

AURUS

PLATINUM

The Direct Access console

STAGETEC

AUDIO. VIDEO. IP.
SIGNALMANAGEMENT

English


aurus platinum

AURUS PLATINUM
The Direct Access console

AURUS platinum offers maximum performance no matter what the use case. Even the most critical engineers are impressed by the system's unprecedented audio quality, flexibility, and reliability in theater, radio, recording, and live applications. Instant access to all audio parameters ensures fast and efficient operation that can be tailored to any specific production workflow.

The console integrates seamlessly into a NEXUS audio network that offers virtually unlimited audio-I/O resources in all common formats. The built-in macro controller allows for easy integration of external systems in any environment and for smooth day-to-day operations.

STAGETEC has made quality a matter of principle. AURUS is just one example.



AURUS PLATINUM

THE THEATER CONSOLE

AURUS **platinum**: When it comes to theater audio, this name has stood for reliability and flexibility for more than a decade. Representing the fourth product generation, the current AURUS **platinum** version has been designed to meet even the most demanding requirements – again and again.

Fast and reliable

STAGETEC consoles are not only the most reliable but – with a refresh rate of just 10 ms – are by far the fastest audio tools on the market. The console reads and writes all settings within that timeframe. Snapshot loading and storing uses the same 10-ms time grid regardless of the data contained. This ensures an ultrafast workflow with no distractions.

Clear layout

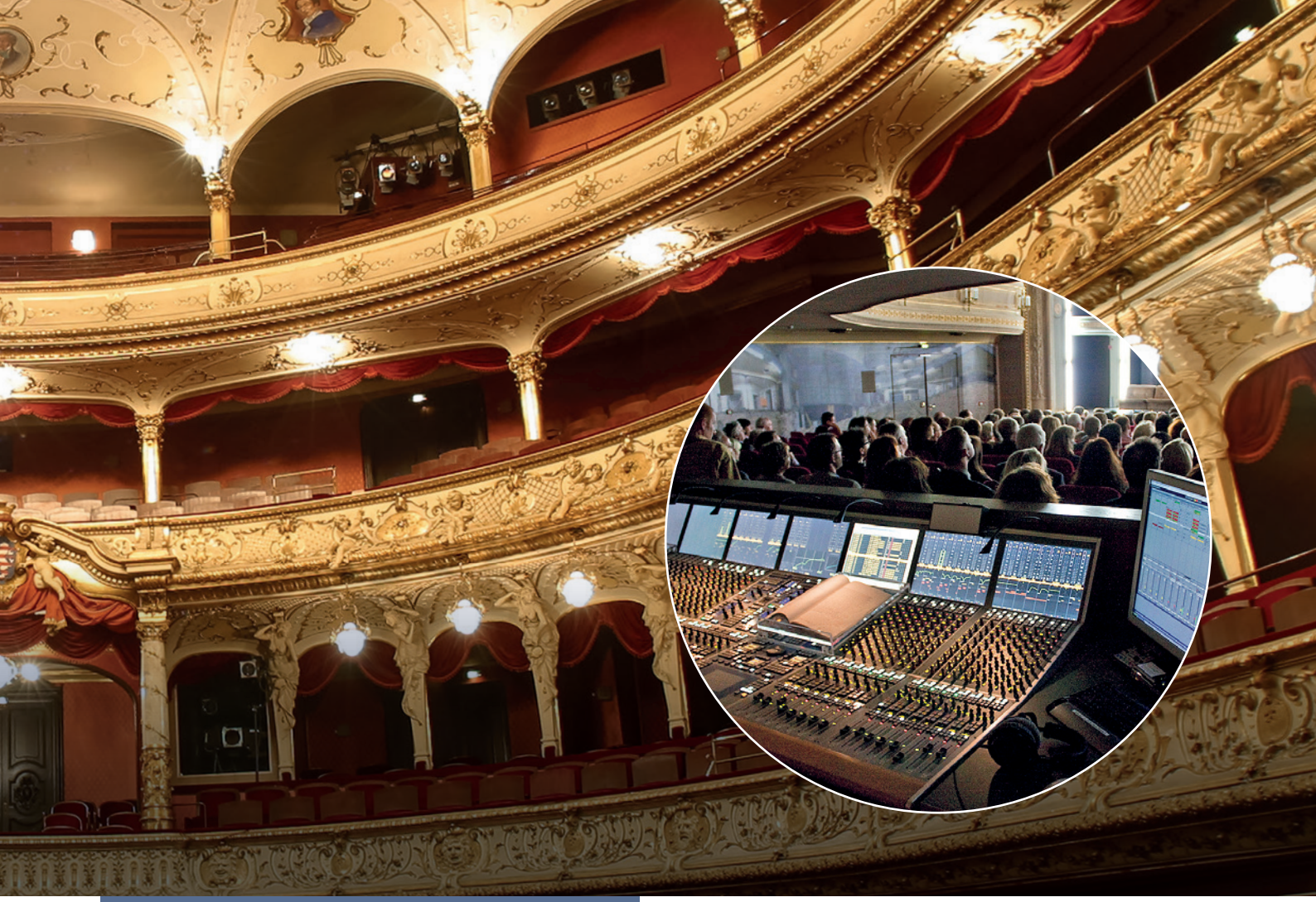
AURUS platinum layout with its discreet, fully equipped channel strips makes using the console fast and intuitive, thus reliably preventing operating errors. The feature-rich panels of the master section provide instant access to all key functions. Again, STAGETEC has set new standards in terms of fast, user-friendly workflows based on direct access to all important functions.

Power

In an era of increasingly complex productions, being able to quickly store snapshots and scenes without slowing down rehearsals has become a key requirement. This means that the user needs to efficiently configure a large number of settings within a short timeframe already during the initial setup. At other times, for instance, when the cast changes, the system at hand must provide for fast and flexible implementation of necessary adjustments into existing projects. AURUS platinum offers a number of proven and smart solutions to support the engineer's work and has therefore become the reference console in sophisticated audio control rooms in theaters.

The scene-automation feature of AURUS platinum is based on snapshots that are able to store absolutely all console parameters. When integrated into a NEXUS routing system, the console also adds NEXUS snapshots as well as functions provided by the integrated NEXUS Logic Control to the scope of automation. In addition, you can implement countless other functions such as machine control, MIDI, and GPIOs. In reverse, MIDI commands, GPIOs, or timecode triggers can be used for controlling NEXUS/AURUS platinum system externally.

Fade times and curves as well as switching points of non-fade parameters are separately configurable per channel and scene. Not only can multiple fades run in parallel but you can even intervene into a fade in progress by simply touching the fader. The snap-mix feature enables the user to easily record dynamically automated, complex scenes without the need to dive into timecode automation.



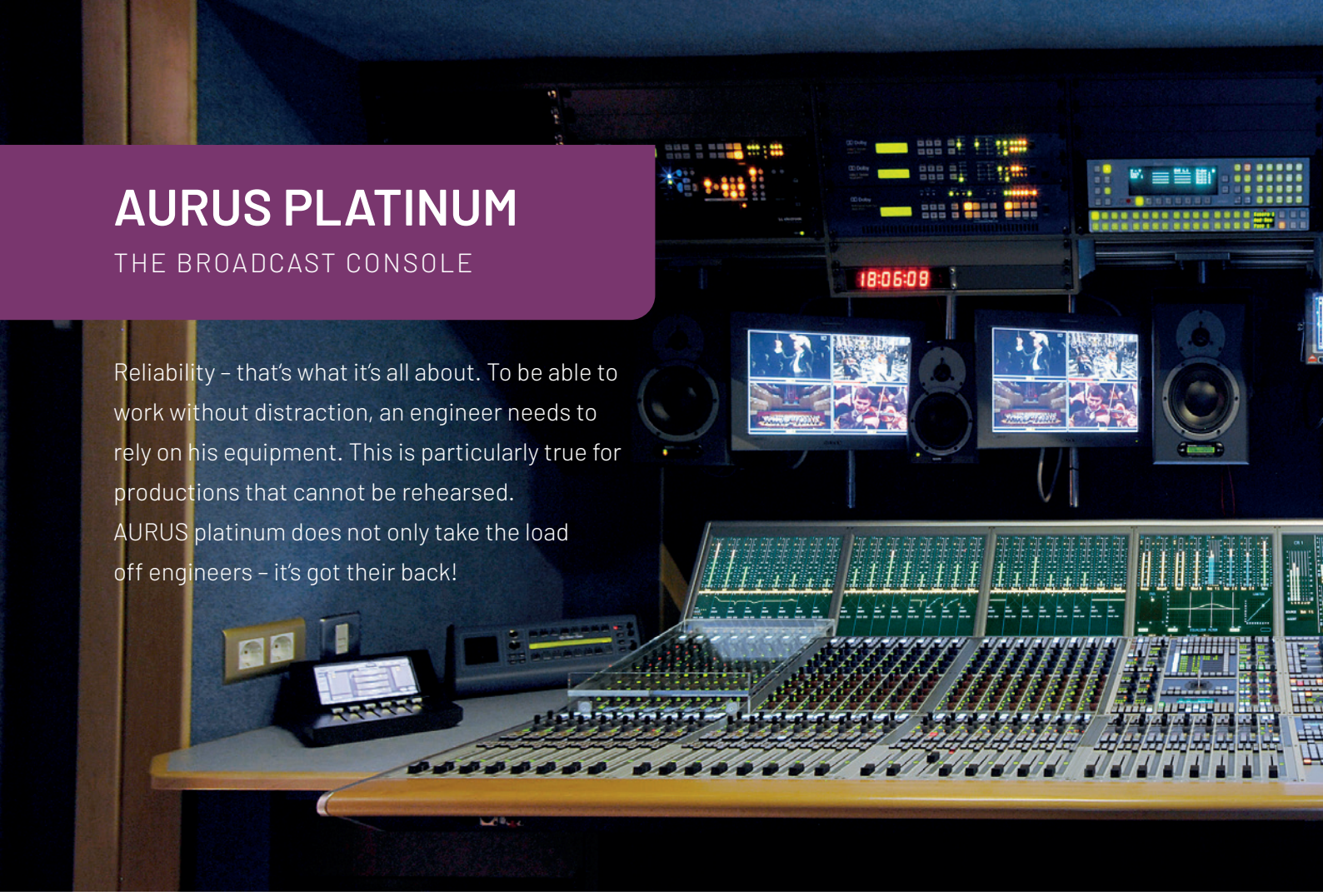
Overview

- Fastest workflows thanks to 10-ms full refresh
- Typical audio latency < 0.5 ms at 48 kHz
- Interference-proof, highly redundant system
- Microphone inputs with 158 dB(A) dynamic range
- Unlimited automation options
  - Snapshots, scenes – dynamic or timecode-controlled
  - Control of and by external systems through Ethernet, MIDI, serial protocols, or GPIOs
  - Full access to NEXUS parameters and the built-in macro controller through NEXUS snapshots
  - Additional, customizable snap layer per snapshot
  - Separate fade times and curves per channel and scene
  - Extensive editing options even during the show
- Integration into NEXUS audio network: thousands of audio I/Os in all common formats
- Protection of customer investments thanks to longevity and the servicing concept: 10-year spare-part availability guaranteed

When it comes to editing stored snapshots and cue lists, AURUS platinum offers numerous practical features directly targeting at theater and musical applications. In view mode, one can make edits to any scenes during the show without affecting the play's flow. Editing is not only available across scenes but also allows for copying specifically selected parameters or applying relative offsets to gain settings. All in all, adjusting complete shows to changed conditions is typically just a matter of minutes.

