

Namespace Cobilas.GodotEngine.Component

Classes

[InternalComponentHub](#)

Inner class for handling [IComponentHub](#).

[NullComponentHub](#)

Represents a null ComponentHub.

[RequireComponentAttribute](#)

Signals to the [AddRequireComponent\(Node?\)](#) method which components to add to the Godot.Node object.

Interfaces

[IComponentHub](#)

An interface to transform a Godot.Node object into a pseudo Component.

[IInternalComponentHub](#)

Interface for inner class for handling [IComponentHub](#).

Interface IComponentHub

Namespace: [Cobilas.GodotEngine.Component](#)

Assembly: com.cobilas.godot.icomponent.dll

An interface to transform a Godot.Node object into a pseudo Component.

```
public interface IComponentHub : IEnumerable<Node>, IEnumerable
```

Inherited Members

[IEnumerable<Node>.GetEnumerator\(\)](#)

Properties

ComponentsCount

The number of child objects.

```
int ComponentsCount { get; }
```

Property Value

[int](#)

Returns the number of child objects.

Parent

The parent object.

```
Node? Parent { get; }
```

Property Value

Node

Returns the parent object.

ParentComponent

The parent object as [IComponentHub](#).

```
IComponentHub? ParentComponent { get; }
```

Property Value

[IComponentHub](#)

Returns the parent object as [IComponentHub](#).

Methods

AddComponent(Type?)

Allows you to add a component by specifying its type.

```
Node? AddComponent(Type? component)
```

Parameters

component [Type](#)

The type to be added.

Returns

Node

Returns the type that was added.

AddComponent<TypeComponent>()

Allows you to add a component by specifying its type.

```
TypeComponent? AddComponent<TypeComponent>() where TypeComponent : Node
```

Returns

TypeComponent

Returns the type that was added.

Type Parameters

TypeComponent

The type to be added.

AddComponents(params Type[]?)

Allows you to add multiple components by specifying their type.

```
void AddComponents(params Type[]? components)
```

Parameters

components [Type](#)[]

The types to be added.

AddNodeComponent(Node?)

Allows you to add a Godot.Node object to the component list.

```
void AddNodeComponent(Node? component)
```

Parameters

component Node

The Godot.Node object to add.

AddNodeComponents(params Node[]?)

Allows you to add multiple Godot.Node objects to the component list.

```
void AddNodeComponents(params Node[]? components)
```

Parameters

components Node[]

The Godot.Node objects to add.

GetComponent(Type?)

Gets the component by the specified type.

```
Node? GetComponent(Type? component)
```

Parameters

component [Type](#)[↗]

The type to be obtained.

Returns

Node

Returns the component type as node.

GetComponent(Type?, bool)

Gets the component by the specified type.

```
Node? GetComponent(Type? component, bool recursive)
```

Parameters

component [Type](#)[↗]

The type to be obtained.

`recursive` [bool](#)

Allows searching in sub-children.

Returns

Node

Returns the component type as node.

GetComponent<TypeComponent>()

Gets the component by the specified type.

```
TypeComponent? GetComponent<TypeComponent>() where TypeComponent : Node
```

Returns

TypeComponent

Returns the component type as node.

Type Parameters

`TypeComponent`

The type to be obtained.

GetComponent<TypeComponent>(bool)

Gets the component by the specified type.

```
TypeComponent? GetComponent<TypeComponent>(bool recursive) where TypeComponent : Node
```

Parameters

`recursive` [bool](#)

Allows searching in sub-children.

Returns

TypeComponent

Returns the component type as node.

Type Parameters

TypeComponent


The type to be obtained.

GetComponents(Type?)

Gets components by the specified type.

```
Node[]? GetComponents(Type? component)
```

Parameters

component [Type](#)

The type to be obtained.

Returns

Node[]

Returns the component types as a node list.

GetComponents(Type?, bool)

Gets components by the specified type.

```
Node[]? GetComponents(Type? component, bool recursive)
```

Parameters

component [Type](#)

The type to be obtained.

recursive [bool](#)

Allows searching in sub-children.

Returns

Node[]

Returns the component types as a node list.

GetComponents<TypeComponent>()

Gets components by the specified type.

```
TypeComponent[]? GetComponents<TypeComponent>() where TypeComponent : Node
```

Returns

TypeComponent[]

Returns the component types as a node list.

