071-8630-06

K2 Summit Production Client, K2 Solo Media Server, and K2 SAN Version 7.1.14 Release Notes & Upgrade Instructions

These release notes contain the most recent information and supersede previous publications, as of 11 February 2010. Check the Grass Valley website at *www.grassvalley.com/docs* for an updated version that contains additional important information.

These release notes contain information for the following:

- K2 Summit Production Clients with internal storage
- K2 Summit Production Clients with direct-connect storage
- K2 Solo Media Server
- The K2 Storage Area Network (SAN) with connected shared storage K2 Summit Production Clients

Documentation path to install K2 system with internal storage

Documentation path to install K2 client with shared or direct-connect storage

*Cabling Guide packed with RAID primary chassis

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Grass Valley Product Support

To get technical assistance, check on the status of a question, or to report a new issues, contact Grass Valley Product Support via e-mail, the Web, or by phone or fax.

Web Technical Support

To access support information on the Web, visit the product support Web page on the Grass Valley Web site. You can download software or find solutions to problems.

World Wide Web: http://www.grassvalley.com/support/

Technical Support E-mail Address: gvgtechsupport@grassvalley.com

Telephone Support

Use the following information to contact Product Support by phone.

International Support Centers

Our international support centers are available 24 hours a day, 7 days a week.

Support Center	Toll free	In country
France	+800 80 80 20 20	+33 1 48 25 20 20
United States	+1 800 547 8949	+1 530 478 4148

Authorized Local Support Representative

A local support representative may be available in your country. To locate a support center during normal local business hours, refer to the following list. This list is regularly updated on the website for Grass Valley Product Support

(http://www.grassvalley.com/support/contact/phone/)

After–hours local phone support is also available for warranty and contract customers.

Region	County	Telephone
Asia	China	+86 10 5883 7575
	Hong Kong, Taiwan, Korea, Macau	+852 2531 3058
	Japan	+81 3 6848 5561
	Southeast Asia - Malaysia	+603 7492 3303

Region	County	Telephone
	Southeast Asia - Singapore	+65 6379 1313
	India	+91 22 676 10300
Pacific	Australia	1 300 721 495
	New Zealand	0800 846 676
	For callers outside Australia or New Zealand	+61 3 8540 3650
Central America, South America	All	+55 11 5509 3440
North America	North America, Mexico, Caribbean	+1 800 547 8949; +1 530 478 4148
Europe	UK, Ireland, Israel	+44 118 923 0499
	Benelux – Netherlands	+31 (0) 35 62 38 421
	Benelux – Belgium	+32 (0) 2 334 90 30
	France	+800 80 80 20 20; +33 1 48 25 20 20
	Germany, Austria, Eastern Europe	+49 6150 104 444
	Belarus, Russia, Tadzhikistan, Ukraine, Uzbekistan	+7 095 258 09 20; +33 (0) 2 334 90 30
	Nordics (Norway, Sweden, Finland, Denmark, Iceland)	+45 40 47 22 37; +32 2 333 00 02
	Southern Europe – Italy	Rome: +39 06 87 20 35 28 ; +39 06 8720 35 42. Milan: +39 02 48 41 46 58
	Southern Europe – Spain	+34 91 512 03 50
	Switzerland	+41 56 299 36 32
Middle East, Near East, Africa	Middle East	+971 4 299 64 40
	Near East and Africa	+800 80 80 20 20; +33 1 48 25 20 20

Release Summary

What's new in version 7.1.14

This version of software includes several improvements, in addition to correcting some problems that were present in earlier releases.

- **AVC-Intra** — AVC-Intra 50/100 record/play is available as an option or as a field-kit upgrade. Requires HD license.
- **P2 Import Capture Service** — P2 material can be imported to K2 storage.
- **QuickTime MPEG export/stream** — The K2 system can export MPEG formats and stream MPEG Long GoP.
- **GPI** — The commands Take Next Event, and Take Next Scheduled Event are supported.
- **4 GB USB Recovery Drive** — A larger capacity recovery drive is available to ship on new systems sometime after this release.
- **K2 Summit drives** — A new family of drives for K2 Summit Production Client internal storage is available, with 600 GB and 450 GB capacities. 300 GB drives are no longer available.
- **K2 Summit/Solo drive firmware** — New systems have new drive firmware versions. If you are upgrading an existing system, you must upgrade to the new version. Refer to compatibility information later in these release notes.
- **External storage drives** — The Cheetah 7 family of drives for direct-connect and SAN storage is available, with 600 GB, 450 GB, and 300 GB capacities. Larger drive capacities require multiple LUNs per rank. Refer to *LUNs per RANK* on page 90 later in these release notes. For systems with multiple LUNs per RANK, expansion by bandwidth is supported. Expansion by capacity is not supported.
- **K2 Dyno Replay Controller** — The 1.5 Dyno software version is compatible with this release of K2 software. Refer to compatibility information later in these release notes.
- **Event Scheduler** — When licensed for Event Scheduler, the Event Monitor application is available. This application is a monitor-only application that displays the list of events scheduled in Event Server for a channel. The events must be scheduled by an application developed by a third party application developer. There is Start menu item and desktop icon for licensing Event Scheduler. Do not attempt to license Event Scheduler unless instructed to do so by Grass Valley or your application developer.
- **Documentation** – In addition to these release notes, use either of following with this release of K2 software:
  - K2 Documentation CD – 063-8289-02 – November 2009
  - K2 Documentation CD – 063-8289-03 – February 2010

Both CDs contain the same set of K2 Summit/SAN manuals that document this release of K2 software. K2 Documentation CD 063-8289-03 additionally provides a manual set for the 1.5 release of K2 Dyno software.

Feature limitations in this release

- No nested bin support with Aurora applications.

Not supported in this release

The following devices and functionality are not supported with 7.x versions of K2 software. Check with your Grass Valley representative regarding availability.

- K2 Media Client — Compatible with 3.x versions of K2 software only.

Changes and features in previous releases

The following sections describe changes and features in past releases.

Version 7.1.9

- **MPEG-2 play** — MPEG-2 Playback is a standard feature on all models, relative to current licensing. MPEG-2 SD Playback is standard with or without the HD license. MPEG-2 HD Playback is available only on systems that are licensed for HD.
- **MPEG-2 record** — MPEG-2 recording is a standard feature on MPEG models or as a field-kit upgrade, relative to current licensing. MPEG-2 SD recording is standard with or without the HD license. MPEG-2 HD recording is available only on systems that are licensed for HD.
- **Solid State Disks** — Solid State Disks (SSD) available.
- **Super out** — Timecode burn-in on monitor output. This is an AppCenter Pro feature.
- **AFD support** — Active Format Description (AFD) is supported for control of aspect ratio.
- **Ancillary data** — Support for SD ancillary data, including SD/HD data bridging.
- **Capture services** — The K2 Pathfire capture service and the K2 DG capture service are supported.
- **Security** — Based on Windows user accounts and groups, you can set permissions on bins and on channels.
- **SNFS** — Upgrade to SNFS version 3.5.1 is required. With this version there is a change to SNFS services, as displayed in the Service control panel. Also, on new systems and if you make a new file system on existing systems, the name that Storage Utility creates for the SNFS volume (the V: drive) is `gvfs_hostname`, where `hostname` is the name of the primary SNFS file system server.

- **QuickTime update** — Upgrade to QuickTime version 7.6 or higher is required.
- **Licensing for K2 system software** — When upgrading, version 7.1.9 K2 system software installs with a 30 day trial license. You must obtain a permanent license from Grass Valley. When upgrading to version 7.1.9, make sure that you carefully follow the upgrade and licensing procedures later in these release notes, so that licensing features are correctly installed.
- **2910al series switch** — A new Gigabit Ethernet switch, the "ProCurve Networking Switch 2910al Series" is qualified for use with K2 Storage Systems. Its use and configuration are the same as the existing 2900 series switch, as documented in the *K2 Storage Area Network Installation and Service Manual*.
- **K2 Coder** — The K2 Coder is supported on the K2 SAN. The K2 Coder compatible with this version of K2 software does not have watch folders pre-configured, so you must create them yourself, as documented in the *K2 Storage Area Network Installation and Service Manual*.
- **Preroll setting** — For mixed compression format playout (DV/MPEG/AVC-Intra), the preroll is increased to 1 second. For same compression format playout, preroll remains at 10 frames. This applies to AMP protocol, VDCP protocol, and Harris settings Disk Prerolls, Frames to send Play early, and Frames to send Record early. These specifications supersede those in the *K2 System Guide* part number 071-8726-00.

Version 7.0.13

- **K2 Media Servers** — Dell PowerEdge R710 and R610 are supported as K2 Media Server platforms.
- **Live Production option** — In K2Config, you can now create a Live Production K2 SAN. This type of SAN has a shorter minimum delay between start record and start playout when the record and play are on different SAN K2 Summit Production Clients. To support this feature, the K2 SAN must be sized for increased bandwidth. Contact your Grass Valley representative for specifications relative to your needs.

Version 7.0.12

- **K2 Dyno Reply Controller** — For live event replay, the K2 Dyno Replay System includes a K2 Dyno Controller and a K2 Summit Product Client.
- **Final Cut Pro support** — K2 FCP Connect is a licensable feature that allows your Macintosh Final Cut Pro system to become a K2 SAN iSCSI client. This enables edit in place functionality for K2 media via QuickTime reference files. Supports DV, IMX, HD, and XDCAM formats.

Version 7.0.11

- **K2 Summit Production Client** — This new product is a SD/HD K2 client for replay in sports, news, live, and live-to-tape applications. Its features are similar to the current K2 Media Client.

- **Live Play** — Extremely fast record-to-playout performance. Also known as Chase Play. Playout to within ½ second of record point.
- **DV formats** — Supports the DV25, DV50, and DV100 (DVCPROHD) P2 acquisition formats natively. Does not support MPEG.
- **Transition effects** — Dissolves and audio fades can be assigned to clip playout transitions. This is an AppCenter Pro feature.
- **Graphical User Interface design** — AppCenter has a gray/brown color scheme with improved buttons and fonts.
- **Media file system** — The file system with this release allows nested bins for better media management and is supported on the K2 Summit Production Client only. It is not supported on the K2 Media Client.
- **Write filter** — A file-based write filter prevents accidental or unintended changes. It must be disabled before changes are made and enabled after changes are made.
- **Metadata server role** — The role of metadata server replaces the role of media database server for a K2 Media Server. The metadata server role is required to support the media file system with this release.
- **AppCenter Video Monitor** — Active video is provided on a locally connected VGA monitor for AppCenter channels. You can also select the AppCenter view to display a four pane active video monitor of all four channels. This is an AppCenter Pro feature.
- **Modular channels** — Codec and real-time functionality is combined on a two channel module, allowing for two and four channel options.
- **CompactFlash** — The system drive is CompactFlash.

Version compatibility

Versions qualified for compatibility with this version 7.1.14 release of K2 software are summarized in the following sections.

Compatible K2 Summit Production Client and K2 Solo Media Server components

The following components reside on the K2 Summit Production Client and the K2 Solo Media Server and are compatible with this release of K2 software as listed in the following table. Compatible versions are pre-installed on the K2 system when you receive it new from Grass Valley.

Component versions

Component	Version	Comments
GrassValley K2 Client software	7.1.14	Includes AppCenter
Media File System (SNFS)	3.5.1.12630	—
SiteConfig Discovery Agent, also known as SiteConfig Network Configuration Connect Kit	1.0.8	This version is still compatible
	1.1 and higher	Upgrade to this version is enforced when deploying software with SiteConfig version 1.1 and higher
Windows Operating System	Windows XP embedded 2002 SP3	—
Windows update	2.0.50727.4022	—
Microsoft .NET Framework	2.0 SP2, 3.0 SP2, 3.5 SP1	—
QuickTime	7.6 and higher	—
Intel Network Connections	13.3	—
Microsoft iSCSI Initiator	2.08	—
MS XML	4.0 SP2, 6.0	—
MegaRAID Storage Manager (internal storage only)	v2.91-05	—

Component	Version	Comments
RAID controller microcode (internal storage only)	1.40.52-0629	Located in `C:\profile\microcode\LSI` directory. Filename is `SAS1078_FW_Image.rom`.
RAID disk drive firmware (Summit internal storage only) Hitachi ViperB drives	570	Upgrade required. Located in `C:\profile\microcode\Client_Firmware` directory. See table below for filenames.
RAID disk drive firmware (Summit internal storage only) Hitachi ViperC drives	510	Upgrade required. Located in `C:\profile\microcode\Client_Firmware` directory. See table below for filenames.
RAID disk drive firmware (Solo internal storage only)	4101	Upgrade required. Located in `C:\profile\microcode\Client_Firmware` directory. See table below for filenames.
LSI RAID controller driver (internal storage only)	3.10.0.32	—

K2 Summit Production Client internal storage drive firmware versions

Drive type	Drive size	Storage Utility Identifier	Version	Firmware file
ViperB	300GB	HUS154530VLS300	570	HITACHI_ViperB_15K_A570.bin
	450GB	HUS154545VLS300	570	HITACHI_ViperB_15K_A570.bin
ViperC	300GB	HUS156030VLS600	510	HITACHI_ViperC_15K_A510.bin
	450GB	HUS156045VLS600	510	HITACHI_ViperC_15K_A510.bin
	600GB	HUS156060VLS600	510	HITACHI_ViperC_15K_A510.bin

K2 Solo Media Server drive firmware versions

Drive size	Storage Utility Identifier	Version	Firmware file
136GB	MBE2147RC	4101	FUJITSU_15K_25_4101.frm

Compatible K2 Media Server components

The following components reside on the K2 Media Server and are compatible with this release of K2 software as listed in the following table. Compatible versions are pre-installed on the K2 Media Server when you receive it new from Grass Valley.

Component	Version	Comments
Grass Valley K2 Server software	7.1.14	—

Component	Version	Comments
Media File System (SNFS)	3.5.1.12630	—
SiteConfig Discovery Agent, also known as SiteConfig Network Configuration Connect Kit	1.0.8	This version is still compatible
	1.1 and higher	Upgrade to this version is enforced when deploying software with SiteConfig version 1.1 and higher
Windows Operating System	Windows 2003 Server	With the latest update
Microsoft .NET Framework	2.0 SP2, 3.0 SP2, 3.5 SP1	—
QuickTime	7.6 and higher	—
Adobe Acrobat Reader	7.0 and higher	—
ATI Display Driver	8.24.3.0	—
Dell OpenManage	5.3.0	—
J2SE Runtime Environment	6, Update 3	—
MSXML	4.0 and higher	—

Compatible K2 Control Point PC components

The following components reside on the K2 Control Point PC and are compatible with this release of K2 software as listed in the following table. Compatible versions are pre-installed on the K2 Control Point PC when you receive it new from Grass Valley.

Software	Version	Comments
K2 control point	7.1.14	—
Windows operating system	Server 2003 SP 1	—
NetCentral	5.0 and higher	—
SQL Server Express	2005	—
.NET Framework	1.1, 1.1 Hotfix, 2.0 SP2, 3.0 SP2, 3.5 SP1	—
QuickTime	7.6 and higher	—
MS XML	4.0	—
Windows Installer	3.1	—
SiteConfig Discovery Agent, also known as	1.0.8	This version is still compatible

Software	Version	Comments
SiteConfig Network Configuration Connect Kit	1.1 and higher	Upgrade to this version is enforced when deploying software with SiteConfig version 1.1 and higher
7-ZIP	—	—
Adobe Reader	9.0	—

Compatible HP ProCurve GigE switch components

Components that reside on the HP ProCurve 3400cl series GigE switch and the HP ProCurve 29xx series GigE switch are compatible with this release of K2 software as follows:

Product	Version	Comments
HP ProCurve 2910al series firmware	W_14_30	—
HP ProCurve 2900 series firmware	T.11.12	This older version is still compatible
	T.13.23	Upgrade to this version is recommended. Refer to *K2 SAN Installation and Service Manual* for QOS settings.
HP ProCurve 3400cl series firmware	M.08.66	This older version is still compatible
	M.08.86	Upgrade to this version is recommended

Compatible K2 Lx0 RAID components

This compatibility specification applies to the K2 RAID device on a Level 10, Level 20, Level 30 and Level 35 (both basic and redundant) K2 SAN. RAID firmware is compatible with this release of K2 software as follows:

Component	Version	File Name	Comments
Level 10/20 controller firmware for primary chassis with 15K SAS drives or SATA drives	07VS	D1_07VS.BIN	This version is still compatible for 300 and 450 GB drives
	07VV	D1_07VV.BIN	This version is still compatible for 300 and 450 GB drives
	07VW	D1_07VW.BIN	This version required for 600 GB drives, recommended for

Component	Version	File Name	Comments
			300 and 450 GB drives. Requires 050B for expansion chassis.
Level 10/20 controller firmware for expansion chassis with 15K SAS drives or SATA drives	030F	ENCL_030F.BIN	This version is still compatible for 300 and 450 GB drives with 07VS or 07VV controller firmware.
	050B	ENCL_050B.BIN	This version is compatible for 300 and 450 GB with 07VS, 07VV, or 07VW controller firmware. Required for 600 GB drives with 07VW controller firmware.
Level 10/20 controller firmware for primary chassis with 7.2K SAS drives	07VV	D1_07VV.BIN	7.2K SAS drives are used in K2 Production Storage and K2 Nearline Storage.
Level 10/20 controller firmware for expansion chassis with 7.2K SAS drives	050B	ENCL_050B.BIN	
Level 30/35 controller firmware for primary chassis with 15K SAS drives or SATA drives	07VS	D3_07VS.BIN	This version is still compatible for 300 and 450 GB drives
	07VV	D3_07VV.BIN	This version is still compatible for 300 and 450 GB drives
	07VW	D3_07VW.BIN	This version required for 600 GB drives, recommended for 300 and 450 GB drives. Requires 050B for expansion chassis.
Level 30/35 controller firmware for expansion chassis with 15K SAS drives or SATA drives	030F	ENCL_030F.BIN	This version is still compatible for 300 and 450 GB drives with 07VS or 07VV controller firmware.
	050B	ENCL_050B.BIN	This version is compatible for 300 and 450 GB with 07VS, 07VV, or 07VW controller firmware. Required for 600 GB drives with 07VW controller firmware.
Level 30/35 controller firmware for primary chassis with 7.2K SAS drives	07VV	D3_07VV.BIN	7.2K SAS drives are used in K2 Production Storage and K2 Nearline Storage.

Component	Version	File Name	Comments
Level 30/35 controller firmware for expansion chassis with 7.2K SAS drives	050B	ENCL_050B.BIN	

Find firmware on the K2 client (for direct-connect storage) or the K2 Media Server (for shared storage) at `C:\profile\microcode\NEC\Condor`.

