

NBA VR: Putting Fans Courtside with NBA Legends with Virtual Reality

Aruna Inversin

Creative Director & VFX Supervisor, Digital Domain















WHAT IS UNIQUE?

- Stereoscopic 4K/UHD delivery
- Photoreal environments
- Visual menu structure
- Unique method of high fidelity streaming
- Weekly episodic releases for House of Legends









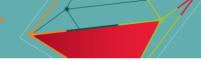










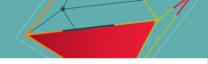


PRE-PRODUCTION & PRODUCTION

- Custom stereo rig for Micro Studio Camera 4K
- Manufactured out of aluminum stock and anodized
- Proper IPD of rig match human IPD of ~6.5cm
- Greenscreen stage location
- LOTS of light
- Script, direction, and pitches by Content Studio





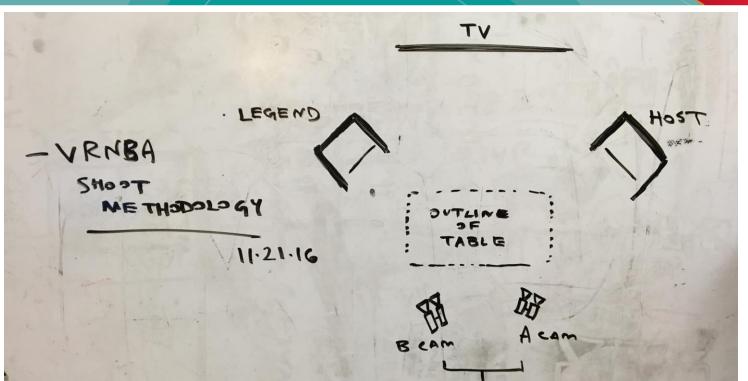












































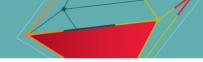












CREATIVE, VR & VFX DEVELOPMENT

- Build environments based on the creative direction
- Develop solutions for technical problems with UHD; aligning cameras, tracking in 3D space
- One million frames of UHD stereoscopic footage
- Weekly deliveries of ~50,000 4K (4096x2048) stereo frames
- Develop solution for high fidelity streaming
- Post production work by Creative Services



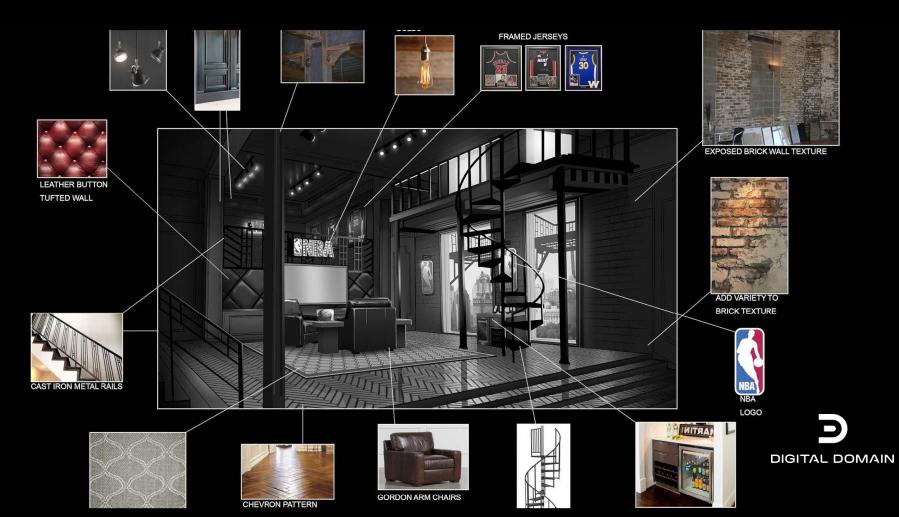






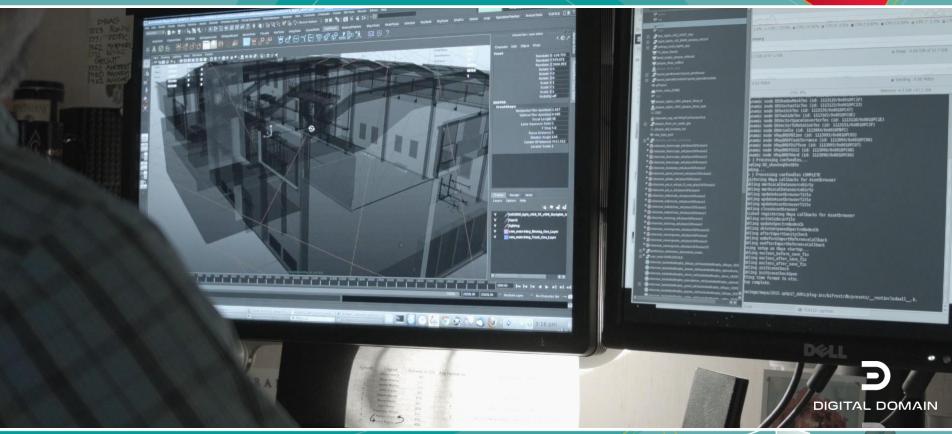








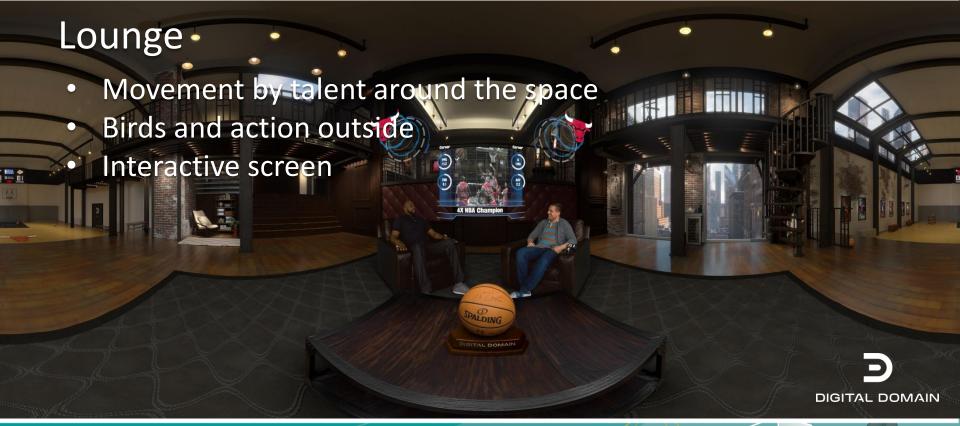
/IRTUAL REALITY DEVELOPERS CONFERENCE FALL 2017 | SEPTEMBER 21-22, 2017 #VRDC17







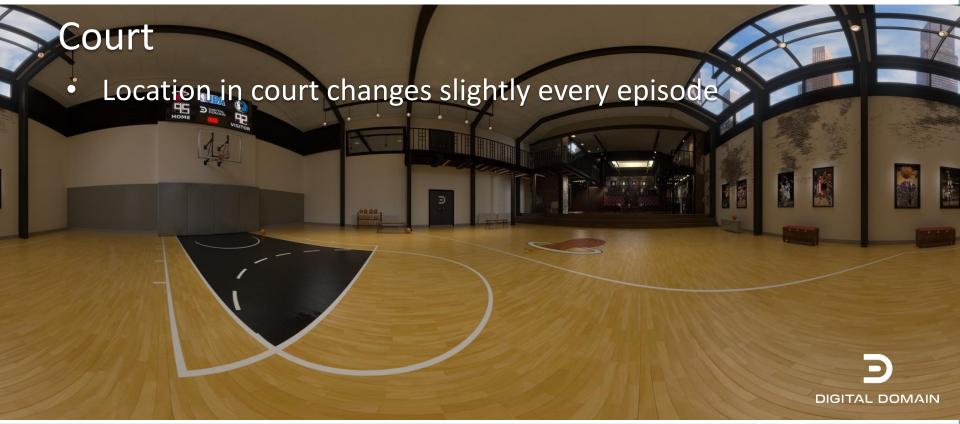










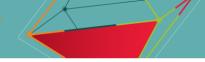












APP INTERACTION, CMS & DELIVERY

- Custom method of streaming stereo OTA Wi-Fi & LTE
- Using Unity, we built out interaction with various environments, using a visual menu system
- Connects to our Content Management System (CMS)
- Coordinated with NBA for VOD

APK developed by Interactive, CMS by Technology











UHD Stereoscopic Movie Atlas







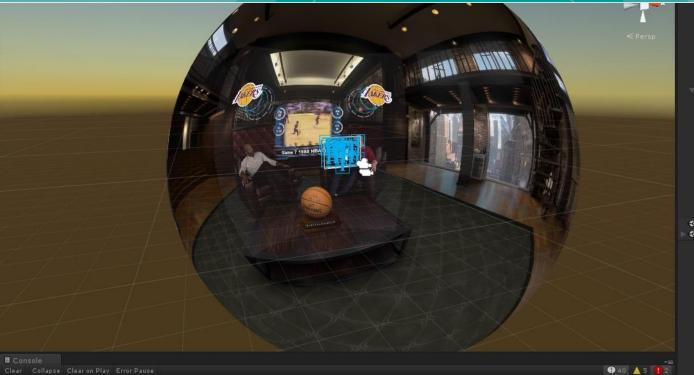






CreateEpisode Waiting
 UnityEngine.Debug:Log(Object)

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



Load: file:///C:/Users/Rene%20Hakiki/AppData/LocalLow/Digital%20Domain%20Interactive/NBA%20VR/IntroFade.mp4 UnityEngine.Debug:Log(Object) Root

✓ EpisodesVertical (0)

I Menu_Episodes

✓ Vault (1)

Menu_Vault

Root_Overlay

Root_Dialog

Root_Popup

Episode

✓ Root

DD Logo

NBA Logo

Episode Root

Menu_Loading

Theater(Clone)

