

Grass Valley Production Systems Specifications for Workstation & System PCs

Trevor Francis, March 2020

This is information for Grass Valley system designers and customers to specify recommended platforms for GV STRATUS and sQ Server-based systems and associated editing workstations, as listed in the 2020 Price Book.

Grass Valley reserves the right to update these specifications. All users of this document are recommended to re-confirm, especially before placing orders from third-party suppliers.

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PAM Workstations

GV STRATUS High-resolution Workstation

These requirements apply to a PC running the following:

- The GV STRATUS application with a high-resolution media workflow. This requires access to high-resolution assets.
- The EDIUS Workgroup application with a high-resolution media workflow. This requires access to high-resolution assets.

Characteristic	Specification
Processor	Recommended: Intel Core i7 4 Core 4 GHz (desktop grade machines) OR Recommended: Intel Xeon E5-2630 Quad Core 2.4 GHz (workstation grade machines)
Memory	Minimum: 8 GB RAM Recommended: 16 GB RAM
Graphics	Integrated or discrete graphics with Direct 3D 9+
System Drive	256 GB SSD drive recommended OR 1 TB 7200 rpm hard drive (if SSD not available)
Optical Drive	Not required
Network	Dual Ethernet 1000 Base-T network interface
Operating System	Microsoft Windows 7 SP1 64-bit Microsoft Windows 10 64-bit (on systems with SNFS 6.0.6 installed) <i>Note: 64-bit required for EDIUS Workgroup</i> <i>Note: Windows 7 must be used for workstations connecting to existing SAN systems running SNFS 4.7</i> <i>Windows 10 must be used for workstations connecting to new SAN systems delivered (from late 2018) running SNFS 6.x</i>
Microsoft .NET Framework	Version 4.7.1

Browser-based Clients

GV STRATUS Web Client

These minimum requirements apply to a device running the GV STRATUS Web client:

Characteristic	Specification
Web Browser	Recommended: Google Chrome
Frame-accurate Streaming	Browser must support webRTC GV STRATUS system must be licensed with GV STRATUS Proxy Streaming Server

Go! Editor

Minimum requirement for using Go! on a desktop/laptop computer:

Characteristic	Specification
Web Browser	Google Chrome
CPU	Core i3 — 2 cores (4 with hyper threading turned on)
Memory	4 GB

Proxy/LBR Workstations

GV STRATUS Low-resolution Client Workstation

These minimum requirements apply to a PC running one or more of the following:

- The GV STRATUS application with a proxy media workflow
- The GV STRATUS Control Panel application
- The SiteConfig application

Characteristic	Specification
Processor	Minimum: Intel Core i3 mid-range processors and above
Memory	4 GB RAM (Minimum)
Graphics	Direct 3D 9+ support
System Drive	Minimum: 1 GB of free space
Optical Drive	Not required
Network	Single Ethernet 1000 Base-T network interface
Operating System	Microsoft Windows 7 SP1 64-bit Microsoft Windows 10 64-bit
Microsoft .NET Framework	Version 4.7.1
Web Browser	Recommended: Google Chrome

GV STRATUS/EDIUS XS Low-resolution Client Workstation

These minimum requirements apply to a PC running the GV STRATUS application and the EDIUS XS application, with a proxy media workflow:

Characteristic	Specification
Processor	Intel Core i5 4 core processor and above
Memory	8 GB RAM
Graphics	Integrated or discrete graphics with Direct 3D 9+
System Drive	Minimum: 80 GB 7200 rpm hard drive Recommended: 128 GB SSD drive or larger
Optical Drive	Not required
Network	Single Ethernet 1000 Base-T network interface
Operating System	Microsoft Windows 7 SP1 64-bit Microsoft Windows 10 64-bit <i>Note: 64-bit required for EDIUS XS</i>
Microsoft .NET Framework	Version 4.7.1
Web Browser	Recommended: Google Chrome

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Rio (Broadcast) LBR

These requirements apply to a Rio editor connected to an sQ server and configured for viewing content in LBR/Proxy. It is assumed that for a desktop editor the rendering of new media, including captions, transitions, DVE, keys and local video ingest is minimal. This rendering will use the client PC hardware.

