STUDER

Digital
Mixing
Console

Studer Vista 7

Digital Mixing Console Operation takes a Quantum

The Studer Vista 7 production mixer combines an unparalleled operating concept with Studer's renowned technology and processing algorithms.

The Studer Vista 7 is a digital mixing console that reaches far beyond the limitations of existing designs. It is the first digital mixer incorporating an unique ergonomic operating concept that extends throughout the whole console. The unique and revolutionary Vistonics™ (pat. pend.) user interface provides instant overview as well as immediate access to critical controls, making operation quick, easy and safe.

When familiarizing yourself with the Studer Vista 7, you'll soon discover that you already know how to operate this console. Even freelance hired engineers will quickly find their way among the numerous exciting new features. In general, production workflow will become much smoother and production time will be shorter than ever before.

The Studer Vista 7 fits the requirements of just about any production environment. The new mixer's flexibility, reliability and quality sound are based on Studer's well-proven digital technology.

VISTA 7
DIGITAL MIXING SYSTEM

Vistonics™ – quick and easy operation
Ergonomic console surface – increased productivity
AutoTouch Plus – comprehensive and easy automation
The Studer sound – renowned audio quality
Proven reliability – minimum downtime
Resilient system – peace of mind
Virtual Surround Panning – unique to Studer

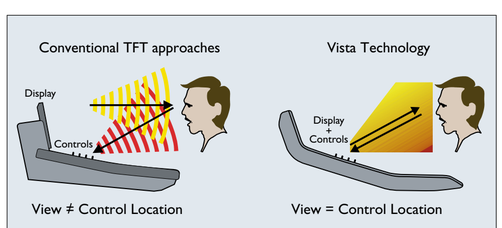
Vistonics™ - the Key to Efficient Console Operation

The Studer Vista 7 incorporates the unique Vistonics™ user interface which ensures quick and easy console operation - the key to a smooth workflow and short production time.

In hot production situations sound engineers depend on a mixing console which allows a fluent working process. Furthermore, a production facility with numerous engineers and freelancers or one which is open to external production teams must provide an easy-to-learn mixing console.

Control of the digital mixing console is therefore a major issue. Today's practice of arranging controls around or below a TFT flat screen display has obvious ergonomic limitations. Audio parameters are displayed on the screen but their relevant controls are located elsewhere. Operators must therefore go through a mental translating process countless times throughout the day which makes production fatiguing and the working process prone to errors.

This is where the unique Vistonics™ (pat. pend.) operating concept of the Studer Vista 7 comes in. It includes the patented technology for integrating rotary controls and buttons within a flat screen display to finally bring visualization and operation into immediate proximity.



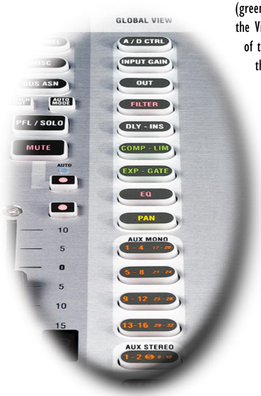
Vistonics allows color and shape of controls to be varied according to good ergonomic practice. A given audio function is always associated with the same color and a parameter is always associated with the same icon displaying values graphically - just as or even more intuitive than an analog console.

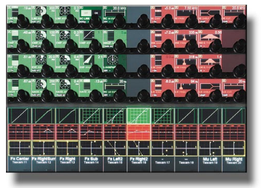
Channel Bay

The operating desk consists of one Control Bay (see page 8) as well as between two and seven Channel Bays incorporating 20 to 70 physical faders on the console. Each Channel Bay accommodates 10 faders (100 mm), the unique Vistonics graphical operating unit, additional assignable rotary encoders at the top of the channels, as well as additional buttons and controls. Each channel includes a high resolution dual bar graph meter with additional gain reduction display for the compressor/limiter and expander/gate at the same time.

Overview

Every channel displays its settings of dynamics (green), equalizer (red) and panorama (yellow) in the Vistonics touch area allowing instant overview of the entire console. By pressing one button on the Global View area, the four Vistonics rotary controls on each channel change their function throughout the console, displaying the four most important parameters of the chosen audio function. Global View buttons can be found on each Channel Bay, permitting access from wherever the operator is sitting.

