



**78<sup>th</sup> Venice International Film Festival**  
**VENICE VR EXPANDED**  
**VR PROJECTS SUBMISSION TECHNICAL SPECIFICATIONS**

**The project must be compatible with one or more of the following devices and workstation:**

- Oculus GO
- Oculus Quest
- Oculus Quest 2
- Oculus Rift
- Oculus Rift S
- HTC Vive
- HTC Vive PRO
- HTC Vive Cosmos
- HP Reverb / Windows Mixed Reality
- iOS and Android
- Other (under prior agreement with the Artistic Direction)

**PC VR Workstation:**

- Video Card NVIDIA GTX 1080
- CPU Intel I7-6700
- 32GB DDR4 RAM
- 1x HDMI 1.4 or DisplayPort 1.2 video output
- USB 3.0 Ports
- OS Windows 10

**3 DOF IMMERSIVE PROJECTS**

Please submit a single file with English dialogs or English **burnt-in subtitles** and **encapsulated audio** with the following specs:

Framerate: *Minimum 23fps up to 60fps. Recommended 30fps*

Bitrate: *Up to 45Mbps for 4K videos. Recommended 25-60 Mbps*

Container: *.mp4, .mkv*

Codecs: *H264 – H265*

*\*Movies must appear as 360° video in any normal 2D-flat screen player that supports 360 format.*

*Where possible we need both H264 and H265 other than a stereo sound version.*

**360 °**

Monoscopic Equirectangular 2:1 (minimum): 3840x1920

Stereoscopic Equirectangular Top-Bottom 2:1 (minimum): 3840x3840

## Audio

### Stereo

- Stereo audio: AAC at 128-320 kbps

### Spatial

- Option 1: 8 channel / 10 channel ambisonic audio - Hybrid Higher Order Ambisonics.
- Option 2: First order ambisonics in ambiX format (ACN/SN3D) in .mp4 (.h264/aac) container

Please provide step by step instructions on how to play and walk through the end of the experience.

## **6 DOF IMMERSIVE PC VR PROJECTS**

6 degrees of freedom projects to be published:

- Compatibility with the following headsets is required – please make sure that hand interactions, if any, do map the controllers of:
  - VIVE, VIVE Pro, VIVE Cosmos
  - Oculus Rift/Rift S
  - Oculus Quest, Quest 2
  - Optional: Valve Index and Windows Mixed Reality headsets
- Submit your ready-to-run full binary build – *please note that a future SteamVR/steamworks/Vive/Oculus SDK's implementation would be needed.*
- Suggested room scale environment 2 x 2 meters.
- Provide step by step instructions on how to play and walk through the end of the experience
- Comfort requirements:
  - *Tracking head movements in a consistent manner.*
  - *Rendering visuals stereoscopically and clearly.*
  - *Displaying visuals indicating movements that are consistent with user inputs.*
  - *Avoiding excessive backward or sideways movements.*
  - *Avoiding shaky visuals and unexpected accelerations or decelerations,*
  - *A minimum of 90FPS is recommended.*
  - *Avoiding dropped frames.*
  - *Avoiding inconsistent scales.*
  - *Avoiding sudden changes in brightness.*
  - *Starting only after the user has indicated readiness.*

## **FILE UPLOAD**

Your project file must be uploaded to <https://nextcloud.labiennale.org> using the login details that will be sent to you after paying the submission fee.

**Deadline: May 31st, 2021**

For issues regarding registration, file preparation and uploading, please contact: [venicevr@labiennale.org](mailto:venicevr@labiennale.org)