

Unity Engine Utilities Reference

PiRho Soft

ApplicationHelper	1
Description	1
Static Properties	1
AssetNameAttribute	2
Description	2
Constructors	2
AssetPopupAttribute	2
Description	2
Constructors	2
ButtonState	2
Description	2
Constructors	2
ClassPool	3
Description	3
Constructors	3
ComponentHelper	3
Description	3
Static Methods	3
ConditionalDisplayAttribute	3
Description	4
Constructors	4
ConditionalDisplayOtherAttribute	5
Description	5
Constructors	5
ConditionalDisplaySelfAttribute	5
Description	5
Constructors	5
DictionaryDisplayAttribute	5
Description	5
Constructors	5
DisableInInspectorAttribute	6
Description	6
Constructors	6
DropTable	6
Description	6
Constructors	6
Public Methods	6
EnumButtonsAttribute	7
Description	7
Constructors	7
FlagsPopupAttribute	7

Description	7
Constructors	7
FoldoutString	7
Description	7
Constructors	7
GlobalBehaviour	7
Description	8
Static Properties	8
Protected Constructors	8
IClassPool	8
Description	8
Public Methods	8
IEditableDictionary	8
Description	8
Public Methods	8
InlineDisplayAttribute	8
Description	9
Constructors	9
InputHelper	9
Description	9
Static Methods	9
InternalHelper	9
Description	9
Static Methods	10
IntPopupAttribute	10
Description	10
Constructors	10
IPoolable	11
Description	11
Public Methods	11
IPoolInfo	11
Description	11
Public Properties	11
IReloadable	12
Description	12
Public Methods	12
ListDisplayAttribute	12
Description	12
Constructors	12
ListItemDisplayType	12
Description	12

Values	12
MathHelper	13
Description	13
Static Methods	13
MaximumAttribute	13
Description	13
Constructors	13
MinimumAttribute	14
Description	14
Constructors	14
MinMaxSliderAttribute	15
Description	15
Constructors	15
PoolInfo_10_5	16
Description	16
Constructors	16
PoolInfo_100_10	17
Description	17
Constructors	17
PoolInfo_2_1	18
Description	18
Constructors	18
PoolInfo_25_5	19
Description	19
Constructors	19
PoolInfo_50_10	20
Description	20
Constructors	20
PriorityQueue	21
Description	21
Constructors	21
Public Methods	21
PriorityQueueNode	21
Description	21
Constructors	21
ReloadOnChangeAttribute	22
Description	22
Constructors	22
Resource	22
Description	22
Static Fields	22

Protected Constructors	22
SceneReference	22
Description	22
Static Fields	22
Public Methods	23
SceneReferenceAttribute	23
Description	23
Constructors	23
SerializedArray	24
Description	24
Constructors	24
Public Methods	24
SerializedDictionary	24
Description	24
Constructors	24
SerializedList	25
Description	25
Constructors	25
Public Methods	25
SingletonBehaviour	25
Description	26
Static Properties	26
Protected Constructors	26
SliderAttribute	26
Description	26
Constructors	26
SnapAttribute	27
Description	27
Constructors	27
StringPopupAttribute	28
Description	28
Constructors	28

ApplicationHelper

PiRhoSoft.UtilityEngine.ApplicationHelper

Description

Int Popup	Five
String Popup	Yes
Asset	Styles/Main_Dark
Popup Flags	Mixed ...
Button Flags	<div>NoneLeftRight</div> <div>UpDownAll</div>
Buttons	<div>LeftRightUpDown</div>
▼ String List +	
=	Tiger -
=	Lion -
=	Monkey -
▼ Int Array +	
=	0 -
=	7 -
=	4 -
=	-3 -
▼ String Dictionary +	
Shark	Great White -
Whale	Orca -
Shrimp	Mantis -
Inline Children	
X	5
Y	8
Show Conditional	<input checked="" type="checkbox"/>
Conditional String	Show Conditional is checked!
Disabled	0
Maximum Float	100
Maximum Int	100
Minimum Float	3.47
Minimum Int	87
Int Slider	<div><div></div>75</div>
Float Slider	<div><div></div>5.625</div>
Int Min Max Slider	<div>2<div></div>6</div>
Float Min Max Slider	<div>3.5<div></div>7.5</div>
Snap Int	30
Snap Float	5.5