Compatible K2 Lx0 RAID disk drive firmware

This compatibility specification applies to K2 RAID on a Level 10, Level 20, Level 30 and Level 35 (Condor) K2 SAN. Disk drive firmware is compatible with this release of K2 software as summarized in the following tables:

15K SAS Cheetah 5 drives compatible versions

Disk Drive	Storage Utility Identifier	Firmware Version	Comments
73G	ST373685SS	0002	—
146G	ST3146685SS	0002	—
300G	ST3300655SS	0002	—

15K SAS Cheetah 6 drives compatible versions

Disk Drive	Storage Utility Identifier	Firmware Version	Comments
146G	ST3146356SS	0004	This version is still compatible
		N005	This is the currently shipping version. Upgrade is recommended but not required.
300G	ST3300656SS	0004	This version is still compatible
		N005	This is the currently shipping version. Upgrade is recommended but not required.
450G	ST3450856SS	0004	This version is still compatible
		N005	This is the currently shipping version. Upgrade is recommended but not required.

15K SAS Cheetah 7 drives compatible versions

Disk Drive	Storage Utility Identifier	Firmware Version	Comments
300G	ST3300657SS	N005	This is the currently shipping version.
450G	ST3450857SS	N005	This is the currently shipping version.
600G	ST3600057SS	N005	This is the currently shipping version.

7.2K SAS drives compatible versions

Disk Drive	Storage Utility Identifier	Firmware Version	Comments
500G	ST3500620SS	N001	—
1TB	ST31000640SS	N001	—

Firmware file names

Disk Drive	Firmware Version	Firmware Type	Firmware File Name
Cheetah 5 15K SAS 73G	0002	Interface	CT15K5SAS.01_
		Servo	CT15K5SAS_73.__1
Cheetah 5 15K SAS 146G	0002	Interface	CT15K5SAS.01_
		Servo	CT15K5SAS_146.__1
Cheetah 5 15K SAS 300G	0002	Interface	CT15K5SAS.01_
		Servo	CT15K5SAS_300.__1
Cheetah 6 15K SAS 146G	0004	Interface/Servo	CH_15K6_SAS.N004
	N005	Interface/Servo	CH_15K6_SAS.N005
Cheetah 6 15K SAS 300G	0004	Interface/Servo	CH_15K6_SAS.N004
	N005	Interface/Servo	CH_15K6_SAS.N005
Cheetah 6 15K SAS 450G	0004	Interface/Servo	CH_15K6_SAS.N004
	N005	Interface/Servo	CH_15K6_SAS.N005
Cheetah 7 15K SAS 300G	N005	Interface/Servo	CH_15K7_SAS_ST3300657SS.N005[1]
Cheetah 7 15K SAS 450G	N005	Interface/Servo	CH_15K7_SAS_ST3450857SS.N005
Cheetah 7 15K SAS 600G	N005	Interface/Servo	CH_15K7_SAS_ST3600057SS.N005
7.2K SAS 500G	N001	Interface	BA_7K_ Interface.N001

[1] Do not use file CH_15K7_SAS.N005 for any drive

Disk Drive	Firmware Version	Firmware Type	Firmware File Name
		Servo	BA_7K_ ST3500620SS_ Servo.C30D
7.2K SAS 1TB	N001	Interface	BA_7K_ Interface.N001
		Servo	BA_7K_ ST31000640SS_ Servo.B30D

Be aware that Storage Utility can report inconsistent disk drive firmware versions. This can be a normal condition, since the RAID system supports multiple drive capacities and firmware versions. Be sure to compare the version numbers with this table, and update only as required.

Directory structures for firmware files are not identical on the K2 client (for direct-connect storage) or the K2 Media Server (for shared storage). Find firmware files at `C:\profile\microcode\NEC\Seagate` or `C:\profile\microcode\K2_L10-L40\DriveFW\SAS\Seagate`.

Compatible Grass Valley products

Grass Valley products are compatible with this version 7.1.14 release of K2 software as follows:

Product	Version	Comments
K2 Dyno Replay Controller	1.5.0	—
Aurora Browse	7.0	Check with your Grass Valley representative for version availability
Aurora Edit	7.0	
Aurora Ingest	7.0	
Aurora Playout	7.0	
Profile XP Media Platform	5.4.8 or higher	Media assets can be transferred to/from a Profile XP system but cannot be browsed.
NetCentral	5.0.0	—
SiteConfig application	1.3 or higher	—
UIM	2.1.1	—
K2 TimeDelay	7.1.0 or higher	—
K2 InSync	4.0.2 or 4.0.3	Check with your Grass Valley representative for version availability

Product	Version	Comments
K2 Avid plug-in	7.0.0	On the Avid Editor install the *K2AvidIngest* module and on the device that runs the Avid Transfer Manager/Interplay Engine install the *K2AvidDhm* module.
K2 FCP Connect	1.0.1	Refer to *K2 FCP Connect Release Notes* for additional version information.
K2-Aurora FTP	6.5.2.745	—

Compatible third party products

Products by manufacturers other than Grass Valley are compatible with this release of software as follows:

Product	Version	Comments
Pathfire Transfer Service	5.4.3.0	This version required for operation with the licensable K2 Pathfire capture service option.
DG	1.4.7.0 or higher	This version required for operation with the licensable K2 DG capture service option.

Compatible recovery applications

To create a recovery image of a K2 device, use compatible versions of the recovery application, as follows:

Product	Recovery application and version	Comments
K2 Summit Production Client	Recovery Flash Drive part number 86205900	Use the Recovery Flash Drive that you received with the product. It is identified with the product's serial number and is to be used on that specific K2 Summit Production Client only.

Product	Recovery application and version	Comments
K2 Media Server	Recovery CD part number 063-8246-04	—
Grass Valley Control Point PC	Recovery CD part number 063-8246-04	—

Upgrading K2 systems

This section contains the tasks necessary for the upgrade to this release of software.

NOTE: If installing an MPEG encode card or an AVC-Intra codec card field kit upgrade, do so after the K2 software upgrade, not before.

K2 software downgrade is supported only via the recovery image process. If you must downgrade and you do not have a recovery image at the desired software version, obtain a recovery image from Grass Valley Support.

Upgrading a K2 SAN

This section contains the tasks necessary to upgrade a K2 SAN to this release of K2 software. Work through the tasks sequentially to complete the upgrade.

NOTE: These upgrade instructions assume that the current K2 software is at version 7.0.11 or higher. If the current K2 software is a 7.x version lower than 7.0.11, contact Grass Valley Support before upgrading. If a K2 Media Client or any K2 device with current K2 software at a 3.x version, do not upgrade, as version 7.x is not supported on these devices.

NOTE: When upgrading from a version lower than 7.1, K2 system software installs with a 30 day trial license. You need a permanent license to operate beyond the trial period.

About upgrading the K2 SAN with SiteConfig

These topics apply to K2 SANs with instructions to upgrade software on the following K2 SAN devices.

- K2 Media Servers
- K2 Summit Production Clients

With these upgrade instructions, you use SiteConfig from a network connected control point PC and remotely upgrade software simultaneously on multiple K2 devices. This is the required process for software upgrades. Do not upgrade software on a K2 SAN locally at each device or via any other process.

To upgrade software using SiteConfig, you must first have SiteConfig set up for system management and software deployment of the K2 SAN. Refer to topics in the *K2 SAN Installation and Service Manual*. Also refer to the *SiteConfig User Manual* or *SiteConfig Help Topics*. Then you can follow the instructions in this section to upgrade software.

NOTE: Do not follow instructions in these release notes alone if this is the first time using SiteConfig for software upgrade. You must follow instructions in other documents first.

NOTE: Do not attempt to upgrade software incrementally across the devices of a K2 SAN while media access is underway. Online software upgrading is not supported.

The following installation tasks provide information specifically for the upgrade to this 7.1.14 version of software. Read the information in these sections carefully before attempting any upgrade to software on any of the devices of a K2 SAN, including K2 systems, Aurora Edit systems, or other clients.

Make recovery images

Do not do this task if:

- You previously made a recovery image at the current software version for each computer you are upgrading.

Do this task if:

- You do not have a recovery image at the current software version for one or more of the computers you are upgrading.

The recommended procedure is to make a recovery image immediately after a software upgrade. If you neglected to do this when you last upgraded software you should make the recovery image now, before upgrading to the new version.

Refer to the K2 product's *Service Manual* for recovery image procedures.

⚠ ***CAUTION: If you upgrade and then decide you do not want to stay with this version of K2 system software, you must use the recovery disk image process to downgrade to your previous version.***

Prepare SiteConfig for software deployment to K2 SAN devices

Do the following to prepare SiteConfig for the software upgrade.

1. Make the following files accessible to the SiteConfig control point PC:
   - K2 Summit Client SAN software installation (`*.cab`) file.
   - K2 Media Server software installation (`*.cab`) file.
   - Control Point software installation (`*.cab`) file.
2. If SNFS 3.5.1 is on C: on a K2 Media Server, procure the `35c235d.reg` file.
   If `C:\SNFS` exists on the K2 Media Server, then SNFS 3.5.1 is on the C: drive. In this case you must do special tasks in the upgrade process, for which the `35c235d.reg` file is required.
   The `35c235d.reg` file is on the version 7.1.14.xxxx K2 software CD in the SNFS directory. It can also be obtained at `http://www.grassvalley.com/downloads`.
3. If a newer version of SiteConfig is available for upgrade and you have not yet upgraded SiteConfig, do the following:
   a) From Windows Add/Remove programs, uninstall the current version of SiteConfig from the control point PC.

b) Install the new version of SiteConfig on the control point PC.

4. If not already present in the SiteConfig system description, configure deployment groups as follows:
   - A deployment group that contains your SAN K2 clients
   - A deployment group that contains your K2 Media Servers
   - A deployment group that contains your control point PC

Deploy control point PC software

Use SiteConfig to upgrade control point software on the K2 control point PC. In most cases, the K2 control point PC is also the SiteConfig control point PC, so you are in effect using SiteConfig to upgrade software on its own local system.

For this release of K2 software, the install task identifies the control point software in the Managed Package column as follows:

- GrassValleyControlPoint 7.1.14.xxxx

The software deployment process for the control point PC is similar to that used to upgrade software on other K2 devices. Use similar procedures and adjust accordingly to do the following:

1. Add the K2 control point software package to the deployment group that contains the control point PC.
2. Check software on the control point PC.
3. Configure and run deployment tasks to upgrade software.

Unlock K2 Summit Production Clients

This task disables the write filter on one or more K2 Summit Production Clients.

Prerequisites for this task are as follows:

- The device or all the devices in the group are communicating correctly in SiteConfig. This is indicated by the green star icon overlay.
- The device or all the devices in the group are currently locked. This is indicated by the gray lock icon overlay.

1. If you have not already done so, stop all media access on the K2 systems. This includes record, play, and transfer operations.
2. In either the **Network Configuration | Devices** tree view or the **Software Deployment | Deployment Groups** tree view, identify the device or the group of devices that you intend to unlock.
3. Right-click the device or the group and select **Unlock**.
   A "…may require restart…" message appears.
4. Click **Yes** to allow SiteConfig to restart the device or devices.

The Set Administrative Credentials dialog box opens.

5. Enter a username and password with administrator level privileges on the device or devices and click **OK**.

   The Unlocking Devices window opens and displays progress.

6. When the Unlocking Devices window reports that the unlock process completed successfully, click **Close**.

The device or devices are now unlocked. For K2 Summit Production Clients, this also disables the write filter, which enforces the restart.

Take SAN clients offline

When upgrading software on a K2 SAN, you upgrade software on K2 Media Servers before you upgrade software on the connected SAN clients. This includes K2 clients, K2 appliances, Aurora clients, and generic clients. While you are upgrading software on K2 Media Servers you must keep all connected client devices offline (all media access stopped) or shut down. Do not power up or start media access on connected devices until the upgrade on K2 Media Servers is complete and the media file system/database server is fully operational.

1. If you have not already done so, stop all media access on SAN clients. This includes all record, play, and transfer operations
2. For K2 Summit Production Clients, if you have not already done so, disable (unlock) the write filter.
3. Shutdown all the SAN K2 clients on the SAN. To do this in SiteConfig, right-click a client device in the tree view and select **Shutdown**.

Next upgrade K2 Media Servers. If you have multiple K2 Media Servers you must manage them properly for the upgrade process.

Manage multiple K2 Media Servers

Do not do this task if:

- You are upgrading a K2 SAN with only one K2 Media Server. Skip ahead and begin upgrading your K2 Media Server.

Do this task if:

- You are upgrading a basic (non-redundant) K2 SAN with multiple servers. This means you have just one K2 Media Server that takes the role of media file system/database server and one or more other K2 Media Servers dedicated to other roles, such as FTP server.
- You are upgrading a redundant K2 SAN. This means you have two K2 Media Servers (primary and backup) that take the role of media file system/database server.

NOTE: If the K2 SAN has multiple K2 Media Servers, you must upgrade all to the same version.

If you are upgrading a basic K2 SAN with multiple servers:

1. Upgrade the server that takes the role of media file system/database server first.
2. After the media file system/database server is upgraded and when instructed to do so in a later task, upgrade your other servers.

If you are upgrading a redundant K2 SAN:

Use the following steps to manage primary/backup roles and upgrade your two media file system/database servers in the proper sequence. This avoids triggering a failover event.

1. Determine the current primary/backup roles of the servers. You can use Server Control Panel (via the K2 System Configuration application or on the local K2 Media Server) or NetCentral to make this determination.
2. Shut down the backup server.
3. Upgrade the primary server.
4. Continue with tasks on your two K2 Media Servers that take the role of media file system/database server. If you have additional servers, upgrade them later, when instructed to do so in a later task.

Upgrade K2 Media Server

Prerequisites for the upgrade are as follows:

- You have access to the software installation files for this release. Procure the files via the appropriate distibution method, such as download, CD-ROM, network drive, or external drive.

Upgrade QuickTime

Do not do this task if:

- QuickTime is currently at version 7.6 or higher.

Do this task if:

- QuickTime is at a version lower than 7.6.

1. Access the QuickTime installation files.
2. Locate and open the following QuickTime install file:
   `QuickTimeInstaller-7.6.exe`
3. Work through the install wizard.
   Configure settings so that the software does not automatically update Quicktime and other Apple software.

NOTE: Unless instructed to do so by Grass Valley, do not update or install Apple software.

Accept the default destination folder and other default settings.

Configure GlobalSuperUser in SNFS default.cfg file on K2 Media Servers

In this task you open the media file system (SNFS) configuration file and verify/modify settings.

Do not do this task if:

- A K2 Solo Media Server
- The K2 system was installed new with the following K2 software version:
  - A 7.x version higher than 7.0.11

    At these versions, K2 tools (Storage Utility and K2Config) automatically configure settings as required.
  - — OR —
  - You have already modified the configuration file with the required settings.

Do this task if:

- You are upgrading from a current version of K2 software as follows:
  - Version 7.0.11
  - — OR —
  - You are not sure if the configuration file has already been modified with the required settings.

Prerequisites for this task are as follows:

- K2 systems must be offline

In this task you manually modify or add values to the media file system (SNFS) configuration file. You can do this and still keep your media file system intact if you carefully follow the steps in this procedure.

If you need to make a new file system after upgrading K2 software, the values are set automatically by the upgraded version of Storage Utility.

This task applies to the following devices:

- K2 Media Servers with role of file system server. If a redundant SAN, you must do this task on both primary and backup K2 Media Server.

1. Using Notepad, open the media file system (SNFS) configuration file:
   On a K2 Media Server, open `D:\SNFS\config\default.cfg`.
2. On a K2 Media Server, verify, and if necessary modify, settings for required values as follows:

```
# ********************************************************
# A global section for defining file system-wide parameters
# ********************************************************
GlobalSuperUser Yes
.
.
.
.
.
.

InodeDeleteMax 1000

.

BufferCacheSize 64M
.
.
.
.
InodeCacheSize 32K
```

3. Close, and if necessary save, the SNFS configuration file.

If you made changes, the K2 system must be restarted for the changes to take effect.

The restart later in this upgrade procedure is sufficient to put the changes into effect.

Configure Macintosh access in SNFS configuration file on K2 Media Servers

In this task you open the media file system (SNFS) configuration file and verify/modify settings.

Do not do this task if:

- The K2 SAN has no iSCSI or Fibre Channel connected Macintosh clients
- The K2 SAN has iSCSI connected or Fibre Channel connected Macintosh clients and Windows Security is configured to Yes on the SNFS file system.

Do this task if:

- The K2 SAN has iSCSI connected or Fibre Channel connected Macintosh clients and Windows Security is configured to No on the SNFS file system.

The Macintosh client connection requires K2 FCP Connect.

Prerequisites for this task are as follows:

- The K2 SAN must be offline

In this task you manually modify or add values to the media file system (SNFS) configuration file. You can do this and still keep your media file system intact if you carefully follow the steps in this procedure.

This task applies to the following devices:

- K2 Media Servers with role of file system server. If a redundant SAN, you must do this task on both primary and backup K2 Media Server.

1. Using Notepad, open the media file system (SNFS) configuration file:
   On a K2 Media Server, the configuration file can be either *D:\SNFS\config\default.cfg.* or *D:\SNFS\config\gvfs_hostname.cfg*, where *hostname* is the name of the primary FSM.
2. On a K2 Media Server, verify, and if necessary modify, settings for required values as follows:

```
# ********************************************************
# A global section for defining file system-wide parameters
# ********************************************************
.
.
WindowsSecurity No

UnixDirectoryCreationModeOnWindows 0777
UnixFileCreationModeOnWindows 0666
```

3. Close, and if necessary save, the SNFS configuration file.

If you made changes, the K2 system must be restarted for the changes to take effect.

The restart later in this upgrade procedure is sufficient to put the changes into effect.

If SNFS Is on C: uninstall SNFS manually

Do not do this task if:

- SNFS is on the D: drive of the K2 Media Server.

Do this task if:

- SNFS 3.5.1 is on the C: drive of the K2 Media Server. If *C:\SNFS* exists on the K2 Media Server, then SNFS 3.5.1 is on the C: drive.

1. If you have not already done so, procure the *35c235d.reg* file.
   The *35c235d.reg* file is on the version 7.1.14.xxxx K2 software CD in the SNFS directory. It can also be obtained at *http://www.grassvalley.com/downloads*.
2. Copy *35c235d.reg* to the local K2 Media Server.
3. On the local K2 Media Server open Windows **Add/Remove Programs** and uninstall SNFS.
4. Double-click *35c235d.reg* to run the file.

