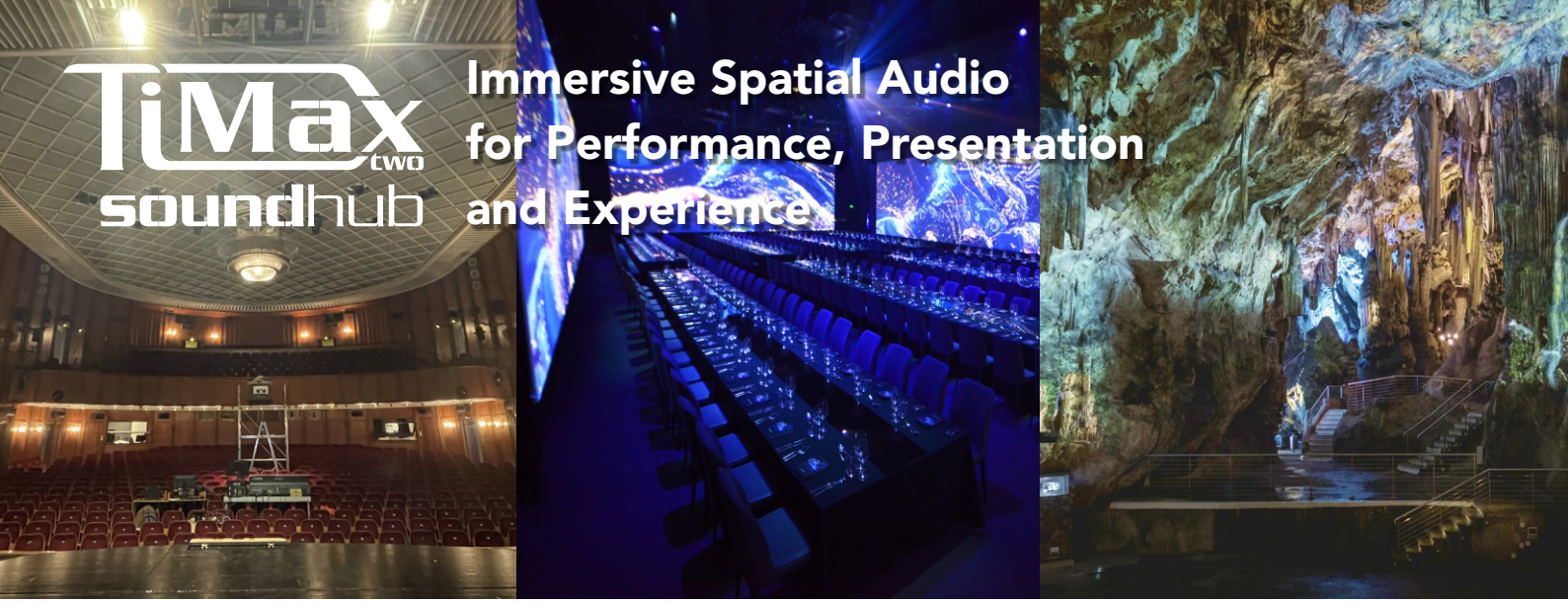


TiMax SoundHub is a rapidly growing must-have for Performance, Presentation and Experience situations. Immersive audio is here to stay, and TiMax offers the optimum solution

Localisation onto audio sources, notably voices and instrumentation, eliminates audience awareness of the sound system – Hear The Sound not The System

Audience members no longer have to hunt for who's saying what, avoiding loss of focus on a performance or presentation

TiMax eliminates hot spots and holes for static and moving spot effects, atmos beds and reverb upmixes, delivering convincing soundfields with reduced perception of surround speakers

This all adds up to enhanced impact and engagement, plus a Willing Suspension of Disbelief, that holy grail for theatre directors, event producers and experience creatives -- to engross their audiences in a show, presentation or immersive attraction and not distract them with the sound system

So why TiMax?

Proper immersive spatialisation needs the right tools for creating precise and consistent imaging only achievable using Haas Precedence delay-panning

The specialised TiMax matrix delays each speaker independently for every individual input source, essential to achieving localisation and not just panning

Because live or programmed sources may move around, TiMax features seamless real-time transparent delay-morphing to be driven live by tracking or showcontrol

To get all this working efficiently for typical live or install projects, TiMax provides an object-based on-line or off-line workflow, with embedded showcontrol

