Avio Service · in · io · out
PC Controls
Mouse
Position X · 473
Position Y · 1085
Button Left · 0
Button Right · 0

Avio Service · in · io · out
PC Controls
System
Volume Speakers · 24
Mute Speakers · 0

Avio Service · in · io · out
Avio Script
OR
input 1 · 0
input 2 · 0
input 3 · 0
output · 0

Wings 5 · in · io · out
Control
Play · 0
Timeline Index · 0
Marker Index · 0
Pause · 0
Start Presentation · 0
Continue · 0
Stop · 0
Escape · 0
Is Stopped · 0
Is Playing · 1
Is Paused · 0

Remote IN · in · io · out
Avio Script
Count
+ · 1
- · 0
output · 70

Avio Service · in · io · out
Knx
Lighting
Light 7 brightness Value · 140

Knx Touch Demo · in · io · out
Page Page 1
Buttons
L8 - · 0
L8 + · 0
Faders
Light 8 Slider · 46

Avio Service · in · io · out
Knx
Lighting
Light 8 switch on · 0
Light 8 dim down 4 · 1
Light 8 dim up 4 · 0
Light 8 brigh · 0
Light 8 brigh · 47

Knx Touch Demo · in · io · out
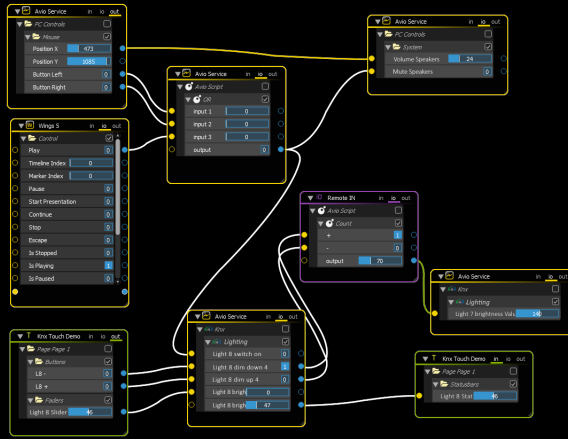Page Page 1
Statusbars
Light 8 Stat · 46

AVIO Ⓐ

NODE BASED, DE-CENTRALIZED SHOW CONTROL

Interface. Script. Data. Distribution.

WHAT IS AVIO?
Simple. Clever. Stable.

Avio is a network protocol and sophisticated show control logic system developed for AV installations. The idea behind Avio is to connect all devices of an AV installation like media servers, show controllers, lights, effects, projectors, switchers and scalers etc.

All device ports and controls show up automatically in a tree view topology of the network and can be "wired" to each other using a simple Drag & Drop editor. It is possible to connect the button of a touch panel with a light bulb, but it is also possible to connect the gesture controls of a Microsoft Kinect unit with the video parameters of a media server.
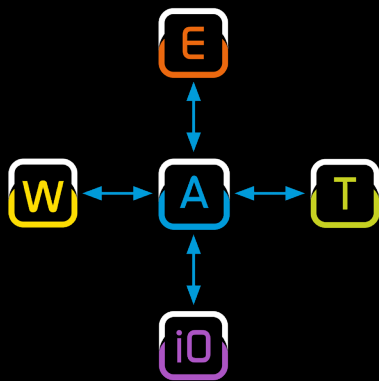
Avio connected to AV Stumpfl Software, Media Server Hardware, Touch and IOBoxes

NETWORK TOPOLOGY
Decentralized. Automatic.

There is no central server or computer required: Every Avio device communicates directly with the other devices and stores its connection information. If one device fails, only the affected connections are interrupted and the only maintenance work required is to exchange this single device and use a new one with the configuration (which is stored on an SD card) of the existing one.
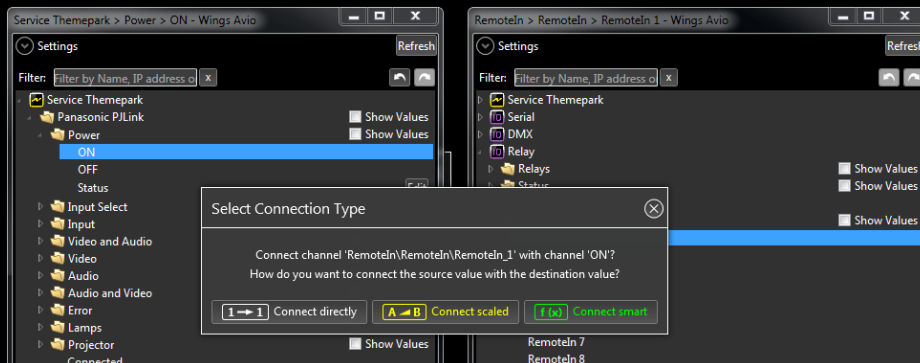

PROTOCOL
Automatic. Safe. Verified.

