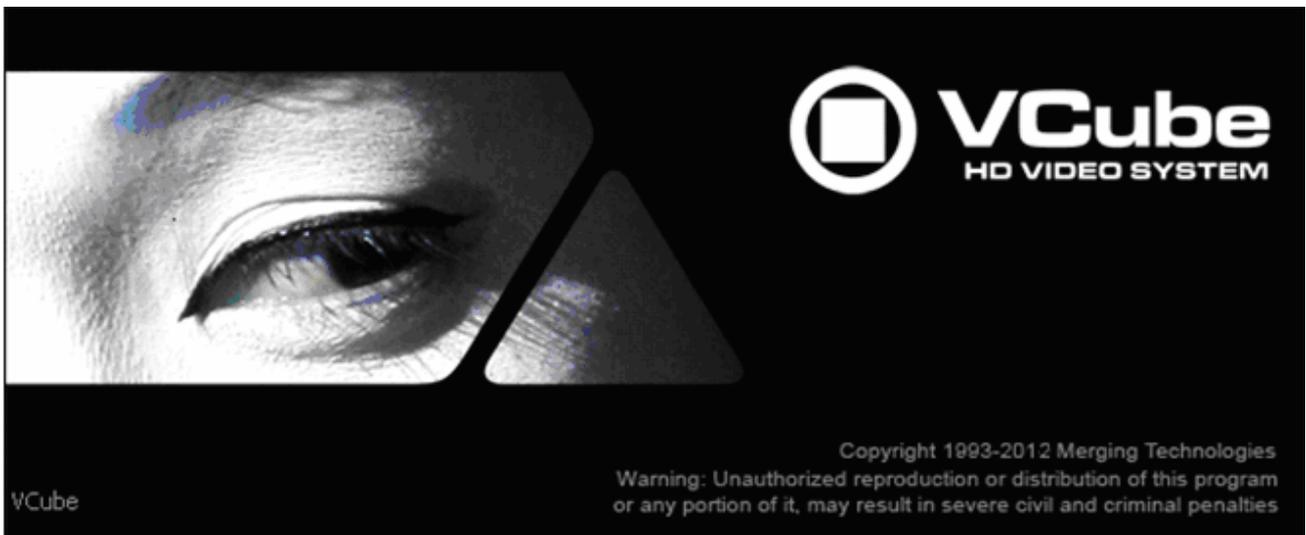




# VCube Release Notes



**Updates:** Please check our Web site <http://www.merging.com> periodically for information, patches and updates.





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## VCUBE 4.0 Release Notes

### IMPROVEMENTS

- Improved Auto Edit mode for Record, including new 'ASSEMBLE' mode
- Better handling of image sequences: now detects them and import whole sequence into VCube as one video clip.
- Progress bar when opening Media file (no more white screen)
- Cross-wrap MXF to MOV and MOV to MXF for compatible codecs (IMX, XDCAM-HD, DNxHD...)
- New settings icons: drop-down list and overlay
- VCube: Drag & Drop files from Windows Explorer :

#### **Drop into preview screen**

- The composition will be closed (after asking for a confirmation) and a new one will be created to follow the characteristics of the media file dropped (image size, frame rate, aspect ratio, interlacing...). The media will be placed at its original timecode in the timeline.

#### **Drop into timeline**

- The composition characteristics will not be changed to conform to the media.
- If more than one file is dropped at the same time, they will be placed in sequence in the timeline.

#### "Place to Cursor" mode (default behaviour)

- The media will be placed at the current cursor position in the timeline.
- If the "Ctrl" key is pressed while dropping the file, the files dropped will be inserted, and all clips after them will be rippled

#### "Enqueue" mode

- If the "Shift" key is pressed while dropping the file, the media will be placed at the end of the composition, immediately following the last clip (or at current timecode if the composition is empty)

- MXFix 2.0:
  - Batch Render mode
  - 2-pass Loudness Normalizer based on Final Check (+ True Peak Limiter)
  - Channel routing
  - Dolby E full integration (decode / encode / re-encode after correction)
  - Cross-wrap MOV <-> MXF for compatible codecs (IMX, XDCAM-HD, DNxHD, DVCPro...)
  - Preset for ARIB TR B32 specification



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## **VCube v4.0 BUGS FIXED**