   The file resets registry entries in preparation for moving SNFS from C: to D:.
5. When prompted "Are you sure...", answer **Yes**.
6. When a message confirms the registry change, dismiss the message.
7. Restart the K2 Media Server.

Check all currently installed software on K2 Media Servers

Prerequisites for this task are as follows:

- The device is assigned in the SiteConfig system description and network connectivity is present.
- SiteConfig is able to log in to the device using the username/password credentials assigned to the device.
- The SiteConfig control point PC does not have a network drive mapped to an administrative share (such as C$) on a device on which you are checking software.
- If the SiteConfig Network Configuration Kit and/or Discovery Agent at version lower than 1.1.0.185 is currently installed, it must be manually uninstalled and updated. For more information refer to *SiteConfig Migration Instructions*.

Do the following steps on the K2 Media Serves that you are upgrading.

1. In the **Software Deployment | Deployment Groups** tree view, right-click the top-most node for the group or any individual device and select **Check Software**.

   NOTE: If you have access problems, verify that the adminstrator account on the device has credentials as currently configured in SiteConfig. By default credentials on the device should be administrator/adminGV! for Aurora devices and Administrator/adminK2 for K2 devices.

   The Check Software dialog box appears. SiteConfig searches for software on the selected device or devices and gathers information. Progress is reported.
2. When the check is complete for the selected device or devices, close the Check Software dialog box.

An updated list of all currently installed software is displayed in the **Software Deployment | Devices | Installed Software** list view. If software is a SiteConfig managed software package, information is displayed in the Managed Package and Deployment Group columns.

Related Links

About installing SiteConfig on page 88

Add software package to deployment group for K2 Media Servers

Prerequisites for this task are as follows:

- You can access the software package file from the SiteConfig control point PC.
- The K2 Media Servers to which you are deploying software are in a deployment group.

Use the following procedure to add one or more software packages to the deployment group that contains your K2 Media Servers. For this release of K2 software, identify and add software installation files as follows:

Software	File name
K2 Server software	*GrassValleyK2Server_7.1.14.xxxx.cab*

SNFS software is bundled with the K2 software cab file.

1. In the **Software Deployment | Deployment Groups** tree view, select a deployment group.
2. Click the **Add** button.

   The Add Package(s) dialog box opens.
3. Do one of the following to select the software package:

   - Select from the list of packages then click **OK**.
   - Click **Browse**, browse to and select the package, then click **Open**.

4. If one or more EULAs are displayed, accept them to proceed. If you do not accept a EULA, the associated software is not assigned to the deployment group.

   SiteConfig adds the package to the deployment group.

The package appears in the Managed Packages list for the selected deployment group. SiteConfig creates new software deployment tasks for the package and displays them in the Tasks list view.

Upgrade software on K2 Media Servers

Prerequisites for this task are as follows:

- The devices that you are upgrading are in a deployment group.
- For the software you are upgrading, you have added a newer version of that managed software package to the deployment group.
- If SNFS was on C:, you have uninstalled SNFS manually as instructed earlier in this upgrade procedure.
- You have recently done the SiteConfig "Check Software" operation on the devices you are upgrading.

If you are upgrading multiple software components for which there is a required sequence, you must check and uncheck tasks and run multiple deployment sessions to control the sequence. For some software components, SiteConfig aids you by enforcing dependencies. For each individual software component, SiteConfig enforces an uninstall of the current version of software before installing the upgrade version. SiteConfig can do the uninstall/install in a single deployment session. SiteConfig provides uninstall deployment tasks and install deployment tasks to indicate the taskflow.

1. In the **Software Deployment | Deployment Groups** tree view, select the device or the group of devices for which you are upgrading software.

   The corresponding software deployment tasks are displayed in the Tasks list view.

2. For the software you are uninstalling, select the **Deploy** check box in the row for the uninstall task.
3. For the software you are installing, select the **Deploy** check box in the row for the install task.

   For upgrading a K2 Media Server to this release, deploy the following tasks:

Deploy	Managed Package	Action
✓	GrassValleyK2Server xxxxx.xxxx	Uninstall
✓	GrassValleyK2Server 7.1.14.xxxx	Install

   Also, if SiteConfig automatically configures deployment tasks to upgrade (uninstall/install) SNFS, you must upgrade SNFS. Deploy the following tasks to K2 Media Servers with role of file system server:

Deploy	Managed Package	Action
✓	SNFS xxxxxx	Uninstall
✓	SNFS 3.5.1.12630	Install

   If you previously uninstalled SNFS manually and then did a Check Software operation, only the install task is present.

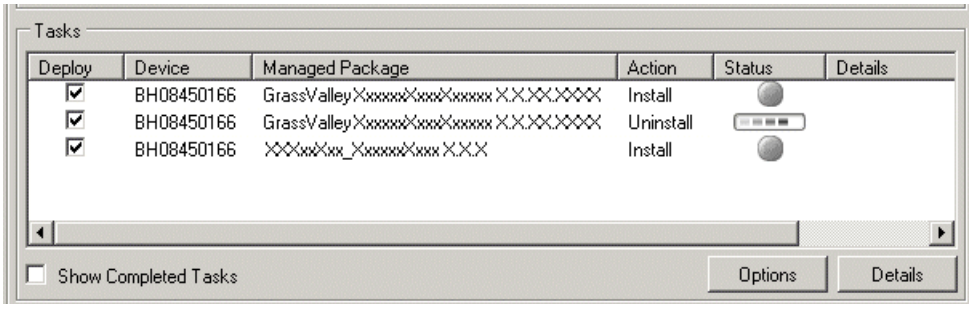
   If using K2-Aurora FTP and an upgrade to a compatible version is required, deploy the K2-Aurora FTP software while you are upgrading K2 software.

   NOTE: If there are dependencies, SiteConfig can enforce that some tasks be deployed together.

4. Check the area next to the Start Deployment button for a message.

   If a message instructs you to upgrade the Discovery Agent, on the control point PC go to the directory to which SiteConfig is installed, find the `DiscoveryAgent_x.x.x.x.cab` file, add it to the deployment group, and deploy the Discovery Agent software as well.

5. Click the **Start Deployment** button.



Deployment tasks run and software is uninstalled. Progress is reported and next steps are indicated in both the Status and Details columns. If an error appears regarding prerequisite software, install the prerequisite files on the control point PC and then repeat this step.

6. When the Status or Details columns indicate next steps, identify the software in the row, then proceed as follows:

   - For K2 software, when Details displays a **Restart required** link, click the link and when prompted "...are you sure...", click **Yes**.

   The K2 Media Server restarts. This restart is required by the K2 software uninstall.

   Deployment tasks run and software is installed. Progress is reported and next steps are indicated in both the Status and Details columns.

7. When the Status or Details columns indicate next steps, identify the software in the row, then proceed as follows:

   - For K2 software, when Details displays a **Restart required** link, click the link and when prompted "...are you sure...", click **Yes**.

   The K2 Media Server restarts. This restart is required by the K2 software install.

8. Monitor progress as indicated by both the Status and Details column. When finished, the Status column indicates complete.
9. If you previously uninstalled SNFS manually because SNFS was on C:, copy directories/files from C: to D:, overwriting files on D:, as follows.
   a) Copy the `C:\SNFS\config` directory to `D:\SNFS\config`.
   b) Copy the `C:\SNFS\data` directory to `D:\SNFS\data`. This directory can be large, so allow adequate time to complete the copy operation.
   c) A restart is required to put the change into effect. If you do a subsequent upgrade task that also requires a restart, that restart is sufficient. Otherwise restart now.
   d) After the entire K2 SAN upgrade process is complete, test media access. If successful, delete the `C:\SNFS` directory and its files on the K2 Media Server.

Upgrade RAID controller microcode

Do not do this task if:

- The K2 SAN is a Level 10, 20, 30, or 35 SAN with RAID controller and expansion chassis microcode already at compatible versions, as listed in *Compatible K2 Lx0 RAID components* on page 13 earlier in these release notes.
- The K2 SAN is a Level 2 or Level 3 SAN.

Do this task if:

- The K2 SAN is a Level 10, 20, 30, or 35 SAN with RAID controller and/or expansion chassis microcode at a version that is not compatible.

The microcode files are copied on to the K2 Media Server when the K2 system software is installed.

1. Refer to the K2 Lx0 RAID compatibility specifications earlier in these release notes for the version to which you must upgrade and for the file names for the microcode files.
2. From the K2 Media Server, use Storage Utility to upgrade microcode.
   Refer to the *K2 SAN Installation and Service Manual* for procedures.
3. On 100% completion, proceed as follows:
   - If the RAID controller chassis has redundant controllers, no power cycle is required. The microcode download is complete.
   - If the RAID controller chassis does not have redundant controllers, power cycle the RAID controller chassis, then restart the K2 Media Server.

Related Links

Compatible K2 Lx0 RAID components on page 13

Upgrade RAID disk drive firmware

Do not do this task if:

- The K2 SAN is a Level 2 or Level 3 SAN.
- The K2 SAN is a Level 10, 20, 30, or 35 SAN (Condor) but you do not need to upgrade the disk drive firmware.

Do this task if:

- The K2 SAN is a Level 10, 20, 30, or 35 SAN (Condor) and you need to upgrade the disk drive firmware.

Refer to *Compatible K2 Lx0 RAID disk drive firmware* on page 15 earlier in these release notes.

Prerequisites:

- The RAID system is offline.
- Only the primary K2 Media Server is powered up.

- K2 software has been upgraded on the K2 Media Server. The firmware files are copied onto the K2 Media Server when the K2 software is installed.

1. Determine if disk drive firmware upgrades are required as follows:
   a) Select a disk drive icon in the Storage Utility tree view, then note the drive properties reported in the right-hand pane.
   b) Refer to the K2 Lx0 RAID compatibility specifications earlier in these release notes for drive-type identifiers and firmware versions.
2. If an upgrade is required, continue with this procedure to download disk drive firmware as detailed in compatibility specifications.
   Refer to the *K2 SAN Installation and Service Manual* for complete procedures.
3. In Storage Utility, right-click a controller in the tree view, then select **Advanced | Download Disk Firmware** in the context menu.

   NOTE: You can download firmware to a single disk by right-clicking a disk icon in the tree view.

   The Open File dialog box opens.
4. In the Open File dialog box, browse to the desired firmware file for your disks, select the file, and click **OK**.
   As instructed by a message that appears, watch the lights on the drives. For each drive, one at a time, the lights flash as firmware loads. Wait until the lights on all the drives on which you are downloading firmware have completed their flashing pattern. This can take several minutes.

   The Progress Report window appears showing the disk firmware download task and the percentage complete.
5. When finished, restart the K2 Media Server.

Related Links

Compatible K2 Lx0 RAID disk drive firmware on page 15

Manage redundancy on K2 Media Servers

Do not do this task if:

- You are upgrading a basic (non-redundant) K2 SAN. This means you have just one K2 Media Server that takes the role of media file system/database server. Skip ahead and begin upgrading your other K2 Media Servers or SAN K2 clients.

Do this task if:

- You are upgrading a redundant K2 SAN. To prevent triggering failover mechanisms, you must manage primary/backup roles as instructed.

If primary upgrade only is complete

If you have completed the upgrade to the primary server but you have not yet upgraded the backup server, do the following:

1. Make sure the backup server is still shut down.
2. Put the primary server in service as follows:
   a) On the primary server, run Server Control Panel. You can do this at the local server or through the K2 System Configuration application.
   b) Use the **Start** button on Server Control Panel. This makes the primary server qualified to take the role of media file system/database server.
   c) Make sure that Server Control Panel shows green LEDs and that the server on which you have upgraded software is indeed the current primary server.
3. Power up the backup server. Wait until startup processes complete before continuing.
   The Failover Monitor should currently be off, as this is the normal state of the service at system startup.

Next upgrade the backup server. Perform all K2 Media Server upgrade tasks on the backup server.

If primary and backup upgrades are complete

If you have completed the upgrade to both the primary and backup servers, do the following:

1. Make sure the primary server is powered up.
2. Run Server Control Panel. You can do this at the local server or through the K2 System Configuration application. Make sure Server Control Panel shows green LEDs and that the first server on which you upgraded software is still the current primary server.
3. Put the backup server in service as follows:
   a) Run Server Control Panel. You can do this at the local server or through the K2 System Configuration application.

      The Failover Monitor should currently be off on the backup server, as this is the normal state of the service at system startup.
   b) Use the **Start** button on Server Control Panel. This makes the backup server qualified to take the role of media file system/database server.
   c) Make sure that Server Control Panel shows green LEDs and that servers are correctly taking primary/backup roles.

Next upgrade any remaining K2 Media Servers.

Upgrade remaining K2 Media Servers

Do not do this task if:

- All the K2 Media Servers on the K2 SAN have been upgraded.

Do this task if:

- There are K2 Media Servers that do not take the role of media file system/database server on the K2 SAN that have not yet been upgraded.

Perform all upgrade tasks on the remaining K2 Media Servers.

When all the K2 Media Servers on the K2 SAN have been upgraded, next upgrade connected K2 clients.

Upgrade K2 client

Work through the following topics sequentially to upgrade K2 clients.

Prepare for K2 system upgrade

Before upgrading K2 systems, do the following:

- Procure the software installation files for this release via the appropriate distribution method, such as download, CD-ROM, network drive, or external drive.
- Start up the K2 systems you are upgrading, if they are not already started.
- For K2 Summit Production Client or K2 Solo Media Server, if you have not already done so, disable (unlock) the write filter.
- Stop all media access on K2 systems.
- Shut down all applications on K2 systems.

Upgrade QuickTime

Do not do this task if:

- QuickTime is currently at version 7.6 or higher.

Do this task if:

- QuickTime is at a version lower than 7.6.

1. Access the QuickTime installation files.
2. Locate and open the following QuickTime install file:
   `QuickTimeInstaller-7.6.exe`
3. Work through the install wizard.
   Configure settings so that the software does not automatically update Quicktime and other Apple software.

   NOTE: Unless instructed to do so by Grass Valley, do not update or install Apple software.

Accept the default destination folder and other default settings.

Check all currently installed software on SAN K2 clients

Prerequisites for this task are as follows:

- The device is assigned in the SiteConfig system description and network connectivity is present.
- SiteConfig is able to log in to the device using the username/password credentials assigned to the device.
- The SiteConfig control point PC does not have a network drive mapped to an administrative share (such as C$) on a device on which you are checking software.
- If the SiteConfig Network Configuration Kit and/or Discovery Agent at version lower than 1.1.0.185 is currently installed, it must be manually uninstalled and updated. For more information refer to *SiteConfig Migration Instructions*.

Do the following steps on the SAN K2 clients that you are upgrading.

1. In the **Software Deployment | Deployment Groups** tree view, right-click the top-most node for the group or any individual device and select **Check Software**.

   NOTE: If you have access problems, verify that the adminstrator account on the device has credentials as currently configured in SiteConfig. By default credentials on the device should be administrator/adminGV! for Aurora devices and Administrator/adminK2 for K2 devices.

   The Check Software dialog box appears. SiteConfig searches for software on the selected device or devices and gathers information. Progress is reported.
2. When the check is complete for the selected device or devices, close the Check Software dialog box.

An updated list of all currently installed software is displayed in the **Software Deployment | Devices | Installed Software** list view. If software is a SiteConfig managed software package, information is displayed in the Managed Package and Deployment Group columns.

Related Links

About installing SiteConfig on page 88

Add software package to deployment group for SAN K2 clients

Prerequisites for this task are as follows:

- You can access the software package file from the SiteConfig control point PC.
- The SAN K2 clients to which you are deploying software are in a deployment group.

Use the following procedure to add one or more software packages to the deployment group that contains your SAN K2 clients. For this release of K2 software, identify and add software installation files as follows:

Software	File name
K2 Client software	*GrassValleyK2SummitSANClient_7.1.14.xxxx.cab*

SNFS software is bundled with the K2 software cab file.

1. In the **Software Deployment | Deployment Groups** tree view, select a deployment group.
2. Click the **Add** button.

   The Add Package(s) dialog box opens.
3. Do one of the following to select the software package:

   - Select from the list of packages then click **OK**.
   - Click **Browse**, browse to and select the package, then click **Open**.

4. If one or more EULAs are displayed, accept them to proceed. If you do not accept a EULA, the associated software is not assigned to the deployment group.

   SiteConfig adds the package to the deployment group.

The package appears in the Managed Packages list for the selected deployment group. SiteConfig creates new software deployment tasks for the package and displays them in the Tasks list view.

Upgrade software on SAN K2 clients

Prerequisites for this task are as follows:

- The devices that you are upgrading are in a deployment group.
- For the software you are upgrading, you have added a newer version of that managed software package to the deployment group.
- You have recently done the SiteConfig "Check Software" operation on the devices you are upgrading.
- For the K2 Summit Production Client, the write filter is disabled (unlocked).

If you are upgrading multiple software components for which there is a required sequence, you must check and uncheck tasks and run multiple deployment sessions to control the sequence. For some software components, SiteConfig aids you by enforcing dependencies. For each individual software component, SiteConfig enforces an uninstall of the current version of software before installing the upgrade version. SiteConfig can do the uninstall/install in a single deployment session. SiteConfig provides uninstall deployment tasks and install deployment tasks to indicate the taskflow.

1. In the **Software Deployment | Deployment Groups** tree view, select the device or the group of devices for which you are upgrading software.

   The corresponding software deployment tasks are displayed in the Tasks list view.

2. For the software you are uninstalling, select the **Deploy** check box in the row for the uninstall task.
3. For the software you are installing, select the **Deploy** check box in the row for the install task.

   For upgrading SAN K2 clients to this release, deploy the following tasks:

Deploy	Managed Package	Action
✓	GrassValleyK2SummitSANClient xxxx.xxxx	Uninstall
✓	GrassValleyK2SummitSANClient 7.1.14.xxxx	Install
✓	WFRegMon_SummitSANClient x.x.x	Install (there is no uninstall task for this software)

   Also, if SiteConfig generates deployment tasks to upgrade SNFS, you must upgrade SNFS. Deploy the following tasks at the same time:

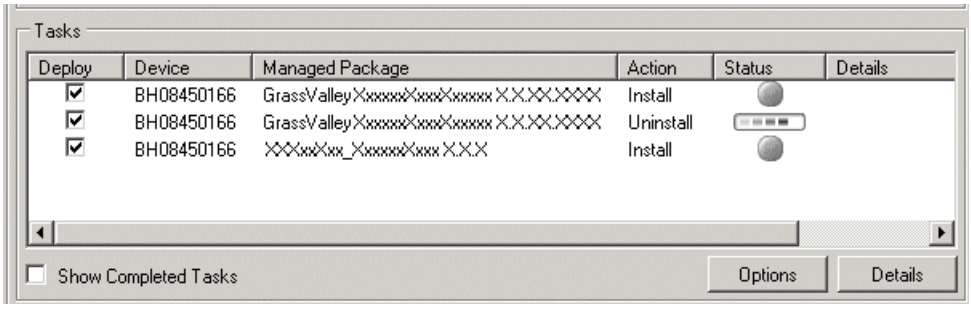
Deploy	Managed Package	Action
✓	SNFS Summit xxxxxx	Uninstall
✓	SNFS Summit 3.5.1.12630	Install

   NOTE: If there are dependencies, SiteConfig can enforce that some tasks be deployed together.

