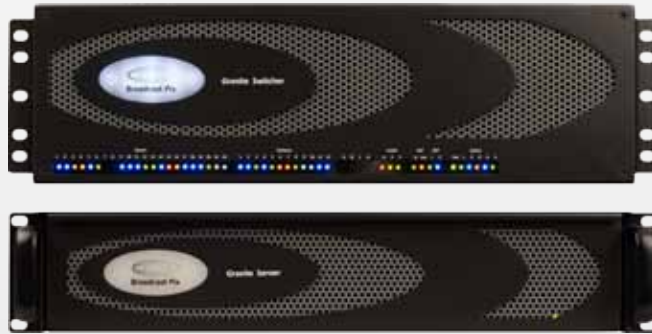


**Broadcast Pix**

# Granite

100 & 1000 HD Video Production Systems

**Create Compelling Live Video**



### Create Compelling Live Video

A legacy control room with a switcher, video server, graphics system and other gear can create powerful live video, but is costly to assemble and staff, and complex to operate.

Now there is a better way to create compelling live video. Granite combines an HD switcher with an HD server to deliver the best workflow with the best picture quality, at a price that is unmatched in the industry today.

#### Granite Switcher

**Granite Switcher** runs 1080i HD end-to-end, and you can easily upgrade to 1080p, insuring your investment is future proof. Granite is true multi-definition as you can run a mixture of 1080i, 720p and SD inputs, in both 16:9 and 4:3, sync and async. It has up to 22 HD SDI inputs, plus 7 channels of file inputs from Granite server. There are up to 12 HD SDI and 2 DVI outputs. Granite ships with 3 or 6 keyers. Low delay makes it exceptional for live events. Upgrade to 1080p for 3Gb/s processing (twice the data rate of conventional HD) for even better picture quality and 1080p I/O.

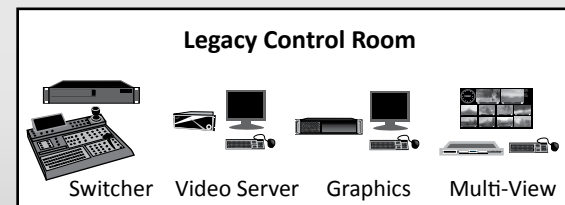
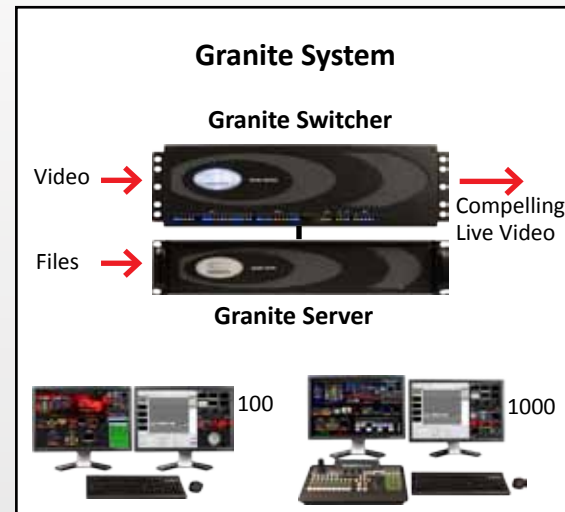
#### Granite Server with Fluent Workflow

**Granite Server** completes the video production system. It runs Broadcast Pix Fluent workflow software, the ultimate file-based workflow software for live production, enabling users to easily create compelling video. There is an integrated HD clip store of up to 120 hours, HD animation players, HD graphic system with CG, high resolution multi-view displaying video and files, powerful macros for file-based effects, and watch-folders that streamline file import from your favorite editing and graphics systems. Control can be extended to robotic cameras, audio mixers, servers and streamers.

#### Cost-Effective

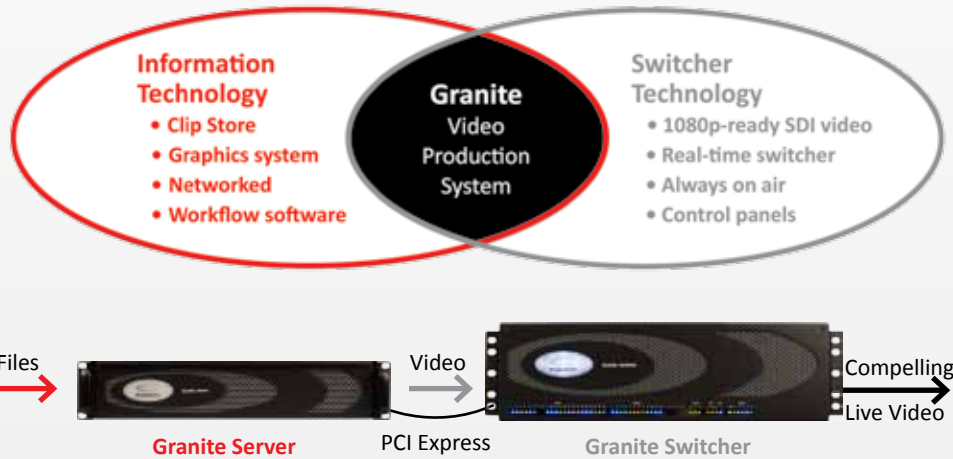
With Granite there are no compromises on your budget. A limited budget and staff no longer means a boring production. Granite systems are a fraction of the cost of a legacy control room. With Granite a single operator can create live video that is compelling and memorable. It gracefully expands to a team or larger system, meaning no compromise in flexibility.

In addition to the Granite 100 and 1000 models described in this brochure, which have 1 M/E (mix/effect) system, a larger Granite 5000 is also available with 2 M/E.



## Harnessing IT

The unprecedented solutions provided by Broadcast Pix are made possible by harnessing the power of information technology (IT). Granite uniquely combines IT with the latest switching and live production technology. From the IT world comes file-based clips, graphics, networking and workflow software. From switcher technology Granite gets 1080 SDI video, real-time non-stop switching, and tactile control panels. Granite is the best of both worlds: the robustness and live production attributes of switching technology, and the power and cost-effectiveness of IT.



## 1080p Technology

The world is going to "Full HD" 1080p. TV sets, monitors, computers and projectors are already there. Most routers are 3Gb/s, and 1080p cameras are emerging. Now there is a 1080p-ready switcher. The Granite 100 and 1000 systems can easily upgrade to run 1080p. This will enable 3G processing, twice the data rate of 1080i, and add single-link 1080p I/O. Full HD will bring higher picture quality, higher quality effects like picture-in-picture, and higher quality multi-definition support of



Granite 1000 monitors not included

# Granite 100

## The Most Cost-effective Live Productions

The Granite 100 is a complete multi-definition live video production system that is affordable and easy to use. You can control it with either a mouse or touch-screen, or add an Apple iPad and download a Broadcast Pix iPixPanel from the Apple app store.

The picture at the right shows touch screen and SoftPanel control. If you display the multi-view on a touch screen, then you can just touch the camera you want to bring it to preview. Touch the keys to add a graphic. Touch a PixPad to change graphics. Then just touch preview to bring the composition to air. It's so easy to learn that you can quickly teach a novice to create great looking live TV. For more traditional operation, open a SoftPanel, which is a soft version of the Granite 1000 control panel.



Touch-screen control, and a SoftPanel



Granite 100 monitors not included



### Granite 100 Standard Equipment:

#### Granite Switcher

- 1 M/E
- Inputs:
  - 11 SDI video HD/SD
  - 1 Clip channel + key
  - 2 Animation channels + key
  - 4 Graphic channels + key
- Outputs:
  - 6 SDI HD/SD
  - 2 DVI
- 3 keys with DVEs (PiP)
- 3 more keys optional
- Chromakey & Lumakey
- 1 Ext. Key

#### Granite Server

- 1 Fluent Clip Store
- 4 Fluent Graphic Stores
- 2 Fluent Animation Stores
- Harris Inscribe CG
- Fluent Multi-View, on 2 monitors.
- Fluent Watch-Folders
- Fluent Macros
- SoftPanel

### Optional iPixPanel on an Apple iPad

You can add a revolutionary control panel to a Granite 100 with an Apple iPad. This powerful wireless device has a touchscreen. Just download the Broadcast Pix iPixPanel from the Apple application store and you have a powerful 1 M/E control panel. It even has the PixButtons from the Granite 1000 which tell you what device and file name you will get when you push a button. Add a wireless router to the Granite 100, and iPixPanel provides the freedom of wireless control. For a free tryout, download the iPixPad to an iPhone or iPod Touch and control a PixPad.





## Featuring a Powerful Control Panel

The Granite 1000 adds an innovative control panel to the Granite 100. It provides complete tactile control, adds the ability to switch cameras even without the Granite Server, and features PixButtons that streamline workflow with file-based data right on the button.

## Classic Switcher Layout

The black portion of the panel has a classic switcher layout, so operators will feel at home. Preview is on the bottom row, then program, then fill and destination. The program row uses PixButtons so you always know what is on every source, even the exact names of specific clips or graphics, which are also shown on the multi-view. There are 9 direct access source buttons, and a shift button accesses a total of 18 sources. The classic next transition section enables 3 keys to be in the transition using a cut, mix, or many wipe and DVE transitions. Or use an animated alpha wipe with audio.

