



Virtual Visuals
Key Lessons for Artists
working in VR





## Who am I? - Jason Hickey, Assistant AD













## **Before Sony Computer Entertainment**













## What is this presentation about?









## **London Studio**











**VR Basics** 







## **VR Basics: What's presence?**









## VR Basics: <u>ALWAYS</u> in budget!









### **VR Basics: Art Challenges**

Frame - 33.34/16.67ms, (200.01%) Rendering - 15.89/16.67ms, (95.31%) ameplay - 0.38/16.67ms, (2.30%) hysics - 0.02/16.67ms, (0.13%) Particles - 0.01/16.67ms, (0.04%) Meshes - 2.03/16.67ms, (12.20%) Lua: 0.00/16.67, 0.00% Animation: 0.00/16.67, 0.00% Passes: 7.00/10.00, 70.00% TextureMemory: 1267.90/750.00, 169.05% GPU\_Rendering: 10.41/16.67, 62.44% GPU\_Particles: 0.00/16.67, 0.00% GPU\_NonSkinned: 5.95/16.67, 35.72% GPU\_Skinned: 0.00/16.67, 0.00% GPU\_PostProcess: 1.17/16.67, 6.99% GPU\_Shadows: 1.11/16.67, 6.67% GPU\_LightTiling: 0.50/16.67, 3.00% GPU\_Scattering: 0.00/16.67, 0.00% GPJ\_Other: 0.43/16.67, 2.58%





## VR Basics: Art and Design together!







16 Key Lessons!







## Art Directing for VR







## Art Direction: Build the right team









### **Art Direction: VR is not a Camera**









### **Art Direction: Review in headset**







### Art Direction: Ul must be in world











# Asset Creation for VR (Environment and Character Art)





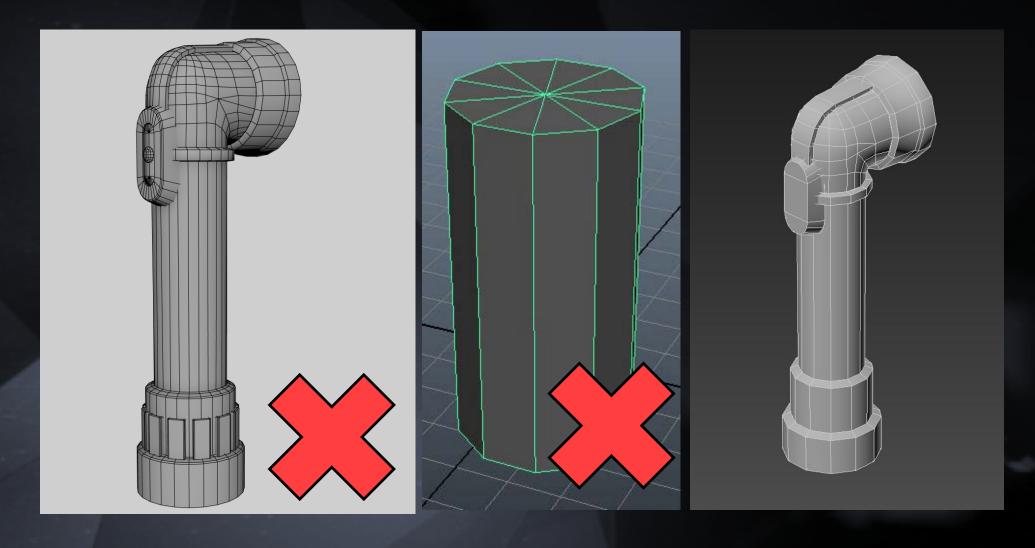
## **Assets: Fit for purpose, test early**







