

Liquid Galaxy VisionPort

Luiz Velho
IMPA



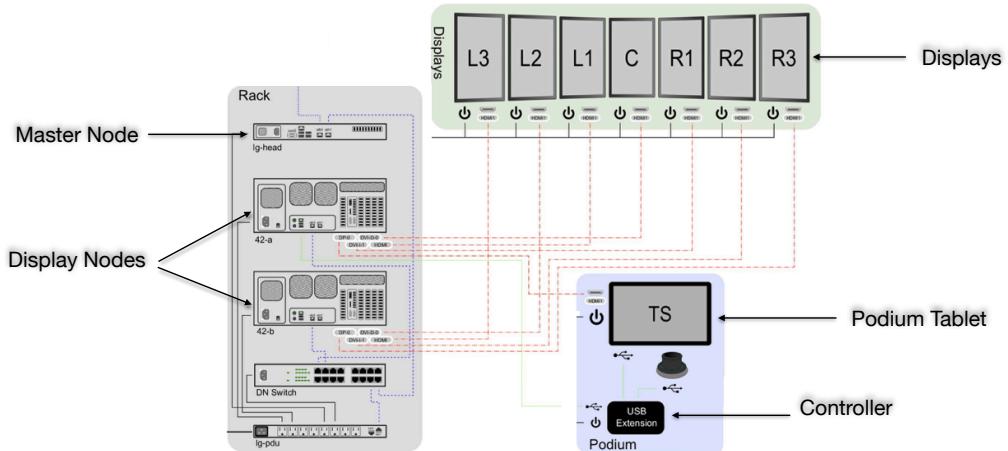
Overview

- Multi-Display Platform for Data Visualization
- Immersive Panoramic Environment
- GIS Earth, Videos, Photos, 2D/3D Graphics
- Interactive Tours

* Originally Developed by *Google* / Extended by *Endpoint*

System

- Hardware Components



Presentation Components

- Displays
 - 7 Screens



Wide FoV
Visualization

- PodiumTablet
 - 22" TouchScreen
- Controller
 - 3D Space Navigator



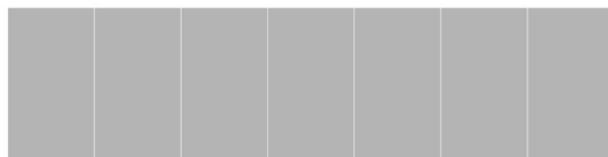
Interaction



Navigation

View Areas

- Screens
 - Content

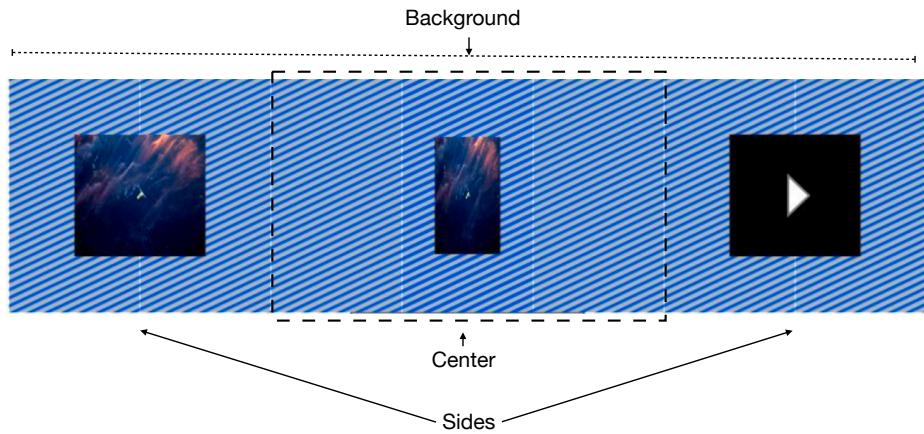


- Touch Screen
 - Interaction



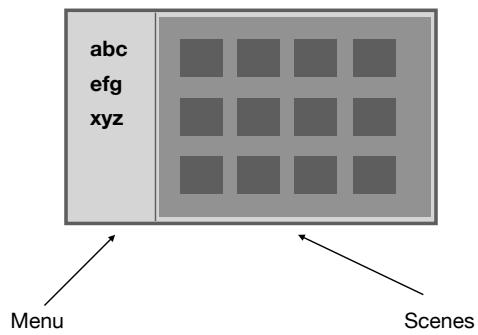
Screens

- Viewport Areas



Touch Screen

- Layout



Example

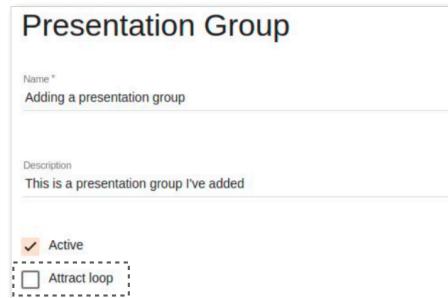


Interactivity

- Non-Interactive
 - Passive
- Interactive Visualization
 - Navigation
(*change point of view*)
- Interactive Narrative
 - Agency
(*change flow of story*)

Functionality

- Looping / Linear
- Non-Interactive / Linear
 - Scenes + Timeline
- Interactive / Non-Linear
 - Touch Screen ————— *Agency*
 - Menu
 - Scene
 - Controller ————— *Navigation*



Content

- Panoramic
 - Earth / Street View / Panoramas
 - 3D
 - SketchFab / Unity
-
- Graphics
 - Images / Video / Web Pages

Panoramic

* Background (360 Degrees)

- Navigation
 - Interactive
 - Tour
- Types
 - Earth
 - Street View
 - (Video) Panorama



3D

* Background

- Sketchfab
 - Object Manipulation
- Unity
 - Fly Through Navigation



Graphics / Media

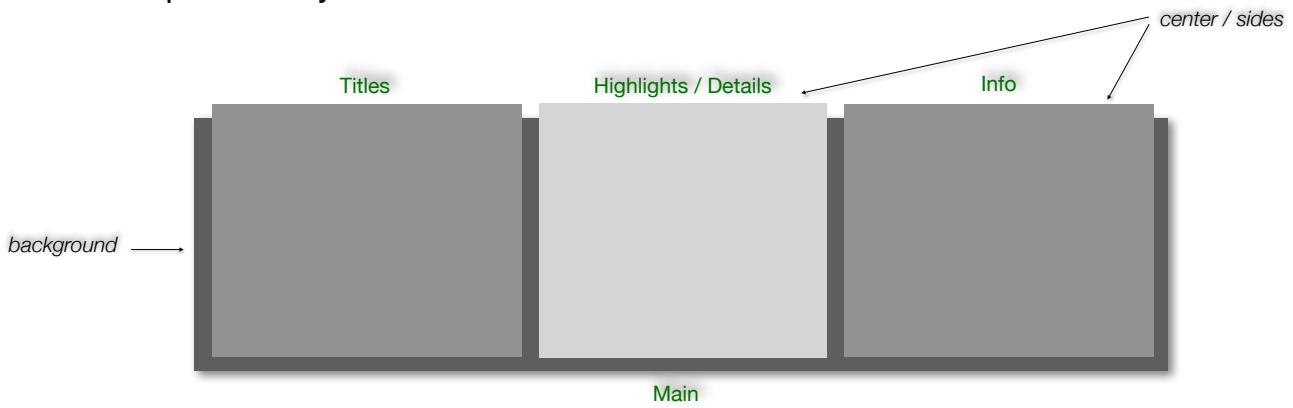
- Webpage
- Image
- Video



* Audio

Layers

- Complementary Contents



Example 1

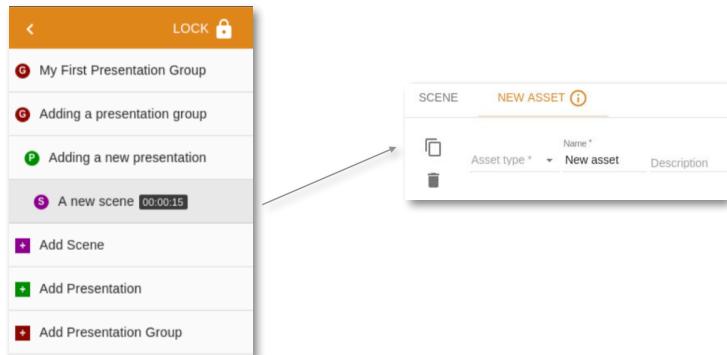


Example 2



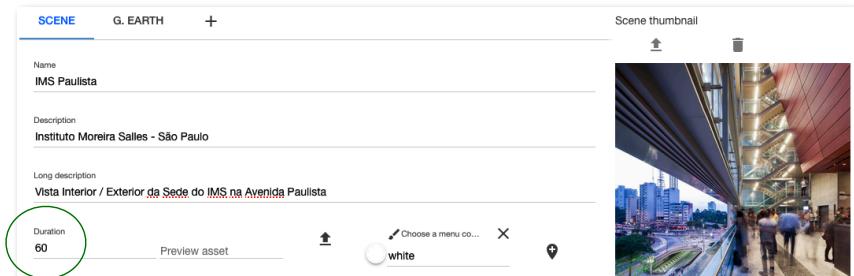
Structure

- Group
 - Presentation
 - Scene
 - Asset



Narrative

- Interactive
 - Scene Duration = 0
- Non-Interactive
 - Scene Duration ≠ 0
- Mixed



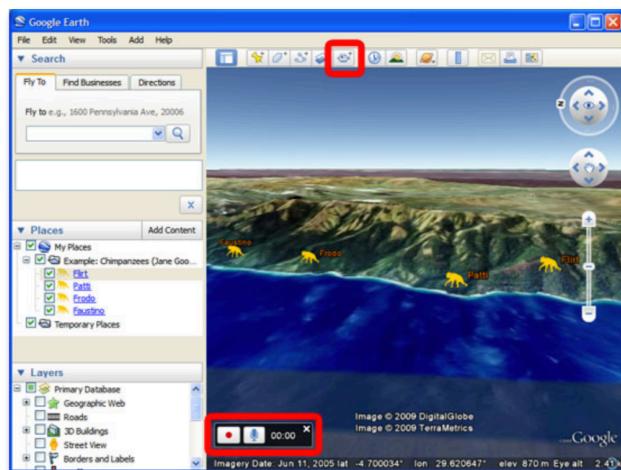
Asset Authoring

Media Specific Narrative

- KML
- Panotour
- Unity
- Sketchfab

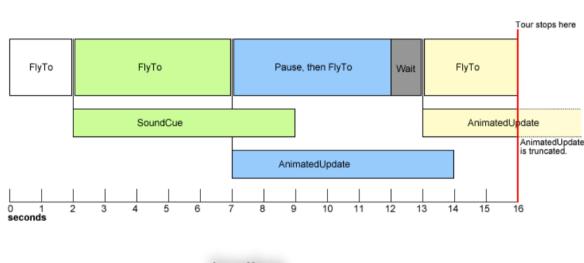
KML

- Google Earth

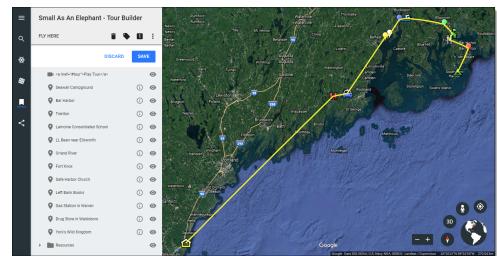


Geographic Tour

- KML Tour Builder



timeline



places