4. Check the area next to the Start Deployment button for a message.

   If a message instructs you to upgrade the Discovery Agent, on the control point PC go to the directory to which SiteConfig is installed, find the *DiscoveryAgent_x.x.x.x.cab* file, add it to the deployment group, and deploy the Discovery Agent software as well.

5. Click the **Start Deployment** button.



Deployment tasks run and software is uninstalled. Progress is reported and next steps are indicated in both the Status and Details columns. If an error appears regarding prerequisite software, install the prerequisite files on the control point PC and then repeat this step.

If upgrading both K2 and SNFS software, SiteConfig uninstalls both in the proper sequence.

6. When the Status or Details columns indicate next steps, identify the software in the row, then proceed as follows:
   - For SNFS software, when Details displays a **Restart required** link, click the link and when prompted "...are you sure...", click **Yes**. After this restart, continue with other restarts as indicated.
   - For K2 software, if the version from which you are upgrading is lower than 7.1.0.1153, power cycle the system. Do not restart. Do not click the **Restart required** link displayed in Details. You must shutdown/powerup then **Set Restart Complete**.
   - For K2 software, if the version from which you are upgrading is 7.1.0.1153 or higher, when Details displays a **Restart required** link, click the link and when prompted "...are you sure...", click **Yes**.
7. Monitor progress as indicated by both the Status and Details column. When finished, the Status column indicates complete.

Related Links

Upgrade software on stand-alone K2 systems on page 49
Power cycle K2 system on page 51

Power cycle K2 system

Do not do this task if:

- The standard, SiteConfig-supported Restart operation is sufficient for the required restart after installing software.

Do this task if:

- You must power cycle, rather than restart, the K2 system after installing software.

When you must shutdown and then power up a device, rather than restart the device, you must use a combination of SiteConfig and manual operations.

1. In the tree-view, right-click the device and select **Shutdown**.
   SiteConfig initiates the Windows shutdown operation on the device and the device powers off.
2. At the local device, verify that shutdown operations are complete, then press the standby button or otherwise manually power up the device.
   The device starts up.
3. Verify that startup operations are complete on the device.
4. In SiteConfig, in the tree-view, right-click the device and select **Set Restart Complete**.
   This re-synchronizes SiteConfig regarding the current state of the device. If software deployment tasks were waiting for the restart to occur, SiteConfig now allows them to proceed.

Install Windows update

Do not do this task if:

- A K2 Solo Media Server
- A K2 Summit Production Client installed new with K2 software version 7.1.x or higher, in which case Windows update version 2.0.50727.4022 is pre-installed.
- A K2 Summit Production Client already upgraded to Windows update version 2.0.50727.4022.

Do this task if:

- A K2 Summit Production Client with Windows update at a version lower than 2.0.50727.4022.

NOTE: Do not install general Windows updates as available from Microsoft. Update only as directed by Grass Valley.

1. If you are not sure of the Windows update version currently installed, do the following:
   a) Navigate to `C:\Windows\Microsoft.NET\Framework\v2.0.50727`.
   b) Check file properties as follows:

File name	File version	File size	Date	Time	Platform
mscordacwks.dll	2.0.50727.4022	989,000	11-Mar-2009	04:56	x86
mscorlib.dll	2.0.50727.4022	4,550,656	11-Mar-2009	04:56	x86
mscorwks.dll	2.0.50727.4022	5,812,544	11-Mar-2009	04:56	x86
sos.dll	2.0.50727.4022	388,936	11-Mar-2009	04:56	x86

   c) If the update is necessary, continue with this procedure.

2. Access the upgrade files and double-click `NDP20SP2-KB968760-x86.exe`.

   The installation wizard opens.
3. Work through the wizard, accepting all default settings, and finish.
4. Restart as prompted.

Lock K2 Summit Production Clients

This task enables the write filter on a K2 Summit Production Client or on a group of K2 Summit Production Clients.

Prerequisites for this task are as follows:

- The device or all the devices in the group are communicating correctly in SiteConfig. This is indicated by the green star icon overlay.
- The device or all the devices in the group are currently unlocked. This is indicated by the red lock icon overlay.

1. In the **Network Configuration | Devices** tree view or the **Software Deployment | Deployment Groups** tree view, identify the device or the group of devices that you intend to lock.
2. Right-click the device or the group and select **Lock**.
   A "…may require restart…" message appears.
3. Click **Yes** to allow SiteConfig to restart the device or devices.

   The Locking Devices window opens and displays progress.
4. When the Locking Devices window reports that the lock process completed successfully, click **Close**.

The device or devices are now locked. For K2 Summit/Solo, this also enables the write filter, which enforces the restart.

Install MPEG-2/AVC-Intra field kit

If you are installing an MPEG-2 or AVC-Intra field kit upgrade on one or more or your K2 Summit Production Clients or K2 Solo Media Servers, do so now. Follow the procedure in the Field Kit Upgrade Instructions document that you received with the field kit.

Upgrade Aurora Edit, Ingest, and Playout systems

Prerequisites for this task are as follows:

- K2 systems are upgraded to the compatible version of K2 system software.
- All Aurora Browse and MediaFrame devices are offline (all media access stopped) or shut down.

Upgrade your Aurora Edit, Ingest, and Playout systems to the compatible versions of software. Refer to each Aurora product's release notes for procedures.

Upgrade NAS systems

Prerequisites for this task are as follows:

- K2 systems are upgraded to the compatible version of K2 system software.
- Aurora Edit, Ingest, and Playout systems are upgraded to the compatible versions of software.

Upgrade the MediaFrame Proxy NAS (K2 Nearline SAN) to the compatible version of K2 software. Use SiteConfig and deploy software, using steps similar to those for other systems.

a) Check software on the Nearline SAN's K2 Media Servers.
b) Add software `*.cab` file to the deployment group that contains the K2 Media Servers.
c) Upgrade software on K2 Media Servers via a SiteConfig deployment session.

Upgrade Browse and MediaFrame systems

Prerequisites for this task are as follows:

- K2 systems are upgraded to the compatible version of K2 system software.
- Aurora Edit, Ingest, and Playout systems are upgraded to the compatible versions of software.
- K2 Nearline SAN (NAS) systems are upgraded to the compatible version of K2 system software.

Upgrade your Browse and MediaFrame systems to the compatible versions of software. Refer to *Aurora Browse Release Notes* for procedures.

Upgrade other SAN clients

Do this task if:

- You have clients on the K2 SAN that have not yet been upgraded. This is the case if you have K2 appliances or other products that use the shared storage of the K2 SAN.

Prerequisites for this task are as follows:

- You have access to the software installation files for this release. Procure the files via the appropriate distibution method, such as download, CD-ROM, network drive, or external drive.

Refer to upgrade procedures for K2 clients and similarly upgrade all remaining client devices on the K2 SAN.

NOTE: You must restart after installing K2 software.

Make recovery images

After you have upgraded software as instructed in these procedures and verified that your system is working properly, you should always make a recovery image of each of your upgraded computers. Use a sequence of events similar to those you followed for upgrading software, so that as you take systems offline you manage redundancy, servers, and clients, as appropriate for your system.

Upgrading stand-alone K2 systems with SiteConfig

This section contains the tasks for using SiteConfig to upgrade stand-alone K2 systems to this release of K2 software.

Work through the tasks sequentially to complete the upgrade.

NOTE: These upgrade instructions assume that the current K2 software is at version 7.0.11 or higher. If the current K2 software is a 7.x version lower than 7.0.11, contact Grass Valley Support before upgrading. If a K2 Media Client or any K2 device with current K2 software at a 3.x version, do not upgrade, as version 7.x is not supported on these devices.

NOTE: When upgrading from a version lower than 7.1, K2 system software installs with a 30 day trial license. You need a permanent license to operate beyond the trial period.

About upgrading stand-alone K2 systems with SiteConfig

These upgrade instructions apply to stand-alone K2 systems as follows:

- K2 Summit Production Client internal storage
- K2 Summit Production Client direct-connect storage
- K2 Solo Media Server

With these upgrade instructions, you use SiteConfig from a network connected control point PC and remotely upgrade software simultaneously on multiple K2 systems.

NOTE: A control point PC is required.

This is the recommended process for software upgrades. If you choose to upgrade manually instead, you can go to each local K2 system and use keyboard, monitor, and mouse to upgrade software. You can find instructions for a manual upgrade without SiteConfig at *Upgrading stand-alone K2 systems with SiteConfig* on page 43 in these release notes.

To upgrade software using SiteConfig, you must first have SiteConfig set up for system management and software deployment. Refer to topics in the *K2 System Guide* to

manage your stand-alone K2 systems with SiteConfig. Also refer to the *SiteConfig User Manual* or *SiteConfig Help Topics*.

NOTE: Do not follow instructions in these release notes alone if this is the first time using SiteConfig for software upgrade. You must follow instructions in other documents first.

The following installation tasks provide information specifically for the upgrade to this version of 7.1.14 software. Read the information in these sections carefully before attempting any upgrade to software on a stand-alone K2 system.

Related Links

Upgrading stand-alone K2 systems without SiteConfig on page 62

Make recovery images

Do not do this task if:

- You previously made a recovery image at the current software version for each computer you are upgrading.

Do this task if:

- You do not have a recovery image at the current software version for one or more of the computers you are upgrading.

The recommended procedure is to make a recovery image immediately after a software upgrade. If you neglected to do this when you last upgraded software you should make the recovery image now, before upgrading to the new version.

Refer to the K2 product's *Service Manual* for recovery image procedures.

⚠ ***CAUTION: If you upgrade and then decide you do not want to stay with this version of K2 system software, you must use the recovery disk image process to downgrade to your previous version.***

Prepare for K2 system upgrade

Before upgrading K2 systems, do the following:

- Procure the software installation files for this release via the appropriate distribution method, such as download, CD-ROM, network drive, or external drive.
- Start up the K2 systems you are upgrading, if they are not already started.
- For K2 Summit Production Client or K2 Solo Media Server, if you have not already done so, disable (unlock) the write filter.
- Stop all media access on K2 systems.
- Shut down all applications on K2 systems.

Upgrade QuickTime

Do not do this task if:

- QuickTime is currently at version 7.6 or higher.

Do this task if:

- QuickTime is at a version lower than 7.6.

1. Access the QuickTime installation files.
2. Locate and open the following QuickTime install file:
   `QuickTimeInstaller-7.6.exe`
3. Work through the install wizard.
   Configure settings so that the software does not automatically update Quicktime and other Apple software.

   NOTE: Unless instructed to do so by Grass Valley, do not update or install Apple software.

   Accept the default destination folder and other default settings.

Configure SNFS default.cfg file on stand-alone K2 system

In this task you open the media file system (SNFS) configuration file and verify/modify settings.

Do not do this task if:

- A K2 Solo Media Server
- The K2 system was installed new with the following K2 software version:
  - A 7.x version higher than 7.0.11

    At these versions, K2 tools (Storage Utility and K2Config) automatically configure settings as required.

  - — OR —
  - You have already modified the configuration file with the required settings.

Do this task if:

- You are upgrading from a current version of K2 software as follows:
  - Version 7.0.11
  - — OR —
  - You are not sure if the configuration file has already been modified with the required settings.

Prerequisites for this task are as follows:

- K2 systems must be offline

In this task you manually modify or add values to the media file system (SNFS) configuration file. You can do this and still keep your media file system intact if you carefully follow the steps in this procedure.

- Stand-alone K2 Summit Production Clients. This includes internal storage and direct-connect storage K2 Summit Production Clients.

  NOTE: Make sure the write filter is disabled.

1. Using Notepad, open the media file system (SNFS) configuration file:

   On a stand-alone K2 Summit Production Client, open *C:\SNFS\config\default.cfg.*

2. On a stand-alone K2 system, verify, and if necessary modify, settings for required values as follows:

```
# ********************************************************
# A global section for defining file system-wide parameters
# ********************************************************
GlobalSuperUser Yes
.
.
.
.
.
.

InodeDeleteMax 1000
```

3. Close, and if necessary save, the SNFS configuration file.

If you made changes, the K2 system must be restarted for the changes to take effect.

The restart later in this upgrade procedure is sufficient to put the changes into effect.

Prepare SiteConfig for software deployment to stand-alone K2 systems

Do the following to prepare SiteConfig for the software upgrade.

1. Make the following files accessible to the SiteConfig control point PC:
   - K2 Summit Client Standalone software installation (**.cab*) file.
2. If a newer version of SiteConfig is available for upgrade and you have not yet upgraded SiteConfig, do the following:
   a) From Windows Add/Remove programs, uninstall the current version of SiteConfig from the control point PC.
   b) Install the new version of SiteConfig on the control point PC.
3. If not already present in the SiteConfig system description, configure deployment groups as follows:
   - A deployment group that contains your stand-alone K2 systems

- A deployment group that contains your control point PC

Check all currently installed software on stand-alone K2 systems

Prerequisites for this task are as follows:

- The device is assigned in the SiteConfig system description and network connectivity is present.
- SiteConfig is able to log in to the device using the username/password credentials assigned to the device.
- The SiteConfig control point PC does not have a network drive mapped to an administrative share (such as C$) on a device on which you are checking software.
- If the SiteConfig Network Configuration Kit and/or Discovery Agent at version lower than 1.1.0.185 is currently installed, it must be manually uninstalled and updated. For more information refer to *SiteConfig Migration Instructions*.

Do the following steps on the stand-alone K2 systems that you are upgrading.

1. In the **Software Deployment | Deployment Groups** tree view, right-click the top-most node for the group or any individual device and select **Check Software**.

   NOTE: If you have access problems, verify that the adminstrator account on the device has credentials as currently configured in SiteConfig. By default credentials on the device should be administrator/adminGV! for Aurora devices and Administrator/adminK2 for K2 devices.

   The Check Software dialog box appears. SiteConfig searches for software on the selected device or devices and gathers information. Progress is reported.
2. When the check is complete for the selected device or devices, close the Check Software dialog box.

An updated list of all currently installed software is displayed in the **Software Deployment | Devices | Installed Software** list view. If software is a SiteConfig managed software package, information is displayed in the Managed Package and Deployment Group columns.

Related Links

About installing SiteConfig on page 88

Add software package to deployment group for stand-alone K2 systems

Prerequisites for this task are as follows:

- You can access the software package file or files from the SiteConfig control point PC.
- The stand-alone K2 systems to which you are deploying software are in a deployment group.

Use the following procedure to add one or more software packages to the deployment group that contains your stand-alone K2 systems. For this release of K2 software, identify and add software installation files as follows:

Software	File name
K2 Client software	*GrassValleyK2SummitStandalone_7.1.14.xxxx.cab*

SNFS software is bundled with the K2 software cab file.

1. In the **Software Deployment | Deployment Groups** tree view, select a deployment group.
2. Click the **Add** button.

   The Add Package(s) dialog box opens.
3. Do one of the following to select the software package:
   - Select from the list of packages then click **OK**.
   - Click **Browse**, browse to and select the package, then click **Open**.
4. If one or more EULAs are displayed, accept them to proceed. If you do not accept a EULA, the associated software is not assigned to the deployment group.

   SiteConfig adds the package to the deployment group.

The package appears in the Managed Packages list for the selected deployment group. SiteConfig creates new software deployment tasks for the package and displays them in the Tasks list view.

Unlock K2 Summit Production Clients or K2 Solo Media Servers

This task disables the write filter on one or more K2 Summit Production Clients or K2 Solo Media Servers.

Prerequisites for this task are as follows:

- The device or all the devices in the group are communicating correctly in SiteConfig. This is indicated by the green star icon overlay.
- The device or all the devices in the group are currently locked. This is indicated by the gray lock icon overlay.

1. If you have not already done so, stop all media access on the K2 systems. This includes record, play, and transfer operations.
2. In either the **Network Configuration | Devices** tree view or the **Software Deployment | Deployment Groups** tree view, identify the device or the group of devices that you intend to unlock.
3. Right-click the device or the group and select **Unlock**.
   A "…may require restart…" message appears.
4. Click **Yes** to allow SiteConfig to restart the device or devices.

The Set Administrative Credentials dialog box opens.

5. Enter a username and password with administrator level privileges on the device or devices and click **OK**.

   The Unlocking Devices window opens and displays progress.

6. When the Unlocking Devices window reports that the unlock process completed successfully, click **Close**.

The device or devices are now unlocked. For K2 Summit Production Clients, this also disables the write filter, which enforces the restart.

Upgrade software on stand-alone K2 systems

Prerequisites for this task are as follows:

- The devices that you are upgrading are in a deployment group.
- For the software you are upgrading, you have added a newer version of that managed software package to the deployment group.
- You have recently done the SiteConfig "Check Software" operation on the devices you are upgrading.
- For the K2 Summit Production Client or K2 Solo Media Server, the write filter is disabled (unlocked).

If you are upgrading multiple software components for which there is a required sequence, you must check and uncheck tasks and run multiple deployment sessions to control the sequence. For some software components, SiteConfig aids you by enforcing dependencies. For each individual software component, SiteConfig enforces an uninstall of the current version of software before installing the upgrade version. SiteConfig can do the uninstall/install in a single deployment session. SiteConfig provides uninstall deployment tasks and install deployment tasks to indicate the taskflow.

1. In the **Software Deployment | Deployment Groups** tree view, select the device or the group of devices for which you are upgrading software.
   The corresponding software deployment tasks are displayed in the Tasks list view.
2. For the software you are uninstalling, select the **Deploy** check box in the row for the uninstall task.
3. For the software you are installing, select the **Deploy** check box in the row for the install task.

