Sciss

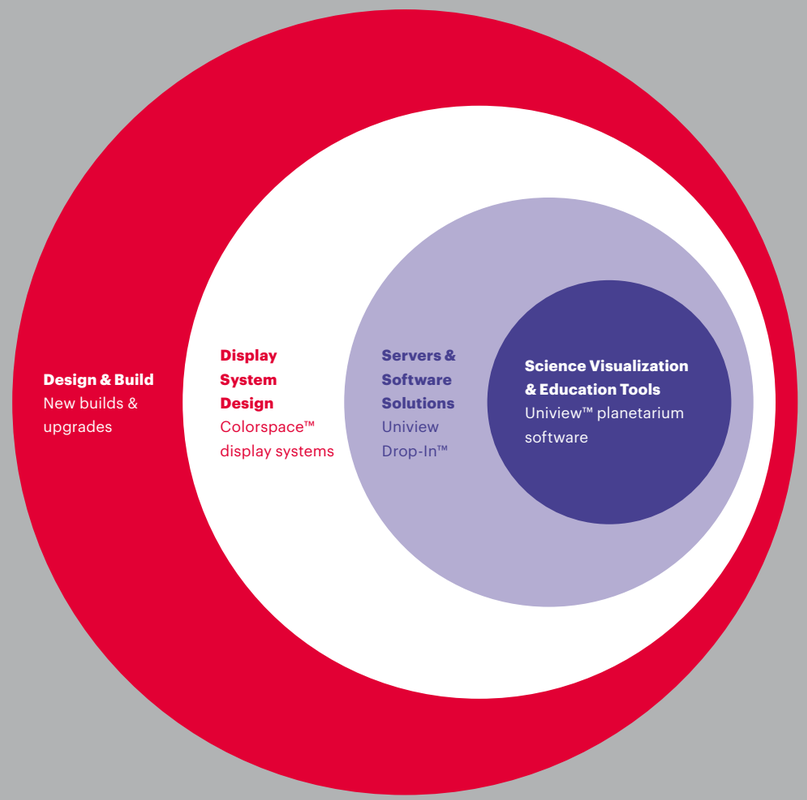
The digital planetarium by Sciss

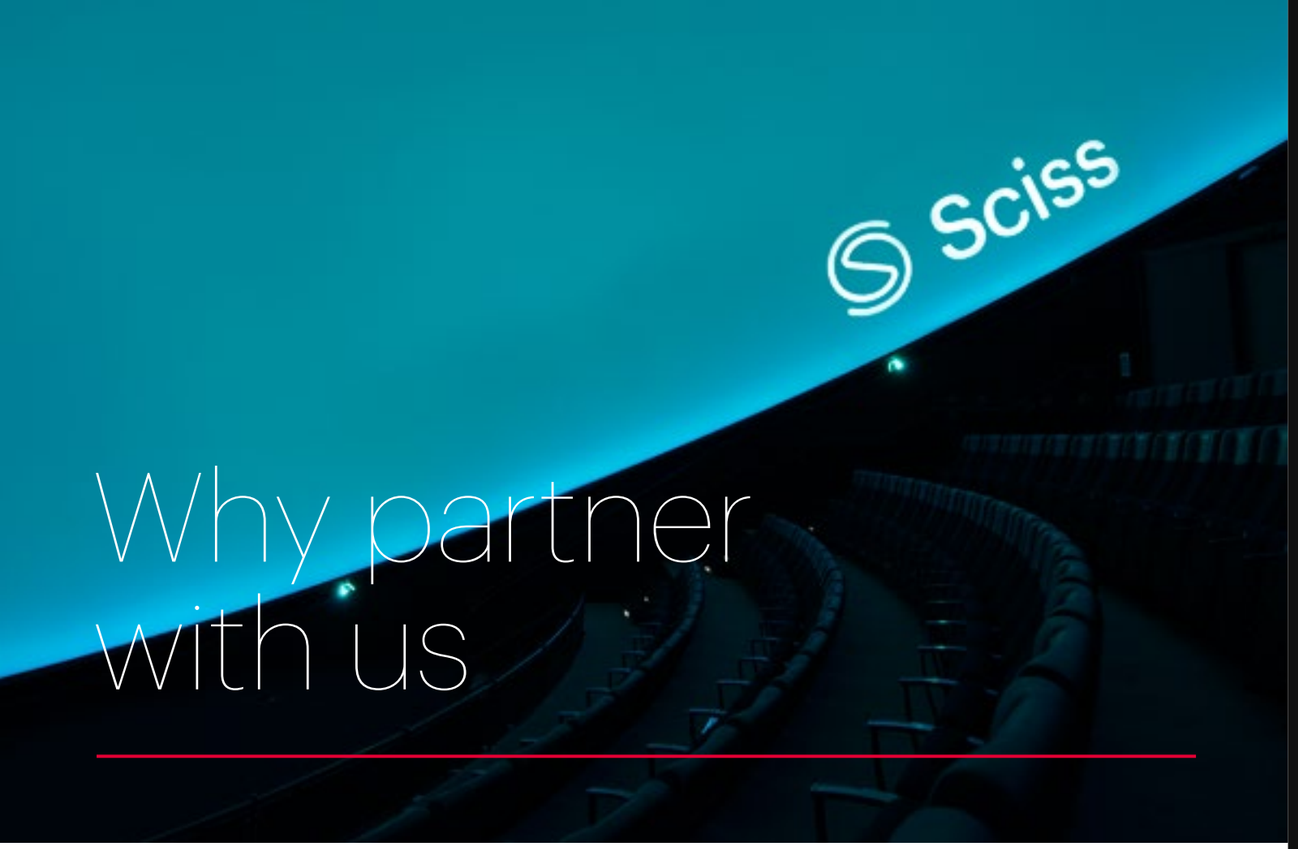
Our vision for the modern planetarium

For over a decade Sciss has developed and installed astronomy visualization tools and systems for planetariums, science centers, museums and educational institutions all over the world. Introducing the groundbreaking Uniview software in the early 2000s, we have since observed, developed and led the progress of turnkey solutions within the realm of digital planetariums.

Our journey has led us down the path to create a chain of product and delivery mechanisms to commission modern planetariums and planetarium systems in every corner of the world – on time and on budget. We know our users and clients well and have taken every measure to create solutions that don't just amaze your audiences, but also make your every-day operations convenient.

On these pages we present to you our scope of services and solutions, tailored and engineered after our vision of the modern, digital planetarium.





Why partner with us

▸ High-performance and extensively tested display systems

We have a clear and standardized range of projection systems in our series of Colorspace™ configurations, carefully selected to meet a variety of needs. All configurations are thoroughly tested and evaluated by our engineers.

▸ A smart and modern planetarium software, tailored for you

We know software and our developers are experts at what they do. Together with our users, we set out to eliminate barriers for the educator and operator, giving you access to use the digital planetarium to its fullest potential.

▸ High-end live presentation tools

With Uniview 3.0 we bring the live-presenter into a new era. An era where a live-presentation is quick, easy and reliable.

▸ Server systems that reduce power consumption up to 75%

All our solutions come with a reduced number of servers, but with the same performance. Compared to industry standards, our server systems consume 75% less power.

▸ Integrated theater control

Managing the hardware in your planetarium shouldn't take time and energy from your everyday tasks. Our integrated theater control is the presenter's and operator's main interface for managing the theater equipment - it's simple, intuitive and accessible in Uniview via your phone, tablet, or workstation.

▸ A networked planetarium

The Uniview software connects you to other Uniview venues and audiences all over the world. With the unique domecasting capability you can collaborate remotely by sharing live, presenter-led sessions across theaters.

