



project: syntropy (Germany / KSA / Sweden / Singapore)

creates AV technologies and solutions for professional simulation- and training environments, XR-CAVEs, XR-Spaces, interactive immersive media based attractions, xD dome theatres and planetariums. 25 years of experience and over 250 projects world-wide have resulted in highly scalable turnkey media based attractions.



Project

MUSEION Bolzano, South Tyrol – Interactive Media Facades

Customer

Autonomous Province of Bolzano/South Tyrol for MUSEION, Museum for modern and contemporary art.

Project

Media facades conception for 2x18 projector matrix, total resolution of 4k each, projection on 2x 400sqm glass facade, development of multi-display software and VJ-tool based on WATCHOUT by Dataton, enabled for interactive content.



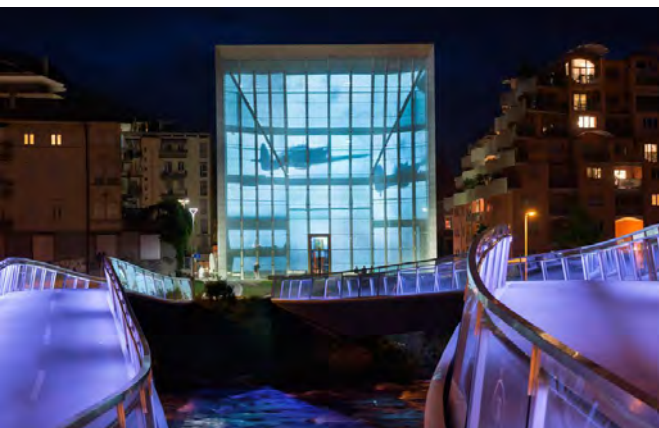
THE NEW MUSEUM MUSEION

The MUSEION Museum for modern and contemporary art is a communication museum. It combines the flexibility and the openness of a workshop with the qualities of a classical gallery and exhibition. The building is a 54m long cube being 25m high and 23m wide. The transparent front façades are showcases and projection surfaces towards the city and the landscape. The new Museum works as a transformer of the expectations of the visitor.

The newly built museum gets its sculptural, but physical impression out of the contrast of the massive enclosed metal hull alongside the building including the roof and the funnel-shaped transparent entrance façades. The glass façades create a transparent and unique spatial entree and showcase. Moveable translucent glass slats have been integrated into the façades to regulate daylight and sunlight to allow an optimal presentation of the character of an exhibition. A screen at the interior of the façade can be used to shade exhibition levels.

A giant interactive „virtual canvas“

After sunset, the moveable translucent glass slats create a persistent projection surface of two times 400 sqm.



Leading Provider of Next Generation Media Based Attractions

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project:syntropy



The media-player system and a show-control link the 2 x 18 projectors constituting the projection surface which allows media artists to present their art in an unique dimension by using a single virtual rectangular canvas and so creating linear and non-linear interactive media art.

project: syntropy was engaged to develop the technical concept and the specification of the projection matrix. We also implemented the multi-display software based on Watchout™ by Dataton for linear video contents and an additional software system for the programming of interactive presentations. The projection software is integrated into the central building control systems.

The interactive software has been developed by project: syntropy based on the open source programming language and environment processing. It enables the media- and video-artists to develop and program content for both façades without having to respect the projection matrix.

A single façade equipped with 18 projectors has a resolution of 4.000 x 4.000 pixels.

It is furthermore possible to enhance such an open interactive system using softwares like e.g. VENTUZ for realtime 3D interactive content.

Hidden projection matrix

The 36 projectors which constitute the two persistent projection screens had to be carefully hidden in the MUSEION architecture. Complex blending and warping areas had to be realized to hide all technology from the visitor's eye. The implementation of warping and blending was realized by the domeprojection.com team, that has vast experience in integrating complex multi-channel projections on arbitrary screen shapes.

The complete interactive projection system was first tested using an interactive PONG game, which was controlled by two gamers standing in front of the MUSEION façade using wireless game controllers.



Turnkey Display Solutions for Simulation, Training, Immersive XR-Spaces, XR-CAVES, Media Based Attractions

project: syntropy offers turnkey projection / dvLED-based display solutions, tailor-made AV systems and full-service throughout the entire project:

- PROJECTION- OR dvLED-BASED SYSTEMS
 - DEVELOPMENT
 - ENGINEERING
 - CONSTRUCTION AND INSTALLATION
 - AFTER SALES SERVICE
 - Training
 - Maintenance and Support
 - tailored Service-Level-Agreements (SLA)
 - Spare Parts Supply
- VISUAL SOLUTIONS FOR SIMULATION & TRAINING
 - FMS FULL-MISSION-SIMULATORS - FFS FULL-FLIGHT-SIMULATORS - CT COCKPIT SIMULATORS - HELICOPTER SIMULATORS - COMBAT SIMULATION - JFST ACTION TRAINERS - JTAC TRAINERS - ATM TOWER SIMULATORS - DRIVING SIMULATORS - SHIPS BRIDGE SIMULATORS - INDUSTRIAL SIMULATORS - RESEARCH SIMULATORS
- MEDIA BASED ATTRACTIONS
 - XD FLYING THEATRES - XD 360° & 720° ATTRACTION DOMES, CINEMAS & GLOBES - INTERACTIVE VISITOR ATTRACTIONS - MOTION THEATRES - DARK RIDES - MEDIA FACADES - IMMERSIVE TUNNELS & IMMERSIVE ENVIRONMENTS - PLANETARIUMS - PROJECTION MAPPING
- DIGITAL TWIN XR-SPACES (e.g. UDT Urban Digital Twins)
- XR-CAVE - XR VOLUMES
- SYNTOUCH MULTIUSER RADAR TOUCH
- MIXED REALITY ENVIRONMENTS & TRACKING TECHNOLOGY DEVELOPMENT

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