Type Parameters

TypeComponent

The type to be obtained.

GetComponents<TypeComponent>(bool)

Gets components by the specified type.

```
TypeComponent[]? GetComponents<TypeComponent>(bool recursive) where TypeComponent : Node
```

Parameters

recursive [bool](#)

Allows searching in sub-children.

Returns

`TypeComponent[]`

Returns the component types as a node list.

Type Parameters

TypeComponent

The type to be obtained.

RemoveComponent(Node?)

Allows you to remove a `Godot.Node` object from the list of components.

```
bool RemoveComponent(Node? component)
```

Parameters

component `Node`

The `Godot.Node` object to remove.

Returns

[bool](#)

Returns **true** if the operation is successful.

RemoveComponents(params Node[]?)

Allows you to remove several `Godot.Node` objects from the list of components.

```
void RemoveComponents(params Node[]? components)
```

Parameters

components Node[]

The Godot.Node objects to be removed.

Interface IInternalComponentHub


Namespace: [Cobilas.GodotEngine.Component](#)

Assembly: com.cobilas.godot.icomponent.dll

Interface for inner class for handling [IComponentHub](#).

```
public interface IInternalComponentHub : IComponentHub, IEnumerable<Node>, IEnumerable
```

Inherited Members

[IComponentHub.Parent](#) , [IComponentHub.ComponentsCount](#) , [IComponentHub.ParentComponent](#) ,
[IComponentHub.GetComponent\(Type, bool\)](#) , [IComponentHub.GetComponent\(Type\)](#) ,
[IComponentHub.GetComponent<TypeComponent>\(bool\)](#) ,
[IComponentHub.GetComponent<TypeComponent>\(\)](#) , [IComponentHub.GetComponents\(Type, bool\)](#) ,
[IComponentHub.GetComponents\(Type\)](#) , [IComponentHub.GetComponents<TypeComponent>\(bool\)](#) ,
[IComponentHub.GetComponents<TypeComponent>\(\)](#) , [IComponentHub.AddComponent\(Type\)](#) ,
[IComponentHub.AddComponent<TypeComponent>\(\)](#) ,
[IComponentHub.AddComponents\(params Type\[\]\)](#) , [IComponentHub.AddNodeComponent\(Node\)](#) ,
[IComponentHub.AddNodeComponents\(params Node\[\]\)](#) , [IComponentHub.RemoveComponent\(Node\)](#) ,
[IComponentHub.RemoveComponents\(params Node\[\]\)](#) , [IEnumerable<Node>.GetEnumerator\(\)](#) 

Properties

Entity

The Godot.Node object that is associated.

```
Node? Entity { get; }
```

Property Value

Node

Returns the associated Godot.Node object.

Class InternalComponentHub

Namespace: [Cobilas.GodotEngine.Component](#)

Assembly: com.cobilas.godot.icomponent.dll

Inner class for handling [IComponentHub](#).

```
[Serializable]  
public sealed class InternalComponentHub : IInternalComponentHub, IComponentHub,  
IEnumerable<Node>, IEnumerable, IDisposable
```

Inheritance

[object](#) ← InternalComponentHub

Implements

[IInternalComponentHub](#), [IComponentHub](#), [IEnumerable](#) <Node>, [IEnumerable](#), [IDisposable](#)

Inherited Members

[object.ToString\(\)](#), [object.Equals\(object\)](#), [object.Equals\(object, object\)](#),
[object.ReferenceEquals\(object, object\)](#), [object.GetHashCode\(\)](#), [object.GetType\(\)](#)

Constructors

InternalComponentHub(Node)

Inner class for handling [IComponentHub](#).

```
public InternalComponentHub(Node entity)
```

Parameters

entity Node

Properties

ComponentsCount

The number of child objects.

```
public int ComponentsCount { get; }
```

Property Value

[int](#)

Returns the number of child objects.

Entity

The Godot.Node object that is associated.

```
public Node? Entity { get; }
```

Property Value

Node

Returns the associated Godot.Node object.

Parent

The parent object.

```
public Node? Parent { get; }
```

Property Value

Node

Returns the parent object.

ParentComponent

The parent object as [IComponentHub](#).

```
public IComponentHub? ParentComponent { get; }
```

Property Value

[IComponentHub](#)

Returns the parent object as [IComponentHub](#).