- Fixed. MXF: Some files were causing crashes at opening
- Fixed. VCube Batch Render: all files were encoded with the same fps (the one blocked in Video settings tab of Render dialog)
- Fixed. VCube: DNxHD problems in Batch Render: forced FrameLayout to Interleaved\_UpperFirst
- Fixed. VCube: apply audio out changes was not working in SE mode (thus routing of render was not working)
- Fixed. Render to MXF XDCAM-HD could have missing video frames
- Fixed. MXFix: increased robustness of Dolby E decoding
- Fixed. MXFix: corrected FinalCheck measures for NTSC compositions.
- Fixed. VCube: new settings icons: drop-down list and overlay
- Fixed. VCube: repaint GUI after wrap for proper refresh
- Fixed. VCube: added delay buffer in FinalCheck VCube to handle NTSC wraps
- Fixed. VCube: MXF: correct size info for AVCItra-50
- Fixed. VCube: MXFix Render won't lose codec settings when changing the WatchFolder
- Fixed. VCube: changed NTSC default mode to NTSC DropFrame
- MT4136: Fixed. VCube: TC overlay color is not saved
- MT5133: Fixed. VCube: Render: crash when video file format is set to none
- MT5132: Fixed. VCube: Record: last recorded file can't be loaded in Timeline
- MT5090: Fixed. VCube: MXF: files with IMX from Adobe Premiere cannot be read
- MT5084: Fixed. VCube: MXF: faster loading of NTSC files (XDCAM-HD)
- MT5012: Fixed. VCube: MXF: can't read video of files with Subtitle Track 436M
- MT4710: Fixed. VCube: Render/wrap to MXF DNxHD is corrupted with NTSC files
- MT4412: Fixed. VCube: drag & drop from Win explorer not always working
- MT4308: Fixed. VCube: MXF record broken for DVCPPro, DNxHD
- MT4915: Fixed. Render of regions start at TC 0 if some tracks are not selected
- MT4994: Fixed. VCube: Crash when leaving capture mode of a hidden clip
- MT4999: Fixed. VCube: can't transfer wraps of MXF/DV on XDCAM (PDW-1500) (IRIB)
- MT4966: Fixed. VCube: Memory leak at end of QuickTime encoding
- MT4990: Fixed. VCube: Chase offset stored with wrong sign in SE mode
- MT4345: Fixed. VCube: MPG .vidx files regenerated at each re-opening or re-import of MPEG files
- MT4490: White screens during Render process

### **BUGS FIXED between v3.1 and 4.0 Beta release**

- MT4764: Fixed. VCube installer: AAF dlls fail to register
- MT4773: Fixed. MXFix : some files cannot be moved from process to done folder
- Fixed. VCube: FinalCheck report was incorrect regarding 'Dolby E' pairs
- Fixed. MXFix crash when selected a stereo pair before a Dolby pair with LevelMagic active
- MT3437: Fixed. VCube: unicode names not supported in various xChange plugins (MXF...)
- MT4398: Fixed. Dolby Encoder crash if number track count is incorrect
- Fixed. VCube: Remote access no longer warns users with DirectDraw error message
- MT4735: Fixed. VCube: waveforms not shown with most zooms for NTSC
- MT4730: Fixed. MXFix: hang decoding multiple Dolby E files
- MT4728: Fixed. Prores HD .mov audio 32 bits fix not correctly decoded
- MT4632: Fixed. MXFix: DolbyE encode: only first file is correctly encoded
- MT4715: Fixed. MXF: report error when writing of AES3 audio for D-10 failed
- MT4715: Fixed. MXF: frame size could be incorrect in some rare cases when wrapping D-10
- MT4695: Fixed. VCube: Level Magic update, fixing the 'evaluation period' issue
- MT4713: Fixed. VCube: Import Media: auto fit Composition window
- MT4641: Fixed. VCube: Added option (button) under the Buffer and Frames setting in order to "align audio read on frames"