Characteristic	Recommended Specification
Processor	Intel Core i7-8700 / 3.2 GHz (or better)
Memory	16 GB RAM (Minimum)
Graphics	Graphics (Display) — DirectX 11 compatible display card or better Graphics (Rendering) — CUDA capable GPU — NVIDIA GeForce GTX 1060 (6 GB) or better (separate display card only required if working in dual screen mode) AJA Kona 4 or Kona3G video I/O card (optional)
Disk Drive	1x 240 GB (or better) SATA SSD — System/Audio drive 1x 480 GB (or better) SATA SSD — Video drive
Sound Card	Any Windows 10 compatible card
Operating System	Microsoft Windows 10 Pro Edition 64-bit
Network	1000 Base-T with Jumbo Frame 9014 packet support
Display	Minimum 1920x1080 resolution
Keyboard/Mouse	Windows compatible keyboard and mouse

sQ View, sQ Cut, sQ Play & sQ Record — LBR, v6

These requirements apply to all of these workstations connected to an sQ server and operating with LBR media:

Characteristic	Recommended Specification
Processor	Intel Core i5-6400 processor (6M cache, up to 3.30 GHz)
Memory	16 GB dual-channel memory
Graphics	Graphics processor with Windows 10 64-bit manufacturer approved WDDM 1.1 driver, Pixel shader 2.0 (or higher) in hardware, and a minimum of 256 MB of video RAM
Disk Drive	1 x 7,200 rpm SATA or SAS disk drive with a minimum of 30 GB available for audio and data partitions*
Sound Card	Any Windows 10 compatible card
Operating System	Microsoft Windows 10 Pro Edition 64-bit for v6 onwards
Network	1000 Base-T Ethernet
Display	Minimum 1920x1080 resolution
Keyboard/Mouse	Windows compatible keyboard and mouse
Form Factor	sQ Record with VTR control requires space for a full-sized PCI Card for the serial I/O

sQ Cut — HBR or Local Ingest Operations v6

These requirements apply to all of these workstations connected to an sQ server and operating with HBR media and/or allowing local file ingest:

Characteristic	Recommended Specification
Processor	Intel Core i7-4790 processor (8M cache, up to 4.00 GHz)
Memory	16 GB dual-channel memory
Graphics	Graphics processor with Windows 10 64-bit manufacturer approved WDDM 1.1 driver, Pixel shader 2.0 (or higher) in hardware, and a minimum of 256 MB of video RAM
Disk Drive	2x 10k rpm SATA or SAS drives ~100GB or larger — see disk requirements below**
Sound Card	Any Windows 10 compatible card
Operating System	Microsoft Windows 10 Pro Edition 64-bit for v6 onwards
Network	1000 Base-T with Jumbo Frame 9014 packet support
Display	Minimum 1920x1080 resolution
Keyboard/Mouse	Windows compatible keyboard and mouse

* sQ Server workstation software (except sQ Load) requires local storage for audio. It is recommended that this stores on a separate disk for easier management and to prevent file fragmentation. 12 GB of space will provide storage for ~4 hours of 4-channel and ~ 2 hours of 8-channel audio. Where possible, it is suggested that at least 4 hours of storage (4 or 8 track as appropriate) is provided. They all (except sQ Load) require a minimum of 8 GB for installation and log files.

** sQ Server workstation software (except sQ Load) requires a separate partition for local storage of HBR media on sQ Cut and sQ Edit PCs as required. 51 GB provides space for ~1 hour of HD 100 Mbit data and 2 hours of SD IMX or DVCPro 50 data. Video and audio partitions should be placed on separate drives to improve overall performance during playback. They all (except sQ Load) require a minimum of 8 GB for installation and log files.