Methods

AddComponent(Type?)

Allows you to add a component by specifying its type.

```
public Node? AddComponent(Type? component)
```

Parameters

component [Type](#)[↗]

The type to be added.

Returns

Node

Returns the type that was added.

Remarks

If the specified type is null or not found in the component list, an object of type [NullNode](#) will be returned.

Exceptions

[ArgumentException](#)[↗]

Occurs when the specified type does not inherit from Godot.Node.

AddComponent<TypeComponent>()

Allows you to add a component by specifying its type.

```
public TypeComponent? AddComponent<TypeComponent>() where TypeComponent : Node
```

Returns

TypeComponent

Returns the type that was added.

Type Parameters

TypeComponent

The type to be added.

Remarks

If the specified type is null or not found in the component list, an object of type [NullNode](#) will be returned.

Exceptions

[ArgumentException](#) 

Occurs when the specified type does not inherit from Godot.Node.

AddComponents(params Type[]?)

Allows you to add multiple components by specifying their type.

```
public void AddComponents(params Type[]? components)
```

Parameters

components [Type](#)  []

The types to be added.

Exceptions

[ArgumentException](#) 

Occurs when the specified type does not inherit from Godot.Node.

AddNodeComponent(Node?)

Allows you to add a Godot.Node object to the component list.

```
public void AddNodeComponent(Node? component)
```

Parameters

component Node

The Godot.Node object to add.

AddNodeComponents(params Node[]?)

Allows you to add multiple Godot.Node objects to the component list.

```
public void AddNodeComponents(params Node[]? components)
```

Parameters

components Node[]

The Godot.Node objects to add.

AddRequireComponent(Node?)

Static function to add components automatically.

```
public static void AddRequireComponent(Node? mono)
```

Parameters

mono Node

Target Godot.Node object.

Remarks

The target Godot.Node object must have the [RequireComponentAttribute](#) attribute to specify the types to be added.

Exceptions

[ArgumentException](#) 

Occurs when the specified type does not inherit from Godot.Node.

Dispose()

Performs application-defined tasks associated with freeing, releasing, or resetting unmanaged resources.

```
public void Dispose()
```

~InternalComponentHub()

The destructor is responsible for discarding unmanaged resources.

```
protected ~InternalComponentHub()
```

GetComponent(Type?)

Gets the component by the specified type.

```
public Node? GetComponent(Type? component)
```

Parameters

component [Type](#) 

The type to be obtained.

Returns

Node

Returns the component type as node.

Remarks

If the specified type is null or not found in the component list, an object of type [NullNode](#) will be returned.

Exceptions

[ArgumentException](#) 

Occurs when the specified type does not inherit from Godot.Node.

GetComponent(Type?, bool)

Gets the component by the specified type.

```
public Node? GetComponent(Type? component, bool recursive)
```

Parameters

component [Type](#) 

The type to be obtained.

recursive [bool](#) 

Allows searching in sub-children.

Returns

Node

Returns the component type as node.

Remarks

If the specified type is null or not found in the component list, an object of type [NullNode](#) will be returned.

Exceptions

[ArgumentException](#) 

Occurs when the specified type does not inherit from Godot.Node.

GetComponent<TypeComponent>()

Gets the component by the specified type.

```
public TypeComponent? GetComponent<TypeComponent>() where TypeComponent : Node
```

Returns

TypeComponent

Returns the component type as node.

Type Parameters

TypeComponent

The type to be obtained.

Remarks

If the specified type is null or not found in the component list, an object of type [NullNode](#) will be returned.

Exceptions

[ArgumentException](#) 

Occurs when the specified type does not inherit from Godot.Node.

GetComponent<TypeComponent>(bool)

Gets the component by the specified type.

```
public TypeComponent? GetComponent<TypeComponent>(bool recursive) where TypeComponent : Node
```

Parameters

recursive [bool](#)

Allows searching in sub-children.

Returns

TypeComponent

Returns the component type as node.

Type Parameters

TypeComponent

The type to be obtained.

Remarks

If the specified type is null or not found in the component list, an object of type [NullNode](#) will be returned.

Exceptions

[ArgumentException](#)

Occurs when the specified type does not inherit from Godot.Node.

GetComponents(Type?)

Gets components by the specified type.

```
public Node[]? GetComponents(Type? component)
```

Parameters

component [Type](#)

The type to be obtained.