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- Fixed: MXFix: write of 16-channel MXF files
  - MT4646: Fixed. VCube: MXFix: Some audio not read due to Sampling Rate
  - MT4638: Fixed. VCube: MXFix: Level Magic applied with only 2 channels could crash VCube
  - MT4632: Fixed. VCube: MXFix: Dolby E encode: Only first file was correctly encoded
  - MT4589: Fixed. VCube: MXFix: IRT analyzer reports an error
  - MT4543: Fixed. VCube: MXFix: Added Web monitoring and simple control
  - MT4127: Fixed. VCube: Reload of MXF files containing MPEG-2, which was failing (a purple frame was displayed instead of the video)
  - Fixed. VCube: Name of first video clip in timeline suggested as the composition name in 'Save as'
  - Fixed. VCube: Virtual Tape not working with NTSC
  - Fixed. VCube: Dolby E encoding until the last frame (2 frames were wrong)
  - Fixed. VCube: Potential crash when closing compos with PMF files



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## VCUBE 3.2 Release Notes (MXFix1 release)

### Installation:

**WARNING: DO NOT INSTALL MXFix/VCube 3.2 ON A COMPUTER ON WHICH PYRAMIX IS INSTALLED**  
This may cause instabilities in the software. These PC configurations will NOT be supported by Merging.

## NEW FEATURES

### ▪ **MXFix:**

Merging Technologies introduces the MXFix™ batch wrapper. Designed to make wrap processing of large amounts of broadcast quality video files as simple as possible for all users in a video workflow.

MXFix can perform *any* or *all* of the following tasks in combination with each other as needed. Each watch folder has its own set of tasks to be performed on the files that are copied to it.

### Possibilities:

- **Scan** multiple video files in multiple watch folders to determine process priority and compatibility
- **Decode Dolby E** audio streams to PCM (for re-wrapping or measurement) with the SurCode Dolby E® decoder plug-in
- Scan and **correct loudness levels** of stereo and surround channels to user defined target values of stereo and surround channels with Jünger Audio's **Level Magic®**
- **Measure EBU R-128/ITU.1770 (ATSC)** loudness levels of any stereo or surround channels with Merging's Final Check™ technology
- Generate a loudness level report file in .xml format with Final Check
- Correct MXF aspect ratio metadata
- Correct **audio word length values**
- Correct **audio track counts** to fit MXF hardware manufacturers' standards
- **Encode Dolby E** audio streams
- **Wrap** it all to a new video file
- **Push** that newly wrapped video file to an Output Folder for deployment
- **Erase or move** the original file away from the watch folder for archiving

### ▪ **MXFix Web Monitor:**

The Web Monitor is available from the moment VCube is running in MXFix mode [Alt + M]. It is accessed through a Web Browser, Merging recommends the use of Chrome or Safari. You simply need to be logged onto the same network domain as that of VCube running MXFix.

We recommend the use of the Chrome web browser.

- Log on to your VCube's IP address and add following the URL :7777  
Example: <http://10.0.0.80:7777>
- You may also log on to the MXFix Web Monitor from a browser on the local machine by entering the following URL in your Web Browser: <http://localhost:7777>

### ▪ **Optional with new keys:**

- MXFix Key
- Jünger Level Magic Key
- Final Check metering Key

**Note:** All Details on the MXFix & Web Monitor workflows are available in the VCube User Manual





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## **IMPROVEMENTS**

- MXFix
  - Expert Settings panel now available for Jünger
  - Continuous watch
    - MXFix will be relaunch automatically if a problem is encountered
    - If the MXFix Watch mode encounters a failure due to a specific file, this file will be put in folder named "Errors". MXFix will then restart automatically and process the next file in order
    - Auto-detect low memory conditions and relaunch if necessary to free memory
  - MXFix now integrates a checkbox "DEC Dolby E" for batch decoding of Dolby E streams, in the "Channel Description" panel
  - FinalCheck comprehensive XML report with no limitation on number of channels
  - Daily report logging MXFix activity throughout each day (text file exportable to Excel table)
- Wrap
  - Dolby decoding "DEC Dolby E" option now available in the Audio Processing
  - Users can chose the channels destination
  - Wave file format now supported in Wrap
- Final Check
  - No longer limited to 8 channels
  - Can measure up to 24 channels
- QuickTime
  - Added wrap support for HDV, IMX, and XDCAM codecs
- Render
  - MXF: support of B-frames in Render of MPEG2-HD (XDCAM-HD)
- Waveform generation
  - Added the possibility to force the waveform generation even if this disabled in the Settings.
  - Force the Waveform generation by selecting the timeline clip and accessing the context menu (Mouse + Right Click) and select the entry "Build Waveforms for Selected Clip"
- