



MULTICAM

RELEASE NOTE **VERSION 14.02.21**

Date: June 2016



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WARNINGS

- > **Multicam 14 supports XT3, XS3, XTnano, XS, XSnano servers with H3X or H3XP controller board**
- > **Multicam 14 is not compatible with server equipped with HCTX controller**
- > Multicam 14 requires 256MB of memory on the MTPC board
- > XDCAM-only encoding is supported in Server, Spotbox and Xsense modes ([Limitations](#))
- > V3X modules with SN between 98 and 259 do not allow to output in 3G-SDI on J2 connector, which is mandatory to use the 8-channel layout of the Quad-MTPC
- > Multicam 14 is recommended to be used with version 4.00 and above of the XHub
- > The maximum number of pre-installed Multicam versions allowed on a server is 5

NEW FEATURES

IN 14.02.21

- > No new features, bug fixing only

IN 14.02.16

- > No new features, bug fixing only

IN 14.02.09

- > No new features, bug fixing only

IN 14.02.08

- > Support of new XS3-6U, XS3-4U, XT3-4U ChannelMAX, XTnano 8Ch
- > New configurations
 - XT3-6U
 - New ChannelMAX configurations in 1080p
 - XT3-4U
 - New XRec configurations in SD / 720p / 1080i
 - ChannelMAX configurations for SD / 720p / 1080i / 1080p
 - XS3-6U
 - 4-, 6-, 8-, 10-, 12-ch configurations in SD / 720p / 1080i / 1080p
 - XS3-4U
 - 2-, 4-, 6-, 8-ch configurations in SD / 720p / 1080i / 1080p
 - XTnano
 - 8-ch configurations for SD / 720p / 1080i
- > Support for direct inputs to MV4 internal multiviewer with new rear panel (HW v4.20)
- > Support for high density Fill&Key modes (supported since XTAccess v3.5)
 - Up to 6 F&K channel pairs on XT3-6U and XS3-6U
 - Up to 4 F&K channel pairs on XT3-4U and XS3-4U

IN 14.01.37

- > Dual-LSM mode for XT3-6U
 - 8 IN + 4 OUT operated as 2x (4 IN + 2 OUT)
 - 6 IN + 6 OUT operated as 2x (3 IN + 3 OUT)
- > New presentation of configuration parameters for SLSM cameras

- > Support of XDCAM+Lo-Res encoding mode
- > Full support of native XAVC intra HD codec
- > With EditRec, allow sequences with up to 500 edits
- > New configurations
 - XT3-6U
 - New XRec configurations in 1080p
 - New ChannelMAX configurations in SD / 720p / 1080i / 1080p
 - New UHD-4K configurations
 - XT3-4U
 - New XRec configurations in SD / 720p / 1080i
 - New UHD-4K configurations
 - XS-6U
 - New ChannelMAX configurations in SD / 720p / 1080i
 - New UHD-4K configurations
 - XS-4U
 - New UHD-4K configurations
 - XTnano
 - New XRec configuration in SD / 720p / 1080i

BUG FIXES

IN 14.02.21

- > Lypsinc issue, the audio is late compared to video (MUL-4909)
- > Crash dump when changing the controllers on the channels via the Web configuration (MUL-4328)
- > In playlist mode, the remaining time displayed on the OSD is not consistent (MUL-4242)
- > Pictures can be corrupted when using EditRec with DNxHD (MUL-4147)
- > Servers cabled with internal LAN (on the internal switch of the H3XP) do not boot if the PC-LAN is connected to a switch with the LLDP protocol activated (MUL-4143)
- > Servers cabled with the Internal LAN (on the internal switch of the H3XP) do not detect PC-LAN connection error (MUL-3253)

IN 14.02.16

- > The zoom function goes to live instead of staying on the current Timecode (MUL-3995)
- > During an upgrade to Multicam 14, the gigabit interface may be wrongly detected (MUL-3906)
- > In VDCP, functions using the VARID send the Ack two times (MUL-3849)
- > When the number of recorded have been decreased, some invalid clips can be wrongly detected at the first startup if the server is configured in multi-codec mode (MUL-3847)
- > With EditRec, when only the audio is overwritten on a clip restored with transcoding in a frame codec, mosaic appears in the bottom right corner (MUL-3820)
- > With EditREC, audio crackling can be heard in the transition. (MUL-3624)
- > On a CUE command performed via Odetics protocol, the PGM output flashes (MUL-3472)
- > In Playlist conditional mode, the channel control switching automatically after pressing Take and then Record (MUL-664)