Returns

Node[]

Returns the component types as a node list.

Remarks

If the specified type is null or not found in the component list, an empty list will be returned.

Exceptions

[ArgumentException](#)

Occurs when the specified type does not inherit from Godot.Node.

GetComponents(Type?, bool)

Gets components by the specified type.

```
public Node[]? GetComponents(Type? component, bool recursive)
```

Parameters

component [Type](#)

The type to be obtained.

recursive [bool](#)

Allows searching in sub-children.

Returns

Node[]

Returns the component types as a node list.

Remarks

If the specified type is null or not found in the component list, an empty list will be returned.

Exceptions

[ArgumentException](#) 

Occurs when the specified type does not inherit from Godot.Node.

GetComponents<TypeComponent>()

Gets components by the specified type.

```
public TypeComponent[]? GetComponents<TypeComponent>() where TypeComponent : Node
```

Returns

TypeComponent[]

Returns the component types as a node list.

Type Parameters

TypeComponent

The type to be obtained.

Remarks

If the specified type is null or not found in the component list, an empty list will be returned.

Exceptions

[ArgumentException](#) 

Occurs when the specified type does not inherit from Godot.Node.

GetComponents<TypeComponent>(bool)

Gets components by the specified type.

```
public TypeComponent[]? GetComponents<TypeComponent>(bool recursive) where TypeComponent : Node
```

Parameters

recursive [bool](#)

Allows searching in sub-children.

Returns

TypeComponent[]

Returns the component types as a node list.

Type Parameters

TypeComponent

The type to be obtained.

Remarks

If the specified type is null or not found in the component list, an empty list will be returned.

Exceptions

[ArgumentException](#)

Occurs when the specified type does not inherit from Godot.Node.

GetEnumerator()

Returns an enumerator that iterates through the collection.

```
public IEnumerator<Node> GetEnumerator()
```

Returns

[IEnumerator](#) <Node>

An enumerator that can be used to iterate through the collection.

RemoveComponent(Node?)

Allows you to remove a Godot.Node object from the list of components.

```
public bool RemoveComponent(Node? component)
```

Parameters

component Node

The Godot.Node object to remove.

Returns

[bool](#)

Returns **true** if the operation is successful.

RemoveComponents(params Node[]?)

Allows you to remove several Godot.Node objects from the list of components.

```
public void RemoveComponents(params Node[]? components)
```

Parameters

components Node[]

The Godot.Node objects to be removed.

Class NullComponentHub

Namespace: [Cobilas.GodotEngine.Component](#)

Assembly: com.cobilas.godot.icomponent.dll

Represents a null ComponentHub.

```
public class NullComponentHub : Node, IDisposable, IComponentHub, IEnumerable<Node>,
    IEnumerable, INullObject
```

Inheritance

[object](#) ← Object ← Node ← NullComponentHub

Implements

[IDisposable](#), [IComponentHub](#), [IEnumerable](#)<Node>, [IEnumerable](#), [INullObject](#)

Inherited Members

Node.NotificationEnterTree, Node.NotificationExitTree, Node.NotificationMovedInParent, Node.NotificationReady, Node.NotificationPaused, Node.NotificationUnpaused, Node.NotificationPhysicsProcess, Node.NotificationProcess, Node.NotificationParented, Node.NotificationUnparented, Node.NotificationInstanced, Node.NotificationDragBegin, Node.NotificationDragEnd, Node.NotificationPathChanged, Node.NotificationChildOrderChanged, Node.NotificationInternalProcess, Node.NotificationInternalPhysicsProcess, Node.NotificationPostEnterTree, Node.NotificationResetPhysicsInterpolation, Node.NotificationWmMouseEnter, Node.NotificationWmMouseExit, Node.NotificationWmFocusIn, Node.NotificationWmFocusOut, Node.NotificationWmQuitRequest, Node.NotificationWmGoBackRequest, Node.NotificationWmUnfocusRequest, Node.NotificationOsMemoryWarning, Node.NotificationTranslationChanged, Node.NotificationWmAbout, Node.NotificationCrash, Node.NotificationOsImeUpdate, Node.NotificationAppResumed, Node.NotificationAppPaused, Node.GetNode<T>(NodePath), Node.GetNodeOrNull<T>(NodePath), [Node.GetChild<T>\(int\)](#), [Node.GetChildOrNull<T>\(int\)](#), Node.GetOwner<T>(), Node.GetOwnerOrNull<T>(), Node.GetParent<T>(), Node.GetParentOrNull<T>(), Node._EnterTree(), Node._ExitTree(), Node._GetConfigurationWarning(), Node._Input(InputEvent), [Node.PhysicsProcess\(float\)](#), [Node.Process\(float\)](#), Node._Ready(), Node._UnhandledInput(InputEvent), Node._UnhandledKeyInput(InputEventKey), [Node.AddChildBelowNode\(Node, Node, bool\)](#), [Node.SetName\(string\)](#), Node.GetName(), [Node.AddChild\(Node, bool\)](#), Node.RemoveChild(Node), Node.GetChildCount(), Node.GetChildren(), [Node.GetChild\(int\)](#), Node.HasNode(NodePath), Node.GetNode(NodePath), Node.GetNodeOrNull(NodePath), Node.GetParent(), [Node.FindNode\(string, bool, bool\)](#), [Node.FindParent\(string\)](#), Node.HasNodeAndResource(NodePath),