map

Panorama

- PanoTour



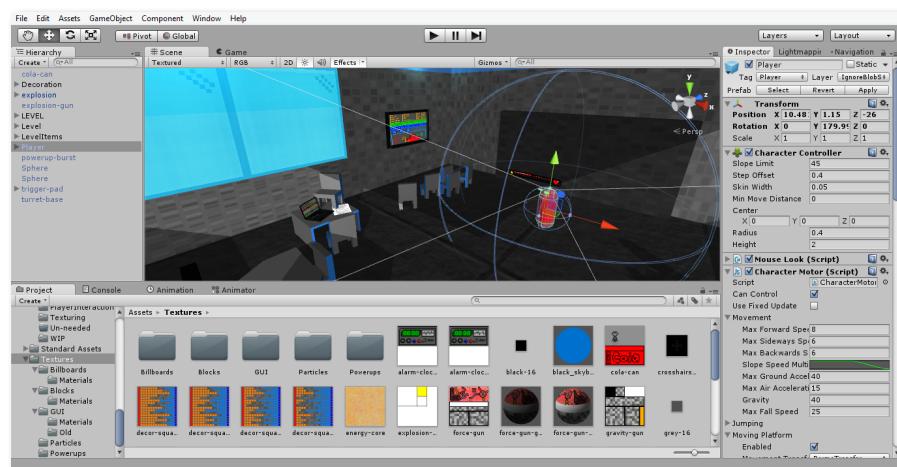
Virtual Panoramic Tour

- Hyperlinks



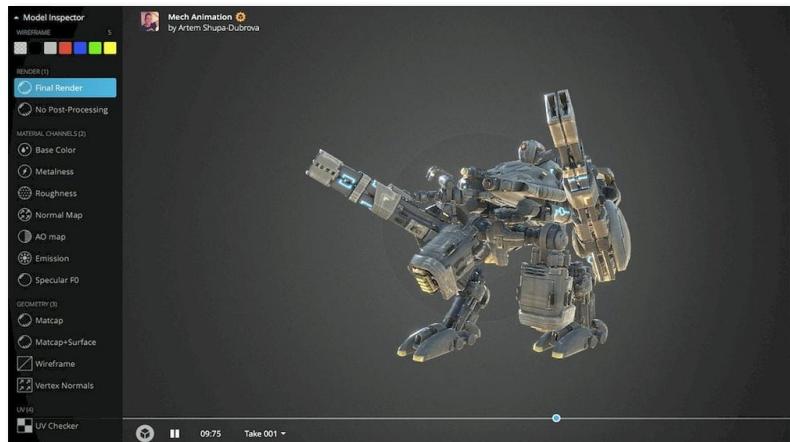
Unity

- 3D Scenes



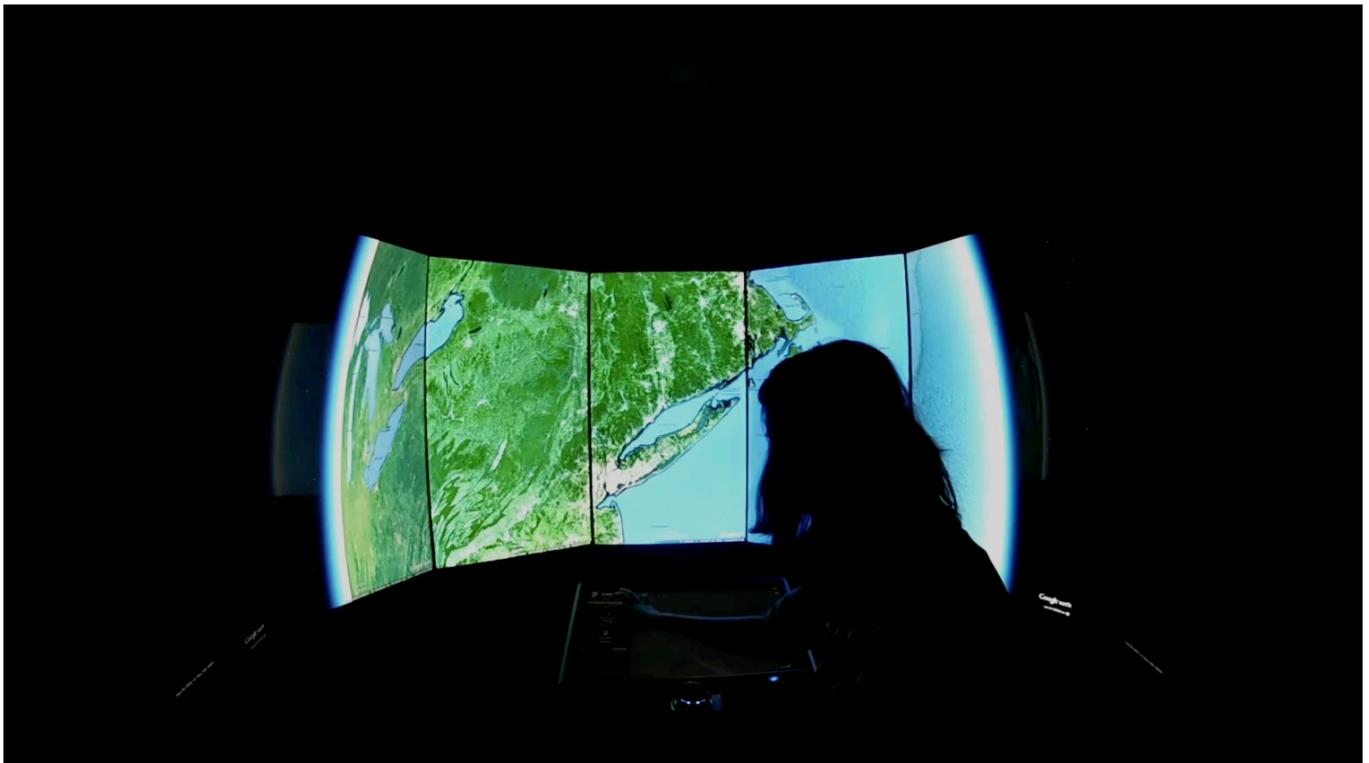
Sketchfab

- 3D Objects



Endpoint





Endpoint Dev

- Current Platform

