System T *Tempest Control App*
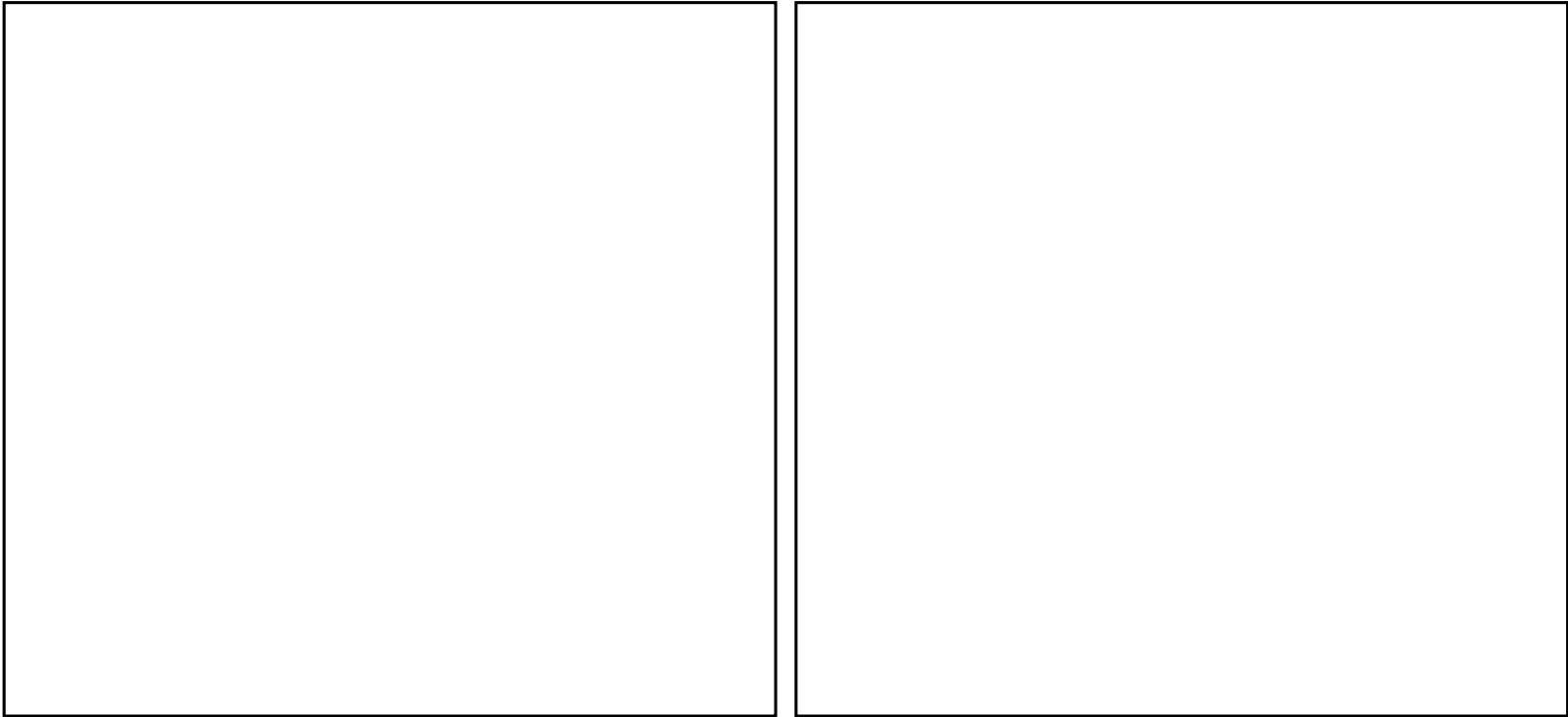
Full Broadcast Audio Production from a Software Application

Solid State Logic

O X F O R D • E N G L A N D

Tempest Control App

Taking Broadcast Audio Production to New Heights

Tempest Control App (TCA) offers an ideal solution for broadcast environments where a powerful broadcast audio mixer is required but a traditional console is not. Tempest Control App brings the full feature-set of System T into a software application with direct control of Tempest Engines. This includes direct AoIP routing control, native support for object and channel based immersive audio, inbuilt FX processing, DAW control, optional Dynamic Automation licence and much more.