HBR Editing

EDIUS v9

Characteristic	Recommended Specification
Processor	Intel Core 2, Intel Core iX CPU, or higher Intel or AMD single core CPU with a 3 GHz processor speed or faster (multiple CPUs or multicore CPUs are recommended) SSSE3 (Supplemental SSE3) compatibility
Memory	Minimum 4 GB
Graphics	GPU compatible with Direct3D 9.0c and later, and PixelShader Model 3.0 and later For SD/HD editing, 512 MB or more video memory is required. For 4K editing, 2 GB or more video memory is required
Disk Drive	To install EDIUS, 6 GB or more hard disk space is required for installation A drive with SATA/7200 rpm or higher is required for videos
Sound Card	A sound device that is compliant with WDM is required
Operating System	Windows 7 64-bit (Service Pack 1 or later) Windows 8.1 64-bit Windows 10 64-bit (Version 1607 or later)
Network	1G Ethernet with Jumbo Frame 9014 support
Display	Minimum 1920x1080 resolution
Keyboard/Mouse	Windows compatible keyboard and mouse

Rio (Broadcast) HBR

These requirements apply to a Rio editor connected to an sQ server and configured for viewing content in full quality using HD codecs:

Characteristic	Recommended Specification
Processor	Dual Xeon Silver 4114 (10 Cores, 2.20 GHz, 13.74 L3 Cache)
Memory	64 GB RAM (8x 8 GB, DDR4, REG, ECC, 2400 MHz)
Graphics	Graphics (display) — DirectX 11 compatible display card or better Graphics (rendering) — CUDA capable GPU – NVIDIA GeForce GTX 1080 or better (Separate display card only required if working in dual screen mode and/or with 4K media) AJA Kona 4 or Kona 3G video I/O card (optional)
Disk Drive	1x 240 GB (or better) SATA SSD — system/audio drive 1x 480 GB (or better) SATA SSD — video drive
Sound Card	Any Windows 10 compatible card
Operating System	Microsoft Windows 10 Pro Edition 64-bit
Network	1000 Base-T with Jumbo Frame 9014 packet support
Display	Minimum 1920x1080 resolution
Keyboard/Mouse	Windows compatible keyboard and mouse

Qube HBR Editor for UHD/HDR

This product is supplied as a turnkey system only. Please refer to Product Management.

QTube Edit Standard

This product is no longer supported. Please refer to Product Management.

QTube Edit Advanced

This product is no longer supported. Please refer to Product Management.

Marco

This product is no longer supported. Please refer to Product Management.

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Qube v6

These requirements apply to a Rio editor connected to an sQ server and configured for viewing content in full quality using HD codecs:

Characteristic	Recommended Specification
Processor	Dual Intel Xeon Silver 4114 (10 Cores, 2.20 GHz, 13.74 MB L3 cache)
Memory	32 GB (4x 8 GB DIMMs, DDR4, 2666 MHz, REG, ECC)
Graphics	Display: Quadro P620 Rendering: Quadro P4000 AJA Kona 4
Disk Drive	1x 300 GB 15,000 rpm hard drive, or 1x 480 GB SSD 1x 600 GB 15,000 rpm hard drive, or 1x 960 GB SSD
Sound Card	Any Windows 10 compatible card
Operating System	Microsoft Windows 10 Pro Edition 64-bit for v6 and later
Network	1000 Base-T with Jumbo Frame 9014 packet support
Display	Minimum 1920x1080 resolution
Keyboard/Mouse	Windows compatible keyboard and mouse

sQ Edit — No Effects v6

Characteristic	Recommended Specification
Processor	Intel Core i7-4790 Processor (8M cache, up to 4.00 GHz)
Memory	16 GB dual-channel memory
Graphics	Graphics processor with Windows 10 64-bit manufacturer approved WDDM 1.1 driver, Pixel shader 2.0 (or higher) in hardware, and a minimum of 256 MB of video RAM
Disk Drive	2x 10k rpm SATA or SAS drives ~100 GB or larger — see disk requirements below*
Sound Card	Any Windows 10 compatible card
Operating System	Microsoft Windows 10 Pro Edition 64-bit for v6 onwards
Network	1000 Base-T Ethernet with Jumbo Frame 9014 support
Display	Minimum 1920x1080 resolution
Keyboard/Mouse	Windows compatible keyboard and mouse

