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Software for planetariums, dome theaters, science centers & large format cinemas

Your universe.





# The Uniview Software

**Uniview, the beating heart of the Colorspace theater, is widely recognized as the most accurate data visualization platform in the industry. Since its inception over a decade ago, Sciss has introduced a range of world-firsts, feature sets that fundamentally changed the capabilities of digital planetariums and how visitors experience science.**

Uniview sits in the daily programs of leading planetariums like Hayden Planetarium, California Academy of Sciences and Moscow Planetarium, and are also used by organizations like NASA, ESA and NOAA. With a team of highly talented graphics programmers, we spare no effort to ensure the

representation of any given dataset is as true to realism as possible, and for abstract elements carefully designed for a pleasing appearance to enhance understanding. Camera transitions between objects are fully automatic with majestic and smooth camera movements.

## Advanced Visualization Capabilities

Astronomy  
Planetary Exploration & Earth Sciences  
Neuroscience

### Presentation & Production

#### Panels

- ▶ Timeline and flightpath production
- ▶ Wireless timeline and flightpath presentations

#### Producer

- ▶ Advanced video editing and production

#### Domecasting

- ▶ Share presenter-led sessions across theaters

#### Live Show Packages

- ▶ Real-time datasets
- ▶ Comprehensive storylines
- ▶ Custom made GUI

#### Drag and Drop

- ▶ Drag and drop images onto the dome view

### Media & Playback

#### Video and Media Player

- ▶ Slicing & encoding
- ▶ Playback technology

#### Media Content

- ▶ Live-show catalog
- ▶ Fulldome film catalog

### User Community

- ▶ Annual Uniview user groups
- ▶ Content sharing platform

### ... and more

#### Star Projector Integration

- ▶ Perfect sync with digital image
- ▶ Seamless and automated control

#### Integrated Theater Control

- ▶ Touch panel interface for managing theater equipment and run shows

### Ucare

- ▶ Training
- ▶ Support
- ▶ Upgrades

# Advanced Visualization Capabilities

**At its very core, the Uniview full-dome software is an interactive computer platform designed for live presentation. Powered by scientific databases and physically accurate visualizations, Uniview produces visually striking journeys through databases of any scale.**

## Live Realtime Navigation

With Uniview Scalegraph, the core engine of Uniview, you travel seamlessly through all datasets, without stuttering or freezing, and from the smallest conceivable scales to the largest. The live navigation function, Uniview Flight Assist, is designed to allow a cinematic feel to interactive flights. The speed is adjusted to the scale of the scene, and objects and grids are automatically enabled based on the current camera position.

## Astronomy

### ► Tour of the universe

With a proud legacy in the full-dome theater world, Uniview supports over 200 datasets. This includes datasets from the entire Digital Universe, a 3D atlas developed by the American Museum of Natural History in collaboration with the National Aeronautic and Space Administration. It allows you to explore over 50 categories of scientific models, including all known objects in the solar system, Kepler candidates, star-forming regions, star clusters, the local group, deep space objects, Sloan galaxies, and quasars to name a few. Uniview allows users to virtually tour the universe, seamlessly, from small objects such as satellites, to the edge of the observable universe.

### ► Classic astronomy observation

Uniview simulates orbital motion with the same precision as NASA simulations for space missions. Day and night sky, celestial and galactic coordinate systems, meridian and ecliptic are just some features of our complete classical planetarium system.

Uniview can automatically calculate and transition to events such as sunrise, sunset, solar noon and midnight. It can also automatically transition to and from any geographical location on the surface of the Earth or any other planet, to observe the sky from different locations. Data features include all the essential planetarium features, such as 88 constellations with lines and artwork, planets rendered as properly colored and lit points when seen from afar, the Hipparcos star catalog with proper motion, the Milky Way in various wavelengths, and much more.



# Planetary Exploration & Earth Sciences

Uniview has access to a network of daily updated satellite imagery that can be integrated in a show at a minutes notice, directly to your dome. Through streaming of cloud-based data, you get access to daily updated satellite imagery, weather events, planetary and lunar exploration, and extrasolar planets. Uniview also supports the KML file format from the Google Earth community.

### ► Planetary exploration

Uniview enables high resolution textures and terrain maps from a variety of NASA's WMS servers. This allows you to follow the exploration of Mars and the Moon through high resolution texture maps from HiRISE and LRO, and engage your audience in the search for habitable planets.

### ► Geological events and climate data

The advanced visualization capabilities include direct access satellite imagery of the Earth. This way, you can stream and show your audience geological events as they happen, as well as climate data. Follow volcanic eruptions or nature disasters such as Deepwater Horizon, and monitor them evolving over several weeks.



# Presentation & Production

## ► Panels – the new generation presentation tool

As a presenter you can access the full power of Uniview from anywhere in the dome through the revolutionary Panels interface. With this tool you build slides, where each slide corresponds to a particular stop, or topic, during the presentation – much like a PowerPoint presentation.

With simplicity at the core, simply drag and drop datasets, bookmarks, images, events, and talking points onto sequential slides. Save your presentation, and immediately access the same panels from a portable tablet. Panels come with support for multiple languages and is fully integrated with the theater control.