▸ An experienced and devoted team

As a part of our Uniview family, we are on your team to help you succeed. Our commitment to support and service comes as a natural extension from our business principle of letting customer word-of-mouth be our primary sales reference. We recognize that our long-term success is directly proportional to the success of our clients.

Design & build

Every planetarium is a unique space with unique locations, audiences and objectives. Behind all our installations lie powerful technology and a careful design – a space where every detail is engineered to create the ultimate audience and user experience.

New-builds

When we design a planetarium we approach each with a fresh perspective. Our experienced design and engineering team consider the region and its specific use case, along with universal factors such as capacity, comfort, and the immersive experience as a whole. When you liaise with us at an early stage of the project, our design team helps you avoid missteps that can result in unnecessary costs further on. Placement and size of entry and exit points, seating layout, or the location of technical areas are just a few examples of details that will have a significant impact for years to come.

Upgrades

We offer cost effective upgrade options for all existing theaters, from projection, audio, server backend, software, theater control, production, or any other key aspect of the theater. Our retrofit products and services are developed to prolong the lifecycle of your theater system, and to be at the very forefront of modern technology.

Project management

At the beginning of every project our project team lays out a detailed timeline for the whole assignment. The project plan shows all essential activities leading up to finishing the project on time; theater design, factory acceptance tests, meetings, delivery, installation, on-site acceptance tests and training. We map the entire process and confirm delivery times and installation availability.

Together we make technology choices that meet your long-term objectives, taking educational, technical and architectural objectives into account. We also help analyze the commercial realities of the project – the investment, the ongoing costs, suitable warranty terms, consumables and spares needed, as well as local service and support.

Support

Our support function is a long-term commitment to you and your venue. We have devoted support staff in Europe, the Americas, the Middle East, and Asia. All of our installations are provided a dedicated, single point-of-contact for all support issues. We believe that communication, continuity and competence are key to delivering professional support to our clients. Our support function is divided into two parts:

Preventive support
To prevent downtime and emergency issues we offer service visits to keep your system at its best. During these visits we check the system performance, recalibrate, and make necessary updates. To utilize the software to its full potential we also make sure that the staff get proper software training, both in the beginning and continuously throughout the years.

Emergency support
Through our global support network, we offer phone and remote support 24/7. Wherever you are located in the world, we make sure that you have quick access to emergency visits when needed.

Components

Colorspace™ Display Systems
All of our projector configurations are thoroughly tested and engineered to meet a variety of needs: big or small domes, 2D or 3D stereo and all types of content. Whether your focus is deep dark skies, colorful pre-rendered content, or more alternative planetarium presentations, we have a display system for you.

Theater Control
All of our configurations come with integrated theater control, the operator's main interface for managing the general theater equipment. Simple, intuitive, and accessible in Uniview. Through simple clicks you can control projectors, doors and various lighting and audio devices.

Dome Screen
Having a uniform surface without visible seams, paint splotches or other color variations is a must to achieve a uniform image. Our design team will help you select the right balance between projector performance characteristics, dome screen gain, aperture and tilt.

Uniview™ Software*
Uniview software is the beating heart of all of our configurations. Powered by scientific databases from the finest scientific institutions, Uniview brings you the very latest and most beautiful visualization of real-time astronomy, planetary exploration, Earth sciences and neuroscience. Developed in cooperation with our user community, Uniview's toolbox is truly unique and tailored to support the presenter and operator in the smartest way possible. It ships with high-end presentation and production tools, media playback and much more.

Lighting
All lighting – whether general illumination or special event lighting – is fully integrated and controlled through our theater control system.

Server System
Our servers are designed and tested by Sciss for optimal performance. As a Dell business partner, we can also offer worldwide delivery, quick on-site support, and 5-year server warranty as standard. We design for redundancy with drop-in spare servers, minimizing any downtime from hardware failure.

Auto Alignment & Blending
Using automated patterns, our camera-based alignment system calibrates geometry, blends and color. The whole operation is fully automated and done in a matter of minutes – and you don't have to remove the optical blends.

Audio System
In a dark and immersive setting, audio plays a critical role in maximizing the experience. With spatial audio software and a professional sound system, you will immerse audiences using all their senses. Sciss employs a dedicated audio engineer, ensuring that our audio configurations are as immersive as the visuals.

Seating, Carpets & Finishes
We work with the best Scandinavian and international designers for seats, control desks, lecterns and all interior finishes in a theater. We can offer a varied scope of supply, from complete designs to supporting your architects with best practices.

*to read more about the Uniview software, ask for Sciss's Uniview brochure.

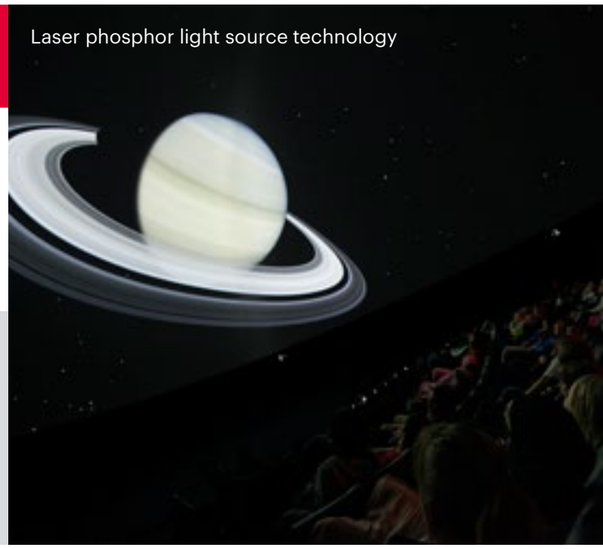
Display system design

Making the right choice of projectors is a challenging task, but our standard, high-quality Colorspace™ display systems help you navigate through the very best options on the market. All our core configurations are thoroughly tested and engineered to meet a variety of needs. Designed for optimal quality, reliability and low maintenance costs.

Colorspace™ planetarium configurations:

Colorspace **High Contrast™**

A Sony VPL-GTZ270/280 projector series



Why we recommend this configuration:

- Super high native contrast ratio
- Vivid color reproduction
- 20,000 hours of operation without lamp changes
- No tilt or roll limitations – easy installation in every planetarium
- Especially high performance with astronomy content

High Contrast System Details	4K Display	8K Display
Projector configuration	2 channels	6 channels
Recommended dome size (meter in diameter)	8-15 m	10-22 m
Server configuration	2+1 servers	6+1 servers
Projector resolution (pixels)	4,096 x 2,160	
Projector brightness (lumen)	5,000	
Projector contrast ratio	20,000:1	

Colorspace **High Brightness™**

A Christie® Boxer 4K30 projector series

Why we recommend this configuration:

- Very high brightness
- Great image quality and color reproduction
- No separate heat exhaust ducting or cooling requirements
- No tilt or roll limitations – easy installation in every planetarium
- Especially high performance with fulldome films and alternative content

High Brightness System Details	4K Display	8K Display
Projector configuration	2 channels	6 channels
Recommended dome size (meter in diameter)	10-18 m	10 m+
Server configuration	2+1 servers	6+1 servers
Projector resolution (pixels)	4,096 x 2,160	
Projector brightness (lumen)	30,000	
Projector contrast ratio	2,000:1	

Colorspace **3D™**

A Christie® Boxer 4K30 projector series

Why choose this configuration:

- Ultra-bright 3D with active stereo
- Great image quality and color reproduction
- Especially high performance with fulldome 3D films and alternative content
- Available as an upgrade option, or new installation

3D System Details	4K	8K
Projector configuration	2 channels	6 channels
Recommended dome size (meter in diameter)	10-15 m	10-22 m
Server configuration	4+1 servers	12+1 servers
Projector resolution (pixels)	4,096 x 2,160	
Projector brightness (lumen)	30,000	
Projector contrast ratio	2,000:1	

Colorspace™ flat screen configurations:

Science visualization can of course be applied outside the curved planetarium screen. We offer display configurations for a variety of flat projection surfaces – places where the Uniview software is utilized for education, entertainment, or more artistic purposes.

