

# TiMax<sup>two</sup> soundhub



audio showcontrol

showhub

roomhub

systems integration



Jesus Chris Superstar, Thunersee



Carl Cox, Cali



Crystal Cruises, Los Angeles



Turku City Theatre



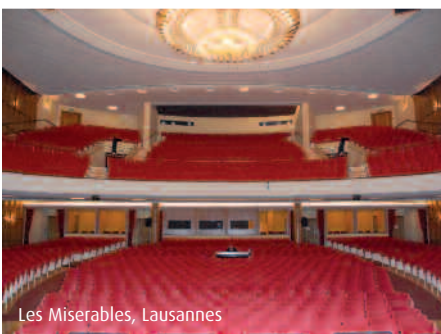
Basel Tattoo



Dramaten Theatre, Stockholm



Geneva Motor Show



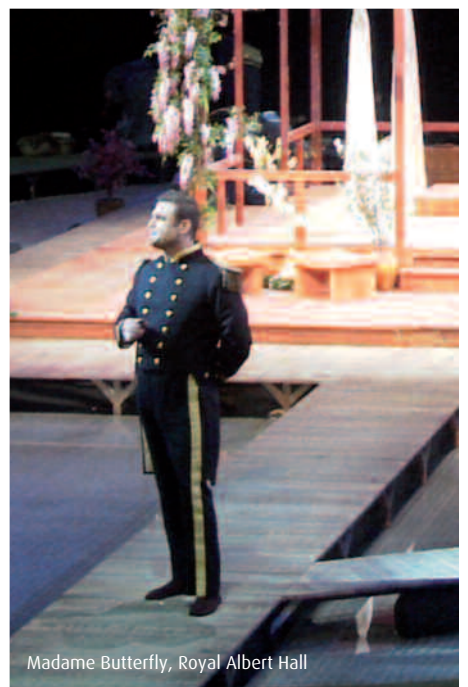
Les Miserables, Lausannes



Marco Rima Tour, Switzerland



Marie Antoinette, Bremen



Madame Butterfly, Royal Albert Hall



## FOR SOUND DESIGNERS AND SYSTEMS INTEGRATORS

routing  
 mixing  
 grouping  
 equalisation  
 playback  
 delay matrix  
 presets  
 zoning  
 room combine  
 networking  
 remote control  
  
 theatre  
 opera  
 museum  
 attraction  
 college  
 hotel  
 church  
 boardroom  
 cruise ship  
 cinema  
 club  
 bar  
 rides

In its **Soundhub-S** format the TiMax2 control software provides sound designers with an advanced real-time audio showcontrol machine for running live shows and events. The **Soundhub-R** version gives systems integrators and contractors a comprehensive set of audio routing, mixing, processing and playback resources with versatile remote control options.

Each SoundHub system incorporates a scaleable multi-channel audio matrix and mix engine to handle multiple sources and multiple zones in a variety of performance and presentation AV installations ranging from museum, themed attraction, boardroom and hotel through to bars, clubs, theatre, opera and house of worship.

The compact 2U TiMax SoundHub chassis provides 16 input and 16 outputs in analog or AES3 format which is expandable up to 64x64. Optional industry-standard audio networking interfaces include Cobranet, MADI and Dante. The system also provides input and output parametric EQ for source sweetening and room tuning, and built-in audio playback and recording up to 64-tracks.

Every matrix crosspoint provides level adjustment for source mixing and zone distribution plus the TiMax speciality of individual crosspoint delay adjustment with proprietary smooth delay-panning algorithms for transparent effects panning and performer localisation.

Accurate audio imaging is essential for directing a group of listeners to a specific performer on stage, a museum exhibit, or a presentation speaker. This helps a system provide intelligibility and message impact on top of uniform sound distribution.

All this is programmed and configured with an external computer which can then be removed to allow the user local or remote access to presets and other functions under multi-level password security.

## FEATURES

- 16 x 16 programmable audio matrix base platform
- Expandable up to 64 x 64 in a single 2U chassis, networkable into much larger systems
- Analogue or AES3 digital I/O and Cobranet, MADI and Dante
- Internal hard disk 64-track audio playback and recording
- Multi-client PC and Mac software for programming and control
- Standalone operation for Show and Cue recall
- SoundHub-R and -S both controllable by TiMax Tracker
- Multiband parametric input and output equalisation
- Routing and EQ libraries transferable between Shows / Configurations
- Delay matrix with smooth delay-panning algorithms
- Colour LCD screen with simple front panel controls and menus
- 32 input and output Group level controls
- MIDI, SMPTE, GPIO control and triggering
- Wired or wireless networked IP control from multiple computers, AMX, Crestron