   For upgrading stand-alone K2 systems to this release, deploy the following tasks:

Deploy	Managed Package	Action
✓	GrassValleyK2SummitStandalone xxxx.xxxx	Uninstall
✓	GrassValleyK2SummitStandalone 7.1.14.xxxx	Install

Deploy	Managed Package	Action
✓	WFRegMon_SummitStandalone x.x.x	Install (there is no uninstall task for this software)

Also, if SiteConfig generates deployment tasks to upgrade SNFS, you must upgrade SNFS. Deploy the following tasks at the same time:

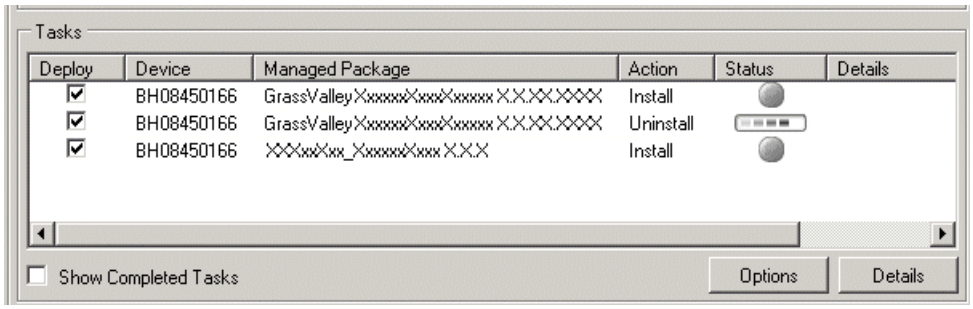
Deploy	Managed Package	Action
✓	SNFS Summit xxxxxx	Uninstall
✓	SNFS Summit 3.5.1.12630	Install

NOTE: If there are dependencies, SiteConfig can enforce that some tasks be deployed together.

4. Check the area next to the Start Deployment button for a message.

If a message instructs you to upgrade the Discovery Agent, on the control point PC go to the directory to which SiteConfig is installed, find the `DiscoveryAgent_x.x.x.x.cab` file, add it to the deployment group, and deploy the Discovery Agent software as well.

5. Click the **Start Deployment** button.



Deployment tasks run and software is uninstalled. Progress is reported and next steps are indicated in both the Status and Details columns. If an error appears regarding prerequisite software, install the prerequisite files on the control point PC and then repeat this step.

If upgrading both K2 and SNFS software, SiteConfig uninstalls both in the proper sequence.

6. When the Status or Details columns indicate next steps, identify the software in the row, then proceed as follows:
   - For SNFS software, when Details displays a **Restart required** link, click the link and when prompted "...are you sure...", click **Yes**. After this restart, continue with other restarts as indicated.
   - For K2 software, if the version from which you are upgrading is lower than 7.1.0.1153, power cycle the system. Do not restart. Do not click the **Restart required** link displayed in Details. You must shutdown/powerup then **Set Restart Complete**.
   - For K2 software, if the version from which you are upgrading is 7.1.0.1153 or higher, when Details displays a **Restart required** link, click the link and when prompted "...are you sure...", click **Yes**.
7. Monitor progress as indicated by both the Status and Details column. When finished, the Status column indicates complete.

Related Links

Upgrade software on SAN K2 clients on page 37
Power cycle K2 system on page 51

Power cycle K2 system

Do not do this task if:

- The standard, SiteConfig-supported Restart operation is sufficient for the required restart after installing software.

Do this task if:

- You must power cycle, rather than restart, the K2 system after installing software.

When you must shutdown and then power up a device, rather than restart the device, you must use a combination of SiteConfig and manual operations.

1. In the tree-view, right-click the device and select **Shutdown**.
   SiteConfig initiates the Windows shutdown operation on the device and the device powers off.
2. At the local device, verify that shutdown operations are complete, then press the standby button or otherwise manually power up the device.
   The device starts up.
3. Verify that startup operations are complete on the device.
4. In SiteConfig, in the tree-view, right-click the device and select **Set Restart Complete**.
   This re-synchronizes SiteConfig regarding the current state of the device. If software deployment tasks were waiting for the restart to occur, SiteConfig now allows them to proceed.

Install Windows update

Do not do this task if:

- A K2 Solo Media Server
- A K2 Summit Production Client installed new with K2 software version 7.1.x or higher, in which case Windows update version 2.0.50727.4022 is pre-installed.
- A K2 Summit Production Client already upgraded to Windows update version 2.0.50727.4022.

Do this task if:

- A K2 Summit Production Client with Windows update at a version lower than 2.0.50727.4022.

NOTE: Do not install general Windows updates as available from Microsoft. Update only as directed by Grass Valley.

1. If you are not sure of the Windows update version currently installed, do the following:
   a) Navigate to `C:\Windows\Microsoft.NET\Framework\v2.0.50727`.
   b) Check file properties as follows:

File name	File version	File size	Date	Time	Platform
mscordacwks.dll	2.0.50727.4022	989,000	11-Mar-2009	04:56	x86
mscorlib.dll	2.0.50727.4022	4,550,656	11-Mar-2009	04:56	x86
mscorwks.dll	2.0.50727.4022	5,812,544	11-Mar-2009	04:56	x86
sos.dll	2.0.50727.4022	388,936	11-Mar-2009	04:56	x86

   c) If the update is necessary, continue with this procedure.
2. Access the upgrade files and double-click `NDP20SP2-KB968760-x86.exe`.

   The installation wizard opens.
3. Work through the wizard, accepting all default settings, and finish.
4. Restart as prompted.

Upgrade LSI RAID controller driver

Do not do this task if:

- A K2 Solo Media Server
- A K2 Summit Production Client with direct-connect storage
- A K2 Summit Production Client installed new with K2 software version 7.1.x or higher, in which case the driver is pre-installed at version 3.10.0.32.
- A K2 Summit Production Client with the driver already upgraded to version 3.10.0.32.

Do this task if:

- A K2 Summit Production Client with internal storage and a driver at a version lower than 3.10.0.32.

1. If you are not sure of the driver version currently installed, do the following:
   a) open Windows **Device Manager | SCSI and RAID controllers | LSI MegaRAID SAS PCI Express ROMB | Properties | Driver**.
   b) Check properties as follows:

Version	Date
3.10.0.32	7/22/2009

   c) If the upgrade is necessary, continue with this procedure.
2. Open Windows **Device Manager | SCSI and RAID controllers**.
3. Right-click **LSI MegaRAID SAS PCI Express ROMB** and select **Update driver**.

   An install wizard opens.
4. Select **No, not this time** and click **Next**.
5. Select **Install from a list or specific location [Advanced]** and click **Next**.
6. Select **Don't search. I will choose the driver to install** and click **Next**.
7. Click **Have disk**.
8. Click **Browse**, navigate to the *LSI_1078_winxp* directory, select *oemsetup.inf*, and click **OK.**
9. Click **Next**.
10. When prompted regarding Windows Logo Compatibility, select **Continue Anyway** and click **Finish**.
11. Restart as prompted.

Upgrade MegaRAID Storage Manager

Do not do this task if:

- A K2 Solo Media Server
- A K2 Summit Production Client with direct-connect storage
- A K2 Summit Production Client installed new with K2 software version 7.1.x or higher, in which case MegaRAID Storage Manager is pre-installed at version 2.91-05.
- A K2 Summit Production Client with MegaRAID Storage Manager already upgraded to version 2.91-05.

Do this task if:

- A K2 Summit Production Client with internal storage and with the MegaRAID Storage Manager at a version lower than 2.91-05.

1. If you are not sure of the MegaRAID Storage Manager version currently installed, open Windows **Add/Remove Programs** Control Panel and identify the version. Continue if the upgrade is necessary.
2. Access the installation file at `..\Drivers\MegaRAID29105\DISK1\` and double-click `setup.exe`.

   An install wizard opens.
3. Select **Custom Installation** and click **Next**.
4. Select the **StandAlone** option and click **Next**.
5. Click **Install**.
6. When prompted "...continue?" click **Yes**.

   The software installs.

Upgrade RAID Controller microcode on stand-alone K2 system

Do not do this task if:

- A K2 Solo Media Server
- A K2 Summit Production Client installed new with K2 software version 7.1.x or higher, in which case a compatible version of RAID controller microcode is pre-installed.
- A K2 Summit Production Client with internal storage and with RAID controller microcode already upgraded to a compatible version, as listed in compatibility specifications earlier in these release notes.
- A K2 Summit Production Client with direct-connect storage and with RAID controller and/or expansion chassis microcode already at compatible versions, as listed in compatibility specifications earlier in these release notes.

Do this task if:

- A K2 Summit Production Client with internal storage and with RAID controller microcode that you need to upgrade, as listed in compatibility specifications earlier in these release notes.
- A K2 Summit Production Client with direct-connect storage and with RAID controller and/or expansion chassis microcode that you need to upgrade, as listed in compatibility specifications earlier in these release notes.

For internal storage K2 Summit/Solo systems, find compatibility specifications at *Compatible K2 Summit Production Client and K2 Solo Media Server components* on page 10. For a K2 Summit Production Client with direct-connect storage, find compatibility specifications at *Compatible K2 Lx0 RAID components* on page 13.

1. Open AppCenter Workstation, either on the local K2 system or on the control point PC and logon.

   Make sure you logon to AppCenter with appropriate privileges, as this logon is passed to Storage Utility. Administrator-level permission is necessary for most Storage Utility operations. If you log in with user-level permissions, the Storage Utility menu item is disabled.

2. If you are running AppCenter from a control point PC and you have channels from multiple K2 systems in your channel suite, select a channel from the stand-alone K2 system whose storage you intend to configure with Storage Utility. This is important as Storage Utility automatically connects to the K2 system that hosts the currently selected channel.

   NOTE: Make sure you are connecting to a stand-alone K2 system. You should never connect Storage Utility directly to a K2 system that uses shared (SAN) storage.

3. From the AppCenter **System** menu, select **Storage Utility**.

   Storage Utility opens.

4. If you are connecting from a control point PC, you should verify that you are connected to the correct K2 system. To verify this, use the Identify feature to flash the disks on the K2 system.
5. Select the controller in the Storage Utility tree view, then in the properties reported in the right-hand pane, note the controller microcode version. Proceed if you need to upgrade the controller microcode.
6. Right-click the controller in the tree view and do one of the following:

   - For internal storage, select **Load Controller Microcode** in the context menu.
   - For direct-connect storage, select **Advanced | Load Controller Microcode** in the context menu.

7. If online, messages appear "…offline mode now?" and "…continue?". Click **Yes** to put the K2 system in offline mode.

   AppCenter channels go offline. The Open File dialog box opens.

8. In the Open File dialog box, do one of the following:

   - For internal-storage, browse to the *C:\profile\microcode\LSI* directory and select *SAS1078_FW_Image.rom*.
   - For direct-connect storage, browse to the directory and file as listed in K2 Lx0 RAID compatibility specifications earlier in these release notes.

9. Click **OK.**

   The Progress Report window appears showing the microcode download task and the percentage completion.

10. If direct-connect storage and upgrading expansion chassis microcode, do the following:

    a) Right-click the controller in the tree view, then select **Advanced | Load Disk Enclosure Microcode** in the context menu.
    b) In the Open File dialog box, browse to the directory and file as listed in K2 Lx0 RAID compatibility specifications earlier in these release notes.
    c) Click **OK.**

The Progress Report window appears showing the microcode download task and the percentage completion.

11. When finished, exit Storage Utility.
12. If direct-connect storage, on 100% completion, proceed as follows:
    - If the RAID controller chassis has redundant controllers, no power cycle is required. The microcode download is complete.
    - If the RAID controller chassis does not have redundant controllers, power cycle the RAID controller chassis.
13. Put AppCenter channels back online.
14. Restart.

Related Links

Compatible K2 Lx0 RAID components on page 13

Upgrade disk drive firmware on stand-alone K2 system

Do not do this task if:

- A K2 system with disk drive firmware already at a compatible version, as listed in compatibility specifications earlier in these release notes.

Do this task if:

- A K2 system with disk drive firmware that you need to upgrade, as listed in compatibility specifications earlier in these release notes.

For internal storage K2 Summit/Solo systems, find compatibility specifications at *Compatible K2 Summit Production Client and K2 Solo Media Server components* on page 10. For a K2 Summit Production Client with direct-connect storage, find compatibility specifications at *Compatible K2 Lx0 RAID components* on page 13.

NOTE: The disk drives are upgraded one at a time which can take as long as 2 minutes per drive. Take this into consideration when scheduling the upgrade.

1. Open AppCenter Workstation, either on the local K2 system or on the control point PC and logon.
   Make sure you logon to AppCenter with appropriate privileges, as this logon is passed to Storage Utility. Administrator-level permission is necessary for most Storage Utility operations. If you log in with user-level permissions, the Storage Utility menu item is disabled.
2. If you are running AppCenter from a control point PC and you have channels from multiple K2 systems in your channel suite, select a channel from the stand-alone K2 system whose storage you intend to configure with Storage Utility. This is important as Storage Utility automatically connects to the K2 system that hosts the currently selected channel.

NOTE: Make sure you are connecting to a stand-alone K2 system. You should never connect Storage Utility directly to a K2 system that uses shared (SAN) storage.

3. From the AppCenter **System** menu, select **Storage Utility**.

   Storage Utility opens.
4. If you are connecting from a control point PC, you should verify that you are connected to the correct K2 system. To verify this, use the Identify feature to flash the disks on the K2 system.
5. Select a disk drive icon in the Storage Utility tree view, then note the firmware version in drive properties reported in the right-hand pane. Proceed if you need to download disk drive firmware.
6. Right-click a disk in the tree view, then select **Advanced | Download Disk Firmware** in the context menu.
7. If online, messages appear "…offline mode now?" and "…continue?". Click **Yes** to put the K2 system in offline mode.

   AppCenter channels go offline. The Open File dialog box opens.
8. In the Open File dialog box browse to the directory and file as listed in compatibility tables earlier in these release notes. You must select the correct file for the device, storage type, and drive size/type.
9. Click **OK**.
   For internal drives, watch the lights on the drive to which you are downloading firmware. The lights flash as firmware loads. Wait until the lights have completed their flashing pattern. This can take several minutes.

   The Progress Report window appears showing the disk firmware download task and the percentage completion.
10. Repeat this procedure on each drive.
11. When finished, exit Storage Utility.
12. Put AppCenter channels back online.
13. Restart.

Related Links

Compatible K2 Lx0 RAID disk drive firmware on page 15
Compatible K2 Summit Production Client and K2 Solo Media Server components on page 10

Upgrade K2 Dyno Server software

Do not do the tasks in this section if:

- The K2 Summit Production Client or K2 Solo Media Server is not controlled by a K2 Dyno Controller and therefore K2 Dyno Server software is not installed.

Do the tasks in this section if:

- The K2 Summit Production Client or K2 Solo Media Server is controlled by a K2 Dyno Controller and you need to upgrade the K2 Dyno Server software, as indicated by compatibility information elsewhere in these release notes.

Check the K2 Dyno Controller release notes for any updated information regarding the upgrade process, then proceed with the tasks in this section.

Related Links

About K2 Dyno software on page 58

Compatible Grass Valley products on page 17

About K2 Dyno software

There are two software components in the K2 Dyno Replay system, as follows:

- K2 Dyno Server software – This software runs on the K2 Summit/Solo that is controlled by the K2 Dyno Controller.
- K2 Dyno Client software – This software runs on the K2 Dyno Controller.

When installing/upgrading K2 Dyno software must consider versions and compatibility for both components: one on the K2 Summit/Solo and one on the K2 Dyno Controller.

Uninstall K2 Dyno Server software

If you have not already done so, disable the write filter on the K2 Summit Production Client or K2 Solo Media Server.

On the K2 Summit Production Client or K2 Solo Media Server, use the Windows **Add/Remove Programs** control panel and uninstall K2 Dyno Server software. The display name of the software is **K2 Dyno**.

Do not restart the K2 Summit Production Client or K2 Solo Media Server.

Install K2 Dyno Server software

If you have not already done so, disable the write filter on the K2 Summit Production Client or K2 Solo Media Server.

If the K2 Dyno Server software was previously installed, you must uninstall the software before you use these steps to install.

1. From the K2 Summit Production Client or K2 Solo Media Server, access the K2 Dyno Server software installation files.
2. In the Server directory, locate and open the following file:

   `setup.exe`
3. Follow the onscreen instructions, and work through each page.
4. Click **Next** and **Finish** to complete the installation.
5. Restart the K2 Summit Production Client or K2 Solo Media Server.

On the K2 Summit Production Client or K2 Solo Media Server, in Configuration Manager on the Ganging tab, make sure that **Use a single channel to control the gang** is not selected.

Lock K2 Summit Production Clients

This task enables the write filter on a K2 Summit Production Client or on a group of K2 Summit Production Clients.

Prerequisites for this task are as follows:

- The device or all the devices in the group are communicating correctly in SiteConfig. This is indicated by the green star icon overlay.
- The device or all the devices in the group are currently unlocked. This is indicated by the red lock icon overlay.

1. In the **Network Configuration | Devices** tree view or the **Software Deployment | Deployment Groups** tree view, identify the device or the group of devices that you intend to lock.
2. Right-click the device or the group and select **Lock**.
   A "…may require restart…" message appears.
3. Click **Yes** to allow SiteConfig to restart the device or devices.

   The Locking Devices window opens and displays progress.
4. When the Locking Devices window reports that the lock process completed successfully, click **Close**.

The device or devices are now locked. For K2 Summit/Solo, this also enables the write filter, which enforces the restart.

Upgrade K2 Dyno Controller

Do not do the tasks in this section if:

- The K2 Summit Production Client or K2 Solo Media Server is not controlled by a K2 Dyno Controller.

Do the tasks in this section if:

- The K2 Summit Production Client or K2 Solo Media Server is controlled by a K2 Dyno Controller and you need to upgrade software on the K2 Dyno Controller, as indicated by compatibility information elsewhere in these release notes.

Before upgrading a K2 Dyno Controller, verify the following:

- You have access to the software installation files for this release. Procure the files via the appropriate distibution method, such as download, CD-ROM, network drive, or external drive.
- You have a recovery image for the K2 Dyno Contoller at the current software version.

- Media access is stopped.

Related Links

About K2 Dyno software on page 58
Compatible Grass Valley products on page 17

About K2 Dyno Replay Controller modes

The K2 Dyno Reply Controller operates in the following modes:

- Dyno mode – The Dyno application is open for normal operations such as capturing and replaying highlight clips.
- Maintenance mode – The Dyno application is closed and the Windows operating system desktop is available for system tasks such as network configuration and software update.

By default, the K2 Dyno Replay Controller is in the Dyno mode. You must manually put the unit in the maintenance mode, which requires a restart. Once you are in the maintenance mode, if you shutdown or restart, you are prompted to confirm the switch back to the Dyno mode at next startup. You can also choose to stay in the maintenance mode at next startup.

Uninstall K2 Dyno Controller Client software

1. On the K2 Dyno Controller, switch to the Windows operating system as follows:
   a) At the startup screen, press the **Shift** button and then touch **SHUTDOWN**.
   b) Touch **MAINTENANCE MODE**.