IN 14.02.09

- > The date is wrongly incremented during the month of February of a bissextile year (MUL-3638)

IN 14.02.08

- > When a playlist loaded on a player by IPDirector is deleted in the IPDirector interface, a desynchronization between IPDirector and the Multicam appears (MUL-3432)
- > Crash dump during Multicam startup when configured with more than 64 audio tracks (MUL-3261)
- > Web configuration would not load after Format and Install of Multicam (MUL-3108)
- > In base config LSM, channels controlled by VDCP as main controller are unload when the number of LSM Remotes used is changed in the LSM Remote menu (MUL-3107)
- > A growing clip opened for playout cannot be deleted and would grow until consuming all the capacity of the loop recording (MUL-3000)
- > Inserting 1 playlist into another would not update the playlist in IPDirector (MUL-2966 & MUL-2967)
- > With A3X audio board and XRec configurations, Lo-Res of the IN B is missing audio (MUL-2813)
- > XDCAM codec stability improvements (MUL-2487)
- > When operating in Free Run mode (without LTC input), the timecode of the record train starts at 00:00:00 instead of the MTPC time (MUL-1774)
- > TGE board automatically recovers the connection after an internal error (MUL-1452)
- > Clip restored via Gigabit interfaces failed when clip are created via VDCP (MUL-1451)

IN 14.01.37

- > Copy of clip being restored is stuck at 99% (MUL-869)
- > In 1080p, the incrust are in yellow on the players (MUL-684)
- > In Timeline mode, play commands are ignored after editing the speed value of an SLSM 2x element (MUL-659)

- > OSD flashing on CVBS outputs when in SpotBox Fill & Key configuration (MUL-653)
- > When 3 PGM are controlled and the lever engage mode is set to "Current speed" the lever affects only 1 PGM (MUL-619)

IN 14.00.70

- > The server is 4 frames ahead of the Timecode (MUL-2899)
- > In XRec mode with an A3X audio board and more than 4 audio tracks, the audio output of IN B has only 4 audio embedded tracks (MUL-2553)
- > It's not possible to adjust the audio FX duration (MUL-2107)

IN 14.00.69

- > Restore of clips via gigabit and initiated during Multicam startup would start but never complete (MUL-2517)
- > XDCAM clips would freeze when played in loop if the loop mode is set by an IPDirector (MUL-2456)
- > Mark cue point doesn't work when a playlist is loaded and if the "Mark Cue Point" parameter is set to live (MUL-2435)
- > In XREC mode with an CODA75 audio board, the embedded audio output of IN B is the same as for IN A (MUL-2111)
- > No audiometers on the record channels configured with MADI (MUL-2060)
- > MADI inputs and outputs were not interoperable (MUL-2022)
- > When a clip is played at 99% with the slow motion audio parameter set to no, a small glitch audio can be heard during the first second (MUL-1998)
- > The system date may not increment if the system time is synchronized to LTC around midnight (MUL-1953)
- > Bad image resolution in the multi-viewer with a MV4 in 1080i PAL and the layout for only one channel (MUL-1843)
- > Assignment of clip keyword using the LSM Remote is slower than with Multicam 11 (MUL-1838)
- > When the load playlist parameter is set to conditional and the call channel is set to off, the playlist loaded on the first PGM gets ejected when a clip is loaded on the PGM2 with the enter key (MUL-1834)
- > When restoring the same clip on multiple servers of XNet at the same time while maintaining clip ID, the clip position that was canceled due to the resulting conflict of ID cannot be re-used (MUL-1818)
- > Playout of a distant playlist may be interrupted when another server disconnects from XNet (MUL-1639)
- > The date of the system may sometimes change to 1970 or 2070 (MUL-768)

IN 14.00.66

- > When a playlist is playing on PGM1 in conditional mode, Call Channel (F3) would pause the playlist if the LSM Remote controls PGM1 (MUL-1845)
- > With Sony BVW75 parallel control, playlist edit mode would be exit after a couple of seconds (MUL-1813)
- > Connection timeout could occur with hypermotion Sony HDCU-2500 CCU (MUL-1806)
- > Web configuration did not support more than 6 recorders for the internal multiviewer (MUL-1805)
- > On a server configured with 4 PGM and mix-on-1-channel, reaching the end of a playlist on PGM3 would get PGM2 stuck on a black screen (MUL-1803)
- > Editing of a TimeLine with Sony BVW75 parallel control would be refused because the TimeLine was in a CUED state (MUL-1801)
- > LACP connection would not recover when cable #1 was disconnected (MUL-1777)
- > Starting Multicam without an LTC input would start recorders at timecode 00:00:00 (MUL-1774)
- > 8- or 12-channel configurations with 1080p would be allowed at higher bitrate than actually supported (MUL-1769)
- > RAID array configuration would not be saved after RSAS rebuild leading to spare drives not being used or faulty RAID detection upon Multicam restart (MUL-1499)

