



MEDIA & CONTROL SYSTEMS



MORE FEATURES. MORE PERFORMANCE. MORE PRECISION.

Just a few months ago we have finalized our new competence center for research and development. Bright, light-flooded offices for development, open architecture for just-in-time communication, sophisticated laboratories for research and testing as well as extensive presentation, demonstration and training facilities create the perfect environment for our developers and engineers.

With this brochure we would like to take out a few example applications for our products and highlight those smart features which especially contribute to a flawless project realization.

It makes us happy to see how our tools are used by our long term partners to create stunning experiences. We are looking forward to continue this way in future also with our newest developments!

Your AV Stumpfl Family

avstumpfl.com/team

MEDIA & CONTROL SYSTEMS

Live. Event. Theater. Installation. Broadcast. Mapping. 5D. Tracking.

Our media & control systems such as media servers, multi display and 3D mapping software as well as show control technology are used in a variety of applications. Whatever your media production, presentation or control requirements are our systems are made to help you getting your project become reality.



MEDIASERVER

Robust. Stable. Powerful. Live. Installed.



SOFTWARE

Media production. Media playback. Touch control. Digital signage. 3D mapping. Show control.



HARDWARE

Solid state. Playback. Control. Interface. Audio. Interactive. Standalone.



Mediapparat | Pioneers Festival | Vienna, AT

LIVE SHOWS

Concerts. Touring. Staging.

We at AV Stumpfl consider a live show to be an event such as a concert or another staging event which involves sophisticated media technology such as:
Projection & Screens | Signal Management for Live Cameras | Presentations | Light & Sound | Effects

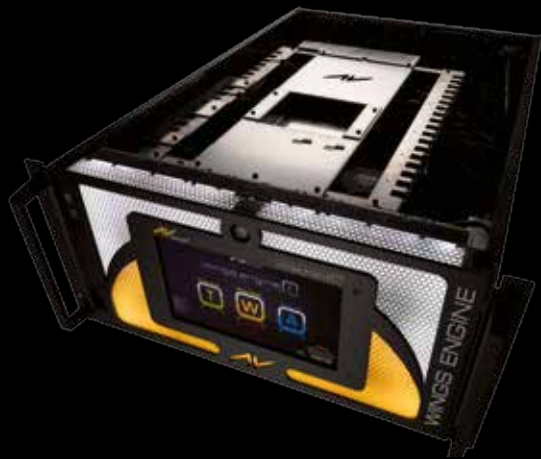
avstumpfl.com/liveshows

LIVE SHOW MEDIA SERVER

Wings Engine Stage

Have you ever seen a media server with features ranging from content production to interactive live presentations? Our sophisticated media server platform Wings Engine Stage does that and comes up with tons of helpful features for a smooth and easy operation during live events or in themed installations. Developed and manufactured by a team of enthusiastic engineers in Austria and supported by a global network of AV professionals.

avstumpfl.com/wingsenginestage



Inputs & Outputs with Genlock/Framelock

Up to 4 DVI or 3G-SDI inputs feed live signals from cameras, computers or other signals into the media server. These live signals can be used together with contents from the SSD Raid system either as part of preprogrammed timelines or controlled live in real time.

Wings Engine Stage is available with 2 or 4 DVI outputs to feed projectors or displays with signals. All outputs are frame locked and can be synchronized to a house clock to prevent tearing and jerking when using multiple projectors and/or displays and cameras in the same setup.



Case-In-Case Design

Did you ever try to use regular computers in a rough staging environment? We do know well about the requirements of the rental & staging industry.

The outer case is made of high-strength stainless steel and holds an inner case made of aluminum alloy on shock absorbing anti vibration rubber buffers. All connections between the electronics compartment and the Neutrik plugs on the outer case are secured and maintenance free.



