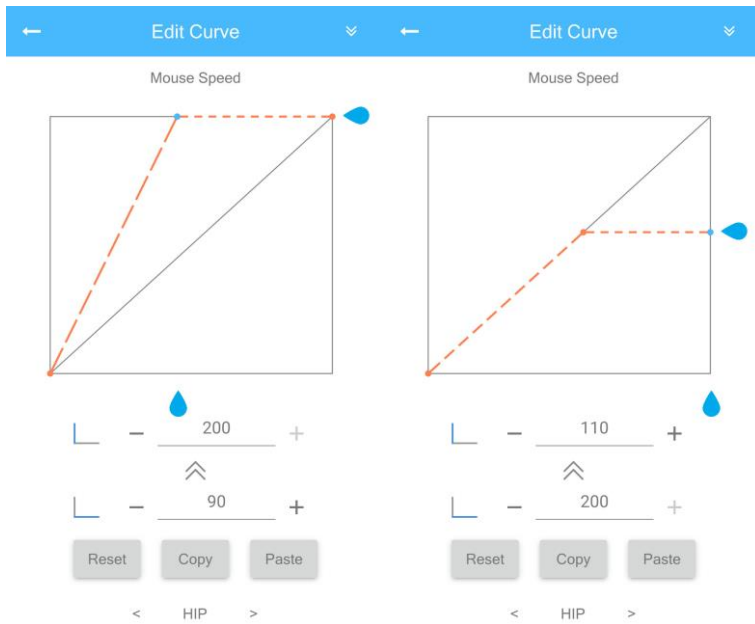
As shown in the above picture, the input(mouse speed) 110 has been boosted to 200(MAX cursor speed).

2. Fine aiming
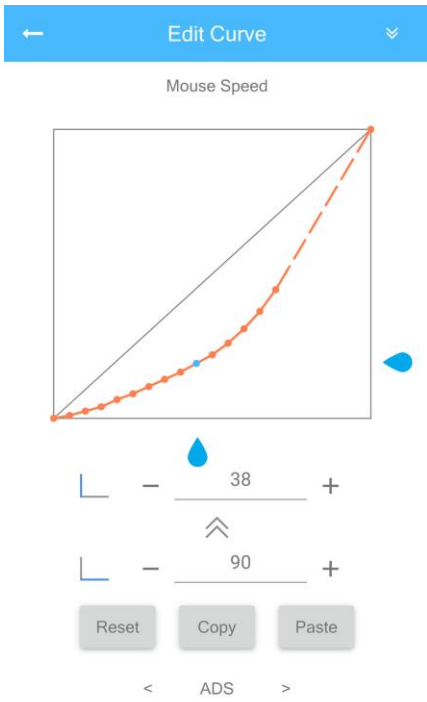
Mouse Speed

This curve can be used in ADS scenario, when ADS is enabled(Holding mouse right button).
You can get a fine and stable aiming. But the cursor speed will be lowered undoubtedly.
As shown in the above picture, the input 90(mouse speed) has been lowered to 38(cursor speed).

3. Other curves

PS2. Mouse Settings examples:
Logitech

Razer

Corsair

PS3. Game Setting Examples:
Battlefield 4

STICK LAYOUT	Default
BUTTON LAYOUT	Default
LOOK INVERSION	Disabled
VIBRATION	Enabled
SENSITIVITY	‹ Insane 20 ›

Call of Duty: Ghost

OPTIONS

| L1 | CONTROLS | GAMEPLAY |

SENSITIVITY	100%
SOLDIER BUTTONS	‹ DEFAULT ›
SOLDIER STICKS	‹ DEFAULT ›
VERTICAL LOOK	‹ NORMAL ›
VEHICLE BUTTONS	‹ DEFAULT ›
VEHICLE STICKS	‹ DEFAULT ›

