

InputMaster

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Chapter 1

Namespace Index

1.1 Packages

Here are the packages with brief descriptions (if available):

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BSGTools.IO.Xbox	8

Chapter 2

Hierarchical Index

2.1 Class Hierarchy

This inheritance list is sorted roughly, but not completely, alphabetically:

BSGTools.IO.Control	11
BSGTools.IO.KeyControl	18
BSGTools.IO.Xbox.XboxControl< T >	21
BSGTools.IO.Xbox.XButtonControl	24
BSGTools.IO.Xbox.XStickControl	26
BSGTools.IO.Xbox.XTriggerControl	28
EditorWindow	
BSGTools.IO.Tools.InputManagerWizard	15
BSGTools.IO.Xbox.IXboxControl	18
BSGTools.IO.Xbox.XButtonControl	24
BSGTools.IO.Xbox.XStickControl	26
BSGTools.IO.Xbox.XTriggerControl	28
MonoBehaviour	
BSGTools.IO.InputMaster	16
Singleton< T >	20

Chapter 3

Class Index

3.1 Class List

Here are the classes, structs, unions and interfaces with brief descriptions:

BSGTools.IO.Control	
Provided to give a common base class and common functionality for KeyControl and XboxControl	11
BSGTools.IO.Tools.InputManagerWizard	15
BSGTools.IO.InputMaster	
A single instance of this exists in the application. Updates and maintains all Control states.	16
BSGTools.IO.Xbox.IXboxControl	
Used for type constraints. Contains nor enforces any functionality.	18
BSGTools.IO.KeyControl	
Used for all Keyboard and Mouse Button controls. Any binding present in Unity's KeyCode enumeration is valid here.	18
Singleton< T >	
Be aware this will not prevent a non singleton constructor such as <code>T myT = new T();</code> To prevent that, add <code>protected T () {}</code> to your singleton class. As a note, this is made as MonoBehaviour for Coroutines.	20
BSGTools.IO.Xbox.XboxControl< T >	21
BSGTools.IO.Xbox.XButtonControl	
Used for integrating Xbox 360 controller digital buttons/inputs into InputMaster's Control system.	24
BSGTools.IO.Xbox.XStickControl	
Used for integrating Xbox 360 controller analog sticks into InputMaster's Control system.	26
BSGTools.IO.Xbox.XTriggerControl	
Used for integrating Xbox 360 controller triggers into InputMaster's Control system.	28

Chapter 4

Namespace Documentation

4.1 Package BSGTools

Namespaces

- package [IO](#)

4.2 Package BSGTools.IO

Namespaces

- package [Tools](#)
- package [Xbox](#)

Classes

- class [Control](#)
Provided to give a common base class and common functionality for [KeyControl](#) and [XboxControl](#).
- class **EnumExt**
Simple extensions class for commonly used enum functionality.
- class [InputMaster](#)
A single instance of this exists in the application. Updates and maintains all [Control](#) states.
- class [KeyControl](#)
Used for all Keyboard and Mouse Button controls. Any binding present in Unity's KeyCode enumeration is valid here.

Enumerations

- enum [ControlState](#) {
Positive = 1 << 0, **Negative** = 1 << 1, **Neither** = Positive & Negative, **Both** = Positive | Negative,
Either = Positive ^ Negative }
*Describes the current state of a control's specific state. Use (control.Down/Held/Up & flag) != 0 for Positive & Negative.
Use == for Neither, Both, and Either.*

4.2.1 Enumeration Type Documentation

4.2.1.1 enum BSGTools.IO.ControlState

Describes the current state of a control's specific state. Use (control.Down/Held/Up & flag) != 0 for Positive & Negative. Use == for Neither, Both, and Either.

4.3 Package BSGTools.IO.Tools

Classes

- class [InputManagerWizard](#)

4.4 Package BSGTools.IO.Xbox

Classes

- interface [IXboxControl](#)
Used for type constraints. Contains nor enforces any functionality.
- class [XboxControl< T >](#)
- class **XboxUtils**
A static utility class for minimal required updates for XboxControls.
- class [XButtonControl](#)
Used for integrating [Xbox](#) 360 controller digital buttons/inputs into [InputMaster's Control](#) system.
- class [XStickControl](#)
Used for integrating [Xbox](#) 360 controller analog sticks into [InputMaster's Control](#) system.
- class [XTriggerControl](#)
Used for integrating [Xbox](#) 360 controller triggers into [InputMaster's Control](#) system.