Tempest Control App can be flexibly used with any of the available Tempest Engines, with scalable processing packs providing between 140 and 800 paths of processing at 48 kHz. Tempest Control App can also be used in conjunction with any other System T control interfaces: S500, S400, S300, TCR or further instances of TCA. Tempest Control App provides a control offering for applications including remote production, news-room production, backup scenarios or anywhere where a physical control surface may not be required.

When combined with a Tempest Engine, Tempest Control App creates a standalone System T mixer in a tiny form factor. A system can be as small as a 1U TE1 Tempest Engine and Mini PC, or Tempest Control App can be run in a virtual machine on a shared server. Optional hardware means operator positions including a fader tile and touchscreen can be built into furniture for studio installations, or flypacks for remote applications.

Virtualised	Space-Saver	Unrestricted
No need for dedicated control surface hardware	Ideal for remote and automated newsroom production	Complete control of the System T feature-set

Solutions

TCA for Station Automated Audio Production

The combination of the Tempest Control App (TCA), a Tempest Engine and SSL Network I/O delivers a system that is ideally suited to Production Automation driven facilities. TCA can run on a dedicated PC or virtualised on shared server hardware, saving space and budget. System T is compatible with EVS Cerebrum, Grass Valley Ignite, Kahuna, Ross Overdrive, Sony ELC and Viz Mosart production automation systems.

TCA for Remote Flypack Production

System T is inherently suited to remote production due to the distributed, IP connected building blocks of control surfaces, processing and I/O. For events requiring an on-site audio console (low-latency audio feeds), a system could consist of a TE1, local I/O, network switches and a laptop or mini-PC running TCA. A fader tile could be added if physical controls are needed onsite.

TCA for Backup

TCA can be deployed as a backup control surface for mission-critical applications, without the physical requirements of a traditional console. Utilising System T's Dormant Backup feature, TCA can take control of active audio processing in an instant, through a single button push.

TCA for Additional Operators

TCA can be used to provide additional operator positions for scenarios requiring two or more operators. These can be configured as permanent or temporary connections, easily managed through System T's advanced remote capabilities. Fader tiles and touch screens can be connected to each instance to provide physical controls.

TCA for Offline Prep

TCA can be used as a standalone, offline application to prepare showfiles in advance or for system training and familiarisation. TCA replaces the previous T-SOLSA software package and continues to be available free-of-charge for offline and remote operation.

Application Views

Channel View
Channel View provides a clear and logically organised overview and interface for detailed channel information. This GUI aligns with the faders in the fader tile and provides touch access for all the path functions. Double tapping individual channels opens up detailed GUIs for routing assignments, EQ, Dynamics and Panning. Two Channel Views can be used to provide simultaneous viewing and control of 32 paths.

Setup
Setup provides easy access to every configuration parameter, including the dynamically allocatable console processing, Channel View layout, AoIP routing and showfiles. System configuration of associated hardware such as Tempest Engines is also made through this menu.

Effects Rack
Effects Rack provides access to the in-built suite of effects included as standard with System T. A total of 96 FX slots are provided, with a host of processing options available including reverbs, multiband compression, all pass filter, dynamic EQ, noise reduction and many more. Effects are available in formats from mono through to 9.1.6.

Automation
Automation provides detailed access to the scene automation configuration. System T allows console mix settings to be stored and recalled within scenes in a showfile, with comprehensive filter functionality allowing selection of what is stored and recalled for every scene. Scene based automation can also be used in conjunction with System T's optional timecode-based Dynamic Automation for music and post applications.

Overview
In on-air applications, an at-a-glance view of the whole console's signal flow is essential. Overview provides this on a touchscreen that enables the operator to immediately access a channel or bus that needs attention. Selection of any channel or bus is one press away at all times. With meters and bright red overload indicators for every input and output, identifying such sources is easy and a single press brings the full set of path controls to hand.

Peripherals

A range of tiles are available in portable or furniture-mount enclosures to provide hardware control for Temprest Control App.

