



AVATUS

MIXING CONSOLES // AVATUS SERIES

WE ARE STAGETEC //

FOUNDED AS A TECH COMPANY

WHEN THE TERM DIDN'T EVEN EXIST YET.

By this, we don't mean the "garage" cliché, but rather our mindset when STAGETEC started with mixing consoles and audio distribution systems in 1993. We were and still are "digital natives" * in our industry, pioneers of digital consoles and networks. The important difference is the conception of our products. No isolated solutions, instead all our developments are part of a system that simplifies integrations to the maximum and allows extensions almost without limits.

AVATUS fully integrates into existing NEXUS networks, fulfilling STAGETEC's philosophy of sustainable systems. Combined with the well known STAGETEC audio quality, which set a new standard in digital audio processing almost 30 years ago and still stands unrivaled nowadays, AVATUS is your tool of choice!

**Another buzzword that didn't exist back then.*



NOW, IT'S TIME FOR YOU TO DEFINE YOUR SYSTEM'S FUTURE.

AVATUS is the audio console of the future. The innovative concept makes full use of the advantages of IP technology. Every component of the mixing system is equipped with standard TCP/IP interfaces. The user interface itself can consist of either one large or several small control surfaces. It is possible to connect to the mix engine remotely, as well as via web browser or control software. Due to the revolutionary workflow and operational concept, with AVATUS all operating positions have access to all functions. For system integrators, AVATUS provides an entirely new set of APIs that go far beyond access to basic mixing parameters.

As part of NEXUS, users can access almost unlimited resources using audio inputs and outputs of any format and any location. The integrated logic control ensures seamless integration of external systems into every environment and smooth workflows in daily operations. Requirements are changing – with AVATUS from STAGETEC you keep your familiar workflow with an interface that just fits right!

AVATUS

series



ONE IP-BASED SYSTEM SOLUTION, FOUR USER INTERFACES

AVATUS **S** – Standard surface layout

AVATUS **D** – Detachable screens

AVATUS **C** – Compact surface layout

AVATUS **E** – Encoder focused operation

THE DISTRIBUTED REMOTE CONSOLE.

In modern production environments, the need for modern workflows and flexibility is rapidly growing. AVATUS is designed to work hand in hand with its users, providing the tools necessary to easily keep up with today's requirements. The control surfaces design pays attention to every detail from a user-perspective, while the system architecture provides never-seen-before flexibility and accessibility for system integrators. A flexibility that opens up new possibilities in system design and efficiency.

IN ADDITION THE SYSTEM PROVIDES:

- 32 different control surfaces
- 4 individual surface designs to suit every application
- Scalable DSP with over 800 audio channels
- Lowest processing-latency in the industry
- Multi-user-operation
- Dynamically assignable control surfaces
- Broadcast-, theater- and live-specific functionality united in a single software
- Access to up to 65,535 inputs and 65,535 outputs on one network
- Various APIs to integrate AVATUS into 3rd party controlled systems
- Many external direct control protocols: RAS, HUI, EmBER+, OSC, etc.

AVATUS S //

THE FLAGSHIP CHOICE

AVATUS S, OUR FLAGSHIP INTERFACE, IS AVAILABLE IN ALL SIZES RANGING FROM 12 TO 96 FADERS. AVATUS S IS THE SOLUTION FOR ALL APPLICATIONS, WHERE OBTAINING A MAXIMUM OVERVIEW AND FAST ACCESS ARE THE MOST IMPORTANT CONSIDERATIONS.

MORE IS MORE

AVATUS S is the absolute flagship surface, and it redefines accessibility, speed and modern workflows for large scale broadcast-, theater- and live applications. No compromise, this surface sets a new standard in mixing!

