

# Slate 5000

2 M/E Live Video Production System



*Create Compelling Live Video*



**Broadcast Pix**

# Slate G 5000 Systems

In HD/SD, SD only, Analog, or Hybrid



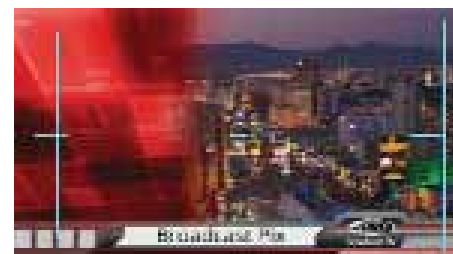
## Create Compelling Live Video...

The Broadcast Pix Slate 5000 system creates compelling live video at a fraction of the cost of a traditional control room. It's the industry's only integrated production system with 2 M/E functionality.

The Slate 5000 is an entire HD live video production system, with 2 M/E switcher, 100 hour HD clip store with audio, CG and graphics, multi-view, aspect and format conversion. Multi-definition enables simultaneous mixing of 1080i, 720p and SD. The Multi-view provides unprecedented feedback including sources, tally, keys, clips, graphics, file names, counters and clocks. Slate's Fluent software enhances workflow by streamlining import of clips and graphics, running macros that combine switcher moves and specific file recalls, and can even drive an on-air CG from an XML database. The 5000 is also available in SD.

## ....Cost-effectively

Save big on equipment as Slate 5000 HD systems are less than comparable switchers that only switch. Utilize staff more efficiently as even solo operators can create compelling video. And the Granite 5000 system can gracefully upgrade to native HD granite systems.



# Slate G 5000 Systems

## Powerful Production Switcher

The Slate 5000 control panel has 16 source buttons per row, and can access 32 with a shift function. The Slate 5008 model uses the 16 source buttons for 8 cameras, 2 clip channels, 5 graphic channels and black. The Slate 5016 adds support for up to 12 cameras and 6 auxiliary outputs, while the Slate 5032 can support up to 24 cameras and 22 auxiliary outputs.

Up to 6 keyers provide pristine keying, and each includes a DVE, which can create a box. The keyers are exceptionally easy to fill from internal clip and graphic stores, or 2 keyers can be combined to support an external video and key input, such as an external CG. The second M/E can be used to set up a composition, create a composition keyed into program, or for dual output productions like two screens.

The panel features unique PixButtons, with built-in displays for every source and key, which tell at a glance not only the device assigned to the button but also the file name of a clip or graphics (patented).

AutoAspect enables 16:9 and 4:3 content to be used interchangeably, without stretching. Some models simultaneously produce both 16:9 and 4:3 versions of a show at the same time.

## Integrated Clips, Graphics and Multi-View

The clip store is dual channel and holds up to 200 hours of H.264 HD clips. It also can play HD ProRes or SD QuickTime clips, as well as animations, all with audio. Clips auto-start when taken to air. A five-channel graphics store holds imported graphics, or you can create your own on the integrated broadcast quality Harris Insciber CG.

The multi-view is not only standard, it goes far beyond basic multi-views in providing feedback to the switcher operator, and any other operators when being used by a team. Two DVI monitor outputs are standard, and four are optional. Combine large wall monitors and personal monitors. Unlike conventional multi-views that only show program, preview and sources, Slate also shows the content of every keyer, tally information, the libraries of clips and graphics, file names and attributes of clips and graphics, clip counters, clocks, timers, safe zone overlays and messages when content is added.

## Fluent Software Streamlines production workflow

Fluent Watch-Folders enables HD and SD clips and graphics to flow into Slate from your editing and graphics systems, without translation, even in the middle of a show. Fluent Macros play out powerful combinations of switcher moves and specific files. Fluent options drive the on-air CG from a database.

## Join Industry Leaders

Join leading studios in over 70 countries that create live video on Broadcast Pix, including broadcast stations, Internet broadcasts, production trucks, stadiums, staging, corporations, universities, houses of worship and government studios. Enjoy friendly and knowledgeable technical support, as well as training and commissioning services.