A long lifecycle

Quality is STAGETEC's core principle. All AURUS components are designed for maximum reliability and lifetime and are constantly refined and updated as part of the product maintenance performed by STAGETEC. All advancements are made with the focus on easy servicing and backwards compatibility. STAGETEC products typically achieve lifecycles of 20+ years from market introduction of the product to discontinuation of its support. The all-encompassing support concept ensures that expert assistance is available to clients for years after the purchase. These concepts not only make working with STAGETEC technology a pleasure for many years, they also guarantee for long-lasting investments that pay off!



AURUS PLATINUM

THE BROADCAST CONSOLE

Reliability – that's what it's all about. To be able to work without distraction, an engineer needs to rely on his equipment. This is particularly true for productions that cannot be rehearsed. AURUS platinum does not only take the load off engineers – it's got their back!

No stress whatever the size

The mature NEXUS audio network routes I/O signals of various formats freely on the system, thus allowing to create almost any configuration. NEXUS interconnects tens of thousands of audio I/Os, GPIOs, and control interfaces. Because timing is guaranteed on NEXUS optical network, distances, network topologies, and potential differences of the mains connections don't matter. Rock-solid operation. Always.

Setting up mobile base devices is a matter of minutes. The network is designed to allow making settings to AURUS' projects regardless of the status of the connected network: All routing, labels, and snapshots can be preconfigured even before the physical installation is complete.

Secure by design

NEXUS concept is based on distributed intelligence. There is no central hub required for operation – each base device is aware of the overall system status and handles both local and global routing and control tasks.

Redundancy and ultrafast error detection are some of NEXUS' key features. For example, whenever one link between two base devices fails, switchover to the other occurs inaudibly within a single sample. Components added to the network are found and activated within 2-3 seconds. The concept of redundancy and security extends naturally to AURUS audio mixing console. Redundant controller cards and console connections are available. DSP resources can even be configured redundantly on a project-by-project basis.

In addition to NEXUS' own, built-in health monitoring, which displays status messages directly on the console or connected computers, an administrator can have NEXUS statuses monitored through SNMP or send notifications by e-mail. For example, when using NEXUS Logic Control, the monitored parameters might include transmission-link levels. This way, all relevant components of the audio network may be added to IT-infrastructure monitoring at the broadcasting center.



Smart features for efficient operation

Full integration capabilities and guaranteed stability – that's another central foundation of all STAGETEC products. This is also true for AURUS platinum, which can be controlled using any sequence controller. NEXUS macro controller allows for configuring interconnections of almost unlimited complexity with external hardware and infrastructure systems.

Talk functions on every bus ensure flexible and hassle-free communication. The mix-minus buses on AURUS platinum offer not only simple matrix definitions but a host of advanced options making routine work much simpler.

To easily handle even big round table discussions, the console incorporates an Automix algorithm that can automatically set the gain of any or all console channels in four groups at the same time.

Local and global metering, monitoring, and upmix/downmix

To keep track of signal levels, AURUS offers extensive DIN and EBU compliant metering. EBU R128-compliant loudness meters are available for all groups and sums on the console. Via NEXUS global monitoring loudness data for each and every I/O in the network can be viewed right on AURUS platinum. This extends monitoring of the console inputs and outputs to the actual levels of transmission-line outputs or other relevant signals within the realm of the audio network.

STAGETEC is the only vendor to offer full integration of DSPECIALIST's patented ISOSTEM algorithm for upmix/downmix. ISOSTEM is the only system offering a mathematically reversible upmix/downmix and has been included in the options of NEXUS XDSP card which makes it accessible from anywhere inside the network.

AURUS PLATINUM

THE STUDIO CONSOLE

Whether in recording or post-production: nowadays, time is not just money but key to the success of a project. Being able to support spontaneous ideas with technology or easily comparing different sound concepts makes working with artists much easier. AURUS platinum console offers many tailored features simplifying daily work in recording studios.

Comprehensive DAW integration

The recording unit, of course, is the key tool in any studio. Therefore, STAGETEC offers a comprehensive DAW integration for AURUS platinum. The functionality supports not only traditional serial protocols but also modern, Ethernet-based HUI and OASIS links. In addition to standard functions such as start, stop, or record already offered by AURUS' integrated machine control, mapping DAW parameters to encoders, faders, and meters is supported by the optional DAW control software. For both HUI and OASIS protocols the full set of features supported by the protocol is implemented. This enables perfect studio-workflow integration with the console, giving access to both the console and the DAW from the sweet spot in a totally laid-back setting.

Since the console connects to NEXUS matrix, the entire system can be synced to any digital input. Timecode can be passed to the machines or DAW using serial connections, LTC, or MTC.The console can act as timecode master or slave. In total, up to 16 machines and/or DAWs can be controlled from a standard AURUS platinum. Those machines don't need to be located near the console but can be placed close to a base device anywhere in the network.

Flexibility is key

Depending on requirements, AURUS platinum can be used as an inline console or operate in split mode. All processing blocks of the DSP can be configured individually for each channel. This includes the tap point where the signal is routed to the DAW in inline mode.



Foto: © Patricia Schichl



AURUS platinum is capable of automating all audio parameters of the console including faders, EQs, dynamics as well as settings such as A/B input selection, group assignments, or the routing. The Mix Scope function then enables the user to make a detailed selection of parameters to automate. Within the mixing workflow, the isolate function allows to exclude individual parameters or entire channels from automation. In the process of recording the mix the engineer can put any channels or even specific parameters to write mode just by touching their controls. This way, he is always in full control of what the automation feature is actually recording. This makes the workflow very fast and straightforward.

No limits for project handling

While rehearsing and recording the mix, AURUS' Mix-Pass feature automatically creates a mix tree that can be used to quickly switch between different versions of a mix. With AURUS platinum, automation data cannot only be recorded but also edited while stopped. Absolute or relative changes to single parameters, entire channels, or any combination of those are allowed. In addition, the Fill function applies the changes to the mix in forward or reverse direction, or between specified locators. Using Mix-Edit cue lists, recurring changes can easily be edited, cut, copied, moved, and pasted over the complete timeline.

Perfect hardware integration into the NEXUS audio network

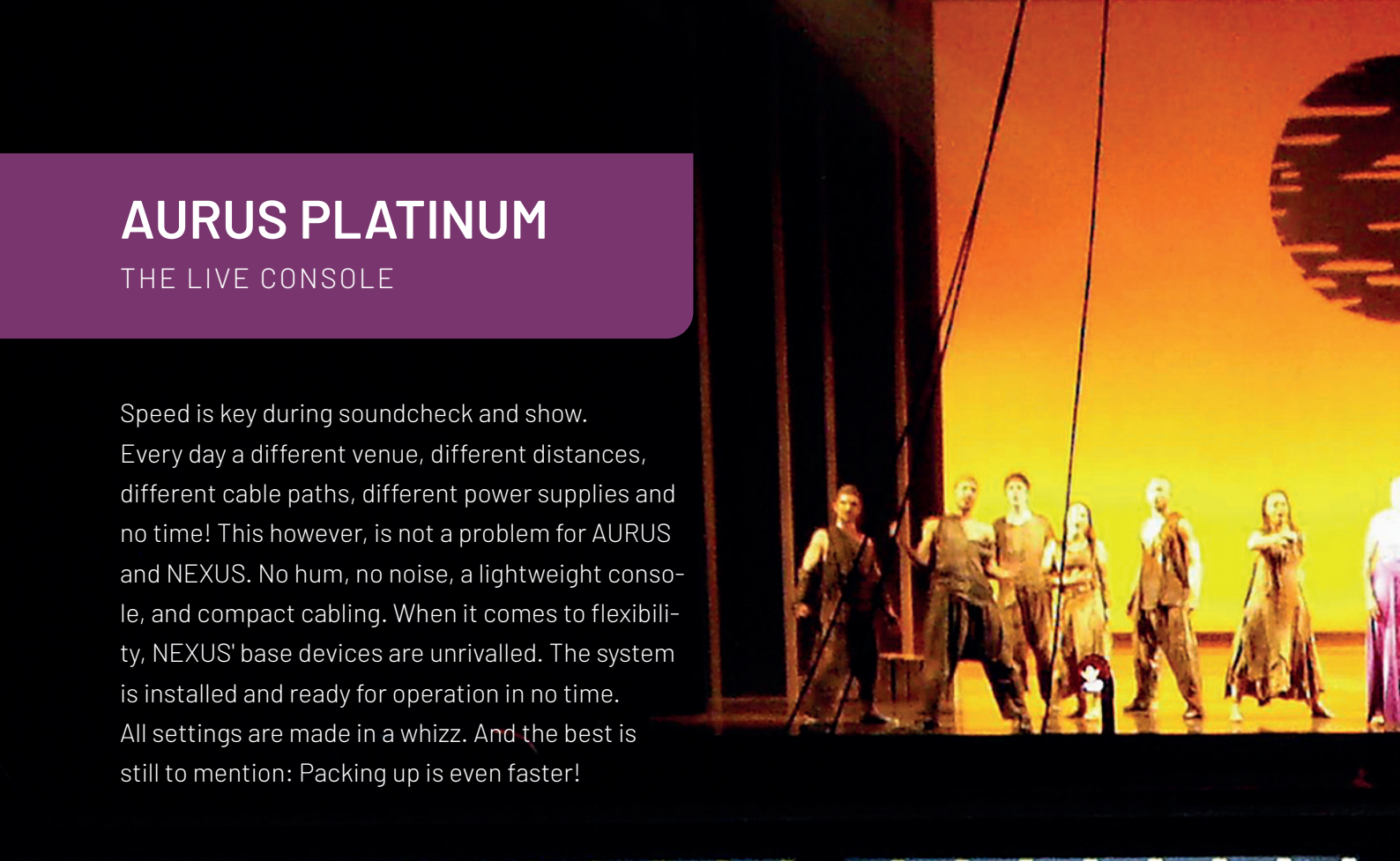
TrueMatch® microphone converters ensure maximum audio quality. This patented technology by STAGETEC supports sampling rates of up to 96 kHz with an unrivaled dynamic range of 158 dB(A) and, above that, requires no analog preamp. By this, it turns virtually any standard microphone into a "digital" microphone with unprecedented clarity and sonic imaging.

In particular, busy studios housing several control and recording rooms need to be able to make use of their installations and infrastructure in any combination and with utmost flexibility. For this purpose, the outstanding power of NEXUS provides solutions that would otherwise be beyond reach. Even the most complex system statuses and routings can effortlessly be loaded with the press of a key. The system configuration is designed in a way that supports different security levels that make day-to-day operations as simple as possible and as secure as necessary.

Foto: © Burlington, Fotolia

AURUS PLATINUM

THE LIVE CONSOLE



Speed is key during soundcheck and show. Every day a different venue, different distances, different cable paths, different power supplies and no time! This however, is not a problem for AURUS and NEXUS. No hum, no noise, a lightweight console, and compact cabling. When it comes to flexibility, NEXUS' base devices are unrivalled. The system is installed and ready for operation in no time. All settings are made in a whizz. And the best is still to mention: Packing up is even faster!



Like a spider in its web

AURUS platinum console sits in the heart of NEXUS audio network and provides access to all functions of the system – from the built-in microphone splitters to all NEXUS routing settings and further on to all those delays, EQs, and limiters of the P.A. system. To keep the user up to date, the permanently active self-monitoring feature routes all messages to the console for assessment. Though the probability of a breakdown is extremely low, all components are hot swapable and ready for operation just 2–3 seconds after plugging. NEXUS matrix can route all signals to any destination. For instance, the console's talk microphone can be sent to any bus and even through to an external intercom system of a third-party manufacturer.

The console can respond automatically to external errors and statuses. Trigger events can be either remote or local – for example, when a player fails, or the man in charge of the wireless systems presses a cue key. In the opposite direction, dedicated monitoring pages and custom cueing, for instance, can support work in such positions. Even external functions of maximum complexity are under control. Scenes on AURUS can set local parameters as well as remote third-party device configurations through GPIO, serial protocols, Ethernet, or MIDI.

In a timecode-controlled environment, AURUS platinum acts as master or slave. NEXUS distributes the timecode information on the entire network and passes it to external systems with highest precision.

Efficient, fast, cool

When designing AURUS platinum, one of the main ideas was to allow multiple engineers to run a large production from a single console. To achieve this, all audio processing functions have been integrated right into each channel strip: Access to gain, 10-band EQ/filter, compressor, limiter, delay, buses, panning, and more parameters is available without ever having to use the master section. All encoders, keys, and faders in all channels can be operated at the same time.

Each of the highly effective filters has a gain range of ±24 dB. For live use, in particular, the two additional notch filters per channel are worth a million. On top, AURUS pla-





tinum provides a MEM setting for all EQ and dynamic units – perfect for easy A/B comparisons during soundcheck or for dual EQing. Of course, all those settings are stored to all snapshots and libraries for later use and export.

Grouping options are another helpful feature. Stereo, link, and master/slave groups are available as per demand. Combined with the SPILL function and the globally enabled VCA mode, an engineer can quickly set up and handle even large numbers of channel groups with highest flexibility in a space-saving way.

Live use is where NEXUS shines

NEXUS audio network comes with a number of invaluable features for live use in particular. To name one, the TrueMatch® microphone converters with their dynamic range of 158 dB(A) are globally recognized as best in class. Another very helpful extra of the microphone inputs are the integrated four active splitters for every input. Each has their own gain, high-pass, and phase settings, for connection to up to four consoles. Many formats such as analog I/O, AES/EBU, MADI, AoIP (AES67, Ravenna, Dante), or other exotic variants are available for seamless integration of third-party consoles and all other connection needs. All system inputs and outputs are freely configurable and can be placed as close to the source as required using mobile base devices, thus reducing cabling efforts, speeding up installation, and making the entire operation less error prone.

Clock, timecode, control signals

Thanks to its high accuracy, NEXUS is used as clock master in many environments. As a slave, NEXUS can sync to any of its digital inputs. Sync hierarchies define the priorities in cases where multiple sources are connected. Seamless Sync-Transitioning guarantees smooth operation of the network with no dropouts if an external sync fails. Right from the start, NEXUS has allowed for transparently routing timecode, sync, and serial signals across the network and distribute them to taps as required. Of course, virtually any external serial or other type of signal can be used to control NEXUS/AURUS overall system but AURUS platinum also generates MIDI, RS-232, and other signals for controlling external devices. This way, automating even complex shows is easy to handle.

AURUS PLATINUM

THE DIRECT ACCESS CONSOLE



Monitoring panels

- Ultrafast visualization of all parameters
- Meters meet DIN/EBU specifications including EBU R128 compliant loudness metering
- Clear, ergonomic visualization
- Excellent display readability from any viewing angle
- Context-aware displays showing all currently relevant parameters
- External screen inputs supported:
- Cameras (conductor, PGM, etc.)
- Computers (Ableton, Waves, etc.)
- Flexible screen switching of content
- On demand through user keys
- Using scene and dynamic automation

Multifunctional panels

- Fast operation thanks to instant access to gain, delay, EQs/filters, compressors, limiters, expanders, gates, buses, and panning from within any channel
- Perfect design for simultaneous use by multiple engineers
- All channels are freely configurable
- All encoders are touch-sensitive

Fader panels

- Touch-enabled, motorized faders with smooth action
- Each channel strip can be used as a channel, a group-, or a bus master. Each szene can define a new assignment.
- Flexible definition of groups as required
- Comprehensive options for parameter access and libraries
- Static and dynamic automation of all parameters
- Isolation of single parameters or full channels from automation



Master panels

- Proven Direct Access concept for maximum working speed – derived from modern airplane dashboards
- All key functions, layers, and libraries instantly accessible
- Comprehensive storing/loading from single parameters up to the entire console configuration
- Scene and dynamic automation supported, operation as master or slave
- Full integration with NEXUS audio network (audio crossbar and macro controller with all formats of analog, digital, and AoIP I/Os)
- Freely assignable user keys for controlling any console or media-network functions

- **Flattest console design in its class provides perfect stage view**
- **Power-efficient design, no fans**
- **Lightweight high-tech construction**
- **Modular system supporting custom modifications**
- **8–96 faders in a single frame**
- **More relaxed working conditions due to very low heat dissipation**
- **Highest quality Made in Germany**
- **Service-friendly modular design: panel hot swap within just 2 minutes**
- **Fully independent panel operation, spilled drinks or the like will never affect the entire console**
- **Desk and DSP run independently from any PC**

AURUS PLATINUM

THE DIRECT ACCESS CONSOLE



AURUS platinum is a Direct Access console featuring a **large number of controls** that make all key parameters immediately available.Each channel strip includes 11 soft-click concentric encoders with multicolored dual LED arcs plus 32 durable, industry-grade keys.

The **dual encoders** provide two separate controls on a shared axis plus an integrated button. They typically have coherent functions configured – for example, the EQ gain and frequency for a given equalizer band. The functions less frequently used are accessed by pressing the encoder button. Parameter statuses are displayed through alphanumeric displays as well as dual LED arcs that provide information through colors, angular data, and bar/dot graphs.

Multiple further functions can be assigned to the encoders using **backlit short-stroke keys** with a nicely perceivable click located close to the respective encoder. Some of the keys provide dual functionality selected by either a quick press or pressing and momentarily holding the key.

The smooth-action **100-mm motorized faders** of AURUS platinum have touch-sensitive knobs and are literally made for decades of focused working.

Derived from operating concepts originally developed and tested in the aviation industry, AURUS platinum with its advanced **master control panels** was designed with ultrafast instant access to virtually all console functions in mind.

The **monitoring, PFL, and talk/talkback** section is comprehensive and highly flexible yet still extremely user-friendly. Once memorized, an engineer will immediately find any function without the need to navigate through menus. This is an indispensable asset for fast and reliable everyday work.

The sections in the master control panels dedicated to the automation features are designed to control two external tape machines, DAWs, etc. at the same time. In this context, the snapshot functionality with its extensive configurability and the numerous selection options forms a basis unrivalled in the marketplace.

The perfect interplay between AURUS desk and NEXUS once again shows in the **numerous assignable user keys**. These allow for directly accessing almost any system function and for controlling any external devices. Of course, this includes logic operations based on complex conditions, and user-defined workflows.



AURUS PLATINUM

GROUPING

In modern productions it takes detailed planning and a structured approach to keep track of all requirements and to make necessary settings and changes as quickly as possible. AURUS platinum supports audio engineers with a multitude of useful features and functions, providing the right solution for any use case and personal preferences. Key features proving the versatility of AURUS consoles include the various grouping functions and the speedy implementation of changes into existing show sequences.

Group as you like it

The grouping options of AURUS platinum leave almost nothing to be desired. They include the full range from simple mute, stereo, and surround groups to fully configurable master/slave, VCA, and link groups. Where reasonable, channels can be members of multiple groups.

Stereo and surround groups

For traditional stereo or multichannel sources, AURUS supports grouping all participating channels. With stereo signals, this is done by a single push of a button. For each group, the set of parameters to be linked may be precisely defined. For instance, to avoid phase issues when routing stereo sources to mono buses, the AUX levels can be excluded from stereo linking. Of course, AURUS will automatically apply a metering mode appropriate for stereo or surround formats. Pan-mode handling is automatically selected, too, but can be changed as required.

Link groups

With AURUS platinum, link groups offer the same flexibility when it comes to parameter setup; however, they have priority over stereo and surround groups. Each fader that is part of the group can be used as master fader. All other faders as well as all linked parameters will follow the changes made. This is true even if the channels being edited are not available on the surface. There is no limit to the number of channels that can become part of a group.
Also, the parameters to be linked can be defined freely for each individual group. This way, handling even vast amounts of sources and channels works like a breeze. Be it the handling of ambience microphones, choirs, or even full orchestras, all linked channel settings will adapt to the updated master parameter within 10 milliseconds.

Master/slave and VCA groups

As opposed to link groups, exactly one channel fader will become the master for all channels belonging to a master/slave group. This makes handling offsets particularly easy. Master functionality may be attributed to any specific desired channel of the group. It is also possible to select an unused, silent audio channel to become the master for true group behavior. The complete desk may be switched to typical VCA behavior. This mode is especially useful when combined with "silent" master faders as none of the group faders will move when the gain of the master is changed. One specialty about AURUS platinum is the VCA bypass feature, an option to temporarily remove individual faders from the VCA group or for overriding the master control functions. Of course, solo-ing the virtually summed signal of each master/slave or VCA group at accurate channel levels is possible at any time.

Spill and override of groups

When setting up the console, slave channels from the various groups can be assigned to unused layers in order to save space. To gain direct access to the hidden channels, a simple press of the SPILL button will immediately bring them to the surface. AURUS will show channels from groups of various types in a hierarchical order and will memorize the latest user selection.
Creating offsets between linked parameters is simple and always works in the same way regardless of the group type: Touching and holding the fader or encoder of the respective parameter in one channel of the group will enable changing that same parameter in any other channel of the group. As soon as the touched control is released, AURUS will restore the link but will retain the created offset.