Avio is not just a simple control protocol converter. Once a device is embedded into the Avio network it is permanently monitored: Once a value is sent from one device to another, Avio makes sure that the values have arrived safely and uses a combination of different network technologies in the background to get this done. Data can be scaled and converted into different formats automatically or by using manual parameters.

MAIN FEATURES

A collection of AVIO feature highlights
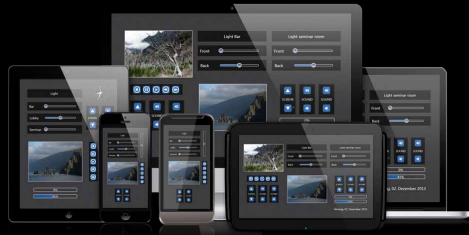
WEB BASED SOLID STATE MEDIA CONTROL

You would like to realize a sleek media/room control solution which can be controlled via web enabled devices such as smartphones or tablets? With Avio, your control solution does not require any PC or server.

AVIO CALENDAR SCHEDULING

Avio Calendar is part of our Avio Service and a powerful tool for scheduling and managing devices and content in themed attractions and digital signage projects.
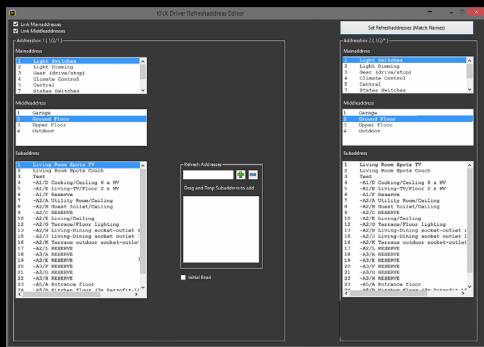
KNX INTEGRATION
Building automation

In a lot of AV installation projects building functions such as lights, shades or climate are controlled via the KNX bus. KNX projects can be easily imported into Avio and the data points can be linked with all other components within the Avio network.
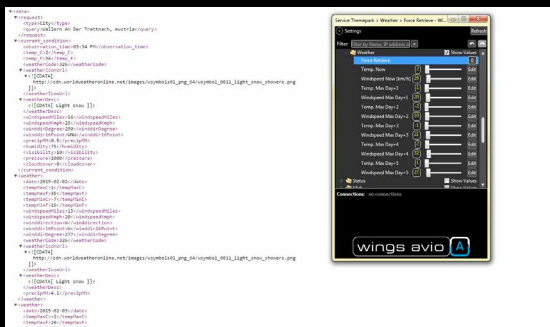

SOCIAL MEDIA INTEGRATION
RSS, XML and Facebook

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


XML PARSING

Avio can parse contents and values from XML files. This feature can be used for retrieving values from a website and for reusing them in the show control network.
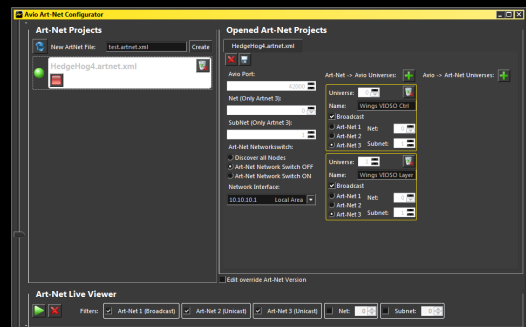

ART-NET

Art-Net is an Ethernet based communication protocol for staging setups and themed attractions. It is fully integrated into the Avio network for connecting Avio devices such as media servers to lighting consoles, or show control timelines to lights and other effect devices.
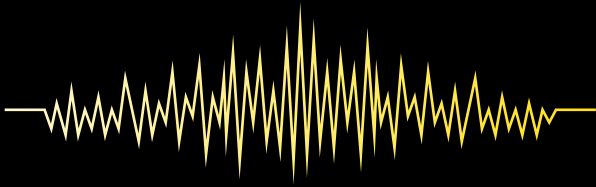
AUDIO & MIDI

Audio playback is an essential part of every installation. Avio can manage playback, volume controls and many other Audio tasks.

