Chapter 1: Making a C++ Project for a First-person Shooter
Engine - Input

Input settings, including default input action and

Set as Default Export Import Reset to Defaults

These settings are saved in DefaultInput.ini, which is currently writable.

Action and Axis Mappings provide a mechanism to conveniently map keys and axes to input behaviors by inserting a layer of indirection between the input behavior and the keys that invoke it. Action Mappings are for key presses and releases, while Axis Mappings allow for inputs that have a continuous range.

Action Mappings

- Stealth
  - Left Shift
- Jump
- Fire
- ResetVR
- NewActionMapping_0
  - None

Axis Mappings

Mouse Properties

Use Mouse for Touch

Viewport Properties

Capture Mouse on Launch
Default Viewport Mouse Capture Mode Capture Permanently Including Initial Mouse Down

Navigation Mesh
Navigation System
Network
Phrase
Rendering
Rendering Overrides (local)
Chapter 2: Inventory and Weapons for the Player
Chapter 3: Blueprint Review and When to Use BP Scripting
Revision:
Date Submitted: Mar 21, 2018, 1:39:02 PM
Submitted By: matt.edmonds
Action: modified
Description:

Added Stealth mechanic (including crouching) to the StealthCharacter class and bound its input on PC to left shift.
Compile Results

Chapter 4:
U.I. Necessities, Menus, HUD, and Load/Save
Chapter 5: Adding Enemies!
The image shows a Behavior Tree with a root node labeled "ROOT". Below the root node, there is a selector node labeled "BTService_FindTarget". This node has a sub-node labeled "Move To" with the action "MoveTo Target location". The diagram also includes a search bar and a key list showing "Target" and "TargetLocation".
Return Value is already a 'Mastering Character', you don't need 'Point To Mastering Character'.
Chapter 6: Levels, Streaming, and Retaining Data
Chapter 7: Getting Audio in Your Game
### Physical Surface

You can have up to 62 custom surface types for your project. Once you name each type, they will show up as surface type in the physical material.

<table>
<thead>
<tr>
<th>Surface Type</th>
<th>Effect</th>
</tr>
</thead>
<tbody>
<tr>
<td>SurfaceType1</td>
<td>Snow</td>
</tr>
<tr>
<td>SurfaceType2</td>
<td>Stone</td>
</tr>
<tr>
<td>SurfaceType3</td>
<td>None</td>
</tr>
<tr>
<td>SurfaceType4</td>
<td>None</td>
</tr>
<tr>
<td>SurfaceType5</td>
<td>None</td>
</tr>
<tr>
<td>SurfaceType6</td>
<td>None</td>
</tr>
<tr>
<td>SurfaceType7</td>
<td>None</td>
</tr>
<tr>
<td>SurfaceType8</td>
<td>None</td>
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<tr>
<td>SurfaceType9</td>
<td>None</td>
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<tr>
<td>SurfaceType10</td>
<td>None</td>
</tr>
<tr>
<td>SurfaceType11</td>
<td>None</td>
</tr>
<tr>
<td>SurfaceType12</td>
<td>None</td>
</tr>
<tr>
<td>SurfaceType13</td>
<td>None</td>
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<tr>
<td>SurfaceType14</td>
<td>None</td>
</tr>
<tr>
<td>SurfaceType15</td>
<td>None</td>
</tr>
<tr>
<td>SurfaceType16</td>
<td>None</td>
</tr>
<tr>
<td>SurfaceType17</td>
<td>None</td>
</tr>
</tbody>
</table>
Right-Click to Create New Nodes.
Chapter 8:
Shader Editing and Optimization Tips
- Base pass shader: 169 instructions
- Base pass shader with Surface Lightmap: 125 instructions
- Base pass shader with Volumetric Lightmap: 182 instructions
- Vertex shader: 35 instructions
- Texture samplers: 5/16
PROJECT HAS VERTEX FOG ON MOBILE DISABLED

Feature Level: ES2
Level: FrozenCove (Persistent)

Compiling Shaders (7,844)
LIGHTING NEEDS TO BE REBUILT (16 unbuilt objects)
REFLECTION CAPTURES NEED TO BE REBUILT (content)
'EnsureAllScreenMessages' to suppress

PROJECT HAS VERTEX FOG ON MOBILE DISABLED
- Base pass shader without light map, 49 instructions
- Vertex shader: 113 instructions
- Texture samplers: 7/16
- User interpolate: 2/4 Scalars (1/4 Vectors) (TexCoord: 2, Custom: 0)
- Mobile texture samplers: 4/8
Chapter 9: Adding an In-game Cutscene with Sequencer
Starter Content

A collection of miscellaneous assets to include in your Unreal project. Several static mesh props such as a table, chair, door, lamp etc. A number of textures: brick, clay, wood and so forth. Basic mesh shapes: a sphere, tube, torus etc. Sample audio - an explosion, spark, birds etc. Particles such as fire, dust and explosion. Some walls, doors and windows. Some sample blueprints.
LEVEL BLUEPRINT

[Diagram of a game development environment with a blueprint editor open, showing a graph with nodes and connections.]