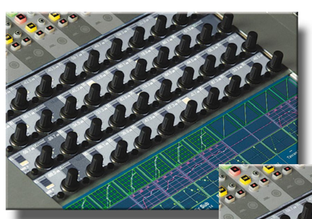




Functions have their dedicated color: Equalizers and Filters are red on Vistonics as well as on all related buttons. The same applies to the dynamics (green) and the panorama (yellow).

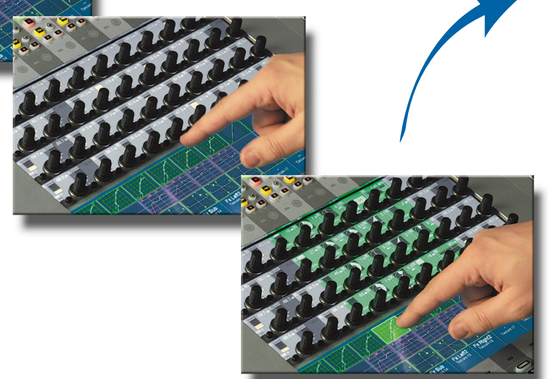
By touching, for example, the equalizer and the dynamics on the same channel, they both will open up onto Vistonics with their complete set of functions. The operator can immediately and easily adjust one function in relation to the other by adjusting, for example, the equalizer and the compressor simultaneously.

By touching, for example, the equalizers of two different channels, they will both open up onto Vistonics with their complete set of functions. This allows the operator to immediately adjust one equalizer in relation to the other or both at the same time.

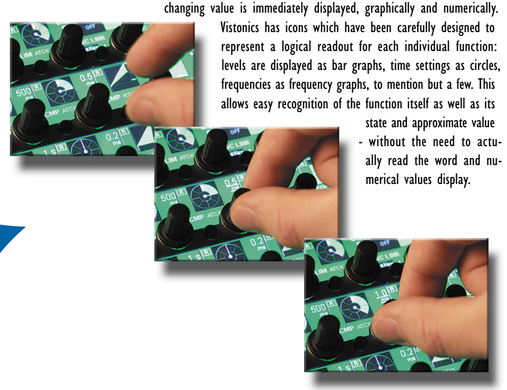


Vistonics: Operation

A simple touch on the desired function of the chosen channel opens up the complete function onto Vistonics. The operator can immediately adjust values and close the selected view afterwards.



By simply turning the knob, the chosen value can be adjusted and the changing value is immediately displayed, graphically and numerically. Vistonics has icons which have been carefully designed to represent a logical readout for each individual function: levels are displayed as bar graphs, time settings as circles, frequencies as frequency graphs, to mention but a few. This allows easy recognition of the function itself as well as its state and approximate value - without the need to actually read the word and numerical values display.



Pressing the physical button next to the rotary on the Vistonics activates a part of the function. The status is indicated by "On" or "Off" in the readout as well as by the brighter color of the display which is visible even from a distance.

Operation of the Studer Vista 7 resembles that of an analog console but is even more intuitive. Established ergonomic practice blends with modern technology to increase operating comfort, improve efficiency and boost studio productivity.

The Studer Vista 7 is **The Return of the Human Interface.**

Consistent Operation throughout the Console

No efforts have been spared to improve and simplify the operation of the Studer Vista 7. Vistonics is part of a comprehensive and unique operating concept, enhanced by the clear philosophy of a few simple rules which can be combined and remain unchanged throughout the console.

Touch'n'Access

The Vistonics patented technology for integrating rotary controls and buttons within a flat screen display brings visualization and operation into immediate proximity. The operator touches the desired function overview and is given immediate access to all available controls (see pages 4 to 6). There are no submenus - every parameter is just one button-press away.

Fast Copy/Paste and Half-Lit Keys

The console incorporates dedicated copy/paste keys for each audio function including EQ, dynamics, panorama and delay. A simple button-press in the original channel and another in the target channel copies the settings across. Copy/Paste is guided up by the half-lit buttons: if one button has been pressed and the desk is awaiting a second button-press, all available target buttons illuminate at half brightness until one of them has been selected. Also, complete channels can be cloned to one or many target channels. Setting up the Studer Vista 7 for a production becomes a quick and easy task. Non-productive time is reduced considerably.

Scrolling

DSP channels not visible on the physical desk are accessed by scrolling the channels available in the DSP core. The channel order is freely assignable: channels can be grouped or even shown repeatedly on the surface. This ensures physical orientation on the desk so that the operator is always clearly informed as to what is happening. Channel Bays with, for example, the master channels can also be locked in place.