Desktop Fader Tile
The Desktop Fader Tile (DFT) has fifteen layers with four banks per layer, giving rapid access to 960 paths via dedicated Layer & Bank buttons. Each fader strip has a 100mm motorised fader and a PFL Solo key plus back stop fader PFL. Additional keys include Mute, AFL, Select and a 'Q' key that accesses SSL's unique Super Q system. Each strip features a set of Quick Controls (a push switch encoder and three assignable keys) that work in combination with vertically correspondent aspects of the screen interface above. Colour flag LEDS visually indicate selected functions.

Desktop Fader Tile Plus
With the same comprehensive level of control functionality as SSL's flagship S500 fader tile, the Desktop Fader Tile Plus (DFT+) provides access to up to 960 channel paths on a single tile. It provides 16 full-size physical faders, 15 control layers, and four banks per layer, as well as dedicated PFL buttons and back stop PFL. Additional features include input, compression, gate, and automix metering on each channel input, as well as an OLED screen for enhanced visual feedback. This expanded metering functionality gives users more detailed monitoring and control over every audio signal in their production setup, directly from the fader tile.

Desktop Master Tile Plus
Designed to give physical access to any TCA path, the Desktop Master Tile Plus (DMT+) has two faders; one is a dedicated main/master fader and the other provides immediate user access and control to any selected channel. It also provides control room and studio monitoring controls, as well as scene automation controls that allow the user to navigate through scenes directly from the tile.

Peripherals

Furniture Fader Tile

The Furniture Fader Tile (FFT) provides 16 faders, with 15 layers of four banks giving rapid access to 960 paths via dedicated Layer and Bank buttons. Each fader strip has a 100mm motorised fader, level meter and a collection of status LEDs covering Dynamics, De-ess mode, Dialogue Automix and Remote AFV or Production Automation control. There is a dedicated PFL Solo key plus back stop fader PFL. Additional keys for Mute, AFL and Select control path functions in conjunction with the touch screen interface. An OLED delivers instant visual feedback. Up to six fader tiles can be connected to TCA. Dedicated housing and mounting points allow the tile to be built into furniture for custom applications.

Furniture Master Tile

The Furniture Master Tile (FMT) provides direct access to hardware controls for the comprehensive System T monitoring section, scene automation controls, mute groups and user keys in addition to two faders. On the left is the Focus Fader, which follows assignment of the currently selected path. To the right is a Master Fader, which can be assigned and locked to any desired path. Dedicated housing and mounting points allow the tile to be built into furniture for custom applications.

Touchscreen

The System T software user interfaces are designed for intuitive use with touchscreens. Carefully considered and well organised GUIs provide comprehensive, streamlined control of the entire console environment. Operational functions can all be controlled by a combination of gestural touch and hardware control via the Fader Tile Quick Encoders and the Channel Tile. TCA can be used with multiple touchscreens to facilitate simultaneous viewing of multiple apps, or simple touch gestures can be used to switch between views on a single display. Industrial-grade desktop and open-frame touchscreens are available from SSL, or any third-party touchscreen can be used with Tempest Control App.

TCA Packages

System T is unique in allowing any combination of control surface(s), processing engine(s) and I/O devices from across the range to be combined to create the perfect system for every application.

Tempest Control App (TCA) is available in a number of pre-configured packages, each shown within this guide. TCA, and System T, can be specified precisely to meet your requirements. Any configuration of TCA, DSP Engine(s), DSP capacity and/or hardware control options across the System T range can be specified. Please contact your local SSL representative for further details.

Package Includes:
TCA Online Licence
2x Desktop Fader Tile Plus
Desktop Master Tile Plus
TE2 DSP Engine 1024 I/O P2

TCA Software – Minimum System Requirements

System requirements apply to physical computers or assigned resources for virtual machines.

	Remote or Offline Operation	Online Operation
Processor	Dual core 2.6 GHz processor	Quad core 3.2 GHz processor
Memory	16GB	32GB
Network Interfaces	1x 1GbE *Required for remote operation, not required for offline operation.*	Minimum: 1x 1GbE Recommended: 2x 1GbE *Up to 6 network adaptors can be used depending on the network architecture.*
Storage	500MB	
Display Resolution	1920 x 1080 with a 16:9 ratio	
Operating System	Windows 10 or later	

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