## Device Controls

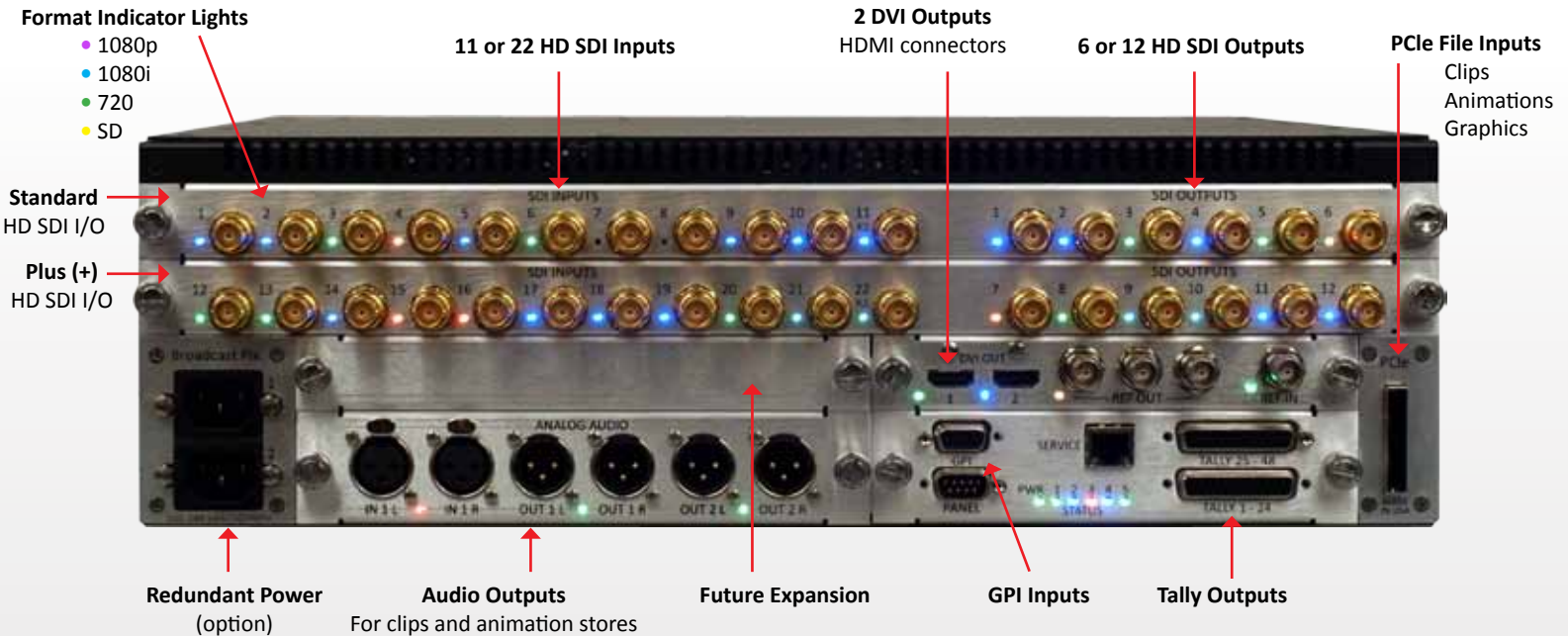
The gray portion of the panel can be assigned to a CG store, clip store, still store, camera control, a keyer, camera control, etc. Just press its device control button and the entire bank of controls is assigned, including: a PixPad with 12 PixButtons, 3 knobs, motion controls, a 3-axis joystick and display. They enable you to instantly and intimately control the selected device.

## PixButtons

Only Broadcast Pix switchers have PixButtons, with built-in displays which show you the source and the exact file name loaded. You always know what you will get. No surprises. Each has an icon on top showing the device that is currently assigned to it. The number tells the channel. The next two lines show the file name of the content, which is automatically put on the button from its file name, and dynamically changes during the production. (patent pending)



# Granite Switcher



The Granite system starts with a great HD switcher.

## Extreme Multi-Definition

**HD SDI:** Each SDI input and output can be individually set to 1080i, 720p or SD, to mix and match I/O. The 1080p upgrade adds 1080p I/O. Just attach a cable and Granite auto-detects the format and the indicator light tells what format is connected – by the color, and it blinks if it's asynchronous, as those are accepted too. One SDI input can be a cut signal from an external CG or other device with key. The SDI outputs can be: program, preview, clean feed, auxiliary of external sources, or an optional PowerAux (#120) to output the built-in clip or graphics store and add keys to it. Standard SDI I/O is 11 inputs and 6 outputs, which expands to 22 inputs and 12 outputs on the 100+ and the 1000+ models which add the second I/O board.

**Files:** Granite features a revolutionary way to provide inputs of clip and graphic files. A high speed PCI Express cable ties together the Granite Switcher and Server. Seven channels of clips and graphics, with key, simultaneously flow through it, which would require 14 inputs on a conventional switcher.

**DVI:** Two DVI-D outputs are great for sending 720p or 1080i to a projector or DVI/HDMI monitor. The DVI outputs use standard HDMI cables, or optional locking cable available from Broadcast Pix.

**Optional Convertors:** Are available for DVI inputs and for analog inputs and outputs.

**AutoAspect:** Granite solves the many challenges of mixing 4:3 and 16:9 content by maintaining the native aspect ratio of each element, while conventional switchers stretch video when crossing aspect ratios. With AutoAspect you can use a mixture of 16:9 and 4:3 inputs, and each input, output, clip and graphic can be set to one of 4 aspect treatments: box, crop, 14:9 or none (anamorphic).

## Pristine Keys

3 keyers are included, and 3 more are optional (#126). They have sharp clear edges and are very easy to fill thanks to Granite's tightly integrated graphic and clip systems. Each keyer has a DVE which can be squeezed into a picture-in-picture. The content of each keyer is shown on a PixButton and on the multi-view, so you always know what is on each. One keyer can be filled with an external video and key input. A standard chromakey, for green and blue wall sets. Luma keys are also supported. Combine chromakeys (option 140) with the clip and still stores for virtual sets.

## Exceptionally Low Delay for Live Events

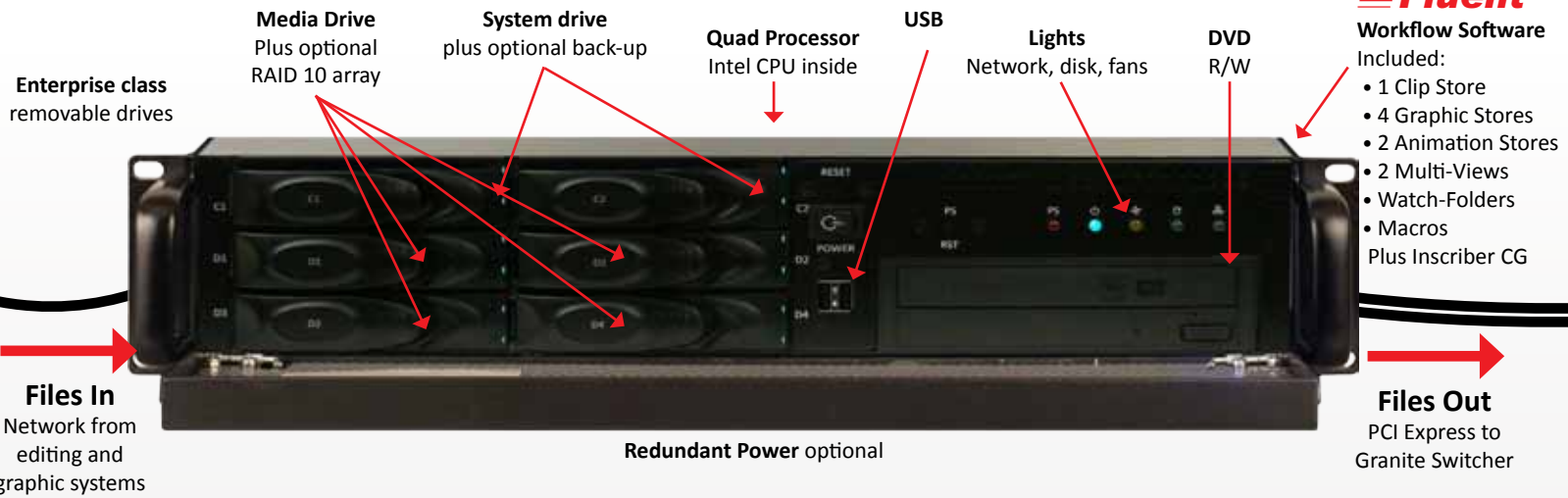
Excellent picture quality and exceptionally low delay make Granite ideal for live events. Granite features a constant low delay of just one frame, which is only 33ms (40ms at 50Hz in "PAL") with genlocked cameras. Other solutions typically have variable delay where delay is added when performing functions, such as converting an input format, converting an output format, converting an aspect ratio, creating an effect like picture-in-picture, or adding clips or graphics. Granite does all of this in just a single frame, and only adds a second frame for asynchronous inputs.

## I/O on Granite 100 & 1000

	Stand- ard	Plus Models
<b>Video Inputs:</b>		
• SDI HD/SD	11	22
<b>File Inputs:</b>		
• Clip + key	2	2
• Animation + key	4	4
• Graphic + key	8	8
<b>Total Inputs</b>	<b>25</b>	<b>36</b>
<b>Video Outputs:</b>		
• SDI HD/SD	6	12
• DVI	2	2
<b>Total Outputs</b>	<b>8</b>	<b>14</b>



- Included:
- 1 Clip Store
  - 4 Graphic Stores
  - 2 Animation Stores
  - 2 Multi-Views
  - Watch-Folders
  - Macros
  - Plus Inscrber CG



### Granite Server runs Fluent Workflow Software

The Granite Server turns the Granite Switcher into a complete video production system. The Server runs Fluent workflow software, the ultimate workflow software, which enables a solo operator or small team to create high impact productions that have traditionally required a large control room and team. Every Granite Server includes Fluent: Clips Store, Graphics Store, Animations Store, Watch-Folders, Macros and Multi-View, plus a Harris Inscrber CG.

### Premium Server Option

While the Granite Server is very robust, its reliability can be further enhanced with the Premium Server option (#211). It includes redundant power, a redundant system drive with recovery software and RAID 1 mirroring, and a larger capacity quad array of media drives using highly reliable RAID 10 protection. Each media drive is mirrored and striped so that if any one should ever fail in the middle of a production, even while playing a clip on-air, the other drives continue, and the clip continues to play without disruption.

## Fluent Clip Store

The Granite Server has a clip store that plays up to 120 hours of HD clips (.mov files in H.264 format) or animations. Clips can move directly from editing systems into Fluent Watch-Folders, even during the middle of a show to streamline workflow.

The standard Granite Server holds up to 30 hours of clips, which can be increased to up to 120 hours (option 320). The premium server holds up to 60 hours of clips, which can be increased to up to 120 hours (option 319). The Fluent Clip Store can also hold long animations with key, in addition to the shorter ones in the Fluent Animations Stores.

### Easy to Use

The PixPad on the multi-view shows the thumbnails for each clip, along with its name and attributes. The corresponding PixPad on the control panel shows the clip names. Selecting a clip is as easy as clicking on its thumbnail, or pushing its button on a panel. Hit next for more clips. Use the motion buttons to play, pause or stop. Clips move at full motion on the multi-view and counters show progress.

### Auto-Start

The clip store is tightly coupled to the switcher so it's easy for a single operator to add lead-ins, bumpers, or any clips. Any clip can be set to automatically start playing the instant it is taken to air. No more careful cueing. No need for a second operator to insure your clips start when they are supposed to. You can set any clip to auto-start, to auto-stop when it comes off air, auto rewind, and set mark-in, mark-out, loop, 3 point loops, or aspect ratio conversion.

### Audio

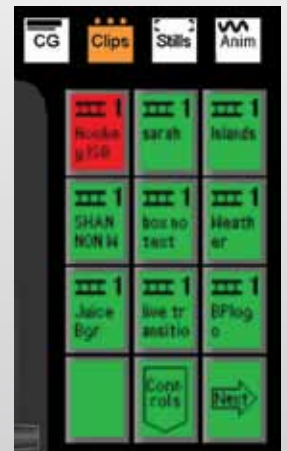
All clips and animations can have audio, with XLR connectors for playing out balanced analog stereo audio to send to your mixer.

Clips on Multi-View's PixPad



Clip counter

Clips on Panel's PixPad



Audio outputs



Motion controls and scrubbing





**High Resolution Monitoring**

Granite provides the power for high resolution monitoring and it has 4 output windows, so you can view program and preview outputs plus PowerAux (option 120) and clean feed.

**Monitoring Sources and Outputs**

Like conventional multi-views, the Fluent Multi-View provides monitoring of inputs, program and preview output, and tally, so you can see what is on air in red, and on preview in orange. The 4 outputs, and 15 inputs (up to 8 of the external inputs and all internal inputs) are monitored in full motion, while the other external inputs are monitored more slowly.

**Monitoring Files, Keys and More**

Unlike conventional multi-views, the Fluent Multi-View brings far more information to operators, which helps enable highly compelling productions:

**Files:** The PixPad shows the library of thumbnails for any store selected including clips, animations, and graphics. This automatically follows the PixPad of buttons that is active on the control panel. The file name is shown under the window, along with any attributes like auto-start. And the status bar lets you know when new files have arrived in Watch-Folders.

**Keys:** Fluent is the only multi-view that shows key monitors, so you always know visually what is filling each key, and what attributes are turned on - like crop or DVE. Once you experience this, you will miss it on any other multi-view you might use.

**More:** Fluent Multi-View can add digital clocks, analog clocks, timers, and clip counters that turn red as a clip's end approaches. You can also add safe-area overlays to program and/or preview.

**Highly Customizable**

Fluent Multi-View has auto preset layouts, but you can also use its powerful tools to fully customize your layouts, and save many versions. You can resize every component, just grab and stretch. You can change the color of the background and the window frames. Alignment and sizing tools make it easy to optimize your layout for your show. Support for two monitors is standard, and expand to four monitors with option 341. You can replicate any window, such as program, across each monitor.



Granite High Resolution Monitoring



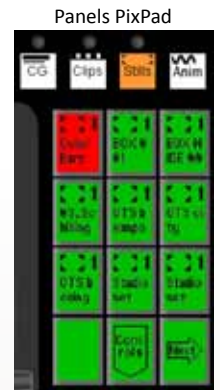
Use one or two monitors standard, And up to four monitors optional (#341)



Customize colors

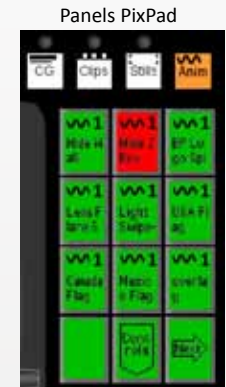
## Fluent Graphics Store

The Granite Server also has a 4 channel HD graphics store, which accesses a huge library that holds thousands of graphics. Two channels are named CG, as they typically hold titles, crawls and rolls created on the built-in CG. Two are labeled stills, and typically hold stills and logos imported into the system, although all four stores can hold imported graphics. All four support keys and a wide variety of file formats including .tga, .bmp, .gif, .jpg, .tif, and .png. As with the Fluent Clip Store, the names of the graphics show on the panel's PixButtons and the names, attributes and thumbnails show on the multi-view. Fluent Watch-Folders streamline the import of graphics from your favorite graphics system.



## Fluent Animation Store

In addition to playing animations in the Fluent Clip Store, there is also a dedicated Fluent Animation Store, with 2 channels. The Fluent Animation Store can hold HD animations with key of up to 150 frames, which is about 5 seconds long. It is a great place to hold animated backgrounds, logos or transitions. Animations are played from a folder of image sequences (.tga, .bmp or .png) created on any popular system including Adobe AfterEffects, Artbeats, Apple, Digital Juice, Avid, Motion, etc., and are easily moved into the Granite system using Fluent Watch-Folders. Operators can then access animations with the PixPads on the panel and multi-view.



## Harris Insciber Character Generator

Every Granite Server includes an Harris Insciber CG which creates stunning graphics, and is very easy to use.

### Broadcast Quality HD Graphics

Create broadcast quality graphics with the Insciber TitleMotion GS character generator (CG). Enjoy superb anti aliased resolution of less than 16ns, sub pixel scrolling, fine transparency, soft edge, shadows and glows. Create still titles, crawls, rolls and animations.

### Easy to Use

It has never been so easy to add great graphics to your productions. The CG includes templates that make novices look like pros. Just select one from the drop down menu, type in your text and save. Or create your own templates with Insciber's powerful composition tools, or import elements from Photoshop or another system.

### Intuitive

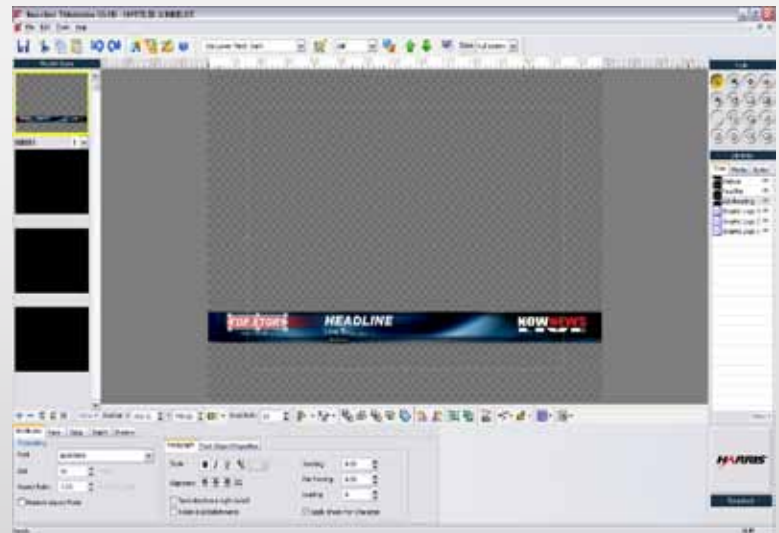
GS is a recent model from Harris Insciber which follows the latest conventions for creating graphics, such as for grouping, aligning, bolding, etc. So you can be customizing your own look in minutes.

### On-Air Updates

While a production is on-air you can right click an existing graphic to edit it on the fly, or add new ones via Fluent Watch-Folders. Great for a surprise guest title.

### International

The GS CG is Unicode based, so it can handle worldwide languages including Asian characters.



Harris Insciber GS CG

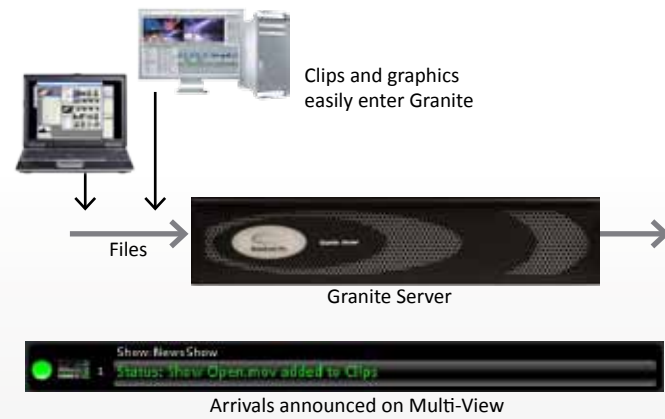
### Fluent Rapid CG

The Rapid CG option (#171) streamlines the creation of CG graphics. Add the templates you want and simply type words on them for different titles. To create lots of titles you can link the templates to a database. Just drag and drop the database into Fluent Rapid CG. When you select an item its data will automatically fill the CG templates, even on-air. Now when you have a database of names and titles, you do not have to re-key them. It's great in all data intensive applications like sports. Fluent Rapid CG works with XML and other databases.



## Fluent Watch-Folders

Fluent Watch-Folders greatly streamlines your live production workflow by enabling clips and graphics to be sent over a network from your favorite edit stations and graphics systems. For example, a Final Cut operator can send a clip into a Fluent Watch-Folder for the 6 o'clock news program, and it will automatically appear in the Granite System's Fluent Clip Store for the 6 o'clock news. Late breaking news can even flow into Watch-Folders during the middle of a live show. When it arrives the status bar on the multi-view lets the operator know it has arrived, and it shows up on the PixPad on both the multi-view and the control panel. A recent red carpet show broadcast to millions of people had seven editors simultaneously feeding clips and graphics into Watch-Folders during the event.