Node.GetNodeAndResource(NodePath) , Node.IsInsideTree() , Node.IsAParentOf(Node) ,
Node.IsGreaterThan(Node) , Node.GetPath() , Node.GetPathTo(Node) ,
[Node.AddToGroup\(string, bool\)](#) , [Node.RemoveFromGroup\(string\)](#) , [Node.IsInGroup\(string\)](#) ,
[Node.MoveChild\(Node, int\)](#) , Node.GetGroups() , Node.Raise() , Node.SetOwner(Node) ,
Node.GetOwner() , Node.RemoveAndSkip() , Node.GetIndex() , Node.PrintTree() , Node.PrintTreePretty() ,
[Node.SetFilename\(string\)](#) , Node.GetFilename() , [Node.PropagateNotification\(int\)](#) ,
[Node.PropagateCall\(string, Array, bool\)](#) , [Node.SetPhysicsProcess\(bool\)](#) ,
Node.GetPhysicsProcessDeltaTime() , Node.IsPhysicsProcessing() , Node.GetProcessDeltaTime() ,
[Node.SetProcess\(bool\)](#) , [Node.SetProcessPriority\(int\)](#) , Node.GetProcessPriority() ,
Node.IsProcessing() , [Node.SetProcessInput\(bool\)](#) , Node.IsProcessingInput() ,
[Node.SetProcessUnhandledInput\(bool\)](#) , Node.IsProcessingUnhandledInput() ,
[Node.SetProcessUnhandledKeyInput\(bool\)](#) , Node.IsProcessingUnhandledKeyInput() ,
Node.SetPauseMode(Node.PauseModeEnum) , Node.GetPauseMode() , Node.CanProcess() ,
Node.PrintStrayNodes() , Node.GetPositionInParent() , [Node.SetDisplayFolded\(bool\)](#) ,
Node.IsDisplayedFolded() , [Node.SetProcessInternal\(bool\)](#) , Node.IsProcessingInternal() ,
[Node.SetPhysicsProcessInternal\(bool\)](#) , Node.IsPhysicsProcessingInternal() ,
Node.SetPhysicsInterpolationMode(Node.PhysicsInterpolationModeEnum) ,
Node.GetPhysicsInterpolationMode() , Node.IsPhysicsInterpolated() ,
Node.IsPhysicsInterpolatedAndEnabled() , Node.ResetPhysicsInterpolation() , Node.GetTree() ,
Node.CreateTween() , [Node.Duplicate\(int\)](#) , [Node.ReplaceBy\(Node, bool\)](#) ,
[Node.SetSceneInstanceLoadPlaceholder\(bool\)](#) , Node.GetSceneInstanceLoadPlaceholder() ,
[Node.SetEditableInstance\(Node, bool\)](#) , Node.IsEditableInstance(Node) , Node.GetViewport() ,
Node.QueueFree() , Node.RequestReady() , Node.IsNodeReady() , [Node.SetNetworkMaster\(int, bool\)](#) ,
Node.GetNetworkMaster() , Node.IsNetworkMaster() , Node.GetMultiplayer() ,
Node.GetCustomMultiplayer() , Node.SetCustomMultiplayer(MultiplayerAPI) ,
[Node.RpcConfig\(string, MultiplayerAPI.RPCMode\)](#) ,
[Node.RsetConfig\(string, MultiplayerAPI.RPCMode\)](#) , [Node.SetUniqueNameInOwner\(bool\)](#) ,
Node.IsUniqueNameInOwner() , [Node.Rpc\(string, params object\[\]\)](#) ,
[Node.RpcUnreliable\(string, params object\[\]\)](#) , [Node.RpcId\(int, string, params object\[\]\)](#) ,
[Node.RpcUnreliableId\(int, string, params object\[\]\)](#) , [Node.Rset\(string, object\)](#) ,
[Node.RsetId\(int, string, object\)](#) , [Node.RsetUnreliable\(string, object\)](#) ,
[Node.RsetUnreliableId\(int, string, object\)](#) , Node.UpdateConfigurationWarning() ,
Node.EditorDescription , Node._ImportPath , Node.PauseMode , Node.PhysicsInterpolationMode ,
Node.Name , Node.UniqueNameInOwner , Node.Filename , Node.Owner , Node.Multiplayer ,
Node.CustomMultiplayer , Node.ProcessPriority , Object.NotificationPostinitialize ,
Object.NotificationPredelete , Object.IsInstanceValid(Object) , Object.WeakRef(Object) , Object.Dispose() ,
[Object.Dispose\(bool\)](#) , Object.ToString() , [Object.ToSignal\(Object, string\)](#) , [Object. Get\(string\)](#) ,
Object._GetPropertyList() , [Object. Notification\(int\)](#) , [Object. Set\(string, object\)](#) , Object.Free() ,
Object.GetClass() , [Object.IsClass\(string\)](#) , [Object.Set\(string, object\)](#) , [Object.Get\(string\)](#) ,
[Object.SetIndexed\(NodePath, object\)](#) , Object.GetIndexed(NodePath) , Object.GetPropertyList() ,