Momentary/Latching Activation of all Buttons

The console recognizes and senses the button-push duration and responds accordingly. The buttons therefore act momentarily or latchingly depending on how they were pressed (pressed-and-held or briefly tapped). In addition to Talkback, PFL, EQ on/off, etc., the functions affected include those accessed by the touch-screen - such as viewing of audio function - as well as the monitoring source selectors and the machine control.

Ganging

The ganging function in the mixer allows the operator to quickly apply functions to multiple channel strips because channels within the gang act as one. This can be used, for example, for Mute, Automation mode changes, faders, Bus assign and much more to increase speed and comfort in operation. Creating a gang over the console makes the set-up quick and easy.

Your Production - Totally under Control

The ease of operation in the Channel Bays is replicated in the centralized functions. Despite the vast amount of functionality, operation of the Control Bay remains straightforward, quick and easy.

Control Bay

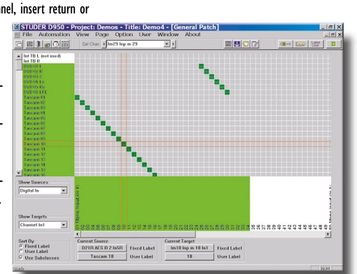
The Control Bay houses all general and global controls as well as a set of 8 freely assignable high resolution dual bar graph meters which can be switched to display monitored sources, PFL and Solo. The operation principle in the Control Bay as well as the whole console is "one control per function" - no paging and no hidden functions. This provides instant overview as well as immediate access to critical controls to make operation quick and safe.

Graphic Controller

The Graphic Controller (GC) provides the operator with quick and easy access to a vast array of console functions and facilities which need only occasional operation, e.g. project and system management, automation and snapshot, router control and assignment. Although the GC's large TFT flat panel color display is a prominent feature of the console, it is used mainly to display information during normal studio operation. The Strip Setup on the GC displays all available channel with their label and including Mute and Level Present/Clipping information. Channels can be arranged on the physical surface by drag and drop on the GC making console preparation an easy task. A VGA input is provided in order to switch the built in TFT flat screen to display any external video signal for easy integration of e.g. workstations.

Input and Output Routing

Integral within the DSP core of the mixer is an extensive routing matrix, providing complete easy-to-patch facilities that eliminate the need for an outboard patch bay or front-end router. Any signal, inputs direct outs, insert sends and bus outs may be routed in any combination to any console channel, insert return or physical output of the Studer Vista 7 system - with sample rate conversion if necessary. The whole patching of studio equipment can be done with one simple button-press. This results in reduced set-up time and tremendous flexibility.



Monitoring and Talkback

Control room monitoring supports standards from LR, LCR to LCRS and 5.1 (optionally up to 7.1 and Dolby EX). Dedicated buttons allow soloing and muting of each speaker. Functions act momentarily or latchingly depending on the duration of the button press. This includes solo, mute, insert of encoder/decoder and alternative speaker sets. Talkback and signaling is available to both producer and studio.

Machine Control

Machine Control is standard and can control one machine with 9 pin interface. The internal time code generator can act as master as well. The ergonomic buttons and jog/shuttle wheel allow fast and accurate operation. The optional extensive machine control is equally well integrated using dedicated buttons for multi machine control, track arming, etc. Large installations benefit from the standard VGA switch and the optional touch screen of the Graphic Controller for fully integrated control of all machines.

Studer Original Equipment - Made in Switzerland

In the world of professional audio, the Studer name has always been associated with quality and reliability, together with advanced technology, innovation and premium sound.

For over 50 years Studer's commitment to continuous investment in R&D has been rewarded with its maintained position as a world leader in audio technologyas well as the award of numerous technology patents. More importantly, this dedication to investment in research gives Studer's engineering and design teams an unmatched knowledge base from which to develop the innovative and often unique products which customers value so highly.

Whether the requirements are for technical proposals, ergonomics solutions, new operational paradigms, innovative installation ideas or future-proof planning, Studer can provide them. Everything our customers need is here - developed and manufactured in Switzerland.

Perfect Tools for Surround Production

Studer's unique Virtual Surround Panning (VSP) fits the Studer Vista 7 console perfectly. It allows the operator to create a realistic 5.1 sound field modeled around a few simple parameters.