Urbanscreen | Rice University | Austin, TX

©www.urbanscreen.com

ARCHITECTURAL AND FACADE PROJECTIONS

3D mappings onto building facades are popular these days. We do develop and manufacture media processing units which can automatically scan the projection surfaces and calculate softedge blending and the geometry correction.

avstumpfl.com/architecture



NEW Uncompressed Content in Realtime: 4x 4K 60p

Wings Engine Raw is capable of playing up to four times 4K uncompressed video content at 60fps. These contents can be native picture sequences like TGA or TIFF without any need to convert it into any intermediate codec format. Wings Engine Raw is even capable of processing PNG sequences straight away.

avstumpfl.com/uncompressed



NEW Maximum Performance and Redundancy

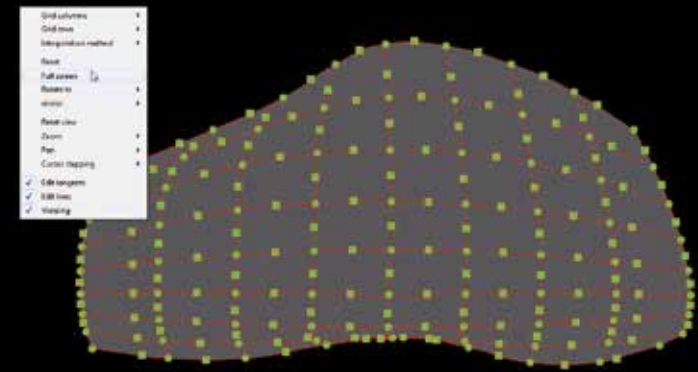
Instead of standard consumer/gaming computer hardware Wings Engine RAW contains sophisticated server technology derived from professional IT data center equipment. Wings Engine Raw comes with Xeon CPU, redundant high performance power supply, 2x10 GBit LAN, server chipset, up to 8 3G-SDI live inputs and Displayport 1.2 and DVI-D output connectors.

avstumpfl.com/raw



NEW Realtime Color Space Transformation

Wings Engine Raw interprets the source color profiles of images and videos and automatically transforms them into any destination color space in realtime. This way content handling is simplified since it is not necessary to make any time consuming conversions to match color profiles in advance. In any case Wings Engine Raw utilizes the full color space of the display or projector without global restrictions (e.g. to sRGB).



Warp & Map

Wings Vioso comes with sophisticated mapping and warping functionality which allows fitting the show onto the projection surface easily. Such projection surfaces range from flat or curved screens to spheres or 3D models and fully irregular surfaces such as rocks.

avstumpfl.com/warp

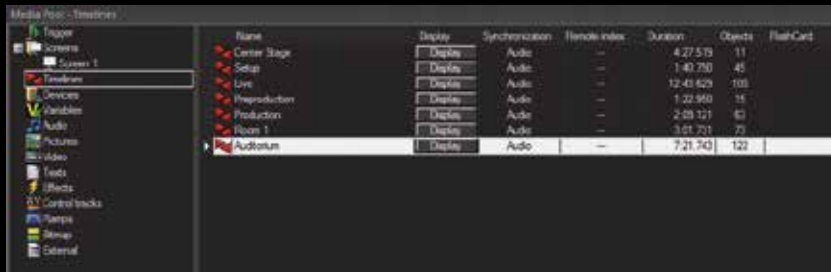


Barco Virtual World | AED Studios | Lint, BE

CORPORATE EVENTS

Stockholders' meetings, product launches or dealer trainings are just a few examples of corporate events. These events usually utilize sophisticated media and presentation technology to support the speakers.

avstumpfl.com/corporateevents



Multi Timeline Playback

Have you ever thought about how cool it would be if parts of the agenda during a show could already be prepared before the show starts? Such preprogrammed show elements could be e.g. speaker names and PiP layout, introduction videos or backgrounds. Wings Vioso supports virtually any number of timelines.

avstumpfl.com/timeline



NEW Realtime Frame Blending

If the content source has been produced in a lower frame rate than the display or projector supports our RenderEngine™ is can produce intermediate frames in realtime to achieve a smoother video playback.