MIDI has been a standard communication protocol for music devices, audio consoles and digital music instruments for decades. We have fully integrated MIDI into our Avio network so that MIDI devices can be part of an installation or show.
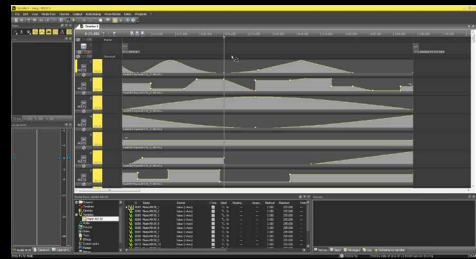

DMX

DMX has been the standard protocol for controlling staging and installation effect devices such as moving heads, scanners, fog machines etc. for years. It is stable, simple and well established. Avio brings DMX universes into the Avio network and makes DMX inputs and outputs available to all other devices in the installation.
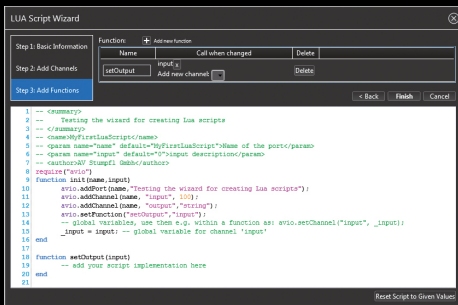
SCRIPTING

Avio has its own Lua scripting interpreter, which allows for sophisticated programming. Although programming Lua is straight forward, our support team is happy to assist. There are numerous scripts already included within Avio, such as E-Mail, Mathematics, Counter, Compare, Delay, Multiplex, Value Conversion, Weather or File I/O.
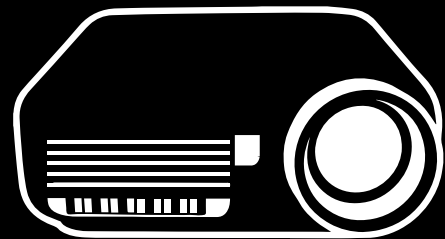
THIRD PARTY DEVICES
Ethernet. Serial. IR. Relay.

Third party devices such as projectors, switchers or scalers can be integrated via their RS232 or Ethernet connections into the Avio network. Avio wraps all the third party device functions and monitors their execution and device status. Drivers translate the commands back and forth on the Avio network and can be easily created using our own software wizard. With our optional IO boxes, users can directly connect AVIO to third party devices.

ADDITIONAL FEATURES

PC remote control.
PCs can be remote controlled and monitored using Avio.

Logging and debugging.
In sophisticated installations, keeping track of what is happening at what time can be a challenge. The Avio network topology visualization gives you a clear understanding of which devices communicate with each other.

Webserver
Avio devices run their own embedded webserver, which can be used for device configuration, but can also host control websites which have been designed and customized with Wings Touch.

Proximity sensors and position tracking
Avio supports various interactive collaboration tools such as the Microsoft Kinect, RadarTouch, LeapMotion controller or the innovative Myo gesture control armband.

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.

NETWORK COMPONENTS
Control. Interface. Logic. Script. Data. Distribution.

IOBOX

IOBoxes are the core elements of an Avio network: These handy devices are used to connect third party devices to the Avio network, run the scripts, do the communication, host the web pages for the system visualization and more. The modules communicate directly with each other following a decentralized system design and store their settings on an SD Card.

MEDIA SERVERS

Our award winning media servers are used in a number of different applications ranging from live shows and events to interactive and themed attractions. These devices can do more than just play back media: They are used for content production and show design, interactive live presentations and control of a variety of different devices and systems.

SOFTWARE

Our software engineers are working hard in researching, developing and improving our software packages which drive our integrated systems for live shows, themed attractions and museums. The AV Stumpfl software is packed with technology ranging from media server operating systems, media production and presentation software to control logic, touchpanel control software to Digital Signage solutions.

AVIO SERVICE

Would you like to track the status of computer hardware or would you like PC periphery hardware to be part of the show control setup? Avio Service can be installed on computers and integrates their controls into the Avio network and makes them available to other Avio devices.