To enhance grouping possibilities, just like layer settings, AURUS can save groups along with all of their configured options to snapshots for later recall.

The full-fledged AURUS channel strip at a glance

2 user keys freely assignable with any functions

Direct input selection (A/B)

ON/OFF keys for the limiter, compressor, expander/gate, and delay. Lit when enabled.

4 touch-sensitive, soft-click **concentric encoders** with dual LED arc indicators make up the **blue function group**. The current group function is selected by pressing the appropriate encoder: A press on the topmost encoder will access the **limiter** settings. Pressing the second encoder switches to operating the **compressor** parameters. The third encoder selects the **expander/gate**, while the last one accesses the settings of the first 16 **aux sends**. Encoder response curves and many more options are customizable.

The **red encoder group** has 5 identical concentric encoders and arcs used for viewing and operating the **EQs and filters**. Using the FILT PAGE key located below, you can toggle the encoders to setting the **notch and shelving filters**. Just like with the dynamics and AUX settings, touching the encoders triggers the visualization of the selected parameters on the TFT displays at the top of the channel strips.



ON/OFF keys for enabling EQs, panning, and notch/shelving filters. The EQ MEM key allows to instantly switch between two separate EQ settings. Other key functions give access to enhanced functionalities.

The **upper gray concentric encoder** can be assigned with a lot of functions selected using the keypad located above it.

The **lower gray encoder** controls the various pan, balance, and divergence settings for the selected bus type.

In addition to the familiar standard keys, the **layer key** can toggle the complete channel strip between the two audio channels assigned to the strip simultaneously.

The **display** shows the assigned front layer channel and, in a smaller font, the back layer channel.

The **keypad** located below the display has buttons for the most important **dynamic automation** features as well as for triggering the various group types available with AURUS platinum. In particular, the **SPILL key** gives instant access to the normally hidden channels that are part of larger control groups.

The **100-mm smooth-action motorized faders** of AURUS platinum are extremely fast, precisely working, and, of course, touch-enabled. You can even assign an additional function to the lower stop.

At all times, a large number of indicators provides information on the status of the currently assigned audio channel.





AURUS PLATINUM

CHANNEL CONFIGURATION

The DSP design of AURUS' channel processing provides all functions imaginable and an abundance of configuration options. Invariably, all functions are available in each channel and can be arranged in any order individually on a per-channel basis. STAGETEC makes no compromises on quality and reliability: Rather than going with commercial off-the-shelf processors or even conventional computer hardware, the scalable RMDQ audio processing cards consistently incorporate only top-notch DSP technology.

Using AURUS platinum channel configurator, all processing blocks can conveniently be arranged by simple drag and drop. Every channel can have its own configuration incorporating not only the desired audio processing but also all metering, monitoring, and bus features. The channel configurator also allows for enabling and configuring summing of the two channel inputs A and B.

Short channels

Users who need an extra-large number of audio channels, can opt to use a custom number of so-called short channels on a per-project basis. These are channels without inserts and sidechaining which will typically not affect the overall functionality. The use of short channels will increase the total number of channels available in the project.

Inputs

Each AURUS channel, at the same time, receives up to two audio sources (inputs A and B) from anywhere within the connected NEXUS network. This is regardless of their positions, locations, and audio formats. NEXUS will automatically take care of the routing and any conversion necessary. AURUS platinum provides gain controls for each input and, additionally, has a separate gain setting for NEXUS microphone inputs right on the console. The microphone splitter integrated on NEXUS XMic cards ensures that other consumers (for example, a recording machine or a connected OB vehicle) can configure their own separate settings, completely avoiding any interference.

Delay

Each AURUS platinum channel includes a delay function with an incredible delay time of up to 2,700 ms. The feature can be enabled or disabled using the ON/OFF key and the delay time be set down to the sample.

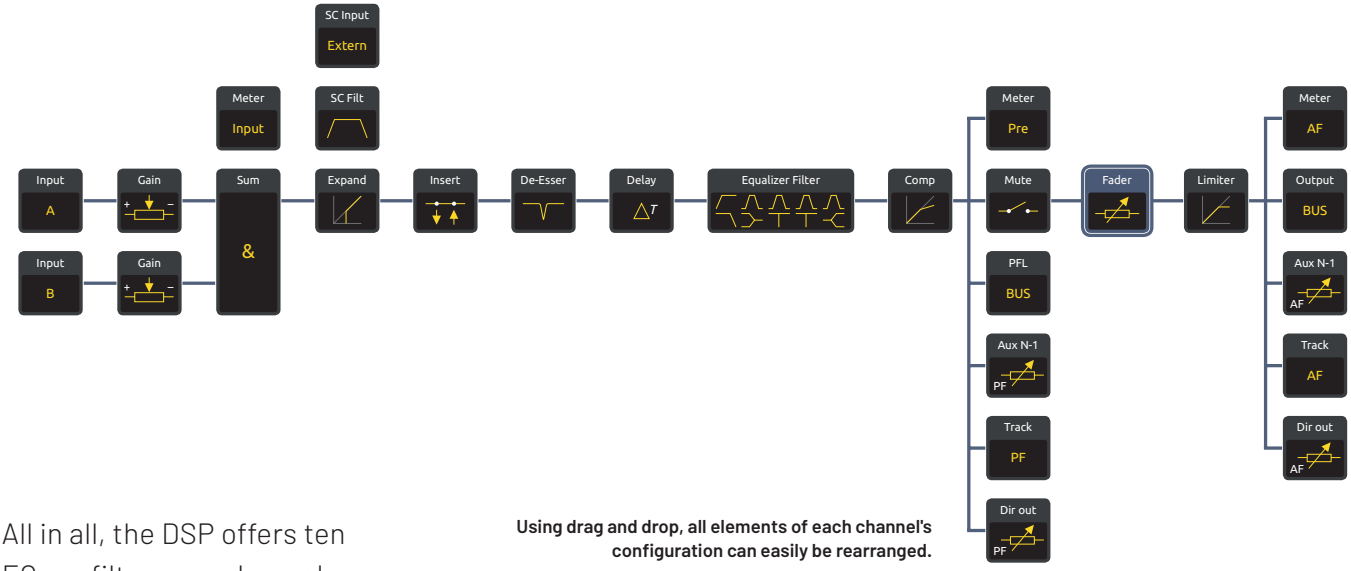
Dynamics

AURUS platinum offers an expander/gate, a compressor, a limiter, and a de-esser per channel. You can place and set up each of these modules independently. The decision which of the dynamics modules is to be controlled by the external SC INP key input is up to the user. The same flexibilty also pertains to the SC FILT high-pass/low-pass filters. All dynamics modules offer the typical parameters necessary for absolute control. The channel display constantly visualizes all settings and their effect on signal gain. Experienced engineers from broadcast and theaters appreciate the sensitivity and the absence of any distortion that are so typical of STAGETEC's dynamic units.

Equalizers and filters

Just like with the dynamic processors, the encoder response curves for editing the equalizer and filters can also be set individually in the project configuration. The value range of all parametric EQs is ±24 dB in steps of ¼ dB. The frequency can be set in steps of 1/24 octave. All high-pass and low-pass filters have adjustable slopes between 0 and 24 dB per octave in steps of 6 dB.

The renowned STAGETEC filters employ a specially developed, highly complex circuit design to achieve an outstandingly neutral behavior. For this reason AURUS is often referred to as the "most analog-sounding digital mixing desk in the world".



Using drag and drop, all elements of each channel's configuration can easily be rearranged.

All in all, the DSP offers ten EQs or filters per channel: four full-parametric EQs, a high-shelving and a low-shelving filter, a high-pass and a low-pass filter, as well as two notch filters. The frequency settings of all EQs and filters are freely adjustable across the entire audio range from 20 Hz to 20 kHz.

Buses

All 128 buses of AURUS platinum are configurable on a per-project basis. There is no limitation regarding the bus assignment and usage. All buses are simultaneously available, each providing the full functionality of a channel strip.

Of course, AURUS platinum automatically configures bus handling and type as per the selected settings. This way, the user can easily operate mono, stereo, and surround buses. The first 16 AUX sends are accessible directly from the channel strips while all remaining ones are set up using the master control panel.

Fader and mute

With each channel strip, the fader is the base item around which the entire channel is arranged. This includes the mute position, too. In addition, AURUS platinum faders feature lower stops that can be assigned with various functions using the configuration software.

Metering and monitoring

AURUS platinum offers three metering points that the user can select between: immediately after the input as well as configurable pre-fader and post-fader positions. To add to this, access to NEXUS monitoring pages is possible right through AURUS' user keys. This is a very convenient feature for monitoring signals existing anywhere on the audio network even if they are not routed to the console.

These flexibly assignable keys are used for monitoring, too. With a single press, the audio engineer can route any signals on the network to the monitoring buses. Depending on the channel type and the signal in use the monitoring tap-points can be configured in a similar fashion as the metering for each individual channel.

Group and summing channels

Next to the standard channel DSP functions described above, AURUS offers a dedicated set of DSP resources for each group and bus configured in the project. Although the available DSP blocks slightly differ depending on the type of sum or group they are used in, AURUS, in general, imposes no limits on processing. It's this impressive power and performance that make AURUS certainly the leading console in its class.

Crosspoints

Since AURUS platinum fully integrates with NEXUS audio network, the console provides two separate I/O hierarchies that the user can combine as needed. Routing is not confined to the inputs and busses or outputs the user has defined in the current project. Beyond this, both NEXUS and AURUS offer additional signal types which can be used for various purposes. More on this later, though.

Thanks to the seamless integration, practically all signals are freely routable on the complete system throughout AURUS and NEXUS crosspoints – no matter how complex! This opens up upreviously unimagined possibilities, in particular, for using inserts and sidechain inputs.

And that's not all: NEXUS built-in macro controller offers additional logical signals that appear on the crosspoint matrices and can be routed just like an audio signal. This way, a user can configure signals based on logical conditions for controlling the dynamic units and other features on the desk's channels. AURUS platinum uses this genius' tweak, for example, for the audio follow video function, thus making it much more powerful than competing solutions.



AURUS PLATINUM

AUTOMATION

Automation: from A (like AURUS) to N (like NEXUS)

AURUS offers three types of automation in total. As with all audio-processing features, AURUS' automation concept extends to encompass the entire NEXUS system. In addition, NEXUS Logic Control incorporated in each base device can provide connections to external third-party systems to also include those in the automation scope. Of course, any automation within an AURUS console and/or NEXUS network can be controlled from the outside as well. Integration with show controllers, stage manager's desks or the like is possible without much effort.

Snapshots

With AURUS, snapshots are the basis of scene automation. Various snapshot types are provided for flexible handling of the parameters to be stored. This ranges from function snapshots storing individual channel settings to full snapshots that contain not only all parameters of all channels but also all global console settings. With every snapshot, the user can always select exactly what to store.
Each full snapshot includes a so-called snap layer of all channels currently on the surface. Since channel selection does not depend on the global layer settings, an engineer can freely switch between the snap layer and the regular layers defined in the project. Thus the snap layer is the perfect tool for having all required channels of a scene instantly accessible.