NEW Live Input Options with Virtually no Latency

Up to 8x 3G-SDI, HDMI 2.0 or DVI-D inputs can be used per media server to feed signals from cameras, presentation computers or other sources. These live signals can be used together as PiP with predefined contents or generated backgrounds and with all realtime effects such as chroma-/luma keying applied without impacting performance and latency.



Performance Monitoring

Wings Vioso has a built-in performance monitor which is constantly checking the system's resource usage. During the preparation stage of the show it is possible to intuitively determine which sections are causing performance issues using a three color code.

avstumpfl.com/performance



Urbanscreen | Idomeneo | Bremen, DE

©www.urbanscreen.com

THEATER, OPERA AND MUSICAL

Theaters nowadays utilize sophisticated media technology for their productions ranging from projected backdrops to displaying ads and ticket pricings in the lobby areas.

avstumpfl.com/theater

MEDIA SERVER SOFTWARE

Wings Vioso

Our Wings Engine media server systems are driven by our award winning media production, presentation and control software Wings Vioso. These systems are used at rental & staging companies and in themed attractions and museums for content playback, camera and live input control as well as show control. However the software Wings Vioso can also be used as a standalone PC software e.g. for content production and review at event agencies or media designers.

avstumpfl.com/wingsvioso



Content Production

You know how challenging it is to create high resolution, high frame rate content which can be played back without compression artifacts? Wings Vioso offers all required tools for arranging media like video, images, audio and show control into stunning shows.

avstumpfl.com/production



Console Interface

Live player layers of Wings Vioso have lots of control options: Video content, playlist controls, alpha, position, rotation, zoom,... During a live show typically all live player controls are connected to a console via Art-Net, DMX or MIDI.

avstumpfl.com/console



Scenomedia | Salzburg new cinema | Salzburg, AT

INSTALLATIONS AND THEMED VISITOR ATTRACTIONS

Themed attractions can be part of larger theme parks but could also be an interactive experience e.g. showcasing a company's history and current solutions. Our products and solutions can take care of a lot of control and media management tasks. Everything coming from a single source.

avstumpfl.com/installation



NEW Unlimited PiP Layouts

If our media servers are used in live event environments any number of picture in picture (PiP) areas can be defined and combined e.g. with automatically generated backgrounds or CI designs of the client. Text overlays showing speaker names or agenda notes can also be included.

avstumpfl.com/pip



Unlimited Layers

Media content can be assigned to an infinite number of live player layers. Every layer can have its content organized in a playlist. Each layer can be assigned to a predefined PiP layout or freely positioned on the screen. Typically all controls of the live players such as alpha, position, rotation or zoom are connected to a console via Art-Net, DMX or MIDI, but they can also be controlled from a customized touch interface.

avstumpfl.com/liveplayer



Interaction and Gesture Control

Avio fully supports innovative human/machine interfaces such as the Microsoft Kinect interface which uses 3D microphones, cameras and distance sensors to track people and their gestures. These gestures are connected and available on the Avio network for further use within the AV installation. The possibilities deriving from this feature are substantial.

avstumpfl.com/interaction



Automatic Recalibration

Especially fixed installations sometimes require recalibration of the projector setup due to changes in the mechanical structure, projector lamp life etc. This can be an automated process without user interaction.

avstumpfl.com/recalibration



Scenomedia | Multimedia Bronze Age Cinema | Hallstatt, AT

MUSEUMS AND SCIENCE CENTERS

Interactive learning and studying is of highest importance these days where everyone is used to a high level of multimedia entertainment. Our systems cover various aspects of audio visual installations ranging from media control to interactive projection systems.

avstumpfl.com/museum

USER INTERFACE SOFTWARE

Wings Touch

Wings Touch enables you to create intuitive and beautiful user interfaces for all kind of todays touch devices in shorter time. Wings Touch offers the same user friendliness you are used to from current office applications. Use any design, style, color or font for any control element. Choose static backgrounds with gradients or images. Or a dynamic one, using video or picture transitions.

