

Octave 9: Raisbeck Music Center - Basic Technical Information

Visual Systems & Specs

There are two ways to display visual content in Octave 9:

- 1.) Via the LED display wall (*shown below*).

Using all panels of this LED wall results in a 32:9 aspect ratio (native resolution of 7680 x 2160). A single source can be displayed across all panels if the PowerPoint slide is customized to be 32:9 (*Benaroya Hall can provide a 32:9 PowerPoint slide template if needed to help create content in this format*).

A single source of 16:9 content would be displayed only on the middle four LED panels.

Two sources of 16:9 content can be displayed using the “left” and “right” sides of the LED wall. Recommended output for LED display wall is HDMI.



2.) Via the curved screens and ultra-short-throw projection system (*shown below*).

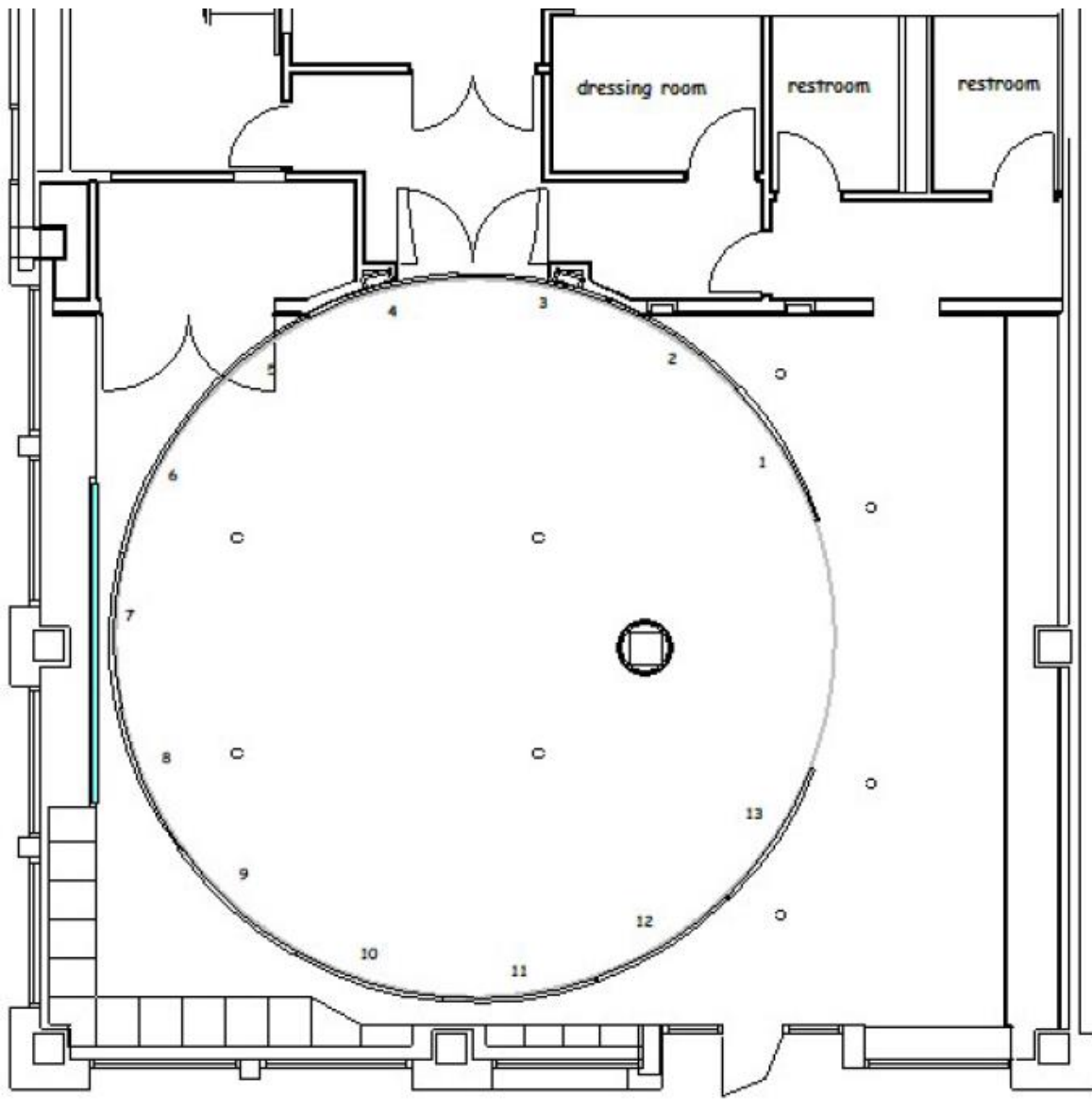
There are a total of 13 screens, each with a 1179 x 1080 pixel size. A total of 10 ultra-short-throw projectors are mounted in the ceiling, and depending upon the screen configuration, all or some of these projectors are used to blend content to fit the screen layout. When all 13 screens are deployed (*see diagram below*), the pixel size is 15,326 x 1080. A single video file designed to fit that aspect ratio would display in the “full immersive” configuration. A video file in this aspect ratio would need to be loaded onto the Octave 9 Vioso media server in order to be displayed (it could not be displayed via a single source client laptop).

