



# Creative Coding

## Freedom of Expression

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# About This Workshop - Technical

- Introduction to VR
- Introduction to Touch Designer
- Introduction to Touch python API



# Why Touch Designer

- Procedural AV engine
  - Fork of Houdini v4
  - Designed for real-time
- Good glue
  - Python, C++
  - “Batteries included”

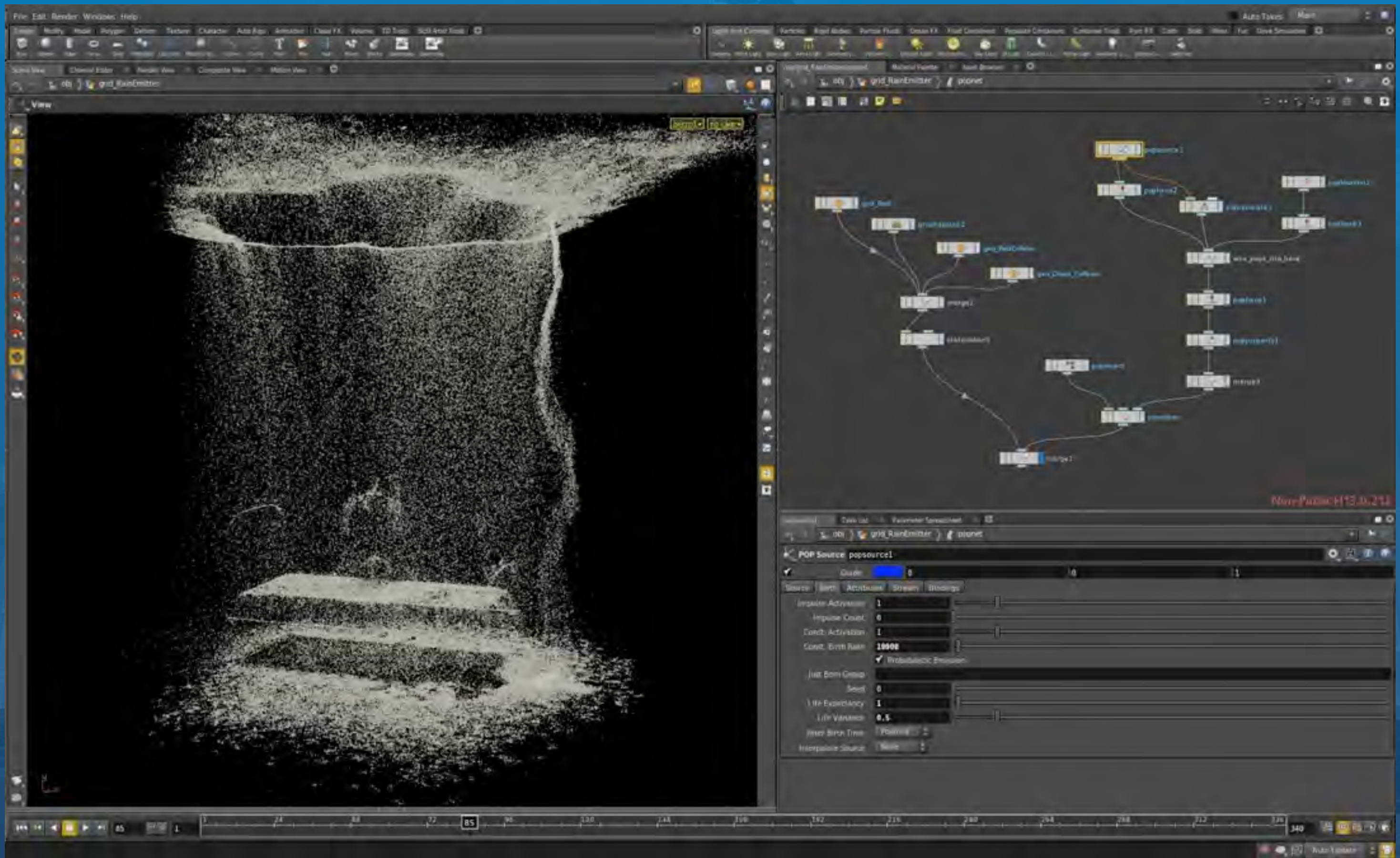
# Why not Touch Designer

- Niche focus
- Windows only (OSX in closed beta)
- Small company, small user-base
- Closed source - vendor lock-in
- Pro licenses expensive