## Integration of Switcher with...

### Multi-View Monitoring

- View preview, program & camera sources, plus thumbnails of keys & libraries
- Tally status, transition rates & key settings

### Clip Store

- Auto-start clips and animations on transition
- Use PixPad to view clip content libraries
- See active clip in source & keyer PixButtons
- Easy animated wipes with macros

### CG

- Use PixPad to view CG & select from libraries
- See active CG in source & keyer PixButtons
- Change crawl speed, even on-air

### Graphic Stores

- Use PixPad to view content libraries
- Active graphic in source & keyer PixButtons
- Watch-folders streamline import of clips and graphics from editing and graphics stations
- Link chromakeys with stills for a virtual set

### Camera Control

- PixPad for presets, Joystick tilt/pan/zoom
- Use knobs for focus, iris & CCU settings

## Slate G 5000 Models

All models include a control panel and workstation with Slate boards installed, and provide M/E2 program, preview, M/E1 program, clean feed outputs, and 6 keyers. An internal aux output can be created for an internal device like a clip store by forgoing 1 keyer. This aux can hold any input and keys can be added to it. ME/1 foreground preview may be activated by forgoing 1 keyer. Models G 5016 and 5032 add an integrated 16x16 and 32x32 router respectively, for more live inputs, many auxiliary outputs for cameras, and fail-safe switching of cameras. (Monitors not shown, but 2-4 can be added). For more info see Slate G 5000 Installation Planning Guide.



Model	8 Live inputs
5008hh	8 HD/SD
5008hd	4 HD/SD, 4 SD
5008ha	4 HD/SD, 4 analog
5008dd	8 SD
5008da	4 SD, 4 analog
5008aa	8 analog



Model	12 Live inputs
5016hh	12 HD/SD
5016dd	12 SD

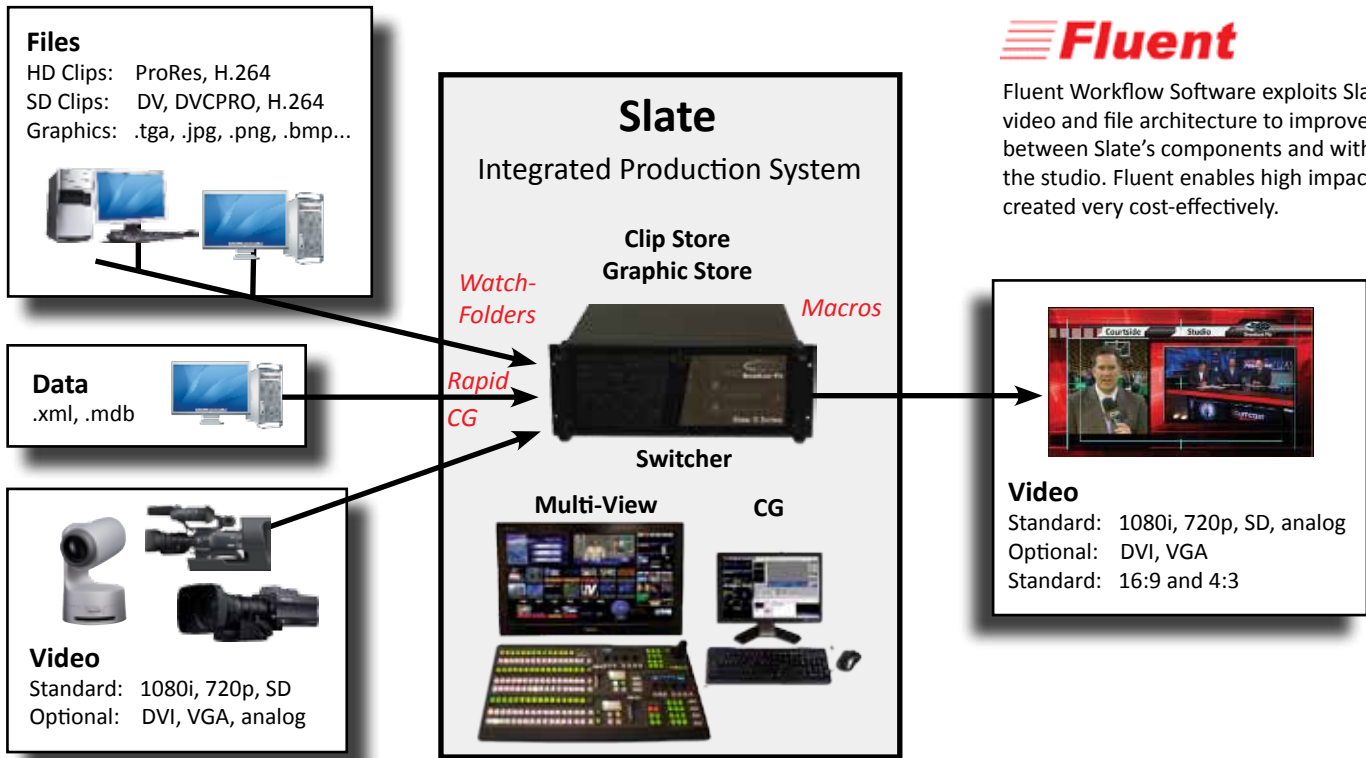
Also adds:  
- 6 aux outputs  
- fail-safe switching