GameObject

NavMode

Broadcast Manager

PhoneRemoteConfig

Intro Video(MPMP)

Episode Player(MPMP)

Supdream

✓ Daydream

► Editor
F GoogleVR
F LINQtoGameObje
F MPMP
F OneSignal
F Pixelplacement
F PlayServicesReso
F Plugins
F StreamingAssets
F TextMesh Pro
F UnityPerffix
Untitled-1





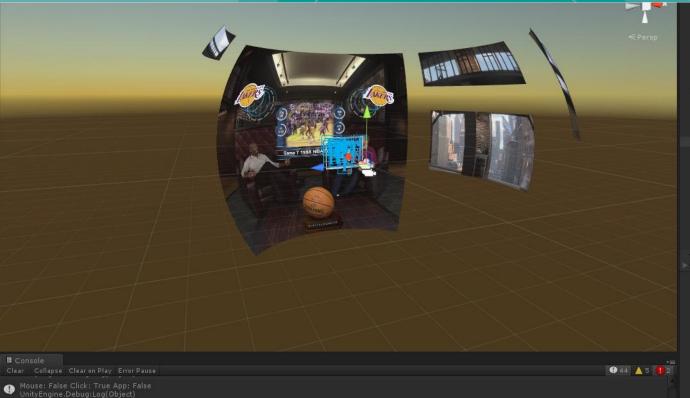






UnityEngine.Debug:Log(Object)

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



♦ Daydream ◆ DontDestroyOnLoad

DIGITAL DOMAIN

▶ = GoogleVR

► TextMesh Pro
► UnityPerfFix
Untitled-1

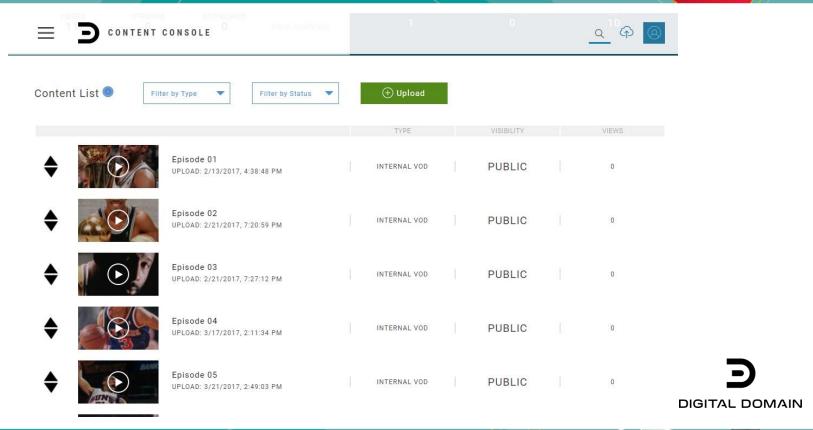








VIRTUAL REALITY DEVELOPERS CONFERENCE FALL 2017 | SEPTEMBER 21-22, 2017 #VRDC17

















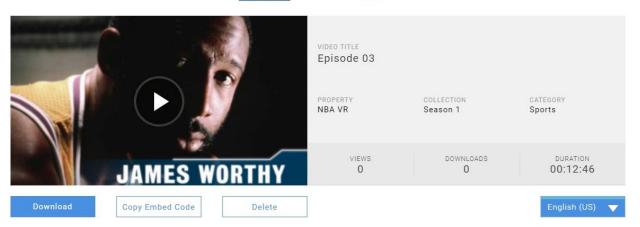


NBA > NBA VR > SEASON 1 > EPISODE 03

Episode 03

Video Profile

Edit



VIDEO DESCRIPTION

 ${\it Chris\ Distefano\ hosts\ NBA\ House\ of\ Legends\ with\ 3-time\ NBA\ champion,\ James\ Worthy.}$

































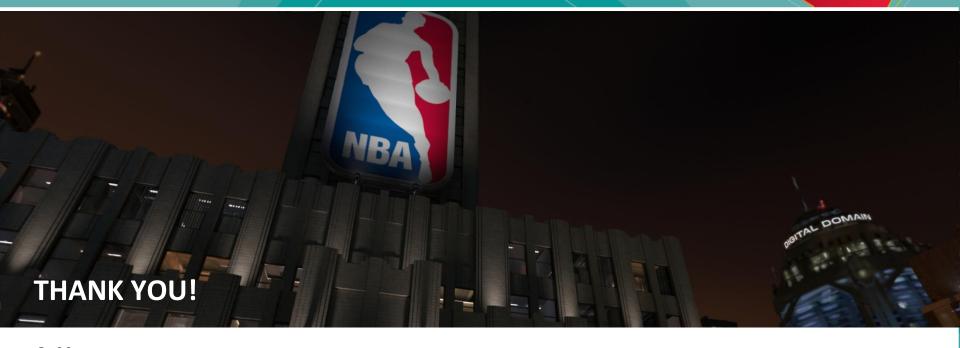












@r00nee

@digital domain DD

DIGITAL DOMAIN





