

Ignite

SCALABLE AUTOMATED PRODUCTION

The Ignite integrated production solution is the industry's first and most complete link between the control room and the newsroom—one that provides an unmatched return on your investment with single-operator capabilities.

The Grass Valley™ Ignite™ line of integrated production solutions is a software and hardware combination that is the industry's first and most complete link between the control room and the newsroom—one that provides an unmatched return on your investment. This innovative, single-operator production tool provides a central point of management for control-room devices. As a result, you can put increased staff in the field to better serve your community through more news programming, support 24-hour multicast channels, and deliver real-time cut-ins.

Extending the capabilities of this platform is Ignite, the first totally automated HD control-room solution, which combines the power and flexibility of the Ignite platform with a new HDC robotic camera system and controller.



Single Workflow, Multi-Distribution Model

The Ignite platform supports a single-workflow, multi-distribution model that gives you a highly efficient solution for launching new digital multicast channels, including local 24-hour news, sports programming, shopping, education, and civic and entertainment applications—as well as Webcast channels. This approach helps you generate alternate revenue streams while improving your on-air look and feel.

The new Ignite platform adds to these capabilities by letting you move to HD production directly or migrate from standard-definition (SD) to HD whenever you're ready.

Cost-Effective, Scalable, and Flexible

The scalable Ignite platform includes Ignite automation control software and support for third-party devices. It can control broadcast-quality HDC camera systems. And the switchable platform supports 1080i and 720p HD formats and 525-line and 625-line SD formats.

By pairing an Ignite system with a Kayak™ HD control panel you can choose between producing some programs in an automated mode and others using a manual approach.

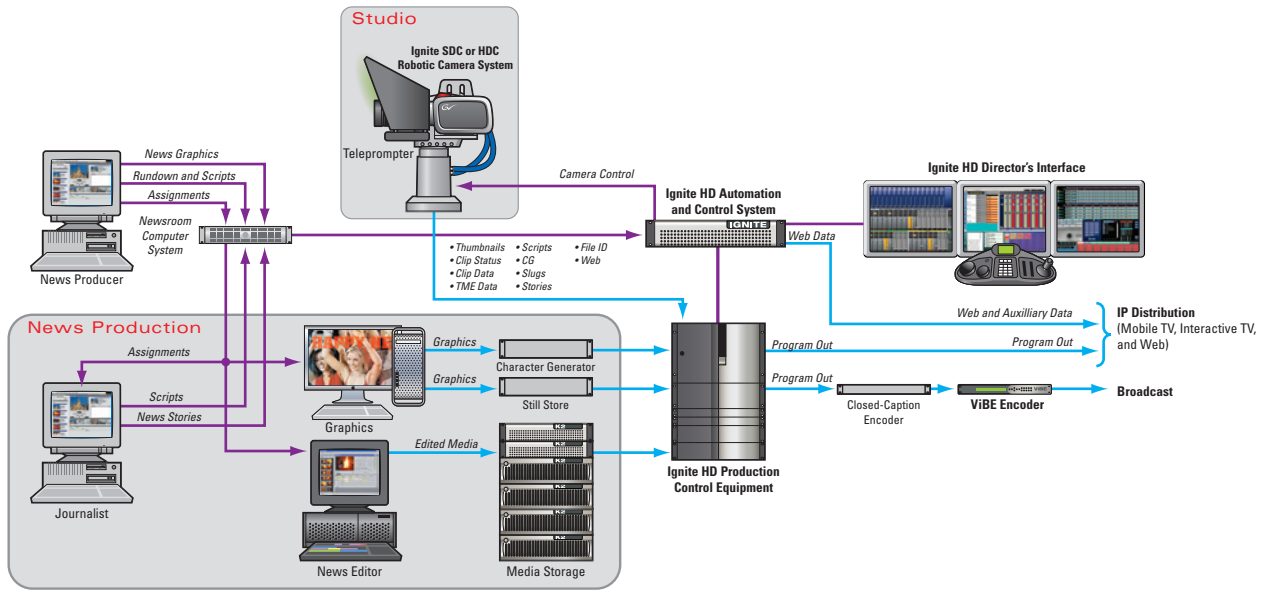
The scalable Ignite platform gives all broadcast markets the efficiencies to produce more content while increasing production value.

KEY FEATURES

- Transition easily between back-to-back newscasts
- Proven to easily handle any breaking-news scenario
- Float, drop, and add stories within seconds
- Improved ROI vs. equipment-only depreciation
- Enables reallocation of headcount from content moving to creating
- Enables increased programming opportunities, revenue stream via single workflow
- Provides direct link between rundown and on-air programming
- Cost-effective solution for new, live multicast channels and multi-distribution opportunities
- Event-driven technology allowing one person to direct an entire production
- Scalable architecture:
 - One to four mix/effect (M/E) banks
 - 24-96 video inputs
 - 24-96 audio inputs
 - Single, partial, and fully redundant backup capabilities for CPUs, video, and audio frames
- Configurations available without audio
- Enhanced automation with Ignite IQ
- Optional video switcher panels for manual operation when desired
- Switchable SD and HD formats, including 1080i and 720p and 525- and 625-line
- MOS-driven workflows for newsroom computer systems, digital news production, and graphics automation systems
- Control-room solution airing hours of newscasts every day in top U.S. markets
- Manual control permits override of any command pre-stored on event timeline
- Proven industry leader for more than 10 years

BROADCAST VIDEO WORKFLOW

The Grass Valley line of Ignite integrated production solutions is the industry's first and most complete link between the control room and newsroom.



It also interfaces with most newsroom computer systems and uses the media object server (MOS) interface-based workflow for newsroom computer, graphics, and digital news production systems.

As a result, Ignite technology identifies certain columns within a producer's rundown to create a graphical representation of the show. This graphical representation contains production events that make up each story, such as camera one with mic one full. The Ignite HD operator then controls the timing of each on-air production event.

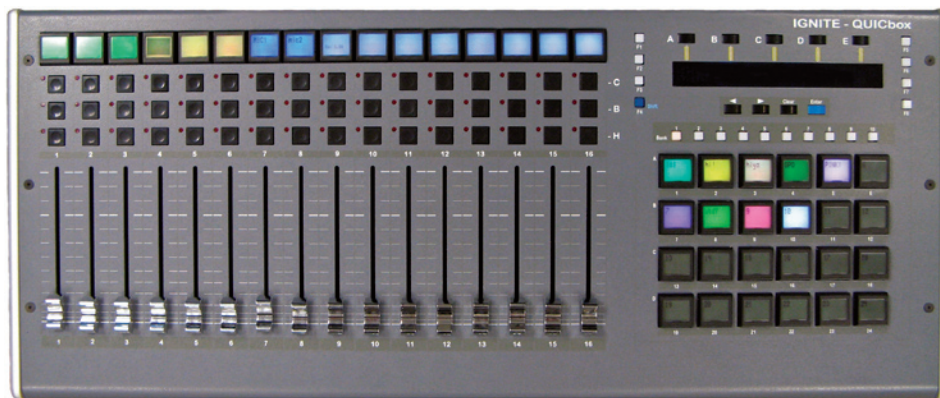
The Ignite platform also lets you re-import a rundown at any time, without affecting what is on air, to allow for last-minute show changes. And you can manually override any production function as well as insert new events at any time—making the Ignite HD solution a perfect fit for any fast-paced newscast.

The Ignite platform also works well in non-scripted environments, such as election coverage, talk shows, game shows, live-entertainment segments and breaking-news stories. Using event-driven technology, you can punch a show live, one element at a time.

The platform makes this capability possible through the more than 300 configurable late-breaking news (LBN) keys. LBNs are pre-built production events ranging from a camera shot with an appropriate mic level to a complex eight-box effect with multiple mics and graphic layers—all of which can be inserted onto an event timeline at any moment during a show. Now you can direct any type of production on the fly.

QUICBOX TACTILE CONTROL INTERFACE

The QUICbox™ solution for the Ignite platform gives you the feel of a tactile interface without the bulk of large control panels. Whether you're punching an entire show live or inserting individual production events, it can trigger simple or complex functions for instant recall, and provides motorized, dynamic audio controls.



System Selection Configuration Matrix

Base Specification

	Video		Audio*				Control Ports RS-232, -422
	In	Out	In		Out		
	Standard		Standard	Opt.	Standard	Opt.	Standard
HD 1-M/E	24	12	24	32	8	16	16
HD 2-M/E	48	24	24	32, 48, 64, 96	8	16, 24, 40, 48	16
HD 3-M/E	72	36	24	32, 48, 64, 96	8	16, 24, 40, 48	32
HD 4-M/E	96	48	24	32, 48, 64, 96	8	16, 24, 40, 48	32

* Audio options are offered in the following configurations only: 24 In x 8 Out, 32 In x 16 Out, 48 In x 24 Out, 64 In x 40 Out, 96 In x 48 Out. External audio control options include Yamaha LS9, and Wheatstone D, G, E series.

SPECIFICATIONS

Device Control

Control ports: Up to 32 – for cameras, VTR/servers, CG/SS, etc.

Signal type: RS-232, RS-422 (software selectable)

Serial interface: RS-232, RS-422 – RJ-45 (8-pin)

Mechanical Specifications

Frame: (Kayak HD 100C, 200C)

- Depth: 546.10 mm (21.5 in.)
- Width: 482.60 mm (19 in.)
- Height: 177.8 mm (7 in.)
- 4 Rack Units

Frame: (Kayak HD 300, 400)

- Depth: 522.73 mm (20.58 in.)
- Width: 482.60 mm (19 in.)
- Height: 441.96 mm (17.4 in.)
- 8 Rack Units

Environment

Storage temperature: -20 to 70°C (-4 to 158°F)

Operating temperature: 0 to 40°C (68 to 104°F)

Relative humidity: 0-95% (non-condensing)

Electromagnetic environment: E2 (according to EN55103-1,-2)

Power

Line voltage: 100V-240V AC ±10% auto range, power factor corrected. Automatic line-voltage sensing for 120V and 240V sources