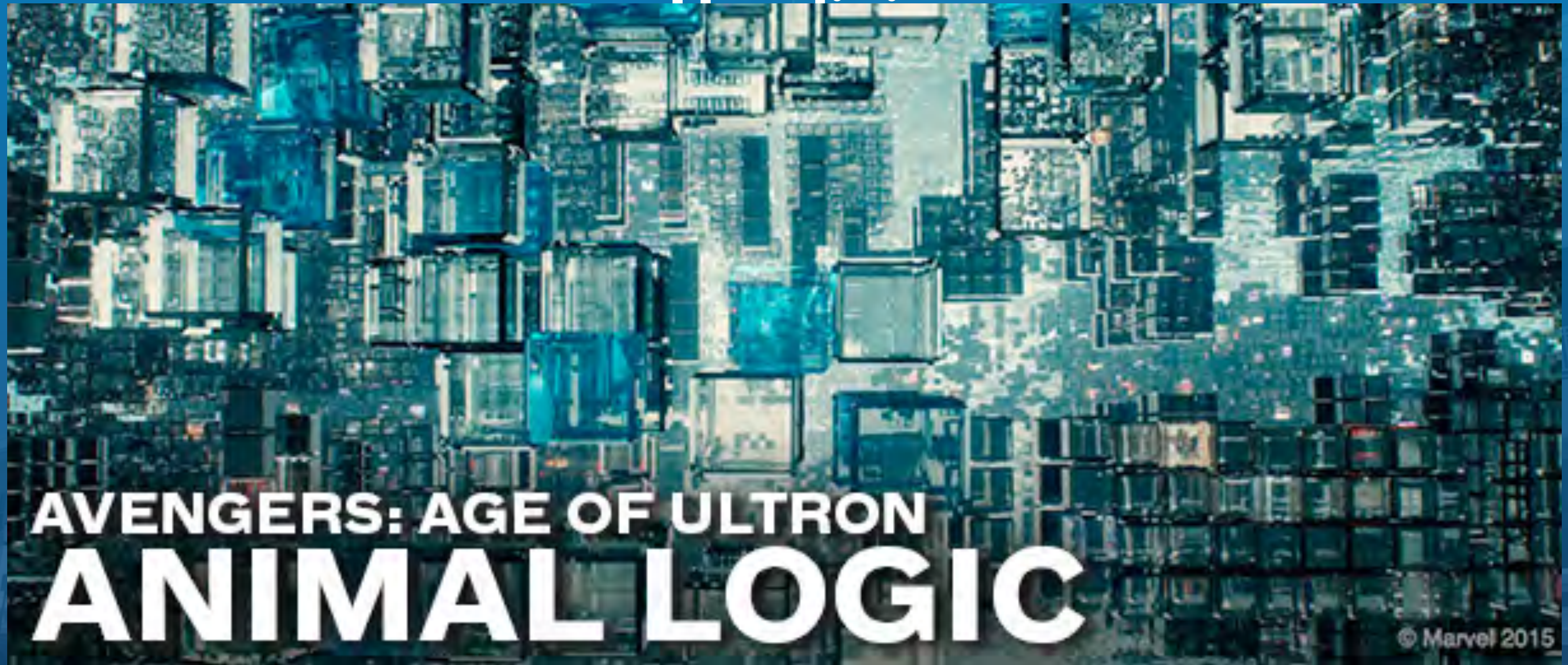




# Houdini - VFX / Simulations









A screenshot from the video game Uncharted 3: Drake's Deception. Nathan Drake is shown in a crouched position on a wooden structure, possibly a ship's deck, which is engulfed in large, intense flames. The background is filled with smoke and fire, creating a dramatic and action-packed scene. The text 'NAUGHTY DOG' and 'UNCHARTED 3' is overlaid in large, white, bold letters on the left side of the image.