Scene automation

The scene automation allows for adding snapshots to a scene list. In addition to snapshots, the list supports linking of other operations and commands such as MIDI or machine-control commands, NEXUS Logic Control macros, and recalling NEXUS snapshots. Each scene will also store and recall all further settings of the console including the already-discussed layers, labels, groups, and parameter settings. By this, the entire I/O routing of the complete system could be changed with each click of the GO button. NEXUS Logic Control can add external equipment to the control scope, for example, studio signal lights. Even the most complex interactions with the stage-management system are possible.
Scenes can be recalled from the desk itself by the push of a single button as well as by external cues or triggers. Since scenes can be combined to automated sequences and each scene stores individual fade times and curves for every single channel, this alone already provides endless options to create highly complex shows.

But that's still not all: Recording dynamic scene mixes involving any or all console parameters give the user full timecode functionality within a single scene. This feature is rather popular, for example, among sound designers for effects and other show gimmicks: Scene mixes are set up quickly and easily with no need for using timecode

or the dynamic automation or even complex preproduction on external systems. Record, store, recall. As simple as that.

Dynamic automation

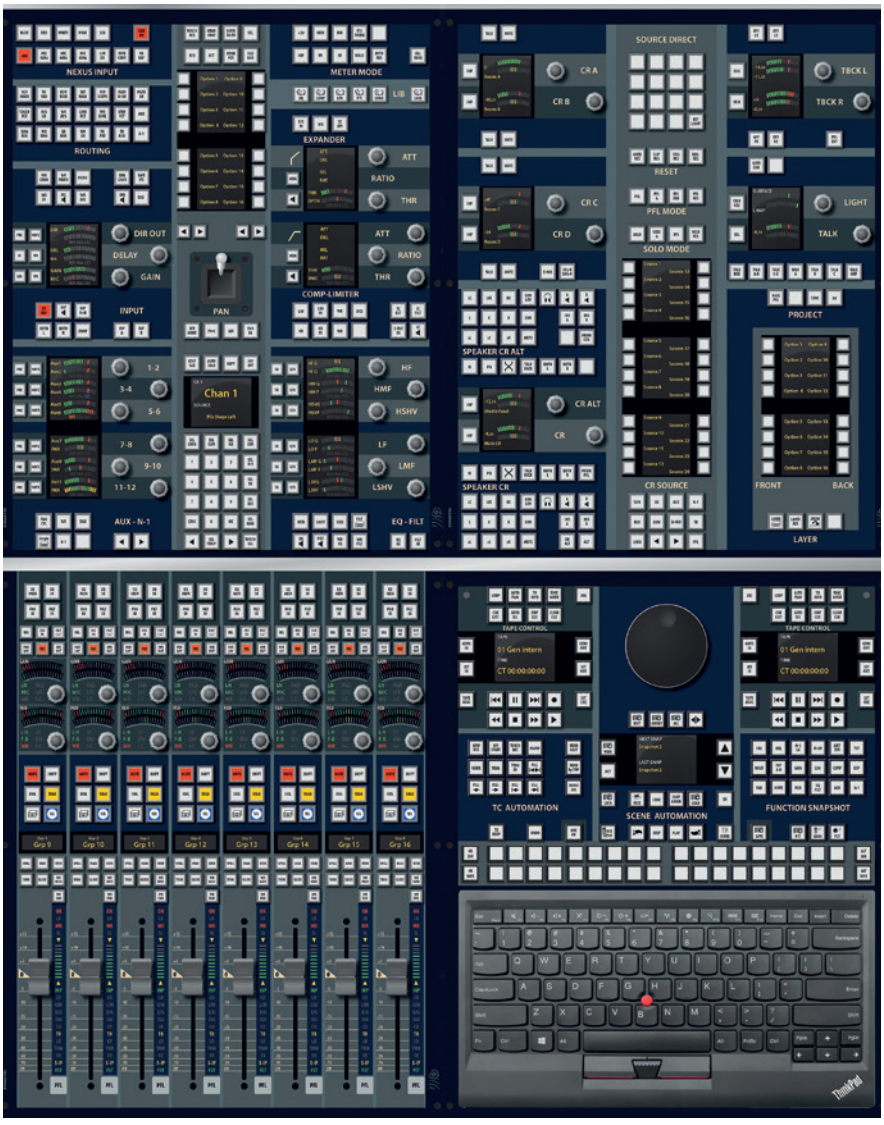
The dynamic automation is the most powerful automation tool of AURUS platinum. The extremely high refresh rate of only 10 milliseconds for the full parameter set of the whole console treats the engineer to what can, for sure, be called the smoothest experience any console in the market can offer. Recording and playback of all user actions on the desk are timecode-controlled. AURUS acts either as slave or master and seamlessly integrates with external DAWs and even legacy tape machines. The dynamic automation supports up to 16 devices connected to NEXUS network regardless of their physical location. Of course, an AURUS platinum offers all relevant controls including a jog wheel.

Just like with all other automation and recall features, you can temporarily isolate individual parameters or channels from automation. With AURUS, this is done quickly and easily down to the single EQ parameter.

Editing automation data

AURUS' dynamic automation proves particularly powerful when it comes to editing recorded automation data. The options offer easy and fast solutions for such complex tasks as integrating a replacement actor into a fully recorded show or updating only EQ and gain settings after a specific microphone has been replaced. When doing so, the new settings can either be recorded manually or be added from libraries as discussed below. They are then applied as absolute values or as an offset to separate sections or the entire mix. When the operator applies editing to a recorded automation, there are manual and automatic options for blending new into existing portions. The fadeover times are freely adjustable.

When rehearsing using a DAW recording or in the studio while experimenting with different settings, the Mix-Pass feature is a particularly handy tool. The feature automatically records any number of mix versions, enabling the engineer to easily switch between versions to compare and select the best one. All versions are stored as part of AURUS project and are subsequently available for use at any later time.



Libraries

User-definable libraries are another feature that makes working with an AURUS so simple and fast. STAGETEC has implemented a comprehensive system that covers virtually everything from storing individual functions to entire channel strips. In addition, one can store and import libraries for exchange between projects.

To simplify working with recurring setups, AURUS offers naming and resource libraries. Naming libraries store the labels of all I/Os, buses, and other items; resource libraries are the solution to efficiently reuse sources with a large number of channels. This is highly beneficial for those users who work in studios equipped with DAWs or other multichannel players or with setups implementing numerous microports or the like.



AURUS PLATINUM

MONITORING AND METERING

Be it in studios, theaters, or broadcast applications: reliable and responsive metering is not negotiable. Monitoring requirements, on the other hand, depend a lot on the scope of work. – Good to know that AURUS platinum makes no compromises in either area!

Six separate monitoring buses

Another area in which an AURUS console can really flex its muscles are the options available for control room and other monitoring needs. This, again, is due both to the vast amounts of features as well as the perfect integration of the console with NEXUS network. Virtually any signal may be routed to any monitoring bus using the crosspoint matrices. The only exception is the Solo bus that's hardwired to CR1 by default but can also carry other signals unless Solo is active on a channel.
AURUS platinum provides two main monitoring buses (CR1 and CRalt) that may be configured for any audio format up to 7.1. In addition to those two multichannel-enabled CR buses, the desk has another four CR buses (A to D) supporting mono and stereo operation. Interrupted foldback (IFB) and other applications come to mind as use cases here.
Underneath the handrest, the console has two headphone jacks, one on each side. The signal sent to these can be selected from the list of CR signals available. Logically, volume control is provided by the encoder assigned to the respective CR bus on the console surface. In projects with fewer monitoring needs, control room busses may be switched off, thus freeing DSP power for other options.

PFL and solo to your taste

AURUS platinum supports all PFL and Solo modes any user might fancy. It's not just that the tap position of both PFL and Solo (AFL) can be configured individually for each channel. No, beyond this, the master control panel holds keys to immediately listen into any channel's signal at different points in the signal path: directly after the input, in the sidechain, at the insert return, or the direct out tap.
The PFL function of the desk can be set to interlock or mix mode, the latter with any number of channels. A convenient twist is the key action: When pressed shortly, it toggles PFL ON/OFF. Pressing and holding it will allow for momentary monitoring. Combined with the option to also use the lower fader stop for switching PFL, which generally works in summing mode, the engineer always has all options at hand without the need to switch functionalities in the master section.

Operating the Solo functions is equally simple. In addition to standard Solo routing to the CR1 bus, AURUS also offers a Solo-in-place option which will work onto the console's main bus. Of course, this feature can be combined with Solo-in-place "safe" as needed for specific channels.

Talk and talkback

AURUS has two talk and two talkback channels. Like any AURUS standard channel, these have two inputs (A and B) as well as their own DSP functions. In addition, the talkback inputs feature a 1: 4 splitter and separate gain settings. Again, the flexible routing options allow for countless applications. The talkback microphone port on the console can be used as an input just like any other audio channel on NEXUS. This option is particularly interesting when used in conjunction with an AES/EBU intercom system: Since the AES/EBU inputs and outputs of NEXUS support fully bit-transparent connections, they can be used to run the intercom through NEXUS without need for additional cabling while, at the same time, furthering the intergration of both systems.

The monitoring section of AURUS' master control panel enables the operator to directly talk into any, all or selected groups of the control room buses by a single button press. Of course, this includes the familiar DIM and AUTODIM functions. Likewise, the talkback channels can be accessed from the master section.

AURUS metering

AURUS' big screens show the current levels of channels and buses at all times. Obviously, fast response is a must. The TDM-bus technology consistently used throughout NEXUS network guarantees the incredibly high refresh rate of just 10 milliseconds, meaning that all console values are updated a hundred times per second. Beyond doubt, the responsiveness of the metering displays in AURUS is the fastest of all digital autio consoles currently available.

Unquestionably, AURUS platinum also meets all metering requirements for channels and sums. It automatically shows mono, stereo, and surround levels as configured. Gain reduction of compressor and expander/gate is displayed discretely. Additional options include configurable peak-hold, attack, and release times as well as simultaneous dual-level metering (pre- and post-fader). Signals with low levels can be set to be shown with a +20 dB boost. Graphical feedback provides assistance for setting EQs and dynamics. Third-party goniometers may be connected externally while a fully integrated version is also available. Of course, all meters are compliant with global broadcasting standards. All groups and sums support EBU R128-compliant loudness metering with start/stop triggers from the desk. True peak metering will become available with software version 4.4 which will be released in Q4, 2017.

NEXUS metering

In addition to AURUS metering, NEXUS has its own metering system. 16 display layers can be configured freely to show up to 96 signals each. User keys on AURUS console may be programmed to bring up any of these pages on the metering screens, this way providing insight to up to 1,500 signals of choice.

