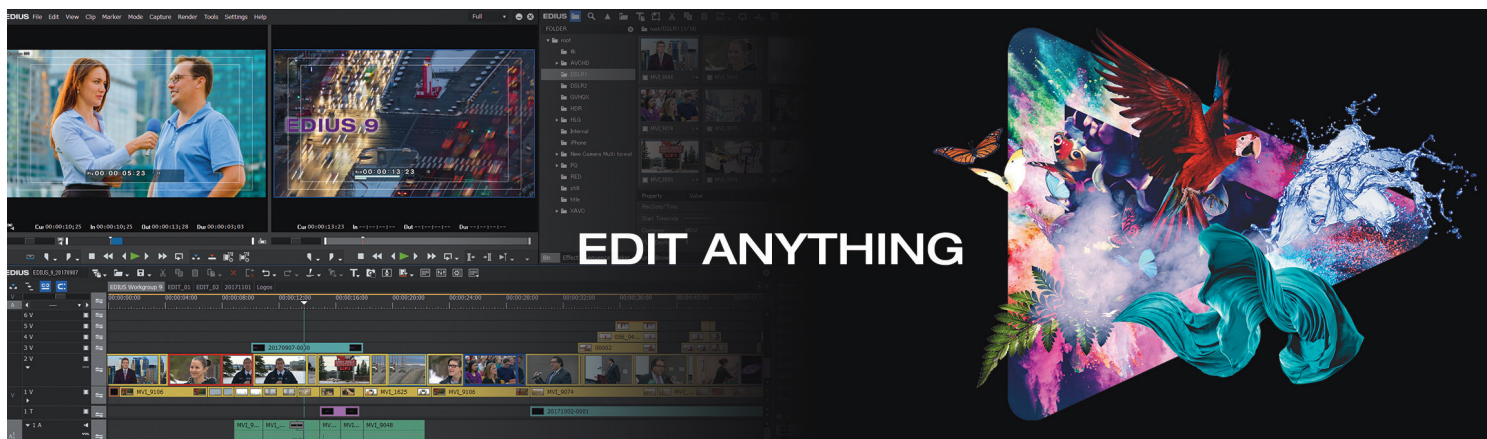


EDIUS Workgroup 9

Nonlinear Editing Software



“The speed definitely helps us on a day-to-day basis. When you can just bring things in and organize everything, I think that’s a big thing.”

Sarah Smith, Editor, WBTV

EDIUS Workgroup 9 means more formats and more resolutions in real time for the ability to *Edit Anything, Anywhere*, whether as a standalone user in the field or within network connected production infrastructures. EDIUS Workgroup 9 is the perfect finishing tool for broadcast news, news magazine content and studio programs, as well as organizational, documentary and 4K and HDR theatrical productions.

With more creative options and real-time, no-render editing of all popular SD, HD and even 4K and HDR formats, EDIUS Workgroup 9 is *THE* most versatile and fastest nonlinear editing software available.

EDIUS Workgroup 9 from Grass Valley, a Belden Brand, gives you real-time editing of multiple formats and frame rates all on the same timeline. That means you can edit faster... and make the time to be more creative.

EDIUS Workgroup 9 has optional modules to connect to the GV STRATUS video production & content management system and edit-in-place on a Grass Valley K2 SAN.

Together with GV STRATUS, EDIUS Workgroup 9 introduces powerful speed and flexibility for broadcast, post-production and multiplatform environments.

News Production

The combination of EDIUS Workgroup 9’s fast and easy-to-use editing capabilities, together with GV STRATUS’s asset management features, allows multiple users to work simultaneously on the same story, sharing media and metadata for super-fast turnaround. Not only can news organizations get their stories to air faster, but with GV STRATUS’s workflow engine and import/export features, stories can be sent to multiple delivery platforms, such as the web and mobile devices, as soon as they have been edited with EDIUS Workgroup 9.

At the touch of a button, EDIUS users can publish their finished edits to various destinations at once, be it playout servers, content management systems, social media and a digital library.

Post-production & Web Publishing

For film production, promo creation, documentaries and short- or long-form programming, the combination of EDIUS Workgroup 9 and GV STRATUS adds extra value. Efficient content management, workflow automation and storage optimization, including user permissions, are just a few of the features introduced by the tight integration of both applications.

Finished productions can be automatically uploaded to a webpage or video-on-demand location, again with a simple click of a button invoking workflow rules that automate the process of uploading media to a pre-set destination.

A producer or editor could even be working from their home office and access content via a wide area network connection to the production facility. This allows not only searching, streaming and viewing remote assets, but even remote editing with low-resolution proxy copies or transferring high-resolution media to local storage before editing, then conforming back to the shared K2 storage at the production facility for final review and packaging.