FEATURES

- One metering touchscreen per fader bay for full control and visualization
- 48 color-coded, touch sensitive double rotary encoders with touch function per bay
- One control-screen for fast access and perfect parameter visualization per bay
- 12 motorized, color-coded faders
- Available from 12 to 96 faders



AVATUS D //

THE FLEXIBLE OPTION

REMOVABLE METERING DISPLAYS PROVIDE YOU WITH A CLEAR SIGHT IF NEEDED AND REDUCE THE OVERALL SURFACE HEIGHT. THE METERING DISPLAYS CAN ALSO BE MOUNTED AS REQUIRED – ON A WALL OR A SWIVEL ARM. AVATUS D IS THE SOLUTION FOR SYSTEMS IN AUDITORIUMS, AVAILABLE IN DIFFERENT CONFIGURATIONS RANGING FROM 12 TO 96 FADERS.

THE STAGE IN FOCUS

AVATUS D was made for users who need a clear view of the stage at all times. All too often, the mixing console is located high up in the tiers of a venue and the mixing console blocks the view. The surface of AVATUS D is equipped with detachable displays. This provides an unrestricted view of the stage.

FEATURES

- One detachable (optional) metering touchscreen per fader bay for full control and visualization
- 48 color-coded, touch sensitive double rotary encoders with touch function per bay
- One control-screen for fast access and perfect parameter visualization per fader bay
- 12 motorized, color-coded faders
- Available from 12 to 96 faders



AVATUS C //

THE COMPACT SOLUTION

AVATUS C, OUR “LESS IS MORE” OPTION. IT OFFERS COMPREHENSIVE CONTROL WITH A MINIMAL FOOTPRINT. AVATUS C IS AVAILABLE WITH 12-48 FADERS AND CAN EITHER BE USED AS A MOBILE EXTENSION FOR EXISTING LARGE MIXING CONSOLES, AS A SEPARATE REMOTE CONSOLE, OR ANYWHERE WHERE SPACE IS AN IMPORTANT CONSIDERATION.

EXTENTION OR MOBILE USE REQUIRED?

In any application where either an extension of an existing large-scale console is required, or mobile useability is key, AVATUS C is the solution. Compact, lightweight, with full accessibility to all parameters. Simply: The compact solution!

FEATURES

- One control-screen for fast access and perfect parameter visualization per fader bay, switchable to meter-view
- 12 motorized, color-coded faders
- Available from 12 to 48 faders
- Optional, additional metering screen



AVATUS E //

ENCODER CENTERED OPERATION

DESIGNED FOR LARGE SCALE PRODUCTIONS IN TIGHT SPACES, THE AVATUS E IS THE PERFECT SOLUTION FOR APPLICATIONS WHERE OPTIMIZING LIMITED SPACE IS CRUCIAL, WITHOUT COMPROMISING FUNCTIONALITY. AVATUS E OFFERS ALL THE FEATURES AND WORKFLOWS OF FULL-SIZE SURFACES.

OB-VANS WITH LIMITED SPACE?

AVATUS E was designed specifically for smaller OB-VANS where space/depth is a constant struggle. AVATUS E addresses this issue by providing both fast access and a small footprint.

FEATURES

- One control-screen for fast access and perfect parameter visualization per fader bay, switchable to meter-view
- 12 motorized, color-coded faders
- Available from 12 to 48 faders
- Optional, additional metering screen



THE AVATUS CONCEPT.

BASED ON THE OPERATING PHILOSOPHY OF TODAY'S MOBILE DEVICES AND PROFESSIONAL AUDIO SOFTWARE, AVATUS WAS DEVELOPED TO FACILITATE INTUITIVE, EASY-TO-LEARN, FAST WORKFLOWS. THE ENTIRE CONSOLE MAKES A CLEAR, SIMPLE, AND ACCESSIBLE IMPRESSION.

INTUITIVE SURFACE DESIGN AND LAYOUT

Nothing distracts from the tidy, elegant and clean appearance of the console, regardless of the size of its implementation. This makes it easy and inviting for new users to find their way around the user interface and work quickly. In addition, the design is characterized by a clear, grid-like format for all of the touchscreen "pages" with extra-large buttons and simple operating elements to enable perfect operation under all conditions.

