



Multicam 11.00.62 Release Notes

0. TABLE OF CONTENTS

- 0. TABLE OF CONTENTS..... 1**
- 1. WARNINGS..... 2**
- 2. NEW FEATURES..... 2**
 - 2.1. IN 11.00.58 2
 - 2.2. IN 10.05.12 3
 - 2.3. IN 10.05.08 4
 - 2.4. IN 10.05.07 4
- 3. BUG FIXES 4**
 - 3.1. IN 11.00.58 4
 - 3.2. IN 10.05.12 4
 - 3.3. IN 10.05.08 4
 - 3.4. IN 10.05.07 4
- 4. KNOWN ISSUES & LIMITATIONS 5**
 - 4.1. ISSUES..... 5
 - 4.1.1. SINCE MULTICAM 11.00.58 5
 - 4.1.2. SINCE MULTICAM 10.04.18 5
 - 4.1.3. SINCE MULTICAM 10.03.39 5
 - 4.1.4. SINCE MULTICAM 10.03.33 5
 - 4.1.5. SINCE MULTICAM 09.00.74 6
 - 4.1.6. SINCE MULTICAM 08.04 6
 - 4.1.7. BEFORE MULTICAM 08.04 6
 - 4.2. LIMITATIONS..... 6
 - 4.2.1. SINCE 10.04.18 6
 - 4.2.2. IN 10.01.57 7
 - 4.2.3. SINCE MULTICAM 09.00.47 7
 - 4.2.4. SINCE MULTICAM 08.04 7
 - 4.2.5. BEFORE MULTICAM 08.04 7
- 5. COMPATIBILITY 9**
 - 5.1. HARDWARE..... 9
 - 5.2. SOFTWARE 9
 - 5.3. CLIPS 10
 - 5.4. HYPERMOTION VISION RESEARCH CAMERAS..... 10



1. WARNINGS

- **Setup parameters (Shift-F2 and remote setup) may be reset after the upgrade from Multicam 10.0x. Please check all your parameters after the upgrade.**
- **Please check Multicam 11.00 installation guide for instructions on how to recover previous Multicam 10.0x settings when downgrading versions.**
- **Multicam 11.00 must be installed on all servers of an XNet network including new XT3 with 7- or 8-channel configurations.**
- **SDTI speed selection is limited to 1485 Mbps in Multicam 11.00**
- Multicam 11.00 must be used with version 3.03 and above of the XHub.
- Multicam 10.05.09 or higher must be installed on XTnano with SAS drives
- The maximum number of pre-installed Multicam versions allowed on a server is 5.

2. NEW FEATURES

2.1. In 11.00.62

- No new features, bug fixing only.

2.2. In 11.00.58

- More recording channels available on XT3 6RU, XT3 4RU and XTnano with V3X boards. These are available in specific in/out configurations, including:
 - XT3 6RU 8 channels (SD and HD)
 - 1 SLSM 3x + 4 REC + 1 PLAY
 - 6 REC + 2 PLAY
 - 1 SLSM 3x + 3 REC + 2 PLAY
 - 2 SLSM 3x + 2 PLAY
 - 1 SLSM 2x + 4 REC + 2 PLAY
 - 2 SLSM 2x + 2 REC + 2 PLAY
 - 3 SLSM 2x + 2 PLAY
 - 5 REC + 3 PLAY
 - 4 REC + 4 PLAY
 - 1 SLSM 3x + 1 REC + 4 PLAY
 - 1 SLSM 2x + 2 REC + 4 PLAY
 - 2 SLSM 2x + 4 PLAY
 - Limitations: the Dual Channel mode allows the use 1 codec module to record 2 channels ; it does not allow to use 1 codec module to create 2 independent playback channels. It means that all 8-ch configurations are not possible. For example, 2 REC + 6 PLAY, or 8 PLAY is not allowed.
 - 3D 6-ch and 1080p 6-ch (dual and single link) also supported
 - New multiviewer configuration for 6 cameras + 2 PGM
- XT3 4RU 7 channels (SD and HD)
 - 6 REC + 1 PLAY
 - 1 SLSM 3x + 3 REC + 1 PLAY
 - 2 SLSM 3x + 1 PLAY
 - 3 SLSM 2x + 1 PLAY
 - 4 REC + 2 PLAY
 - 1 SLSM 3x + 1 REC + 2 PLAY
 - 1 SLSM 2x + 2 REC + 2 PLAY
 - 2 SLSM 2x + 2 PLAY
- Limitations: the Dual Channel mode allows the use 1 codec module to record 2 channels ; it does not allow to use 1 codec module to create 2 independent