GTA5

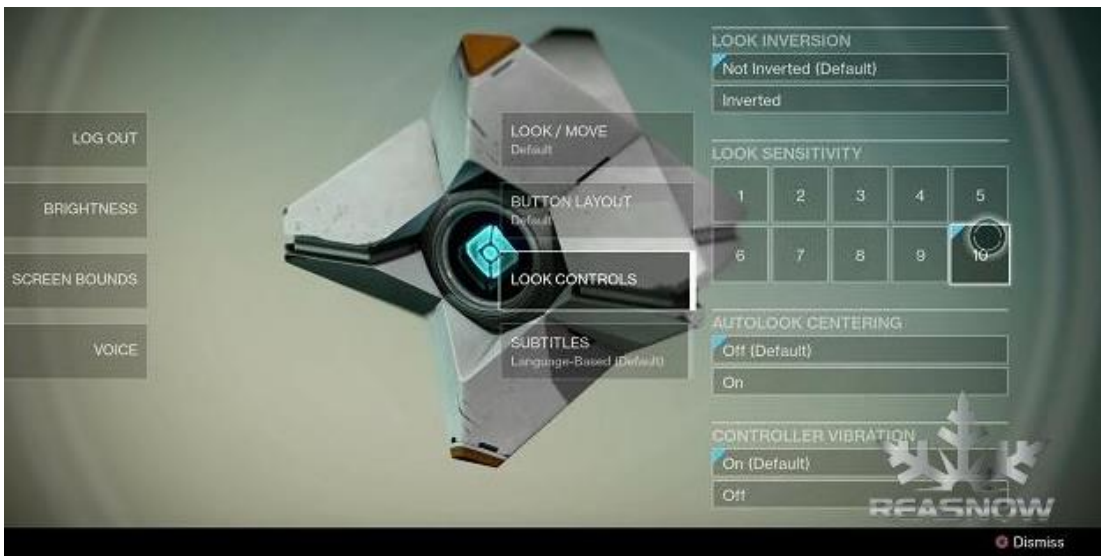| Third Person Control Type	Standard
Third Person Look-Around Sensitivity	
Third Person Aiming Sensitivity	
First Person Control Type	Standard
First Person Look-Around Sensitivity	
First Person Aiming Sensitivity	
First Person On Foot Field of View	
First Person Ragdoll	On

Destiny

Kill zone: Shadow Fall

Warframe

PS4. Glossary:

DPI: Dots per inch (DPI) is a measurement of how sensitive a mouse is. The higher a mouse's DPI, the farther the cursor on your screen will move when you move the mouse. A mouse with a higher DPI can detect and react to smaller movements. While unstable signals might also be caused when some mouse is set to its MAX.

CPI: Counts Per Inch (CPI), In short, **CPI** and **DPI** essentially cover the same specification of a mouse and can be used interchangeably.

HIP: Shooting without aiming optics

ADS: Shooting with aiming optics
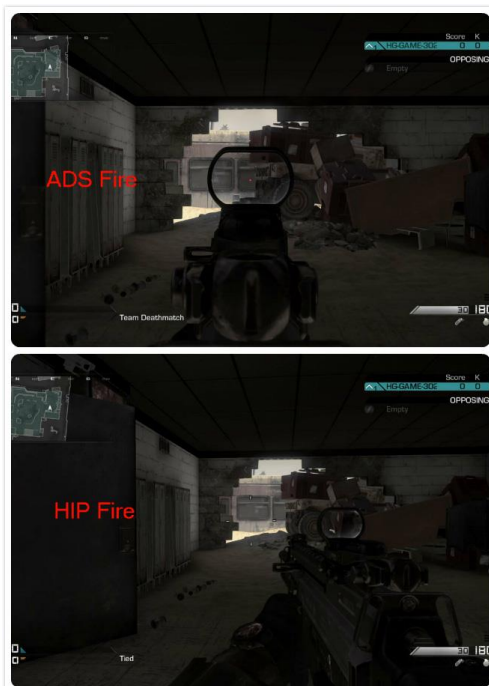
YX Ratio:
It's the ratio of mouse's speed in Y and X directions.