Enumerations

- enum [XStick](#) { **StickLeft, StickRight** }
Represents the two analog sticks of an Xbox 360 Controller.
- enum [XTrigger](#) { **TriggerLeft, TriggerRight** }
Represents the two triggers of an Xbox 360 Controller.
- enum [XButton](#) {
None, A, B, X,
Y, Back, Guide, Start,
StickLeft, StickRight, ShoulderLeft, ShoulderRight,
DPadUp, DPadDown, DPadLeft, DPadRight }
Represents all of the digital buttons of an Xbox 360 Controller.

4.4.1 Enumeration Type Documentation

4.4.1.1 enum BSGTools.IO.Xbox.XButton

Represents all of the digital buttons of an [Xbox](#) 360 Controller.

4.4.1.2 enum BSGTools.IO.Xbox.XStick

Represents the two analog sticks of an [Xbox](#) 360 Controller.

4.4.1.3 enum BSGTools.IO.Xbox.XTrigger

Represents the two triggers of an [Xbox](#) 360 Controller.

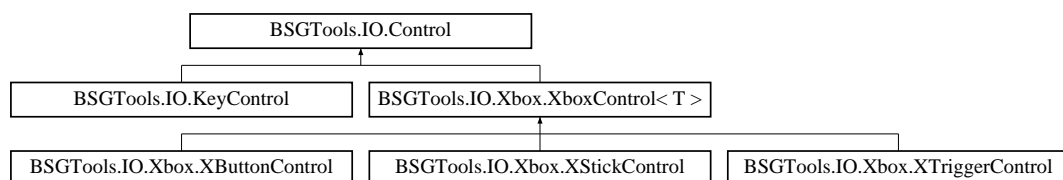
Chapter 5

Class Documentation

5.1 BSGTools.IO.Control Class Reference

Provided to give a common base class and common functionality for [KeyControl](#) and [XboxControl](#).

Inheritance diagram for BSGTools.IO.Control:



Public Member Functions

- void [Update](#) ()
Updates the control. This should never be used by any user-made script. This is public specifically for the use of [InputMaster](#).
- void [Reset](#) ()
Reset all non-configuration values and states for this control.
- void [Reset](#) (bool block)
Reset all non-configuration values for this control. This is the best method to use for cutscenes.
- override string [ToString](#) ()
Returns debug information in a single line.
- virtual string [ToStringBlock](#) ()
Returns debug information as a formatted string block.

Static Public Member Functions

- static float [operator+](#) ([Control](#) one, [Control](#) two)
Adds the [Value](#) properties of a variable amount of controls. The return value is clamped between -1...1 If you have multiple control options for a single in-game action, this is how you gather the final input value for the action.
- static float [operator+](#) ([Control](#) one, float val)
Adds the [Value](#) properties of a variable amount of controls and floats. The return value is clamped between -1...1 This has the same use-case as [+\(Control, Control\)](#), except this is useful for when adding certain [Xbox](#) Controls like [XTrigger](#) and [XStick](#), which do not use the [Value](#) property of [Control](#).

Protected Member Functions

- abstract void [UpdateStates](#) ()
Internally used for updating the Up/Held/Down states of a control.
- virtual void [UpdateValues](#) ()
Internally used for updating a control's values using it's current states.
- void [SoftReset](#) ()
Internally used for maintaining the [RealValue](#) inbetween updates while resetting everything else.

Properties

- string [Name](#) [get, set]
- bool [IsBlocked](#) [get, set]
- bool [IsDebugControl](#) [get, set]
- float [Gravity](#) [get, set]
- float [Sensitivity](#) [get, set]
- float [Dead](#) [get, set]
- bool [Snap](#) [get, set]
- bool [Invert](#) [get, set]
- sbyte [FixedValue](#) [get, protected set]
- float [Value](#) [get, protected set]
- float [RealValue](#) [get, set]
- [ControlState Down](#) [get, set]
- [ControlState Up](#) [get, set]
- [ControlState Held](#) [get, set]

5.1.1 Detailed Description

Provided to give a common base class and common functionality for [KeyControl](#) and [XboxControl](#).

Controls should be instantiated as parameters in a custom [MonoBehaviour](#) using block initialization. See example below.

Declaration Example

```
KeyControl use = new KeyControl(KeyCode.E) {
    Name = "Jump",
    Gravity = 2f,
    Sensitivity = 2f
};
```

5.1.2 Member Function Documentation

5.1.2.1 static float BSGTools.IO.Control.operator+ (Control *one*, Control *two*) [static]

Adds the [Value](#) properties of a variable amount of controls. The return value is clamped between -1...1. If you have multiple control options for a single in-game action, this is how you gather the final input value for the action.

Parameters

<i>one</i>	The first control.
<i>two</i>	The second control.

Returns

The clamped sum of the control values.

5.1.2.2 static float BSGTools.IO.Control.operator+ (Control *one*, float *val*) [static]

Adds the [Value](#) properties of a variable amount of controls and floats. The return value is clamped between -1...1. This has the same use-case as +(Control, Control), except this is useful for when adding certain [Xbox](#) Controls like XTrigger and XStick, which do not use the Value property of [Control](#).