“We produce about 48-and-a-half hours of news a week. That’s a *LOT* of news, so products like EDIUS are really important in terms of making sure that we get the workflow as efficient as we can. And we’re doing it with about the same staff we did a lot less news with, earlier. So the efficiency of operations really makes a big difference.”

Dennis Milligan, News Director, WBTV

More Formats, Better Workflows

EDIUS Workgroup 9 includes native support for all commonly used file formats, including Sony XDCAM, Panasonic P2, Canon XF and EOS movie and RED formats. For post-production work you can use Grass Valley’s high performance intermediate 10-bit codec, HQX, or the Avid DNxHD codec.

Where EDIUS Workgroup 9 really shines, however, is with its fast and comprehensive implementation of newer file formats, for example Sony XAVC (Intra/Long GOP)/XAVC S, Panasonic AVC-Ultra, Canon XF-AVC and various Log/RAW files. With EDIUS Workgroup 9, you’ll always be able to edit, whatever format comes your way.

Grass Valley designs and manufactures high quality desktop I/O hardware for EDIUS Workgroup 9:

- STORM 3G Elite: 3G-SDI I/O + HDMI I/O+ analog I/O + RS-422 control
- STORM 3G: 3G-SDI I/O + HDMI output + RS-422 control
- STORM Mobile: HDMI I/O + analog I/O
- STORM Pro: HD-SDI I/O + HDMI output

In addition EDIUS Workgroup 9 supports I/O hardware from the following third-party vendors:

- Blackmagic Design
 - **PCI Express:** Intensity Pro 4K, DeckLink SDI 4K, DeckLink Studio 4K, DeckLink 4K Extreme, DeckLink 4K Extreme 12G
Note: Only supports preview (4K 50p/60p preview supported.). Please check the online FAQ for details.
- AJA Video Systems
 - KONA 4, KONA 3G, KONA LHi, KONA Io 4K
Note: Only supports preview (4K 50p/60p preview supported.). Please check the online FAQ for details.

For even more power and creative control during editing, EDIUS Workgroup 9 supports a number of third-party software plug-ins for additional video and audio effects, keying, stabilization and multicam syncing. A list of third-party titling software and effects plug-ins is available on our website.

64-bit & 4K HDR

Designed as a native 64-bit application for Windows 7, Windows 8.1 and Windows 10, EDIUS Workgroup 9 takes full advantage of up to 512 GB system memory (for Windows 8.1/10 Enterprise and Pro) or up to 192 GB (for Windows 7 Ultimate, Enterprise, and Professional) for super-intensive media operations, especially layering, 3D, multicam and multitrack 4K editing.

EDIUS Workgroup 9 is optimized for Intel’s Quick Sync Video, a feature of all current Core processors (Core i7, Core i5 and Core i3) and especially useful for video editing because it significantly accelerates MPEG-2 and H.264 encoding.

EDIUS Workgroup 9 has been further enhanced to use Intel Quick Sync Video for H.264 decoding to give you super-smooth H.264 playback, including 4K.

Draft Preview Mode

Select a lower resolution preview (8-bit, half resolution down to one sixteenth resolution) to make it easier to work with CPU-intensive formats, for example 4K/UHD, as well as complex filters and effects. Also improves performance on lower spec PCs.

Powerful Proxy Mode Editing

GV STRATUS incorporates the power and speed of low-resolution proxy editing with EDIUS XS, but with all of the functionality and creative tools of EDIUS Workgroup 9. When editing is completed, the project file is auto-conformed by the GV STRATUS Render Engine workstation computer for final processing and output. Proxy mode editing is also available for systems not connected to GV STRATUS, by using the optional EDIUS XRE conform engine (see page 4).



“If there’s breaking news and you have no time to get something on the air, you just use the Source Browser and literally you could have video edited within seconds.”

