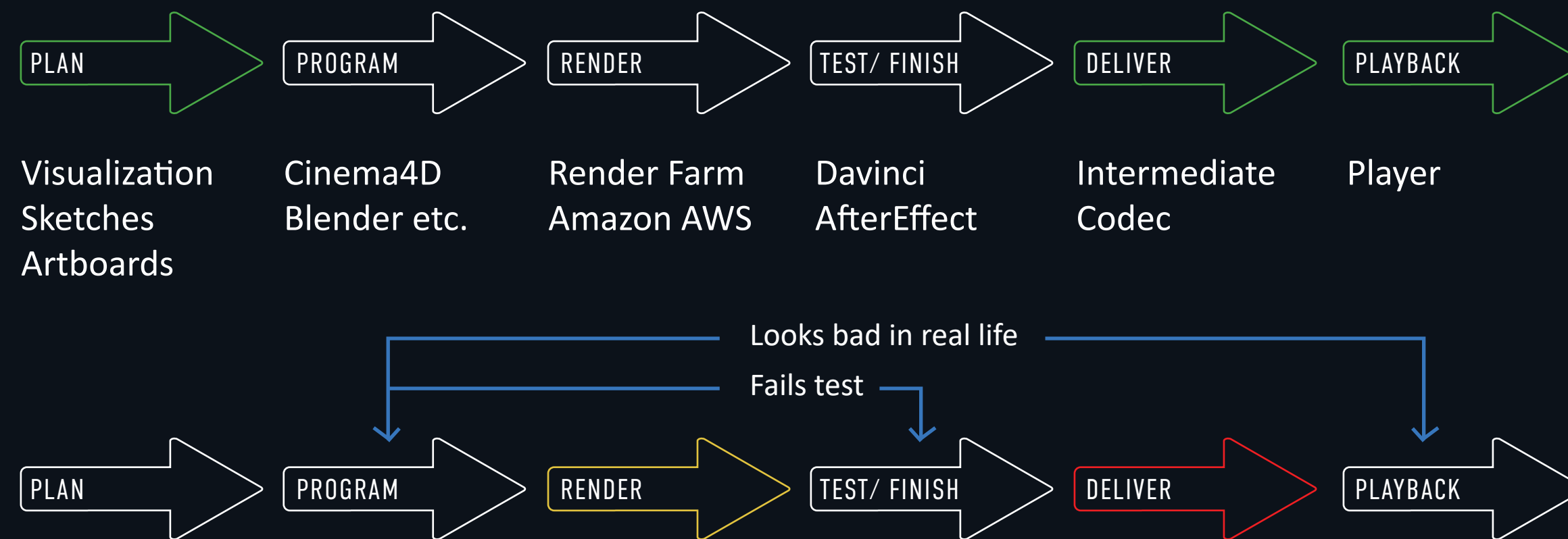# GENERATIVE CONTENT
APPLICATION NOTES

Cutting edge real-time motion graphics, compositing and video effects inside Hippotizer V4.