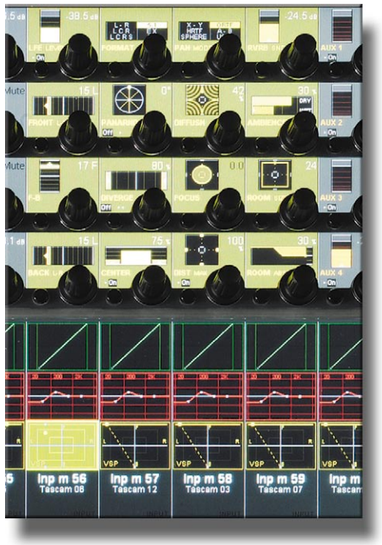
Studer's VSP system, unique to the Vista 7 and the D950 M2, provides the operator with creative possibilities unavailable with any other console. With VSP's time delay panning and created reflections, even the most complex surround production will result in a quality mix which is second to none. With VSP, mono sources can be positioned to produce highly convincing surround sound without employing time-consuming and often unsatisfactory external processing.

With few or no sources of multi-channel sound elements available, operators must attempt to create surround from purely mono sources using delays and reverb devices. Thus, the creation of an impressive and satisfying surround mix for film, commercials and music takes much time and effort, and the results are often disappointing.

Virtual Surround Panning simulates a defined acoustic space and positions the sound source within this space using the channel pan control. Surround impression is guaranteed by generating early reflections with the appropriate directionality and time delays on all speakers.

These reflections, which are absent with normal panning, are the key to localizing the mono source within the surround field. VSP also gives better directional imaging by adding phase and frequency spectrum information to the existing amplitude difference between channels, if the operator wishes to do so. In addition, VSP may provide late reverberation to the panned signal. The up to eight reverberation systems can also be utilized even standalone, adding another unique feature to the Studer Vista 7.

The results - which must be heard to be believed - are very impressive and offer an enhanced experience in surround sound unachievable with any other console system. And it all takes place within the console and can be controlled through the use of snapshots and dynamic automation which again saves considerable time during mixdown.



Visual information and operation of Virtual Surround Panning

STUDER VSP
VIRTUAL SURROUND PANNING

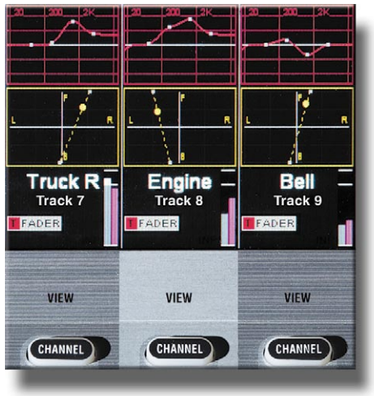
Dual motorized and touch-sensitive joysticks (option) in the Control Bay

Automation - Power, Flexibility, Ease of Use

The role of dynamic automation has never been more important to the flexibility needed by today's dedicated and multi-purpose audio rooms. Studer's AutoTouch Plus Dynamic Automation system meets and exceeds even the most stringent requirements.

To be a true working tool the automation has to be powerful, flexible and easy to use. Studer has developed an automation "engine" that offers features and functionality permitting the most complex automation tasks to be carried out within a clear and logical workflow. For those requiring only the basic dynamic automation functions, a straightforward and simple operation has been introduced. In both cases the unique and detailed automation status and read-back information displayed in the Vistonics supports every automation task. Whatever your automation needs are, Studer's AutoTouch Plus can meet them quickly, safely and with a maximum of efficiency.

Automation panel in the Control Bay



Visual information for all parameters during operation of AutoTouch Plus Automation (photo: fader in trim mode)

Every fader and knob within the Studer Vista 7 is touch-sensitive and can be dynamically automated by simply touching the control, making the move and releasing the control. However, sophisticated audition modes are also available which allow a control value to be first auditioned and then explicitly punched into automation record, either locally or globally. Each control can be enabled independently into WRITE, TRIM, READ or ISOLATE modes so that only selected controls may be dynamically automated. And for those controls which will ultimately remain static within the mix, but need to be continuously tweaked while creating the mix, the transparent STATIC mode is available on all controls.

