



VIOSO[®]
Fulldome Solutions

Leading in fulldome video performance

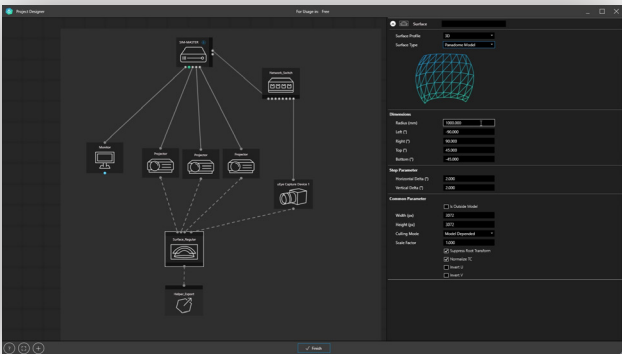
Today, domes are used for numerous purposes. High resolution and high frame rate video playback and realtime content display are the most sought-after applications. VIOSO is specialized to match such requirements by utilizing the power of contemporary computing technology at its best:

- Video performance of a single VIOSO server:

Compressed (HAP)	Uncompressed (TIFF, DPX, TGA)
8K@60: 8192x8192 pixel resolution 60Hz frame rate	8k@60: 8192x8192 pixel resolution 60Hz frame rate
6K@60: 6144x6144 pixel resolution 60Hz frame rate	6K@60: 6144x6144 pixel resolution 60Hz frame rate

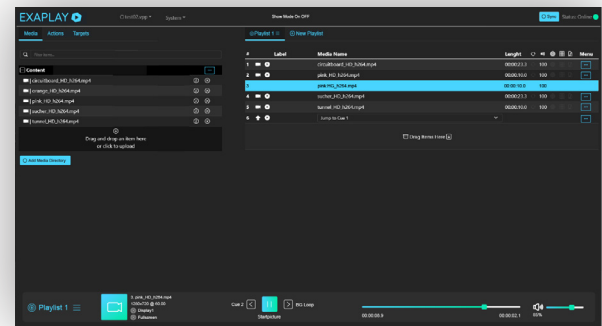
- Additional benefits:

- We use low compression and high video bandwidth: fast GPU-supported encoding and minimal visual artefacts
- No slicing per projector! Domemaster video content is played directly from disk, no transcoding and pre-slicing required.
- Open to many video formats: HAP, NotchLC, ProRes, H.265, H.264
- Timeline-based production environment with unlimited layers for images, videos, audio, control commands, etc.
- Show control for every purpose: Built on a widely used platform for show control, all VIOSO solutions provide:
 - Projector and lighting control
 - Self-created user interfaces for PC, Mac, Browser, mobile devices (iOS, Android, Windows)
 - Calendar based task scheduling and planning
 - Synchronization with optomechanical projectors (RS232, network, custom protocols)
 - and much more



HAP

high frame rate



Leading in realtime domedisplay

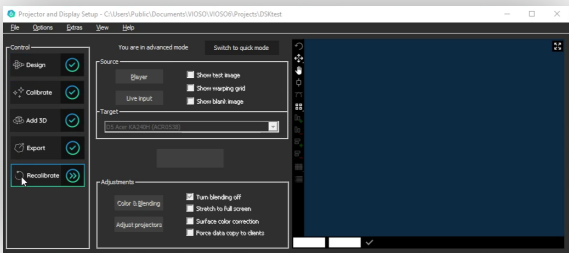
Planetariums and research facilities use dome displays to visualize real or artificial data in most immersive ways. Displaying „flat“ content onto a dome surface is also a common request, e.g. for streamed contents, live presentations, etc.

VIOSO's visual platform is entirely realtime, so processing live-content also works in realtime and with minimum delay. Pre-rendered video content and realtime-ingested content are processed at the same time and displayed frame-accurate everywhere on the dome using any kind and any number of projectors.

- 1:1 data display: Capturing domemaster data up to 4K@60Hz with realtime slicing, blending and mapping



- Display flat content in domes: realtime processing of incoming flat data, e.g. from laptops, cameras, video streams, etc.