All created control elements like buttons, faders, indicators or trackpads are available automatically within Avio and can therefore be connected to all other functions with an Avio network without any programming. By the way – Wings Touch is a free software!

avstumpfl.com/wingstouch



```
1: require("avio")
2: mCount = 0;
3: mIncrement = 1;
4: function init(name)
5:   avio.addPort(name, "Counter");
6:
7:   avio.addChannel(name, "+", 1);
8:   avio.addChannel(name, "-", 1);
9:   avio.addChannel(name, "output");
10:
11:   avio.setfunction("plus", "+");
12:   avio.setfunction("minus", "-");
13: end
14:
15: function plus(input)
16:   mCount = mCount + mIncrement;
17:   avio.setChannel("output", mCount);
18: end
19:
20: function minus(input)
21:   mCount = mCount - mIncrement;
22:   avio.setChannel("output", mCount);
23: end
```

Scripting

How can I get my themed attraction react on the prevailing weather conditions? How can I send E-Mails to visitors with information retrieved during their stay at the museum?

There are numerous scripts already included with the Avio distribution such as E-Mail, Mathematics, Counter, Compare, Delay, Multiplex, Value Conversion, Weather or File I/O.

avstumpfl.com/scripting



Run on any Device

Wings Touch can be either run locally as embedded software or on a webserver thanks to its HTML5 capabilities. The control device options range from smart phones and tablets to touch devices such as kiosk systems.



Audi Booth IAA 2015 | Frankfurt, DE

© www.keller-fotografie.de

EXHIBITION AND TRADE SHOWS

A lot of companies prefer to present themselves using media technology on their trade show booths. These presentations can include projection on screens or mapping on booth structures as well as interactive experience stations or smart systems for the booth structure itself.

avstumpfl.com/exhibition

SOLID STATE CONTROL HARDWARE

Video Player with Built-In Show Control

Beyond handling the video and media playback this tiny device is also hosting custom design HTML5 user interfaces, Lua scripting for show and control logic as well as and third party device drivers to control projectors, DMX, KNX and any other system. Full blown media playback and show control in a single box.

avstumpfl.com/fhdplayermaster



Compact but Complete Solutions

Our IObox series devices can be used as standalone show controllers communicating with virtually any number of peripheral systems. Show scripts designed with our software Wings can be downloaded onto the IObox, HTML5 user interfaces created with Wings Touch can be hosted and open source scripts written in Lua bring logic and intelligence to the systems. Using additional IOboxes the system can be scaled.

avstumpfl.com/wingsiobox



NEW Avio Master

If an application requires higher system performance e.g. for hosting multiple user interfaces or if multichannel audio playback is needed Avio Master comes into the game as the central control unit. The solid state compact server comes without wearing parts and with a lot of options for extension.

avstumpfl.com/aviomaster



EMF | Romon U Park | Zhejiang, CHN

THEMED VISITOR ATTRACTIONS & SHOW CONTROL

Themed attractions can be part of larger theme parks but could also be an interactive experience e.g. showcasing a company's history and current solutions. Our products and solutions can take care of a lot of control and media management tasks. One single source for everything.

avstumpfl.com/installation



Wings IObox

Have you ever struggled with the numerous protocol and communication issues of AV devices? We have developed Avio (Audio Visual Input Output) as a dedicated abstraction layer on an AV installation network which brings all devices on the same communication layer and to graphically connect entities of the network.

avstumpfl.com/wingsiobox



Solid State Show Controller

The SC Master is a high-quality show controller with a powerful multi-channel MP3 player. For impressive shows, the SC Master is used as a central control unit which controls any show equipment that is part of the system, ranging from sound and light systems to projectors. The SC Master covers a whole range of possible applications from show initialization to controlling and finishing a show.

