

NEW!

LiveSet™
Virtual Sets
SDI Switching Option
HD/SD Editing



VT[5]™

Integrated Production Suite



VT[5]™ provides the tools you need for live and post-production: live video switching with completely integrated virtual sets, real-time keying, titling and audio mixing, plus HD/SD editing, DVD authoring, 2D video paint and animation.

With VT[5] your investment is 100% productive, when it's not in use for live production the VT[5] is equally at home for post production. VT[5] switcher offers up to 32 external inputs, virtual LiveSet™ technology, multiple DDRs, CG Designer™ for titling, video paint for animation and comes standard with SpeedEDIT™, an ultra-fast non-linear multi-format HD/SD editor.

VT[5] is designed to deliver amazing video production at an unprecedented price.



NEW TELEVISION FEATURES

■ Indicates features new to VT[5]

Live Switching

- Add up to 32 external inputs using SX-84 and SX-SDI expansion modules
- 16:9 wide-screen and 4:3 support
- Advanced matte capabilities for luminance and chroma keying with adjustable controls for spill removal, tolerance, smoothness and garbage matte removal
- Key settings are stored for each camera input
- Key preview is visible before you take it live
- LiveSet™ real-time virtual studio environments with multiple camera angles and focal lengths, real-time shadows, reflections, lighting and more
- Support for transitions between virtual sets
- LiveSet Constructor™ utility to create up-stream key graphics, virtual sets, fixed background keys and more
- Upstream effects bus for double-box interviews and picture-in-picture effects
- Hundreds of reversible DVEs (Fades, Wipes, Curls, Trajectories, Rotation, Compression, Borders, Chroma FX, Overlays and much more...)
- 2D and 3D DVE Transitions
- iVGA™ adds external computer displays (Mac & PC) as a switcher channel with multiple input selection
- Integrated DSK with both take and fade in/out
- Titling, graphics, videos and animations directly assigned to switcher buses
- Dynamic switcher buses allow reconfiguration (no need to re-cable the video inputs)
- Save/load switcher configuration

Internet streaming

- One button internet streaming
- Push and pull streaming
- Windows Media encoder

Titling or Character Generator CG Designer™

- Save As Title Template feature to create Live Title Templates for VT[5] and TriCaster™
- WYSIWYG editing
- Interactive template based CG module
- Display Program output within CG interface
- Use any installed TrueType font
- Powerful drawing tools
- Create and insert graphic objects (boxes, circles, splines, images)
- Save pages as 32-bit images or animations
- Save or recall text styles

Digital Disk Recorder (VT-DDR™)

- Multi-format, multi-standard on-screen video player
- Play back a single clip or list of clips
- Cue clips to roll instantly when triggered by Switcher
- Use multiple DDRs simultaneously
- DDR can be assigned to the Downstream Keyer (DSK) providing live animated overlays
- Count up or count down in either project time or clip time
- Record program out to hard drive either as a DV file or uncompressed

External Controller

- Control external RS-422 and DV decks from your VT[5] desktop
- Batch capture deck lists and configurations
- Record allows user to enter time code settings

Audio Mixer (using SX-84 expansion box)

- Mix 8 live sources (stereo) and 8 online sources (4-channel)
- 4 adjustable XLR balanced mic/line inputs with Phantom power
- 6 stereo unbalanced audio inputs from live sources
- 8 inputs from computer sources
- DV and SDI audio inputs
- EQ, balance, mute and mono for all inputs
- Audio-follows-video capability
- Talk over (reduces mix levels for mic inputs)
- Automated mixing to transition between audio presets
- 4-channel audio (4 discrete channels) in and out
- PA Mix Output: for live PA or control room feed

Signal correction Proc Amp

- Brightness, contrast, hue, saturation
- U offset, V offset, U gain, V gain
- Calibrate computer sources as well as analog sources
- Advanced panel with 70+ adjustable parameters
- Auto calibration for 75 IRE bars, 100 IRE bars and video pass-through mode (requires SX-84™)

NEW TELEVISION FEATURES

■ Indicates features new to VT[5]

Video Scope Waveform Monitor

- Waveform of YV, Y, C, YUV or RGB
- Vectorscope at either 75% or 100% chroma
- Monitor program or preview feeds
- Adjustable display brightness and tint