Leighton Grant, Chief Photographer, Raycom Media

KEY FEATURES

- Interoperability with GV STRATUS (requires GV STRATUS Connect option) Launch from GV STRATUS settings, or independently
- Export different formats to different destinations within the GV STRATUS environment
- K2 Clip/K2 Program import/export (requires K2 Connect option) K2 Clip capture
- Capture and edit a growing file on K2
- K2 4K CMF import
- Superior 4K HDR workflow, including support for Blackmagic Design/AJA hardware (preview only) and EDL or AAF import/export
- Edit media files with different resolutions — from 24x24 to 4Kx2K
- Real-time conversion of frame rates on the same timeline delivers more efficient editing into the hands of editors
- Fast, flexible user interface, including unlimited video, audio, title and graphics tracks
- Support for the latest file formats — Sony XAVC (Intra/Long GOP)/XAVC S, Panasonic AVC-Ultra/AVC-Intra 422, AVC-Intra LT/LT 2K and Canon XF-AVC (import only), Sony RAW, Canon Cinema RAW/Cinema RAW Light, RED RAW, ProRes (Import only), DNxHD/HR, still image RAW
- Support for the latest color space for Log and RAW files — HLG/PQ, S-Log, Canon Log, V-Log/V-Log L, J-Log1, F-Log and LUT (.cube) file import
- Work natively with many different video formats, such as Sony XDCAM, Panasonic P2, Ikegami GF, Canon XF format and DSLR movie format
- Fastest AVCHD editing on the market
- Multicam editing of up to 16 different sources simultaneously, with video output support
- Improved MPEG encoder speed and quality
- Improved H.264/AVC decoder and encoder (for fast encoding of 4K XAVC)
- Accelerated 4K H.264/H.265 playback using Intel Quick Sync Video
- Proxy mode workflow for legacy computers helps extend their usability and increase ROI
- Supports Intel Quick Sync Video for extremely fast H.264 export (for Blu-ray Disc burning) and H.265
- Fast handling of large quantities of still image files (JPG, TGA, DPX, Cinema DNG and others)
- OFX support for Magic Bullet and Sapphire plug-ins
- Ability to save a current project as a template in order to re-use preferred track settings, screen layout, etc.
- Primary color correction (RGB) LOG file support
- Primary color correction (RGB)
- 3-way color correction (YUV)
- Motion tracking
- High quality slow-motion (optical flow)
- Draft preview mode
- Built-in loudness meter with auto adjustments
- High speed and high quality stabilizer
- High performance video layouter
- Various synthetic video filters such as masks and keyers
- Direct to Blu-ray Disc and DVD timeline export
- Project import/export as EDL, AAF, FCP 7 XML (import only)
- OFX support for Magic Bullet and Sapphire plug-ins
- Ability to save a current project as a template in order to re-use pre-ferred track settings, screen layout, etc.
- H.265/HEVC decoding support
- Support for high-resolution displays
- Dolby consumer license included as standard, which is applicable to corporate and consumer use of Dolby audio. For use in broadcast applications, the Dolby Professional/Plus license is available as an option for EDIUS Workgroup
- The K2 Connect option (purchased separately) supports K2 servers and storage, and an improved 4K workflow – the ability to edit growing 4K files and to be able to export 4K CMF files back to the K2 server

New Features

- Export in HDR for broadcasting and web distribution. This important enhancement addresses the growing use of HDR content and supplements the existing ability of EDIUS to work directly in 4K UHD
- Ability to mix SDR and HDR material on the same project, and output results in either color space
- Third-party hardware 50p/60p output support
- Mync (media management software) bundled with EDIUS 9 implements a powerful new Meta Smart Search function and HDR support (preview, storyboard, export)
- EDIUS Workgroup 9 users are eligible for a free download of NewBlue’s Titler Pro 5 for EDIUS
- Monitor control (synchronize color space setting)
- New video scope supporting HDR
- Color space list editing
- Closed Caption view
- 60/50p timecode display
- RED RAW decode GPU support
- Improvement of high-quality slow-motion (advanced matching)
- Marker color function
- Improved default exporter function

EDIUS Workgroup 9 Integrated Components

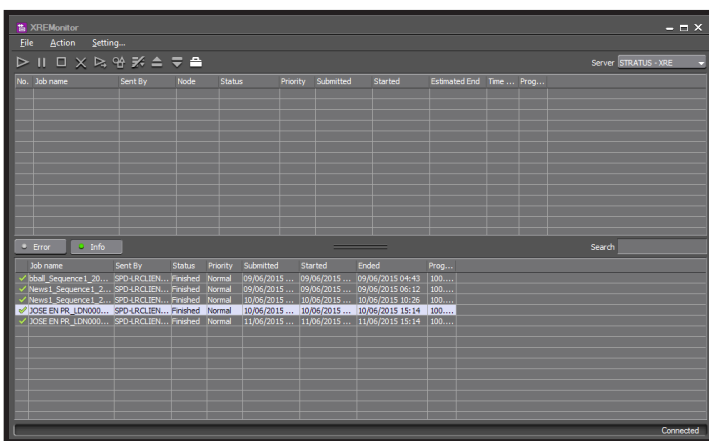
EDIUS Workgroup 9 integrates with a number of Grass Valley components specifically designed to increase editing efficiency and overall operational workflows.