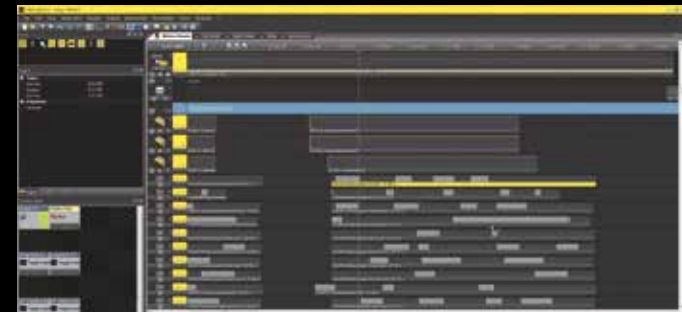
avstumpfl.com/showcontrol



Media Server for Content Playback

Wings Engine Install is based on the same industrial standard hardware platform as the Wings Engine Play server but additionally features live inputs. Wings Engine Play is the playback machine for themed attractions and museums featuring automatic camera based output calibration, content production and playback with show control included.

avstumpfl.com/wingsengineplay



Timeline Editing and Export

Our software Wings Vioso can be used for extensive timeline editing: Ramps and switching commands for DMX, Relay, 0-10V and many other interfaces can be commanded and conditional functions can be defined. The finished scripts can be downloaded onto our show control hardware.



Scenomedia | Excursion ship „Die Linzerin“ | Linz, AT

INFORMATION SYSTEMS

Information Systems welcome visitors, show product news and advertisement or inform customers about special deals.
A businesslike application with a lot of potential for creative implementation with our integrated product range.

avstumpfl.com/information_systems



RSS, XML and Facebook

Would you like to integrate social media into AV projects? It is easy as Avio fully parses these data and makes it available to all your media servers, playback machines, I/O devices and computers on the Avio network.

avstumpfl.com/facebook



Digital Door Plate & Building Guidance System

Meeting and booking information is displayed automatically on the digital door plate next to your conference room. In addition ISEO has a direct link to the building facilities (i.e. KNX building bus system) to control all the building functions (i.e. lights, blinds, air conditioning, weather station...) and media equipment.



Staff Information Systems

Internal information as well as training content can be published using the corporate TV solution. Like a corporate magazine the system can be used to increase the motivation of employees and their identification with the company. Corporate TV also is a communication channel for quick distribution of updated information which replaces the well known blackboards.



Welcome Screens

Thanks to the direct connection to Microsoft Outlook / Exchange Server® appointment data is published on the ISEO based welcome screen just in time. Beside information and entertainment your guests can retrieve detailed information about your company.

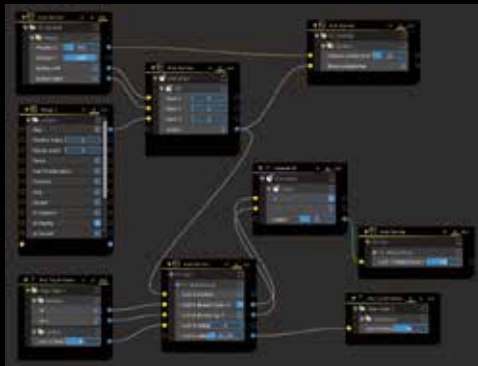


Resch&Resch Elektrotechnik GmbH | Hotel Garni | Wallern, AT

MEDIA CONTROL

Media control solutions interface complex technology to create simple ways for controlling and monitoring. Touch panels, control panels or smartphones and tablets are used as user interfaces.

avstumpfl.com/mediacontrol

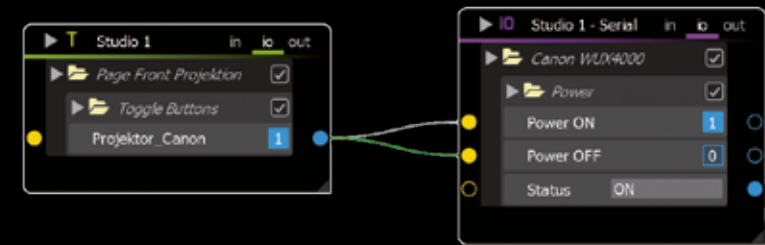


NEW Clever System Architecture

Have you ever faced the challenge to control devices from multiple touchpanels at the same time? Was it difficult to keep all system states up to date on all touchpanels?