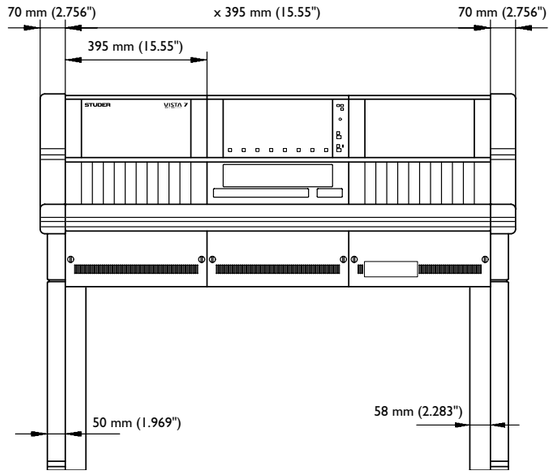
AutoTouch Plus extends the same touch-sensitive operation to its sophisticated dynamic switch automation. All switches are dynamically automated and can operate in a simulated touch-sense mode. Switch states can also be edited in the TRIM mode, or by using the fast-and-easy Press-and-Hold functionality which permits the editing of switch events in real time without having to go off-line. Of course, when off-line editing is required, AutoTouch Plus provides a comprehensive off-line mix edit facility that permits the editing and copying of automation data for faders, knobs and switches within a mix or merged across mixes.

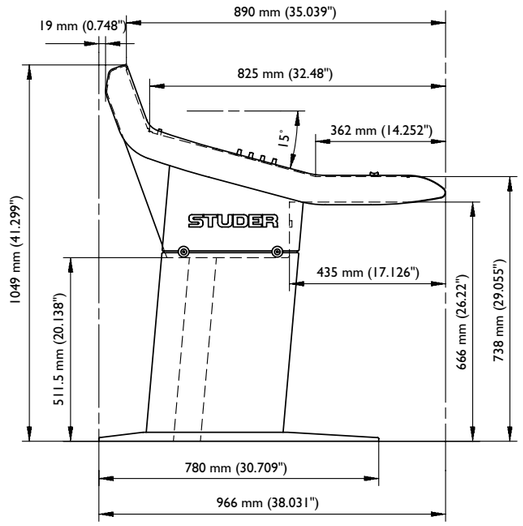
Mix files are automatically managed with the Mix Tree System (MTS). The last eight mix passes are held in memory with every mix pass automatically saved to the hard disk. Any previous pass may be instantly recalled, updated or compared to any other pass, whether during the session of the day or during a remix some time in the future.

With a host of additional features including Studer's AutoTouch Plus, dynamic automation ensures that every mix session will be smooth, safe, and efficient.

Technical Data

The console consists of one Control Bay as well as between two and seven Channel Bays incorporating 20, 30, 40, 50, 60 or 70 faders.





Total Faders	20	30	40	50	60	70
Console width in mm*	1325	1720	2115	2510	2905	3300
Console width in inches*	52.17	67.72	83.27	98.82	114.37	129.92

* = Total width including Control Bay and side panels

The optional Empty Bay adds another 395 mm (15.55") to the total width. The Empty Bay can be ordered with or without 15" TFT flat screen display.

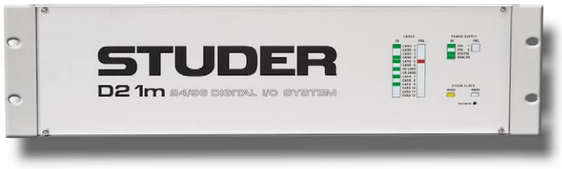
Studer Vista 7 I/O Frames

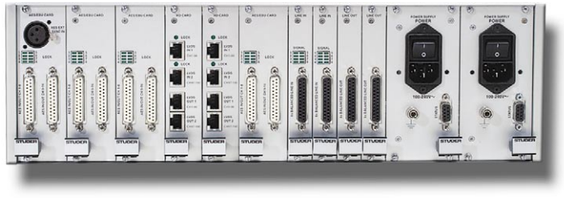
The audio interfaces offer full 24-bit resolution at 44.1 and 48 kHz (Studer D19m) or additionally at 96 kHz (Studer D21m). This provides a dynamic range and a resolution well able to cope with any audio signal. Three different standard Input/Output frames of the D19m series are available and can be combined to complement the AES/EBU interfaces on the DSP.

I/O Frame "Analog"
32 ADC Line In, 24 DAC Line Out
optional: 1U Frame with 16 Mic Preamps

I/O Frame "TDIF"
32 Ch TDIF I/O, 8 ADC Line In, 8 ADC Line/Mic In, 16 DAC Line Out, 8 GPI, 8 GPO

I/O Frame "ADAT"
32 Ch ADAT I/O, 8 ADC Line In, 8 ADC Line/Mic In, 16 DAC Line Out, 8 GPI, 8 GPO





The new Studer D21m - please contact Studer for most up to date information

Studer Vista 7 input/output frame: type "Analog"(connections on back)

Studer Vista 7 Monitoring Frame

The monitoring rack includes Stereo, LCR, LCRS and 5.1 monitoring for the control room as standard.