Video Monitors

- Full-field on-screen playback on computer monitor
- Monitor program, preview, key or DSK buses
- Display supports 4:3 and 16:9 widescreen
- Underscan mode
- Zebra stripes for both 75 IRE and over-legal video
- YUV video display
- Adjustments to match computer display to reference video monitors

Non-linear video editing SpeedEDIT™

- Resolution independent: output any frame-rate, any resolution, any aspect ratio
- Multi-format, mix AVI, QuickTime, MPEG1, MPEG2
- Combine HD and SD clips on timeline
- Native editing of HDV and DVCPRO HD
- Internally processes all clips in HD with full-res, real-time HD previews
- MXF Support (depends on codecs)
- WMV HD and VC-1 output
- White Balance correction and real-time 3-wheel color correction
- 4-band color selection
- CG Post™ animated titling
- VST™ Audio plug-in support
- Optimized for Dual-core and Quad-core systems
- Linked timeline and storyboard editing
- Edits in native formats
- Hundreds of real-time transitions

- Real-time slow motion and reverse
- Real-time video and audio filters
- Real-time 3D position, size and rotation
- Real-time TGA sequence playback
- Real-time chroma and luma keying with spill suppression
- Real-time mixing of unlimited audio layers
- Spline-based control of all clip properties
- 3D audio positioning
- EDL import/export (Grass Valley, CMX, Sony, Excel)
- Unlimited Undo/Redo saved with project
- Project backup tool
- Intelligent background rendering
- Real time FireWire in/out and SD video in/out up to uncompressed signal

2D Video painting and animation Aura Video Paint™

- Amazingly fast 2D paint and animation engine
- Paint over live video
- Four-point pixel tracking
- 3D compositing
- Stroke recorder
- Instantly use a graphic alpha channel
- Animate text along path

DVD Authoring U-Lead DVD Workshop

- Complete DVD authoring
- Direct encoding from a VT-Edit projects.
- Instant DVD Project playback
- MPEG-2 encoding
- MPEG-2 decoding

INPUT/OUTPUT

VT Card

- 1 in & out Component YUV or Y/C and composite
- 1 in & out unbalanced stereo audio
- DV inputs and real time DV output (requires IEEE1394 OHCI compliant I/O)
- Native program output to projector up to QSXGA (2560x2048)
- Genlock input
- Alpha out / preview out

SX-84™ Expansion Box (included with VT[5] Live!™)

- 8 component inputs
- 8 Y/C inputs
- Up to 24 composite inputs
- 4 component or 4 Y/C outputs

- 4 composite outputs
- 1 composite preview/alpha-channel output
- 4 XLR balanced audio inputs (trim control between mic and line levels)
- 6 stereo unbalanced line inputs
- 4 balanced line outputs
- 2 control room/PA outputs
- 3 RS-422 machine control ports
- Genlock with loop-thru
- Tally light and GPI support

SX-SDI™ Expansion Box (optional)

- 8 SDI video inputs
- 1 SDI program output, 1 SDI preview and 5 SDI routed outputs
- Audio AES EBU or Embedded 1 input/1 output

VT[5] Supported File Formats

Video Formats:

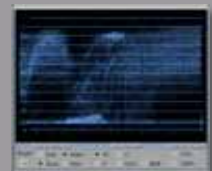
- AVI, DV, RTV, MPEG1, MPEG2 Program Stream, MPEG2 Transport Stream, HDV, QuickTime® (with alpha support), MPEG4 (including PSP and iPod), Image sequences, Flash, WMV HD (Render only) and VC-1.

Graphic formats:

- JPG, JPEG, PNG, Targa (TGA), Tiff, BMP, WBMP, PCX (alpha-channel support for Targa and PNG)

Audio Formats:

- WAV, MP3, AU, SND, AIFX, WAV, DIF



VT[5]™	
Type	3.3V / 5V half-length 32-bit PCI, 66 MHz
Video In/Out	PAL composite, Component, S-Video, SDI (optional board) alpha channel out
Digital format	8bit ITU-R BT.601
Analogue video connectors	15 pin high density (adapter cable with BNC connectors included)
Time base corrector	Internal. External unit not required
Analogue audio connectors	3.5 mm stereo
Digital video/Audio connector	90-pin digital video/audio bus Firmware Field Upgradable
Genlock	Syncs VT[5] to external sync. Genlock loop-through available on SX-84 subcarrier phase controls: vertical, horizontal
Comb filter	2-line luma and chroma comb filters