Static Properties

{Decorator} [bool](#) IsPlaying

AssetNameAttribute

PiRhoSoft.UtilityEngine.AssetNameAttribute : [PropertyAttribute](#)

Description

Constructors

AssetNameAttribute()

<<<

AssetPopupAttribute

PiRhoSoft.UtilityEngine.AssetPopupAttribute : [PropertyAttribute](#)

Description

Constructors

AssetPopupAttribute()

Public Fields

bool *ShowNone*

bool *ShowEdit*

bool *ShowCreate*

<<<

ButtonState

PiRhoSoft.UtilityEngine.ButtonState : [ValueType](#)

Description

Constructors

ButtonState({Decorator} **bool** pressed, {Decorator} **bool** held, {Decorator} **bool** released)

ButtonState({Decorator} **string** button)

ButtonState({Decorator} **KeyCode** key)

Public Fields

bool *Pressed*

bool *Held*

bool *Released*

<<<

ClassPool

PiRhoSoft.UtilityEngine.ClassPool<T, T> : [IClassPool](#)<T>

Description

Constructors

ClassPool()

Public Methods

{Decorator} **void** Grow()

{Decorator} T Reserve()

{Decorator} **void** Release({Decorator} T value)

<<<

ComponentHelper

PiRhoSoft.UtilityEngine.ComponentHelper

Description

Static Methods

{Decorator} T GetComponentInScene<T>({Decorator} **int** sceneIndex, {Decorator} **bool** includeDisabled)

{Decorator} **void** GetComponentsInScene<T>({Decorator} **int** sceneIndex, {Decorator} [List](#)<T> components, {Decorator} **bool** includeDisabled)

{Decorator} [GameObject](#) FindObject({Decorator} **string** name, {Decorator} **int** sceneIndex)

{Decorator} **bool** HasType({Decorator} [Object](#) unityObject, {Decorator} [Type](#) type)

{Decorator} [Object](#) GetAsBaseObject({Decorator} [Object](#) unityObject)

{Decorator} T GetAsObject<T>({Decorator} [Object](#) unityObject)

{Decorator} [GameObject](#) GetAsGameObject({Decorator} [Object](#) unityObject)

{Decorator} T GetAsComponent<T>({Decorator} [Object](#) unityObject)

{Decorator} [Component](#) GetAsComponent({Decorator} [Object](#) unityObject, {Decorator} **string** componentName)

<<<

ConditionalDisplayAttribute

PiRhoSoft.UtilityEngine.ConditionalDisplayAttribute : [PropertyAttribute](#)

Description

Constructors

ConditionalDisplayAttribute()

Public Fields

string *StringValue*

int *EnumValue*

int *IntValue*

float *FloatValue*

bool *Invert*

Public Properties

{Decorator} **string** *Property*

ConditionalDisplayOtherAttribute

PiRhoSoft.UtilityEngine.ConditionalDisplayOtherAttribute : [ConditionalDisplayAttribute](#)

Description

Constructors

ConditionalDisplayOtherAttribute({Decorator} [string](#) property)

<<<

ConditionalDisplaySelfAttribute

PiRhoSoft.UtilityEngine.ConditionalDisplaySelfAttribute : [ConditionalDisplayAttribute](#)

Description

Constructors

ConditionalDisplaySelfAttribute({Decorator} [string](#) property)

<<<

DictionaryDisplayAttribute

PiRhoSoft.UtilityEngine.DictionaryDisplayAttribute : [PropertyAttribute](#)

Description

Constructors

DictionaryDisplayAttribute()

Public Fields

[bool](#) AllowAdd

[bool](#) AllowRemove

[bool](#) AllowCollapse

[bool](#) ShowEditButton

[ListItemDisplayType](#) ItemDisplay

[Type](#) AssetType

[string](#) AddLabel

[string](#) EmptyText

<<<

DisableInInspectorAttribute

PiRhoSoft.UtilityEngine.DisableInInspectorAttribute : [PropertyAttribute](#)