Colorspace **Cinema™**

We offer 3D and 2D display configurations for all types of modern lecture or presentation facilities who wish to combine the best aspects of an auditorium and a large format cinema. Colorspace Cinema has been acquired by prestigious venues like the Kennedy Space Center's Astronaut Encounter Theater and the auditorium and cinema of Centro Multimeios in Espinho, Portugal.

Colorspace **Wall™**

The immersive experience that the Uniview software generates is also popular as a large wall attraction. Our Colorspace Wall solution is developed for museums, science centers, or art venues that are looking to immerse their visitors with science visualizations in 3D or 2D and can be used as the centerpiece of live, interactive presentations. The display can cover a wall, a wall-and-floor space, or wall-and-ceiling space, projecting beautiful and realistic visualizations of space, planets or the human brain. The Colorspace Wall can be found at the immensely popular Ars Electronica Center's wall installation "Deep Space" in Austria and the Seoul Science Center in South Korea.

Hybrid configurations

Sometimes planetariums choose to combine their digital system with an opto-mechanical star projector. The combination of the two opens up all the possibilities that a digital system provides whilst adding extremely realistic night sky projections.

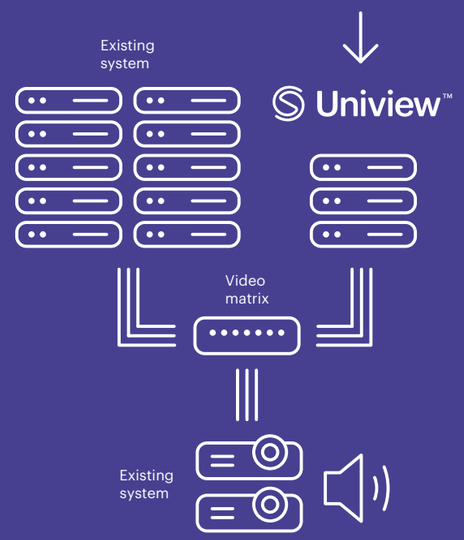
In combination with our Colorspace display configurations, we offer star projectors for all planetarium sizes and needs through our partners Zeiss and Ohira Tech. Our hybrid systems are developed to provide automatic integration between your digital star field and the star projector. Transitions between the two are automatic depending on the camera vantage point and there are no delays in the movements between the systems.

Photo credit: Kennedy Space Center Visitor Complex

Uniview Drop-In™

Uniview Drop-In™ is a quick and easy installation package of servers and software – a cost effective way to get access to the Uniview software on your existing display system. The solution is developed for a number of different 4K display systems, engineered to be as simple, smooth and cost effective as possible.

The servers are installed into the existing video infrastructure using a video matrix, which allows you to switch between Uniview and other software. All equipment is factory configured and tested, which results in a fast and reliable system launch. Our engineers manage the on-site server installation – using your existing video infrastructure – and you are good to go.
The extra server cluster doesn't just give you access to the Uniview software, you also minimize downtime in the event of computer failure, and prolong the life time of your existing display system.



This is our story

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 fulldome 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 domecasting capabilities.

In the summer of 2011, Sciss began product development on the complete Colorspace fulldome 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.

Sciss

www.sciss.se
info@sciss.se

Sciss International (HQ) +46 (0) 855 119 100
Sciss Middle East +971 4 256 6695
Sciss North America +1 720 985 5540

© 2016 : Sciss AB. All rights reserved. All brands and trade names are the property of their respective owners. Graphic design by: www.arketyp.se