EDIUS XRE

EDIUS XRE (eXternal Rendering Engine) gives users in a workgroup the freedom to spend their time editing — not rendering or conforming — video projects.

EDIUS XRE is a networked, dedicated workstation that renders files in the background, instantly freeing up your EDIUS editing workstation — or workstations — to work on new projects.

Supplied as a complete turnkey system and connected via Ethernet and/or Fibre Channel*, EDIUS XRE performs the dual role of controller — assigning, managing and, where necessary, re-assigning rendering jobs — and render engine, supporting the extensive list of formats and codecs that has made EDIUS such a force in broadcast production.



Requesting a rendering job is as simple as selecting “Print to File” from the EDIUS workstation, the file format preset and the destination server. Once the instruction has been sent to the server, you are free to carry on with a new project, removing delays and unwanted bottlenecks.

Any workstation on the network can check job histories and the progress of current rendering jobs using the XRE Monitor software application supplied. Using XRE Monitor you can view, pause, restart, cancel and check the properties of any render in the job list.

XRE Monitor also has a management mode which allows network administrators to re-prioritize render jobs by moving them up or down the job list.

GV STRATUS

With the GV STRATUS Connect option, EDIUS Workgroup 9 can also use the GV STRATUS video production & content management system to find content and drag-and-drop material from GV STRATUS to EDIUS Workgroup. EDIUS Workgroup can edit from GV STRATUS storyboard sequences, or K2 program/playlist files. Metadata such as markers and keywords added during capture can be searched and displayed.

Edited pieces are sent to the K2 for playback. The timeline can be published as a K2 program (playlist), or as one file (K2 clip). As a clip, it can be used as an event in the GV STRATUS Playlist Editor. The file can be played out of the K2 after approximately seven seconds from when the start of message arrives. The file can be played out while the file transfer is still in progress.

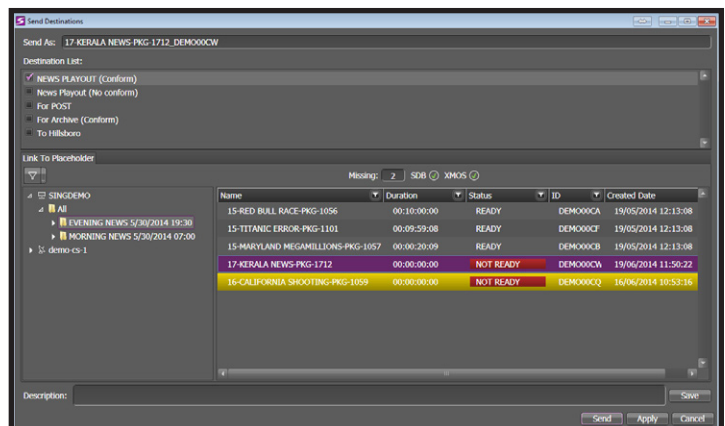
There are also components such as an Assignment List plug-in to integrate GV STRATUS with NRCS systems via the MOS protocol. Leading newsroom systems are tightly integrated with GV STRATUS, increasing flexibility and speed within the newsroom.



EDIUS Workgroup 9/GV STRATUS users can:

- Open sequences from the GV STRATUS storyboard editor
- View and use annotations created by other users in the system
- Create a new project and timeline based on the NRCS story name. This allows users to quickly link text and video within a news rundown, reducing time-to-air and potential operational errors
- View NRCS scripts with production notes and characters-per-second reading rate
- Check real-time status of edited stories, whether still to be edited, awaiting approval or ready for air. This story status is passed by GV STRATUS to the NRCS, allowing news producers and directors to quickly check the readiness of their newscast

Finished stories are sent to the K2 for playback by opening the NRCS rundown view in EDIUS, selecting the assigned story name, and sending. The file can be played out of the K2 after approximately seven seconds. The file can be played out while the file transfer is still in progress.



* If EDIUS XRE is used in a K2 server configuration, Ethernet AND Fibre Channel are required. If EDIUS XRE is deployed in a simple network system, Fibre Channel is not necessary.

K2 Media Servers and Storage

EDIUS Workgroup 9 is a multilayer nonlinear editor with high-level effects capability and the fastest real-time system performance of any editor when integrated within a K2 infrastructure. With the K2 Connect option, it can access and edit-in-place media on a K2 SAN, and can publish finished materials to K2 for playout. EDIUS Workgroup users can:

- Connect directly to the K2 SAN and edit-in-place
- Edit growing files (files being recorded)
- Transfer selected files into local storage for editing
- Send finished pieces to K2 for playout as a rendered clip or K2 program file



Field Editing

The combination of EDIUS Workgroup 9 and GV STRATUS brings the full resources of the newsroom to the field. Both applications employ an extremely efficient proxy workflow, and because of EDIUS's versatile timeline, you can mix low-res media from the newsroom with hi-res media from the field and send back a project to the newsroom with instructions to GV STRATUS to replace the low-res media automatically.

