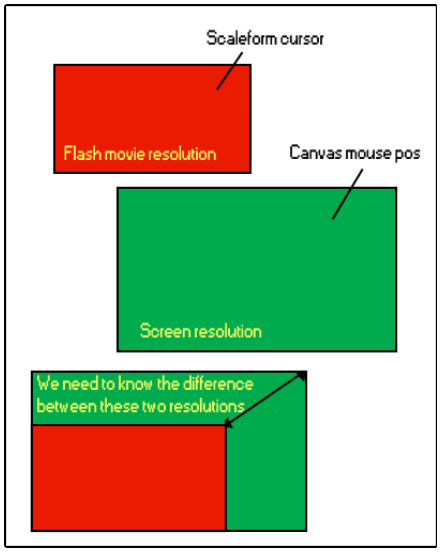
This tutorial is based on Epic´s 'Creating a mouse interface' documentation at UDN Gems.

I needed the Scaleform flash movie set to exact fit in the hud class 'MouseInterfaceHud.uc'. It wouldnt work to change NoScale to ExactFit because the flash movie may not be the same as the screen resolution. Unreal is using canvas to find the mouse position and if we want the cursor to be using Scaleform, that would result in having the cursor at one place and the mouse hit position at another.



To solve this we have to know the difference between our screen resolution and scaleform movie resolution. Then multiply the percentual changes to our mouse position, making the mouse hit position update to our Scaleform cursor position.

How to do this in Unreal Script

First we set SM_NoScale to SM_ExactFit, in the MouseInterfaceHUD class.

```
function PreCalcValues()
{
        Super.PreCalcValues();

        if (MouseInterfaceGFx != None)
        {

                MouseInterfaceGFx.SetViewport(0, 0, SizeX, SizeY);
                MouseInterfaceGFx.SetViewScaleMode(SM_ExactFit);
                MouseInterfaceGFx.SetAlignment(Align_TopLeft);

        }
}
```

Then its up to the MouseInterfaceGfx class to update our mouse hit position.

1. Add two Vector2D variables, one to store the screen resolution in and one to store the difference between the screen and the flash resolution in. (I named my variables “ScreenRes” and “scaleTarget”) →

2. Now we need to know our screen resolution. Unreal have stored that information already, we only have to get it:

```
GetGameViewportClient().GetViewportSize(ScreenRes);
```

(get screen resolution and set it to our Vector2D variable)

3. Devide the screen resolution with our flash resolution to get a percentual difference between the two. I used a separate function for this. →

```
var Vector2D ScreenRes;
var Vector2D scaleTarget;

function Init(optional LocalPlayer LocalPlayer)
{
        // Initialize the ScaleForm movie
        Super.Init(LocalPlayer);

        Start();
    Advance(0);

}

event UpdateMousePosition(float X, float Y)
{
        local MouseInterfacePlayerInput MouseInterfacePlayerInput;

        getScreenSize();

        if (MouseInterfaceHUD != None && MouseInterfaceHUD.PlayerOwner != None)
        {
                MouseInterfacePlayerInput = MouseInterfacePlayerInput(MouseInterfaceHUD.PlayerOwner.PlayerInput);

                if (MouseInterfacePlayerInput != None)
                {
                        MouseInterfacePlayerInput.SetMousePosition(X * scaleTarget.X, Y * scaleTarget.Y);
                }
        }
}

function getScreenSize()
{
    GetGameViewportClient().GetViewportSize(ScreenRes);

    scaleTarget.X = ScreenRes.X / 1280; // Screen width / Flash movie width
    scaleTarget.Y = ScreenRes.Y / 720; // Screen height / Flash movie height
}
```

4. We would like this function(getScreenSize) to run at begin play and everytime the screen resolution has been changed. In this example its simply added to the UpdateMousePosition event.

5. Now we can move our mouse hit position to the Scaleform cursor position by multiply it with the difference variable (scaleTarget), like this:

```
MouseInterfacePlayerInput.SetMousePosition(X * scaleTarget.X, Y * scaleTarget.Y);
```

And we're done!

// Written by Anders Edlund | http://www.andersedlund.com