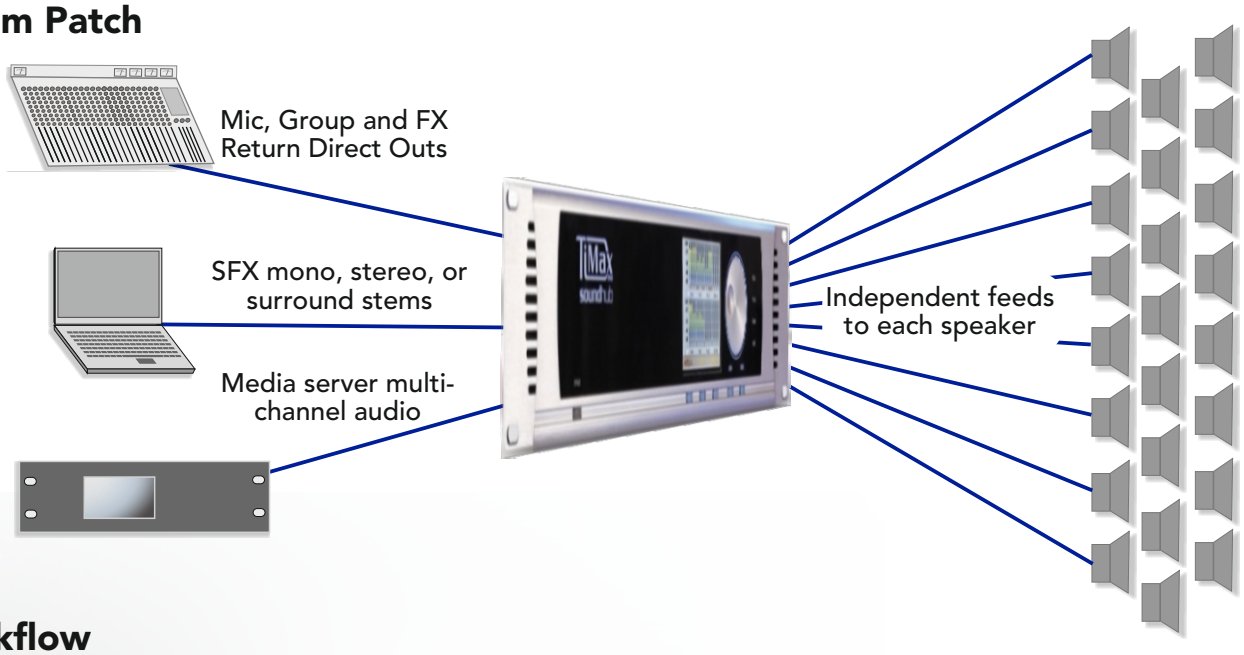
TiMax SoundHub Hardware System Patch Workflow

TiMax SoundHub Spatial Processor

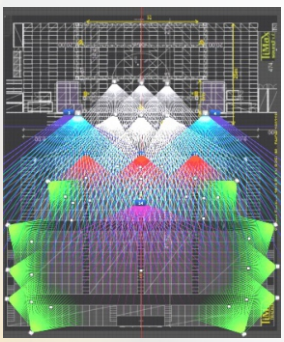
Front panel display & control for Metering, Solo, Mute, Zone or Source Group Levels, Recall Shows, Recall Cues, IP Address, Firmware, Temperature, PC & Mac multi-client programming and control

Rear panel Dante or MADI I/O as standard, optional Analogue and/or AES in 16x16 blocks, PC/Mac / UDP / ADM-OSC control, 2 x MIDI in/out, GPIO, Dual PSU, 32/32 or 64/64 channels, 48/96KHz, bespoke FPGA

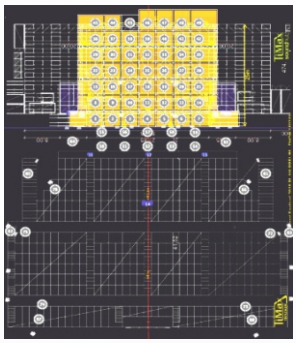
System Patch



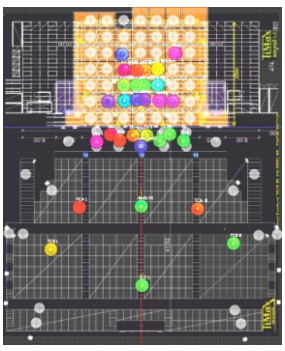
Workflow



Load Venue diagram, choose a datum point and add a dimension. Add loudspeakers and targets, defined and grouped as separate functional Types



Define spatial objectives as Image Definition matrix objects grouped as Stage, Vox, Band, Surround. Hit Calculate to render levels/delays



Spatialisation window programs static and moving pans to Cues. SubSpaces let you create separate specific independent spatial layers

TiMax two soundhub Full Feature Set

FPGA spatial audio processor core, switchable 48kHz or 96kHz, in configurations 32×32 or 64×64. Field upgradeable from 32 to 64 with license key

Dynamic delay-matrix spatialisation controllable by PanSpace, TiMaxTrackerD4 and external OSC.