Parameters

<i>one</i>	The first control.
<i>val</i>	A float value.

Returns

The clamped sum of the control value and the provided float argument.

5.1.2.3 void BSGTools.IO.Control.Reset ()

Reset all non-configuration values and states for this control.

See also

[Reset\(bool\)](#)

5.1.2.4 void BSGTools.IO.Control.Reset (bool *block*)

Reset all non-configuration values for this control. This is the best method to use for cutscenes.

Parameters

<i>block</i>	Whether or not to block this input after resetting.
--------------	---

See also

[Reset](#), [IsBlocked](#)

5.1.2.5 void BSGTools.IO.Control.SoftReset () [protected]

Internally used for maintaining the [RealValue](#) inbetween updates while resetting everything else.

5.1.2.6 override string BSGTools.IO.Control.ToString ()

Returns debug information in a single line.

Returns

The debug information.

5.1.2.7 virtual string BSGTools.IO.Control.ToStringBlock () [virtual]

Returns debug information as a formatted string block.

Returns

The debug information.

Reimplemented in [BSGTools.IO.KeyControl](#).

5.1.2.8 void BSGTools.IO.Control.Update ()

Updates the control. This should never be used by any user-made script. This is public specifically for the use of [InputMaster](#).

5.1.2.9 abstract void BSGTools.IO.Control.UpdateStates () [protected],[pure virtual]

Internally used for updating the Up/Held/Down states of a control.

Implemented in [BSGTools.IO.KeyControl](#), [BSGTools.IO.Xbox.XTriggerControl](#), [BSGTools.IO.Xbox.XStickControl](#), and [BSGTools.IO.Xbox.XButtonControl](#).

5.1.2.10 virtual void BSGTools.IO.Control.UpdateValues () [protected],[virtual]

Internally used for updating a control's values using it's current states.

Reimplemented in [BSGTools.IO.Xbox.XTriggerControl](#), and [BSGTools.IO.Xbox.XStickControl](#).

5.1.3 Property Documentation

5.1.3.1 float BSGTools.IO.Control.Dead [get],[set]

Functionally identical to the Dead property of Unity's native Input system. The absolute value of a control's real value reports as 0 if it's less than this value.

5.1.3.2 ControlState BSGTools.IO.Control.Down [get],[set]

The current "down" state of the control.

5.1.3.3 sbyte BSGTools.IO.Control.FixedValue [get],[protected set]

Returns a digital, ceiling-rounded representation of [Value](#). This is functionally identical to calling `Input.GetAxisRaw()` from Unity's native Input system.

5.1.3.4 float BSGTools.IO.Control.Gravity [get],[set]

Functionally identical to the Gravity property of Unity's native Input system. Speed per second that a control at rest returns to 0.

5.1.3.5 ControlState BSGTools.IO.Control.Held [get],[set]

The current "held" state of the control.

5.1.3.6 bool BSGTools.IO.Control.Invert [get],[set]

Functionally identical to the Invert property of Unity's native Input system. If true, the control's value will report as `-(value)`. However, the state of the control will remain the same (positive down will still report as positive down, etc). Keep in mind that this functions whether or not a negative binding is supplied.

5.1.3.7 bool BSGTools.IO.Control.IsBlocked [get], [set]

This is used to block any control from receiving updates. Keep in mind that if you block a control, it maintains its values from its most recent update. If you want to block and reset a control, you can use the [Reset\(bool\)](#) function.

5.1.3.8 bool BSGTools.IO.Control.IsDebugControl [get], [set]

Used to specify controls that automatically only work in the Editor or in Debug builds.

5.1.3.9 string BSGTools.IO.Control.Name [get], [set]

Can be used as a display name or for string metadata.

5.1.3.10 float BSGTools.IO.Control.RealValue [get], [set], [protected]

An internally used property that keeps track of the "real value" across updates. This is necessary so that properties like [Dead](#) can be applied to the final value. Think of this as the "real value" and the [Value](#) property as this value after post processing. This value is not necessary to use for input.

5.1.3.11 float BSGTools.IO.Control.Sensitivity [get], [set]

Functionally identical to the Sensitivity property of Unity's native Input system. Speed per second that a control in motion approaches 1.

5.1.3.12 bool BSGTools.IO.Control.Snap [get], [set]

Functionally identical to the Snap property of Unity's native Input system. If true, and if the control has a positive and negative binding, the control's value will snap to 0 if provided an opposite input.

