VRDC FALL 2017

Obduction, from 2D to VR: A Postmortem and Lessons Learned

Hannah Gamiel Software Engineer, Cyan, Inc.

VIRTUAL REALITY DEVELOPERS CONFERENCE FALL 2017 | SEPTEMBER 21-22, 2017 #VRDC17



About Me

- Hannah Gamiel
- Software Engineer/"Lead" audio engineer at Cyan, Inc.





VIRTUAL REALITY DEVELOPERS CONFERENCE FALL 2017 | SEPTEMBER 21-22, 2017 #VRDC17

About Myst (Obduction's spiritual Successor)







RTUAL REALITY DEVELOPERS CONFERENCE FALL 2017 | SEPTEMBER 21-22, 2017 #VRDC17

Quick Overview of Obduction



UBM



Why did Cyan take the VR jump?

- Gameplay Reasoning
 - Classic Myst-like navigation works well in VR
 - Node based
 - Increased immersion
- Company Reasoning
 - "On the Edge of Something"

Why VR *and* 2D?

• We're crazy

VRDC

- Target Audience(s)
- R.O.I. (perception)
- 2D visual fidelity
- Single SKU perks





Preparation

- VR "Champion" at Cyan
- Early contacts with Valve + Oculus
- Build for scale



VIRTUAL REALITY DEVELOPERS CONFERENCE FALL 2017 | SEPTEMBER 21-22, 2017 #VRDC17

VRDC

2D to VR Development: Timeline & Priorities





VR Hardware Support Priorities

- 1. Oculus Rift
 - a. Gamepad
 - b. Remote*
- 2. Vive
- 3. Motion Controllers
 - a. "Touch" + Wands
 - b. Move
 - c. Tracked Gamepads**





VIRTUAL REALITY DEVELOPERS CONFERENCE FALL 2017 | SEPTEMBER 21-22, 2017 #VRDC17

Breaking it down for the user

HMD Support

- 1. Oculus Rift
- 2. HTC Vive
- 3. **PS VR**

Input Support

- Basic Input (remote + gamepad)
- 2. Hand-Controller Tracked input x2
- 3. Gamepad Tracked Input (PS VR)

Input in Obduction













Basic VR input

- Lowest common denominator for VR input*
- No in-game representation
- "Unicorn" mode



Motion Controllers Input + Vive support (cont)

- Integrated with "2D" nav & input
- In-game representation

VRDC

• New navigation mode (teleport)





KOC FALL 2017 VIRTUAL REALITY DEVELOPERS CONFERENCE FALL 2017 | SEPTEMBER 21-22, 2017 #VRDC17

Motion Controllers Input + Vive support (cont.)

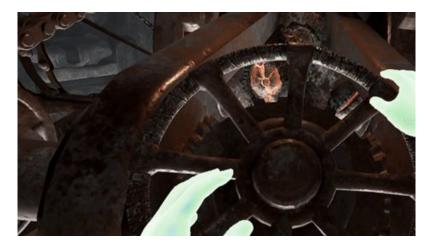
• The room scale question...





Motion Controllers Input + Vive support (cont.)

 Realistic interactions vs. consistent gameplay + aesthetics

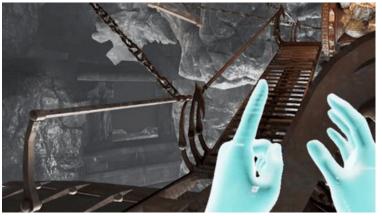






Tracked Gamepad + [Less] Mo. Co. Input









KOC FALL 2017 VIRTUAL REALITY DEVELOPERS CONFERENCE FALL 2017 | SEPTEMBER 21-22, 2017 #VRDC17

2D to VR: Non-Input Specific Things We Considered





FMV

- Classic Myst-style FMV
- Removing "flatness" of FMV in VR
- "Angle of Viewing" considerations needed





Performance & UX

- Framerate (view distance \rightarrow see gif)
- Major Optimization Pass (Desktop VR vs. PS VR)
- Bypassing uncomfortable sequences in VR





Audience Expectations

- Audience will always have good critiques!* (e.g. more VR options)
- Performance is king
- Mixed messages

VRDC

- 2D or VR priority?
- Target Audience?



Not Recommended 1.4 hrs on record

POSTED: AUGUST 21

Although some of the scenery looks nice gameplay is not fun. Here we are in 2017 and the game will not even allow you to jump? Myst was miles ahead of this game and it is over 20 years old.

Save your money.

Optimization

- Optimize as you go (in 2D as well!)
- Code and build meshes for scalability
- Test across all planned VR supported hardware
- Catch issues early on



Looking forward: Cyan & 2D + VR

- Continue to make 2D + VR games
 - And you should too!***
- Flipping priorities
 - Need to place better focus on VR champion
 - Deeply integrate VR experience into 2D experience from the get-go



/IRTUAL REALITY DEVELOPERS CONFERENCE FALL 2017 | SEPTEMBER 21-22, 2017 #VRDC17

Thank you!

Hannah Gamiel Software Engineer, Cyan, Inc. <u>hannah@cyan.com</u> @repolevedemag