sQ Edit — With Effects v6

Characteristic	Recommended Specification
Processor	Intel Core i7-4790 Processor (8M cache, up to 4.00 GHz)
Memory	16 GB dual-channel memory
Graphics	Graphics (display) — DirectX 11 compatible display card or better Graphics (rendering) — CUDA capable GPU — NVIDIA GeForce GTX 1060 (6 GB) or better (separate display card only required if working in dual screen mode)
Disk Drive	2x 10k rpm SATA or SAS drives ~100GB or larger — see disk requirements below*
Sound Card	Any Windows 10 compatible card
Operating System	Microsoft Windows 10 Pro Edition 64-bit for v6 onwards
Network	1000 Base-T Ethernet with Jumbo Frame 9014 support
Display	Minimum 1920x1080 resolution
Keyboard/Mouse	Windows compatible keyboard and mouse

* sQ Server workstation software (except sQ Load) requires a separate partition for local storage of HBR media on sQ Cut and sQ Edit PCs as required. 51 GB provides space for ~1 hour of HD 100 Mbit data and 2 hours of SD IMX or DVCPro 50 data. Video and audio partitions should be placed on separate drives to improve overall performance during playback. They all (except sQ Load) require a minimum of 8 GB for installation and log files.

ISA Manager

Can be run on “Medium” generic specification:

Characteristic	Recommended Specification
Processor	Dual Intel Xeon Silver 4114 (10 Cores, 2.20 GHz, 13.74 MB L3 cache)
Memory	64 GB (8x 8 GB DIMMs, DDR4, 2666 MHz, REG, ECC)
Graphics	On-board graphics
Disk Drive	2x 240 GB SSDs configured as RAID-1
Sound Card	None required
Operating System	Windows 2016 Standard
Network	Dual-port 10 Gigabit Ethernet
Display	Standard VGA
Power Supply	Dual redundant
Keyboard/Mouse	Windows compatible keyboard and mouse

VM requirement:

Characteristic	Recommended Specification
VM vCPU	8
VM vMemory	28 GB
Network	1x Virtual NIC connected to 1 GB network
vHDD	120 GB
VM Guest OS	Windows 2016

ISA Search Service

ISA Search Service is a very lightweight product as far as computer hardware is concerned. We don't usually ship standalone instances of this. It will run on the “Cost-effective” generic platform:

Characteristic	Recommended Specification
Processor	Single Intel Xeon Bronze 3106 (8 cores, 1.70 GHz, 10.00 MB L3 Cache)
Memory	16 GB (2x 8 GB DIMMs, DDR4, 2666 MHz, REG, ECC)
Graphics	On-board card
Disk Drive	2x 240 GB SSDs configured as RAID-1
Sound Card	None required
Operating System	Windows 2016
Network	Dual-port 10 Gigabit Ethernet with Jumbo Frame support
Display	Standard VGA display
Power Supplies	Dual redundant
Keyboard/Mouse	Not required beyond commissioning

ISA Search Service is frequently run in a Virtual Machine with the ISA Manager:

Characteristic	Recommended Specification
VM vCPU	4
VM vMemory	8 GB
Network	1x Virtual NIC connected to 1 GB network
vHDD	120 GB
VM Guest OS	Windows 2016 standard

Other sQ Workstations and System Products

sQ Load v6

Characteristic	Recommended Specification
Processor	Intel Core i7 (4 cores. Base clock: 2.4 GHz, or greater) minimum, no “Edge Browse” Dual Intel Xeon Gold 6132 (14 cores, 2.60 GHz, 19.25 MB L3 cache) recommended, mandatory for “Edge Browse”
Memory	16 GB Dual-channel minimum, no Edge Browse 64 GB (8x 8 GB DIMMs, DDR4, 2666 MHz, REG, ECC) required for Edge Browse
Graphics	Windows WHQL WDDM 1.1 compatible graphics card
Disk Drive	1x HDD, or SSD 240 GB or greater
Sound Card	Any Windows 10 compatible card
Operating System	Microsoft Windows 10 Pro Edition 64-bit
Network	1000 Base-T Ethernet with Jumbo Frame 9014 support
Display	Minimum 1920x1080 resolution
Keyboard/Mouse	Windows compatible keyboard and mouse

