Introducere în Programarea Jocurilor pe Calculator

Cursul 2 bis

Input methods - Keyboard

- **GetKeyDown** - true/false in functie daca tasta primita ca parametru a inceput sa fie apasata in acest frame.
- **GetKeyUp** - true/false in functie daca tasta primita ca parametru a fost eliberata (nu se mai apasa pe ea) incepand din acest frame
- **GetKey** - true/false in functie daca tasta primita ca parametru este apasata in acest moment (apasarea ar fi putut sa inceapa mai demult)

Input methods - Keyboard

```
if (Input.GetKeyDown(KeyCode.A))

{    Debug.Log("The A key was pressed!");}
```

```
if (Input.GetKeyUp(KeyCode.A))

{    Debug.Log("The A key was released!");}
```

```
if (Input.GetKey(KeyCode.A))

{    Debug.Log("The A key is being held down!");}
```

```
if (Input.anyKeyDown)

{    Debug.Log("A key was pressed!");}
```

Input methods - Mouse Clicks

- **GetMouseButtonDown** - true/false in functie daca butonul primit ca parametru (ex: 0,1,2) incepe sa fie apasasat in acest frame
- **GetMouseButtonUp** - true/false in functie daca butonul primit ca parametru (ex: 0,1,2) incepe sa fie eliberat in acest frame
- **GetMouseButton** - true/false in functie daca butonul primit ca parametru (ex: 0,1,2) este apasata in acest moment (apasarea ar fi putut sa inceapa mai demult)

Input methods - Mouse Clicks

```
if (Input.GetMouseButtonDown(0))
{    Debug.Log("Left mouse button was pressed!");}

if (Input.GetMouseButtonDown(1))
{    Debug.Log("Right mouse button was pressed!");}

if (Input.GetMouseButtonDown(2))
{    Debug.Log("Scroll wheel was pressed!");}
```

```
if (Input.GetMouseButton(0))
{
Debug.Log("Left mouse button is being held down!");
}

if (Input.GetMouseButtonUp(0)) {
    Debug.Log("Left mouse button was released!");
}
```

Input methods - Mouse Motion

- **Input.GetAxis(“Mouse X”) -** Returnează un un numar in intervalul [-1,0) pentru o miscare a cursorului catre stanga; un numar in intervalul (0,1] pentru o miscare a cursorului catre dreapta; 0 daca acesta ramane nemiscat
- **Input.GetAxis(“Mouse Y”) -** analog pentru mișcare in jos/sus sau stationare

Input methods - Mouse Position

- **Input.mousePosition -** Returnează un Vector3 (triplet) cu pozitia cursorului. Coltul din stanga jos avand coordonatele (0,0), iar cel din dreapta sus (RezX,RezY)
- **Camera.main.ScreenToViewportPoint(Input.mousePosition) -** normalizeaza pe suprafața [(0,0) ; (1,1)]

Input methods -Gamepad

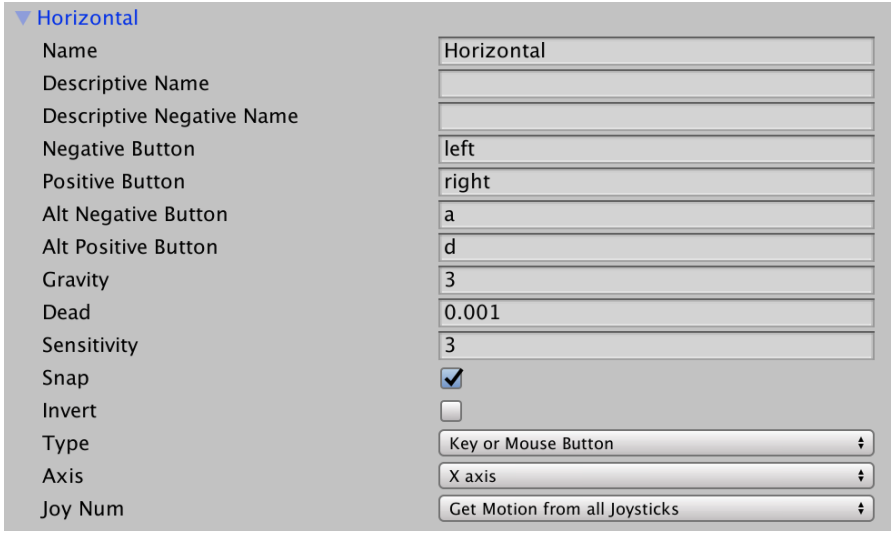
- Observație: Pot exista pana la cel mult 8 gamepad-uri conectat la un moment dat. Fiecare gamepad are până la 20 de butoane, mapate în funcție de producător.
- Input.GetJoystickNames() - retunează un vector de stringuri reprezentând numele fiecărui pad.
- Odată aflat numele, putem accesa butoanele și joystick-ul folosind metodele de tip GetKey() sau GetAxis() - pentru care insa trebuie sa definim o mapare.