## TASK-BASED PROGRAMMING AND CONTROL SOFTWARE



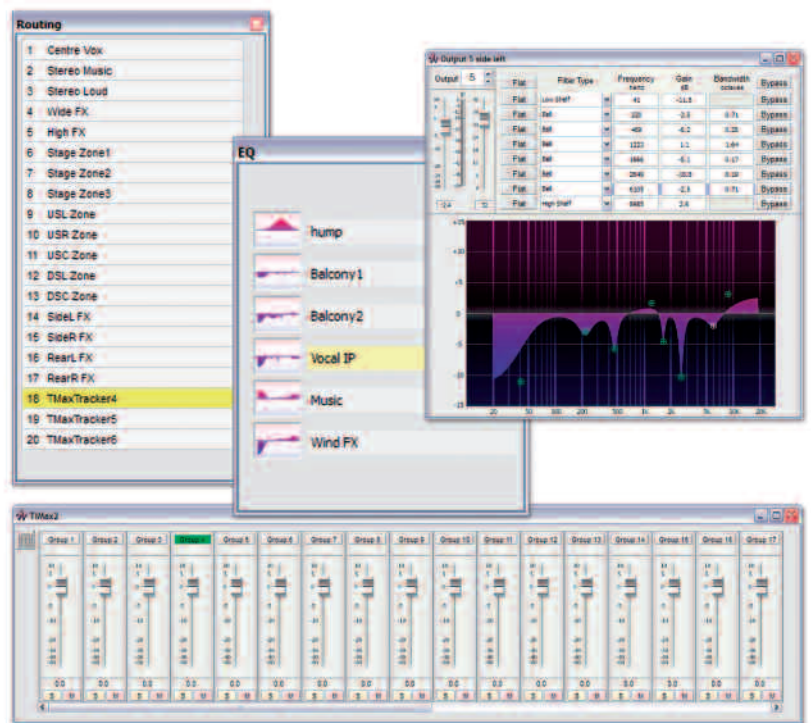
A PC or Mac software suite allows the systems integrator or sound designer to assign all source and zone routing, level and EQ configurations to Presets (Cues).

A show or project's Cues (Presets) and audio playback content can be uploaded onto the TiMax2 Soundhub's internal hard-drives and then run either from the front panel or remotely from external showcontrol systems via the onboard GPIO, MIDI, SMPTE or TCP/IP interfaces.

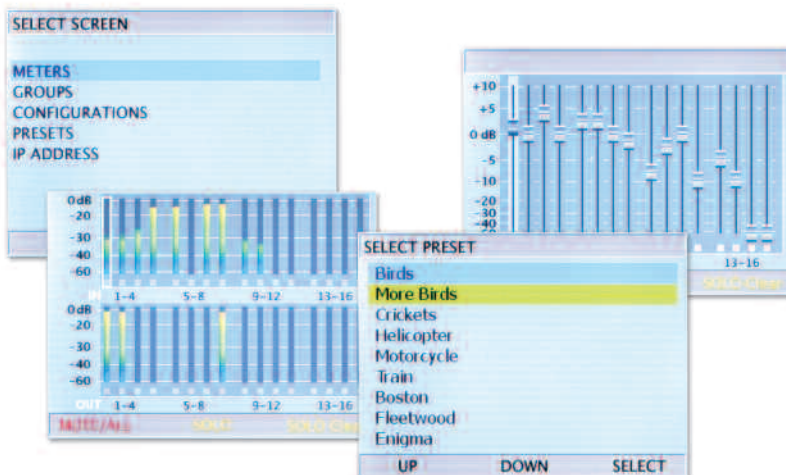
Cues (Presets) can crossfade between matrix and zone level/delay/EQ settings, or trigger dynamic pan effects and audio playback. Every Input channel has three submix inputs: Analog/AES; Playback; or Network, which can also be switched or cross-faded by a Cue (Preset). Outputs also have delay for multi-speaker system alignment.

All programming functions appear "task-based" to the user, using drag'n drop with minimal keystrokes and no CAD-style block-diagram programming. Familiar control functions such as Group faders, meters, EQ displays, routing libraries and Cue Lists can be spread out across multiple screens.

Single or multiple TiMax2 Soundhub units can be accessed from any number of PC or Mac clients via a simple zero-config plug 'n play system. User passwords allow access to pre-defined sub-systems from a single channel up to an entire networked system.



## INTUITIVE FRONT PANEL CONTROL



Simple front panel screens and soft switches allow the user to recall pre-programmed system configurations as individual Shows.

Within each Show the operator can select or step through a list of Cues (or Presets) to cater for different scenes or segments of an event.