Description

Constructors

DisableInInspectorAttribute()

<<<

DropTable

PiRhoSoft.UtilityEngine.DropTable<T>

Description

Constructors

DropTable()

Public Properties

{Decorator} [int](#) Count

{Decorator} [int](#) TotalWeight

{Decorator} [List<int>](#) Weights

{Decorator} [List<T>](#) Values

Public Methods

{Decorator} [void](#) Add({Decorator} [int](#) weight, {Decorator} T value)

{Decorator} [bool](#) Remove({Decorator} [int](#) index)

{Decorator} [void](#) Clear()

{Decorator} [int](#) GetWeight({Decorator} [int](#) index)

{Decorator} [float](#) GetPercentageWeight({Decorator} [int](#) index)

{Decorator} T GetValue({Decorator} [int](#) index)

{Decorator} [bool](#) ChangeWeight({Decorator} [int](#) index, {Decorator} [int](#) weight)

{Decorator} [bool](#) ChangeValue({Decorator} [int](#) index, {Decorator} T value)

{Decorator} T PickValue()

<<<

EnumButtonsAttribute

PiRhoSoft.UtilityEngine.EnumButtonsAttribute : [PropertyAttribute](#)

Description

Constructors

EnumButtonsAttribute()

Public Fields

float *MinimumWidth*

<<<

FlagsPopupAttribute

PiRhoSoft.UtilityEngine.FlagsPopupAttribute : [PropertyAttribute](#)

Description

Constructors

FlagsPopupAttribute()

<<<

FoldoutString

PiRhoSoft.UtilityEngine.FoldoutString

Description

Constructors

FoldoutString()

Public Fields

string *String*

bool *IsExpanded*

<<<

GlobalBehaviour

PiRhoSoft.UtilityEngine.GlobalBehaviour<T> : [MonoBehaviour](#)

Description

Static Properties

{Decorator} [bool](#) Exists

{Decorator} T Instance

Protected Constructors

GlobalBehaviour()

<<<

IClassPool

PiRhoSoft.UtilityEngine.IClassPool<T>

Description

Public Methods

{Decorator} [void](#) Grow()

{Decorator} T Reserve()

{Decorator} [void](#) Release({Decorator} T value)

<<<

IEditableDictionary

PiRhoSoft.UtilityEngine.IEditableDictionary : [ICollection](#), [IDictionary](#), [IEnumerable](#)

Description

Public Methods

{Decorator} [void](#) PrepareForEdit()

{Decorator} [void](#) ApplyEdits()

<<<

InlineDisplayAttribute

PiRhoSoft.UtilityEngine.InlineDisplayAttribute : [PropertyAttribute](#)

Description

Constructors

InlineDisplayAttribute()

Public Fields

bool *PropagateLabel*

<<<

InputHelper

PiRhoSoft.UtilityEngine.InputHelper

Description

Static Methods

{Decorator} **void** LateUpdate()

{Decorator} **void** SetButton({Decorator} **string** button, {Decorator} **bool** down)

{Decorator} **void** RemoveButton({Decorator} **string** button)

{Decorator} **void** SetAxis({Decorator} **string** axis, {Decorator} **float** value)

{Decorator} **void** RemoveAxis({Decorator} **string** axis)

{Decorator} **bool** IsButtonAvailable({Decorator} **string** button)

{Decorator} **ButtonState** GetButtonState({Decorator} **KeyCode** key, {Decorator} **string** button)

{Decorator} **bool** GetButtonDown({Decorator} **KeyCode** key, {Decorator} **string** button)

{Decorator} **bool** GetWasButtonPressed({Decorator} **KeyCode** key, {Decorator} **string** button)

{Decorator} **bool** GetWasButtonReleased({Decorator} **KeyCode** key, {Decorator} **string** button)

{Decorator} **float** GetAxis({Decorator} **string** axis)

{Decorator} **ButtonState** GetAxisState({Decorator} **string** axis, {Decorator} **float** magnitude)