We have reviewed all the typical challenges of creating control systems and developed an entirely new system architecture where all data and all information is accessible from anywhere within the control network.

avstumpfl.com/clever_architecture



NEW Intuitive Workflow

The main idea behind our new approach is to bring all devices to a unified communication layer. Every device is publishing its communication ports and functions within the control network. Finally the control system is brought to life by “wiring” (graphically connecting) these ports with each other. For example you draw a line between the button of a touchpanel and the on/off function of a projector. Done!

avstumpfl.com/intuitive_workflow



NEW Open System Design

Of course it is possible to include third party systems and protocols into our control system. Possibilities range from simple infrared emitters to seamless integration of KNX building bus functions. You would like to record any data points over time, import weather data or calculate the current angle of the sun to find the optimum blinds position? All that and more is possible thanks to our integrated Lua scripting engine.

A variety of built-in scripts are available ready to use.

avstumpfl.com/lua



NEW Control from Everywhere

The control network can be accessed from everywhere using touchpanels, smartphones, tablets, laptops or office computers with any operating system thanks to HTML5 based web technology and built-in webserver.

avstumpfl.com/webserver



Quattrovision | Musterring exhibition | Rietberg, DE

©www.quattrovision.com

DIGITAL SIGNAGE

Digital signage is a widely used term these days where virtually every display showing an image, video, or advertisement is called a digital signage system. In fact, a clever digital signage solution can be aesthetic and spectacular. Check out our ideas.

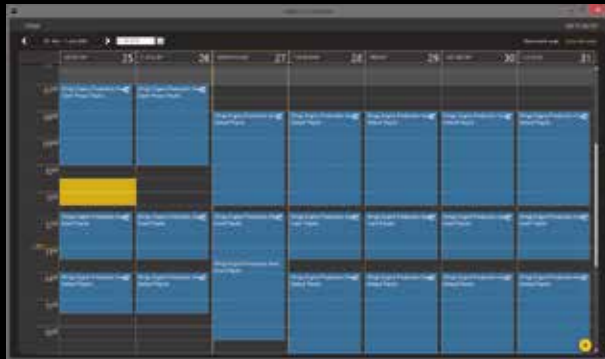
avstumpfl.com/digitalsignage

DIGITAL SIGNAGE SYSTEMS

4K/UHD Player

Have you ever thought about a tiny box which seamlessly plays content from a SD card? We have this cost effective solution for digital signage, museums and other themed attractions. Our media players can be synchronized over the network and can be externally controlled via GPS inputs, touchscreens, push buttons and other triggers.

avstumpfl.com/4kplayer



Visual Scheduling for Themed Attractions and Digital Signage

Scheduling in Avio Calendar is done with the same workflow known from Office software. Using a graphical calendar the client can schedule whatever shall happen at given times. It is even possible to automatically exclude public holidays from future playback plans.

avstumpfl.com/aviocalendar



Multidisplay

If larger display dimensions or higher resolutions are necessary Wings Vioso allows combining as many projectors and/or displays as required. Multiple outputs of the server hardware can be used and multiple servers can be connected to create powerful media clusters.

avstumpfl.com/multidisplay



WHY AV STUMPFL?

Designed and manufactured in Austria. 40 years of experience. Best service and support.

Developing and manufacturing has always been our passion that drives us so why not offering our technical expertise to the public? Creating something unique is a challenge we like. In addition to a lot of standard out-of-the-box solutions we have a huge toolkit for creating special solutions. Our experienced product specialist team would be happy to assist if you have any projects coming up.





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