EDIUS also has a "hi-res proxy" mode — when EDIUS sends back a project it will compress the hi-res clip part to a slightly smaller file (such as to H.264 12 Mb/s) so that it can be sent back faster. The file is smaller but still in HD resolution, and is good enough quality to be played on air for breaking news. The original clip can be sent later so that it can be stripped in for additional editing if required.

This is just one of a number of enhancements that have been made to EDIUS as a result of customer feedback to ensure that it helps news organizations get their stories to air faster.

EDIUS Cloud

EDIUS Cloud is the latest version of EDIUS that is custom designed for every customer based on their individual needs. Launching in Q2 2018, editors will be able to utilize the power of EDIUS with limitless possibilities to work remotely on projects anytime, anywhere. New features include direct editing on the Amazon AWS platform, HDR native editing in a multitude of formats, and mixing SDR and HDR material in the same project. The power of the cloud also allows groups and companies to share content via the cloud, as well as to connect work and streaming content without the use of hardware to make sharing easier, faster and more simplified.

Edit anything. ANYWHERE

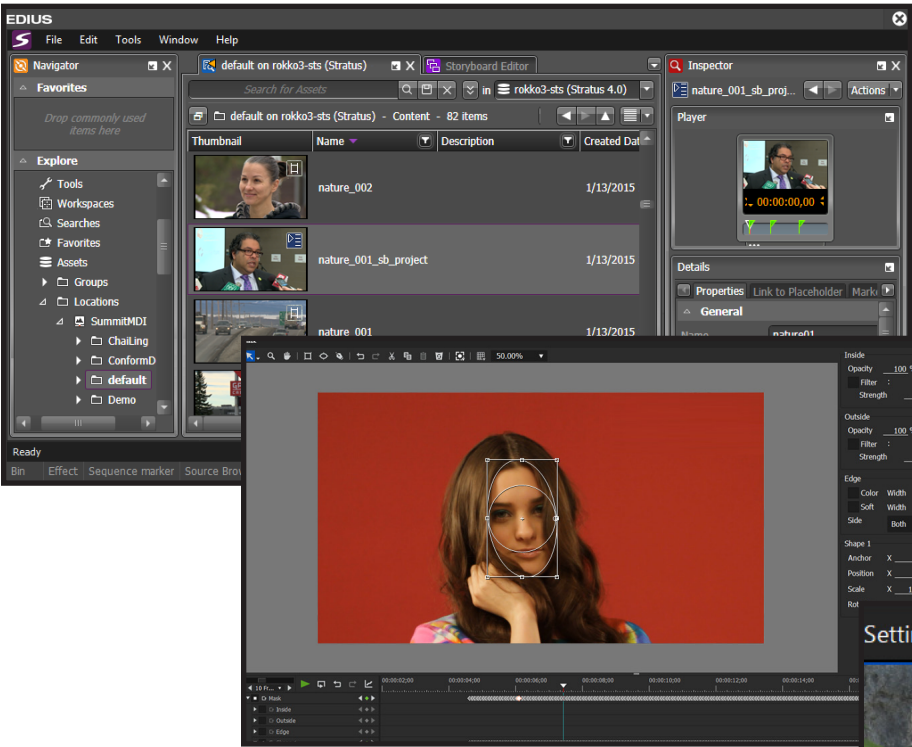
- The ultimate news editor, wherever you are
- Proxy workflow breaks down bandwidth wall between newsroom & field
- GV STRATUS integration takes production to new levels

Get stories to air **FASTER**

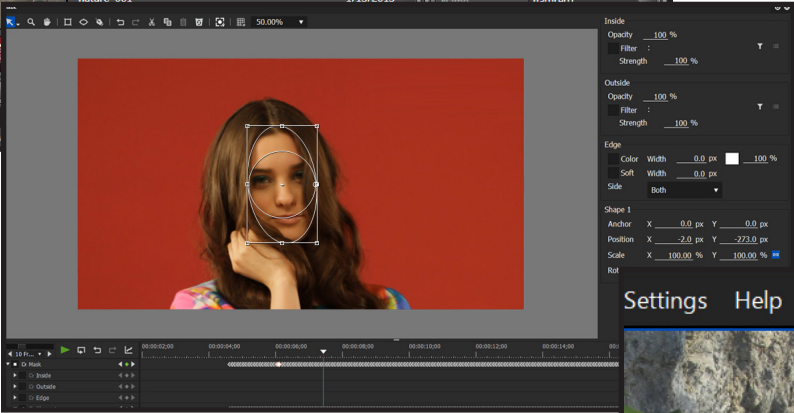
- Best-in-class format support — less time waiting for ingest or export
- Superior real-time video editing — little/no rendering
- New GUI for faster, more intuitive working