[Object.GetMethodList\(\)](#) , [Object.Notification\(int, bool\)](#) , [Object.GetInstanceId\(\)](#) ,
[Object.SetScript\(Reference\)](#) , [Object.GetScript\(\)](#) , [Object.SetMeta\(string, object\)](#) ,
[Object.RemoveMeta\(string\)](#) , [Object.GetMeta\(string, object\)](#) , [Object.HasMeta\(string\)](#) ,
[Object.GetMetaList\(\)](#) , [Object.AddUserSignal\(string, Array\)](#) , [Object.HasUserSignal\(string\)](#) ,
[Object.EmitSignal\(string, params object\[\]\)](#) , [Object.Call\(string, params object\[\]\)](#) ,
[Object.CallDeferred\(string, params object\[\]\)](#) , [Object.SetDeferred\(string, object\)](#) ,
[Object.Callv\(string, Array\)](#) , [Object.HasMethod\(string\)](#) , [Object.HasSignal\(string\)](#) ,
[Object.GetSignalList\(\)](#) , [Object.GetSignalConnectionList\(string\)](#) , [Object.GetIncomingConnections\(\)](#) ,
[Object.Connect\(string, Object, string, Array, uint\)](#) , [Object.Disconnect\(string, Object, string\)](#) ,
[Object.IsConnected\(string, Object, string\)](#) , [Object.SetBlockSignals\(bool\)](#) , [Object.IsBlockingSignals\(\)](#) ,
[Object.PropertyListChangedNotify\(\)](#) , [Object.SetMessageTranslation\(bool\)](#) ,
[Object.CanTranslateMessages\(\)](#) , [Object.Tr\(string\)](#) , [Object.IsQueuedForDeletion\(\)](#) ,
[Object.NativeInstance](#) , [Object.DynamicObject](#) , [object.Equals\(object\)](#) , [object.Equals\(object, object\)](#) ,
[object.ReferenceEquals\(object, object\)](#) , [object.GetHashCode\(\)](#) , [object.GetType\(\)](#) ,
[object.MemberwiseClone\(\)](#)

Properties

ComponentsCount

The number of child objects.

```
public int ComponentsCount { get; }
```

Property Value

[int](#)

Returns the number of child objects.

Null

A representation of a null ComponentHub.

```
public static NullComponentHub Null { get; }
```

Property Value

[NullComponentHub](#)

Returns a representation of a null ComponentHub.