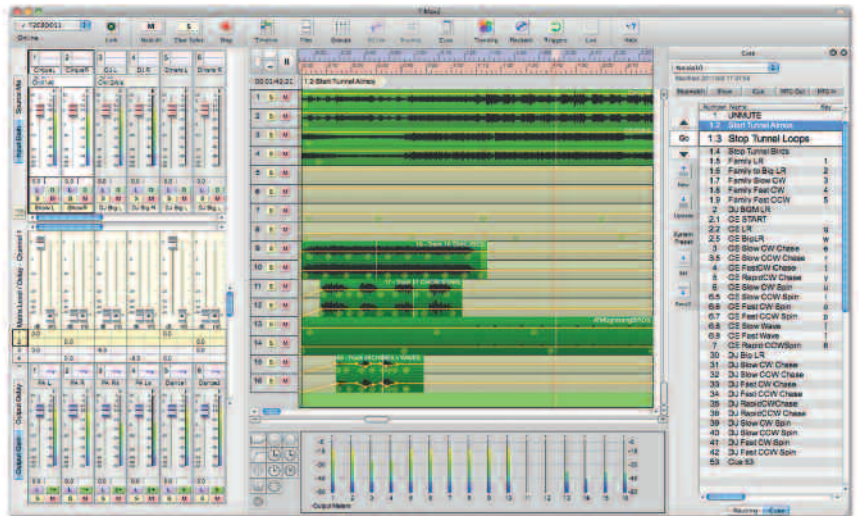
Level and Mute Groups allow adjustments to be made across multiple zones and sources. Input and output metering provides comprehensive system status monitoring. Individual Solo's and Mutes allow for individual zone control, source switching and diagnostics. Access is password-protected.

## S-VERSION ADDITIONAL FEATURES

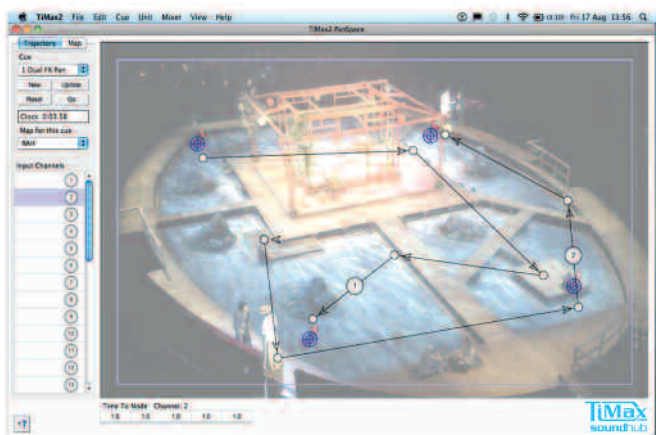
TiMax SoundHub S-Version software provides an advanced showcontrol and sound design environment for more demanding high-end productions and events.

Fully integrated with the audio matrix control screens, S-Version incorporates timeline Cue programming and object-based panning combined with a powerful multi-channel playback engine and editor.

- Object-based delay-panning and control
- Multi-channel sound effects editing and management
- Comprehensive host and slave showcontrol resources
- Multitrack recording for rehearsal or show archives
- Advanced embedded TiMax Tracker functionality



S-Version allows Cue events to be programmed against individual Cue sub-timelines or an overall Show timeline. To help you during rehearsals, linked Cue and Show cursors advance across the Show's drag 'n drop multi-track waveform window to display the timings of Cue events. A set of progress bars on the Cue Playlist mimic this activity to keep you informed during the show.



A Cue can contain single audio events or composites of multiple audio events, with overlapping multichannel playback, looping, panning and level automation.

Available Cue Triggers and output Events include multiple MIDI parameters with full mapping, MTC and SMPTE timecode, plus follow and wait, in addition to the GPIO, TCP/IP, XML and day/date/time triggers available in the R-Series.

All Trigger and Event activity can happen without a computer attached to the unit, so one or more TiMax SoundHub-S units can function as a truly standalone showcontrol slave or host system. It can even kick the Show off itself at the same time every day, plus have special Shows stored to play just on certain dates or tailored for specific times of day.

Pan moves can also be created in the PanSpace spatialisation window by dragging the mouse around multiple Image Definition objects. Pan trajectories between pairs or groups of Image Definition objects can be edited numerically.

