



Flash UI

CryENGINE3 and Scaleform GfX

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CRYTEK

Define the Future
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Talk Overview

1. How to use Flash in CryENGINE3

- *Improving UI pipeline*
- *CryENGINE3 UI Tools*

2. Crysis 2 live UI Setup

- *3Di Menu*
- *3D HUD*
- *Environmental UI*

Part 1

How to use Flash in CryENGINE3

Improving UI pipeline

What do we want?

- Rapid prototyping
- Friendly for UI Designer
- Easy to modify / add content

What are the problems?

- Flash Designer can create UI assets
- They know how to script with AS2/AS3
- No C++ skills
- Need of a Programmer to bring the UI “on the screen”
- Wait for the build to see results

How to solve these problems?

- Minimize Code requirements
- Interaction between UI and Engine should be designed / authored mostly in Sandbox
- Simple Interface between game code and Flash

Solution:

CryENGINE3

UI Tools

Part 1

How to use Flash in CryENGINE3

CryENGINE3 UI Tools

UI Tools

- XML to define Interface for Flash asset
- Using Flowgraph to interact with UI
- UI Emulator to preview / test UI
- Live reloading of Flash assets without need to restart the Engine

XML Flash interface + Flowgraph

```
1 //-----  
2 //----- HUD2D.as -----  
3 //-----  
4 // weapon info  
5 function setWeapon( _strWeaponName:String, _boolZoomed)  
6 {  
7     Crosshair.m_Spread = 15;  
8     Crosshair.m_Zoomed = _boolZoomed;  
9  
10    Crosshair.gotoAndStop(1);  
11    Crosshair.gotoAndStop(_strWeaponName);  
12    Crosshair.updateState();  
13 }  
14  
15 function onShoot()
```

```
1 //-----
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12    Crosshair.updateState();
13 }
14
15 function onShoot()
```

```
1 //-----
2 //----- HUD2D.xml -----
3 //-----
4 <UIElements name="HUD">
5
6     <UIElement name="HUD2D">
7
8         <GFx file="HUD_2D.swf" layer="0">
9             <Constraints>
10                 <Align mode="dynamic" valign="center" halign="center" />
11             </Constraints>
12         </GFx>
13
14         <functions>
15
16             <function name="SetWeapon" funcname="setWeapon">
17                 <param name="WeaponName" desc="" type="string" />
18                 <param name="Zoomed" desc="" type="bool" />
19             </function>
20         </functions>
21     </UIElement>
22 </UIElements>
```

Flow Graph

File Edit View

Components

Search keyword:

Components:

NodeClass | Categ...

AI

AnimatedCharacter

Animations

Camera

Crysis

Flow Graphs

AI Actions

UI Actions

HUD

HUD_AmmoHealth

HUD_Crosshair

HUD_Message

HUD_Radar

Notify HUD on weapon change

```

13
14 <functions>
15
16 <function name="SetWeapon" funcname="setWeapon">
17 <param name="WeaponName" desc="" type="string"/>
18 <param name="Zoomed" desc="" type="bool" />
19 </function>
20

```

UI Emulation

UI Emulator

Custom

Main

Objects

Elements Actions

Sys->UI UI->Sys

UIElements

HUD2D
HUD3D
MainMenu
USMPlayer

Filter:

Properties

ab:Flash file	Menus_Startmenu.swf
? Visible	<input checked="" type="checkbox"/> True
? Initialized	<input checked="" type="checkbox"/> True
? Dynamic Textures	0
? Layer	3
? Background Alpha	0

Constraints

Align Mode	Dynamic
Horizontal Align	Center
Vertical Align	Center
? Scale	<input checked="" type="checkbox"/> True
? Maximize	<input type="checkbox"/> False

Flags

Functions

AddApplyButton
AddBackButton
AddButton

Main Emulation



Flow Graphs

- MM_Common
- MM_Pages
 - MM_GraphicsSettings
 - MM_Main
 - MM_SinglePlayer
 - MM_SoundSettings
- MM
- Sys_Init
- Material FX

Setup page

Part 2

Crysis 2 live UI Setup

3Di Menu

3D HUD

Environmental UI



Questions?

Thank you for your attention!

For more questions:
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