- playback channels. It means that all 6-ch configurations are not possible. For example, 2 REC + 4 PLAY, or 6 PLAY is not allowed.
- 3D 4-ch and 1080p 4-ch (dual and single link) also supported
 - XTnano 6 channels
 - 4 REC + 2 PLAY
 - 1 SLSM 3x + 1 REC + 2 PLAY
 - 1 SLSM 2x + 2 REC + 2 PLAY
 - 2 SLSM 2x + 2 PLAY
 - Limitation: only the above 6-channel configurations are available on XTnano
 - New XSnano in 4RU chassis: 4-channel server controlled by protocols (VDCP, Sony, Odetics, XtenDD35)
 - New server configuration on XTnano allowing exclusive control by protocols (VDCP, Sony, Odetics, XtenDD35)
 - Mix on 1 channel available on XT3, XS and XT[2]+
 - Users in Spotbox configurations usually need to control two channels in PGM/PRV to play back a playlist with effects. With the mix on one channel activated, they can play back a playlist with effects on PGM1 while using PGM2 to play back something else.
 - Multicam LSM users in 2 PGM mode can use the load playlist parameter to decide if they want to use the second PGM2 to play effects or be in “conditional” mode and play back in cut on one channel. With the mix on one channel option, users can play back a playlist with effects using only one PGM output instead of two.
 - New configuration tools:
 - On the VGA, EVS and AVCFG are merged into MulSetup application which also covers the SHIFT+F2 configuration screens that have been completely reorganized
 - Configuration organised in categories, technical vs operational
 - Easier audio configuration
 - On the remote, parameters have been reorganized has well to reflect VGA categorization
 - New configuration interface accessible via a web browser connecting to the PC-LAN IP address.

Parameters that can be changed without rebooting Multicam

- Audio configuration
- Protocols assignment
- Monitoring configuration
- All ‘operational’ parameters

Parameters still requiring Multicam to reboot

- Number of record/playback channels
- Video codec
- Video standard.
- Network IP addresses

- In playlist mode, be able to add cut point and split one clip in two or any parts for easier edition.
- EditRec improvements
 - Redo function via EVS VGA menu which allows Undo function cancelling.
 - Add 1080p50/1080p60 compatibility
 - Add 3D compatibility
 - Add AVC Intra compatibility
 - Final Cut Pro auto edit compatible
- Supermotion improvement in 1080i DVCPPro and AVC-Intra video available on XT3 allowing smooth replay above 33% or 50% speed

2.3. In 10.05.12

- Improved interactivity for Vision Research Hypermotion cameras:
 - Clear Block function also available for Blocks in play mode.
 - Playing at the speed defined by PGMSpeed parameter can be initiated by pressing either SHIFT+PLAY or PRV CTL



2.4. In 10.05.08

- No new features, bug fixing only.

2.5. In 10.05.07

- Support of new server types:
 - XT3 6RU with up to 6 channels SD/HD or 4 channels 3D/1080p
 - XT3 4RU with up to 4 channels SD/HD or 4 channels 3D/1080p
 - XS 6RU with up to 6 channels SD/HD or 4 channels 3D/1080p
- Support of SAS drives in XTnano

3. BUG FIXES

3.1. In 11.00.62

- Clips created on XL[2] show 1 frame delay compared to the corresponding clip on the high res server (Bug ID 32819)
- When working with network playlists, Multicam can sometimes hang while exiting the application, without any damage to the server content (Bug ID 32515)
- Incorrect default values for Guardband duration, clip duration, clip postroll on an NTSC configuration (Bug ID 32914)
- When restoring very small clips via gigabit, some clips can remain blocked in "creating" (Bug ID 33729)