AVIO MANAGER

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 to the same communication layer and graphically connects network entities. Avio Manager is used to configure the network control connections using a graphical Drag & Drop workflow.

AVIO MASTER
Advanced solid state show control

Avio Master offers sophisticated show and media control functions together with multi channel audio, interactivity, user interface hosting and open source scripting. This product is a technologically advanced solution for themed attractions, museums and corporate installations where cloud based management, straight forward system design and 24/7 availability is key.

IOBOXES
Compact and solid network interface modules.

Do you want physical interfaces and devices to be part of an interactive AV installation?
Our compact and smart Wings IObox hardware modules interface to switching inputs, outputs, DMX and serial devices and make them accessible from control device or media servers.
Made for 24/7 use.

DMX
1 DMX 512 input, 1 DMX 512 output, 3 pin XLR connectors

REMOTE
16 digital inputs

RELAY
16 relay switching outputs (30VDC, 48VAC, 1,5A)
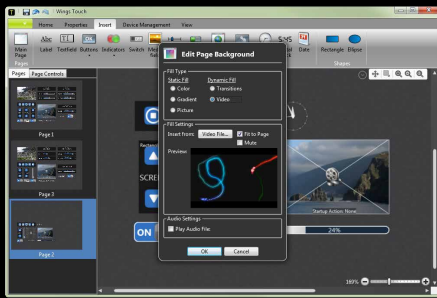
SERIAL
4 RS232 connectors

TOUCH

User Interface. Touch. Design.

Touch is a WYSIWYG Drag & Drop Editor, allowing the simple creation of user interfaces,
which can be intuitively connected to other software and hardware systems.


LAYOUT & BACKGROUND

Choose static backgrounds with gradients or images, or a dynamic one using video or picture transitions. Define menus and control element areas. Use any design, style, color or font for any control element.

DESIGN YOUR CONTROLS

Touch comes with a lot of different controls to choose from: Buttons, faders/sliders, indicators, status bars, clocks, text fields, labels, web browsers, touchpads, calendar elements, switches and media fields. All controls can be graphically customized or selected from templates.
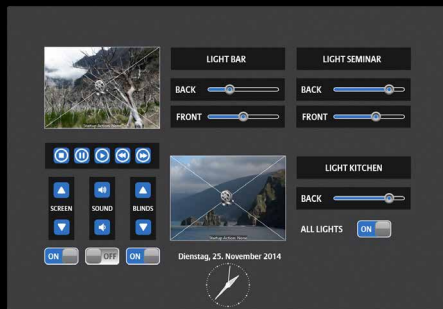
CONNECT YOUR CONTROLS

All created control elements like buttons, faders, indicators or trackpads are available automatically within Avio and can therefore be connected to all other functions within the Avio network without any programming using our Avio Manager tool.

RUNS ON ANY DEVICE

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

FUNCTIONAL GROUPS & LICENCES

AV professionals can choose between different AVIO license options for their projects.
The most important difference between the FREE, LITE, ADVANCED and PRO versions is the number of „functional groups" that are available to the user. The AVIO ULTIMATE license includes an advanced media downloader solution for realising remote content upload/download scenarios.

Avio Basic Functions	Avio Functional Groups
Mouse Shutdown Demo Node ASCII-Interface Command executer Audio Wake on LAN 1 x Driver (UDP, TCP, RS232) 1 x Custom script 1 x Touchproject with 1 Page	25 x Driver (UDP, TCP, RS232) 50 x Custom script Avio Calendar Database Recorder 2 x Touchproject with multiple Pages Downloader Kinect v2 (beta) KNX MIDI ArtNet Sonos Playbar X-Keys RadarTouch Leap Motion Microsoft Kinect Myo Armband Encoder Facebook Twitter RSS Feed Reader

Avio Free	Avio Lite
Avio basic functions	USB-Dongle Avio basic functions 1 Avio functional group of choice

Avio Advanced	Avio Pro
USB-Dongle Avio basic functions 3 Avio functional groups of choice	USB-Dongle Avio basic functions 6 Avio functional group of choice

Avio Premium	Avio Ultimate
USB-Dongle Avio basic functions All Avio functional groups of choice	USB-Dongle Avio basic functions All Avio functional groups of choice Media Downloader