- ■ What is Generative Content and how is it different?
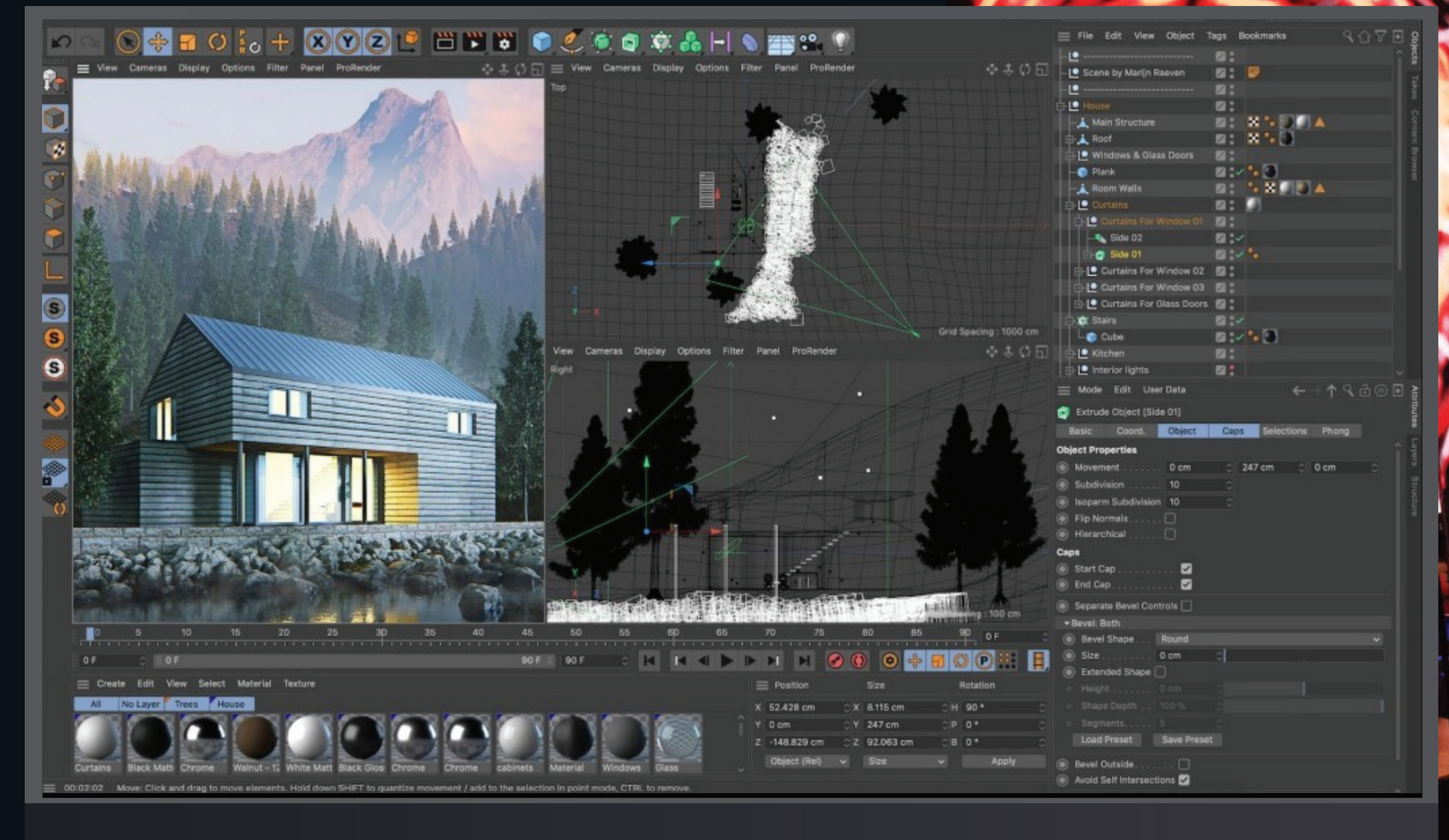- ■ What applications use Generative Content?
- ■ How does Hippotizer Fit in?

STANDARD CONTENT CREATION WORKFLOW

PLAN → PROGRAM → RENDER → TEST/ FINISH → DELIVER → PLAYBACK

Visualization Sketches Artboards	Cinema4D Blender etc.	Render Farm Amazon AWS	Davinci AfterEffect	Intermediate Codec	Player