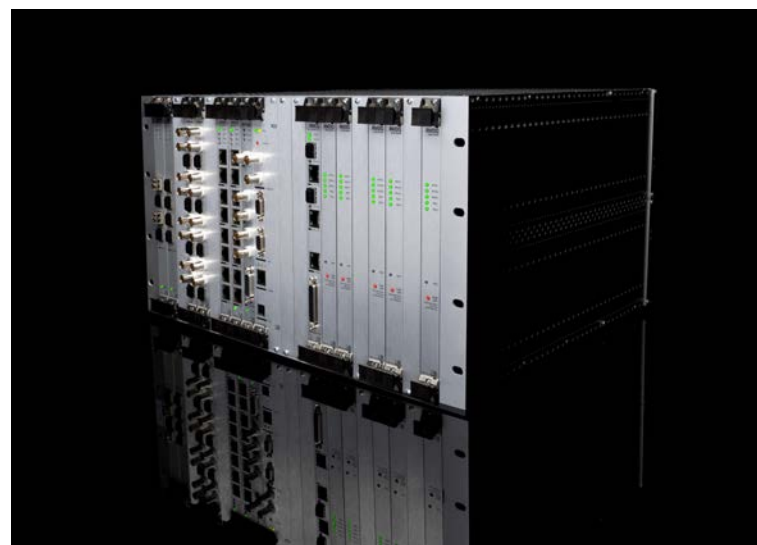
More experienced engineers appreciate that AVATUS makes use of 100 % of the space for channels, groups, and sums. There is no solid, sweeping central control panel to get in your way. Instead, you can access all "central" functions immediately using a touchscreen at any point on the mixer that can be called up immediately in front of you – at the push of a button. The uniform design of the console simultaneously forms the base for its extensive configurability. Your favorite channels, groups, bus masters, etc. can be assigned to each fader strip. With up to 16 layers and many functions in direct access, AVATUS is the most versatile console on the market.

MULTI-USER OPERATION

This concept perfects STAGETEC's multi-user approach to the design of audio mixing consoles. As each element of the console can be positioned in different locations, thanks to the underlying TCP/IP technology, they can also be operated independently. Multiple engineers can work independently at the same time on the mixer on large productions. AVATUS supports two completely independent PFL/ solo/control room infrastructures. Comprehensive monitoring, source listening, and talk/talk-back functions complete the flexibility of the console. AVATUS provides a separate page for control room settings within the touchscreen pages. This page displays functions that you would typically find in the mixer central control panel. Here too, direct access is possible from any position in the interface. In addition, you can easily link the volume of headphones/ control rooms to a special set of rotary encoders if required.

COMPLETE INTEGRATION

As a part of the STAGETEC product family, AVATUS is fully integrated into the world's most comprehensive audio network, NEXUS. The interaction between console and network, which has been perfected over decades, is reflected in the many freely configurable user buttons that enable direct access to almost every system function and allow you to control external devices. This, of course, includes logical links, conditions, processes, and access to the entire routing matrix directly from the mixer.



THE INTERFACE

AVATUS, the IP-based decentralized remote console from STAGETEC, was designed to meet the numerous requirements of the modern audio world with maximum flexibility. The unique combination of dedicated hardware controls and large, easy-to-use touchscreens that are fully customizable allow sound engineers to use their intuition. The system invites you to personalize your workflows. Specifically, each control channel has two touchscreens; four multi function, touch sensitive, rotary encoders with double function; eight industrial grade buttons, and a smooth, touch sensitive, motorized fader. The four touch-sensitive, concentric double rotary encoders allow to control the audio parameters using tactile feedback. These encoders have become a signature feature throughout STAGETEC's console range. With two separate control elements on a single axis and the integrated button on the top rotary knob, you can set up to three parameters being controlled by a single rotary encoder. The function assignment follows the selected audio module on the lower screen and is recognizable at a glance, thanks to the consistent design with clear color coding that is used across the entire user interface. The RGB-LED lighting of the rotary encoders not only provides immediate information about the selected function, but it also gives AVATUS its distinctive appearance.

In principle, the behavior of many control elements can be adapted to the needs and workflow of the respective user. The color-coded backlighting of the faders allows you to identify the channel type quickly and easily.