      The K2 Dyno Client software closes and the Windows OS desktop is displayed after a restart.
2. Use the Windows **Add/Remove Programs** control panel and uninstall K2 Dyno Controller Client software.

Install software on K2 Dyno Controller

You must uninstall K2 Dyno Client software before you use these steps to install K2 Dyno Client software.

1. Copy the directory that contains the K2 Dyno Client software onto a portable USB drive, such as a Flash drive.
2. Connect the USB drive to the K2 Dyno Controller and copy the Client directory to the K2 Dyno Controller desktop.
3. In the Client directory, locate and open the following file:
   `setup.exe`
4. Follow the onscreen instructions, and work through each page.

If this is the first install after a re-image, you are prompted to enter the K2 Dyno Replay Controller serial number.

5. Click **Next** and **Finish** to complete the installation.
6. When prompted "...back to K2 Dyno mode...?", click **Yes**.
   The K2 Dyno Controller restarts.

Install MPEG-2/AVC-Intra field kit

If you are installing an MPEG-2 or AVC-Intra field kit upgrade on one or more or your K2 Summit Production Clients or K2 Solo Media Servers, do so now. Follow the procedure in the Field Kit Upgrade Instructions document that you received with the field kit.

Make recovery images

After you have upgraded software as instructed in these procedures and verified that your system is working properly, you should always make a recovery image of each of your upgraded computers. Use a sequence of events similar to those you followed for upgrading software, so that as you take systems offline you manage redundancy, servers, and clients, as appropriate for your system.

Deploy control point PC software

Use SiteConfig to upgrade control point software on the K2 control point PC. In most cases, the K2 control point PC is also the SiteConfig control point PC, so you are in effect using SiteConfig to upgrade software on its own local system.

For this release of K2 software, the install task identifies the control point software in the Managed Package column as follows:

- GrassValleyControlPoint 7.1.14.xxxx

The software deployment process for the control point PC is similar to that used to upgrade software on other K2 devices. Use similar procedures and adjust accordingly to do the following:

1. Add the K2 control point software package to the deployment group that contains the control point PC.
2. Check software on the control point PC.
3. Configure and run deployment tasks to upgrade software.

Upgrading stand-alone K2 systems without SiteConfig

This section contains the tasks for upgrading the stand-alone K2 systems to this release of K2 software.

With these instructions you go to each local K2 system and upgrade software using locally connected keyboard, monitor, and mouse. Work through the tasks sequentially to complete the upgrade.

NOTE: These upgrade instructions assume that the current K2 software is at version 7.0.11 or higher. If the current K2 software is a 7.x version lower than 7.0.11, contact Grass Valley Support before upgrading. If a K2 Media Client or any K2 device with current K2 software at a 3.x version, do not upgrade, as version 7.x is not supported on these devices.

NOTE: When upgrading from a version lower than 7.1, K2 system software installs with a 30 day trial license. You need a permanent license to operate beyond the trial period.

Related Links

About upgrading stand-alone K2 systems with SiteConfig on page 43

Make recovery images

Do not do this task if:

- You previously made a recovery image at the current software version for each computer you are upgrading.

Do this task if:

- You do not have a recovery image at the current software version for one or more of the computers you are upgrading.

The recommended procedure is to make a recovery image immediately after a software upgrade. If you neglected to do this when you last upgraded software you should make the recovery image now, before upgrading to the new version.

Refer to the K2 product's *Service Manual* for recovery image procedures.

⚠ ***CAUTION: If you upgrade and then decide you do not want to stay with this version of K2 system software, you must use the recovery disk image process to downgrade to your previous version.***

Prepare for K2 system upgrade

Before upgrading K2 systems, do the following:

- Procure the software installation files for this release via the appropriate distribution method, such as download, CD-ROM, network drive, or external drive.
- Start up the K2 systems you are upgrading, if they are not already started.

- For K2 Summit Production Client or K2 Solo Media Server, if you have not already done so, disable (unlock) the write filter.
- Stop all media access on K2 systems.
- Shut down all applications on K2 systems.

Disable write filter

Prerequisite:

- K2 software must be installed on the K2 Summit Production Client or K2 Solo Media Server

1. If you have not already done so, log on to the K2 system with Windows administrator privileges.
2. From the Windows desktop, click **Start | All Programs | Grass Valley | Write Filter Utility**.

   FBWF Manager opens.
3. Under Filter Settings, set Filter to **Disable**.
   Do not modify other settings.
4. Click **OK**.
5. When prompted, restart the K2 system.

Upgrade QuickTime

Do not do this task if:

- QuickTime is currently at version 7.6 or higher.

Do this task if:

- QuickTime is at a version lower than 7.6.

1. Access the QuickTime installation files.
2. Locate and open the following QuickTime install file:
   `QuickTimeInstaller-7.6.exe`
3. Work through the install wizard.
   Configure settings so that the software does not automatically update Quicktime and other Apple software.

   NOTE: Unless instructed to do so by Grass Valley, do not update or install Apple software.

   Accept the default destination folder and other default settings.

Configure SNFS default.cfg file on stand-alone K2 system

In this task you open the media file system (SNFS) configuration file and verify/modify settings.

Do not do this task if:

- A K2 Solo Media Server
- The K2 system was installed new with the following K2 software version:
  - A 7.x version higher than 7.0.11

    At these versions, K2 tools (Storage Utility and K2Config) automatically configure settings as required.
  - — OR —
  - You have already modified the configuration file with the required settings.

Do this task if:

- You are upgrading from a current version of K2 software as follows:
  - Version 7.0.11
  - — OR —
  - You are not sure if the configuration file has already been modified with the required settings.

Prerequisites for this task are as follows:

- K2 systems must be offline

In this task you manually modify or add values to the media file system (SNFS) configuration file. You can do this and still keep your media file system intact if you carefully follow the steps in this procedure.

- Stand-alone K2 Summit Production Clients. This includes internal storage and direct-connect storage K2 Summit Production Clients.

  NOTE: Make sure the write filter is disabled.

1. Using Notepad, open the media file system (SNFS) configuration file:

   On a stand-alone K2 Summit Production Client, open `C:\SNFS\config\default.cfg`.

2. On a stand-alone K2 system, verify, and if necessary modify, settings for required values as follows:

```
# ********************************************************
# A global section for defining file system-wide parameters
# ********************************************************
GlobalSuperUser Yes
.
.
```

```
.
.
.
.

InodeDeleteMax 1000
```

3. Close, and if necessary save, the SNFS configuration file.

If you made changes, the K2 system must be restarted for the changes to take effect.

The restart later in this upgrade procedure is sufficient to put the changes into effect.

Uninstall K2 software from stand-alone K2 system

1. Disable the write filter, if not already disabled.
2. Open the Windows **Add/Remove Programs** control panel.
3. Select **GrassValleyK2Client**. and click **Remove**.
4. When prompted "Are you sure...?", click **Yes**.
   - If a message appears informing you that you must restart and run the uninstall program again, click **OK** to restart. If an external USB drive is currently connected, disconnect it before startup processes begin. Then repeat previous steps as necessary to uninstall software before continuing with the next step in this procedure.
   - If no message appears, the software uninstalls. Continue with the next step in this procedure.
5. When prompted to restart, do not restart.
   While a restart is required after installing K2 Client software, you can delay the restart until after other tasks are complete.
6. On a K2 Summit Production Client or K2 Solo Media Server, disable the write filter.
   Disabling the write filter at this point keeps it disabled after the required restart. This is helpful because it must be disabled in order to uninstall or install software, which you will be doing after the restart.
7. Manage the required restart as follows:
   - Restart now.

Uninstall SNFS from K2 client

Do not do this task if:

- SNFS version 3.5.1.b12630 is already installed and the installation (including required restarts) is complete.

Do this task if:

- SNFS version 3.1.2.RC25225.6138 is currently installed

If you have not already done so, disable the write filter on the K2 Summit Production Client or K2 Solo Media Server.

1. Make sure you are logged in with an administrator account.
2. Use the Windows **Add/Remove Programs** control panel and uninstall SNFS.
3. Disable the write filter.
   Disabling the write filter at this point keeps it disabled after the required restart. This is helpful because it must be disabled in order to install software, which you will be doing after the restart.
4. Restart using the Windows operating system restart procedure.

Install K2 software

Prerequisites for this task are as follows:

- If you uninstalled the previous version of K2 software, you must restart the K2 client at least once before installing the new version of K2 software.

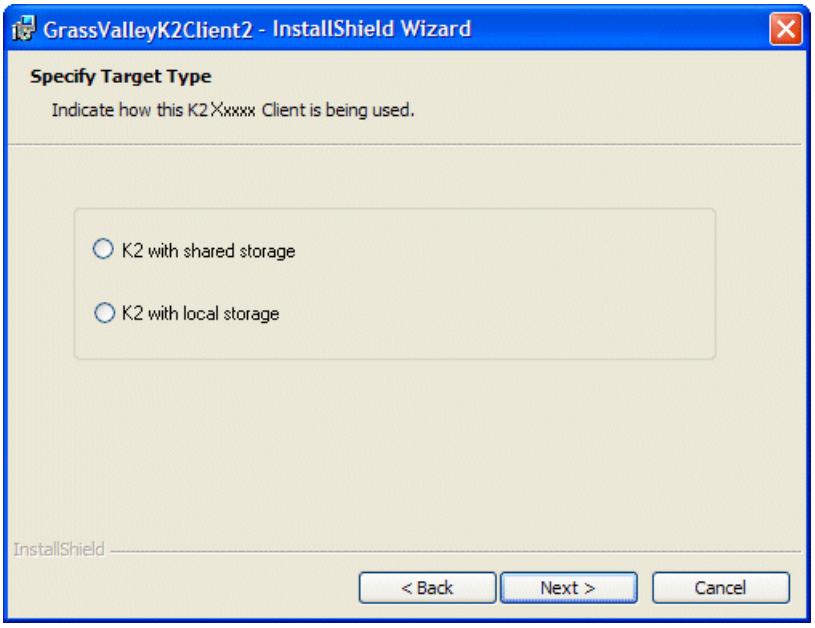
1. Log in with a local administrator account. This is required to support K2 System Software licensing.

   NOTE: When installing K2 system software, you must be logged in with a local administrator account. Do not install software using a domain account.

2. Disable the write filter, if not already disabled.
3. If installation files are on a connected external USB drive, copy the installation files to the local drive before proceeding.
4. Access the installation files.
5. Locate and open the following file:
   For K2 Summit Production Client or K2 Solo Media Server —
   `K2SummitClient.exe`

   - If a message appears informing you that you must restart, click **OK** to restart. If an external USB drive is currently connected, disconnect it before startup processes begin. Then repeat previous steps as necessary to run the install program again before continuing with the next step in this procedure.
   - If no message appears, the install wizard opens. Continue with the next step in this procedure.

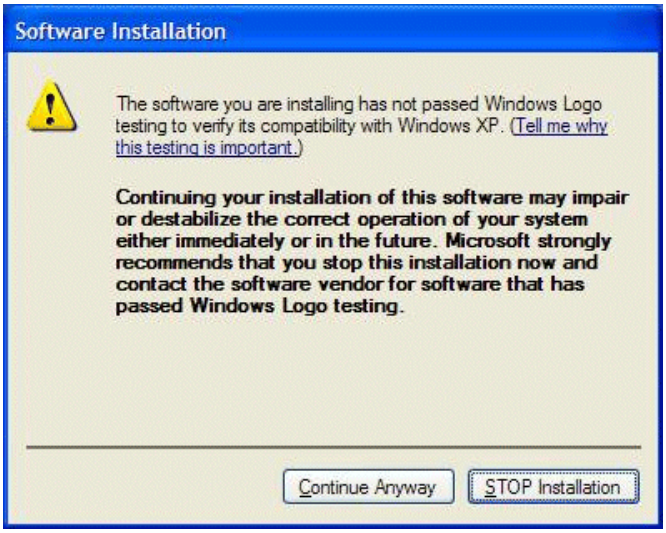
6. Follow the install wizard onscreen instructions, and work through each page.



7. When you arrive at the Specify Target Type page, select the option as follows:

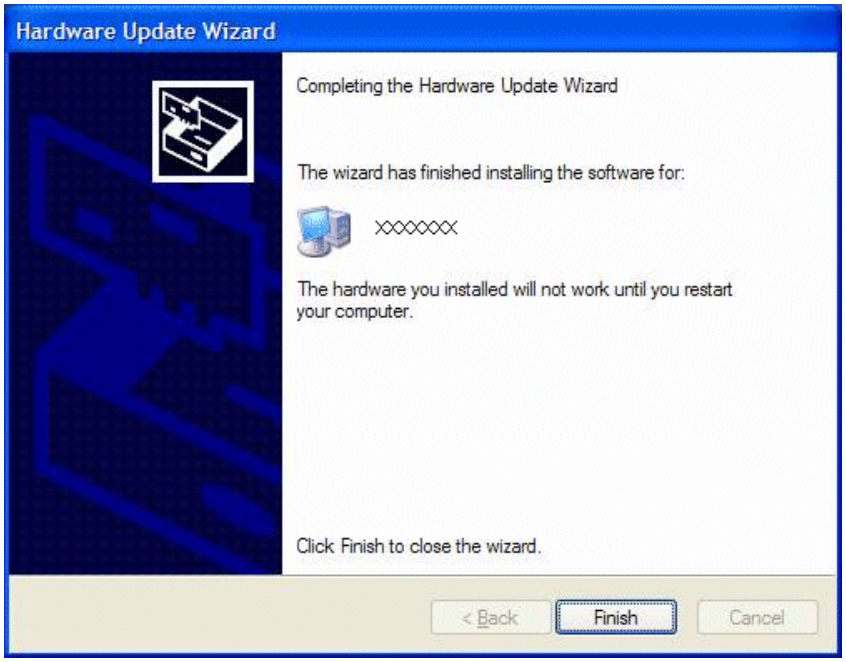
Option	Description
K2 with local storage	For installing on an internal storage K2 system or on a direct-connect storage K2 system.

8. Depending on the state of the system when upgrading, you might see one or more of the following screens or messages as you work through the installation wizard. Proceed as instructed, and then continue with this procedure:
   a) If one or more messages appear referring to "…has not passed Windows logo testing…", you can safely continue. This is a normal part of the upgrade.



Click **Yes** or Continue… to allow the installation to progress.

b) If installation progress stops after about a minute and does not proceed, look in the Windows taskbar for a Hardware Update Wizard window that has opened.



Click **Finish** on the Hardware Update Wizard to continue installation. If multiple Hardware Update Wizards open, finish them similarly.

9. Click **Next** and **Finish** to complete the installation.
10. When prompted to restart, proceed as follows:
    - Disable the write filter.

Disabling the write filter before the restart keeps it disabled after restart. This is helpful because it must be disabled in order to install software, which you will be doing after the restart.

- Do one of the following:
  - If the version from which you are upgrading is lower than 7.1.0.1153, shut down the system. After the system is shut down, press the standby button to power up the system. You must shutdown/powerup (power cycle), rather than restart.
  - If the version from which you are upgrading is 7.1.0.1153 or higher, restart.

Install SNFS on stand-alone K2 system

Prerequisites for this task are as follows:

- Before installing a new version of SNFS software, make sure that the computer has been restarted at least once since the previous version of SNFS software was uninstalled.

1. Access the installation files.
2. Locate and open the following file:
   Expand *SNFS_3.5.1_12603_RC2890.exe* then run *gvSnfs351SetupSummit.bat*.

   The command window appears. After a pause, messages confirm setup complete.
3. Press any key to proceed.
4. Restart media file system services as follows:
   a) Click **Start | Programs | SNFS File System | Services Stop**.
   b) Click **Start | Programs | SNFS File System | Services Start**.
5. Restart the computer using the Windows operating system restart procedure.

Verify upgraded software

When the K2 client starts up, you can verify that the correct versions of software are installed as follows:

1. Log on to AppCenter.
2. In AppCenter click **Help | About**.

   The About dialog box opens.
3. Identify versions as follows

System Version	7.1.14	These should both report the same version number. This is the K2 System Software version number.
RTS Version	7.1.14	

Media File System	3.5.1.b12630	This is the SNFS version.

Install Windows update

Do not do this task if:

- A K2 Solo Media Server
- A K2 Summit Production Client installed new with K2 software version 7.1.x or higher, in which case Windows update version 2.0.50727.4022 is pre-installed.
- A K2 Summit Production Client already upgraded to Windows update version 2.0.50727.4022.

Do this task if:

- A K2 Summit Production Client with Windows update at a version lower than 2.0.50727.4022.

NOTE: Do not install general Windows updates as available from Microsoft. Update only as directed by Grass Valley.

1. If you are not sure of the Windows update version currently installed, do the following:
   a) Navigate to `C:\Windows\Microsoft.NET\Framework\v2.0.50727`.
   b) Check file properties as follows:

File name	File version	File size	Date	Time	Platform
mscordacwks.dll	2.0.50727.4022	989,000	11-Mar-2009	04:56	x86
mscorlib.dll	2.0.50727.4022	4,550,656	11-Mar-2009	04:56	x86
mscorwks.dll	2.0.50727.4022	5,812,544	11-Mar-2009	04:56	x86
sos.dll	2.0.50727.4022	388,936	11-Mar-2009	04:56	x86

   c) If the update is necessary, continue with this procedure.
2. Access the upgrade files and double-click `NDP20SP2-KB968760-x86.exe`.

   The installation wizard opens.
3. Work through the wizard, accepting all default settings, and finish.
4. Restart as prompted.

Upgrade LSI RAID controller driver

Do not do this task if:

- A K2 Solo Media Server
- A K2 Summit Production Client with direct-connect storage
- A K2 Summit Production Client installed new with K2 software version 7.1.x or higher, in which case the driver is pre-installed at version 3.10.0.32.

- A K2 Summit Production Client with the driver already upgraded to version 3.10.0.32.

Do this task if:

- A K2 Summit Production Client with internal storage and a driver at a version lower than 3.10.0.32.

1. If you are not sure of the driver version currently installed, do the following:
   a) open Windows **Device Manager | SCSI and RAID controllers | LSI MegaRAID SAS PCI Express ROMB | Properties | Driver**.
   b) Check properties as follows:

Version	Date
3.10.0.32	7/22/2009

   c) If the upgrade is necessary, continue with this procedure.
2. Open Windows **Device Manager | SCSI and RAID controllers**.
3. Right-click **LSI MegaRAID SAS PCI Express ROMB** and select **Update driver**.

   An install wizard opens.
4. Select **No, not this time** and click **Next**.
5. Select **Install from a list or specific location [Advanced]** and click **Next**.
6. Select **Don't search. I will choose the driver to install** and click **Next**.
7. Click **Have disk**.
8. Click **Browse**, navigate to the *LSI_1078_winxp* directory, select *oemsetup.inf*, and click **OK.**
9. Click **Next**.
10. When prompted regarding Windows Logo Compatibility, select **Continue Anyway** and click **Finish**.
11. Restart as prompted.