Advanced holistic FPGA smooth delay-panning algorithms for ultimate transparency

Dante or MADI I/O as standard, with selectable 48kHz or 96kHz options

AES Input SRC's allow different 44.1 / 48 / 96kHz incoming sample rates on any AES3 input pair (OPTION)

AES Output SRC's allow different 48 / 96kHz sample rates any clock source on any AES3 output pair (OPTION)

8-band parametric EQ on inputs, 8-band parametric EQ on outputs, linkable

32 assignable and nestable input and output DCA Group level controls, also on front panel LCD

Input Source Submixer for Analogue (or AES) / Playback Track / Network on each input channel

Live cross-fadeable Cue Snapshots between Submix sources, I/O levels, level/delay matrix routings.

Cue Snapshots assignable to selectable individual or groups of I/O channels and parameters.

Image Definitions, EQ's, Groups, Channel Labels, System Preset exportable between shows

Multi-channel random-access 16-bit/48kHz audio playback 32- or 64-track on 250Gb(min) SSD

Multiple TiMax units accessible from up to four Mac or PC control software clients

OSC input control of PC/Mac software: levels, mutes, groups, cues, Panspace spatialisation, 3D stagetracking control

Bi-directional OSC dictionaries, including ADM-OSC or custom strings, enable third-part integrations with QLab, Grapes3D, Atlas showcontrol, Digico, A&H, SSL consoles and more..

Front panel Menu: I/O Meters/Solo/Mute, Group Levels/Solo/Mute, Show select, Cue select, Utility, IP. Password protected

PanSpace adaptive auto-rendering of Image Definition localisation and spatialisation objects. Embedded TiMax TrackerD4 stagetracking functionality, per-channel tracking Enable/Disable within Cues

PanSpace Scaling Surfaces allows one or more spatialisation zones to be re-scaled from one venue to another, to facilitate studio pre-programming or moving between different tour venues

Integrated PanSpace and Time Line automated immersive spatial rendering on multiple SubSpace layers, scheduling and timing of input object panning across level/delay Image Definition objects

TimeLine comprehensive audio playback editing, mix automation, advanced audio showcontrol

Cue input Triggers (FollowOn, MIDI/MTC, Show Clock, OSC) and output Events (MIDI/MTC, UDP, ShowClock) programming. Timing and scheduling of PanSpace programmed trajectories. 256 matrixed GPIO input trigger ports

TiMax two soundhub Technical Specifications

2U 19” Rack mount steel chassis, 450mm / 17.5” deep, 10kg / 22lbs approx weight.

EMC shielded to conform to CE / UKCA interference emission and susceptibility requirements

Internal FPGA 48KHz / 96KHz selectable, CPU, SSD, MADI or Dante 32×32 (32-Track); 64×64 (64-Track). Hardware boot-time 18 seconds

Headroom: +22dBu; Dynamic Range:114dB; THD+Noise: <0.002%, 20-20KHz; Fixed latency: <2ms

Dynamic delay-matrix processing, with proprietary transparent real-time levl/delay-morphing algorithms, max delay on all matrix cross-points 1000ms. Additional programmable static delay 0-42ms available on all Outputs

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STANDARD: Dante64: 64-in & 64-out, 48KHz interface module. OPTIONAL: Dante64X: 64-in & 64-out, 96KHz 48KH interface module.
Or
STANDARD: MADI64: 64-in & 64-out 48KHz / 32-in & 32-out 96KHz interface module on BNC and Optical, plus BNC Word Clock in/out

OPTIONAL AIO Analogue I/O card: 16-in & 16-out line-level in groups of 8 balanced signals on female DB25's (Yamaha analogue pinout)

OPTIONAL MIO AES Digital MIO I/O card: 16-in & 16-out AES3 on separate DB25's plus 16 analogue outs on two DB25's. (Yamaha analogue pinout for both Analogue and AES). Sync selectable from internal 48KHz or 96KHz clocks, external Word Clock source via BNC, or selected AES3 input(s). Input and output SRC's allow multiple sample-rates across different AES inputs and outputs

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Two MIDI in/out DIN socket pairs, MIDI Prog / Note / MTC on both; also on Port1-In: MIDI Controllers can control Group faders 1-32; also on Port2-In: MIDI Controllers can control PanSpace Zone input object changes.

RJ45 Ethernet (UDP) 100/1000Mb/s for PC/Mac control and XML/UDP remotes or showcontrollers. Up to four client computers, auto-config plug 'n play default with DHCP, static IP and forced IP modes

OSC control of Cues, Faders, XYZ panning/tracking, via bi-lateral ADM-OSC or customisable OSC strings

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Dual Redundant Power Supplies: 130W universal voltage 80-265VAC at 50/60Hz. Conforms to European LVD, UL, CSA, Nemco safety requirements, filtered to conform to CE requirements. Conforms to UKCA requirements.

Dual Redundant Forced air-cooled fans with low fan noise.

Front panel LEDs indicators show if either PSU or Fan fails or not connected.