Since NEXUS is capable of presenting EBU R128-compliant loudness as well as PPM levels for each output, the integration takes metering well beyond the realm of the console itself. For instance, signals can be monitored and the true output loudness tracked even if outboard compressors or other devices are inserted into the transmission path. Thus, the engineer literally has everything under control at all times. Using the optional NEXUS master monitor (see page 23) this functionality can even be further enhanced.

Audio quality without compromises

From day one, STAGETEC has pioneered digital audio processing and highest demands to audio quality have always been inherent to driving innovation in the company. The consistency of STAGETEC's concepts is unrivaled in our industry. Until this day, no other manufacturer has succeeded in delivering such complete integration of audio console, I/O network, and control functions as STAGETEC can present with AURUS and NEXUS. STAGETEC strictly implements maximum audio quality from the input through all processing stages all the way to the output:

- Unrivalled common-mode rejection by patented TrueMatch® technology
- 158 dB(A) dynamic range offered by TrueMatch microphone inputs
- No analog preamplification required – no noise. Every microphone becomes "digital"
- Smart inputs avoid clipping and offer maximum headroom in each signal-processing stage
- TDM ensures consistent minimum latency throughout the overall system
- Matched-to-the-sample signal processing and summing on all AURUS platinum buses absolutely avoids all phase issues
- All switching actions and delay settings employ rapid fading to guarantee click-free operation
- Optimization of converters and filters for maximum sonic neutrality

Synchronization features:

- Clock accuracy: ±5 ppm (exceeds AES 11-2003, grade 2 by the factor of 10)
- Sync to any digital source
- Dedicated sync inputs for various formats
- Customizable sync hierarchies
- Inaudible sync transitioning when changing sync sources
- Maximum computing accuracy with 40-bit floating-point arithmetic

AURUS PLATINUM

FURTHER INTEGRAL PRODUCTS

Every user knows how each production has different requirements for his own scope of work, alone. Thus, it is quite understandable that the range of requested solutions is much wider when taking into account the demand of studio complexes, theaters, multipurpose venues, exhibition grounds, or the multitude of live productions. Different conditions – every day!

STAGETEC have always committed to the principle of designing a complete, safely and reliably working system that offers a plethora of interfaces to connect any type of audio signal and exchange control data with unlimited third-party systems. Therefore, AURUS and NEXUS ranges include a number of very interesting supplemental products.

Automix for AURUS platinum

U.S. audio luminary Dan Dugan patented his first, truly amazing automix algorithm back in 1971. After the patent expired, STAGETEC created an advanced version of the algorithm which now is available as an option for all AURUS consoles running on RMDQ DSP cards. The refined algorithm perfectly maintains the spectral and ambient impression of a mix while the system automatically shifts the gain focus to the currently active microphone. All other channel functions such as EQ and dynamics stay fully operable for every channel.

The new design of the RMDQ DSPs enables the STAGETEC Automix feature on all channels of the project at no DSP--resource costs. The option offers four automix groups in total that can be used separately from each other. For example, this allows for mixing the microphones of a panel discussion in group one while a second group handles the mics of the delegates in the audience. There are only very few conceivable use cases that would require more than two groups. With AURUS automix, audio engineers have a tool at hand that makes working with large numbers of microphones a breeze.

AURUS platinum DAW integration

In production settings that incorporate digital audio workstations, the DAW Integration feature for AURUS is the perfect addition to the production environment. Already, AURUS' standard machine control feature supports typical start, stop, jog, and timecode control for up to 16 external tape machines or DAWs, two of which are accessible directly from the console's surface. The optional DAW Integration allows linking supported parameters of the DAW software to encoders and faders of the console, thus providing full control right from the sweet spot in front of the mixing desk.

The software supports both the HUI and the OASIS protocols and therefore connects to workstations from a multitude of vendors. During setup, all parameters supported by the protocol in use can be mapped to the console's encoders and faders. Up to 32 channels are supported simultaneously with arrangement in banks extending the scope. If desired, the DAW screen can optionally be switched onto one of the console's metering displays. All DAW parameters mapped to the console can be recorded using the dynamic automation of AURUS platinum. Of course, in addition, the full functionality of the DAW software may be

used in parallel. All this contributes to a unique and highly integrated working approach. Constantly switching between the console and the audio workstation has become a matter of the past. Using the DAW Integration, AURUS platinum with its ultra-precise concentric encoders and the smooth-action motorized faders becomes a hardware controller of superlatives.

Third-party goniometers and AURUS platinum

AURUS supports connections to a third-party goniometer equipped with an AES/EBU input out of the box. On request and at no extra costs, the AES/EBU port can be made available on the console in order to connect external devices. Optionally, STAGETEC offers an implementation of the well-known RTW TM7 or TM9 units integrated into the audio desk itself. All RTW software options are available, of course. The TM display can be viewed (and optionally operated, if desired) right on AURUS' screens.

NEXUS master monitor

NEXUS master monitor is a software solution for extended metering on NEXUS network. It offers 256 user-definable presets and is not limited to multichannel metering alone, but also offers EBU R128-compliant loudness metering including parallel view of short and momentary values, LUFS, and LRA. A real time analyzer supporting resolutions of 1/3 octave and 1/12 octave is included, too.
Since the application can run on any number of computers anywhere on NEXUS network, it supports a multitude of metering use cases in complex installations. The software accesses all channels on the matrix and can be run directly on AURUS console.

NEXUS XDSP card

NEXUS XDSP cards provide a flexible solution for implementing audio processing capacities anywhere on the network. Available software modules range from simple delay units, multichannel mixers, and mono-converters all the way to 30-band parametric equalizers, crossovers, and dynamic units including de-essers. Gain/delay matrices feeding large distributed speaker setups and N-1 matrices for conference calls, etc. are available, too. Custom modules can be implemented upon request.

All DSP modules of the card make their inputs and outputs available on NEXUS routing matrix allowing combinations to form complex and sophisticated configurations. For instance, an XDSP card could be used as a multi-channel line-array controller or for signal--processing and routing to the distributed loudspeaker system of a shopping mall. Configuring sample-delays to adjust monitoring speakers to a video feed or providing a complex mix-minus matrix for call-in games in radio environments are simply further examples. All settings of the card and all parameters of the implemented DSP modules can be saved and restored through NEXUS statuses which, again, can be referenced from AURUS scenes and automation. STAGETEC's configuration concept ensures highest reliability. All DSP functions are guaranteed to be available at all times.

ISOSTEM upmix/downmix

The patented ISOSTEM algorithm is another example of how flexibly STAGETEC hardware and NEXUS can be used. ISOSTEM by Dspecialists is an algorithm that allows for lossless conversion of stereo audio to 5.1 streams and vice versa. It is the only algorithm to perform conversions in a mathematically 100% reversible way. Therefore, ISOSTEM is an option particularly interesting for broadcasters to, for example, convert or play legacy audio material on a current multi-channel stream. STAGETEC offers ISOSTEM as an option for NEXUS XDSP cards. This implementation allows for flexibly using ISOSTEM in various settings in the network at no additional hardware costs.

EmBER+ protocol for NEXUS XACI card

The XACI is STAGETEC's latest-generation smart controller card. It provides an interface and command interpreter to external control systems and protocols. This way, using EmBER+, third-party systems can easily set and clear crosspoints in NEXUS system and control the settings of the amazing NEXUS microphone input cards.

Other integrations

AURUS and NEXUS audio matrix are continuously enhanced by means of software updates. The hardware architecture of NEXUS is based on proven industry standards that allow adding new interface cards as demand comes up. Some products, such as the XACI card or the RMDQ DSP-boards for STAGETEC's audio consoles, are designed for continuous addition of new digital features. For the near future, for example, the integration of Waves SoundGrid® servers and full support of the AES 70 "OCA" control protocol by NEXUS are on the road map.

STAGETEC has a long history of close cooperation with partners from the pro-audio, IT, and entertainment industries including many internationally well-known radio and TV companies. The custom-designed, advanced control and monitoring solutions developed for such institutions have always complied to the highest technical standards.
Still, new challenges are always welcome!

AURUS PLATINUM

BEST FRIENDS FOREVER

From the day sound was first converted to an electrical signal, transmitting it to a distant location or even distributing it to multiple receivers has been the challenge. With the advent of digital technology, however, new and innovative applications became available in professional audio. In 1993, when STAGETEC presented the first NEXUS audio matrix to the public, the company has taken audio distribution to another level – and has been driving innovation ever since.



NEXUS concept

The name NEXUS alone, just as the product itself, depicts the perfect combination of network and matrix. From the outset, STAGETEC has always pushed the limits of digital audio components. As such, NEXUS combines the technical features typically offered by several highly diverse devices within a fully integrated system. Building blocks of the system are the so-called base devices. These networked units each have a CPU of their own, which is aware of the overall network structure. This results in a system of distributed intelligence completely avoiding a central server or host – a substantial benefit of NEXUS with regard to reliability.

Depending on its size, a base device can hold from 5 to 62 NEXUS cards offering many different functions such as:

- Audio I/O in various formats
- Control I/O in various formats
- Signal processing
- Signal routing and transmission
- Global interfaces, control and logical functions

Due to the abundance of different interface formats both for audio and control ports, NEXUS can be anything from a small audio converter to a highly complex network delivering thousands of simultaneous transmissions and conversions at the speed of light. The fiber-optical links that connect the base devices allow for covering huge distances with no risk of ground loops or interferences of any kind. Each base device can be directly connected to any number of other base devices. Thus, all imaginable network topologies are supported at once and in the same system. The maximum number of base devices on a network is 63. If need be, multiple networks may be interconnected using multichannel audio links. NEXUS offers redundancy options for the most important components including redundant optical links and automatic re-routing of audio and control data through remaining connections if a link should be lost.

NEXUS as a macro controller

Each base device on the network includes NEXUS Logic Control. This is a logic controller that allows for creating macros using powerful logic functions. Unlike other audio routing systems, NEXUS is able to permanently evaluate all important local audio parameters and trigger logic functions when certain states are matched. By this alone, the Logic Control outdoes the majority of competing systems in the marketplace; plus it has much more to offer: It queries and controls GPIOs, sends and receives commands through serial interfaces, and can be used to set up Ethernet-based permanent communication links to external control systems. The various functions are implemented using the relevant NEXUS cards, resulting in virtually limitless possibilities. A notable example are the serial interfaces on offer: RS232, RS422, RS485, and MIDI are available. On top, every NEXUS CPU card provides USB and Ethernet connectivity out of the box.
NEXUS Logic Control is capable of communicating with all other base devices on the network by querying and sending statuses. This way, NEXUS can provide control options within the network as well as for external systems that go far





beyond the capabilities of an audio network and may even fully replace external media controllers. This allows for unprecedented integration down to the single key on the audio console and also offers potential for considerable savings by possibly eliminating additional control systems altogether and by greatly simplifying daily routine work.