IN 14.00.62

- > With Dual-Play configurations, activating split-screen would affect the PGM of OUTB (MUL-1407)
- > On the LSM Remote, the menu for advanced audio editing (Shift+A) would not be usable (MUL-1719)
- > When working at 50Hz, AES/EBU audio could face some phasing issues (MUL-1689)

IN 14.00.51

- > Playout issues experience under heavy GbE load (MUL-1547)
- > Sometimes playout stops unexpectedly (MUL-1573)
- > XNet with a mix of H3X and H3XP controller boards could be unstable when the SDTI server would disconnect and reconnect under heavy network load (MUL-1601)

IN 14.00.49

- > Calibration of graphics with the Wacom tablet was wrong with 720p or 1080i (MUL-900)
- > Playback issues during a massive restore of clips (MUL-466)
- > VDCP: the jog command wasn't able to jump to the beginning or the end of a clip (MUL-1176)
- > Regeneration of timecode not working on a Playlist containing restored elements (MUL-530)
- > Copy of clips over gigabit between servers could fail if the clip was read on the destination server before the copy was completed (MUL-1346)
- > TAKE does not swap between PGM and PRV channels when the lever is down to 0% (MUL-939)
- > Wacom tablet calibration in paint mode was wrong with HD monitoring (MUL-918)
- > SLSM2x on 3G with AVC-Intra codec may present vertical timing issues on playout (MUL-521)
- > When working with multiple LSM Remotes, Call Channel could only reach the PGMs controlled by Remote 1 (MUL-503)
- > Embedded audio was missing on the monitoring output of the second recorder (J3) with XRec (MUL-501)
- > In XDCAM-only, pressing PLAY after browsing with the jog dial may start playout before video preload is completed (MUL-483)
- > F3 would load clips on unexpected PGM when "Call Channel VGA" is set to No (MUL-478)
- > Audio of the internal multiviewer is always from PGM 1 (Bug ID 91669)
- > Timeline plays in Edit mode when started from the VGA playlist screen (Bug ID 90661)
- > When SD Autosense is enabled, the remaining capacity is longer than estimated (Bug ID 89654)
- > On server configured with 0 REC, the remaining capacity advertised in XNetMonitor is 0h (Bug ID 89094)
- > When default copy/move is set to GBE, CAM pref information may get lost (Bug ID 83362)
- > With VDCP defined as second control in parallel mode, Live command on LSM panel may apply on all channels (Bug ID 79790)
- > Odetics protocol in secondary control : audio slow motion parameter not taken into account (Bug ID 8709)

KNOWN ISSUES & LIMITATIONS

ISSUES

SINCE 14.00.49

- > When a configuration using channels and with 4 players is used, wrong video displayed on PGM3 and PGM4 when the split screen is activated (MUL-1407)

SINCE 12.05.54

- > Video Delay base config requires a Remote D to be configured (MUL-739)

SINCE 12.05.50

- > When a playlist is loaded on PGM2 and uses an Aux Clip, the Aux Clip is not applied (MUL-698)

BEFORE 12.05

- > Modification of a playlist using Advanced Audio Editing on a server without this feature is allowed and causes problems (MUL-554)

LIMITATIONS

SINCE 14.02.16

- > In UHDTV-4K, the AUX clip function in playlist is working only with 1 IN – 1 OUT configuration (MUL-4038)
- > Server fitted with a CODA75 audio board and configured in DualPlay, the audio of the first recorder is wrongly associated with the last PGM (MUL-3631)
- > Timeline Is not supported with 1080p with DualPlay configurations (MUL-3612)

SINCE 14.02.08

- > ChannelMAX configurations with 1080p support mix effects only when configured with 2 PGM (MUL-3250)