Upgrade MegaRAID Storage Manager

Do not do this task if:

- A K2 Solo Media Server
- A K2 Summit Production Client with direct-connect storage
- A K2 Summit Production Client installed new with K2 software version 7.1.x or higher, in which case MegaRAID Storage Manager is pre-installed at version 2.91-05.
- A K2 Summit Production Client with MegaRAID Storage Manager already upgraded to version 2.91-05.

Do this task if:

- A K2 Summit Production Client with internal storage and with the MegaRAID Storage Manager at a version lower than 2.91-05.

1. If you are not sure of the MegaRAID Storage Manager version currently installed, open Windows **Add/Remove Programs** Control Panel and identify the version. Continue if the upgrade is necessary.
2. Access the installation file at `..\Drivers\MegaRAID29105\DISK1\` and double-click `setup.exe`.

   An install wizard opens.
3. Select **Custom Installation** and click **Next**.
4. Select the **StandAlone** option and click **Next**.
5. Click **Install**.
6. When prompted "...continue?" click **Yes**.

   The software installs.

Upgrade RAID Controller microcode on stand-alone K2 system

Do not do this task if:

- A K2 Solo Media Server
- A K2 Summit Production Client installed new with K2 software version 7.1.x or higher, in which case a compatible version of RAID controller microcode is pre-installed.
- A K2 Summit Production Client with internal storage and with RAID controller microcode already upgraded to a compatible version, as listed in compatibility specifications earlier in these release notes.
- A K2 Summit Production Client with direct-connect storage and with RAID controller and/or expansion chassis microcode already at compatible versions, as listed in compatibility specifications earlier in these release notes.

Do this task if:

- A K2 Summit Production Client with internal storage and with RAID controller microcode that you need to upgrade, as listed in compatibility specifications earlier in these release notes.
- A K2 Summit Production Client with direct-connect storage and with RAID controller and/or expansion chassis microcode that you need to upgrade, as listed in compatibility specifications earlier in these release notes.

For internal storage K2 Summit/Solo systems, find compatibility specifications at *Compatible K2 Summit Production Client and K2 Solo Media Server components* on page 10. For a K2 Summit Production Client with direct-connect storage, find compatibility specifications at *Compatible K2 Lx0 RAID components* on page 13.

1. Open AppCenter Workstation, either on the local K2 system or on the control point PC and logon.

   Make sure you logon to AppCenter with appropriate privileges, as this logon is passed to Storage Utility. Administrator-level permission is necessary for most

Storage Utility operations. If you log in with user-level permissions, the Storage Utility menu item is disabled.

2. If you are running AppCenter from a control point PC and you have channels from multiple K2 systems in your channel suite, select a channel from the stand-alone K2 system whose storage you intend to configure with Storage Utility. This is important as Storage Utility automatically connects to the K2 system that hosts the currently selected channel.

   NOTE: Make sure you are connecting to a stand-alone K2 system. You should never connect Storage Utility directly to a K2 system that uses shared (SAN) storage.

3. From the AppCenter **System** menu, select **Storage Utility**.

   Storage Utility opens.

4. If you are connecting from a control point PC, you should verify that you are connected to the correct K2 system. To verify this, use the Identify feature to flash the disks on the K2 system.
5. Select the controller in the Storage Utility tree view, then in the properties reported in the right-hand pane, note the controller microcode version. Proceed if you need to upgrade the controller microcode.
6. Right-click the controller in the tree view and do one of the following:

   - For internal storage, select **Load Controller Microcode** in the context menu.
   - For direct-connect storage, select **Advanced | Load Controller Microcode** in the context menu.

7. If online, messages appear "…offline mode now?" and "…continue?". Click **Yes** to put the K2 system in offline mode.

   AppCenter channels go offline. The Open File dialog box opens.

8. In the Open File dialog box, do one of the following:

   - For internal-storage, browse to the *C:\profile\microcode\LSI* directory and select *SAS1078_FW_Image.rom*.
   - For direct-connect storage, browse to the directory and file as listed in K2 Lx0 RAID compatibility specifications earlier in these release notes.

9. Click **OK.**

   The Progress Report window appears showing the microcode download task and the percentage completion.

10. If direct-connect storage and upgrading expansion chassis microcode, do the following:

    a) Right-click the controller in the tree view, then select **Advanced | Load Disk Enclosure Microcode** in the context menu.

    b) In the Open File dialog box, browse to the directory and file as listed in K2 Lx0 RAID compatibility specifications earlier in these release notes.

c) Click **OK.**

The Progress Report window appears showing the microcode download task and the percentage completion.

11. When finished, exit Storage Utility.
12. If direct-connect storage, on 100% completion, proceed as follows:
    - If the RAID controller chassis has redundant controllers, no power cycle is required. The microcode download is complete.
    - If the RAID controller chassis does not have redundant controllers, power cycle the RAID controller chassis.
13. Put AppCenter channels back online.
14. Restart.

Related Links

Compatible K2 Lx0 RAID components on page 13

Upgrade disk drive firmware on stand-alone K2 system

Do not do this task if:

- A K2 system with disk drive firmware already at a compatible version, as listed in compatibility specifications earlier in these release notes.

Do this task if:

- A K2 system with disk drive firmware that you need to upgrade, as listed in compatibility specifications earlier in these release notes.

For internal storage K2 Summit/Solo systems, find compatibility specifications at *Compatible K2 Summit Production Client and K2 Solo Media Server components* on page 10. For a K2 Summit Production Client with direct-connect storage, find compatibility specifications at *Compatible K2 Lx0 RAID components* on page 13.

NOTE: The disk drives are upgraded one at a time which can take as long as 2 minutes per drive. Take this into consideration when scheduling the upgrade.

1. Open AppCenter Workstation, either on the local K2 system or on the control point PC and logon.
   Make sure you logon to AppCenter with appropriate privileges, as this logon is passed to Storage Utility. Administrator-level permission is necessary for most Storage Utility operations. If you log in with user-level permissions, the Storage Utility menu item is disabled.
2. If you are running AppCenter from a control point PC and you have channels from multiple K2 systems in your channel suite, select a channel from the stand-alone K2 system whose storage you intend to configure with Storage Utility. This is important as Storage Utility automatically connects to the K2 system that hosts the currently selected channel.

NOTE: Make sure you are connecting to a stand-alone K2 system. You should never connect Storage Utility directly to a K2 system that uses shared (SAN) storage.

3. From the AppCenter **System** menu, select **Storage Utility**.

   Storage Utility opens.
4. If you are connecting from a control point PC, you should verify that you are connected to the correct K2 system. To verify this, use the Identify feature to flash the disks on the K2 system.
5. Select a disk drive icon in the Storage Utility tree view, then note the firmware version in drive properties reported in the right-hand pane. Proceed if you need to download disk drive firmware.
6. Right-click a disk in the tree view, then select **Advanced | Download Disk Firmware** in the context menu.
7. If online, messages appear "…offline mode now?" and "…continue?". Click **Yes** to put the K2 system in offline mode.

   AppCenter channels go offline. The Open File dialog box opens.
8. In the Open File dialog box browse to the directory and file as listed in compatibility tables earlier in these release notes. You must select the correct file for the device, storage type, and drive size/type.
9. Click **OK**.

   For internal drives, watch the lights on the drive to which you are downloading firmware. The lights flash as firmware loads. Wait until the lights have completed their flashing pattern. This can take several minutes.

   The Progress Report window appears showing the disk firmware download task and the percentage completion.
10. Repeat this procedure on each drive.
11. When finished, exit Storage Utility.
12. Put AppCenter channels back online.
13. Restart.

Related Links

Compatible K2 Lx0 RAID disk drive firmware on page 15

Compatible K2 Summit Production Client and K2 Solo Media Server components on page 10

Upgrade K2 Dyno Server software

Do not do the tasks in this section if:

- The K2 Summit Production Client or K2 Solo Media Server is not controlled by a K2 Dyno Controller and therefore K2 Dyno Server software is not installed.

Do the tasks in this section if:

- The K2 Summit Production Client or K2 Solo Media Server is controlled by a K2 Dyno Controller and you need to upgrade the K2 Dyno Server software, as indicated by compatibility information elsewhere in these release notes.

Check the K2 Dyno Controller release notes for any updated information regarding the upgrade process, then proceed with the tasks in this section.

Related Links

About K2 Dyno software on page 58

Compatible Grass Valley products on page 17

Disable write filter

Prerequisite:

- K2 software must be installed on the K2 Summit Production Client or K2 Solo Media Server

1. If you have not already done so, log on to the K2 system with Windows administrator privileges.
2. From the Windows desktop, click **Start | All Programs | Grass Valley | Write Filter Utility**.

   FBWF Manager opens.
3. Under Filter Settings, set Filter to **Disable**.
   Do not modify other settings.
4. Click **OK**.
5. When prompted, restart the K2 system.

Uninstall K2 Dyno Server software

If you have not already done so, disable the write filter on the K2 Summit Production Client or K2 Solo Media Server.

On the K2 Summit Production Client or K2 Solo Media Server, use the Windows **Add/Remove Programs** control panel and uninstall K2 Dyno Server software.
The display name of the software is **K2 Dyno**.

Do not restart the K2 Summit Production Client or K2 Solo Media Server.

Install K2 Dyno Server software

If you have not already done so, disable the write filter on the K2 Summit Production Client or K2 Solo Media Server.

If the K2 Dyno Server software was previously installed, you must uninstall the software before you use these steps to install.

1. From the K2 Summit Production Client or K2 Solo Media Server, access the K2 Dyno Server software installation files.
2. In the Server directory, locate and open the following file:
   `setup.exe`
3. Follow the onscreen instructions, and work through each page.
4. Click **Next** and **Finish** to complete the installation.
5. Restart the K2 Summit Production Client or K2 Solo Media Server.
   On the K2 Summit Production Client or K2 Solo Media Server, in Configuration Manager on the Ganging tab, make sure that **Use a single channel to control the gang** is not selected.

Upgrade remaining stand-alone K2 systems

For stand-alone storage K2 systems, repeat the previous steps to upgrade your remaining stand-alone storage K2 systems.

For the K2 Summit Production Client or K2 Solo Media Server, after you are done with the upgrade process, enable the write filter.

Enable write filter

Prerequisite:

- K2 software must be installed on the K2 Summit Production Client or K2 Solo Media Server

1. If you have not already done so, log on to the K2 Summit Production Client or K2 Solo Media Server with Windows administrator privileges.
2. From the Windows desktop, click **Start | All Programs | Grass Valley | Write Filter Utility**.

   FBWF Manager opens.
3. Under Filter Settings, set Filter to **Enable**.
4. Under Protected Volumes, set C: to **Protected**.
   Do not modify other settings.
5. Click **OK**.
6. When prompted, restart the K2 Summit Production Client or K2 Solo Media Server.

Upgrade K2 Dyno Controller

Do not do the tasks in this section if:

- The K2 Summit Production Client or K2 Solo Media Server is not controlled by a K2 Dyno Controller.

Do the tasks in this section if:

- The K2 Summit Production Client or K2 Solo Media Server is controlled by a K2 Dyno Controller and you need to upgrade software on the K2 Dyno Controller, as indicated by compatibility information elsewhere in these release notes.

Before upgrading a K2 Dyno Controller, verify the following:

- You have access to the software installation files for this release. Procure the files via the appropriate distibution method, such as download, CD-ROM, network drive, or external drive.
- You have a recovery image for the K2 Dyno Contoller at the current software version.
- Media access is stopped.

Related Links

About K2 Dyno software on page 58
Compatible Grass Valley products on page 17

About K2 Dyno Replay Controller modes

The K2 Dyno Reply Controller operates in the following modes:

- Dyno mode – The Dyno application is open for normal operations such as capturing and replaying highlight clips.
- Maintenance mode – The Dyno application is closed and the Windows operating system desktop is available for system tasks such as network configuration and software update.

By default, the K2 Dyno Replay Controller is in the Dyno mode. You must manually put the unit in the maintenance mode, which requires a restart. Once you are in the maintenance mode, if you shutdown or restart, you are prompted to confirm the switch back to the Dyno mode at next startup. You can also choose to stay in the maintenance mode at next startup.

Uninstall K2 Dyno Controller Client software

1. On the K2 Dyno Controller, switch to the Windows operating system as follows:
   a) At the startup screen, press the **Shift** button and then touch **SHUTDOWN**.
   b) Touch **MAINTENANCE MODE**.

   The K2 Dyno Client software closes and the Windows OS desktop is displayed after a restart.
2. Use the Windows **Add/Remove Programs** control panel and uninstall K2 Dyno Controller Client software.

Install software on K2 Dyno Controller

You must uninstall K2 Dyno Client software before you use these steps to install K2 Dyno Client software.

1. Copy the directory that contains the K2 Dyno Client software onto a portable USB drive, such as a Flash drive.
2. Connect the USB drive to the K2 Dyno Controller and copy the Client directory to the K2 Dyno Controller desktop.
3. In the Client directory, locate and open the following file:
   `setup.exe`
4. Follow the onscreen instructions, and work through each page.
   If this is the first install after a re-image, you are prompted to enter the K2 Dyno Replay Controller serial number.
5. Click **Next** and **Finish** to complete the installation.
6. When prompted "...back to K2 Dyno mode...?", click **Yes**.
   The K2 Dyno Controller restarts.

Install MPEG-2/AVC-Intra field kit

If you are installing an MPEG-2 or AVC-Intra field kit upgrade on one or more or your K2 Summit Production Clients or K2 Solo Media Servers, do so now. Follow the procedure in the Field Kit Upgrade Instructions document that you received with the field kit.

Make recovery images

After you have upgraded software as instructed in these procedures and verified that your system is working properly, you should always make a recovery image of each of your upgraded computers. Use a sequence of events similar to those you followed for upgrading software, so that as you take systems offline you manage redundancy, servers, and clients, as appropriate for your system.

Licensing K2 products

The following sections contain instructions for managing K2 product licenses.

About K2 software licensing

K2 system software version 7.1.14 requires a license from Grass Valley. Licensing is enforced at the K2 Summit Production Client, so every K2 client running version

7.1.14 must have a valid license in place. No license is required on the K2 Media Server or on the control point PC.

K2 clients shipping new from the factory have version 7.1.14 pre-installed with a permanent license in place, so no licensing tasks are required unless you want to add optional features such as AppCenter Pro. When upgrading from a 7.0.x version to version 7.1.14, you do not need to obtain a new HD license or AppCenter Pro license. If these licenses were permanent and valid before the upgrade, the licenses are still valid after the upgrade.

Licenses are requested through the License Wizard and managed through the SabreTooth License Manager, which is installed on the Grass Valley product with the Grass Valley software. The License Wizard and SabreTooth License Manager must be located on the Grass Valley product.

License information is stored in text files that you can manage just like any other file on your system. Licenses are unique to the system for which they are requested and cannot be used on any other machine. You should back up the license text files to a separate drive or as part of a recovery image.

Licenses are based on your system's unique identifier, which is partially derived from your system's Media Access Control (MAC) address. If you change your system's MAC address by performing operations such as changing the System Processor card, you must obtain a new license based on the new MAC address.

After temporary licenses expire

After the temporary license expires, if you have not yet obtained a permanent license, the following occurs:

- The K2 system software temporary license will expire. You will not be able to start AppCenter once the license has expired. If running, AppCenter will not stop working, and any remote control protocols will continue to function. However, you will not be able to make any changes in AppCenter, such as altering the configuration.
- The AppCenter Pro temporary license will expire and the AppCenter Pro features will stop functioning.

Requesting a license

Software licenses are unique to the system for which they are purchased. They cannot be used on any other system. This requires that you provide a generated unique ID for the desired system to Grass Valley, which is then used to create your unique license.

1. Log on to the device that you want to license.

   You must log in as a Windows administrator with a local account, not a domain account.

2. Open the License Request Wizard.

Find the License Request Wizard shortcut on the Windows desktop.

The License Request Wizard displays.

3. Read the on-screen instructions, then click **Next**.

   The Customer dialog box displays.

4. Enter the information requested on this page then click **Next**.

   You must provide a valid email address to receive your license file.

   The Sales Number dialog box displays.

5. Enter the Sales Order Number in the field then click **Next**.

   Typically the Sales Order Number is found on the Software License sheet that you received with your Grass Valley product.

   The Summary dialog box displays.

6. Review the License Request information and click **Finish**.

   A License Request text file, `License_Request_<SalesNumber>.txt`, is generated and saved to the Windows Desktop.

   NOTE: If you are requesting licenses for more than one application, be sure to modify the name of the first License Request text file before saving it to your desktop. (In Notepad, use the Save As command.) Otherwise, the second License Request text file will overwrite it.

7. If a K2 Summit Production Client or K2 Solo Media Server and if the write filter is currently enabled, be aware that files on the desktop are lost on restart. Therefore do one of the following:

   - Save the License Request text file(s) to a different location.
   - Keep the K2 system running (do not restart) until after you have requested the license(s).

8. Do one of the following:

   - Attach the License Request text file to an email.
   - Paste the text directly into an email message.

   You might want to keep a copy of the message for your records.

9. Send the email as instructed by the License Request Wizard.

   An email will be sent from Grass Valley to the return email address you specified; your SabreTooth software license will be provided as a text file.

10. Save this email in case you ever need to re-image this machine.

Next add the license to the SabreTooth License Manager.

If you encounter difficulties when requesting a license

If you encounter difficulties running the License wizard, try this alternate method:

1. Generate a unique ID of the device where you will install software, as follows:
   a) Click on the License Manager icon on the Windows Desktop.

      The SabreTooth License Manager opens.
   b) Choose **File | Generate Unique Id** the License Manager.
   c) Click **Copy to clipboard** to copy the generated ID, and **OK** to exit.
2. Prepare an email that includes the following information:
   - Customer Name
   - Customer Email
   - Sales Order Number
   - Unique ID of the device where you will install software.
3. Send the email to K2License@grassvalley.com.

The SabreTooth license number will be emailed to the email address you specified.

Adding a license

Your software license, `Licenses_<SalesNumber>.txt`, is provided as a text file. Use the License Manager to add this file to your system and enable the desired feature.

1. On the K2 Summit Production Client, if you have not already done so, disable the write filter.
2. Click on the License Manager icon on the Windows Desktop. The SabreTooth License Manager opens.

   The SabreTooth License Manager opens.
3. Do one of the following:
   - Choose **File | Import License** and navigate to the file location to open the text file.
   - Drag and drop the text file onto the License Manager.