NEXUS and AURUS platinum integration

STAGETEC consoles fully integrate with NEXUS just like any other components on the network. The entire audio processing section and surface control of the mixing desk is located in NEXUS Star router. The Star router is a special base device that hosts not only DSP cards but also controller cards for up to two separate audio mixers – that is, for up to four consoles in total. In addition to extensive redundancy, the Star router offers a local 4,096 x 4,096 matrix complementing NEXUS crossbar plus specific cards providing connectivity to multichannel audio formats like MADI and Dante. Of course, the console can access all audio I/Os on the entire network, which may be used as the mixer's inputs and outputs as required. Using the routing functions, the operator can also assign connections for inserts, direct outs, side chains, etc. Being able to access NEXUS configuration and all settings of the Logic Control right from AURUS, makes work simple. The user can handle all adjustments from the console and also trigger changes to infinitely nested system statuses and even external devices. Be it a simple tally, a cue to the stage management system, or a full-fledged routing reconfiguration of many hundred channels – they are all just a keypress away.

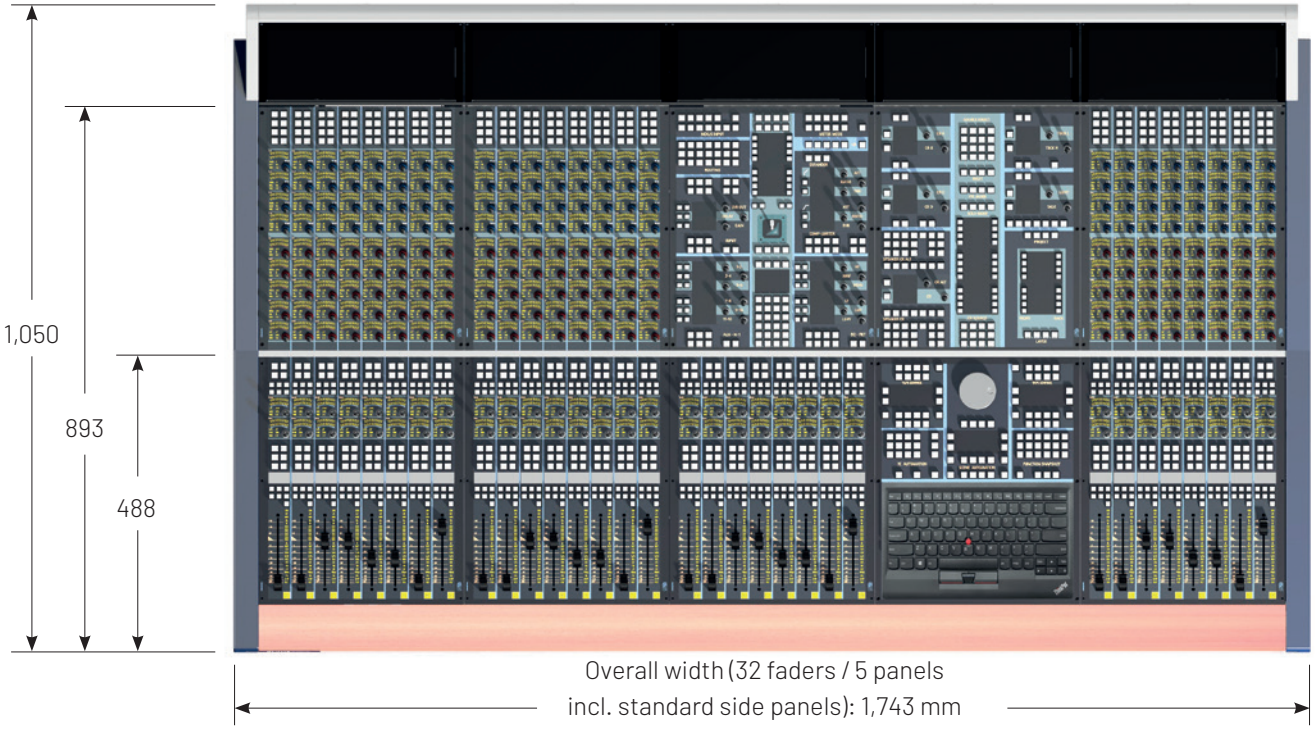
NEXUS' multi-layer safety concept

Reliability as a fundamental principle, redundancy, self-monitoring and user notification, intelligent servicing options, maximum boot performance, and minimal time for component-detection – that's what NEXUS is about.

- Distributed system with no single point of failure
- Overall-system boot within seconds
- All audio processing independent from operating systems and computers
- Hot-pluggable components, can be installed by trained non-expert users
- Component detection and activation within 2–3 seconds (typ.)
- Best EMC and resilience for all devices, cards, and inputs
- Full data retention on all components
- Detailed log files for setup and diagnostics
- Extensive redundancy for all critical components
  - PSUs both for single phase and phase-redundant systems
  - Optical links
  - Optical transmission cards
  - Controller cards hosted on NEXUS Star router
  - Console connections
  - Console DSP cards (configurable)
- Self-monitoring system, error indication
  - on every NEXUS terminal (incl. AURUS)
  - through SNMP to any external systems
- Tap-proof, no-noise optical links
- Proprietary, tamper-proof data transmission
- All design and manufacturing in Germany
- Strict quality assurance
- Fast and customer-oriented servicing concept

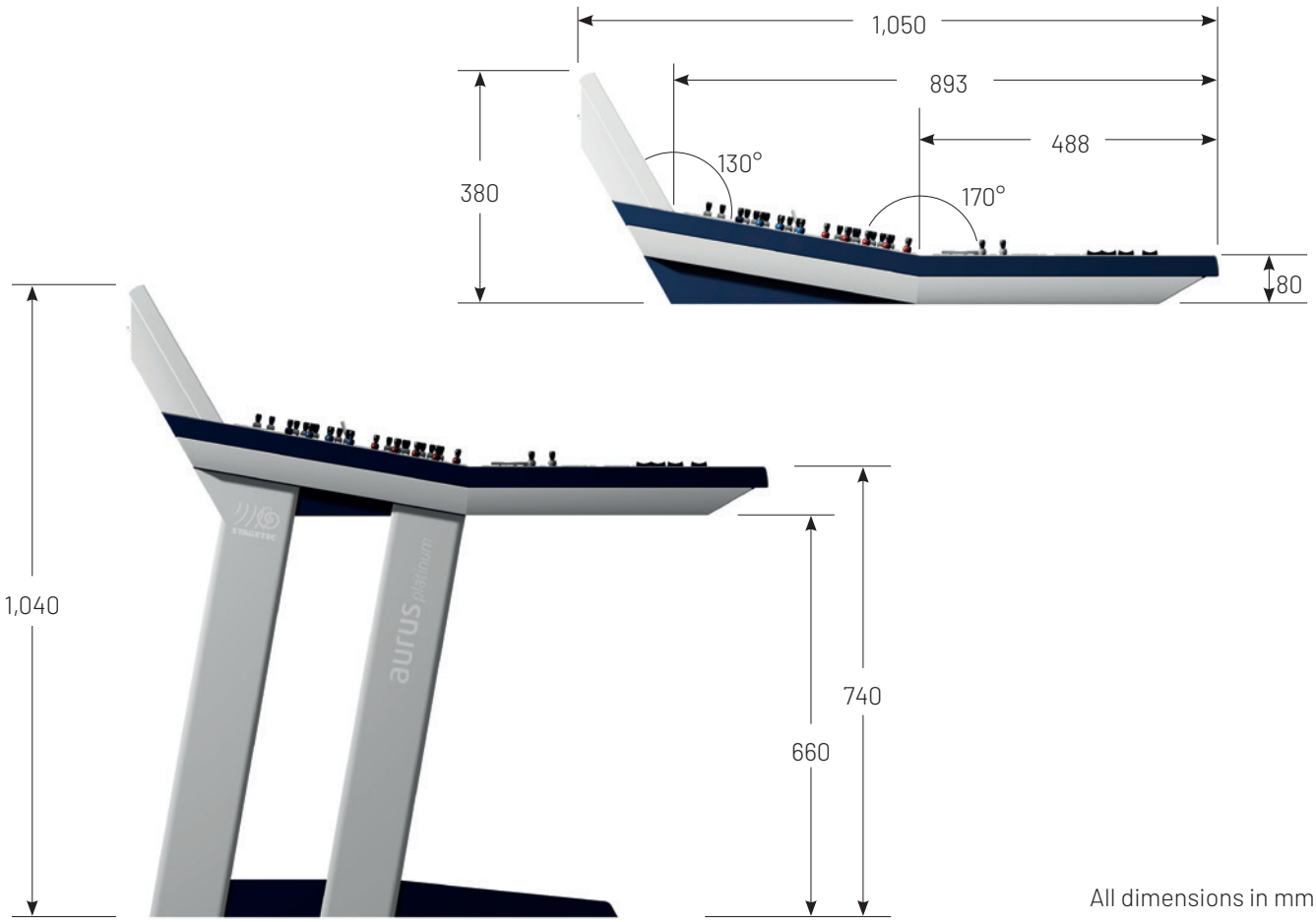
AURUS PLATINUM

DIMENSIONS AND WEIGHT



All dimensions in mm.





All dimensions in mm.

Dimensions and weight	16-fader console	24-fader console	32-fader console	40-fader console	48-fader console	96-fader console
Number of bays	3	4	5	6	7	13
Number of legs	2	2	2	2	2	2
Operating depth (approx.)	800 mm	800 mm	800 mm	800 mm	800 mm	800 mm
Total depth	1,050 mm	1,050 mm	1,050 mm	1,050 mm	1,050 mm	1,050 mm
Console height	380 mm	380 mm	380 mm	380 mm	380 mm	380 mm
Height incl. legs	1,040 mm	1,040 mm	1,040 mm	1,040 mm	1,040 mm	1,040 mm
Width (incl. standard side panels)	1,078 mm	1,411 mm	1,743 mm	2,076 mm	2,408 mm	4,403 mm
Weight (incl. standard side panels)	41 kg	53 kg	65 kg	77 kg	89 kg	314 kg
plus leg mass	24 kg	24 kg	24 kg	24 kg	24 kg	24 kg
Maximum power consumption (incl. LEDs and fader movement)	135 W	180 W	225 W	270 W	315 W	585 W

AURUS platinum Technical specifications

NEXUS Star router specifications

Build	19" module frame, 6 RU
Dimensions	265 mm × 482 mm × 410 mm (H × W × D approx., without connectors and handles)
Slots	21, incl. 14 DSP card slots
DSP cards	1 to 7 per audio mixer
Latency	< 1.5 ms @ 48 kHz/s < 1 ms @ 96 kHz/s (incl. A/D and D/A conversion on NEXUS network)
Power supply units	110–240 V, 50–60 Hz, 30 A each, single-phase, phase redundancy supported
Redundancy options	Power supplies, matrix, controller cards, DSP (user-configurable), optical links on NEXUS network, links to the console
Cards	Hot-swap-enabled, fully operable 2–3 seconds after installation
RMC	Console controller, provides DSP core functions, for 1–2 consoles
RMDQ	DSP card, 1–7 cards per console
RCX	Router controller and matrix, optionally 2nd RCX card for redundancy
RMF	MADI interface
RIF67	AES67/Ravenna/Dante interface
RFOC	Optical interface to NEXUS base devices, 4 SFP ports receiving SM or MM fibers
RPSU	Power supply, 110–240 V, 50–60 Hz, 30 A
RMC interfaces	LTC, MIDI, RS232, RS422
RCX interfaces	9-pin, USB, ETH