sQ Fileflow Manager

Characteristic	Recommended Specification
Processor	Single Intel Xeon Bronze 3106 (8 cores, 1.70 GHz, 11.00 MB L3 cache)
Memory	16 GB (2x 8 GB DIMMs, DDR4, 2666 MHz, REG, ECC)
Graphics	None, use on-board graphics
Disk Drive	2x 240 GB SSDs configured as RAID-1
Sound Card	None required
Operating System	Windows 2016 Standard
Network	Dual-port 1 Gigabit Ethernet
Display	Minimum 1920x1080 resolution
Power Supplies	Dual redundant
Keyboard/Mouse	Not required beyond commissioning

VM requirement:

Characteristic	Recommended Specification
VM vCPU	4
VM vMemory	8 GB
Network	1x Virtual NIC connected to 1 GB network
vHDD	120 GB
VM Guest OS	Windows Server 2016

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sQ Fileflow Cluster Watcher

Characteristic	Recommended Specification
Processor	Single Intel Xeon Bronze 3106 (8 cores, 1.70 GHz, 11.00 MB L3 Cache)
Memory	16 GB (2x 8 GB DIMMs, DDR4, 2666 MHz, REG, ECC)
Graphics	None, use on-board graphics
Disk Drive	2x 240 GB SSDs configured as RAID-1
Sound Card	None required
Operating System	Windows 2016 Standard
Network	Dual-port 1 Gigabit Ethernet
Display	Standard VGA display
Power Supplies	Dual redundant
Keyboard/Mouse	Not required beyond commissioning

VM requirement:

Characteristic	Recommended Specification
VM vCPU	4
VM vMemory	8 GB
Network	1x Virtual NIC connected to 1 GB network
vHDD	120 GB
VM Guest OS	Windows Server 2016

sQ Fileflow Engine

Characteristic	Recommended Specification
Processor	Dual Intel Xeon Gold 6132 (14 cores, 2.60 GHz, 19.25 MB L3 Cache)
Memory	64 GB (8x 8 GB DIMMs, DDR4, 2666 MHz, REG, ECC)
Graphics	None, use on-board graphics
Disk Drive	2x 240 GB SSDs configured as RAID-1
Sound Card	None required
Operating System	Windows 2016 Standard
Network	Dual-port 10 Gigabit Ethernet with Jumbo Frame support
Display	Standard VGA display
Power Supplies	Dual redundant
Keyboard/Mouse	Not required beyond commissioning

VM requirement:

Characteristic	Recommended Specification
VM vCPU	14
VM vMemory	28 GB
Network	1x Virtual NIC connected to 1 GB network
vHDD	120 GB
VM Guest OS	Windows Server 2016

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License Manager

The generic “Cost-effective” option is suitable:

Characteristic	Recommended Specification
Processor	Single Intel Xeon Bronze 3106 (8 cores, 1.70 GHz, 10.00 MB L3 cache)
Memory	16 GB (2x 8 GB DIMMs, DDR4, 2666 MHz, REG, ECC)
Graphics	Use on-board graphics
Disk Drive	2x 240 GB SSDs configured as RAID-1
Sound Card	None required
Operating System	Windows 2016
Network	Dual-port 10 Gigabit Ethernet
Display	1920x1080 display
Power Supplies	Dual redundant 750W recommended
Keyboard/Mouse	Standard mouse/keyboard

VM requirement:

Characteristic	Recommended Specification
VM vCPU	4
VM vMemory	8 GB
Network	1x Virtual NIC connected to 1 GB network
vHDD	120 GB
VM Guest OS	Windows 2016 standard

Media Transformer (ABR Streaming)

Characteristic	Recommended Specification
Processor	Dual Intel Xeon Silver 4110 (8 cores, 2.10 GHz, 11.00 MB L3 cache)
Memory	32 GB (4x 8 GB DIMMs, DDR4, 2666 MHz, REG, ECC)
Graphics	NVIDIA Quadro P4000
Disk Drive	2x 240 GB SSDs configured as RAID-1
Sound Card	None required
Operating System	Windows 2016 Standard
Network	Dual-port 10 Gigabit Ethernet with Jumbo Frames
Display	Standard VGA
Power Supplies	Dual redundant 750W recommended
Keyboard/Mouse	Standard mouse/keyboard