5.1.3.13 ControlState BSGTools.IO.Control.Up [get], [set]

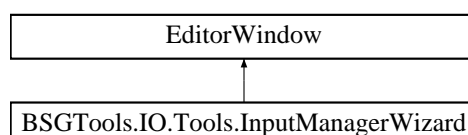
The current "up" state of the control.

5.1.3.14 float BSGTools.IO.Control.Value [get], [protected set]

Returns an analog representation of the current real value. This is functionally identical to calling `Input.GetAxis()` from Unity's native Input system.

5.2 BSGTools.IO.Tools.InputManagerWizard Class Reference

Inheritance diagram for BSGTools.IO.Tools.InputManagerWizard:



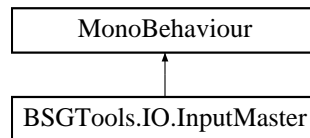
Static Public Member Functions

- static void **ShowWizard** ()

5.3 BSGTools.IO.InputMaster Class Reference

A single instance of this exists in the application. Updates and maintains all [Control](#) states.

Inheritance diagram for BSGTools.IO.InputMaster:



Public Member Functions

- void [ResetAll](#) ()
Resets all states/values on all controls.
- void [ResetAll](#) (bool block)
Resets all states/values on all Controls. This is useful for when you want to show a cutscene.
- void [SetBlockAll](#) (bool blocked)
Blocks or unblocks all controls.
- void [DestroyMaster](#) ()
Destroys the [InputMaster](#) object.
- void [UpdateControls](#) (params [Control](#)[] controls)
Searches the control list for the provided [Control](#) objects and replaces them with said provided object

Static Public Member Functions

- static [InputMaster CreateMaster](#) (object controlClass)
Uses reflection to get all controls in a class. Depending on the control count from your controlClass, this could have a noticable performance spike unless used during loading.
- static [InputMaster CreateMaster](#) (params [Control](#)[] controls)
Creates a new, empty, hidden GameObject, adds a new instance of [InputMaster](#) to it, and adds the provided controls to the master's control list.

Properties

- bool [AnyKeyDown](#) [get]
Not yet implemented.
- bool [AnyKeyHeld](#) [get]
Not yet implemented.
- bool [AnyKeyUp](#) [get]
Not yet implemented.

5.3.1 Detailed Description

A single instance of this exists in the application. Updates and maintains all [Control](#) states.

5.3.2 Member Function Documentation

5.3.2.1 static InputMaster BSGTools.IO.InputMaster.CreateMaster (object *controlClass*) [static]

Uses reflection to get all controls in a class. Depending on the control count from your *controlClass*, this could have a noticeable performance spike unless used during loading.

Parameters

<i>controlClass</i>	The instance of a class to get the controls from.
---------------------	---

Returns

The new [InputMaster](#) instance.

5.3.2.2 static InputMaster BSGTools.IO.InputMaster.CreateMaster (params Control[] *controls*) [static]

Creates a new, empty, hidden GameObject, adds a new instance of [InputMaster](#) to it, and adds the provided controls to the master's control list.

Parameters

<i>controls</i>	A full listing of all of the games controls with the default bindings.
-----------------	--

Returns

The new [InputMaster](#) instance.

5.3.2.3 void BSGTools.IO.InputMaster.DestroyMaster ()

Destroys the [InputMaster](#) object.

5.3.2.4 void BSGTools.IO.InputMaster.ResetAll ()

Resets all states/values on all controls.

See also

[ResetAll\(bool\)](#)

5.3.2.5 void BSGTools.IO.InputMaster.ResetAll (bool *block*)

Resets all states/values on all Controls. This is useful for when you want to show a cutscene.

Parameters

<i>block</i>	Whether or not to set each control to be blocked.
--------------	---

See also

[ResetAll](#), [Control.IsBlocked](#)

5.3.2.6 void BSGTools.IO.InputMaster.SetBlockAll (bool *blocked*)

Blocks or unblocks all controls.

Parameters

<i>blocked</i>	To block/unblock.
----------------	-------------------

See also

[Control.IsBlocked](#)

5.3.2.7 void BSGTools.IO.InputMaster.UpdateControls (params **Control**[] *controls*)

Searches the control list for the provided [Control](#) objects and replaces them with said provided object

Parameters

<i>controls</i>	The Control objects to search and replace
-----------------	---

5.3.3 Property Documentation

5.3.3.1 bool BSGTools.IO.InputMaster.AnyKeyDown [get]

Not yet implemented.

5.3.3.2 bool BSGTools.IO.InputMaster.AnyKeyHeld [get]

Not yet implemented.

