3D Touch Plugin API Reference

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  Extension method for Touch class. Used to retrieve force of this touch.
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  Extension method for Touch class. Used to retrieve maximum possible force of this touch. MaxForce might be different for different devices.
- static float GetRadius (this Touch touch)

  Extension method for Touch class. Used to retrieve radius of this touch.
- static float GetRadiusTolerance (this Touch touch)

  Extension method for Touch class. Used to retrieve radius tolerance of this touch. Radius tolerance is differs among devices.

2.1.1 Detailed Description

Extension methods for Unity's built in Touch Class.

2.1.2 Member Function Documentation

2.1.2.1 static NativeTouchExtraData ForceTouchExtensions.GetExtraData (this Touch *touch*) `[static]`

Extension method for Touch class. Used to retrieve force and radius data.

Returns

NativeTouchExtraData object for this touch containing force and radius data

Example

Input.touches[0].GetExtraData();

2.1.2.2 static float ForceTouchExtensions.GetForce (this Touch *touch*) `[static]`

Extension method for Touch class. Used to retrieve force of this touch.

Returns

Touch force.

Example

Input.touches[0].GetForce();

2.1.2.3 static float ForceTouchExtensions.GetMaxForce (this Touch *touch*) `[static]`

Extension method for Touch class. Used to retrieve maximum possible force of this touch. MaxForce might be different for different devices.

Returns

Maximum possible force of this touch.

Example

Input.touches[0].GetMaxForce();

2.1.2.4 static float ForceTouchExtensions.GetRadius (this Touch *touch*) `[static]`

Extension method for Touch class. Used to retrieve radius of this touch.

Returns

Touch radius.

Example

Input.touches[0].GetRadius();

2.1.2.5 static float ForceTouchExtensions.GetRadiusTolerance (this Touch *touch*) `[static]`

Extension method for Touch class. Used to retrieve radius tolerance of this touch. Radius tolerance is differs among devices.

Returns

Touch radius tolerance.

Example

Input.touches[0].GetRadiusTolerance();

2.2 ForceTouchPlugin Class Reference

Class holding static methods interacting with native side of plugin code.

Static Public Member Functions

- static NativeTouchExtraData GetTouchExtraData (int fingerId)

  Retrieves only force/radius data from native side of the code

- static Dictionary< int, NativeTouchExtraData > GetForceData ()

  DO NOT CALL THIS EVER. Internal use only. Retrieves only force/radius data from native side of the code.

- static List< NativeTouch > GetNativeTouches ()

  Retrieves touch data from native code.

- static float GetScaleFactor ()

  Retrieve iOS device scale factor. Though plugin returns touch data in full screen resolution, iOS operates using low DPI space and using scale factor you can transform touch data back to iOS space. For non retina devices this will be 1; for retina devices this will be 2; There's an exception for iPhone 6 Plus and iPhone 6s Plus, where native code sees screen size as 2208x1242, input area resolution is 736x413, but Unity sees it as 1920x1080 (this is hardware resolution of screen panel used in these devices). Therefore, even though the getScaleFactor for iPhone 6+/6s+ should be 3 (and it is 3 for iOS apps), for applications using Metal and Direct3d it is 2.608.

- static ForceTouchState GetForceTouchState ()

  Tests device capabilites for ForceTouch. See overload method for more info. `https://developer.↵ apple.com/library/prerelease/ios/documentation/UIKit/Reference/UITouch_↵ Class/#//apple_ref/c/tdef/UIForceTouchCapability`

- static ForceTouchState GetForceTouchState (int state)

  Returns current ForceTouchState. Possible values:

- static void SetCallbackMethod (string GameObjectName, string MethodName)

  Register callback method to be triggered when user changes ForceTouch settings in Accessibility settings. Game↵ Object has to be in hierarchy and method has to have signature: public void MethodName(string message). See InputManager.cs for example Only last method/GO subscribed will be called.

- static void RemoveCallbackMethod ()

  Remove callback for ForceTouch state change event

- static bool SupportsTouchRadius ()

  Returns whether current device supports touch radius.

- static bool SupportsForceTouch ()

  Shortcut method for checking ForceTouch state. Returns whether current device supports force touch.

2.2.1 Detailed Description

Class holding static methods interacting with native side of plugin code.

2.2.2 Member Function Documentation

2.2.2.1 static Dictionary<int, NativeTouchExtraData> ForceTouchPlugin.GetForceData ( ) `[static]`

DO NOT CALL THIS EVER. Internal use only. Retrieves only force/radius data from native side of the code.