EDIUS Pro 9 vs. EDIUS Workgroup 9

Function	EDIUS Pro 9	EDIUS Workgroup 9	EDIUS Workgroup 9 + GV STRATUS CONNECT	EDIUS Workgroup 9 + K2 CONNECT
4K 30p/25p third-party HW output	Yes	Yes	Yes	Yes
4K 60p/50p third-party HW output	No	Yes	Yes	Yes
Loudness meter/Loudness auto adjust	No	Yes	Yes	Yes
Draft Preview mode	No	Yes	Yes	Yes
Watch folder support	No	Yes	Yes	Yes
Generic MXF exporter	No	Yes	Yes	Yes
K2 GXF exporter	No	Yes	Yes	Yes
System SDK support	No	Yes	Yes	Yes
Edit growing files	No	Yes	Yes	Yes
Dolby E pass-through	No	Yes	Yes	Yes
ANC data (captioning) pass-through	No	Yes	Yes	Yes
Audio monitoring mode	No	Yes	Yes	Yes
Requires network connection	Yes	No	No	No
DNxHD support option	Option	Yes	Yes	Yes
Dolby Plus/Professional license	No	Option	Option	Option
Connect to external storage via FTP	No	Yes	Yes	Yes
Connect to GV STRATUS (newsroom, field)	No	No	Yes	No
Connect to K2 SAN, K2 Dyno (SNFS)	No	No	No	Yes

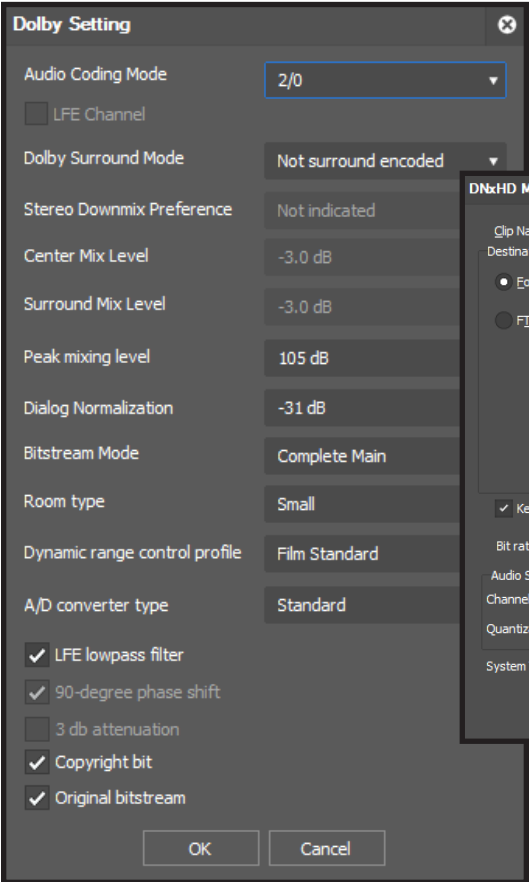
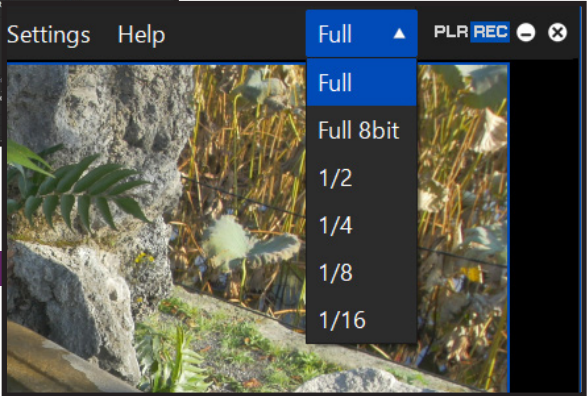