{Decorator} **bool** GetAxisDown({Decorator} **string** axis, {Decorator} **float** magnitude)

{Decorator} **bool** GetWasAxisPressed({Decorator} **string** axis, {Decorator} **float** magnitude)

{Decorator} **bool** GetWasAxisReleased({Decorator} **string** axis, {Decorator} **float** magnitude)

<<<

InternalHelper

PiRhoSoft.UtilityEngine.InternalHelper

Description

Static Methods

```
{Decorator} DelegateType CreateDelegate<DelegateType>({Decorator} MethodInfo method)
{Decorator} DelegateType CreateDelegate<DelegateType>({Decorator} Type type, {Decorator}
string methodName)
{Decorator} Func<PropertyType> CreateGetDelegate<PropertyType>({Decorator} Type type,
{Decorator} string propertyName)
{Decorator} Action<PropertyType> CreateSetDelegate<PropertyType>({Decorator} Type type,
{Decorator} string propertyName)
{Decorator} Func<FieldType> CreateGetField<FieldType>({Decorator} Type type, {Decorator}
string fieldName)
{Decorator} Action<FieldType> CreateSetField<FieldType>({Decorator} Type type,
{Decorator} string fieldName)
<<<
```

IntPopupAttribute

PiRhoSoft.UtilityEngine.IntPopupAttribute : [PropertyAttribute](#)

Description

Constructors

IntPopupAttribute({Decorator} [int](#)[] values, {Decorator} [string](#)[] names)

Public Properties

{Decorator} [int](#)[] Values

{Decorator} [string](#)[] Names

IPoolable

PiRhoSoft.UtilityEngine.IPoolable

Description

Public Methods

{Decorator} **void** Reset()

<<<

IPoolInfo

PiRhoSoft.UtilityEngine.IPoolInfo

Description

Public Properties

{Decorator} **int** Size

{Decorator} **int** Growth

IReloadable

PiRhoSoft.UtilityEngine.IReloadable

Description

Public Methods

{Decorator} **void** OnEnable()

{Decorator} **void** OnDisable()

<<<

ListDisplayAttribute

PiRhoSoft.UtilityEngine.ListDisplayAttribute : [PropertyAttribute](#)

Description

Constructors

ListDisplayAttribute()

Public Fields

bool AllowAdd

bool AllowRemove

bool AllowReorder

bool AllowCollapse

bool ShowEditButton

ListItemDisplayType ItemDisplay

Type AssetType

string EmptyText

<<<

ListItemDisplayType

PiRhoSoft.UtilityEngine.ListItemDisplayType

Description

Values

[ListItemDisplayType](#) *Normal*

[ListItemDisplayType](#) *Inline*

[ListItemDisplayType](#) *Foldout*

[ListItemDisplayType](#) *AssetPopup*

<<<

MathHelper

PiRhoSoft.UtilityEngine.MathHelper

Description

Static Methods

{Decorator} [int](#) IntExponent({Decorator} [int](#) value, {Decorator} [int](#) exponent)

{Decorator} [int](#) Snap({Decorator} [int](#) value, {Decorator} [int](#) snap)

{Decorator} [float](#) Snap({Decorator} [float](#) value, {Decorator} [float](#) snap)

{Decorator} [int](#) Wrap({Decorator} [int](#) value, {Decorator} [int](#) size)

{Decorator} [float](#) Wrap({Decorator} [float](#) value, {Decorator} [float](#) length)

{Decorator} [int](#) LeastCommonMultiple({Decorator} [int](#) a, {Decorator} [int](#) b)

<<<

MaximumAttribute

PiRhoSoft.UtilityEngine.MaximumAttribute : [PropertyAttribute](#)

Description

Constructors

MaximumAttribute({Decorator} [float](#) maximum)

MaximumAttribute({Decorator} [int](#) maximum)

Public Properties

{Decorator} [float](#) MaximumValue

MinimumAttribute

PiRhoSoft.UtilityEngine.MinimumAttribute : [PropertyAttribute](#)

Description

Constructors

MinimumAttribute({Decorator} [float](#) minimum)