Looks bad in real life

Fails test

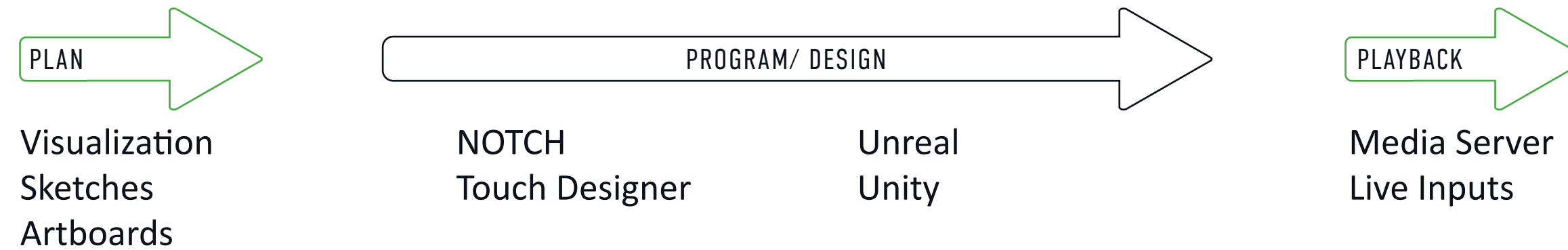PLAN → PROGRAM → RENDER → TEST/ FINISH → DELIVER → PLAYBACK

- ■ Render Takes a long time.
- ■ Changes require Re-Render.
- ■ Delivery Requires an intermediate codec.
- ■ Lots of data to ship to the playback system. (FedEx Inflection Point)
- ■ If it looks bad at playout you must re-render.

DESIGN ● PREPARE ● DELIVER

WHAT IS GENERATIVE CONTENT?
What is Content Creation?

GENERATIVE CONTENT

PLAN →

PROGRAM/ DESIGN →

PLAYBACK →

Visualization
Sketches
Artboards

NOTCH
Touch Designer

Unreal
Unity

Media Server
Live Inputs

- Render is done on the Playback System.
- There is no intermediate
- Required changes can be made in the programming and realized without a re-render.
- Can be designed with live inputs for interactivity and scalability.

DOWNSIDES

- Programing / Design is a more intensive process.
- Playback load is heavier.
  (A Boreal+ can play 8K content back but only generate an HD or two)

GENERATIVE CONTENT APPLICATIONS:

- Live Events
  - Cameras
  - Projection Mapping
- Broadcast
  - News / TV -> Chyrons / Lower third
  - Mixed Reality / XR
- Corporate
  - Lobby and Multifunction Spaces
  - Artistic installations
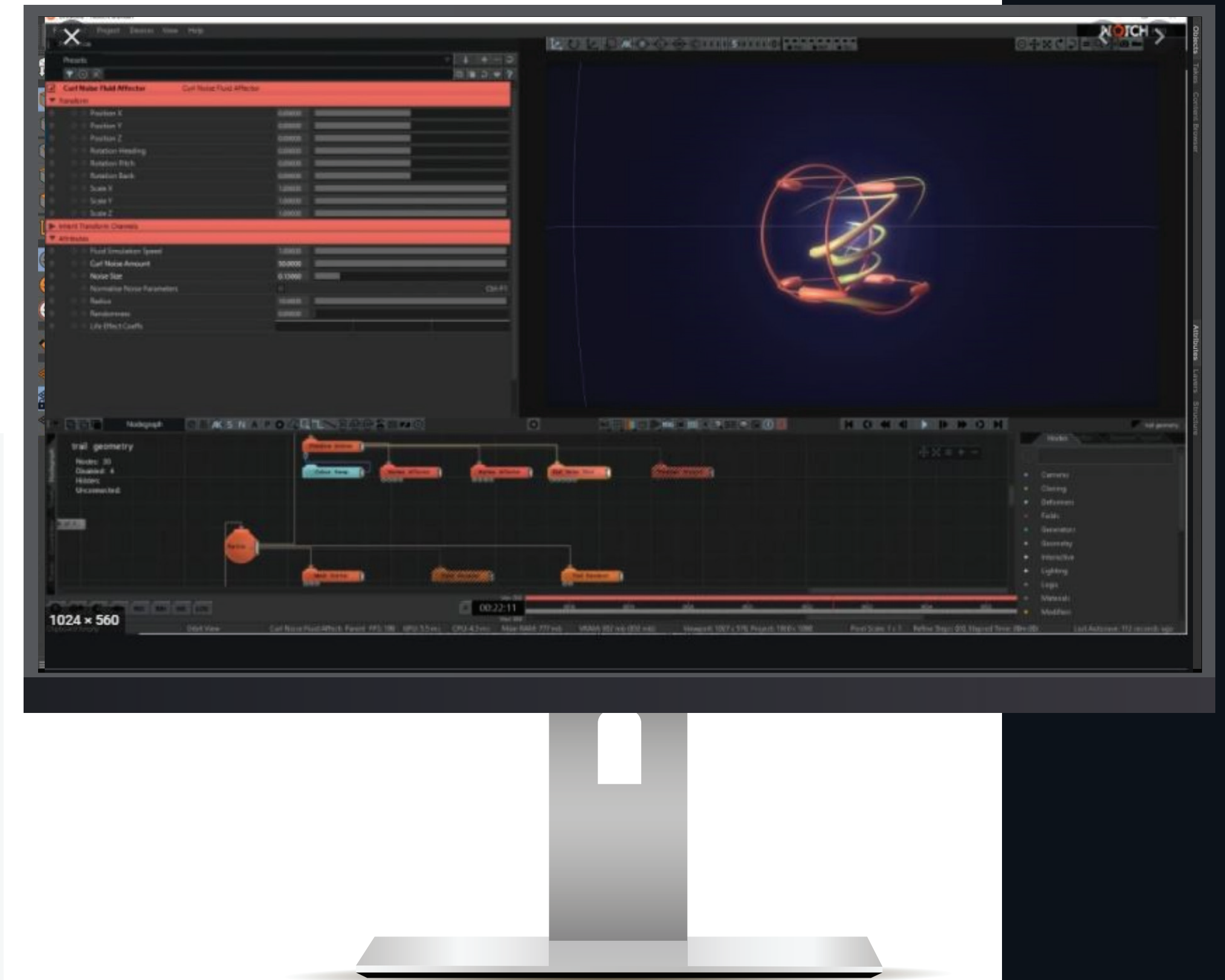
HIPPOTIZER AND GENERATIVE CONTENT:

Hippotizer natively Supports Notch (widely used in live events)

Green Hippo adds value to Generative projects:

- **Mapping.** Integrated comprehensive output mapping allows 2D or 3D output management.
- **Source Selection.** Mix playback, Generative, Graphics NDI and live capture.
- **Control.** Hippotizer's HippoNet control framework enables seamless, end-to-end network-based control of your project. Easily add external controllers, timelines and sequencing.
- **Stability.** Tested, supported and warrantied hardware designed for professional use.

EXAMPLES OF GENERATIVE PROJECTS:

125th Anniversary of Madsack

- Projection mapping on the side of a 10-story building
- Mixture of canned content and live acrobatic show on the side of the building.
- Set date for outdoor performance.
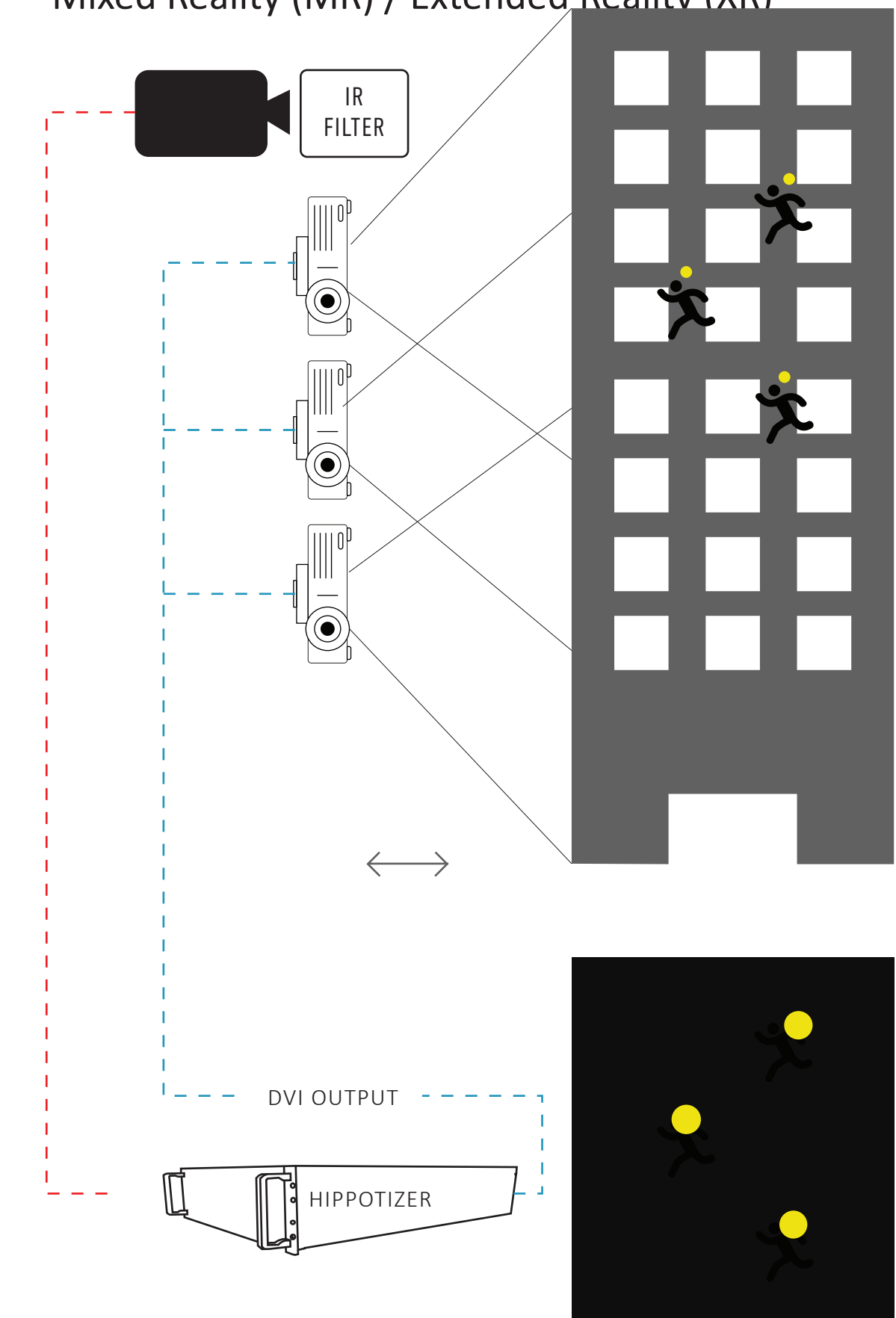
KEY CONCERNS / CHALLENGES: (PERFORMER TRACKING)

- Acrobats will move up and down on winches, but also away from the building as they jump.
- Customer could not afford 'standard' tracking package. (eg. Black Trax) due to the size of the performance area.
- Large Distance between the building and projection tower. (Across a road)
- Building under construction: difficult to install anything on the building.
- Weather

SOLUTION:

- Live capture with Infra-Red Filter
- Performers wearing infra-red LEDs.
- Notch following 'dots' with particle systems.
- Hippotizer handles output mapping, blending and playback.
- Hippotizer held back-up content should tracking fail.

- Benefits of Generative to projects:
-
- Shorter content creation cycle in many applications
- Enables deep interactive interaction for immersive and unique experiences.
  Mixed Reality (MR) / Extended Reality (XR)

DESIGN ● PREPARE ● DELIVER