Returns

The force/radius data for all current touches.

2.2.2.2 static ForceTouchState ForceTouchPlugin.GetForceTouchState ( ) `[static]`

Tests device capabilites for ForceTouch. See overload method for more info. `https://developer.←`
`apple.com/library/prerelease/ios/documentation/UIKit/Reference/UITouch_←`
`Class/#//apple_ref/c/tdef/UIForceTouchCapability`

Returns

Force touch capablity.

2.2.2.3 static ForceTouchState ForceTouchPlugin.GetForceTouchState (int *state* **)** `[static]`

Returns current ForceTouchState. Possible values:

1. IncompatibleOS for all platforms except iOS and everything bellow iOS 9.0

2. Unknown - is returned if you request TouchForceState too early (Awake of first scene is bad idea)

3. Unavailable - for all devices that do not support it (at the moment of writting everything except iPhone 6s/6s+ and iPad Pro) and for devices that have Force Touch disabled in accessibility settings.

4. Available - for devices that have hardware to support Force Touch and have it enabled in Accessibility Settin

Returns

Force touch capablity.

Parameters

state	Int representation of force touch capability returned by native side of the plugin.

2.2.2.4 static List⟨NativeTouch⟩ ForceTouchPlugin.GetNativeTouches ( ) `[static]`

Retrieves touch data from native code.

Returns

The force/radius data for all current touches. This data also includes position and deltaPosition properties

2.2.2.5 static float ForceTouchPlugin.GetScaleFactor ( ) `[static]`

Retrieve iOS device scale factor. Though plugin returns touch data in full screen resolution, iOS operates using low DPI space and using scale factor you can transform touch data back to iOS space. For non retina devices this will be 1; for retina devices this will be 2; There's an exception for iPhone 6 Plus and iPhone 6s Plus, where native code sees screen size as 2208x1242, input area resolution is 736x413, but Unity sees it as 1920x1080 (this is hardware resolution of screen panel used in these devices). Therefore, even though the getScaleFactor for iPhone 6+/6s+ should be 3 (and it is 3 for iOS apps), for applications using Metal and Direct3d it is 2.608.

Returns

Screen scale factor.

2.2.2.6 static NativeTouchExtraData ForceTouchPlugin.GetTouchExtraData (int *fingerId*) `[static]`

Retrieves only force/radius data from native side of the code

Returns

The extra data for the Touch object.

Parameters

| *finger↩* | fingerId of a Touch object. |
| *Id* | |

2.2.2.7 static void ForceTouchPlugin.RemoveCallbackMethod ( ) `[static]`

Remove callback for ForceTouch state change event

2.2.2.8 static void ForceTouchPlugin.SetCallbackMethod (string *GameObjectName,* string *MethodName*) `[static]`

Register callback method to be triggered when user changes ForceTouch settings in Accessibility settings. Game↩
Object has to be in hierarchy and method has to have signature: public void MethodName(string message). See
InputManager.cs for example Only last method/GO subscribed will be called.

Parameters

| *GameObjectName* | Name of the GameObject within hierarchy. |
| *MethodName* | Name of the method within that GameObject. |

2.2.2.9 static bool ForceTouchPlugin.SupportsForceTouch ( ) `[static]`

Shortcut method for checking ForceTouch state. Returns whether current device supports force touch.

Returns

`true`, for iPhone 6s and iPhone 6s+ and iPad Pro, `false` otherwise.

2.2.2.10 static bool ForceTouchPlugin.SupportsTouchRadius ( ) `[static]`

Returns whether current device supports touch radius.

Returns

`true`, for iOS 8 and above, `false` otherwise.

2.3 NativeTouch Class Reference

Class used to store touch object including force and radius properites.

Public Member Functions

- override string **ToString** ()

Public Attributes

- int **id**
- Vector2 **pos**
- Vector2 **delta**
- TouchPhase **phase**
- float **force**
- float **maxforce**
- float **radius**
- float **radiusTolerance**

2.3.1 Detailed Description

Class used to store touch object including force and radius properites.

The documentation for this class was generated from the following file:

- /Volumes/Data/Projects/3DTouchTest/3DTouch5.3/Assets/ForceTouchPlugin/ForceTouchPlugin.cs

2.4 NativeTouchExtraData Class Reference

Class used to store only force and radius properties of the touch.

Public Member Functions

- override string **ToString** ()

Public Attributes

- int **id**
- float **force**
- float **maxforce**
- float **radius**
- float **radiusTolerance**

2.4.1 Detailed Description

Class used to store only force and radius properties of the touch.

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