

[Game Controller](#) / Input

API Collection

Input

Receive controller input in the way that best integrates with the flow of your game or game engine.

Topics

Essentials

Handling input events

Receive controller input using either polling or callbacks.

`protocol GCDevicePhysicalInput`

The common properties and methods for objects that represent the input profile of a device.

`protocol GCDevicePhysicalInputState`

The common properties for physical devices with elements.

`protocol GCDevicePhysicalInputStateDiff`

The common functions for objects that contain the differences between a current and previous input state object.

Elements

`struct GCPysicalInputElementCollection`

A collection of physical input elements.

`protocol GCPysicalInputElement`

The common properties of physical input elements.

```
protocol GCButtonElement
```

The common properties of an element that represents a momentary switch, such as a push button.

```
protocol GCAxisElement
```

The common properties for an element that represents an absolute or relative input value along an axis.

```
protocol GCSwitchElement
```

The common properties for an element that represents a switch.

```
protocol GCDirectionPadElement
```

The common properties of elements that represent directional pads.

Element inputs

```
protocol GCPhysicalInputSource
```

A protocol for a description of an element without any system-level remapping of the controls.

Element names

```
struct GCPhysicalInputElementName
```

The name of a physical input element.

```
protocol GCPhysicalInputElementTypeName
```

A type-safe name for accessing elements of a physical input element collection.

```
struct GCButtonElementName
```

The names of the button elements.

```
struct GCAxisElementName
```

The names for the elements that provide values along an axis.

```
struct GCSwitchElementName
```

The name for an element that represents a switch.

```
struct GCDirectionPadElementName
```

The names for directional pad elements.

≡ Extended gamepad input names

Constants for names of extended gamepad elements.

☰ DualShock controller input names

Constants for names of DualShock 4 elements.

☰ Xbox controller input names

Constants for names of Xbox elements.

☰ Micro gamepad input names

Constants for names of micro gamepad elements.

☰ Directional Gamepad Input Names

Constants for names of directional pad elements.

See Also

Game controller profiles

`class GCMotion`

A controller profile that supports orientation and motion.

`class GCDeviceBattery`

The charge level and state of a device's battery.

`class GCDeviceHaptics`

The locations of haptic actuators on a game controller.

`class GCDeviceLight`

The colored light on a device.