3.2. In 11.00.58

- PLST conditional mode sometimes fails in 3PGM mode (Bug ID 11344)
- In Split audio mode, the limits of a clip are not updated by changing the type of effect from MIX to CUT (Bug ID 11711)
- Insert clip from a search fails if a keyword file is selected (Bug ID 13688)
- Playlist loaded on Remote 2 won't apply IPD channel settings in parallel control mode (Bug ID 14620)
- In 2 REC + 4 PLAY configurations with 2 remotes and IPDP parallel control, playlist loop setting is disabled on second remote (Bug ID 14568)
- SORT-TC functionality different between M8 and M10 versions (Bug ID 23126)
- Trouble when transcoding clip with XTAccess into MPEG2 SD 8Mbps (Bug ID 13422)
- F9 Connect window list cannot be scrolled by keyboard, after use of tablet (Bug ID 23759)
- In 720p, playlist cannot be converted in Timeline when clip elements have been retrimmed on odd frames (Bug ID 14176)
- Cannot enter date under goto TC function in XTnano (Bug ID 14190)
- GPI 'Previous' is not working in IPD Playlist panel (Bug ID 14236)
- The image is not centered when enabling the Horizontal Split (Bug ID 14779)

3.3. In 10.05.12

- Clips restored in IMX might show corrupted pixels at the bottom-right corner of the image during playout. (Bug ID 31174).

3.4. In 10.05.08

- Clips recorded in IMX on the server cannot be transcoded in XTAccess due to incorrect headers (Bug ID 24057)

3.5. In 10.05.07



- No bug fixes.

4. KNOWN ISSUES & LIMITATIONS

4.1. Issues

4.1.1. Since Multicam 11.00.58

- PRV channel does not automatically go back to Live when a Timeline loaded for playout is switched to edit mode (Bug ID 23077)
- Graphic mode parameters are displayed in page 7.OPERATION of the configuration menu even though Paint/Target is not available (Bug ID 22926)
- Enabling hypermotion after resetting to default value in page 7.OPERATION of the configuration menu lead to incorrect error message when trying to change channel IN/OUT configuration (Bug ID 30772)
- In Split audio mode, wrong playlist element duration is shown after changing the effect type Mix by Fade (Bug ID 31454)
- OSD disappears after deactivation of the IPDP secondary controller while there is a playlist loaded and end of playlist is reached (Bug ID 32516)
- Server sometimes can't boot when video reference doesn't match the reference settings (Bug ID 14078)
- 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).
- When working with network playlists, Multicam can sometimes hang while exiting the application, without any damage to the server content (Bug ID 32515)
- Incorrect default values for Guardband duration, clip duration, clip postroll on an NTSC configuration (Bug ID 32914)

4.1.2. Since Multicam 10.04.18

- Clips are not logged in AsRunLog when the playout is interrupted (Bug ID 13241)
- With Hypermotion cameras, wrong OSD colour for 1 or 2 seconds when pressing LastCue button (Bug ID 14021)
- With 3 PGM channels, the SDT F9 connect window isn't displayed when there is an IPDP Timeline loaded on PGM1/PGM2 (Bug ID 14074)

4.1.3. Since Multicam 10.03.39

- When doing massive transfers through one of the the HCTX gigabit ports, the connection can be lost. A warning message will pop up on the VGA, the remote and the monitoring output when the HCTX gigabit module is no longer alive (Bug ID 12910).

4.1.4. Since Multicam 10.03.33

- Push Gigabit :
 - If a second push is initiated before the current one is finished, the list of targets may not be refreshed correctly (Bug ID 12813, 12868)
 - Cannot push a SDTI network clip through gigabit to a gigabit only server (Bug ID 12864)
 - Not possible to push a 6 cam clip to target 1 and 2 simultaneously (Bug ID 12859)
 - 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)