Line frequency: 50/60 Hz ±5%

Power consumption: (4 RU max. 400W, 8 RU max. 800W)

Leakage current: <2.5 mA

DC-out for control panel: 48V DC, max 3A

Serial Digital Video Inputs

Format: ITU-R656, SMPTE 259M, 270 Mb/s; SMPTE 292M, 1.5 Gb/s

Return loss: >15 dB, 5 MHz to 1.5 GHz

Type of connector: 75Ω BNC (SMPTE 259M)

Interface:

- HD video formats SMPTE 292M-1998
- SD video formats SMPTE 259M-1997

Nominal amplitude: 800 mV peak-to-peak terminated

Channel coding: Conforms to SMPTE 259M, SMPTE 292M

Input impedance: 75Ω

Max cable length:

- HD video 100 meters using Belden 1694A type cable
- SD video 300 meters using Belden 1694A type cable

Serial Digital Video Outputs

Format: ITU-R656, SMPTE 259M, 270 Mb/s; SMPTE 292M, 1.5 Gb/s

Return loss: >15 dB, 5 MHz to 1.5 GHz

Type of connector: 75Ω BNC (SMPTE 259M)

Interface:

- HD video formats SMPTE 292M-1998
- SD video formats SMPTE 259M-1997

Nominal amplitude: 800 mV peak-to-peak across 75Ω

Rise and fall times: 400 to 1400 ps 75Ω termination between 20% and 80% amplitude

Jitter: ITU R 601/656

Output impedance: 75Ω

DC offset: <50 mV with 75Ω termination

Analog Reference Input

Video standard:

- HD video: tri-level sync, analog equivalent to the standard used

- SD video: color black, analog equivalent to the standard used

Return loss: >40 dB, up to 5 MHz

Connectors: 2 each BNC loop-through for both HD and SD inputs

Impedance: 75Ω external

Video Standards

HD mode:

- 1080i 29.97/30 (SMPTE 274M Table 1-4,5)
- 1080i 25 (SMPTE 274M Table 1-6)
- 1080p 24/23.97 (SMPTE 274M Table 1-10,11)
- 720p 60/59.94/50 (SMPTE 211 Table 1-15, 16)

SD mode:

- 525i 59.94 (SMPTE 259M)
- 625i 50 (SMPTE 259M)

Audio Inputs and Outputs

I/O:

- Audio inputs: up to 96
- Audio outputs: up to 48

Dynamics:

- Digital mixing/mix-minus
- Gain control
- Compressor, expander/gate, and limiter
- Parametric equalizer

Dynamic Range

Analog line output @ unity gain (RMS) source impedance = 600Ω: 111 dB

Analog line input, unity gain (RMS) max. input level = +15 dBu: 103 dB

Frequency Response

Analog line output: 20 Hz to 20 kHz: -0.15 dB

Analog line input: 20 Hz to 20 kHz: ±0.05 dB

Crosstalk

Analog line output: 20 Hz to 20 kHz: -95 dB

Analog line input: 20 Hz to 20 kHz: -97 dB

THD+N

Analog line output: 20 Hz to 20 kHz: 0.02%

Analog line input: 20 Hz to 20 kHz: 0.002%

Differential Frequency Distortion

Analog line output: -6 dBFS, max. output level = +15 dBu: 0.07%

Analog line input: -6 dBFS, max. input level = +15 dBu: 0.01%

SPECIFICATIONS (CONT.)

Max. Input Level

Analog line reference full scale
digital: +22 dBu

Max. Output Level

Analog line reference full scale
digital: +22 dBu

Gain Trim Range

Analog line: reference full scale digital
+12 dBu/+15 dBu/+16 dBu/+22 dBu

Nominal Output Levels

Bus outputs balanced: +4 dBu
Monitor outputs balanced: +4 dBu
Mix-minus outputs balanced: +4 dBu

Digital Audio Sync

Internal sample rate: 44.1 – 48 kHz
External sample rate (source devices) AES input with SRC: 22.5 – 56 kHz
Wordclock sync input, output: BNC
AES/EBU sync input: XLR
Processing resolution internal: 56-bit

Conversion

A/D conversion: 20-bit
D/A conversion: 20-bit

Digital Signal Format

Signal format: AES-3, S/PDIF
AES-3 input compliance: 24-bit
AES-3 output: 24-bit

Common Mode Rejection

Analog line input, unity gain 20 Hz – 20 kHz: 60 dB

ORDERING INFORMATION

For full ordering information, please consult your authorized Grass Valley representative.

Available Options

- External Audio Control (Yamaha LS9, Wheatstone D, G, E series)
- Vinten/Rademec Camera Robotics Integration
- Ignite HDC High-Definition Robotic Camera System with SHOT Director Multi-Camera Joystick Controller

CUSTOMER SUPPORT & PROFESSIONAL SERVICES

Our customer support and professional services offerings ensure optimal system performance and maximize uptime. These services include call centers staffed around the clock, commissioning, professional training courses, and technical maintenance programs and service agreements.

www.grassvalley.com/support