## Fluent Macros

Fluent Macros comprise one of the most powerful parts of the Granite system. They enable highly complex moves and sequences to be set up in advance and executed flawlessly. And unlike conventional switcher memories that can only recall switcher moves, Fluent Macros have access to all the devices in the Granite System, including specific clips, animations and graphics, as well as control of robotic cameras, audio mixers, etc. For example, a single macro can bring on a dual box, start the animated background file behind it, fade on the CG title file, zoom one of the cameras, and then take one of the DVE boxes to full screen.

The Macro player enables Macros to be named and organized, and fired off with a mouse or touch-screen, or they can be fired from a PixButton on the panel's PixPad. Macros can be created by simply recording a series of button pushes, and then edited using the powerful Macro editor. For example, this illustration on right shows an animation transition, or "Alpha Wipe" in the Macro Editor, where you can easily change the file used for the animation, or the number of frames between steps.

### Alpha Wipes

Fluent Macros enable Granite to easily perform the latest alpha wipes using your own graphics. Just open an included transition Macro, point it at your logo, tweak its timing if necessary, and you have a custom transition. They can be silent, or you can add audio for a swoosh or other sound effect, which plays out the audio outputs on the Granite Switcher.



## SoftPanels

SoftPanels are an exact copy in a web browser or flash of a Broadcast Pix control panel. A 1ME SoftPanel is standard, and more are optional to enable additional operators to control Granite, either on the system or from a PC or Mac over a network. The 2ME SoftPanel option is a soft version of the Broadcast Pix 2ME control panel in the Granite 5000, and also upgrades the Granite 100 or 1000 to 2 M/E operation (option 105).

### iPixPad and iPixPanel

Expands your creativity with wireless controllers using apps downloaded from the Apple store. The iPixPad is a free download and replicates a PixPad on an iPhone or iPod Touch. It has full PixPad control for macros, clips and graphics. Or buy an iPixPanel app for an iPad, which replicates an entire 1 M/E switcher panel on the innovative iPad.



1ME SoftPanel

iPixPanel



2ME SoftPanel

iPixPad



## Remote Panels

Granite has two optional remote panels for auxiliary outputs and more. The physical remote panel (option #110) is a 1RU box that connects to the Granite Switcher with a network (TCP/IP) cable. It features PixButtons, so you can see what is on each source. The output button lets you step through the available outputs to control. Or press the Macros button and use the same panel to fire off Macros. The soft remote panel (option #111) is a flash based version of the physical panel that works on a PC or Mac over a network.



# Device Control Software Options

## Camera Control

Add camera control for the ultimate "one man band". Use the Panel's PixPad to select the camera you wish to control and a preset camera position. On the Granite 1000 manually control with joystick 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 from the PixPad.

**Sony** Control up to 9 Sony cameras with 6 preset positions per camera. Option 800 includes software and a serial cable to connect to the VISCA connector on the first camera for a 232 daisy chain. Option 811 adds a serial to 422 converter to increase camera runs from 60 feet (18 meters) to 4,000 feet (1,200 meters). Option 814 and 818 have 4 or 8 serial ports for wiring in a star configuration.

**Panasonic** Control up to 12 Panasonic cameras with 99 preset positions per camera. Option 803 includes Broadcast Pix software. Option 811 is a serial to 422 converter for one camera. Option 814 and 818 has 4 or 8 serial ports for multi-camera configurations.

**Telemetrics** Control the full line of Telemetrics pan/tilt heads and robotics equipment including pedestals and tracks. Pedestals enable up and down control. Use any brand of camera. Integrated with Telemetrics studio software. Option 804 includes Broadcast Pix software.

**Hitachi** Control up to 9 Hitachi cameras using their Eagle pan/tilt heads. Control up to 31 preset positions on each camera. Option 801 includes Broadcast Pix software and a serial to 485 converter.



## Audio Control

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 many conventional switchers that utilize antiquated audio protocols, Broadcast Pix uses MIDI, so it works with many MIDI enabled audio mixers, including Yamaha and Roland, 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. Option 880 includes software and a USB to MIDI adapter.



## Streamer Control

Control a ViewCast streamer from the panel. If the streamer encodes multiple streams at once, you can select a stream, or set of streams, and start, pause or stop. The status of the streaming is monitored on the panel. Choose from low cost single-stream ViewCast models to larger multi-stream models. Option 860.



## Server Control

Control an external server from your panel's PixPad, including servers from Omneon, Harris and 360 Systems. View clip names on the PixButtons, use the panel's motion controls to play, pause or stop. Clips can be set to auto-start on transition to air. Option 823 and 824.



## From Broadcast Pix

Broadcast Pix is the leading producer of integrated video production systems.

Its Slate systems excel in hybrid HD/SD/analog environments and are used in over 70 countries by leading broadcast, webcast, mobile, cable, entertainment, mobile, corporate, education, religious, and government studios. Granite systems provide HD solutions in 1 and 2 M/E models.