4.1.5. Since Multicam 09.00.74

- If a remote clip from a machine having the "edit clip by network" set to No is inserted in a local playlist, from the clip screen, it is possible to delete that clip on the remote machine if the user answers "yes" to the warning (Bug ID 9597)
- 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)
- Alt+L when not on the connect page does not bring the user back to local machine (Bug ID 9350)
- Going into the Remote menu may deactivate a secondary control (Bug ID 8439)
- 2 frames delay on out point of replace function without OUT (Bug ID 9051)
- Sony protocol : auto edit commands are not always executed correctly (Bug ID 9104)
- Moving of clips : clip cannot be selected as long as it is not entirely on disks although it appears as growing (Bug ID 7858)
- Using the VDR panel while in Timeline edit mode may result in loss of audio on the PGM (Bug ID 7759, 7690, 7943)
- Odetics protocol in secondary control : audio slow motion parameter not taken into account (Bug ID 7693, 8710)

4.1.6. Since Multicam 08.04

- In paint/Target mode, load a clip from the remote. Pressing play from the tablet, the clip is played at 100% speed (Bug ID 6616)
- When the stylus is on the tablet, on the F9 window displaying the remote servers, sometimes it is not possible to use the arrows to navigate through the list (Bug ID 4958)
- From machine A, play a clip of machine B. It is possible to delete the clip from B although the clip is on air (Bug ID 6338)
- It is impossible to load a timeline in load playlist conditional (Bug ID 5365)
- The Undo command in playlists does not apply to the "Make Local" command (Bug ID 5515)
- In split screen mode, audio meters only appear on PGM1, not PGM2 (Bug ID 5056)
- 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)
- In Loop rec off, when the maximum of the recording capacity has been reached exit the server without creating clips. When restarting the server will reallocate a small amount of the disk capacity to the recorder cache, resulting in losing some recorded images. The workaround is to protect the footage by clipping it before exiting the server. (Bug ID 6798)
- Go to TC on a User TC in a clip does not always go to the desired TC (Bug ID 6816)

4.1.7. Before Multicam 08.04

- 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.
- PUSH to a client system : the clip will be copied on the right machine, but in the receive page defined in the setup of the original machine rather than the one defined in the setup of the destination machine.
- It is not possible for a client to push a clip to another client.
- On a server XT, 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.
- Occasionally the clip TC displayed on the remote in timeline mode may not be accurate.
- Setup Menu, Audio Meters Adjustment : when this parameters is set to 10 or 12dB, the audio meters on the OSD disappear (Bug ID 5639)
- 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".

4.2. Limitations

4.2.1. Since 10.04.18



- “Other Angle” functionality in Playlist edit mode does not work with clips with TC more than 24h behind the head of the record train (Bug ID 13826)
- In 720p, a playlist containing clips with IN/OUT on odd frames cannot be converted to a timeline (Bug ID 14176)

4.2.2.In 10.01.57

- DVCPPro HD 1080i Supermotion is not supported
- When offside line mode is active or hypermotion mode is active, secondary control is not available on the remote in shift-D.

4.2.3.Since Multicam 09.00.47

- Start the server in Spotbox IPDP mode with the “Monitor Out” parameter of the EVS set to “SDI”. Until something is loaded on the players (Bug ID 7052)
- Sony VITC time code is not available in Sony ganged mode, only Sony LTC and Sony Timer mode

4.2.4.Since Multicam 08.04

- Keyword file names must be limited to 8 characters
- In PGM/PRV mode, playing a network playlist, if the remote XT is shut down, the channels will go IDLE. Pressing live will load Cam A on both channels.
- Caps Lock functions like if the shift key is on (Bug ID 4736)
- Retrimming clip in IP Director only affect the IP Director, not the Remote operator and vice-versa (Bug ID 6651)
- 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)
- 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 can not be set as a secondary control of a remote. A command line parameter has to be used (RmtVdcpEx) if users want to use it in exclusive mode.