Model	24 Live Inputs
5032hh	24 HD/SD
5032dd	24 SD

Also adds:  
- 22 aux outputs  
- fail-safe switching

# Fluent Workflow Software

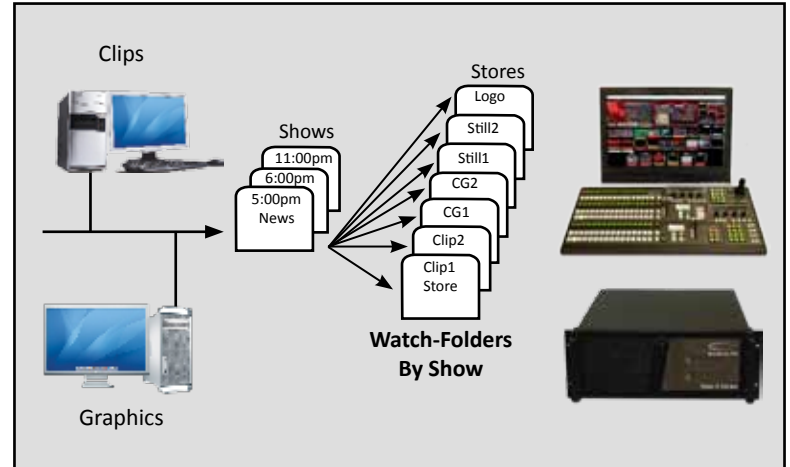


Fluent Workflow Software exploits Slate's unique video and file architecture to improve integration between Slate's components and with the rest of the studio. Fluent enables high impact video to be created very cost-effectively.

## Fluent Watch-Folders

Unlike conventional switchers that take only video inputs, Slate systems can input video and files. This greatly streamlines live production workflow, by enabling clips and graphics to be sent over a network from edit stations or graphics systems to the Slate system, even during the middle of a live production. No need to wait to record a clip onto a server. No need to have a separate clip operator cueing the clip. The clip just appears on Slate's multi-view and its name appears on the control panel's PixButton, and it can be set to auto-start upon going to air.

Slate uses innovative Watch-Folders, which automatically adds content to your show. For example, you might have one Watch-Folder for the 6 o'clock news program, and one for the 9 o'clock. Editors simply send the content over a network into the correct Watch-Folder and it is automatically added to that show, even late breaking news that comes in during a news cast. Data flows in without taking time to do file conversion, as Slate handles many HD and SD native formats. With more than 1 TB of storage capacity, Slate accepts large clip files.



## Fluent Macros

Powerful Macros recall a sequence of moves, which can include every switcher move as well all the integrated devices. Fluent Macros even remember file names, while conventional switchers cannot remember names of any graphics or clips. For example, with one press you can select a camera on preview, change its preset position, bring it to air, fade on its specific title from the CG store, and fade off the title. Record Macros by pressing the sequence of desired buttons, and then fine tune them on the comprehensive graphical user interface shown.



Macro Creator makes editing easy.





# Slate G 5000 Control Panel

## Device Control A

Intimately control any clip, graphic, memory, camera or other external device.

## Device Control B

Control a keyer, FX, aux, or use Hold to access any device from Control A.

## Integrated Memories

Recall and record Memories and Macros for ME 1, ME 2 or both, which recall switcher effects and specific clips, graphics and animations.

## 3 Axis Joystick

Use with device controls for positioning DVE Boxes, keys, and cameras.



## Classic Next Transition

Complete control of layers and style.

## 6 Universal Keys

All keys are available to both M/Es. PixButtons show contents.

## 12 Device Selectors

Instant access to any clip or graphic store and external devices.



# Dynamic Multi-View

Included on all models



## Monitoring

Every Slate includes on-screen monitoring of preview, program, keys and sources. Live inputs and clips have motion, and other sources use thumbnails. All live inputs are in full motion on the Slate 5008, while 7 are in full motion on larger models. They tally red on air, and orange on preview.

## Unprecedented Feedback

Unlike conventional multi-views, Slate provides unprecedented feedback to the switcher operator. No other multi-view monitors the contents of keyers. Thumbnails of any channel of clip or graphics store are displayed in a PixPad that corresponds to the control panel's PixPad, and attributes are shown like whether a clip has been set to auto-start. There are clocks, a stop-watch clip counters and title safe zone overlays. And you are notified when new content arrives in Slate's watch-folders from other parts of your studio.

## Use Any Size Monitor

Slate supports a wide variety of VGA monitors. Many users prefer a personal monitor for the switcher operator. You can also plug in a wall monitor: 1920x1080, 1440x900, 1366x768 or 1680x1050. You can customize your layout using powerful tools that can resize any individual monitor and align them.

## Integration of Multi-View with...

### Switcher

- Push-buttons for every source & key shown
- PixPad dynamically linked to thumbnail libraries
- Switch on the Multi-View itself with mouse or touchscreen to select keys, sources, take

### Clip Store

- View clips in full motion on monitor
- View clip libraries & tally status
- View clip time code, countdown & attributes

### CG

- View CG titles in keys & libraries
- View tally status of CG titles
- Right-click a CG thumbnail to edit "on the fly"

### Still Store and Logo Store

- View loaded graphics, libraries & tally status
- Right-click a still or logo thumbnail to edit "on the fly"



## Dual or Quad Monitors

All Slate 5000 systems support dual monitors, so for example the monitor above shows outputs, sources and clocks, while the monitor at the left shows keyers, Fluent Macros, two PixPad content libraries and the CG. Or add the quad-monitor option (option 340) which enables you to connect up to four monitors, for a larger system such as two large wall monitors plus two personal monitors for individual users.





# AutoAspect 16:9 and 4:3

Included on all models

Whether you are creating a widescreen 16:9 show, or a traditional 4:3 show, AutoAspect solves the many challenges of mixing 4:3 and 16:9 content in the same production.

Now 16:9 and 4:3 inputs, clips and graphics can be used interchangeably and mixed together in the same live production, while maintaining the native aspect ratio of each element. Conventional switchers can only stretch video when crossing aspect ratios, causing people to look too wide or too thin. Slate enables each input to be set to one of 4 aspect treatments: box, crop, 14:9 or none (anamorphic). And each clip and graphic in the libraries can be separately treated.

On HD models you can also simultaneously output 16:9 and 4:3 versions of the same 16:9 show.



Output 16:9 and 4:3 simultaneously

4:3

4 ways

Box

Crop

14:9

none (Too Wide)

AutoAspect lets you correct 4:3 to 16:9, or 16:9 to 4:3

# Fail Safe On Air

Included on all models

Broadcast Pix systems have unprecedented redundancies built in for 100% on-air performance.

## Ride through a Panel Failure

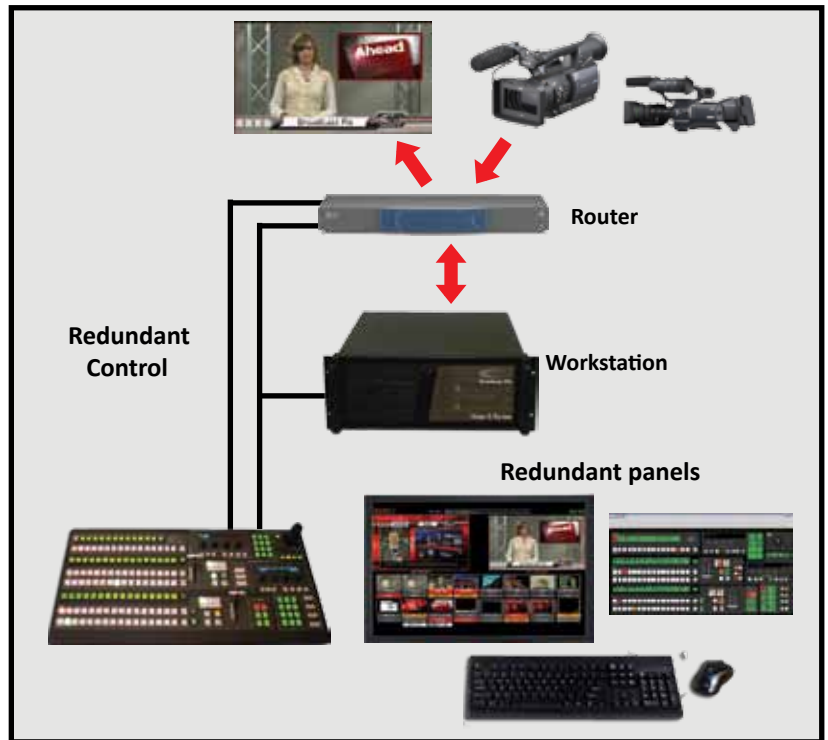
If your panel fails in the middle of a show, you can control everything on the included SoftPanel, or from the keyboard shortcuts, or from the multi-view. Other switchers provide no back-up to a panel failure.

## Ride Through a Power Supply Failure

Redundant power supplies are available for all components of all systems, and are standard on the Slate G 5000 for its workstation, panel and any router.

## Ride Through a Workstation Stopping

On the Slate G 5032 and 5016 you can still switch your cameras if the workstation should ever stop, thanks to a redundant serial connection from the panel to the router or iBoB. On the Slate G 5008, your most important camera will automatically stay on air. The Slate G 5000 also includes a back-up system drive and system recovery software.



# Audio Follow and Camera Control

## Audio Follow

Extend the "one-man-band" to audio. Audio-Follow-Video software enables an audio mixer to automatically follow all action on the Slate switcher. Unlike conventional switchers that utilize antiquated audio protocols, Broadcast Pix uses MIDI, so it works with many audio mixers, and is more powerful and more affordable. As each video source goes to air it triggers commands on the mixer, or even an entire scene memory including volume, fade, pan, echo, reverb, etc. Includes USB to MIDI adapter.

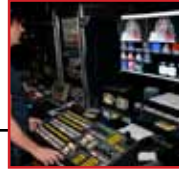


Robotic Camera

## Camera Control

Extend the "one man band" to camera control. Use a PixPad on the panel to select the camera you wish to control and a preset camera position. Manually control with the 3-axis joystick for tilt, pan and zoom. Push it a little to move slowly, or harder to move faster. Knobs control focus and iris. CCU (Camera Control Unit) functions, like white balance, can also be accessed. Control robotic camera systems from Panasonic, Sony or Hitachi.

# Slate 5000 Specifications & Options



## Video

- HD I/O: 720p/59.94, 720p/50, 1080i/59.94, 1080i/50
- SD I/O: SMPTE 259M
- DVI I/O: DVI-D, DVI-I, VGA
- 1080p output from DVI to HDMI
- Slate G processing: component 10-bit 576p/486p
- Analog I/O has 10-bit conversion
- 60Hz(NTSC) or 50Hz(PAL) switchable
- 4:3 or 16:9 switchable
- Requires analog reference

## Low Delay (Milliseconds for 60Hz/50Hz)

- SD with genlocked cameras, even inside a DVE box with AutoAspect 33 ms / 40 ms
- HD with genlocked cameras, even inside a DVE box with AutoAspect 100 ms / 120ms
- Added by an asynchronous source +33 ms / 40ms