MinimumAttribute({Decorator} [int](#) minimum)

Public Properties

{Decorator} [float](#) MinimumValue

MinMaxSliderAttribute

PiRhoSoft.UtilityEngine.MinMaxSliderAttribute : [PropertyAttribute](#)

Description

Constructors

MinMaxSliderAttribute({Decorator} [float](#) minValue, {Decorator} [float](#) maxValue, {Decorator} [float](#) snapValue)

MinMaxSliderAttribute({Decorator} [int](#) minValue, {Decorator} [int](#) maxValue, {Decorator} [int](#) snapValue)

Public Properties

{Decorator} [float](#) MinimumValue

{Decorator} [float](#) MaximumValue

{Decorator} [float](#) SnapValue

PoolInfo_10_5

PiRhoSoft.UtilityEngine.PoolInfo_10_5 : [IPoolInfo](#)

Description

Constructors

PoolInfo_10_5()

Public Properties

{Decorator} [int](#) Size

{Decorator} [int](#) Growth

PoolInfo_100_10

PiRhoSoft.UtilityEngine.PoolInfo_100_10 : [IPoolInfo](#)

Description

Constructors

PoolInfo_100_10()

Public Properties

{Decorator} [int](#) Size

{Decorator} [int](#) Growth

PoolInfo_2_1

PiRhoSoft.UtilityEngine.PoolInfo_2_1 : [IPoolInfo](#)

Description

Constructors

PoolInfo_2_1()

Public Properties

{Decorator} [int](#) Size

{Decorator} [int](#) Growth

PoolInfo_25_5

PiRhoSoft.UtilityEngine.PoolInfo_25_5 : [IPoolInfo](#)

Description

Constructors

PoolInfo_25_5()

Public Properties

{Decorator} [int](#) Size

{Decorator} [int](#) Growth

PoolInfo_50_10

PiRhoSoft.UtilityEngine.PoolInfo_50_10 : [IPoolInfo](#)

Description

Constructors

PoolInfo_50_10()

Public Properties

{Decorator} [int](#) Size

{Decorator} [int](#) Growth

PriorityQueue

PiRhoSoft.UtilityEngine.PriorityQueue<T>

Description

Constructors

PriorityQueue({Decorator} **int** maxNodes)

Public Properties

{Decorator} **int** Count

{Decorator} **int** MaxSize

{Decorator} T First

Public Methods

{Decorator} **void** Clear()

{Decorator} **bool** Contains({Decorator} T node)

{Decorator} **void** Enqueue({Decorator} T node, {Decorator} **float** priority)

{Decorator} T Dequeue()

{Decorator} **void** Resize({Decorator} **int** maxNodes)

{Decorator} **void** UpdatePriority({Decorator} T node, {Decorator} **float** priority)

{Decorator} **void** Remove({Decorator} T node)

<<<

PriorityQueueNode

PiRhoSoft.UtilityEngine.PriorityQueueNode

Description

Constructors

PriorityQueueNode()

Public Properties

{Decorator} **float** Priority

{Decorator} **int** QueueIndex

ReloadOnChangeAttribute

PiRhoSoft.UtilityEngine.ReloadOnChangeAttribute : [PropertyAttribute](#)

Description

Constructors

ReloadOnChangeAttribute()

Public Fields

bool *UseAssetPopup*

<<<

Resource

PiRhoSoft.UtilityEngine.Resource : [ScriptableObject](#)

Description

Static Fields

string *_invalidPathWarning*

Public Properties

{Decorator} **string** Path

Protected Constructors

Resource()

<<<

SceneReference

PiRhoSoft.UtilityEngine.SceneReference

Description

Static Fields

Action<string, string> *SceneMoved*

Constructors

SceneReference()

Public Fields

string Path

Public Properties

{Decorator} **bool** IsAssigned

{Decorator} **bool** IsLoaded

{Decorator} **Scene** Scene

{Decorator} **int** Index

Public Methods

{Decorator} **void** Setup({Decorator} **Object** owner)

{Decorator} **void** Teardown()