In addition to the regular integration, AVATUS offers extensive and innovative cue automation in a mixer with fast, simple workflows tailored to the needs of daily production. You can easily integrate settings and actions within the NEXUS network into each scene.



TOUCH DISPLAYS

- Glare-free 21" Full-HD touch displays for ease of use
- High quality, continuous processing
- Each screen can take over all functions
- Typical use case: metering above, mixer functions below
- Touch screen for metering
- Context-sensitive workflow for the best overview
- Configuration and central functions on each display as needed
- Intuitive workflows with swipe and on-screen editing

ENCODER

- The encoder bay and fader bay together form a module
- The double rotary encoders are touch sensitive
- The upper rotary encoder has an additional touch function
- The encoder function group can be assigned per channel and per bay
- Double arc displays allow for quick, precise configuration of settings
- The extremely high refresh rate delivers the current real values at all times
- Multi-colored LED backlighting shows the current function

FADERS

- Free configurability allows you to assign any channel type to the control strip
- The color LED backlighting of the faders indicates the respective assignment
- The motorized faders are touch-sensitive and run smoothly
- Fader-Bay buttons allow you to call up layers and higher level functions
- The various LEDs can be used to reflect real-time parameter values

ONE CONSOLE. ONE SYSTEM.

6 DSP OPTIONS. 32 DIFFERENT CONTROL SURFACES: AVATUS IS DESIGNED TO COVER A WIDE RANGE OF APPLICATIONS. IN BROADCAST, THEATER, LIVE SOUND AND INSTALLATION WE FOCUS ON THE HIGHEST AUDIO QUALITY AND SEAMLESS INTEGRATION.

PERSONALIZE YOUR SYSTEM

All AVATUS systems can be configured to your needs. Pick an almost unlimited amount of I/O combinations provided by NEXUS, experience unrivaled audio quality and experience how modern APIs and control protocols allow a seamless integration! Pick your own wood type for your armrest, add physical buttons, assign surfaces to consoles via API, or fully control your console via Ember+. No matter what control surface you choose, experience full access to the world of AVATUS. Pick your size of DSP, the surfaces that match your requirements, or operate via web-browser or Software. Experience broadcast-, theater- and live-productions on the highest level. Load your user-configuration to personalize your console and experience how AVATUS will change your daily workflow forever.