Processor:	Dual Intel or AMD processor that supports SSE2 Front-side Bus speed of 800MHz or higher
Interface:	A free 66MHz PCI slot for the VT[5] card is recommended for best performance. (Additional slot needed for breakout cable)
Graphics Card:	PCI Express-based graphics card Nvidia or ATI graphics chipset Minimum 64MB per-display onboard graphics RAM Full Open OpenGL and DirectX 9.0 support Minimum screen resolution of 1280x1024 required Latest drivers from chipset manufacturer
System RAM:	2 Gigabytes of System RAM
Hard Drives:	Software-stripped SATA drives for video storage/playback 8 GB space for DVEs and content IDE or SATA system drive with 2GB of free disk space DVD Drive
DV Capture and Switching:	Any IEEE1394 Firewire card
Operating System:	Windows® XP Professional (SP2) or Windows® Vista 32-bit
Software:	Windows® Media Player 9 or higher Windows® Media Encoder 9 for streaming
Drivers:	Direct X 9.0c or higher Latest graphics card drivers

For Hi Definition editing, Maximum usage of VT[5] LiveSet™ technology requires a VT PRO card, which shipped with VT[5], dual CPUs or dual core CPUs are suggested for the smoothest and fastest operation.

*NewTek recommends the optimal system configuration. Systems of lesser processor and drive speed will work with VT[5] but some complex functions may not perform in real-time. To review the minimum specifications suitable to your production requirements visit www.newtek.com. Additionally, as new technology becomes available, system recommendations will be updated.

SX-84™ SWITCHER EXPANSION MODULE (6U Breakout Box)	
Video inputs	8 component or Y/C or 24 composite Proc Amp control for each input (You may have inputs of differing formats on differing rows, so you can have all three formats feeding to the VT[5] at any time.) (Multiple inputs internally synchronized; camera do not require genlock capability.)
Video outputs	4 Component or 4 Y/C program outputs 4 Composite program outputs 1 Alpha out (can also display preview output)
Genlock	1 Genlock in - 1 Genlock loop-through
Audio in	4-Channel XLR balanced (switchable mic or line level, phantom power) - 12 RCA unbalanced (6 stereo pairs) 1 stereo AUX return
Audio out	4 XLR balanced - 8 RCA unbalanced (6 stereo pairs) - 1 stereo AUX send - 2 stereo PA/Control Room Mix
Remote control	3 RS-422 Tally light and GPI support

SX-SDI™ SWITCHER EXPANSION MODULE (2U Breakout Box)	
Video inputs	8 Serial Digital inputs
Video outputs	1 Serial Digital Program output 1 Serial Digital Preview output 5 Serial Digital outputs (routed from the 8 SDI inputs)
Audio inputs	1 Embedded Serial Digital audio input 1 AES-EBU Serial Digital audio input
Audio outputs	1 Embedded Serial Digital output 1 AES-EBU Serial Digital output
SDI Video in / out conforms to SMPTE 259M; Embedded Audio conforms to SMPTE 272M; Digital Audio in / out conforms to AES/EBU standards; 20-bit 48khz (2 channels)	

Note: The SX-SDI requires the SX-84 to operate. Both SX-84 analog and Serial Digital inputs/outputs are simultaneously active.

SDI I/O EXPANSION CARD	
Type	3/4-length PCI card (requires free PCI slot)
Video input	1 SMPTE 259M Serial Digital
Video output	1 SMPTE 259M Serial Digital 1 SMPTE 259M Serial Digital Preview or Alpha Channel out
Audio input	1 AES/EB Serial Digital
Audio output	1 AES/EB Serial Digital

Note: The SDI I/O EXPANSION CARD is not compatible for use with the SX-SDI



Comparison chart of VT[5]™, VT[5] LIVE!™ and a VT[5] LIVE! plus SX-SDI Expansion Box