Typically, for customized content, the video/image files would be loaded onto the Vioso media servers in Octave 9, and a video technician would assist in configuring/mapping the content to the screens. Customized video content typically cannot be displayed using a client’s single source laptop.

For example, a client that has created (3) “standard” 1920p x 1080p video files and envisions them being displayed together, they could simply create those files and provide them to the Octave 9 video technician to load onto the Octave 9 Vioso media server. Then, based on the total aspect ratio of all (3) files mapped together (5760p x 1080p), a total of (5) curved screens would be deployed to display this content.



If a client desires to display a “standard” 1920p x 1080p video or image via their own single source laptop onto curved screens, then (2) screens would be deployed to create a 2358p x 1080p surface on which to project. Multiple client laptops (sources) cannot be displayed via the curved screen + projection system. Content that would be displayed via multiple sources must be loaded onto the Vioso media server and then mapped accordingly.



Using all 13 curved screens creates the “fully immersive” room configuration. Depending on the vision for the production/content, any number of screens could be deployed and positioned. Please ask your Benaroya Hall event representative for suggestions on room set up based on your vision for content.

In general, the best file formats for content in Octave 9 are:

- Image: JPEG or TIFF
- Video: MPEG or MOV
- Audio: WAV or MP3

Audio System

Octave 9 uses the **Meyer Sound Constellation Acoustic System**, an electronic acoustic architecture, to vary the acoustical properties of the room. This allows the room to feel acoustically as large as a concert hall, or conversely, as small and tight as the actual room. Constellation is a digital approach to controlling reverberation time, early reflections, and other key ingredients vital to the sonic clarity, warmth, and resonance of a space.

The Meyer Sound Constellation Acoustic system employs a series of 26 microphones suspended from the ceiling that feed Digital Signal Processors (DSP) in the AV rack room. The processors re-create early reflections and reverberation which “imitate” the acoustic environment of various sizes or types of rooms. These sounds are played through a series of loudspeakers spread throughout the room including on the ceiling, in millwork low to the floor, and through some portable units that are placed around the southern edges of the immersive circle display when it is in use. There are 37 ceiling loudspeakers, 9 small subwoofers, and 20 low lateral loudspeakers, four of which can move to alternate floor positions when the immersive screens are utilized.

The Constellation system is controlled from the AV control system via the Rack Computer or the iPad. The controls are:

1. On/Off
2. Mode: Music or Voicelift
3. Immersive Screen Layout: Select one of five configurations – Open Room, 1-Half-Immersive NE, 2-Half-Immersive NW, 3-Video Wall Exposed, or 4-Fully Immersive
4. Music Mode Presets: Small Room, Medium Room, Large Hall, Sacred Space, Classroom