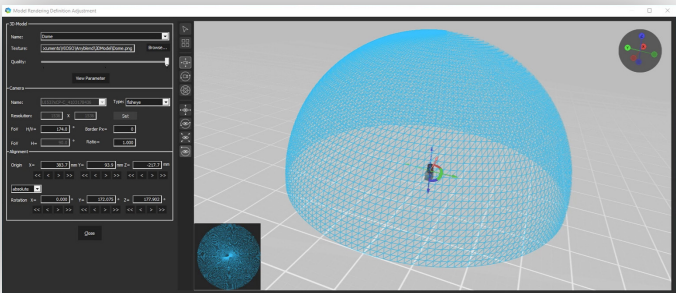
no slicing

8192x8192

H.265

ProRes

NotchLC



Leading in projector auto alignment and calibration

Back in 2007 VIOSO was established to bring a new invention for projector alignment and calibration to the market. More than 10 years of continuous development make VIOSO's autocalibration leading in this very special field of technology. VIOSO's worldwide patented calibration technologies are available for numerous purposes and stand out for these unique features:

- Fast and easy to use projector alignment via single camera (flat camera, fisheye camera) for use with mobile domes and temporary setups
- Multi camera based solutions for fixed installations
- Works on any kind of image generator (IG) configuration:
 - single IG with multiple projectors
 - multiple IGs (each with single or multiple projectors)
 - multiple IGs per single projector (for ultra high-resolution projectors)
- Ultra precise: One camera can align 8K and beyond
- 100% automation
- Works also for partial domes, irregular/elliptical domes, curved and flat screens and utterly arbitrary shapes
- Beyond Fuldome: 360°x220°, 360°x270°, 360°x360°
- Features for optical blended configurations:
 - Calibration with optical blends attached, no need to remove for calibration
 - Homogenization of total image: Adjusting image parts not covered by optical blends (useful for bright contents)

Available for:

IOVERSAL

stumpfl®

unity

UNREAL ENGINE

SureyyaSoft

TOUCHDESIGNER BY DERIVATIVE

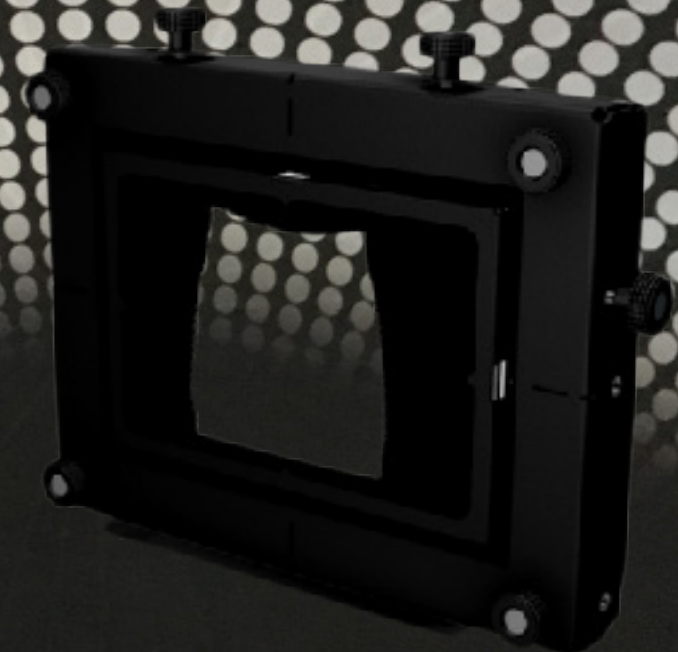
Christie Pandoras Box

RSACOSMOS

7THSENSE

AVA

The list of supported partners is not complete and constantly expanding





#Merck350
World's largest mobile dome: 50m diameter,
24x WUXGA projectors, 4x VIOSO Servers, 6K@60 content, Live-Input
Darmstadt, Germany



#Colosseum Oslo
Remarkable cinema with 45m dome ceiling, 16 WUXGA projector,
2x VIOSO Servers, 4k@30 content, frame-sync with cinema's 60K RGB laser projector
Oslo, Norway



#Planetariums

- Cité de l'espace, Toulouse, France: calibration system for 10x4K (20 IGs) and 2x4K (8 IGs) for R.S.A. Cosmos
- Carl-Zeiss Planetarium Jena, Germany: Dedicated video display system (6x WQXGA, 1x VIOSO Server, 4k@60 content)
- Carl-Zeiss Planetarium Bochum, Germany: Auxiliary realtime dome display (8x WUXGA, 1x VIOSO Server, 4K@60 content)
- @Bristol Science Center, United Kingdom: Auxiliary realtime dome display (2x UHD 3D, 2x VIOSO Server, 4K@120 content)
- Planetarium Buenos Aires, Argentina: projection mapping outside on dome
- Planetarium Puebla, Mexico: Main video system (6x FullHD, 1x VIOSO server, 4K@30 content)
- Grand Casino Baden, Baden, Switzerland: Main video system (6x WUXGA, 1x VIOSO Server, 3K@30 content)

VIOSO®

VIOSO GmbH
Ronsdorfer Str. 77a
40233 Düsseldorf - DE

Tel: +49 (0)211 / 544 75 33-0
info@vioso.com
www.vioso.com