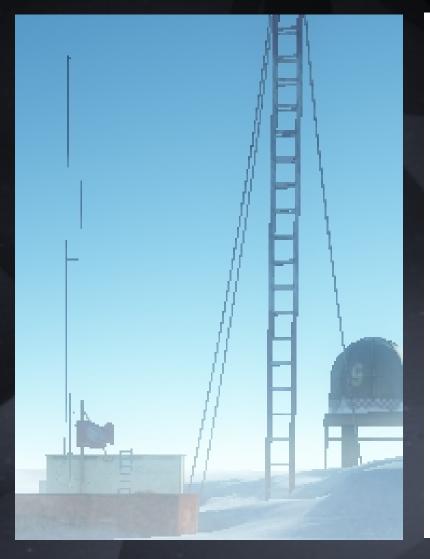
## **Assets: Accurate Greybox**

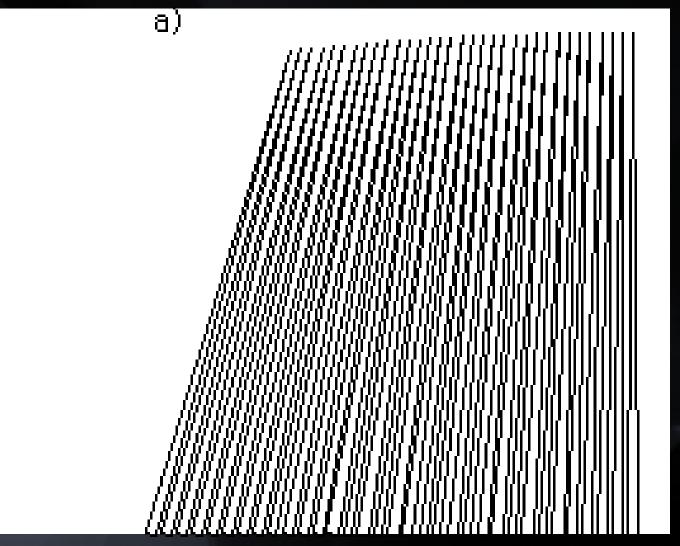






## Assets: Thin geometry is Bad!

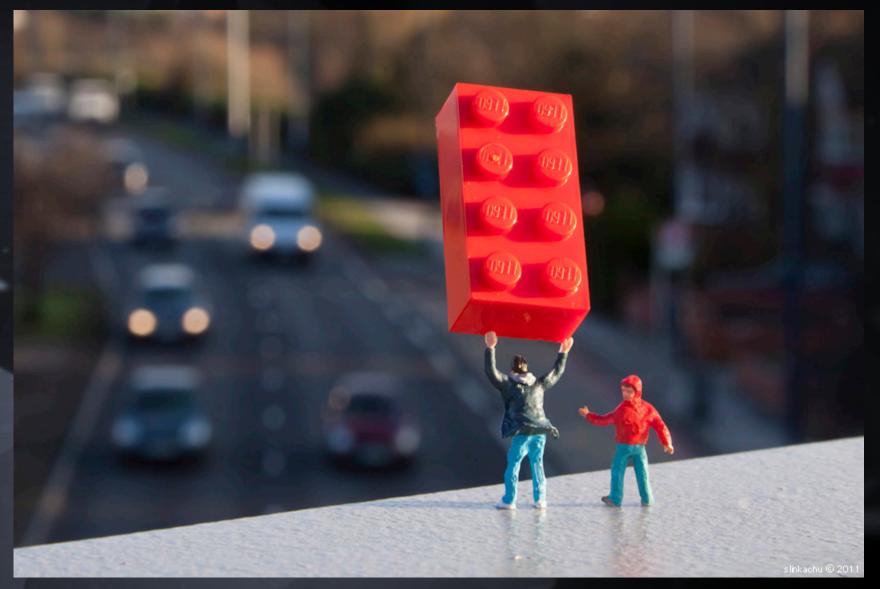








## Assets: Accurate scale is vital







## Assets: Large shapes are more important than high frequency detail







## Assets: Stylised <u>can</u> work better than photo realistic







### $\blacksquare$

## Assets: Accurate Materials (but minimise noise)



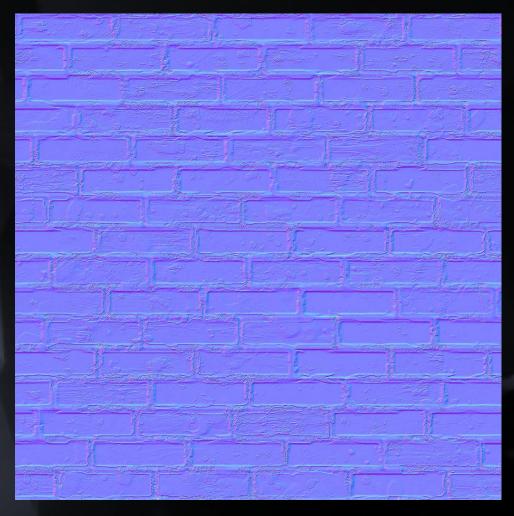






## Assets: Is geometry always better than a normal map?











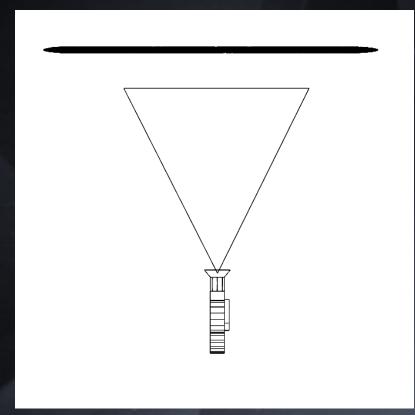
## **VFX Creation for VR**

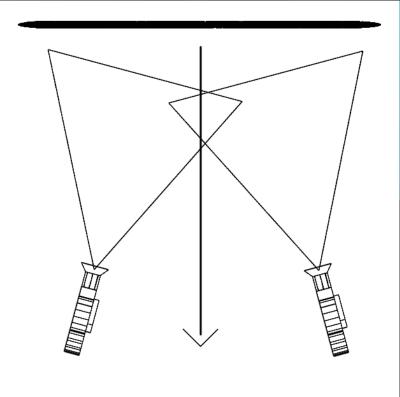


