



MEDIA & CONTROL SYSTEMS



## THE GENERATIONS CHANGE, OUR PASSION FOR QUALITY REMAINS

Since our company has been founded by Reinhold and Ulrike Stumpfl in the 1970ies they have always been passionate about developing, manufacturing and servicing the best possible products for the AV market. Together with a constantly growing team of enthusiastic and motivated individuals on one side, and an international network of partners in over 60 countries on the other side, we collectively pushed the borders of what is technically possible for over 40 years now.

Our company is a family business without compromises because we believe that independence in decision making is one of the key factors for success in our industry. We spent most of our childhood in the various departments of our company and with parents running a business this topic is omnipresent also in private life. This puts us in a position where we are not taking over a business from a third party but conducting a smooth transition which has started many years ago and will even continue. We are happy to continue running and growing our business with their original values in mind.

We proudly present our product line up which contains some cutting edge products such as our rental & staging media server flagship Wings Engine Stage, our new UHD Player as well as new software with a long list of improvements and of course our most powerful media server ever: Wings Engine RAW.

Big thanks to our partners and friends for the great collaboration. We and our growing team are looking forward to exciting new projects combining your professionalism and creativity with our products and service.

Let's get started!

Tobias & Fabian Stumpfl  
[avstumpfl.com/team](http://avstumpfl.com/team)

Handwritten signatures of Tobias and Fabian Stumpfl in black ink. The signature on the left is 'T. Stumpfl' and the one on the right is 'F. Stumpfl'.

# 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.



## MEDIA SERVER

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](http://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](http://avstumpfl.com/wingsenginestage)



## 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.

## Inputs & Outputs with Genlock/Framelock

Up to 2 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 4 DP1.2 outputs for feeding signals to projectors or displays. All outputs are frame locked and can be genlocked to prevent tearing and jerking when using multiple projectors and/or displays and cameras in the same setup.



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](http://avstumpfl.com/architecture)





## 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](http://avstumpfl.com/uncompressed)



## Realtime Color Space Transformation

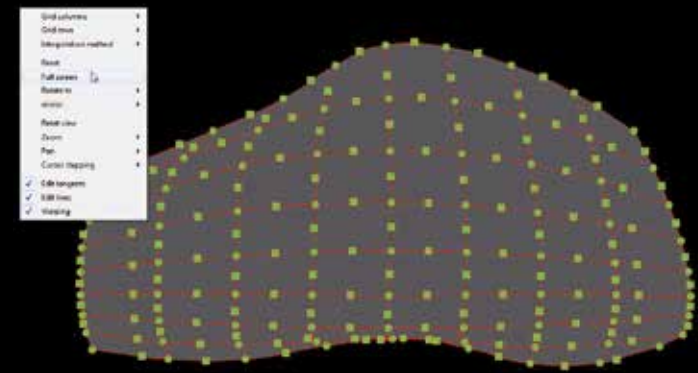
Wings Engine RAW interprets the source color profiles of images and videos and automatically transforms them into any destination color space in realtime. This way content handling is simplified since it is not necessary to make any time consuming conversions to match color profiles in advance. In any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



## 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 outputs.

[avstumpfl.com/raw](http://avstumpfl.com/raw)



## 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](http://avstumpfl.com/warp)



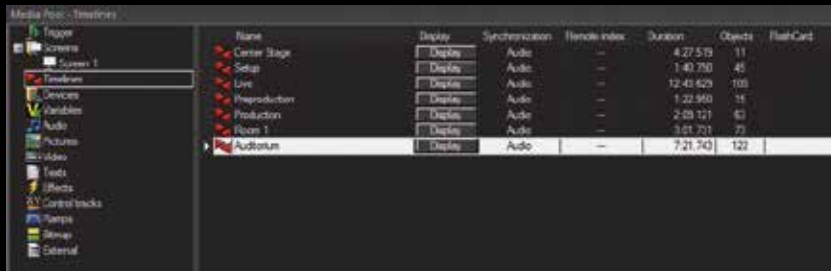
Barco Virtual World | AED Studios | Lint, BE