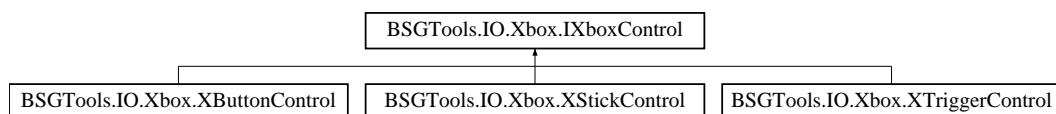
5.3.3.3 bool BSGTools.IO.InputMaster.AnyKeyUp [get]

Not yet implemented.

5.4 BSGTools.IO.Xbox.IXboxControl Interface Reference

Used for type constraints. Contains nor enforces any functionality.

Inheritance diagram for BSGTools.IO.Xbox.IXboxControl:



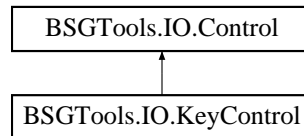
5.4.1 Detailed Description

Used for type constraints. Contains nor enforces any functionality.

5.5 BSGTools.IO.KeyControl Class Reference

Used for all Keyboard and Mouse Button controls. Any binding present in Unity's KeyCode enumeration is valid here.

Inheritance diagram for BSGTools.IO.KeyControl:



Public Member Functions

- [KeyControl](#) (KeyCode positive)
Creates a new [KeyControl](#). This is the "new version" of OneWayControl from previous versions of [InputMaster](#).
- [KeyControl](#) (KeyCode positive, KeyCode negative)
Creates a new [KeyControl](#) with a negative binding. This is the "new version" of AxisControl from previous versions of [InputMaster](#).
- override string [ToStringBlock](#) ()
Returns debug information as a formatted string block.

Protected Member Functions

- override void [UpdateStates](#) ()
Updates the current states of this control.

Properties

- KeyCode [Positive](#) [get, set]
- KeyCode [Negative](#) [get, set]

Additional Inherited Members

5.5.1 Detailed Description

Used for all Keyboard and Mouse Button controls. Any binding present in Unity's KeyCode enumeration is valid here.

5.5.2 Constructor & Destructor Documentation

5.5.2.1 BSGTools.IO.KeyControl.KeyControl (KeyCode *positive*)

Creates a new [KeyControl](#). This is the "new version" of OneWayControl from previous versions of [InputMaster](#).

Parameters

<i>positive</i>	Positive
-----------------	--------------------------

5.5.2.2 BSGTools.IO.KeyControl.KeyControl (KeyCode *positive*, KeyCode *negative*)

Creates a new [KeyControl](#) with a negative binding. This is the "new version" of AxisControl from previous versions of [InputMaster](#).

Parameters

<i>positive</i>	Positive
<i>negative</i>	Negative

5.5.3 Member Function Documentation

5.5.3.1 override string BSGTools.IO.KeyControl.ToStringBlock () [virtual]

Returns debug information as a formatted string block.

Returns

The debug information.

Reimplemented from [BSGTools.IO.Control](#).

5.5.3.2 override void BSGTools.IO.KeyControl.UpdateStates () [protected], [virtual]

Updates the current states of this control.

Implements [BSGTools.IO.Control](#).

5.5.4 Property Documentation

5.5.4.1 KeyCode BSGTools.IO.KeyControl.Negative [get], [set]

The negative binding for this control. Optional.

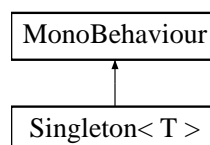
5.5.4.2 KeyCode BSGTools.IO.KeyControl.Positive [get], [set]

The positive binding for this control. REQUIRED. CANNOT BE KeyCode.None!

5.6 Singleton< T > Class Template Reference

Be aware this will not prevent a non singleton constructor such as `T myT = new T();` To prevent that, add `protected T () {}` to your singleton class. As a note, this is made as `MonoBehaviour` for Coroutines.

Inheritance diagram for Singleton< T >:



Public Member Functions

- void [DummyCreate](#) ()

Strictly for testing Singleton creation.

- void [OnDestroy](#) ()

When Unity quits, it destroys objects in a random order. In principle, a Singleton is only destroyed when application quits. If any script calls Instance after it have been destroyed, it will create a buggy ghost object that will stay on the Editor scene even after stopping playing the Application. So, this is to be sure that a ghost object is not created.

Properties

- static T [Instance](#) [get]

5.6.1 Detailed Description

Be aware this will not prevent a non singleton constructor such as `T myT = new T();` To prevent that, add `protected T () {}` to your singleton class. As a note, this is made as `MonoBehaviour` for Coroutines.

Type Constraints

T : *MonoBehaviour*

5.6.2 Member Function Documentation

5.6.2.1 void Singleton< T >.DummyCreate ()

Strictly for testing Singleton creation.