<<<

SceneReferenceAttribute

PiRhoSoft.UtilityEngine.SceneReferenceAttribute : [Attribute](#)

Description

Constructors

SceneReferenceAttribute({Decorator} **string** name, {Decorator} **string** creator)

Public Properties

{Decorator} **string** Name

{Decorator} **string** Creator

SerializedArray

PiRhoSoft.UtilityEngine.SerializedArray<T> : [ICollection](#), [ICloneable](#), [IEnumerable](#), [IList](#), [IStructuralComparable](#), [IStructuralEquatable](#)

Description

Constructors

SerializedArray({Decorator} [int](#) count)

Public Properties

{Decorator} T[] Array

{Decorator} [int](#) Length

{Decorator} T Item

{Decorator} [bool](#) IsSynchronized

{Decorator} [Object](#) SyncRoot

{Decorator} [bool](#) IsFixedSize

{Decorator} [bool](#) IsReadOnly

Public Methods

{Decorator} [void](#) CopyTo({Decorator} [Array](#) array, {Decorator} [int](#) index)

{Decorator} [Object](#) Clone()

{Decorator} [IEnumerator](#) GetEnumerator()

Protected Fields

T[] *_items*

<<<

SerializedDictionary

PiRhoSoft.UtilityEngine.SerializedDictionary<KeyType, KeyType> : [Dictionary](#)<KeyType, KeyType>, [IEditableDictionary](#)

Description

Constructors

SerializedDictionary()

Public Methods

{Decorator} void PrepareForEdit()

{Decorator} void ApplyEdits()

Protected Fields

List<KeyType> _keys

List<ValueType> _values

<<<

SerializedList

PiRhoSoft.UtilityEngine.SerializedList<T> : [ICollection](#), [IEnumerable<T>](#), [IList<T>](#), [IEnumerable](#), [IReadOnlyCollection<T>](#), [IReadOnlyList<T>](#), [IList](#), [ICollection<T>](#)

Description

Constructors

SerializedList()

Public Properties

{Decorator} List<T> List

{Decorator} int Count

{Decorator} T Item

Public Methods

{Decorator} void Add({Decorator} T item)

{Decorator} bool Remove({Decorator} T item)

{Decorator} void Clear()

{Decorator} bool Contains({Decorator} T item)

{Decorator} void CopyTo({Decorator} T[] array, {Decorator} int arrayIndex)

{Decorator} IEnumerator<T> GetEnumerator()

{Decorator} int IndexOf({Decorator} T item)

{Decorator} void Insert({Decorator} int index, {Decorator} T item)

{Decorator} void RemoveAt({Decorator} int index)

Protected Fields

List<T> _items

<<<

SingletonBehaviour

PiRhoSoft.UtilityEngine.SingletonBehaviour<T> : [MonoBehaviour](#)

Description

Static Properties

{Decorator} T Instance

Protected Constructors

SingletonBehaviour()

Protected Methods

{Decorator} **void** Awake()

{Decorator} **void** OnDestroy()

<<<

SliderAttribute

PiRhoSoft.UtilityEngine.SliderAttribute : [PropertyAttribute](#)

Description

Constructors

SliderAttribute({Decorator} [float](#) minValue, {Decorator} [float](#) maxValue, {Decorator} [float](#) snapValue)

SliderAttribute({Decorator} [int](#) minValue, {Decorator} [int](#) maxValue, {Decorator} [int](#) snapValue)

Public Properties

{Decorator} [float](#) MinimumValue

{Decorator} [float](#) MaximumValue

{Decorator} [float](#) SnapValue

SnapAttribute

PiRhoSoft.UtilityEngine.SnapAttribute : [PropertyAttribute](#)

Description

Constructors

SnapAttribute({Decorator} [int](#) snapValue)

SnapAttribute({Decorator} [float](#) snapValue)

Public Properties

{Decorator} [float](#) SnapValue

StringPopupAttribute

PiRhoSoft.UtilityEngine.StringPopupAttribute : [PropertyAttribute](#)

Description

Constructors

StringPopupAttribute({Decorator} [string](#)[] options)

Public Properties

{Decorator} [string](#)[] Options