## ► Producer – advanced show production

In production mode, you have access to Uniview Producer, modeled on the industry standard for production software. In addition to the Panels feature, Producer allows you to manage more advanced production.

## ► Domecasting – sharing presentations

Uniview allows remote collaboration and shared experiences between display venues, giving you a fantastic tool for collaborations with your local or global community. Presenter-led sessions can be shared across theaters and the same presenter can simultaneously address audiences in up to 8 interconnected theaters.

## ► Live show packages

Our live show packages is a complete presentation kit combining unique real-time datasets with a comprehensive storyline and a custom made interface. Through simple bundles you get access to presentations on a variety of topics: from the life of stars, to the wonders of the human brain. Simply import the bundle to Uniview with a few clicks, and you are good to go.

## ► Drag and drop images

To add images to your presentation, simply drag and drop them directly from a web browser, or already stored images on your hard drive. Release the images onto the dome view or move them to a panel to store them for a presentation.

# Neuroscience

## ► Neurotours

We are the only fulldome company in the world to offer Neurotours, a live presentation featuring actual three-dimensional neuroscientific data from leading scientists. Neurotours gives your visitors the mind-blowing experience of wandering through neurons, climbing the surface facets of the cerebral cortex, and flying down into biological scales that span millions of times of magnification. The tour gives the audience an unprecedented view of our place in the universe, and in turn, where the universe is represented in our brain.

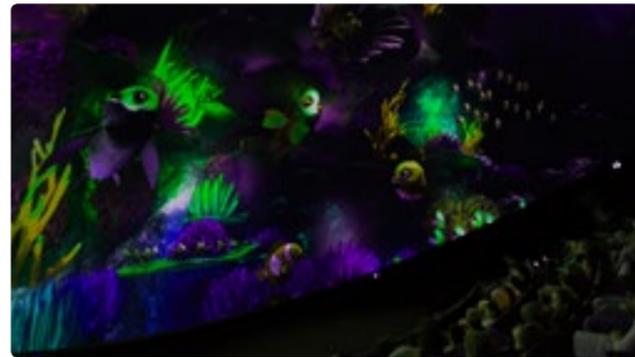
Neurotours is a product of the Neurodome project, led by Dr. Jonathan Fisher, a neuroscientist at New York Medical College. Working with Neurodome, Sciss introduces a real-time presentation within a complete new realm of science.



# Media & Playback

## ▶ Video and media player

The integrated video player is a full video solution, with slicing and encoding tools and playback technology. With an easy user interface, the player supports 24-60 frames per second and up to lossless compression.



## ▶ Fulldome film catalog

All our users have access to an extensive catalog of fulldome shows in various languages. We distribute shows from the leading production houses around the world, providing the top end shows that are available on the market today. With access to the video preparation tool there is no extra cost associated for slicing and encoding.

## ▶ Live show catalog

With Uniview you also get access to a unique live show catalog. The catalog contains complete presentation kits that combines unique real-time datasets with a comprehensive storyline and a custom made interface.

# ... and more

## ▶ Star projector integration

Hybridization between digital and optical projectors is fully automated in Uniview. By the press of a button you synchronize the star projector with the digital star field. Transitions between the two are automatic depending on the camera vantage point, and there are no delays in the movements between the systems.

## ▶ Integrated theater control

As a dome theater operator, the theater control is the main interface for managing the theater equipment and run shows. Through a simple button on the touch panel, you start the system, turn shutters on and off, start any of the available films or start and stop pre-programmed theater lighting sequences.

## ▶ User community

The Uniview user community is the fastest growing community in the industry. Ideas and content is exchanged on our web portals, and our support forum is fully transparent and open to all. At our annual user groups we host presenters from the world's very finest institutions, such as ESO, NASA and NOAA, and we connect users from all over the world to share experiences and content.



# This is our story

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Sciss is a Swedish company founded in 2004 by engineers Staffan Klashed and Per Hemmingsson. The year before, the two friends had just returned to Sweden after thesis projects with the American Museum of Natural History. They had built an interactive visualization engine for the Hayden Planetarium dome, a project that would live on as Uniview.

For the first years, Sciss equipped the Uniview data visualization platform with as much value as possible for full-dome theater users. As the product took shape, the theaters welcomed the Uniview software with open arms; Denver Museum of Nature and Science merged their Cosmic Atlas, while California Academy of Sciences built their new opening show around the software, and the portable domes of the Minnesota Planetarium network started travelling to remote schools on a daily basis, sharing live presentations with the unique dome-casting capabilities.

In the summer of 2011, Sciss began product development on the complete Colorspace full-dome system, which was released to the market in the fall of 2012. We have established partnerships with leading experts in the field of projection, computers, graphics and support. We also provide extensive maintenance and service programs, in order to make the most out of your investment over a longer time period.

Today, we design, build and develop turnkey solutions for planetariums and dome theaters. Our Colorspace theater system is a carefully designed package of display systems, servers, theater control, and the award-winning Uniview software. We are a fast-growing community with over 150 installations worldwide - including NASA, ESA, NOAA and leading planetariums like Hayden Planetarium in New York, Moscow Planetarium, and California Academy of Sciences in San Francisco.



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