5.6.2.2 void Singleton< T >.OnDestroy ()

When Unity quits, it destroys objects in a random order. In principle, a Singleton is only destroyed when application quits. If any script calls Instance after it have been destroyed, it will create a buggy ghost object that will stay on the Editor scene even after stopping playing the Application. So, this is to be sure that a ghost object is not created.

From: <http://wiki.unity3d.com/index.php/Singleton>

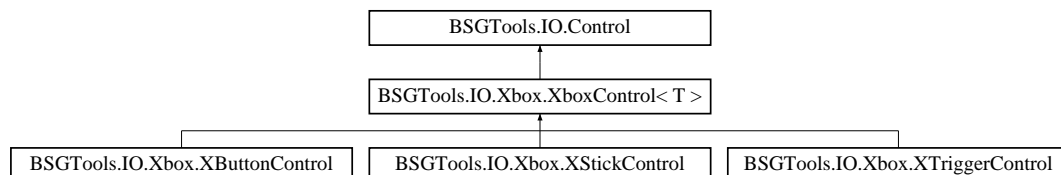
5.6.3 Property Documentation

5.6.3.1 T Singleton< T >.Instance [static], [get]

Does singleton checking, then returns the instance of this class.

5.7 BSGTools.IO.Xbox.XboxControl< T > Class Template Reference

Inheritance diagram for BSGTools.IO.Xbox.XboxControl< T >:



Public Member Functions

- [XboxControl](#) (byte controllerIndex)
Creates a new XboxControl .

Static Public Member Functions

- static T[] [CreateMultiple](#) (byte count, T toClone)

Allows for the creation of up to 4 XboxControls at the same time (one for each controller index). An XboxControl must be provided for cloning. The [ControllerIndex](#) of the provided clone is ignored.

Protected Member Functions

- abstract T [CreateClone](#) (byte controller)

Creates a clone of an this XboxControl.

Properties

- byte [ControllerIndex](#) [get, set]

5.7.1 Detailed Description

The base class for all [Xbox](#) 360 control classes.

Template Parameters

T	Used for generic self-creation.
-------------------	---------------------------------

Type Constraints

T : [IXboxControl](#)

5.7.2 Constructor & Destructor Documentation

5.7.2.1 BSGTools.IO.Xbox.XboxControl< T >.XboxControl (byte controllerIndex)

Creates a new *XboxControl* .

Parameters

<i>controllerIndex</i>	ControllerIndex
------------------------	---------------------------------

5.7.3 Member Function Documentation

5.7.3.1 abstract T BSGTools.IO.Xbox.XboxControl< T >.CreateClone (byte controller) [protected], [pure virtual]

Creates a clone of an this XboxControl.

Parameters

<i>controller</i>	The index of the controller that will manipulate this control's states and values.
-------------------	--

Returns

Implemented in [BSGTools.IO.Xbox.XTriggerControl](#), [BSGTools.IO.Xbox.XStickControl](#), and [BSGTools.IO.Xbox.X↔ButtonControl](#).

5.7.3.2 static T [] BSGTools.IO.Xbox.XboxControl< T >.CreateMultiple (byte *count*, T *toClone*) [static]

Allows for the creation of up to 4 XboxControls at the same time (one for each controller index). An *XboxControl* must be provided for cloning. The [ControllerIndex](#) of the provided clone is ignored.

Parameters

<i>count</i>	The number of controllers to create this control for.
<i>toClone</i>	The instance to take values from for clone creation.

Returns

An array of type T, each assigned to a specific controller index.

Example

```
// Defines a jump control for all 4 players.
XButtonControl[] jump = XButtonControl.CreateMultiple(4, new XButtonControl(0, XButton.A) {
    Name = "Jump",
    Gravity = 2f,
    Sensitivity = 2f
});

// Usage
jump[0].Value; //Player One's jump value
jump[3].Value; //Player Four's jump value
```

5.7.4 Property Documentation

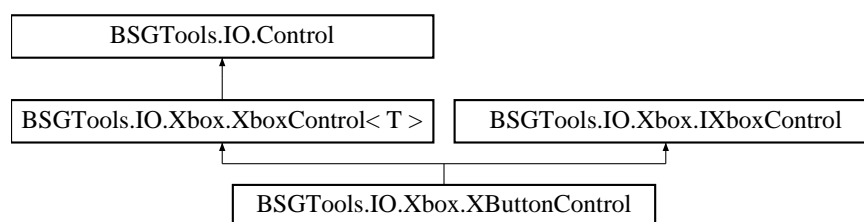
5.7.4.1 byte BSGTools.IO.Xbox.XboxControl< T >.ControllerIndex [get], [set]

The index of the controller that will manipulate this control's states and values. This is used in conjunction to the PlayerIndex enumeration in XInput.

5.8 BSGTools.IO.Xbox.XButtonControl Class Reference

Used for integrating [Xbox](#) 360 controller digital buttons/inputs into [InputMaster's Control](#) system.