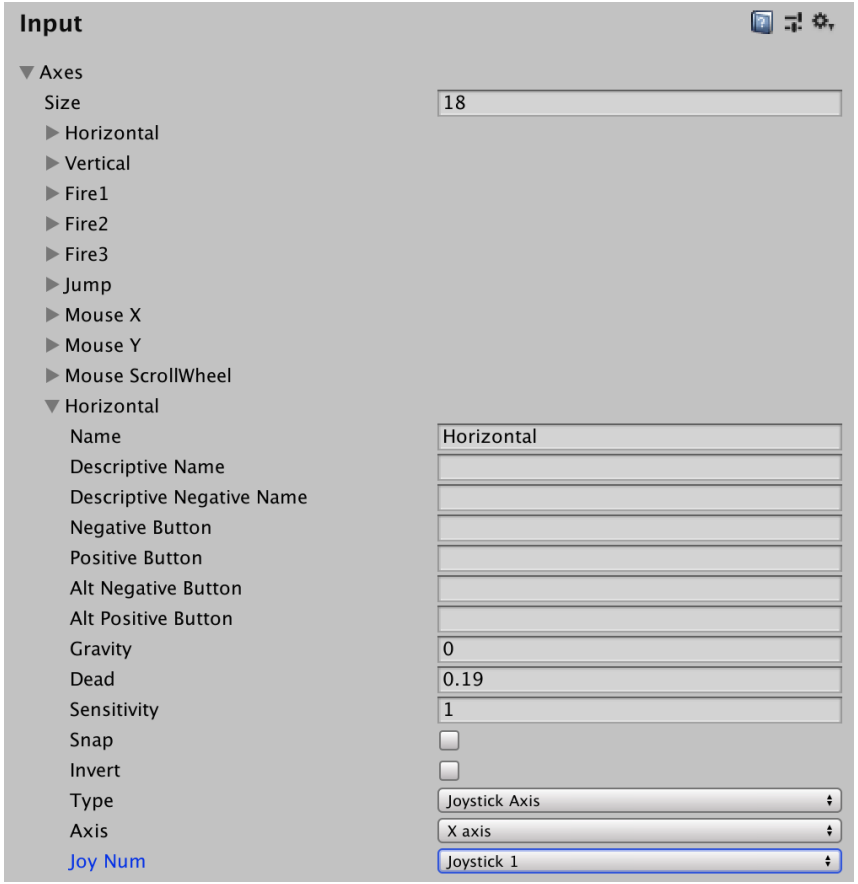
  Ex:

  ```
  if(Input.GetKeyDown(KeyCode.Joystick1Button0))
      Debug.Log(”Button was pressed”);
  ```

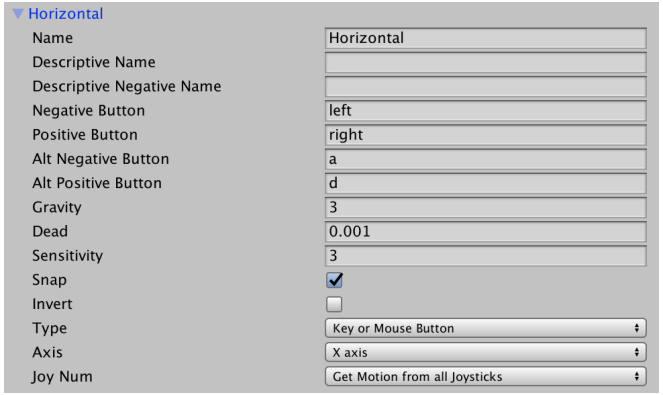
Custom Input

Edit>Settings>Input





Custom Input



Name

Enter the string that refers to the axis in the game launcher and through scripting.

Descriptive Name

Enter a detailed definition of the **Positive Button** function that appears in the game launcher.

Descriptive Negative Name

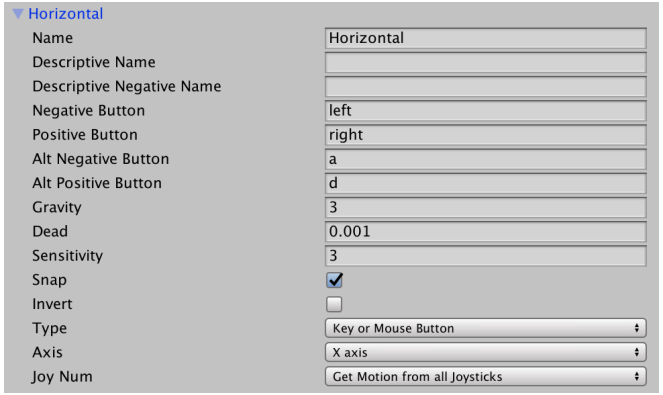
Enter a detailed definition of the **Negative Button** function that appears in the game launcher.

Negative Button

Enter the name of the button that sends a negative value to the axis.

source: https://docs.unity3d.com/Manual/class-InputManager.html

Custom Input



Positive Button

Enter the name of the button that sends a positive value to the axis.

Alt Negative Button

Enter the name of the secondary button that sends a negative value to the axis.

Alt Positive Button

Enter the name of the secondary button that sends a positive value to the axis.

Gravity

Set how fast the input re-centers. This property applies only when the **Type** is **key / mouse button**.

Custom Input

Dead

Any positive or negative values that are less than this number register as zero. Useful for joysticks.

Sensitivity

For keyboard input, a larger value results in faster response time. A lower value is smoother. For the mouse delta, this value scales the actual mouse delta.

Snap

Enable this option to immediately reset the axis value to zero after it receives opposite inputs. This property applies only when the **Type** is **key / mouse button**.

Invert

Enable this option to make the positive buttons send negative values to the axis, and vice versa.

Custom Input

Type

Choose what kind of input this axis can expect.

Key / Mouse Button Any kind of button. *Mouse Movement* Mouse delta and scrollwheels, etc

Axis

Choose the axis of input from the device (joystick, mouse, gamepad, etc.). Defaults to the X-axis.

Joy Num

Choose which joystick should be used. Defaults to retrieving the input from all joysticks.

Note: This is only used for input axes and not buttons.

Custom Input

De citit capitolul 3 din
https://drive.google.com/open?id=1HXqyybCi4KKQEvRbwQqgI-d86kOYTa7M