Console surface specifications

Headphone terminals	2 (front, left and right)
USB ports	2 (front, left and right)
Nearfield speaker terminals	2 (rear, left and right)
Talkback microphone port	1 (front, centrally located)
Lamp terminals	1 per bay (rear)
Speaker brackets	2 (rear, left and right, optional)
Goniometer bracket	1 (rear, centrally located, optional)
Sheet holder	Optional, 22 cm, 33 cm (optionally with lights), 66 cm
GPIO card	Optional components: GPIO feat. 16 optocoupler inputs plus 16 semiconductor relay outputs (max.) on 25-pin D-Sub port, common-potential or floating-pair configurations supported, input and output filters for noise suppression
Controls	11 dual encoders (touch-enabled), 100-mm smooth-action fader (touch-enabled), 32 backlit keys, and 1 OLED display per channel strip
Star router connectivity	Optical (optional redundancy) 1 Gbps over 50/125-µm fiber, 800 meters range, LC duplex ports
User-assignable keys	24 scribble keys (SWAC) for operating console and system global functions and commands, 15 source keys (SMON)
Panel dimensions	332 mm × 400 mm
Panel types	SMUL, SFAD, SZCH, SMON, SWAC, STFT
Channel strips per panel	8 (SMUL, SFAD, STFT)

Audio and control performance

Channel strips with 2 inputs (A/B)	Panels with 8 operating strips each (8–96 strips in total per console)
Summing buses	Up to 128 freely programmable buses (dependent upon number of DSP cards and configured channels)
Input channels	Approx. 800 (dependent upon number of DSP cards and configured buses)
Algorithms	40-bit floating-point, minimum latency, all channels summed with single-sample accuracy, identical latency across all DSP channels guaranteed
Sample rates	44.1, 48, 88.2, 96 kHz
Interfaces	All audio I/Os on NEXUS network – access to all GPIOs, serial, and Ethernet links
Microphone and line A/D converters	TrueMatch®, 32-bit resolution, 158 dB(A) dynamics
Line A/D converters	TrueMatch®, 32-bit resolution, 135 dB(A) dynamics
D/A converters	24-bit resolution, 131 dB(A) dynamics
Boot performance	Console and NEXUS Star router: 15 seconds Configuration computer: approx. 30 seconds (audio processors and console control components are independent of the PC and the operating system)
Refresh rate	10 ms for all audio parameters of all channels and all user-interface settings
Snapshot and scene storing and loading	10 ms
Behavior after power outage	Full data retention guaranteed; Console ready for operation after 15 seconds (including meters and restored project data including snapshots, scenes, etc.); configuration computer ready for operation after approx. 30 seconds

Features

DAW integration	HUI/OASIS (optional)
Macro controller	Full integration with NEXUS Logic Control
Upmix/downmix	2.0 through to 7.1 built-in; ISOSTEM patented algorithm (mathematically fully reversible upmix/downmix) for NEXUS XDSP card optionally available
Control groups	Mute, stereo, surround, link, master/slave, VCA
Automation	Snapshot, scene, and dynamic automation
Conference calls	Built-in N-1 (mix-minus) matrix for up to 96 N-1 busses
Remote control	Virtual surface software (optional)
Loudness metering	EBU R128 compliant, on sum bus channels and group channels; individual channels may be monitored through NEXUS monitoring software (integrated into the console)
Audio follow video	Yes, incl. adjustable fade curves and times for each channel, custom dependencies configurable inside NEXUS Logic Control
Automix	Optional (4 groups, no channel limitation)
Monitoring	2 monitoring buses up to 7.1 plus 4 additional stereo monitoring buses
Channel formats	Mono, stereo, 5.1, 7.1
Delay	Up to 2,700 ms per channel
Control formats	Remotely controllable through RAS, ROSS, MOSART, MIDI
External device control	Machine control through Sony 9-Pin, RS232, RS422, MIDI; virtually unlimited when using NEXUS Logic Control
Waves plugin server integration	Planned for future releases
Spill feature	Yes


Ch 1
Ch 2
Ch 3
Ch 4
Ch 5
Ch 6
Ch 7
Ch 8
Ch 9
SUM
GROUPS
TRACK: SEND

INVESTMENT PROTECTION

Long lifecycles

STAGETEC systems are known for their extremely long lifecycles. Installations with an age of 20 years and more are not unusual. Key factor is the remarkably high product quality achieved by using only high-grade hardware components. In addition, the implementation of strict and extensive quality assurance results in products that deserve the label Made in Germany. The second indispensable factor for the longevity of STAGETEC's products is design for innovation. NEXUS' proprietary system architecture allows to keep most advancements backward compatible, making new features available even for systems installed years ago. When upgrading complete installations to the newest platform version, owners are glad to hear that many of their components can be re-used in the new system, often saving hundreds of thousands of Euros.

Open concept

Life-long flexibility is a major aspect of all thoughtfully designed STAGETEC systems. NEXUS is an expandable concept and can always be adapted to changes in application requirements. Even when external, third-party components need to be replaced through the years, NEXUS can usually offer a matching interface to adapt smoothly to the change in the environment. Similarly, newly designed NEXUS hardware and software can easily be implemented into existing installations.

RELIABILTY

Consistent system design

AURUS platinum fully integrates with the STAGETEC NEXUS audio network. A NEXUS system consists of multiple base devices interconnected using optical links. Each base device is an autonomous local router which is continuously updated on settings and conditions of the complete network. No central hub is required. This "distributed intelligence" concept prevents an overall system breakdown in case of failure. All subsystems remain functional. It also allows working with partly installed systems, e.g. during setup or in smaller productions.

Redundancy

To ensure resilience, all systems use a sophisticated redundancy concept. Power supplies, optical links, and communication cards can all be configured for redundancy and all base devices can be fed from separate mains. At failure, the backup component takes over without any delay or disruption.

Built-in logic

Each NEXUS base device implements continuous self-monitoring as a standard feature and reports system statuses through connected PCs. This monitoring feature can be significantly enhanced by using the built-in macro controller. For example, any event can be configured to make NEXUS perform a complex, related action. This might be a specific system error, the dropout of an audio signal, or even any external system's trigger.

SAVINGS

Power efficiency

Power consumption of STAGETEC systems is impressively low, reducing the operating costs to a minimum. A resulting benefit is heat dissipation at an amazingly low level. Less heat greatly increases the life time of electronic components and reduces the need for air conditioning and ventilation. This, again, saves power and improves the working atmosphere.

Simplyfication of systems

In addition to its core audio routing functionality, NEXUS with its vast range of interface cards, their various data and port formats offers many functions that would normally require the use of numerous external systems. The fully integrated, user-programmable macro controller alone can offer smooth workflows that would be impossible with other systems. At the same time the integration reduces complexity, number of devices, cabling etc. In addition to the numerous external connections such as triggers, sensors, DAWs, or external media controllers, NEXUS can transmit and distribute many signals transparently, again reducing complexity and cabling while enhancing functionality.

Streamlining of maintenance

STAGETEC systems require only minimum maintenance and service. At their Berlin headquarters, STAGETEC offers a repair service for defective components. Spare components can be supplied in advance as necessary.

... and all of this with the best audio quality available in the marketplace!

STAGETEC Leading digital audio innovation



It has been the passion for audio and a prophetic vision of what could be made possible with the upcoming digital technologies which made us establish STAGETEC in 1993: Thirteen experienced engineers set out to develop the first fully digital audio systems; one thing firmly in mind. Quality. – The wisely thought-out integration of audio routing, powerful control features, and versatile mixing desks has convinced international pro users right from the start. Nowadays, many leading theaters and broadcasting centers around the world would not go without a STAGETEC system.

Our history

In 1993, we founded STAGETEC as a German limited liability company to design and produce digital audio crossbars and audio mixing consoles. Since then, we have ever again set new standards through continuous innovation. Our success story started with NEXUS digital routing system and the CANTUS, STAGETEC's first large-scale audio console. Since then, we have broadened our product portfolio with the AVATUS, AURUS platinum, CRESCENDO, AURATUS, and ON AIR flex mixing systems. Today, STAGETEC offers the right system for any use case and size requirements.

Highest Standards

We have committed to the highest standards. To satisfy this aspiration every day, only the best qualified engineers with many years of experience develop and manufacture our products. This is to ensure our systems offer maximum quality and meet our customers' individual requirements.

Customer focus

Interaction with our customers is key to us: We have kept In touch closely over many years to learn and understand the needs of users in each market segment in detail. From the beginning, it has been both a challenge and highly rewarding to familiarize with their demands and expectations and to translate these into new and exciting products. Many intelligent software functions, tailored to the use in theater, broadcast, recording, or live applications, have arisen from the ideas of our customers. This customer focus is a cornerstone of STAGETEC's international recognition as a pro-audio manufacturer and we are deeply thankful to our friends and partners for many years of innovating companionship.

An undisputed forerunner

Thanks to our vision and experience, we have always enjoyed the reputation of pioneering in digital audio throughout the years. STAGETEC products are the ultimate systems available in the pro-audio marketplace – and will remain to be so in the future!



IP must ultimately be intuitive and reliable

- yet be completely flexible

stagenet

IP made simple

stagenet.com

Join our community!

ARISTA · MERGING AUDIO FOR THE NETWORKING AGE · matrox · simplexity · STAGETEC

For more information,

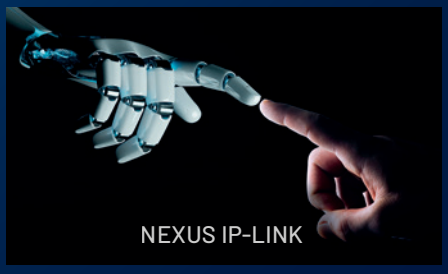
please contact us for an appointment

STAGETEC.COM

YOUR INTERFACE TO THE PROFESSIONAL AUDIO WORLD



NEXUS



NEXUS IP-LINK



NEXUS COMPACT TRUEMATCH



AUDIO/VIDEO OVER IP

simple · reliable · flexible

STAGENET.COM

stagenet

IP made simple

STAGETEC

AUDIO. VIDEO. IP. SIGNALMANAGEMENT

STAGETEC.COM

STAGETEC GmbH
Tabbertstraße 10-11
12459 Berlin, Germany

+49 30 63 99 02-0
+49 30 63 99 02-32
sales@stagetec.com