Inheritance diagram for BSGTools.IO.Xbox.XButtonControl:



Public Member Functions

- [XButtonControl](#) (byte controllerIndex, [XButton](#) positive)
Creates a new [XButtonControl](#).
- [XButtonControl](#) (byte controllerIndex, [XButton](#) positive, [XButton](#) negative)
Creates a new [XButtonControl](#).

Protected Member Functions

- override void [UpdateStates](#) ()

Updates this control's states.

- override [XButtonControl CreateClone](#) (byte controller)

Creates a clone of this [XButtonControl](#).

Properties

- [XButton Positive](#) [get, set]
- [XButton Negative](#) [get, set]

Additional Inherited Members

5.8.1 Detailed Description

Used for integrating [Xbox](#) 360 controller digital buttons/inputs into [InputMaster's Control](#) system.

5.8.2 Constructor & Destructor Documentation

5.8.2.1 BSGTools.IO.Xbox.XButtonControl.XButtonControl (byte controllerIndex, XButton positive)

Creates a new [XButtonControl](#).

Parameters

<i>controllerIndex</i>	ControllerIndex
<i>positive</i>	Positive

5.8.2.2 BSGTools.IO.Xbox.XButtonControl.XButtonControl (byte controllerIndex, XButton positive, XButton negative)

Creates a new [XButtonControl](#).

Parameters

<i>controllerIndex</i>	The index of the controller that will manipulate this control's states and values.
<i>positive</i>	The positive binding for this control. CANNOT BE XBinding.None!
<i>negative</i>	The negative binding for this control.

5.8.3 Member Function Documentation

5.8.3.1 override XButtonControl BSGTools.IO.Xbox.XButtonControl.CreateClone (byte controller) [protected], [virtual]

Creates a clone of this [XButtonControl](#).

Parameters

<i>controller</i>	The index of the controller that will manipulate this control's states and values.
-------------------	--

Returns

The cloned control.

Implements [BSGTools.IO.Xbox.XboxControl< T >](#).

5.8.3.2 `override void BSGTools.IO.Xbox.XButtonControl.UpdateStates ()` [protected], [virtual]

Updates this control's states.

Implements [BSGTools.IO.Control](#).

5.8.4 Property Documentation

5.8.4.1 `XButton BSGTools.IO.Xbox.XButtonControl.Negative` [get], [set]

The negative binding for this control.

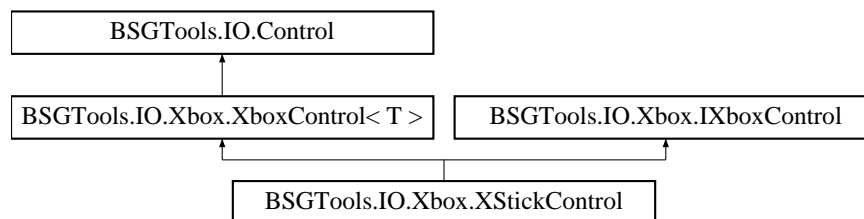
5.8.4.2 `XButton BSGTools.IO.Xbox.XButtonControl.Positive` [get], [set]

The positive binding for this control. CANNOT BE XBinding.None!

5.9 BSGTools.IO.Xbox.XStickControl Class Reference

Used for integrating [Xbox](#) 360 controller analog sticks into [InputMaster's Control](#) system.

Inheritance diagram for BSGTools.IO.Xbox.XStickControl:



Public Types

- enum [InvertMode](#) { **X** = 1 >> 0, **Y** = 1 >> 1 }

Because there are 2 axes to worry about, a specialized enumeration is used to allow for different inversion modes.

Public Member Functions

- [XStickControl](#) (byte controllerIndex, [XStick](#) stick)

Creates a new [XStickControl](#).

Protected Member Functions

- override void [UpdateStates](#) ()
Updates this control's states.
- override void [UpdateValues](#) ()
Updates this control's values. The [StickValue](#) property is updated in [UpdateStates](#).
- override [XStickControl CreateClone](#) (byte controller)
Creates a clone of this [XStickControl](#).

Properties

- [XStick Stick](#) [get, set]
- Vector2 [StickValue](#) [get]
- [InvertMode InversionMode](#) [get, set]

Additional Inherited Members

5.9.1 Detailed Description

Used for integrating [Xbox](#) 360 controller analog sticks into [InputMaster's Control](#) system.

5.9.2 Member Enumeration Documentation

5.9.2.1 enum BSGTools.IO.Xbox.XStickControl.InvertMode

Because there are 2 axes to worry about, a specialized enumeration is used to allow for different inversion modes.