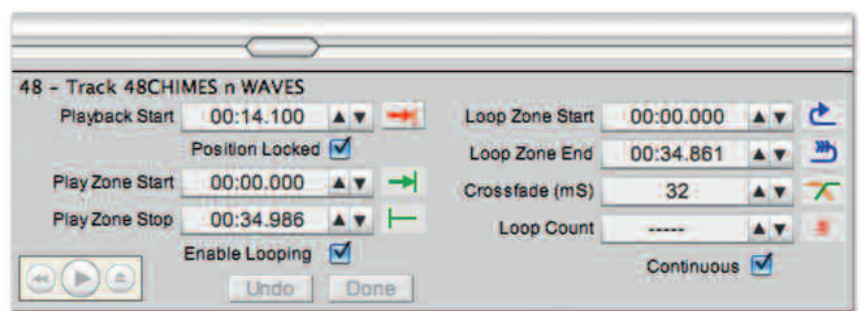
The intuitive Edit window provides non-destructive editing of soundclips, allowing Play Zones to be trimmed on-the-fly in rehearsals, as well as Loop zone durations, counts and crossfades, plus Volume Profiling for level automation.

All Edit parameters can be linked across stereo or multichannel clips, and selectable parameter edit attributes can be copied and pasted onto new clips.

Entire shows can be archived for export, including all audio clips, edits and showcontrol data.

TimeLine and graphical PanSpace pan programming use a unique object-based device called an Image Definition made up of level and delay parameters. Animated multichannel pans are programmed by placing Image Definition objects onto a waveform to use it as the timeline for the pan. TiMax seamlessly interpolates between these objects as the cursor advances, creating a smooth, immersive pan free of any hot-spots or holes.

The pan law can be infinitely varied just by slipping the position of these Image Definition objects on the waveform timeline. External sources can be panned the same way using dummy waveform timelines as virtual playback tracks.



## TECHNICAL DETAILS



### POWER SUPPLY

Inlet on fused IEC connector(s).

130W universal input voltage 80-265VAC at 50 / 60Hz.

Conforms to European LVD / UL / CSA / Nemco safety requirements.

Filtered to conform to CE requirements.

### CONNECTIONS

**Analog I/O card:** 16 in & 16 out line level in groups of 8 balanced signals on female DB25's Headroom: +22dBu; Dynamic Range: 114dB; THD+Noise <0.002%, 20-20KHz; Latency <2ms.

**Digital I/O card:** 16 in & 16 out AES3 with sample rate converter in groups of 16 on DB25 plus 16 analog outs on DB25. Option to sync to selected AES3 input or external Word Clock via BNC. Input and output SRC's allow multiple sample-rates.

MIDI/MTC In/Out Trigger port, MIDI In/Out remote fader port.

RJ45 IP network port, for PC, Mac, AMX, Crestron, hardware remotes.

OPTIONAL: MADI-64 on BNC and Optical or DANTE-64on CAT-5, both 64In x 64Out.

OPTIONAL: Cobranet 32In x 32Out (or 64In x 64Out with second module).

### CHASSIS

2U 19" Rackmount steel chassis, 450mm / 17.5" deep contains:

Internal DSP and I/O modules and hard-disks to create configurations: 16x16 (16-Track); 32x32 (32-Track); 48x48 (48-Track); 64x64 (64-Tracks)

Forced air cooled, low fan noise, OPTIONAL extra redundant fan.

EMC shielded to conform to CE interference emission and susceptibility requirements.

OPTIONAL extra redundant PSU with additional IEC connector.

OPTIONAL dual mirrored hard-disk drives for audio playback redundancy.

OPTIONAL LCD, switch / encoder wall-panel remote.

OPTIONAL buffered input relay bypass.

### FACILITIES

Routing/level/delay Matrix sizes from 16x16, 32x32, 48x48, 64x64.

4-band parametric EQ on inputs, 8-band parametric EQ on outputs, all linkable in groups.

32 assignable input and output Group level controls, also accessible through front panel.

Source submixing at every input, between Analog (or AES) Input / Playback Track / Network input.

Live cross-fade Cues/Presets between submix sources, I/O mixes, level/delay routings, EQ, playback.

Level/Delay Routing / Image Definition libraries can export between Shows and can be controlled by TiMax Tracker.

Advanced smooth delay-panning algorithms for ultimate transparency.

Multiple units can work as one large system or separate sub-systems.

User passwords allow View, Operate or Edit access to pre-defined subsystems, from multiple PC or Mac clients.

Cues/presets assignable to selected channels and parameters.

Multi-channel random-access 16-, 32-, 48-, 64-track audio playback.

256 GPIO input trigger ports matrixed on DB25.

Front panel Menu, Metering/Solo/Mute, Group Levels/Solo/Mute, Cue/Presets select.

Input SRC's allow different 44.1 / 48 / 96KHz sample rates per AES3 pair.

Output SRC's allow different 48 / 96KHz sample rates per AES3 pair.

#### SoundHub-S only:

Automated dynamic delay panning across Image Definitions.

Comprehensive sound effects editing, playback and management.

PC & Mac timeline showcontrol and mix automation.

Advanced embedded TiMax Tracker functionality.