Parent

The parent object.

```
public Node? Parent { get; }
```

Property Value

Node

Returns the parent object.

ParentComponent

The parent object as [IComponentHub](#).

```
public IComponentHub? ParentComponent { get; }
```

Property Value

[IComponentHub](#)

Returns the parent object as [IComponentHub](#).

Methods

AddComponent(Type?)

Allows you to add a component by specifying its type.

```
public Node? AddComponent(Type? component)
```

Parameters

component [Type](#)

The type to be added.

Returns

Node

Returns the type that was added.

AddComponent<T>()

Allows you to add a component by specifying its type.

```
public T? AddComponent<T>() where T : Node
```

Returns

T

Returns the type that was added.

Type Parameters

T

AddComponents(params Type[]?)

Allows you to add multiple components by specifying their type.

```
public void AddComponents(params Type[]? components)
```

Parameters

components [Type](#)[]

The types to be added.

AddNodeComponent(Node?)

Allows you to add a Godot.Node object to the component list.

```
public void AddNodeComponent(Node? component)
```

Parameters

component Node

The Godot.Node object to add.

AddNodeComponents(params Node[]?)

Allows you to add multiple Godot.Node objects to the component list.

```
public void AddNodeComponents(params Node[]? components)
```

Parameters

components Node[]

The Godot.Node objects to add.

GetComponent(Type?)

Gets the component by the specified type.

```
public Node? GetComponent(Type? component)
```

Parameters

component [Type](#)

The type to be obtained.

Returns

Node

Returns the component type as node.

GetComponent(Type?, bool)

Gets the component by the specified type.

```
public Node? GetComponent(Type? component, bool recursive)
```

Parameters

component [Type](#)

The type to be obtained.

recursive [bool](#)

Allows searching in sub-children.

Returns

Node

Returns the component type as node.

GetComponent<T>()

Gets the component by the specified type.

```
public T? GetComponent<T>() where T : Node
```

Returns

T

Returns the component type as node.

Type Parameters

T

GetComponent<T>(bool)

Gets the component by the specified type.

```
public T? GetComponent<T>(bool recursive) where T : Node
```

Parameters

recursive [bool](#)

Allows searching in sub-children.

Returns

T

Returns the component type as node.

Type Parameters

T

GetComponents(Type?)

Gets components by the specified type.

```
public Node[]? GetComponents(Type? component)
```

Parameters

component [Type](#)

The type to be obtained.

Returns

Node[]

Returns the component types as a node list.

GetComponents(Type?, bool)

Gets components by the specified type.

```
public Node[]? GetComponents(Type? component, bool recursive)
```

Parameters

component [Type](#)

The type to be obtained.

recursive [bool](#)

Allows searching in sub-children.

Returns

Node[]

Returns the component types as a node list.

GetComponents<T>()

Gets components by the specified type.

```
public T[]? GetComponents<T>() where T : Node
```

Returns

T[]

Returns the component types as a node list.

Type Parameters

T

GetComponent<T>(bool)

Gets components by the specified type.

```
public T[]? GetComponent<T>(bool recursive) where T : Node
```

Parameters

recursive [bool](#)

Allows searching in sub-children.

Returns

T[]

Returns the component types as a node list.

Type Parameters

T

GetEnumerator()

Returns an enumerator that iterates through the collection.

```
public IEnumerator<Node> GetEnumerator()
```

Returns

[IEnumerator](#) <Node>

An enumerator that can be used to iterate through the collection.

RemoveComponent(Node?)

Allows you to remove a Godot.Node object from the list of components.

```
public bool RemoveComponent(Node? component)
```

Parameters

component Node

The Godot.Node object to remove.

Returns

[bool](#)

Returns **true** if the operation is successful.

RemoveComponents(params Node[]?)

Allows you to remove several Godot.Node objects from the list of components.

```
public void RemoveComponents(params Node[]? components)
```

Parameters

components Node[]

The Godot.Node objects to be removed.