5.9.3 Constructor & Destructor Documentation

5.9.3.1 BSGTools.IO.Xbox.XStickControl.XStickControl (byte *controllerIndex*, XStick *stick*)

Creates a new [XStickControl](#).

Parameters

<i>controllerIndex</i>	ControllerIndex
<i>stick</i>	Stick

5.9.4 Member Function Documentation

5.9.4.1 override XStickControl BSGTools.IO.Xbox.XStickControl.CreateClone (byte *controller*) [protected], [virtual]

Creates a clone of this [XStickControl](#).

Parameters

<i>controller</i>	The ControllerIndex to assign to the new clone.
-------------------	---

Returns

The cloned [XStickControl](#).

Implements [BSGTools.IO.Xbox.XboxControl< T >](#).

5.9.4.2 override void BSGTools.IO.Xbox.XStickControl.UpdateStates () [protected], [virtual]

Updates this control's states.

Implements [BSGTools.IO.Control](#).

5.9.4.3 `override void BSGTools.IO.Xbox.XStickControl.UpdateValues ()` [protected],[virtual]

Updates this control's values. The [StickValue](#) property is updated in [UpdateStates](#).

Reimplemented from [BSGTools.IO.Control](#).

5.9.5 Property Documentation

5.9.5.1 `InvertMode BSGTools.IO.Xbox.XStickControl.InversionMode` [get],[set]

How inversion should be applied to this control.

5.9.5.2 `XStick BSGTools.IO.Xbox.XStickControl.Stick` [get],[set]

The assigned analog stick.

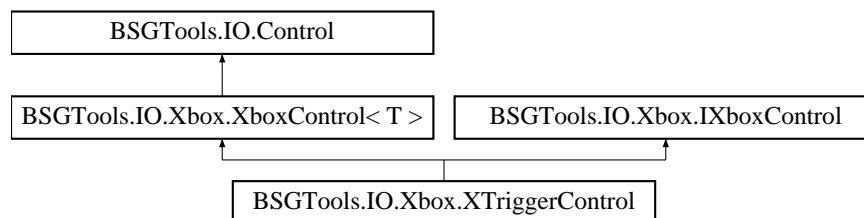
5.9.5.3 `Vector2 BSGTools.IO.Xbox.XStickControl.StickValue` [get]

The X/Y axis values for this control.

5.10 BSGTools.IO.Xbox.XTriggerControl Class Reference

Used for integrating [Xbox](#) 360 controller triggers into [InputMaster's Control](#) system.

Inheritance diagram for [BSGTools.IO.Xbox.XTriggerControl](#):



Public Member Functions

- [XTriggerControl](#) (byte controllerIndex, [XTrigger](#) trigger)

Creates a new [XTriggerControl](#).

Protected Member Functions

- override void [UpdateStates](#) ()
In this specialized case, the values are updated here, not the states.
- override void [UpdateValues](#) ()
Values are updated through the [UpdateStates](#) method.
- override [XTriggerControl](#) [CreateClone](#) (byte controller)
Creates a clone of this [XTriggerControl](#).

Properties

- [XTrigger](#) [Trigger](#) [get, set]

Additional Inherited Members

5.10.1 Detailed Description

Used for integrating [Xbox](#) 360 controller triggers into [InputMaster's Control](#) system.

5.10.2 Constructor & Destructor Documentation

5.10.2.1 BSGTools.IO.Xbox.XTriggerControl.XTriggerControl (*byte controllerIndex*, *XTrigger trigger*)

Creates a new [XTriggerControl](#).

Parameters

<i>controllerIndex</i>	ControllerIndex
<i>trigger</i>	Trigger

5.10.3 Member Function Documentation

5.10.3.1 override [XTriggerControl](#) BSGTools.IO.Xbox.XTriggerControl.CreateClone (*byte controller*) [protected], [virtual]

Creates a clone of this [XTriggerControl](#).

Parameters

<i>controller</i>	The ControllerIndex to assign to the new clone.
-------------------	---

Returns

The cloned [XTriggerControl](#).

Implements [BSGTools.IO.Xbox.XboxControl< T >](#).

5.10.3.2 override void BSGTools.IO.Xbox.XTriggerControl.UpdateStates () [protected], [virtual]

In this specialized case, the values are updated here, not the states.

Implements [BSGTools.IO.Control](#).

5.10.3.3 override void BSGTools.IO.Xbox.XTriggerControl.UpdateValues () [protected], [virtual]

Values are updated through the UpdateStates method.

[UpdateStates](#)

Reimplemented from [BSGTools.IO.Control](#).

5.10.4 Property Documentation

5.10.4.1 [XTrigger](#) BSGTools.IO.Xbox.XTriggerControl.Trigger [get], [set]

The assignend trigger that will manipulate this control's states and values.

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