SINCE 14.01.37

- > Operations in Dual LSM mode are subject to some limitations:
 - Timeline is available only on the first remote
 - Replace function is not available on the second remote
 - Hypermotion camera control is available only on the second remote in toggle mode
- > It is not possible to create local clips during the connection phase to the XNet network (MUL-2461)
- > In 1080p, freeze can occur with a local playlist filled with local SLSM 6X clips (MUL-2065)
- > Operations in 12 channels mode are subject to some limitations:
 - Available on XT3-6U and XS-6U
 - The server must be equipped with H3XP, V3X and A3X
 - Mix-on-one-channel is not allowed
 - Individual CHAR OUT output is not available for the second play channel of PLAY modules. The OSD are available in the internal multiviewer.
 - SD-downconverted outputs are not available
 - Regular mix with 6 IN + 6 OUT is available between PGM 1 & 2 and PGM 4 & 5

SINCE 14.00.70

- > 1080p XRec configurations with 3G-SDI Level-A does not allow to monitor the audio from the IN B channels in the internal multiviewer (MUL-2058)
- > Dual-SLSM6x 720p/1080i and SLSM8x 1080p configurations can be configured by users with too high a bitrate to always ensure smooth operations; Operators are advised to choose the preferred balance between image quality and responsiveness of operations (MUL-1822)

SINCE 14.00.49

- > Operations with more than 12 channels of 720p/1080i or with more than 6 channels of 1080p are only available with DNxHD
- > No VITC embedded on the loop through of the recorder modules (MUL-836)
- > When video disks are full and the number of inputs is reduced in configuration, recorders may not start automatically upon Multicam restart (Bug ID 89602)

SINCE 12.05

- > SD Autosense is not supported with 720p configurations (Bug ID 91154)
- > When video disks are full and the number of inputs is reduced in configuration, recorders may not start automatically upon Multicam restart (Bug ID 89602)
- > EditREC is only supported in Intra-only mode
- > V3X modules with SN between 98 and 259 do not allow to output in 3G-SDI on J2 connector, which is mandatory to use the Dual-Multiviewer feature (Bug ID 89652)

BEFORE 12.05

- > Operations in XDCAM-only mode are subject to some limitations:
 - Preload of clip may take between 0s and 2s
 - May impact Preload, Goto TC, ...
 - Next command in playlist
 - 1st Next command is performed normally
 - Following Next command is available when the clip is loaded (2s max)
 - Next commands issued during preload are discarded
 - Skip command in playlist
 - Skip is applied without freeze if issued at least 2s before the end of the current element
 - Otherwise, a cue up time (2s max) will apply on the following element
 - Skip commands issued during preload are discarded
 - Playlist elements must be at least 1.5s
 - Short elements will be skipped but remain editable
 - Playlist speed is limited between 0 and 100%
 - No support for negative speed
 - TimeLine editing is not supported in XDCAM-only mode
- > From machine A, play a clip of machine B. It is possible to delete the clip from B although the clip is on air (MUL-844)
- > Internal Loop is not supported with 3G-SDI Level-B (Bug ID 86751)
- > When working in UHD TV-4K, XNet content may be copied over SDTI but not played remotely (Bug ID 84906)
- > When working in UHD TV-4K with 2 PGMs, playing faster than 100% on one PGM may affect playback on the other PGM (Bug ID 84322)
- > In UHD TV-4K, wipe effects longer than 2 seconds do not render nicely (Bug ID 84367)
- > Cross-fade is not applied when swapping audio tracks on the Short IN of a clip in a playlist (Bug ID 83621)
- > Mix on 1 channel cannot be used in combination with Epsio Live offside line (Bug ID 35001)
- > OSD disappears after deactivation of the IPDP secondary controller while there is a playlist loaded and end of playlist is reached (Bug ID 32516)
- > Some Playlist OSD information can be missing when LSM remote and IPDirector are controlling PGM channels in parallel and OSD is set to a controller different than the one loading the playlist (Bug ID 32533).
- > When in the Multicam Setup page, technical OSD can be corrupted when focus is set to configuration lines for which the video standard does not correspond to the genlock of the server (Bug ID 32791).
- > With Hypermotion cameras, wrong OSD color for 1 or 2 seconds when pressing LastCue button (Bug ID 14021)
- > Clips are not logged in AsRunLog when the playout is interrupted (Bug ID 13241)
- > "Other Angle" functionality in Playlist edit mode does not work with clips with timecode more than 24h behind the head of the record train (Bug ID 13826)
- > With 3 PGM channels, the SDTI F9 connect window is not displayed when there is an IPDP Timeline loaded on PGM1/PGM2 (Bug ID 14074)
- > Push gigabit:
 - Cannot push a SDTI network clip through gigabit to a gigabit only server (Bug ID 12864)
 - When pushing on the fly before saving the clip, changes made on the clip information (name, keywords, rating) are not pushed (Bug ID 12847, 12848)
 - Gigabit push clip ID destinations start from 0 (110, 111, 112, ...) while SDTI destination IDs start from 1 (111, 112,...110). (Bug ID 12811)