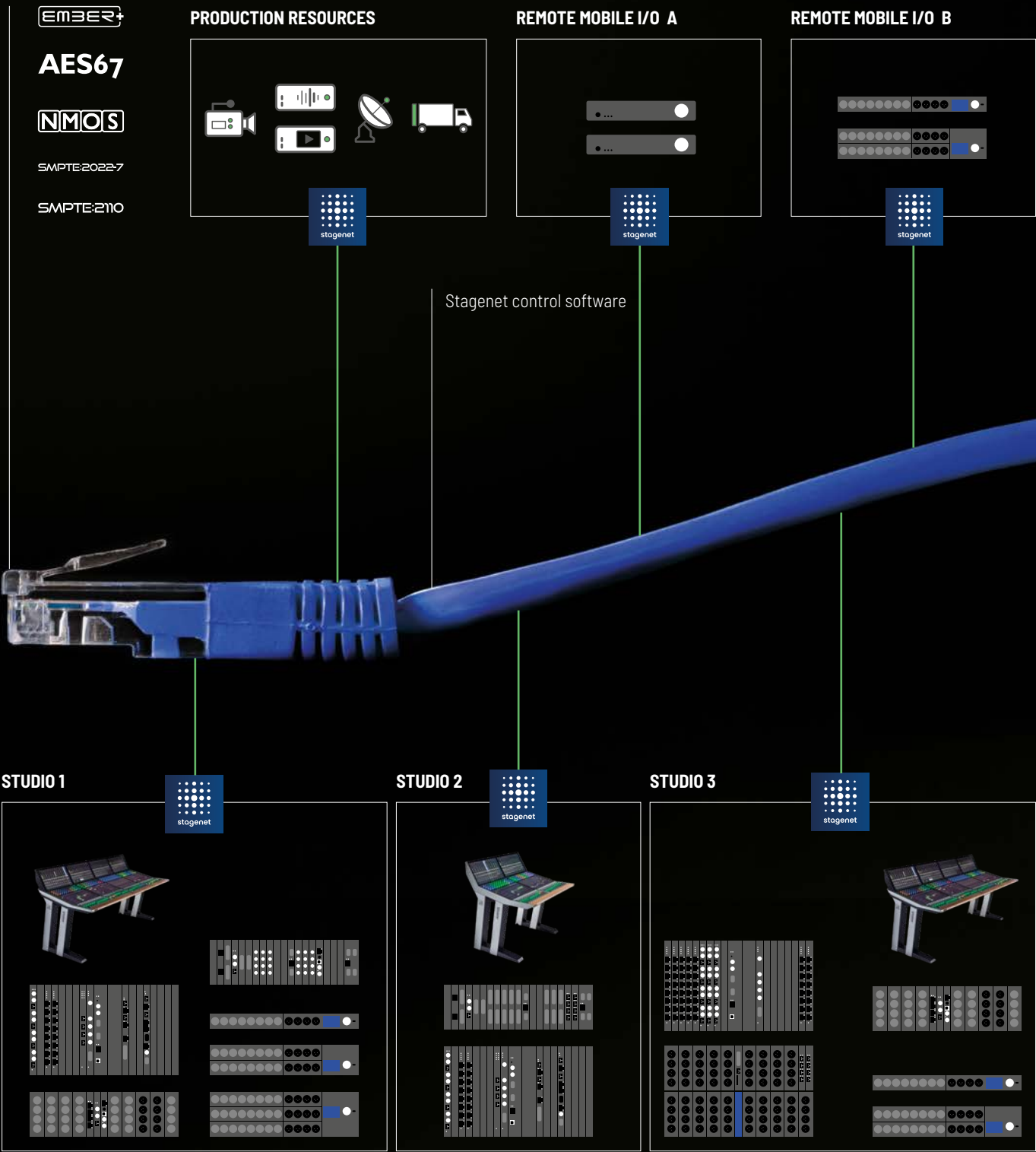
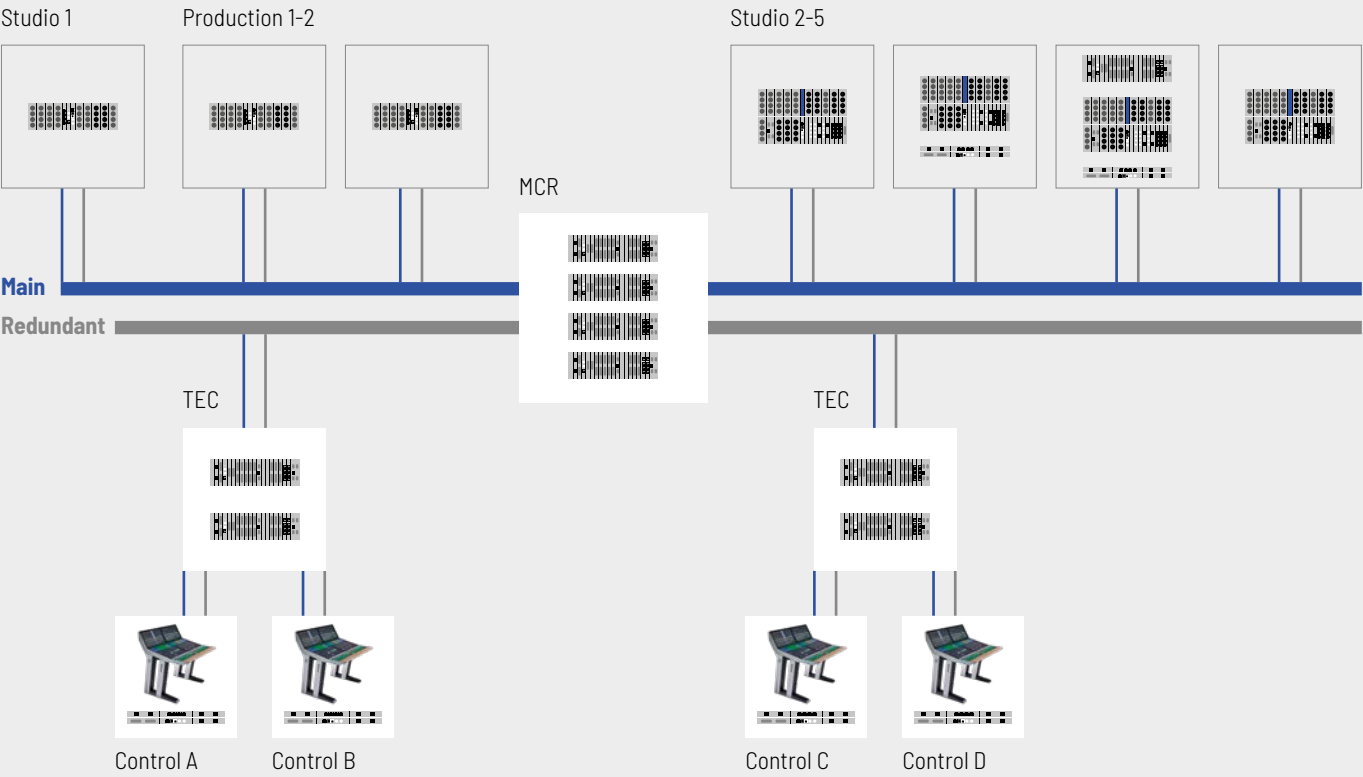
SIMPLIFY IP SIGNAL MANAGEMENT: STAGENET