GV STRATUS TAB PANEL IN EDIUS

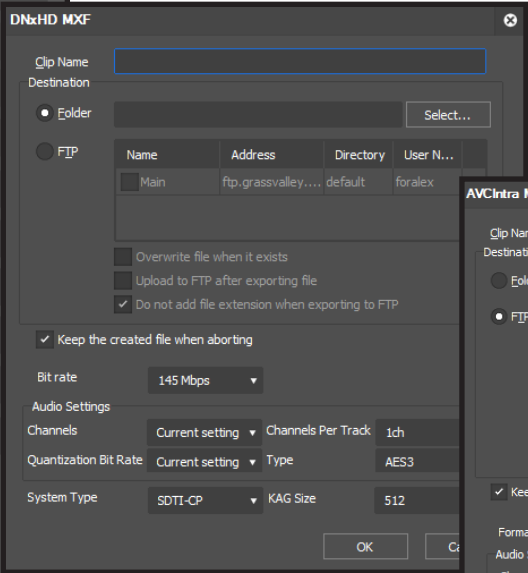


MOTION TRACKING

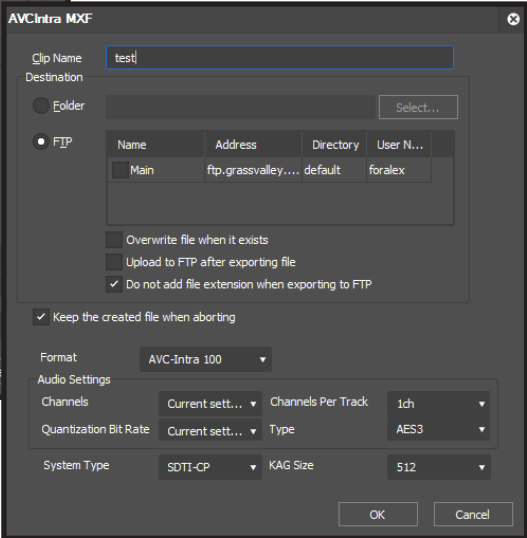
DRAFT PREVIEW



DOLBY DIGITAL PLUS/PROFESSIONAL OPTION



DNxHD MXF AND AVC-INTRA EXPORT



EDIUS Workgroup 9 Nonlinear Editing Software

SPECIFICATIONS

Minimum System Requirements (standalone):

OS: Windows 7 (64-bit) SP1 or later, Windows 8.1 (64-bit), Windows 10 (64-bit) (version 1607 or later).

Note: See Memory section below for physical memory limits of each OS.

CPU: Any Intel Core 2 or Core iX CPU; any Intel or AMD CPU with SSE3

Note: Multiple CPUs and/or multicore CPUs are recommended

List of supported Intel CPU generations for H.265 (HEVC) export using Intel Quick Sync Video

Generation	4:2:0 8-bit	4:2:0 10-bit
6th generation	Yes	No
7th generation	Yes	Yes
8th generation	Yes	Yes

Memory:

4 GB RAM minimum

Requirements for RAM and video memory vary depending on the project format. For SD/HD projects: 4 GB or more RAM recommended. For 4K projects: 8 GB or more RAM recommended

Maximum amount of RAM is based on the physical memory limits of each OS.

Windows 10, Enterprise and Pro, 64-bit: 512 GB

Windows 8.1, Enterprise and Pro, 64-bit: 512 GB

Windows 8.1, 64-bit: 128 GB

Windows 7, Ultimate, Enterprise, and Professional, 64-bit: 192 GB

Windows 7, Home Premium, 64-bit: 16 GB (not recommended for complex 4K projects)

Windows 7, Home Basic, 64-bit: 8 GB (not recommended for projects above HD resolution)

Project Format		RAM		Video Memory	
Resolution	depth	minimum	recommended	minimum	recommended
SD and below	8-bit	1 GB	2 GB	256 MB	512 MB
	10-bit	2 GB	4 GB	512 MB	1 GB
HD	8-bit	4 GB	4 GB	512 MB	1 GB
	10-bit	4 GB	4 GB	1 GB	2 GB
Over HD (including 4K)	8-bit	8 GB	8 GB or more	2 GB	2 GB or more
	10-bit	8 GB	8 GB or more	2 GB	2 GB or more

Graphics Card

Supporting higher resolution than 1024x768 32-bit. Direct3D 9.0c or later and PixelShader Model 3.0 or later is required

Requirements for video memory size when using GPUfx will vary depending on the project format. For 10-bit SD projects: 1 GB or more recommended, for HD/4K projects 2 GB or more recommended

Note: Requirements for video memory vary depending on the project format. See Memory section above for details.

Hard Disk

6 GB of hard disk space is required for installation

Drive with ATA100/7,200 RPM or faster is required for video storage:

Available hard drive disc space should be twice the size of the file to be edited

RAID-0 is recommended for HD and above resolution editing

Supported Languages

English, Japanese, French, German, Italian, Spanish and Chinese (traditional, simplified)

Hardware Support

EDIUS 9 supports the following Grass Valley hardware:

STORM 3G Elite

STORM 3G

STORM Pro

STORM Mobile

HDSPARK Pro

HDSPARK

Optical Drive

Blu-ray Disc writer is required when creating Blu-ray Discs

DVD-R/RW or DVD+R/RW drive is required when creating DVDs

Sound Card

Sound card with WDM driver support is required.