# NAUGHTY DOG UNCHARTED 3



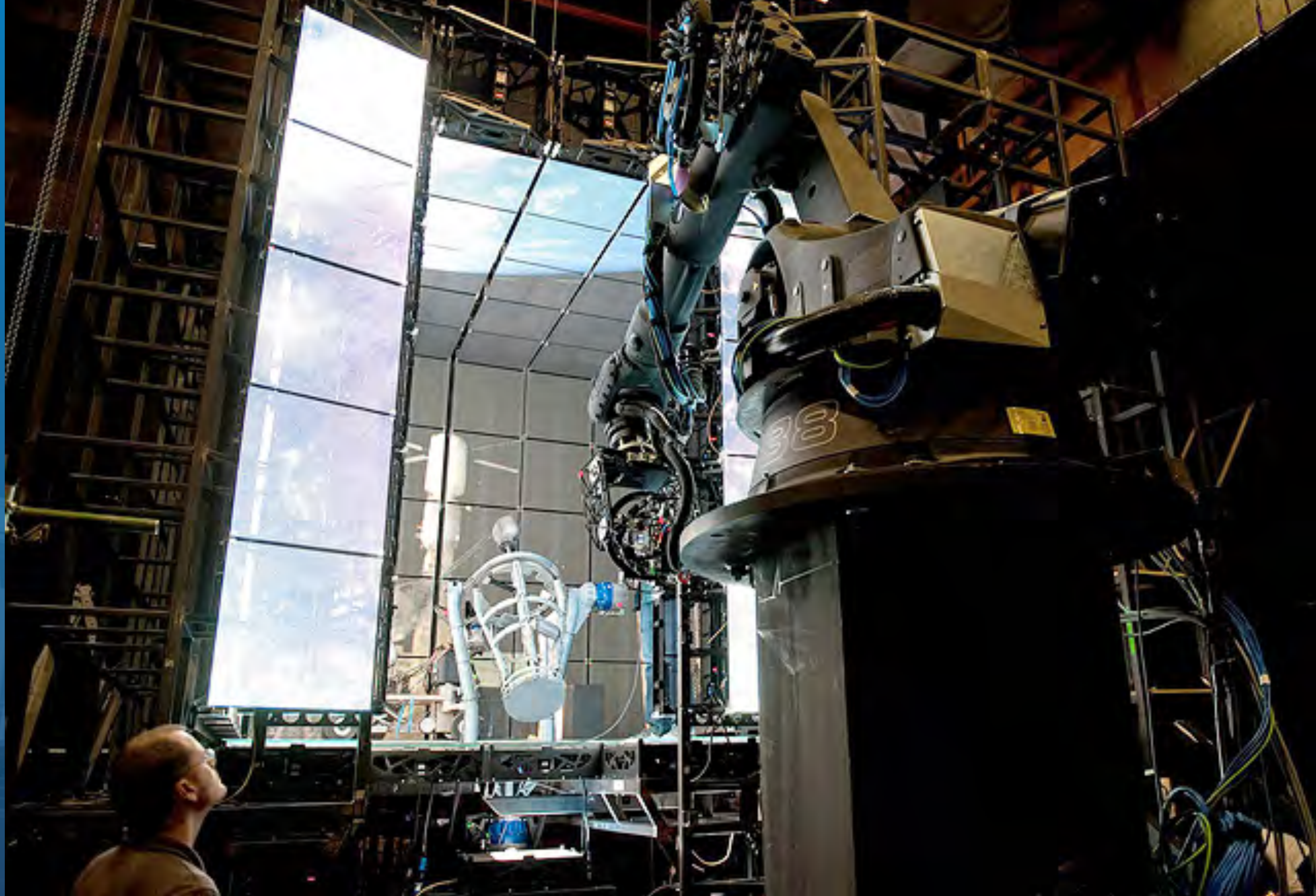
# Touch Designer



















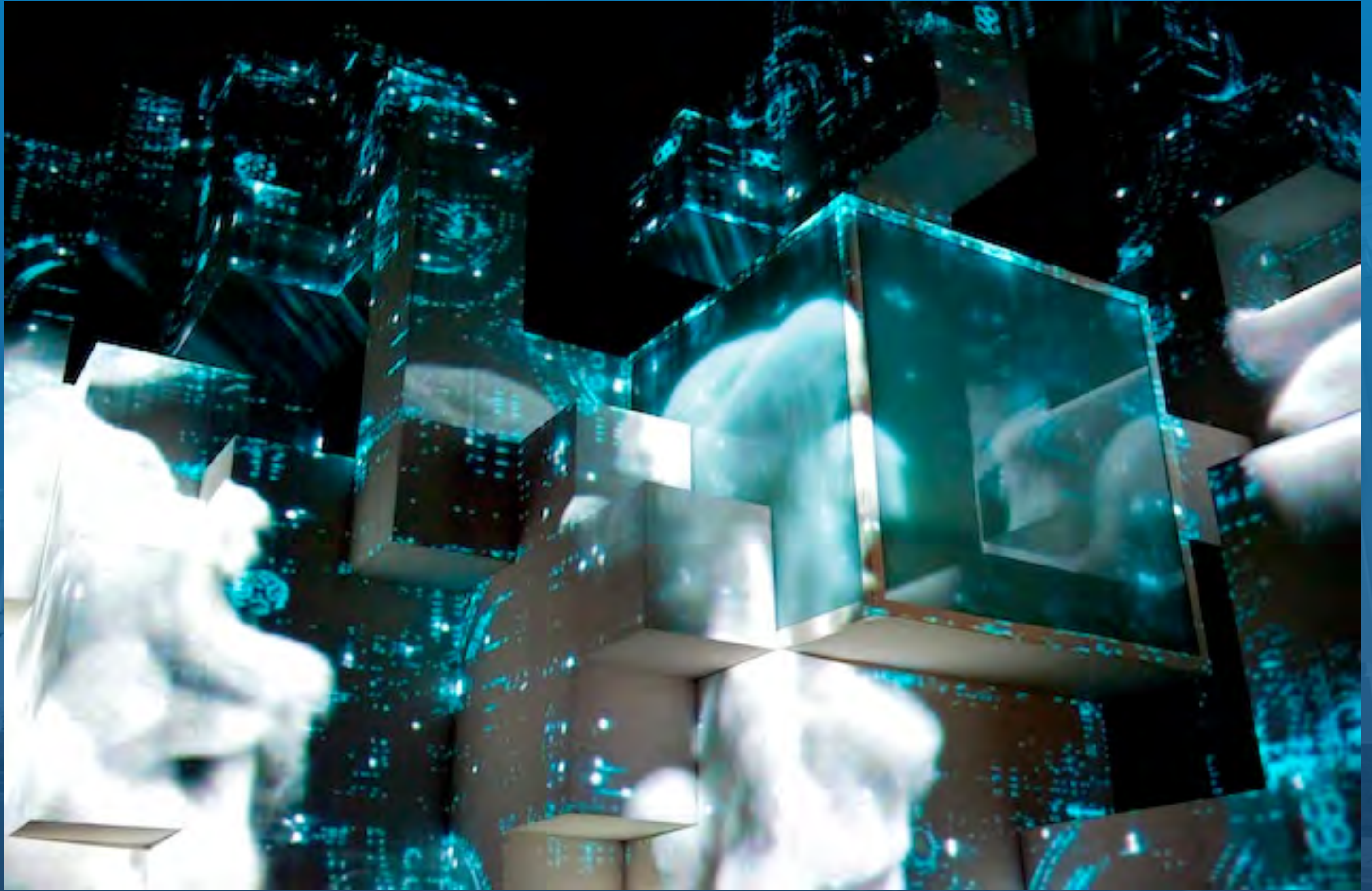














The background of the entire page is a photograph of a recording studio. Several bright, blue-tinted spotlights are directed at the floor, creating a series of light cones. In the shadows between these cones, the silhouettes of musicians are visible, some holding instruments like flutes. A professional studio monitor is mounted on a stand in the foreground on the left side.