- > When offside line mode is active or hypermotion mode is active, secondary control is not available on the remote in shift-D.
- > Using the VDR panel while in Timeline edit mode may result in loss of audio on the PGM (Bug ID 31441)
- > Clip creation from different PGMs controlling distant trains and local trains : mark in/out point successively on the various PGM may reset in/out points (Bug ID 8176)
- > Going into the Remote menu may deactivate a secondary control (Bug ID 8439)
- > Sony VITC time code is not available in Sony ganged mode, only Sony LTC and Sony Timer mode
- > Keyword filename is limited to 8 characters
- > Retrimming clip in IP Director only affect the IP Director, not the Remote operator and vice-versa (Bug ID 6651)
- > Do a sort-TC, get the list of results, loading a playlist without first pressing Live. Using the browse button will bring the user back to the browsing in the search result, not in the playlist. (Bug ID 6276)
- > The Undo command in playlists does not apply to the "Make Local" command (Bug ID 5515)
- > It is impossible to load a timeline in load playlist conditional (Bug ID 5365)
- > When editing a playlist, the duration of all playlists in the playlist screen is temporarily affected (they are calculated like in cut mode) (Bug ID 5333)
- > In split screen mode, audio meters only appear on PGM1, not PGM2 (Bug ID 5056)
- > On the SDTI Network, if a network cable is removed from a slave XHub where no server is connected, the master XHub can temporarily disconnect the XHub slave, causing a network disruption
- > VDCP protocol cannot be set as a secondary control of a remote.
- > Internal loop: in audio embedded, you always get the embedded audio, whether the loop mode is set to video+audio or video only.
- > Timeline limitations :
 - It is necessary to have minimum two PGM
 - The timeline features are only available to the first remote of an XT server
- > In Playlist mode on the first PGM of the first remote if the Aux Track Parameter is set to PGM, when no aux clip is defined for the current playlist, the audio is not automatically replaced by the playlist's original audio. This is not a bug. The setting "Aux track to PGM" should only be used when an aux track is defined for the current playlist.
- > In interlace mode, IN and OUT points can only be marked on even field to avoid parity violation when chaining clips. If the operator marks an IN/OUT point on an odd field, the LSM will actually mark it to the next/previous even field, and jump to this field. In progressive mode, IN and OUT points can be marked on all fields.
- > When playing a playlist, Next & Skip are not accepted during transition effects, nor if the next transition is a split audio (different audio and video IN point, or different video and audio effect durations).
- > When adjusting YUV parameters to define a custom colour for wipe border, the corresponding colour is not displayed on main output.
- > Impossible to switch to another camera while searching with the jog. Stop jogging, switch to the new camera, then start jogging again.
- > On remote record trains, it is not possible to switch to another camera in play on the same PGM : the new camera will always appear in pause
- > Playlists of Page 10 are not available from the EVS remote because they are dedicated to the other RS422 protocols
- > The internal loop mode is not available with Super Motion configurations
- > Resetting the "Protect Clip Pages" parameter in the setup does not reset the protect status of existing clips
- > It is not possible to flag a clip for archive before it is created
- > Setup Screen (Shift+F2) : the number of local and network clips is only refreshed when entering the screen
- > Delay Screen (Shift+F7) : when working in NTSC NDF mode, the time codes in this screen are still calculated on a DF basis
- > The default display mode is VGA. When upgrading, the default mode is retained. When pressing ALT-Backspace to toggle between VGA and Video mode inside the Multicam application, this might in some cases causes the system to disconnect from the network. The only solution to reconnect is to exit the application and restart it. This problem does not occur systematically, but avoid using ALT-Backspace inside the Multicam application when possible. Using ALT-Backspace while the Multicam is running can also cause a 00:00:00:00 TC to be marked on the video field recorded at that time.
- > It is not possible for a client to push a clip to another client.
- > On a XT server, create a playlist and load it. If you go back to live and move to another machine the clip that was last loaded on the player, it will be impossible to reload the playlist anymore.
- > When loading a clip or playlist after a network train, then marking a cue live, the cue is marked on the local trains, not on the previously loaded network train.
- > Freeze on OUT point in record trains in target tracking doesn't work, in PLAY VAR only. OK in normal play.
- > After having done a search on the remote, the browse function always browses in the results of the clip search, it is not possible to browse in the clips of the remote anymore without pressing "live".