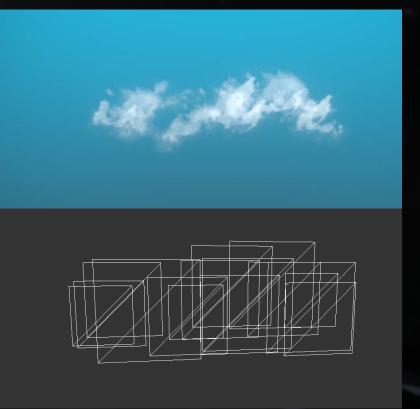


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## VFX: Large particles look flatter, use smaller particles











## VFX: Small particulate works great









## VFX: Interactive particles have more value







## VFX: FX on the camera <u>can</u> work!















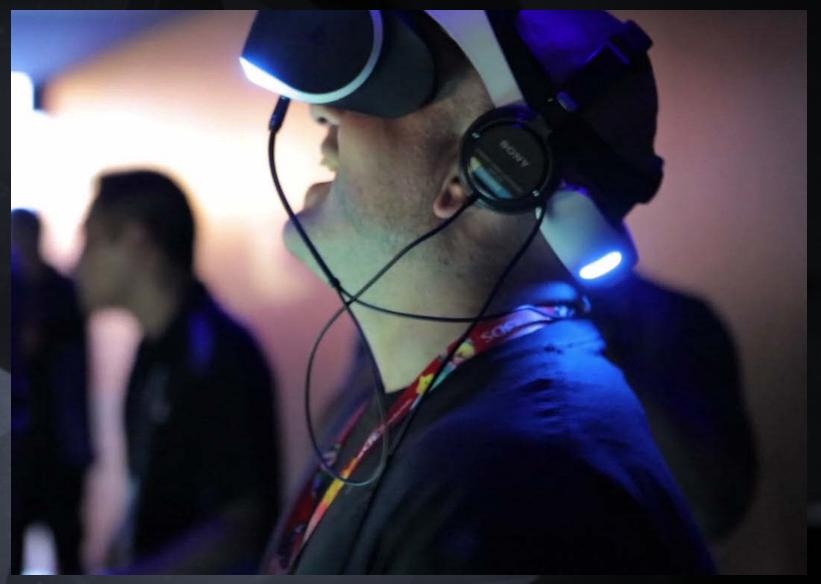
### **Summary: Virtual Visuals Lessons**

- VR is a New Medium
  - Think of art from new perspective
  - There are some Big Differences
- Cross discipline Team Work
- Understand Performance constraints!!
- Test Early and accurately
- The Audience is more critical so get it right!





## Virtual Reality is a new medium









## Thanks! jason\_hickey@scee.net