# ACO VIRTUAL

聲<sup>A</sup>幕<sup>C</sup>教。室

澳洲室樂團 Australian Chamber Orchestra



TOUCHDESIGNER 088  
FEATURES TO LOVE

4

## High-Performance Video

Industry-leading high-performance video playback using HAP Q, Cineform, H.264, H.265/HEVC and many other formats.

High-framerate 4K 120Hz playback using HAP Q.

High number of concurrent movies limited only by hardware.











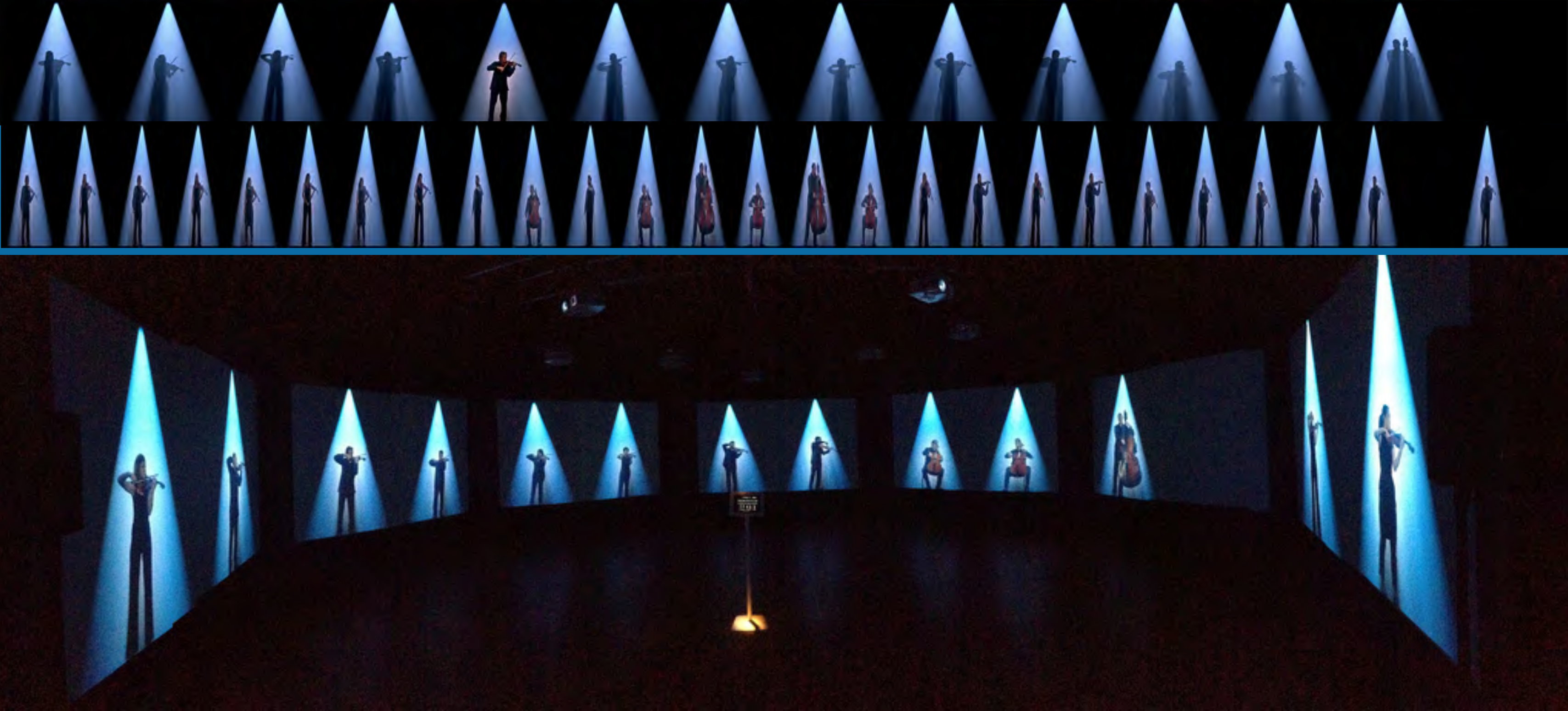






