Licensing Middleware

*Is Totally Awesome!!*

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Introduction

• Quick Epic overview
• My role at Epic
• I’m not just the President, I’m also a client!
  – Licensed Unreal Engine 2 for America’s Army
  – Using Unreal Engine 3 for Gears and Unreal

• I’m not here to sell you the Unreal Engine
  – (But Mark Rein is)
Unreal Engine 3 Customers

A few licensees:

- Activision
- Atari
- Bethesda Softworks
- Bioware
- Capcom
- Disney Interactive
- Electronic Arts
- EIDOS
- Gearbox Software
- Microsoft Game Studios
- Midway
- NCsoft
- Real Time Worlds
- Sony Online
- Square Enix
- Take Two
- THQ
- Ubisoft
- US Army
- Vivendi
- Webzen
Shared tech yields better games

- All about abstracting away details
  - We avoid machine language when we can
- Shared infrastructure like Windows, DirectX, etc. let us focus on games instead of base technology
- Middleware libraries and game engines let us abstract away platform details
Don’t have an engine?

• Cost-savings argument is simple
• License tech for less than it costs to build
  – even amortized across multiple titles
• Content is the most expensive part of any next-gen game
• With licensed tech, content development starts immediately
  – And less engine tech revision means less content revision / cutting
Have an engine already?

- The majority of development teams have free access to some engine technology.
- But we find that about half our customers are in this situation – already have tech, but choose to license ours. Why?
- That tech probably needs modification for the next title, but so would an off-the-shelf engine.
Replacing your in-house engine

• Cost savings aren’t the only reason to license
• Often you’ll find middleware is
  – Battle tested
  – More stable
    • Has your team ever cut a few corners during ship crunch?
  – More usable, more emphasis on tools and interface
  – Better documented and supported
  – More feature rich
  – More modern
  – Better optimized
Middleware beyond engines

- Even when “rolling your own” engine tech it’s smart to license a few components
- Physics is a great example – not many teams can write a good physics solver
- Epic’s games have many major dependencies on external middleware
## Integrated Partners Program

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<td>Umbra</td>
<td>Gameface Studio &amp; SDK (Anark)</td>
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Smart licensing

• Managing risks is key to game development
• Any external dependency is a risk, so manage it:
  – Has the tech been shipped before? Shipping is where reality sets in.
  – Can you ship if they close their doors? Fail to make promised updates? Fail to support you?
• We push for (and give) source code access, so there’s always the option to fix the ship-blocking bugs ourselves.
Questions?

- Feel free to reach me at
  – Mike.Capps@epicgames.com
Epic Games

- Founded 16 years ago by CEO Tim Sweeney
- 96 employees at Cary, NC headquarters
- External studios in Poland and Shanghai
- Creator of Unreal Engine technology
- Multiple million-selling, award-winning hits in the Unreal series
Epic Games

- More than 4 million copies of *Gears of War* sold worldwide; voted “Game of the Year” by over half a dozen leading media outlets and the Academy
- Spike TV’s 2006 “Studio of the Year”
- Official Xbox Magazine’s 2006 “Developer of the Year”
- NCTA’s 2007 “Large Company of the Year”
Epic’s Latest Games

Gears of War
Xbox 360, PC

Unreal Tournament 3
PC, PS3, Xbox 360
What is the Unreal Engine?

- Runtime and tools for making and shipping a game
  - World-building tools
  - Particles, terrain, animation, physics, etc.
  - UnrealScript and compiler
  - Visual programming language
  - Lip synching, voice recognition, etc.