AVATUS and NEXUS are designed as complex and extensive audio matrices by definition. As AoIP networks are an integral part of system designs, managing becomes an increasing challenge. Add Stagenet to your installation to help you control, monitor and maintain the AoIP-networks that surround your NEXUS-/AVATUS system.

MORE THAN 30 YEARS OF EXPERIENCE AT YOUR FINGERTIPS

Since 1993 STAGETEC provides solutions for the world's leading broadcasters, theaters, opera houses and pro AV installations. This extensive experience is reflected in the functionality, reliability, sustainability and workflows of every STAGETEC product available today.

SCALABILITY – A NETWORKED BROADCASTER



BROADCAST IP BACKBONE – AV signals
STAGENET – I/O routing

HANDS-ON

LAYOUT & PROCESSING



ASSIGN ANY CHANNEL TYPE TO ANY STRIP ON THE SURFACE, BUILD YOUR OWN LAYOUT. BUILD YOUR OWN CHANNEL STRIP BY ASSIGNING ANY PARAMETER TO ANY POSITION WITHIN THE STRIP, ACCORDING TO YOUR WORKFLOW! THE AVATUS CHANNEL CONFIGURATOR ALLOWS THE USER TO DEFINE THE ASSIGNMENT OF THE ENCODERS AND CONTROL ELEMENTS ON THE TOUCHSCREEN IN ACCORDANCE WITH INDIVIDUAL WORKFLOWS AND TO STORE THEM IN A LIBRARY. THIS WAY, YOU CAN MAP THE PERFECT WORKFLOW FOR EVERY USER AND EVERY PROJECT. DEFINE UP TO 8 OSC DEVICES AND SAVE THEM IN YOUR PERSONAL LIBRARY. ALL FUNCTIONS OF THESE DEVICES WILL ALWAYS BE PRESENT AT ANY PLACE YOU REQUIRE THEM.

INPUTS

Thanks to the AVATUS A/B input stage, each channel has two separate inputs for connecting completely independent signals from the NEXUS network. All routing and format conversions are carried out automatically by NEXUS. In addition to the internal, purely digital “amplification” of each input in the mixer, the user can also control the gain of the NEXUS microphone converter directly from the console. Mic-inputs feature an astounding 158 dB(A) of dynamic range, but also offer a pure digital 1 to 4 split, providing own gains, limiters, HPFs and polarity reversal to 4 different clients. (FOH, MON, OB-VAN, REC, etc.).