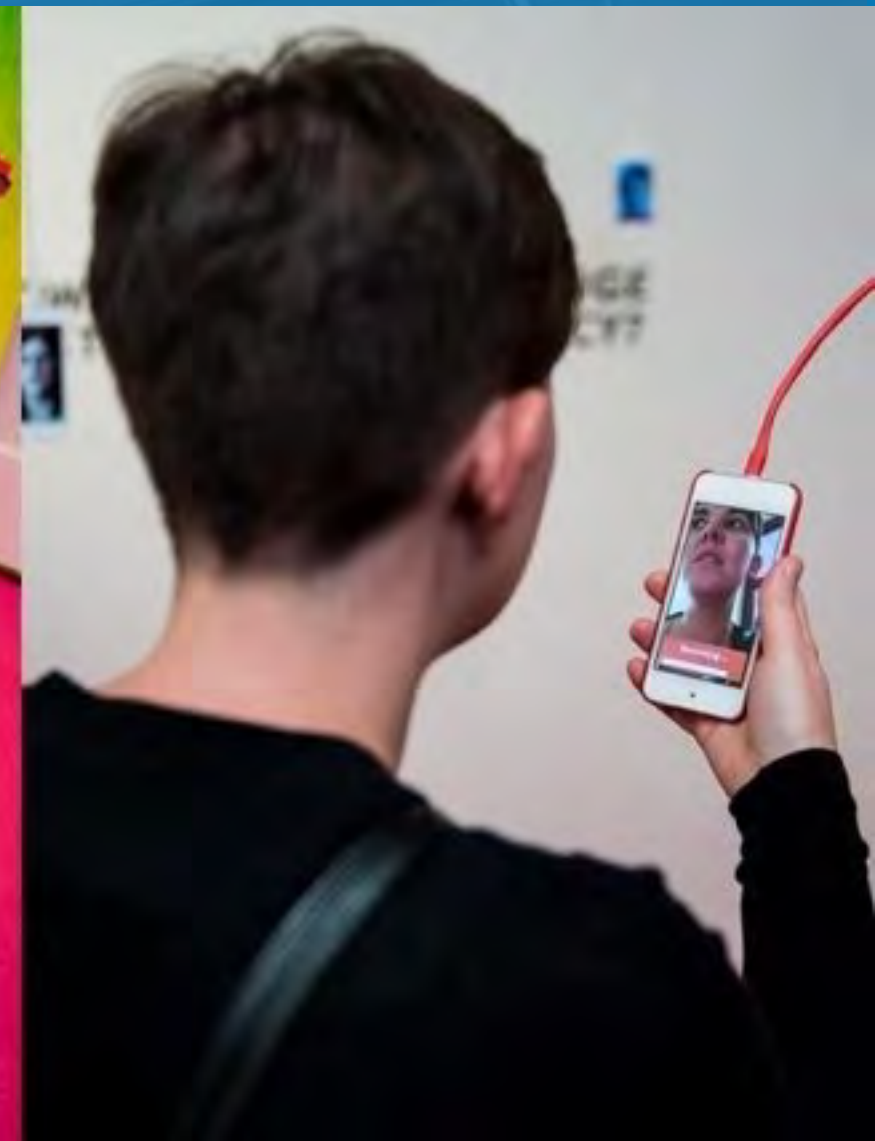


# 13440x1080 pixels –39 real-time video layers





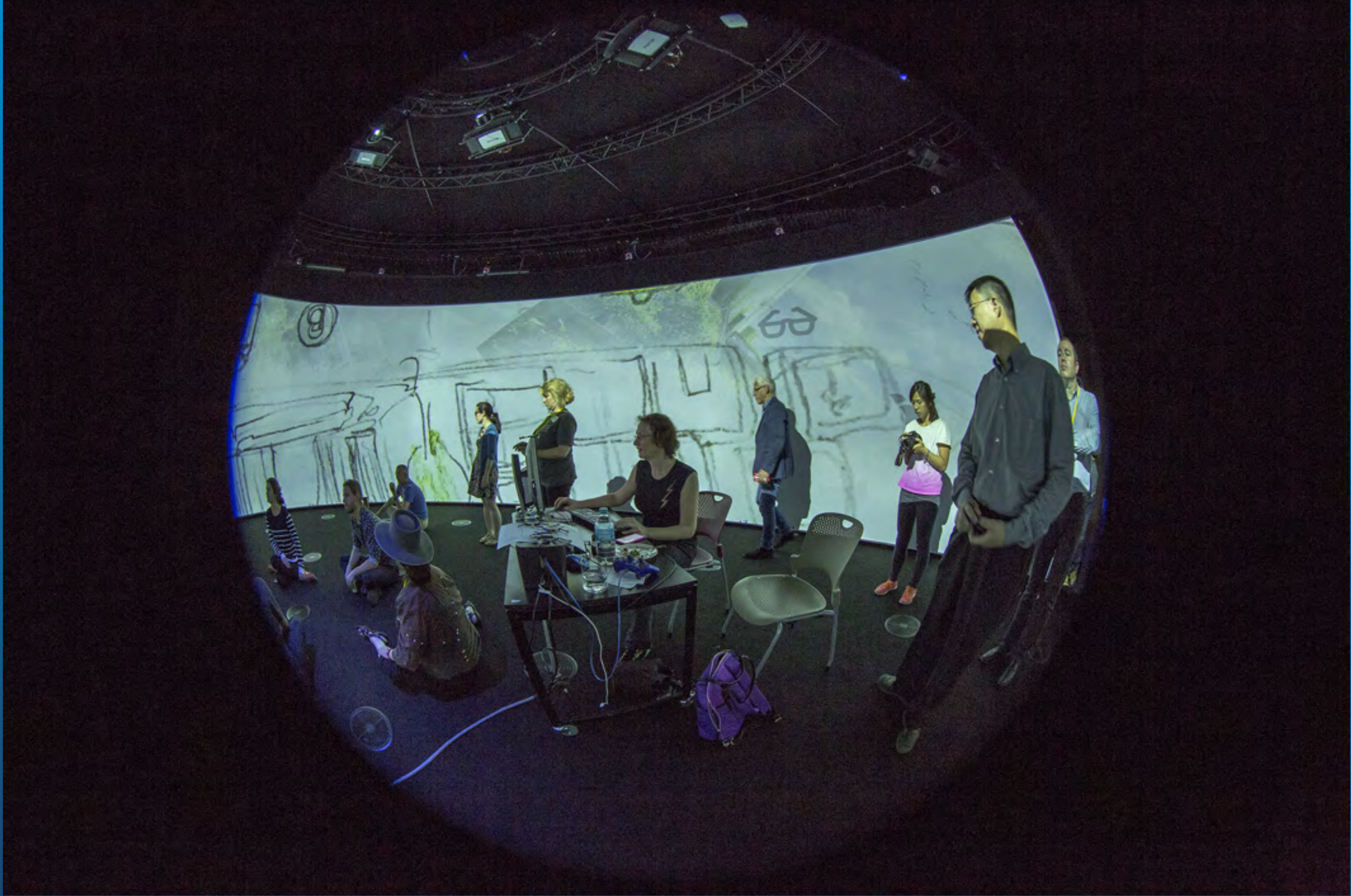
# POWER OF 1 museum experience Sep 14 - Oct 15

















# Time to code

- **Strings**
- **Conditionals**
- **Loops**
- **Functions**
- **Objects**



# Touch Designer - procedural constructs

- **COMP** - Components (e.g. Geometry COMP)
- **TOP** - Texture Operators (e.g. MovieIn TOP)
- **CHOP** - Channel Operators (e.g. Wave CHOP)
- **SOP** - Surface Operators (e.g. Sphere SOP)
- **MAT** - Material Operators (e.g. Phong MAT)
- **DAT** - Data Operators (e.g. Table DAT)



# Touch Designer - starting points

- <https://github.com/michela/python-vive-touch-workshop>
- Help | Python Help
- Help | Python Examples



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VR ARCADE - SYDNEY

INSTALLATION DATES THROUGH TO 2018