Activation

EDIUS Workgroup 9 does require activation on first use, but this can be done offline, from a different PC. Thereafter, unlike EDIUS Pro 9, an Internet connection is no longer required.

Service and Support

90-day limited warranty.

Note: External video decks/cameras may require either a free FireWire (IEEE 1394) port or USB 2.0 port for connectivity.

Updated for version 9.1, January 2018

ORDERING

EDIUS Workgroup 9

EDIUS Workgroup 9 Upgrade

Upgrade from EDIUS Workgroup 8 (Cannot upgrade from prior versions of EDIUS, or education versions)

EDIUS Workgroup 9 Jump Upgrade

Upgrade from EDIUS 2-7/Pro 8

EDIUS Workgroup 9 Education

(Requires proof of full-time educational status and is not upgradable)

EDIUS Cloud

Customized for each customer. Please contact your Grass Valley sales representative for more information.

Options

GV STRATUS Connect Option for EDIUS Workgroup 9

Does not include SNFS License

K2 Connect Option for EDIUS Workgroup 9

Includes SNFS License

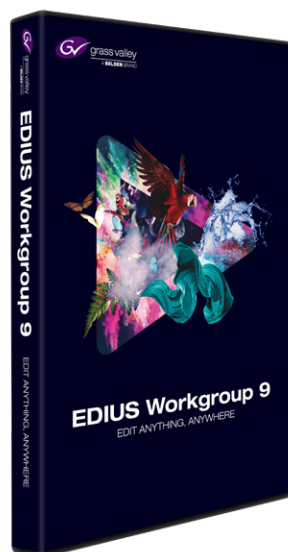
Dolby Digital Plus/Professional Option for EDIUS Workgroup 9

EDIUS 9 XRE Conform Engine Option for EDIUS Workgroup 9

VTR Emulation Option for EDIUS Workgroup 9

Requires STORM 3G or STORM 3G Elite

Please contact your authorized Grass Valley channel partner for more details.



NewBlue's Titler Pro 5

In addition to the built-in titler in EDIUS Workgroup 9, all EDIUS Workgroup 9 users are eligible for a free download of NewBlue's Titler Pro 5 for EDIUS.

Titler Pro 5 for EDIUS is the standard for fast titling. It's easy-to-use, and delivers results beyond what's possible with EDIUS's built-in titling application.

Through its familiar drag-n-drop workflow and intuitive controls, Titler Pro 5 for EDIUS makes it easy to get started and quickly master. Create a stunning title in seconds by applying one of the over 100 animated templates, then customize the text, colors and more for a powerful result.

Titler Pro 5 for EDIUS takes the guesswork out of creating powerful, animated and multidimensional titles, allowing you to focus on what's important — editing your story.

Titler Pro 5 is available as a separate download, free of charge for EDIUS Workgroup 9 users.



In an environment of increasingly rapid content creation needs, media production organizations will gain a competitive advantage by partnering with an editing system vendor that provides expert technical personnel and high-velocity response. Support must be cost-effective, predictable, reliable, and fast. Grass Valley Global Services has the practical knowledge, digital media experience, and editing expertise to achieve this objective. The Global Services portfolio provides everything necessary insure the quick problem resolution necessary to keep content creators pressing ahead and moving fast.

Grass Valley Global Services offerings deliver tangible returns-on-investment by providing the resources to insure that customers get the maximum value from an investment in Grass Valley EDIUS products — from initial delivery through the entire in-service lifespan. Global Services empowers organizations to meet tactical day-to-day objectives while giving internal staff more time to focus on strategic business initiatives.

Our global presence, nonlinear production expertise, and world-renown team of video editing, workflow, and production professionals is here to help achieve financial performance objectives by reduce technical risk while helping creative staff to produce the largest volume of high-quality, high-value content.

GLOBAL SERVICES PROVIDES:

Global Services delivers a broad array of commercial, technical, and creative value to EDIUS customers:

- A global network of field engineers with the experience, knowledge, and skill to keep production systems up to date, in-service and tuned for both performance and quality.
- A team of educators who have themselves been “in the hot seat” and who are world-class experts in news, live and production editing.
- Solution architecture, project management and integration services to create collaborative editing systems from small production environments to the world’s largest facilities
- Technical and operational training that maximizes the productivity of your editing and production teams through tailored learning paths.
- Comprehensive support agreements to ensure that every EDIUS editor, and the system supporting it, functions at peak performance — all while supporting management’s need for financial predictability.