Media Transformer (Pass-through)

Characteristic	Recommended Specification
Processor	Dual Intel Xeon Gold 6132 (14 cores, 2.60 GHz, 19.25 MB L3 cache)
Memory	64 GB (8x 8 GB DIMMs, DDR4, 2666 MHz, REG, ECC)
Graphics	None, use on-board graphics
Disk Drive	2x 240 GB SSDs SATA 3 (6 Gb/s) configured as RAID-1
Sound Card	None required
Operating System	Windows 10 Pro Edition 64-bit
Network	Dual-port 10 Gigabit Ethernet with Jumbo Frames
Display	Standard VGA
Power Supplies	Dual redundant recommended
Keyboard/Mouse	Standard mouse/keyboard

LiveTouch

sQ LiveTouch Desktop Client

Characteristic	Recommended Specification
Processor	Intel Core i5-8500 (6 cores, 3.0 GHz, 9 MB L3 Cache)
Memory	16 GB (2x 8 GB, DDR4, 2666 MHz)
Graphics	CUDA capable GPU — NVIDIA Quadro P620, or greater
Disk Drive	500 GB, 7,200 HDD or 240 GB SSD minimum
Sound Card	Any Windows 10 compatible card
Operating System	Microsoft Windows 10 Pro Edition 64-bit
Network	1000 Base-T Ethernet with Jumbo Frame 9014 support
Display	Minimum 1920x1080 resolution
Keyboard/Mouse	Windows compatible keyboard and mouse

MOS Gateway

Use “Cost-effective” generic option on page 12:

Characteristic	Recommended Specification
VM vCPU	4
VM vMemory	8 GB
Network	1x Virtual NIC connected to 1 GB network
vHDD	120 GB
VM Guest OS	Windows 2010 Pro

Generic PC specifications

These may be used where product specifications specify Fast, Medium or Cost-effective platforms.

Fast

Characteristic	Recommended Specification
Processor	Dual Intel Xeon Gold 6132 (14 cores, 2.60 GHz, 19.25 MB L3 cache)
Memory	64 GB (8x 8 GB DIMMs, DDR4, 2666 MHz, REG, ECC)
Graphics	On-board, or Quadro P620 (product specific)
Disk Drive	2x 240 GB SSDs configured as RAID-1
Sound Card	None required
Operating System	Windows 2016 or Windows 10 Pro (product specific)
Network	Dual-port 10 Gigabit Ethernet with Jumbo Frame support
Display	Standard VGA display
Power Supplies	Dual redundant
Keyboard/Mouse	Not required beyond commissioning

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Medium

Characteristic	Recommended Specification
Processor	Dual Intel Xeon Silver 4114 (10 cores, 2.20 GHz, 13.74 MB L3 cache)
Memory	64 GB (8x 8 GB DIMMs, DDR4, 2666 MHz, REG, ECC)
Graphics	On-board or Quadro P620 (product specific)
Disk Drive	2x 240 GB SSDs configured as RAID-1
Sound Card	None required
Operating System	Windows 2016 or Windows 10 Pro (product specific)
Network	Dual-port 10 Gigabit Ethernet with Jumbo Frame support
Display	Standard VGA display
Power Supplies	Dual redundant
Keyboard/Mouse	Not required beyond commissioning

Cost-effective

Characteristic	Recommended Specification
Processor	Single Intel Xeon Bronze 3106 (8 cores, 1.70 GHz, 10.00 MB L3 cache)
Memory	16 GB (2x 8 GB DIMMs, DDR4, 2666 MHz, REG, ECC)
Graphics	On-board or Quadro P620 (product specific)
Disk Drive	2x 240 GB SSDs configured as RAID-1
Sound Card	None required
Operating System	Windows 2016 or Windows 10 Pro (product specific)
Network	Dual-port 10 Gigabit Ethernet with Jumbo Frame support
Display	Standard VGA display
Power Supplies	Dual redundant
Keyboard/Mouse	Not required beyond commissioning

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