Broadcast Pix delivers strong customer support by knowledgeable and helpful service specialists.



1000



5000



Slate Portable

## Granite Specifications

### Video

- HD I/O: 720p/59.94, 720p/50, 1080i/59.94, 1080i/50 (1080p upgrade adds 1080p/59.94, 1080p/50)
- SD I/O: 480i/59.94, 576i/50
- DVI Outputs: 1280x720p 59.94/50, 1920x1080i 59.94/50, 720x480i/576i 59.94/50
- Processing: 10-bit 1080i, upgradable to 1080p 59.94/50
- 60Hz(NTSC) or 50Hz(PAL) switchable
- 4:3 or 16:9 switchable
- Requires black burst reference

### Low Delay (in milliseconds for 60Hz/50Hz)

- 33 ms / 40 ms with gen-locked cameras, even inside a DVE box with AutoAspect and format conversion
- Add 33 ms / 40 ms for an async source

### Clip Audio

- Analog balanced line-level stereo audio output for clip store and animations

### CG

- Harris Inscrber TitleMotion GS CG
- Anti aliased resolution <16ns
- Import formats: .psd, .tga, .bmp, .gif, .jpg, .tif, .png, scribe

### Server

- System drive: 250GB, on Premium dual 250GB
- Media drive: 250GB, upgradeable to 500GB
- Media drive on Premium: four 250GB, upgradeable to four 500GB
- Requires Monitor for multi-view and support second monitor for multi-view (1 DVI-1 and 1 DVI-D)

### Weight

- Granite 100 - 48 lbs / 22 kg
- Granite 1000 - 56 lbs / 25 kg

### Power

- Granite 100 – 500 watts
- Granite 1000 – 550 watts
- Premium Server adds 50 watts

### Dimensions

#### Granite Switcher

- rack units 3
- inches 19.4 x 16.3 x 5.2
- millimeters 494 x 413 x 133

#### Granite Server

- rack units 2
  - inches 19 x 23 x 3.5
  - millimeters 483 x 584.4 x 89
- #### 1M/E Panel (on 1000)
- inches 18.5 x 12.5 x 5.5
  - millimeters 470 x 318 x 140

## Granite Options

Standard equipment includes the Granite Switcher, Granite Server, owners manual, plus a panel with the model 1000. Monitors not included.

### Granite Switcher Options

- 120 PowerAux - Enables keys on an aux, plus can output the clip store to aux
- 126 Keys 4, 5 & 6 adds 3 more keyers each with DVE (not available in 1080p mode)
- 130 DVI In - External converter from DVI to SDI
- 131 Analog In - External converter from Analog composite, Y/C, YUV, to SD SDI
- 132 Analog Out - External converter from SD SDI to Analog composite, Y/C and YUV
- 140 More Advanced Keyers Increases standard 1 chroma/luma key to 8
- 203 Redundant Power for Granite Switcher

### Control Panel Options

- 10 Broadcast Pix 1ME physical control panel (included on Granite 1000)
- 12 Broadcast Pix 2ME physical control panel, includes 2 ME upgrade
- 100 1 M/E SoftPanel license (1 is standard with the system)
- 103 1 M/E SoftPanel licenses, quantity 3
- 105 2 M/E SoftPanel license includes 2ME control
- 110 Remote Panel - 1RU for controlling aux outputs & macros
- 111 Soft Remote Panel - for controlling aux outputs
- 201 Redundant Power for 1ME Control Panel Control panel, external iPixPanel and iPixPad are available from the Apple apps store

### Granite Server Options

- 160 Additional Inscrber CG license for remote CG operation
- 172 Fluent Rapid CG - to connects on-air CG to a database
- 222 Extra Removable Media 500 (2) Extra 250GB media drives in trays
- 223 Extra Removable Media 1TB (2) Extra 500GB media drives in trays
- 320 More Clip Storage for standard server, 500GB
- 319 More Clip Storage for premium server, 4x500GB
- 341 Quad Monitor Support - Upgrade dual monitor output to quad monitors
- 211 Premium Server: quad media drives in RAID 10 array, recovery system drive with auto backup software, redundant hot-swappable power supplies, rack rails
- 241 Rack Rails Sliding rack rails for server, 26" depth
- 243 Longer PCIe cable 3 meters (standard is ½ meter) to connect to Granite Switcher
- 247 Longer PCIe cable 7 meters (standard is ½ meter) to connect to Granite Switcher
- 262 Locking HDMI cable for DVI outputs - 2 meters
- 266 Locking HDMI cable for DVI outputs - 6 meters

### Device Control Options

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

### Service Options

- 601/603 On site Training - Day 1 First day of training
- 602/604 On site Training - More additional consecutive day(s)
- 605 Commissioning - One day of Broadcast Pix system commissioning
- 621 100 extend warranty - Adds an additional year of parts and labor
- 622 1000 extend warranty - Adds an additional year of parts and labor
- 630 Silver warranty- adds weekend tech support coverage, and more
- 680 Owner's Manual - Additional hard-copy of owners manual

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**Broadcast Pix**

Create Compelling Live Video