4.2.5.Before Multicam 08.04

- Timeline should not be used on XT1 – risks of audio problems in some configurations
- 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
 - Inserts and extends are in overwrite mode only
 - 3 points edits only.
 - It is necessary to have minimum two outputs
 - When the playlist is converted into a timeline, all videos and audio transitions are set to cut only
 - All video and audio transitions inside a timeline are cut only
 - The speed is always 100%
 - The duration of the timeline cannot be modified
 - The timeline feature is 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 not accepted during transition effects, or if the next transition is a split audio (different audio and video IN point, or different video and audio effect durations).
- F7 to test mix/wipe effects in setup not yet implemented.
- 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.
- Live on remote record trains is about 2-3 sec behind the actual live.
- 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.
- To be able to rename or delete remote clips, the parameter “Clip Edit by Network” must be set to “Enable” on the server where the clip is stored.
- The keyword file must be distributed to all systems on a network by the Network Server. However, if this machine is disconnected for any reason, another server will automatically be designated as Network Server and will now be in



charge of distributing the keyword file. If the "old" Network Server is reconnected to the network but does not recover automatically its Network Server status, the machine acting as the current Network Server must be disconnected in order to allow the "old" one to take back that job and distribute the keyword file again. This will be resolved in a future version by allowing a system not acting as Network Server to distribute keyword files as well.

- 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.
- In Playlist Edit mode, copying a playlist exits that mode to return to live mode
- Clearing the clips from the EVS menu, clears also the record trains and the camera names.
- The phase field in the configuration screen is not editable. Phase must be defined with the corresponding option in the maintenance menu. Not a bug.



5. COMPATIBILITY

5.1. Hardware

- **Multicam 10.05 is mandatory for support of H3X board.**
- **H3X board is only compatible with V3X video board, CODA 75 audio board and SAS drives.**
- **V3X compatible with H3X are NOT compatible with HCTX**
- **CODA 75 is only compatible with H3X, NOT with HCTX**
- Multicam 11 requires 128 MB of RAM on the MTPC board.
- The MTPC board must be A2/A4 or greater. Any other MTPC board will not be supported.
- SAS Drives are only supported from 10.01.73 onwards.
 - Support of internal SAS disks (fixed mounting)
 - Support of external SAS disk arrays (max. 4 external arrays per server).
 - Internal and external SAS disks can be used simultaneously as 1 single storage volume
 - Max. capacity per server : 84 x 300GB SAS disks, or 20TB with 900GB SAS
 - 2 possible RAID configurations : 4+1 or 5+1, with or without hot spare disks. Refer to XT2+/XS SAS Tech Ref for details. Only SAS drives provided by EVS are supported.
- SCSI disks remain supported on the XT[2] and XS.
- SCSI and SAS drives cannot be used simultaneously on the same server.
- This version is only compatible with XT3, XT[2], XT[2]+, XTnano, XL[2], XS and XSnano chassis and corresponding audio codecs.
 - The HCT-X or H3X board must be equipped with the SDTI chipset to be able to use network options.
- This version is not compatible with HCT-2, HCT-4, HCT-S or XT1 chassis.
- The STXX Jumper on the backplane must be removed !
- The use of COHX requires an HCTX
- The use of HCTX requires the RCTL disk controller

5.2. Software

SDTI Network and XHub

- SDTI Network in Multicam 11.00.62 is only compatible with Multicam 11.00.58 or higher, and not compatible with ANY OTHER lower version.
 - Compatibility with XHub SDTI hub : Multicam 11.00.62 is only compatible with v. 3.03 and above of the XHub.
 - All XHubs on the same SDTI network must run the same software version.
- If unsure, you can check the version with the following procedure (XHub2) :
- o Turn off the hub
 - o Move all 4 dip switches on the front panel to the lower position.
 - o Turn on the hub
 - o The 7 branch status LEDs will light according a binary pattern, as described in the table 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

- o Turn off the hub
- o Move all 4 dip switches back to the upper position.
- o If you need to upgrade the hub, please contact EVS to get the upgrade software and procedure.

Or with the following procedure (XHub3):

- o Move up the version switch. This does not require switching off the XHub and it maintains normal operations during the version check state
- o 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

- To return to normal LED behavior, move down the version switch

5.3. Clips

A clear clip (clearing the video disks content) is mandatory switching from any version prior to Multicam 9 to Multicam 11.00. Clips are kept switching from Multicam 9 and later to Multicam 11.00 and vice-versa. Playlists may be kept but without guarantee.

5.4. Hypermotion Vision Research cameras

Multicam 11.00.62 has been validated with Vision Research firmwares : 653, 649, 676, 694, 712, 736 and 744.