COMPATIBILITY HARDWARE

- > Multicam 14 requires 256MB of memory on the MTPC board
- > Multicam 14 is only compatible with CODA75 or A3X audio boards
- > Multicam 14 is only compatible with MTPC board A2/A4 (HS870) or higher
- > Multicam 14 is only compatible with XT3, XTnano, XS and XSnano
- > XDCAM encoding requires an XT3 or a XS equipped with H3X or H3XP and XDCAM MVP modules
- > Dual-codec encoding with Lo-Res requires an XT3 or a XS equipped with V3X modules and H3X or H3XP
- > Configurations with more than 6 channels of 1080p or UHD TV-4K requires an XT3 with at least the following hardware revision:
 - > MTPC A3/A5, A3/A6 (HS-873)
 - > V3X modules with Serial Number higher than 1300
 - > V3X base with Serial Number higher than 4130 (revision A4 or higher)
 - > SAS disks with revision 10K5 or higher
 - > RAID array configured in (5+1) mode
 - > H3X
 - > Audio board A2/H3X, A2/X/H3X, A3/H3X (CODA75)
- > H3X board is only compatible with V3X video board, CODA 75 or A3X audio board and SAS drives
- > H3XP board is only compatible with V3X video board, A3X audio board, HS-873 and SAS drives
- > CODA 75 is only compatible with H3X, NOT with HCTX
- > V3X compatible with H3X are NOT compatible with HCTX
- > MTPC rev A3/A5 (HS873) is supported since Multicam 11.00.71
- > USB keyboard is supported since Multicam 11.02
- > H3X is supported since Multicam 10.05
- > H3XP is supported since Multicam 14.00
- > SAS drives are supported since Multicam 10.01.73
 - > Only SAS drives provided by EVS are supported
 - > All disks in the RAID array must have the same capacity.
- > Multicam 14 is not compatible with XT1, XT2 nor XT2+ chassis
- > The touch screen is not supported since Multicam 14
- > The Wacom Tablet is not supported for navigation purpose with Multicam 14
- > The STXX Jumper on the backplane must be removed!

XNET

- > SDTI network in Multicam 14.02.21 is only compatible with 14.02.08 and above. It is not compatible with ANY OTHER lower version
- > The same multi-essence configuration must be applied on all servers inside the SDTI network
- > Multicam 14.02.21 is not compatible with XFile2. XFile3 should be used instead.
- > Multicam 14 is compatible with V3.03 and above of the XHub but it is recommended to work with version 4.00 or above for the XHub3. XHub3 running version 4.00 is compatible with XHub2 running V3.03
- > If you need to upgrade the XHub, please contact EVS to get the upgrade software and procedure
- > If unsure, you can check the version with the following procedure for XHub3:
 - Move up the version switch
(This does not require switching off the XHub and it maintains normal operations during the version check)
 - The branch status LEDs show the software version in a binary pattern

Branch LED #	1	2	3	4	5	6	7	8
v. 3.03		green	green	red			green	green
v. 3.04		green	green	red		green		
v. 4.00	green			red				

- To return to normal LED behavior, move down the version switch
- > Or with the following procedure for XHub2:
 - Turn off the XHub
 - Move all 4 dip switches on the front panel to the lower position
 - Turn on the hub
 - The 7 branch status LEDs will light according to a binary pattern, as described in the following below

Branch LED #	1	2	3	4	5	6	7
v. 1.06		green	red		green	green	
v. 1.07		green	red		green	green	green
v. 2.03	green		red			green	green
v. 2.04	green		red		green		
v. 2.05	green		red		green		green
v. 2.06	green		red		green	green	
v. 3.01	green	green	red				green
v. 3.03	green	green	red			green	green

- Turn off the hub
- > Move all 4 dip switches back to the upper position

CLIPS & PLAYLISTS

- > A clear clip (clearing the video disks content) is mandatory when upgrading from any version older than Multicam 12.02
- > Upgrading from Multicam 12 does not require to clear the video disks
- > Downgrading from Multicam 14.02 to Multicam 12.05 or lower requires to clear the video disks
- > Downgrading from Multicam 14.02 to Multicam 12.05 or lower will delete the playlists

HYPERMOTION

- > Multicam has been validated with Vision Research Phantom firmware 776b
- > Multicam has been validated with Vision Research Flex 4K firmware 53
- > NAC Hi-Motion II recommended firmware is I/F PART FW 01.08.24 or above