**动画播放器代码**

Posted on 2013年07月19日 by U3d / [Unity3D脚本/插件](http://www.unitymanual.com/category/script) /被围观 13 次

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| 001 | **using** UnityEngine; |
| 002 | **using** System.Collections; |
| 003 |  |
| 004 | **public** **class** AnimationManager : MonoBehaviour |
| 005 | { |
| 006 | **public** Material AnimationMaterial; |
| 007 |  |
| 008 | **public** **int** RowFrameCount; *// 每一行的帧数* |
| 009 | **public** **int** ColFrameCount; *// 每一列的帧数* |
| 010 | **public** **int** TotalFrame; *// 总帧数* |
| 011 |  |
| 012 | **public** **int** FrameWidth; *// 每一帧的宽度* |
| 013 | **public** **int** FrameHeight; *// 每一帧的高度* |
| 014 |  |
| 015 | **public** **int** FPS; *// 每秒播放的帧数* |
| 016 | **public** **bool** Loop = **false**; *// 是否循环播放* |
| 017 |  |
| 018 | **private** **int** CurrRowFrame; *// 当前帧的行* |
| 019 | **private** **int** CurrColFrame; *// 当前帧的列* |
| 020 |  |
| 021 | **private** **bool** IsEnd; *// 是否结束了* |
| 022 |  |
| 023 | **private** **float** elapsedTime; *// 记录播放的时间* |
| 024 | **private** **float** frameTime; *// 每一帧的时间（1 / fps）* |
| 025 |  |
| 026 | **void** Start() |
| 027 | { |
| 028 | renderer.material = AnimationMaterial; |
| 029 |  |
| 030 | renderer.material.SetTextureScale("\_MainTex", new Vector2(1.0f / RowFrameCount, 1.0f / ColFrameCount)); |
| 031 | renderer.material.SetTextureOffset("\_MainTex", new Vector2(0, 0)); |
| 032 |  |
| 033 | *// 设置Camera的视图为正交矩阵，然后设置Size = Screen.Heigh / 2* |
| 034 | *// 设置GameObject的Scale为Texture2D的十分之一即可* |
| 035 | transform.localScale = new Vector3(FrameWidth / 10, 1, FrameHeight / 10); |
| 036 |  |
| 037 | CurrColFrame = 0; |
| 038 | CurrRowFrame = 0; |
| 039 |  |
| 040 | IsEnd = **false**; |
| 041 |  |
| 042 | frameTime = 1.0f / FPS; |
| 043 | elapsedTime = frameTime; |
| 044 |  |
| 045 | **if** (TotalFrame == 0) |
| 046 | { |
| 047 | TotalFrame = RowFrameCount \* ColFrameCount; |
| 048 | } |
| 049 | } |
| 050 | *//Unity3D教程手册：www.unitymanual.com* |
| 051 | **void** Update() |
| 052 | { |
| 053 | **if** (IsEnd) |
| 054 | { |
| 055 | **return**; |
| 056 | } |
| 057 |  |
| 058 | elapsedTime += Time.deltaTime; |
| 059 |  |
| 060 | **if** (elapsedTime >= frameTime) |
| 061 | { |
| 062 | elapsedTime -= frameTime; |
| 063 |  |
| 064 | CurrRowFrame++; |
| 065 |  |
| 066 | **if** (CurrRowFrame + CurrColFrame \* RowFrameCount >= TotalFrame) |
| 067 | { |
| 068 | *// 播放完成，如果循环* |
| 069 | **if** (Loop) |
| 070 | { |
| 071 | CurrRowFrame = 0; |
| 072 | CurrColFrame = 0; |
| 073 | } |
| 074 | **else** |
| 075 | { |
| 076 | IsEnd = **true**; |
| 077 | **return**; |
| 078 | } |
| 079 | } |
| 080 |  |
| 081 | *// 换行* |
| 082 | **if** (CurrRowFrame >= RowFrameCount) |
| 083 | { |
| 084 | CurrRowFrame = 0; |
| 085 |  |
| 086 | CurrColFrame++; |
| 087 |  |
| 088 | **if** (CurrRowFrame + CurrColFrame \* RowFrameCount >= TotalFrame) |
| 089 | { |
| 090 | *// 播放完成，如果循环* |
| 091 | **if** (Loop) |
| 092 | { |
| 093 | CurrRowFrame = 0; |
| 094 | CurrColFrame = 0; |
| 095 | } |
| 096 | **else** |
| 097 | { |
| 098 | IsEnd = **true**; |
| 099 | **return**; |
| 100 | } |
| 101 | } |
| 102 | *//Unity3D教程手册：www.unitymanual.com* |
| 103 | *// 换列* |
| 104 | **if** (CurrColFrame >= ColFrameCount) |
| 105 | { |
| 106 | *// 播放完成，如果循环* |
| 107 | **if** (Loop) |
| 108 | { |
| 109 | CurrRowFrame = 0; |
| 110 | CurrColFrame = 0; |
| 111 | } |
| 112 | **else** |
| 113 | { |
| 114 | IsEnd = **true**; |
| 115 | **return**; |
| 116 | } |
| 117 | } |
| 118 | } |
| 119 |  |
| 120 | SetMaterialOffset(); |
| 121 | } |
| 122 | } |
| 123 |  |
| 124 | **private** **void** SetMaterialOffset() |
| 125 | { |
| 126 | SetMaterialOffset(new Vector2( |
| 127 | (**float**)CurrRowFrame \* 1.0f / (**float**)RowFrameCount, |
| 128 | (**float**)(ColFrameCount - 1 - CurrColFrame) \* 1.0f / (**float**)ColFrameCount)); *// 翻转纹理的坐标* |
| 129 | } |
| 130 |  |
| 131 | **private** **void** SetMaterialOffset(Vector2 offset) |
| 132 | { |
| 133 | renderer.material.SetTextureOffset("\_MainTex", offset); |
| 134 | } |
| 135 | } |