DELAY

The scalable RMDQ DSP cards used by AVATUS offer a delay of 2,700 milliseconds per channel. You can activate them simply by pressing a button. You can configure settings with sample accuracy.

DYNAMICS

With AVATUS, you can freely configure the arrangement of the dynamic modules within the signal chain. The user can also choose which of the modules of the external sidechain input and the additional high/low pass filter should be used for each channel. Immediate information about all settings and their influence on the gain is shown on the screens and the LED arc displays of the corresponding rotary encoders. The STAGETEC dynamic units found in AVATUS offer comprehensive configuration options. The audio quality and the extremely low degree of distortion are highly praised by experienced sound engineers in both broadcasting and theater.

EQUALIZER AND FILTERS

Thanks to their elaborate, digital circuit design, STAGETEC has succeeded in developing filters with a very neutral sound, for which we have received multiple awards. The gain of all parametric EQs can be up to ± 24 dB, and they can be precisely adjusted at up to $\frac{1}{4}$ dB increments. All high/low pass and shelving filters can be set at 6 dB intervals up to 24 dB/octave. A total of ten filters are available for each channel: 4 fully parametric filters (“EQs”), 2 shelving filters (high/low), 2 pass filters (high/low), and 2 notch filters. All filters without exception can be set over the entire audible range from 20 Hz to 20 kHz.

BUSSES / OUTPUT CHANNELS

AVATUS-projects can feature up to 128 busses, each of which has the full signal processing functionality of a channel strip. AVATUS then automatically adapts the handling and assignment of the busses to the selected audio formats. This makes it easy for the user to operate mono, stereo, and surround busses in a similar way. In addition to the mixer outputs, the NEXUS network also handles the entire routing and signal conversion in accordance with the destinations selected by the operator.

METERING AND MONITORING

Each AVATUS channel offers three points in the signal path where metering can be tapped: directly after the input, before the fader, and after the fader. The setting can be different for each channel and can be changed immediately, if necessary. All sum and group-busses feature R-128 loudness metering.

CROSSPOINT CONCEPT

AVATUS provides access to two groups of inputs and outputs: the inputs and outputs of the mixer itself and all the inputs and outputs of the entire NEXUS System. Users are not limited to routing signals in and out of the mixer. Rather, they have full control over all crosspoints in the entire NEXUS network. Another special feature of NEXUS and thus of the AVATUS is equipment routing. Any number of audio inputs and outputs can be configured to work together as a “device”. The devices are only displayed and routed as a single crosspoint, which means that the overview and operation are quick, intuitive, and error-free. NEXUS always ensures that sources and destinations are consistently linked.

MONITOR SETTINGS

The bus formats for the two independent control rooms, solo, and PFL busses are defined in the monitor settings. AVATUS offers support for mono, stereo up to 7.1.4 busses in the project settings.

MIXER SETTINGS

All of the other busses can be configured in the mixer settings. A channel count provides information about the total number of busses per bus type as well as the total number of channels used and gives the sound engineer a perfect overview of the basic project resources.

SYSTEM INTEGRATION.

THE POSSIBILITY TO INTEGRATE A MIXING CONSOLE INTO EXISTING OR NEW ENVIRONMENTS IS AS IMPORTANT AS TOP NOTCH AUDIO QUALITY AND MODERN WORKFLOWS. AVATUS PROVIDES A LARGE SET OF APIS AND STANDARD PROTOCOLS TO INTERCONNECT TO OTHER SYSTEMS.

AVATUS AND NEXUS

NEXUS provides an extensive range of I/O-formats. This enables system integrators to freely design the I/O infrastructure. The NEXUS-architecture offers the perfect balance of ST 2110 based interconnectivity and its proprietary fiber protocol. This results in an ultimate safety net for the backbone design of any modern audio infrastructure. Every IP-based I/O-card can even operate as an IP-Network-Bridge, granting access to various audio subnets and different formats and protocols (e.g., Dante, AES67, MADI, SDI...). From within NEXUS/AVATUS, all I/Os are presented to the user in an intuitive manner. Access control down to the individual inputs and outputs (incl. parameter control) - can be updated on AVATUS during runtime.