## 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](http://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](http://avstumpfl.com/timeline)



## 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.



## Live Input Options with extremely low 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](http://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](http://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](http://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](http://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](http://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](http://avstumpfl.com/installation)



## 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](http://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](http://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](http://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](http://avstumpfl.com/recalibration)





Scenomeia | 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](http://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](http://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](http://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](http://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](http://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](http://avstumpfl.com/wingsiobox)



## 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](http://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](http://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](http://avstumpfl.com/wingsiobox)



## 4K/UHD Player

Our solid state of UHD Players are made for professional 24/7 installation and museum environments. They can play files with a UHD resolution of 4096 x 2160 @ 60fps using the H.265 codec. Multiple UHD Players can be frame synchronized via IP networks using a dedicated synchronization protocol. Users can switch between different multi-language audio tracks while the video is running.

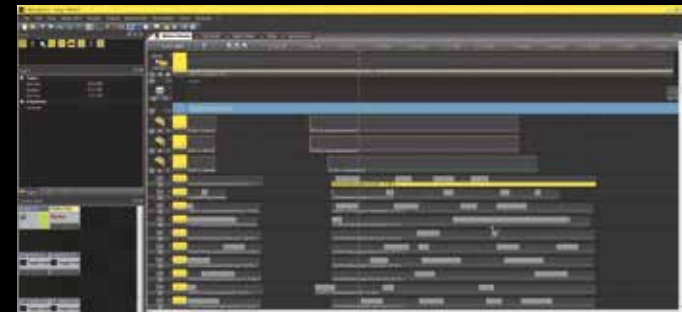
[avstumpfl.com/uhdplayer](http://avstumpfl.com/uhdplayer)



## Wings Player

Wings Player closes the gap between simple video players and full blown media servers. Compact in size but with powerful features this device is perfect for various fixed installations such as themed attractions, digital signage, museums and corporate information systems.

[avstumpfl.com/wingsplayer](http://avstumpfl.com/wingsplayer)



## Timeline Editing

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.





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](http://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](http://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. Our systems offer 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.

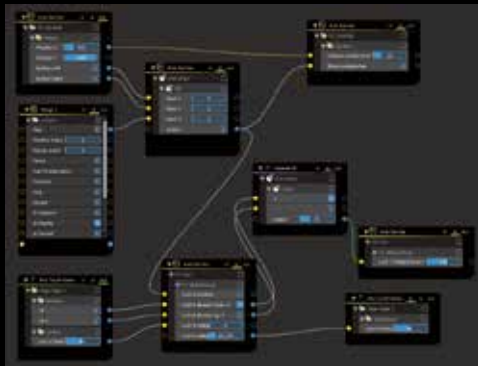


Resch&Resch Elektrotechnik GmbH | Hotel Garni | Wallern, AT

# 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.

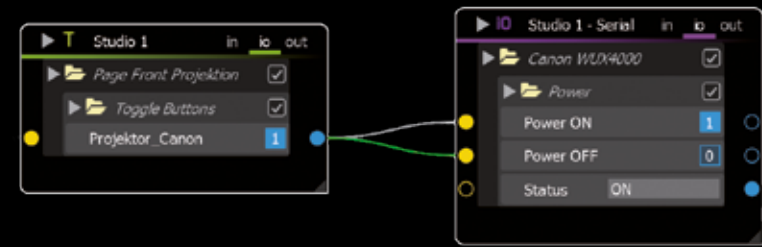
[avstumpfl.com/mediacontrol](http://avstumpfl.com/mediacontrol)



## 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](http://avstumpfl.com/clever_architecture)



## 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](http://avstumpfl.com/intuitive_workflow)



## 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](http://avstumpfl.com/lua)



## 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 webservers.

[avstumpfl.com/webserver](http://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](http://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](http://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](http://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](http://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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