   You will now see the permanent license in SabreTooth, as well as any other licenses, permanent or temporary, that have been installed on this machine.
4. On the K2 Summit Production Client, if you have completed your changes, enable the write filter.

You should save the permanent license to a backup system.

Related Links

Disable write filter on page 87

Enable write filter on page 87

Deleting licenses

Deleting a license disables the feature that it enabled. You might want to delete a temporary license prior to its expiry if you have decided not to purchase the feature. You can delete a temporary license after the permanent license has been installed without disabling the licensed product.

1. On the K2 Summit Production Client, if you have not already done so, disable the write filter.
2. Select the license in the SabreTooth License Manager.
3. Use the Delete key on your keyboard or right click with your mouse and select **Delete**.
4. On the K2 Summit Production Client, if you have completed your changes, enable the write filter.

Related Links

Disable write filter on page 87
Enable write filter on page 87

Archiving licenses

You can archive your licenses to a secure external location. This allows you to quickly re-install a license should it be deleted or should you have to downgrade and then re-license the software. You can archive multiple licenses at the same time.

NOTE: If you downgrade to an earlier version of the licensed software, make sure to archive the licenses first.

1. In the SabreTooth License Manager, select the license or licenses.
2. Choose **File | Export License** to open the Save As dialog box.
3. Assign a meaningful name to the file, and save it to the desired location. Grass Valley recommends saving the license file to a USB drive or other external location.

K2 licenses

The Grass Valley licenses available at the time of this writing that can be installed on a K2 product are as follows. Contact your Grass Valley representative for more information about licenses.

K2 Summit Production Client licenses

License	License type
K2 System Software	SabreTooth

License	License type
HD license for two channels of High Definition input/output	SabreTooth
AppCenter Pro	SabreTooth
K2 FCP Connect	SabreTooth
K2 TimeDelay	SabreTooth
K2 InSync	SabreTooth
K2 Pathfire Capture Service	SabreTooth provided by Grass Valley. Pathfire Transfer Service license also required.
Pathfire Transfer Service license	Provided by Pathfire. K2 Pathfire Capture Service also required.
K2 DG Capture Service	SabreTooth
K2 XML Import Capture Service	SabreTooth
Avid-TM	SabreTooth

Additional notes

The following sections contain addtional information about this release

Codec option matrix

Standard and optional codec functionality is specified in the following table. You can order codec functionality on a new system as an option or add it to an existing system as a field kit upgrade.

Codec options

Option	SD	HD	DV encode	DV decode	MPEG encode	MPEG decode	AVC-I encode	AVC-I decode
Standard	X		X	X		X		
With HD license	X	X	X	X		X		
With MPEG card	X		X	X	X	X		
With HD license and MPEG card	X	X	X	X	X	X		
With HD license and AVC-Intra card	X	X	X	X		X	X	X

Product nomenclature for options

Option	K2 Summit Production Client nomenclature	K2 Solo Media Server nomenclature
Standard	K2-XDP-2SD, K2-XPD -4SD	NA
With HD license	K2-XDP-2HD, K2 -XPD-4HD	K2-SOLO
With MPEG card	K2-XDP-2SD-MPG, K2-XPD-4SD-MPG	NA
With HD license and MPEG card	K2-XDP-2HD-MPG, K2-XPD-4HD-MPG	K2- SOLO-MPEG
With HD license and AVC-Intra card	K2-XDP-2HD-AVCI, K2-XPD-4HD-AVCI	NA

Managing the write filter

The following topics describe the K2 Summit Production Client and K2 Solo Media Client write filter.

About the write filter

The K2 Summit Production Client and K2 Solo Media Server have a file-based write filter, which is a feature of the Windows embedded operating system. With the write filter enabled, files can be created, modified, and deleted, but these changes are held in a memory cache. When the K2 system restarts, these changes are lost and the K2 system returns to its original state. This protects the K2 system from changes and increases on-air reliability. For any system configuration change the write filter must be disabled otherwise changes are lost at the next restart.

Some directories, such as `C:\logs`, `C:\Profile\config`, and `C:\Profile\ChannelSuites`, are excluded from write filter protection, so that channel configuration and logs are saved. Do not attempt to alter this list of excluded directories. If you suspect that write filter configuration has been altered, use the recovery image process to restore to the default configuration.

To enable the write filter, the K2 Summit Production Client or K2 Solo Media Server must be restarted. Likewise, to disable the write filter, the K2 system must be restarted. You can enable/disable the write filter remotely using the SiteConfig lock/unlock feature on one K2 system at a time or on a group of K2 systems all at once. You can also enable/disable the write filter from a local K2 system, but if you use the local method, do not also use the SiteConfig method. If you enable/disable the write filter locally, the change is not automatically sent to SiteConfig, so SiteConfig can not reliably indicate the current lock/unlock state.

Local software installation and the write filter

When you manually install K2 client software at the local K2 Summit Production Client or K2 Solo Media Server, the installation program helps you manage the write filter. Both the uninstall program and the install program have the same behavior. When you run either the uninstall or the install program, the program behaves as follows:

- If the write filter is enabled, the program notifies you and sets the writer filter to disabled, then prompts you to restart. To continue the uninstall or install process, you must restart and then run the program again, this time with the write filter disabled.
- If the write filter is disabled, the program sets it to be enabled so that after next restart the K2 system starts up with the write filter enabled.

In this way the write filter is disabled while software is installed. Changes made to system settings or to the system drive before the restart following an install are preserved.

Once you have uninstalled or installed K2 Client software, at the next restart the write filter is enabled. If you want to keep the write filter disabled after an install, run the Write Filter Utility and disable the write filter before restarting.

SiteConfig software installation and the write filter

When you use SiteConfig to install K2 client software on a K2 Summit Production Client or K2 Solo Media Server, SiteConfig helps you manage the write filter. The SiteConfig "Lock" feature enables the write filter and the "Unlock" feature disables the write filter. In addition, both uninstall deployment tasks and install deployment tasks behave the same way in how they manage the write filter, as follows:

- If the write filter is enabled (the K2 system is locked), SiteConfig does not allow the task to be deployed. To deploy software, you must first disable (unlock) the write filter on the K2 system.
- If the write filter is disabled (the K2 system is unlocked), when the deployment task completes SiteConfig keeps the write filter disabled. If you then restart the K2 system, the write filter is still disabled after the restart. This allows you to deploy additional software.

When you are finished deploying software, use SiteConfig to enable (lock) the write filter on the K2 system.

Disable write filter

Prerequisite:

- K2 software must be installed on the K2 Summit Production Client or K2 Solo Media Server

1. If you have not already done so, log on to the K2 system with Windows administrator privileges.
2. From the Windows desktop, click **Start | All Programs | Grass Valley | Write Filter Utility**.

   FBWF Manager opens.
3. Under Filter Settings, set Filter to **Disable**.
   Do not modify other settings.
4. Click **OK**.
5. When prompted, restart the K2 system.

Enable write filter

Prerequisite:

- K2 software must be installed on the K2 Summit Production Client or K2 Solo Media Server

1. If you have not already done so, log on to the K2 Summit Production Client or K2 Solo Media Server with Windows administrator privileges.

2. From the Windows desktop, click **Start | All Programs | Grass Valley | Write Filter Utility**.

   FBWF Manager opens.
3. Under Filter Settings, set Filter to **Enable**.
4. Under Protected Volumes, set C: to **Protected**.
   Do not modify other settings.
5. Click **OK**.
6. When prompted, restart the K2 Summit Production Client or K2 Solo Media Server.

About installing SiteConfig

SiteConfig uses a protocol that involves sending Ethernet broadcast messages to discover and configure devices. To enable this protocol to work correctly, there must be unrestricted network access between the control point PC and the devices to be discovered.

This is achieved if control network interfaces are all connected to the same switch or to multiple switches interconnected with ISLs/trunks. If your site requires that other switches and/or routers be in the network path, you must make sure that no restrictions are in place that block SiteConfig protocols.

Also, do not install SiteConfig on a PC on which a drive from a managed device is mapped as an administrative share (C$). For example, if you have a PC set up to run anti-virus software and for this purpose you have network drives set up on the PC mapped to C$ shares on devices, then do not use that PC as the SiteConfig control point PC that manages those devices.

Passwords and security on K2 systems

To provide a basic level of security, K2 systems recognize four different security levels based on Windows users and groups, and the systems ship from the factory with accounts pre-configured accordingly. To access the system you must login with the username and password for one of the pre-configured accounts.

The following table shows the different types of K2 users and their privileges. Passwords are case sensitive. The term “unknown user” applies to any user who logs in to the K2 System without using the Windows administrator, K2 administrator, or K2 user login and password

	Windows administrator	K2 administrator	K2 user	Unknown user
Login	Administrator	K2Admin	K2User	N/A[2]
Password	adminK2	K2admin	K2user	N/A
AppCenter Configuration Manager	Full access	Full access	Can view	Can't access
AppCenter	Full access	Full access	Full access; requires an account on the K2 Media Client(s)	Can view channel suites, channel status, on-line help and System Status pane. Can export logs.
Storage Utility	Full access	Full access	Can't access	Can't access
K2Config	Full access	Full access	Can't access	Can't access
Windows Operating System	Full access	Limited access (based on Windows login privileges)	Limited access (based on Windows login privileges)	Limited access (based on Windows login privileges)

For more information about Storage Utility or K2 System Configuration application security, see the *K2 SAN Installation and Service Manual*.

To support FTP security features, K2 clients have *movie* and *mxfmovie* accounts.

When using K2 with NetCentral, keep in mind that NetCentral has its own levels of security. Grass Valley recommends mapping the NetCentral administrator with the K2 administrator level. If you are using the Grass Valley Control Point PC, this mapping is already done for you at the factory, so you can log on to NetCentral as administrator using the K2 administrator (K2Admin/K2admin) logon. You can also assign other NetCentral groups to users, as necessary for your site's security policies. You need Windows administrator privileges to add or modify a user's privileges.

For information on mapping a NetCentral administrator to the K2 administrator level, see the *K2 System Guide*. For more information on NetCentral security, see the *NetCentral User Guide*.

About credentials in SiteConfig

SiteConfig requires administrative privileges on devices in order to perform most of the network configuration and deployment tasks. If you add a device based on a known device type, SiteConfig knows the default administrator login and password to use.

[2] The unknown user, like all others who access the K2 system, must have a valid Windows login for the K2 client or the control point PC through which the K2 system is being accessed.

Then, when you use remote desktop or perform software deployment to the device, SiteConfig automatically uses these credentials. These credentials are called "global" credentials for the device since the same credentials are used on all devices of that type in the system.

You can choose to override the default credentials for a given device type. For example, if you have specified a different administrator account or a different password on the devices when commissioning the system, then you want SiteConfig to use these modified credentials.

It is possible to also override the default credentials for a single device.

LUNs per RANK

This topic applies to external storage RAID devices. If Storage Utility detects drives with large capacities, it automatically binds the drives with multiple LUNs per RANK, as follows:

Drive	RAID 5	RAID 6
500 GB 7.2K	2 LUNs/RANK	1 LUN/RANK
600 GB 15K	4 LUNs/RANK	4 LUNs/RANK
1 TB 7.2K	4 LUNs/RANK	2 LUNs/RANK

Operation considerations

- Do not neglect to make a “first birthday” image of each K2 product shortly after installation and configuration is complete.
- Changing system video standards (NTSC/PAL) requires a restart as part of the channel changes as soon as the new standard is selected. Configuration Manager causes an immediate restart of the K2 client if the system reference standard is changed and AppCenter is being used.
- Refer to the “Remote control protocols” appendix in the K2 System Guide for operation considerations related to AMP, VDCP, BVW, Harris, RS-422, etc.
- To import/export between systems using AppCenter, in Configuration Manager on the Remote tab, add each system that you want to have available as a source or a destination. Do this for K2 systems as well as non-K2 systems, such as Profile XP.
- When transferring between K2 systems and other types of systems, such as Profile XP, you must specify the IP address, path, and file name to initiate a transfer.
- Constrain media names and filepaths for support across systems. For example, on a K2 Summit Production Client, AppCenter allows you to create bin names and clip names longer than 32 characters. However, names of this length are not supported on Aurora products.
- Tri-level sync is not supported on K2 systems.
- Before configuring audio tracks on a channel, eject all clips. This is required to put changes into effect.
- The K2 client and K2 Media Server can operate continuously for a long period of time, but the recommended operational practice is to restart at least once every three to six months.
- When restoring from a system-specific recovery image (an image you have created from your K2 system or the image on your K2 system's USB recovery flash drive), follow the procedure in the K2 product's service manual. When restoring from a generic recovery image (a baseline image for the K2 product), you must also restore network configuration, install K2 software, install SNFS software, and make a new file system.
- Mix effects (an AppCenter Pro feature) are supported as follows:
  - Supported between like formats: DV-to-DV, MPEG-to-MPEG, etc.
  - Not supported between between different formats.
  - Not supported for MPEG long GoP.
- At the time of this writing, Final Cut Pro 7 does not create or export AVC-Intra clips. Therefore, after editing AVC-Intra clips in Final Cut Pro, use some other K2 compatible format for export to K2 storage. K2 storage does not support import of QuickTime AVC-Intra.
- On a K2 Solo Media Server, before making a new file system, first upgrade drive firmware to the latest version, as specified in *Compatible K2 Summit Production Client and K2 Solo Media Server components* on page 10 earlier in these release notes. Failure to do so generates a Storage Utility error.
- Grass Valley recommends that you use a frame synchronizer on incoming video sources that are recorded in AVC-Intra format.

Known Problems

The following limitations are present in this release of software. If you wish to obtain more information about these limitations, please mention the reference numbers.

AppCenter

CR102538	Description:	When attempting to create a sub-bin eleven levels deep, an error is displayed.
	Workaround:	Constrain nested sub-bins to ten levels deep or less.
CR102785	Description:	Consolidate media operation fails when the media file system is nearly full on the K2 Summit Production Client or K2 Solo Media Server.
	Workaround:	Maintain free space on the media file system equivalent to the longest clip consolidated.
CR105208	Description:	Closed captioning and/or ancillary data not present in the last few seconds of a growing clip's playout. This occurs when playing out a clip that is being recorded, and the recording stops.
	Workaround:	Stop playout of growing clip before stopping recording. In any case the closed captioning and/or ancillary data is full-length in the recorded clip and present in subsequent playout.
CR108294	Description:	When reconfiguring channel security settings on Configuration Manager Security tab, AppCenter does not allow username/password fields to be blank.
	Workaround:	Enter username/password for a valid user account. Once configured, the fields require valid information.
CR109249	Description:	After a software upgrade, a K2 system configured to PAL is unable to record or play. This occurs infrequently. Most systems upgraded do not have this problem.
	Workaround:	In Configuration Manager configure to PAL and restart.
CR108888	Description:	Transition effects are not displayed in a playlist made up of subclips when the playlist is transferred to and played out on a different K2 system.
	Workaround:	Play the playlist from the K2 system in which it was originally created.
CR107898	Description:	When skipping events in a playlist and applying transition effects (Flying M/E) over 0.5 seconds, brief video glitches can occur.
	Workaround:	Set the transition effect to 0.5 seconds or less.

CR110369	Description:	AppCenter does not allow a clip to be deleted if the clip is associated with a playlist, program, or subclip.
	Workaround:	First use the "Consolidate Media" feature on the clip, then delete the clip.

Storage Utility

CR94255	Description:	Bandwidth expansion of a K2 SAN can fail if the media file system is overly fragmented.
	Workaround:	Before attempting bandwidth expansion, contact Grass Valley Support for an audit of your file system.
CR101794	Description:	Storage Utility does not open for a nearline SAN. This occurs when in K2 Config you select the name of the K2 SAN, which is the top node of the storage system tree, when attempting to open Storage Utility.
	Workaround:	In K2Config tree view, under the nearline SAN's K2 Media Server, select the **File System Server** node to open its property page. On the property page click **Launch Storage Utility**.
CR108206	Description:	The Clean Unreferenced Files feature and the Clean Unreferenced Movies feature are not available in Storage Utility.
	Workaround:	Do not attempt to use these features. The features will be available in a future release.
CR109691	Description:	The Expansion by bandwidth feature is not supported on K2 SANs with RANKs that contain multiple LUNs.
	Workaround:	Do not attempt to expand by bandwidth on these K2 SANs. The feature will be available in a future release.

K2 RAID

CR109174	Description:	Firmware file CH_15K6_SAS.N004 has a problem. This is the disk firmware file for K2 RAID Cheetah 6 15K SAS drives.
	Workaround:	Do not load CH_15K6_SAS.N004 onto drives. Instead, refer to compatibility tables in release notes and load the file with the updated version, which is version N005 at the time of this writing.

System

CR88881	Description:	During failover testing a Failover Monitor error occurs, indicated by a "COM1 initialization failed" log message on redundant K2 Media Servers.
	Workaround:	Uninstall a serial port mouse driver. The driver is evidenced only when the error state occurs. On both K2 Media Servers,

		in Device Manager, look under Mouse Input devices. Identify the Serial Mouse, disable it, and then uninstall it. In addition check the boot.ini to make sure that the /fastdetect flag is enabled.
CR90857	Description:	The K2 Media Server displays an error because the Dell OpenManage server log fills up.
	Workaround:	Manually clear the log and then configure OpenManage to overwrite the log when full.
CR108389	Description:	Slow operations after restarting with a USB device connected.
	Workaround:	Disconnect then reconnect USB device. Normal operation speed is restored.
CR110558	Description:	Macintosh systems cannot write to a HotBin directory on the V: drive of an iSCSI or Fibre Channel connected K2 SAN. GV Connect export to the HotBin fails.
	Workaround:	Delete the HotBin, configure Macintosh access in the SNFS configuration file, then recreate the HotBin from the K2 Media Server. Configure the SNFS configuration file as part of the upgrade to this version of K2 software, as instructed in the upgrade procedure earlier in these release notes. If not upgrading, take systems offline, make the change as instructed in the upgrade procedure, then restart the K2 Media Server to put the change into effect.
CR110466	Description:	On a K2 Media Server with SNFS on the C: drive, media is lost if you re-image the C: drive
	Workaround:	Before re-imaging, copy C:\SNFS\config and C:\SNFS\data to another location. After re-imaging, copy back to the C: drive.

Installation

CR102800	Description:	If uninstalling or installing K2 client software while applications or connections to AppService are open, the installation program becomes unresponsive.
	Workaround:	Use Task Manager to stop AppService. To prevent the problem from occurring, shutdown all applications and connections before uninstalling or installing.

Compatibility

CR108742	Description:	M-Series iVDR transfers fail.
	Workaround:	Do not attempt to transfer to/from M-Series iVDR.