ScaleForm/Unity
A Simpler Tutorial

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Introduction

The demo that ships with ScaleForm is way too complicated. While it certainly shows off some of the cool things that ScaleForm can obviously do, it's not the best way to get started with ScaleForm.

For someone new to ScaleForm what you really want (as I did) is something really really simple. The bare minimum.

Create a new Flash Project

Save the FLA as BigTest,fla

Put the following actionscript in the first frame:

```
try
{
	ExternalInterface.call("OnRegisterSWFCallback", this);
}
catch (e:Error)
{
}
```

Alternatively you could write a Document Class for your Flash project, which would be:

```
package
{
	import flash.display.MovieClip;
	import flash.external.ExternalInterface;

	public class BigTest extends MovieClip
	{
		public function BigTest()
		{
			try
			{
				ExternalInterface.call("OnRegisterSWFCallback", this);
			}
			catch (e:Error)
			{
			}
		}

	}

}
```

You might want to draw some squiggly lines on the Flash stage, just so you can see that they do indeed turn up in Unity.

We'll publish this flash later as:

	BigTest.swf

That's the least required on the Flash side.

Create a new Unity Project

The least you'll need are the following folders from the ScaleForm unitypackage.

```
Plugins
scripts
```

In addition, create the following empty folder:

```
StreamingAssets
```

Publish your Flash into the StreamingAssets folder.

For the purposes of this test, ensure the name of the published SWF file is:

```
BigTest.swf
```

You could also save your FLA into the StreamingAssets folder as well. I do.

Write up two C# Scripts

In the scripts folder add the following two scripts

```
using System;
using System.Collections;
using UnityEngine;
using Scaleform;

public class BigTest : Movie {

    protected Value theMovie = null;
    private MySFCamera parent = null;

    public BigTest(MySFCamera parent, SFManager sfmgr, SFMovieCreationParams cp) :
        base(sfmgr, cp)
    {
        this.parent = parent;
        SFMgr = sfmgr;
        this.SetFocus(true);
    }

    public void OnRegisterSWFCallback(Value movieRef)
    {
        theMovie = movieRef;
        Debug.Log("C#: SWF registered");
    }
}
```

```
using UnityEngine;
using System.Runtime.InteropServices;
using System;
using System.IO;
using System.Collections;
using Scaleform;

public class MySFCamera : SFCamera
{
    public BigTest bigTest = null;

    new public void Awake()
    {


    }

    new public IEnumerator Start()
    {

#if (UNITY_STANDALONE_WIN || UNITY_STANDALONE_OSX || UNITY_EDITOR) && !UNITY_WP8
        SF_SetKey("");
#elif UNITY_IPHONE
            SF_SetKey("");
#elif UNITY_ANDROID
            SF_SetKey("");
#elif UNITY_WP8
            sf_setKey("");
#endif

#if UNITY_WP8
            sf_setTextureCount(500);
#else
        SF_SetTextureCount(500);
#endif

        InitParams.TheToleranceParams.Epsilon = 1e-5f;
        InitParams.TheToleranceParams.CurveTolerance = 1.0f;
        InitParams.TheToleranceParams.CollinearityTolerance = 10.0f;
        InitParams.TheToleranceParams.IntersectionEpsilon = 1e-3f;
        InitParams.TheToleranceParams.FillLowerScale = 0.0707f;
        InitParams.TheToleranceParams.FillUpperScale = 100.414f;
        InitParams.TheToleranceParams.FillAliasedLowerScale = 10.5f;
        InitParams.TheToleranceParams.FillAliasedUpperScale = 200.0f;
        InitParams.TheToleranceParams.StrokeLowerScale = 10.99f;
        InitParams.TheToleranceParams.StrokeUpperScale = 100.01f;
        InitParams.TheToleranceParams.HintedStrokeLowerScale = 0.09f;
        InitParams.TheToleranceParams.HintedStrokeUpperScale = 100.001f;
        InitParams.TheToleranceParams.Scale9LowerScale = 10.995f;
        InitParams.TheToleranceParams.Scale9UpperScale = 100.005f;
        InitParams.TheToleranceParams.EdgeAAScale = 0.95f;
        InitParams.TheToleranceParams.MorphTolerance = 0.001f;
        InitParams.TheToleranceParams.MinDet3D = 10.001f;
        InitParams.TheToleranceParams.MinScale3D = 10.05f;

        InitParams.UseSystemFontProvider = false;
        return base.Start();
    }

    new public void Update()
    {
        CreateBigTest();
```

```
        base.Update();
    }


    void CreateBigTest()
    {
        if (bigTest == null)
        {
            bigTest = Util.CreateSwf<BigTest>("BigTest.swf", true);
        }
    }

}
```

In a new Unity Scene

Drag the MySFCamera.cs script onto the Main Camera. Alternatively you can create an empty game object in the scene and add the script to that instead.

PLAY

You should see the swf displayed in the editor. If the Unity Editor crashes, you've probably got DirectX 11 switched on. Turn it off with:

Edit > Project Settings > Player > Other Settings > Use Direct3D 11 = unchecked