Main features:
- 3 separate speaker group outputs (up to 7.1 as option)
- talkback to 2 external locations
- producer talkback microphone support
- digital TB to core internal channels
- separate PFL / Talkback speaker output

Studer Vista 7 DSP-Core Configuration

The DSP core of the Studer Vista 7 builds on Studer's well-proven digital technology. It incorporates an excellent reliability record and inspires a high degree of confidence enjoyed by the numerous users operating systems in mission-critical applications. The DSP core uses parallel processing architecture with integrated floating point circuitry and an internal word length of 40 bits. No overloads will ever occur within the console, since floating point architecture is even used in the summing busses. The system can be used in 48 kHz or 96 kHz mode.

The more DSP cards that have been fitted in the core, the more DSP power and AES/EBU interface will become available. Each card hosts eight AES/EBU inputs (two with SFC) and eight AES/EBU outputs. Four different DSP core sizes are available:

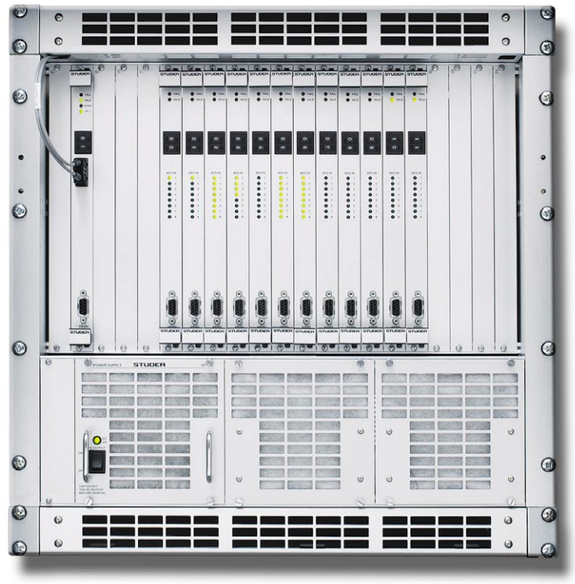
Core A – 5 DSP cards, 40 AES/EBU Inputs and Outputs:
e.g. a 48 channel stereo mixer or a 34 to 42 channel surround mixer

Core B – 8 DSP cards, 64 AES/EBU Inputs and Outputs:
e.g. a 80 channel stereo mixer or a 54 to 68 channel surround mixer

Core C – 12 DSP cards, 96 AES/EBU Inputs and Outputs:
e.g. a 118 channel stereo mixer or a 82 to 104 channel surround mixer

Core D – 15 DSP cards, 120 AES/EBU Inputs and Outputs:
e.g. a 148 channel stereo mixer or a 100 to 130 channel surround mixer

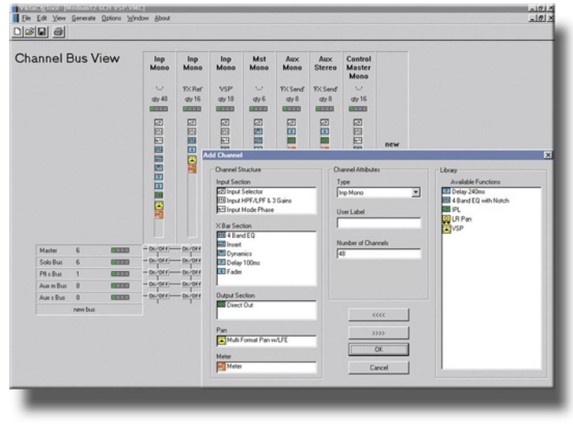
All the above mentioned core types include aux, master etc.
The available number of channels in a surround system depends on the chosen channel type (Standard or with Virtual Surround Panning VSP).



Studer Vista 7 DSP core: Type "C", incorporating 12 DSP cards

Configuration Editor

With the optional Configuration Editing Software the functionality of the console configurations can be altered. This includes the Processing within the channels, interconnections and the number of busses. Extensive import functions allows the user to adapt existing configurations to meet changing needs.



STUDER
professional audio equipment

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