Compiler Results

- Compile of PersistentLevel/FirstPersonExampleMap successfully (in 144 ms) (/Game/FirstPersonCPP/Maps)
Chapter 10: Packaging the Game (PC, Mobile)
Chapter 11: Volumetric Lightmaps, Fog, and Precomputing
BlueFog

- Particle Color
- Smoke
- Mist
- Transparency
- Particle Position
- Size
- Texture Sample

Details
- Material Expression
- Disc

Stats
- Base pass shader: 73 instructions
- Base pass shader with Volumetric Lightmap: 102 instructions
- Vertex shader: 113 instructions
- Texture samplers: 7/16
- User interpolation: 2/4 Scalars (1/4 Vectors) / (TexCoords: 2, Custom: 6)
Chapter 12: In-scene Video and Visual Effects
- Base pass shader: 105 instructions
- Base pass shader with Surface Lightmap: 122 instructions
- Base pass shader with Volumetric Lightmap: 175 instructions
- Vertex shader: 38 instructions
- Texture samplers: 4x4
Chapter 13:
Virtual Reality and Augmented Reality in UE 4
Platforms - Android

Project settings for Android apps

These settings are saved in DefaultEngine.ini, which is currently writable.

APK Packaging

Project is not configured for the Android platform

Note to users from 4.6 or earlier: We now generate an AndroidManifest.xml when building, so if you have customized your .xml file, you will need to put all of your changes into the below settings. Note that you don't touch your AndroidManifest.xml that is in your project directory. Additionally, we no longer use SigningConfig.xml, the settings are now set in the Distribution Signing section.

NOTE: You must accept the SDK license agreement (click on button below) to use Gradle if it isn't grayed out.

Accept SDK License

Build Folder

Open Build Folder

Android Package Name (com.Compa
tor.You COMPANY PROJECT)

Store Version (1-2147483647) 1

Application Display Name (app_name)

Version Display Name (usually x.y) 1.0

Minimum SDK Version (9-Gingerbread) 9

Target SDK Version (9-Gingerbread) 9

Install Location Internal Only

Enable Gradle instead of Ant

Enable lint deprecation checks

Set as Default Export Import Reset to Default
<table>
<thead>
<tr>
<th>Setting</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Build Folder</td>
<td></td>
</tr>
<tr>
<td>Store Version</td>
<td>1</td>
</tr>
<tr>
<td>Application Display Name (app_name)</td>
<td></td>
</tr>
<tr>
<td>Version Display Name (usually x.y)</td>
<td>1.0</td>
</tr>
<tr>
<td>Minimum SDK Version (9-Gingerbread, 14-Ice Cream Sandwich)</td>
<td>19</td>
</tr>
<tr>
<td>Target SDK Version (9-Gingerbread, 14-Ice Cream Sandwich)</td>
<td>19</td>
</tr>
<tr>
<td>Install Location</td>
<td>Internal Only</td>
</tr>
<tr>
<td>Enable Gradle instead of Ant</td>
<td></td>
</tr>
<tr>
<td>Enable Lint depreciation checks</td>
<td></td>
</tr>
<tr>
<td>Package game data inside .ape?</td>
<td></td>
</tr>
<tr>
<td>Generate install files for all platforms</td>
<td></td>
</tr>
<tr>
<td>Disable verify OBB on first start/update</td>
<td></td>
</tr>
<tr>
<td>Use ExternalFilesDir for UE4Game files?</td>
<td></td>
</tr>
<tr>
<td>Orientation</td>
<td>Landscape</td>
</tr>
<tr>
<td>Maximum supported aspect ratio</td>
<td>2.1</td>
</tr>
<tr>
<td>Ant Verbosity</td>
<td>Quiet</td>
</tr>
<tr>
<td>Enable FullScreen Immersive on KitKat and above devices</td>
<td></td>
</tr>
<tr>
<td>Enable improved virtual keyboard [Experimental]</td>
<td></td>
</tr>
<tr>
<td>Preferred Depth Buffer format</td>
<td>Default</td>
</tr>
<tr>
<td>Validate texture formats</td>
<td></td>
</tr>
</tbody>
</table>
Choose a template to use as a starting point for your new project. Any of these features can be added later by clicking Add Feature or Content Pack in Content Browser:

- Blueprint
- C++
- Black
- First Person
- Flying
- Handheld AR
- nDisplay
- Puzzle
- Rolling
- Side Scroller
- 2D Side Scroller
- Third Person
- Top Down
- Twin Stick Shooter

Handheld AR
A starting point for building Augmented Reality applications for Android and iOS

Choose some settings for your project. Don’t worry, you can change these later in the Target Hardware section of Project Settings. You can also add the Starter Content to your project later using Content Browser.

- Mobile/Tablet
- Maximum Quality
- No Starter Content

Select a location for your project to be saved.

- M:\HomeDev\Pack\  
- MasteringAR

Create Project
Note to users from 4.6 or earlier: We now GENERATE an AndroidManifest.xml when building, so if you have customized your .xml file, you will need to put all of your changes into the below settings. Note that we don’t touch your AndroidManifest.xml that is in your project directory.

Additionally, we no longer use SigningConfig.xml; the settings are now set in the Distribution Signing section.

NOTE: You must accept the SDK license agreement (click on button below) to use Gradle if it isn’t grayed out.
The following assets will be migrated to another content folder.

- Game
  - DungeonsWeapons
    - Weapons
      - Blunt
      - Blunt_Ravager
    - SK_Blunt_Ravager
  - FirstPerson
    - Audio
      - BulletSnowImpact
      - BulletStoneImpact
      - DefaultImpact
    - hat1
    - hat2
    - hat3
    - snare1
    - snare2
    - ThrownSnowImpact
    - ThrownStoneImpact
  - FPWeapon
    - Materials
      - M_FPGun
    - MaterialLayers
      - ML_GlossyBlack_Latex_UE4
      - ML_Plastic_Shiny_Beige
      - ML_Screen
      - ML_SoftMeta_UE4
      - T_ML_Aluminum01