APIS AND CONTROL PROTOCOLS

AVATUS provides a large set of control protocols to integrate the mixing console:

- EmBER+ provides access to all console parameters, as well as channel- and I/O-labeling
- OSC provides a subset of the most important parameters, in both server- and client-mode
- RAS integrates AVATUS into traditional broadcast environments

In applications where system integration should be taken to the next level, AVATUS provides APIs to:

- Dynamically assign control surfaces and I/Os to consoles during runtime
- Retrieve the current system layout (channels incl. their format and corresponding I/Os)
- Centralize surface assignment management

INTEGRATION OF LOCAL DEVICES

In modern environments, fast and intuitive access to devices surrounding the mixing console is key. For an efficient and comfortable integration, AVATUS provides:

- 8 user-definable OSC connections with corresponding actions and triggers, available within the console automation and user buttons
- Remote desktop, directly integrated into the control surfaces, with a direct access option to the most important computers (e.g., DAW, wireless surveillance, plug-in hosts...)
- Web-Browser, directly integrated into the control surfaces, with a direct access option to the most important websites (e.g., Stagenet, NEXUS compact, AES67 interface pages...)
- DAW control (HUI/Mackie, OASIS, OSC)
- WAVES session sync
- Network-MIDI

HEALTH MONITORING AND LOGIC

NEXUS provides monitoring options based on more than 30 years of project experience. Not only can system errors be monitored (e.g., via SMNP), but it is also possible to define custom errors to monitor system states that are usually not considered a system error (such as MADI lock not present or AES67-stream not present). The extensive NEXUS logic not only assists with failover switching in these situations, but it also provides almost unlimited possibilities of system control.

REMOTE & CORPORATE PRODUCTION.

STAGETEC PROVIDES A WIDE RANGE OF PRODUCTS DESIGNED TO SUPPORT THE REQUIREMENTS OF REMOTE AND HIGH-CLASS CORPORATE PRODUCTION ENVIRONMENTS. STAGETEC-PRODUCTS OFFER THE POSSIBILITY OF EITHER USING RESOURCES LOCALLY OR SHARING THEM WITH REMOTE-BASED COMPONENTS.



DECENTRALIZED I/Os AND PROCESSING POWER

In addition to using NEXUS as I/O-infrastructure, STAGETEC's new I/O-devices "NEXUS compact" and "NEXUS integral" provide extensive processing power right within the device. This qualifies them as perfect choices for standalone-applications, remote I/O-interfaces or any combination of both. In conjunction with Stagenet, the integration of the ST 2110-based devices becomes easy and comfortable. Of course, NEXUS is capable of interconnecting via ST 2110-comforming streams.

AVATUS AND NEXUS IN IP-NETWORKS

AVATUS is designed to operate in standard TCP/IP networks. That said, any network that provides a performance comparable to the performance of a local area network will be able to host our system components. Further options for L3 routed systems and project specific solutions are available as well.

EVERYTHING FOR OPTIMAL RESULTS.

When asked what sets us apart from other brands, our response is: we don't consider ourselves the center of your world. We simply want to be a part of it. For us, this means that not only do our developments harmonize brilliantly with each other, but our products also bring an openness and seamless compatibility to many other solutions. This makes your work easier, expands your flexibility, and ultimately saves your nerves. Why this is important to us: you can fully focus on your work - and we can enjoy magnificent productions with you.

THE WORLD IS OUR STAGE



AUDIO NETWORK // Extremely low latency. Highest reliability. Maximum flexibility.
The heart for your network, for your routing and processing of audio and control data.



MIXING CONSOLES // Intuitive handling thanks to individually scalable surfaces.
Highest quality and maximum flexibility for your productions.



IP SIGNAL MANAGEMENT // Setting up and operating an AVoIP system today has never been easier.
Control and monitoring of all signals of your productions.

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