A new era for the planetarium

UNIVIEW
Open Dome
New Perspectives for your Presentations. Show what you want.

In 1923, the optical-mechanical planetarium introduced the stars, sun, moon and planets inside the dome. Since 1996, digital systems have added three-dimensionality to the dome. In 2020, UNIVIEW Open Dome enables all real-time applications to access the dome, creating endless new possibilities.

Imagine the dome as a huge monitor. Use this monitor for all kinds of presentations. Until now, presentations in a planetarium have been limited to the specific content that an optical-mechanical planetarium projector and the respective fulldome software can provide. With UNIVIEW Open Dome it is now possible to bring the complete array of software applications directly to the dome without any conversion effort, preferably those with outputs in fisheye format, but also those with outputs using classical image formats.

UNIVIEW Open Dome builds a bridge from any computer application to dome projection, in real time, in highest resolution and with an absolutely smooth frame rate. You do not have to worry about channel splitting, warping and blending and you do not have to render the images in advance. Whether you want to use popular astronomical programs such as Stellarium, software for real-time music visualization (VJ), or project a guest speaker’s Powerpoint presentation onto the dome, UNIVIEW Open Dome provides the solution. If you develop your own visualizations, you can view them directly on the dome without prior rendering and conversion.

Connect a computer such as your guest speaker’s laptop or a workstation to the ZEISS fulldome system via the graphics output, start Open Dome within UNIVIEW Theater and the dome is your 360-degree monitor. Open Dome creates a separate layer in UNIVIEW which can be smoothly faded in and out and, of course, crossfaded with UNIVIEW content. If you select the fulldome output, Open Dome uses a circular section of the graphic output of the computer as the fulldome image and displays it as usual on the dome. If you select the rectangular output, however, Open Dome displays it as an undistorted “floating” rectangle.

Comparable solutions do not have the performance of UNIVIEW Open Dome. Unsharp, jerky and lossy renditions are the rule and the audience quickly loses interest. UNIVIEW Open Dome on the other hand convinces with uncompromising 4k x 4k image resolution at a full 60 Hz refresh rate and lossless, uncompressed transmission of image data. Pleasant for the eyes and indistinguishable from your cluster-based fulldome projection.

Professional, high-performance IT components and innovative data management are used for the implementation. The complex processes of multi-channel projection with image splitting, warping and blending are efficiently handled by UNIVIEW on the basis of system-specific configurations.
Examples of software applications.
In real time to the dome.

Dome visualizations with the VJ software Resolume.

Dome visualizations with the astronomical software Stellarium.

Long planned or spontaneous – almost everything is presentable:

Choose between fulldome output or presentations in classic frame formats:
- Stellarium
- Resolume
- World Wide Telescope
- Open Space
- Powerpoint

- VLC Player
- Webbrowser
- Skype
- YouTube
- and more
# ZEISS UNIVIEW Open Dome – Technical Data

## Software
<table>
<thead>
<tr>
<th>Basis (required):</th>
<th>UNIVIEW 3.1 Theater</th>
</tr>
</thead>
<tbody>
<tr>
<td>Feature:</td>
<td>Open Dome</td>
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</tbody>
</table>

## Hardware
| Receiver:         | 3 U High-performance 19” industrial PC |

## Interface
| Video input:      | 2x Display Port 1.2 Inputs |

## Performance
| Data processing:  | Real-time, uncompressed |
| Resolution:       | up to 4096 x 4096 pixel (4k x 4k) |
| Display refresh rate: | 60 Hz |

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![Diagram of system setup](image)

External computer or laptop → Fulldome cluster with UNIVIEW 3.1 and data receiver → Fulldome projection system

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