Class RequireComponentAttribute

Namespace: [Cobilas.GodotEngine.Component](#)

Assembly: com.cobilas.godot.icomponent.dll

Signals to the [AddRequireComponent\(Node?\)](#) method which components to add to the Godot.Node object.

```
[AttributeUsage(AttributeTargets.Class, Inherited = true, AllowMultiple = false)]  
public sealed class RequireComponentAttribute : Attribute, _Attribute
```



































Inheritance

[object](#)  ← [Attribute](#)  ← RequireComponentAttribute

Implements

[_Attribute](#) 

Inherited Members

[Attribute.GetCustomAttributes\(MemberInfo, Type\)](#)  ,
[Attribute.GetCustomAttributes\(MemberInfo, Type, bool\)](#)  ,
[Attribute.GetCustomAttributes\(MemberInfo\)](#)  , [Attribute.GetCustomAttributes\(MemberInfo, bool\)](#)  ,
[Attribute.IsDefined\(MemberInfo, Type\)](#)  , [Attribute.IsDefined\(MemberInfo, Type, bool\)](#)  ,
[Attribute.GetCustomAttribute\(MemberInfo, Type\)](#)  ,
[Attribute.GetCustomAttribute\(MemberInfo, Type, bool\)](#)  ,
[Attribute.GetCustomAttributes\(ParameterInfo\)](#)  , [Attribute.GetCustomAttributes\(ParameterInfo, Type\)](#)  ,
[Attribute.GetCustomAttributes\(ParameterInfo, Type, bool\)](#)  ,
[Attribute.GetCustomAttributes\(ParameterInfo, bool\)](#)  , [Attribute.IsDefined\(ParameterInfo, Type\)](#)  ,
[Attribute.IsDefined\(ParameterInfo, Type, bool\)](#)  , [Attribute.GetCustomAttribute\(ParameterInfo, Type\)](#)  ,
[Attribute.GetCustomAttribute\(ParameterInfo, Type, bool\)](#)  ,
[Attribute.GetCustomAttributes\(Module, Type\)](#)  , [Attribute.GetCustomAttributes\(Module\)](#)  ,
[Attribute.GetCustomAttributes\(Module, bool\)](#)  , [Attribute.GetCustomAttributes\(Module, Type, bool\)](#)  ,
[Attribute.IsDefined\(Module, Type\)](#)  , [Attribute.IsDefined\(Module, Type, bool\)](#)  ,
[Attribute.GetCustomAttribute\(Module, Type\)](#)  , [Attribute.GetCustomAttribute\(Module, Type, bool\)](#)  ,
[Attribute.GetCustomAttributes\(Assembly, Type\)](#)  ,
[Attribute.GetCustomAttributes\(Assembly, Type, bool\)](#)  , [Attribute.GetCustomAttributes\(Assembly\)](#)  ,
[Attribute.GetCustomAttributes\(Assembly, bool\)](#)  , [Attribute.IsDefined\(Assembly, Type\)](#)  ,
[Attribute.IsDefined\(Assembly, Type, bool\)](#)  , [Attribute.GetCustomAttribute\(Assembly, Type\)](#)  ,
[Attribute.GetCustomAttribute\(Assembly, Type, bool\)](#)  , [Attribute.Equals\(object\)](#)  ,
[Attribute.GetHashCode\(\)](#)  , [Attribute.Match\(object\)](#)  , [Attribute.IsDefaultAttribute\(\)](#)  ,

[Attribute.TypeId](#) , [object.ToString\(\)](#) , [object.Equals\(object, object\)](#) , [object.ReferenceEquals\(object, object\)](#) , [object.GetType\(\)](#)

Constructors

RequireComponentAttribute(Type)

Creates a new instance of this object.

```
public RequireComponentAttribute(Type component)
```

Parameters

component [Type](#)

RequireComponentAttribute(Type, Type)

Creates a new instance of this object.

```
public RequireComponentAttribute(Type component1, Type component2)
```

Parameters

component1 [Type](#)

component2 [Type](#)

RequireComponentAttribute(Type, Type, Type)

Creates a new instance of this object.

```
public RequireComponentAttribute(Type component1, Type component2, Type component3)
```

Parameters

component1 [Type](#)

`component2` [Type](#)

`component3` [Type](#)

RequireComponentAttribute(params Type[])

Signals to the [AddRequireComponent\(Node?\)](#) method which components to add to the Godot.Node object.

```
public RequireComponentAttribute(params Type[] components)
```

Parameters

`components` [Type](#) []

Properties

Components

The types of components to be added.

```
public Type[] Components { get; }
```

Property Value

[Type](#) []

Returns the types of components to be added.