	VT[5]	VT[5] LIVE!	+ SX-SDI
Video Switcher	▲	▲	▲
LiveSet Technology	▲	▲	▲
LiveSet Constructor	▲	▲	▲
SpeedEDIT™ HD/SD resolution-independent, multi-format editing	▲	▲	▲
Audio Mixing	▲	▲	▲
CG Designer (Character Generator)	▲	▲	▲
DDR (Digital Disk Recorder)	▲	▲	▲
RS-422 Remote control	▲	▲	▲
DV-Support (Requires IEEE-1394 interface)	▲	▲	▲
DSK (Downstream Key)	▲	▲	▲
Capture, Batch Capture	▲	▲	▲
Proc Amp (colour & signal calibration)	▲	▲	▲
VT-Scope (Waveform & Vectorscope)	▲	▲	▲
On-screen Video Monitors	▲	▲	▲
Video Paint (2D Paint, animation & compositing)	▲	▲	▲
24-month manufacturer hardware warranty	▲	▲	▲
Technical Support	▲	▲	▲
VT[5] 32-Bit PCI 66 MHz card	▲	▲	▲
1 in/out Component YUV or Y/C or composite	▲	▲	▲
1 in/out Unbalanced stereo audio	▲	▲	▲
1 genlock input	▲	▲	▲
1 Alpha out / preview out	▲	▲	▲
SX-84 switcher expansion module (6U breakout box)	●	▲	▲
8 component or 8 Y/C or 24 composite inputs	▲	▲	▲
4 component or Y/C outputs	▲	▲	▲
4 composite program outputs	▲	▲	▲
4-Channels XLR balanced audio in/out	▲	▲	▲
12/8 RCA unbalanced audio in/out	▲	▲	▲
1 Tally / GPI connector	▲	▲	▲
SX-SDI switcher expansion module (2U breakout box)	●	●	▲
8 Serial Digital inputs	▲	▲	▲
1 Serial Digital Preview + 1 Program outputs	▲	▲	▲
5 Serial Digital routeable outputs	▲	▲	▲
Embedded Serial Digital audio: 1 input /1 output	▲	▲	▲
AES-EBU Serial Digital audio: 1 input /1 output	▲	▲	▲
SDI I/O Expansion Card	●	●	▲

Note: The SX-SDI requires the SX-84 to operate. The SX-SDI and the SDI I/O Expansion Card options cannot be installed simultaneously.

▲ Included ● Available option

«A revolutionary product, a summary of technology and genius in a single solution. The best that a digital television would want for the production of its content.»

Massimo Mazzanti
Sailing Channel

«... a unique product that combines the functions of a live switcher with those of an edit suite. All designed to work the way production professionals really need.»

Paulo de Andrade
Digital Post Production

«It does the same work as other non-linear products, faster, cheaper, better and with no fat!»

Rich Helvey
NBC's Access Hollywood

«Thanks to the power and technology engineered in NewTek's VT, Mania TV! is delivering the next revolution in television!»

Drew Massey
CEO - Mania TV!

Visit <http://www.maniatv.com> to check out the world's first Internet Television Network! It's got tons of new music videos and short films!

«...perhaps the best tool on VT is its image quality. Along with my co-workers on Soeur Emmanuelle, I was suprised by the superb quality of the images I achieved. The color correction... is particularly powerful and gives excellent quality...»

François Boulene
Visual Effects Artist, Editor, Producer

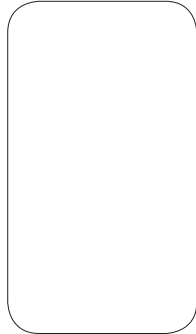
«You have exceptional hardware and software working in concert to give you maximum creative freedom. No one does this better than NewTek...»

Robert Levine
Florida State University Media Production Program

Live Switching - Titling - Internet Streaming - Broadcast - Post Production - DVD Authoring - Real Time - Multiformat



Authorized Dealer



VT[5], VT[5] Live!, SpeedEDIT, TriCaster, Aura Video Paint, IGA, SX-84, SX-SDI, CG Designer, LiveSet Constructor and LiveSet are registered trademarks of NewTek, Inc. Windows is a registered trademark of Microsoft. QuickTime is a registered trademark of Apple Computers. Other products, pictures, company names shown or mentioned herein are trademarks of their respective companies.

© 2007 NewTek, Inc.



NewTek, Inc.
5131 Beckwith Blvd
San Antonio, TX 78249
www.newtek.com
(P) 210.370.8000
(F) 210.370.8001