## Workstation

- Software: Broadcast Pix, Inscribe CG, Windows XP
- Hardware: Slate video boards, 2 disks with removable media drive(s), r/w DVD/CD, keyboard, mouse
- Requires DVI or VGA Monitor: supports 2, up to 4 optionally. 1920x1080, 1680x1050, 1280x1024 or 1366x768

## Clip Audio

- Analog stereo audio I/O, and embedded in the SD-SDI stream SMPTE 272M

## CG

- Anti aliased resolution <16nS
- Import formats: .psd, .tga, .bmp, .gif, .jpg, .tif, and .png

## Dimensions

- Workstation (on all models)
- rack units 4
  - inches 8.5x12.5x5.5
  - centimeters 47x32x14
- 2M/E Panel
- inches 15.5x31x8
  - centimeters 39x79x20

## Dimensions

- Routers
- Slate 5016 16x16 Router 1 RU
  - Slate 5032 32x32 Router 2 RU

5008 5016 5032

## Weight

- Lbs 71 81 83
- Kg 33 37 38

## Power

- (watts) 400 525 550

## Options

- |     |                         |  |
|-----|-------------------------|--|
| 18  | DVI I/O                 | Up to 2 DVI-I inputs and 2 outputs (VGA adapters incl.) Requires HD I/O  |
| 24  | Tally Box 24            | Tally output for all live sources, for Slate 5000                        |
| 28  | Tally Box 8 and GPI box | Tally output for 8 live sources, plus 8 GPI inputs                       |
| 50  | Remote Aux Panel        | 16x1 Aux Panel, 1RU, for Slate 5016 or 5032                              |
| 51  | 1080p HDMI Output cable | DVI to 1080p HDMI output cable. Requires DVI I/O                         |
| 140 | More Advanced Keys      | Increases standard 1 chromakey/luma key to 8, for creating a virtual set |
| 250 | Router accessory pack   | (3) 6' Slate to Router BNC cable bundles of 4                            |

## Clip Store

- |     |                   |  |
|-----|-------------------|--|
| 318 | More Clip Storage | Up to 1TB of clip storage - Requires 301 |
|-----|-------------------|--|

## Fluent Workflow Software

- |     |                       |   |
|-----|-----------------------|---|
| 170 | CG Connect            | Connects on-air CG to an external XML and .MDB database |
| 160 | Another Inscribe CG   | Additional Inscribe CG to create graphics on another PC |
| 150 | Shared Router Control | Software for 2 Slate switchers sharing a 32x32 router   |
| 340 | Quad Monitors         | Upgrade dual monitor output to quad monitors            |

## External Device Control

- |     |                            |  |
|-----|----------------------------|--|
| 880 | Audio Follow Video         | Software to control audio mixers, USB-MIDI adapter                           |
| 800 | Sony Camera Control        | Control up to 9 Sony cameras (VISCA), RS232 cable                            |
| 801 | Hitachi Camera Control     | Control up to 9 Hitachi cameras: software and serial to RS485                |
| 802 | Panasonic Camera Control   | Control up to 12 Panasonic cameras: software only - Requires 811, 814 or 818 |
| 803 | Telemetrics Camera Control | Software only  |
| 811 | 422 converter - 1          | 232 to 422 converter for 1 camera - Requires 800 or 802                      |
| 814 | 422 star config - 4        | USB to RS422 box for 4 cameras - Requires 800 or 802                         |
| 818 | 422 star config - 8        | USB to RS422 box for 8 cameras - Requires 800 or 802                         |
| 823 | DDR Control                | VDCP Control a 360 Systems or Harris Nexio servers                           |
| 860 | Streamer Control           | Software for Viewcast Streamers  |

## Services

- |     |                          |   |
|-----|--------------------------|---|
| 601 | On site Training - 1 day | First Day. Includes expenses, with 4 week's notice                |
| 602 | On site Training - more  | Each additional day, to extend the training session in Option 601 |
| 605 | Commissioning            | 1 day of Broadcast Pix system commissioning                       |
| 630 | Extended Warranty        | Additional 1 year of parts and labor                              |
| 680 | Owner's Manual           | Additional hard-copy of owner's manual, 1 included                |

## Broadcast Pix

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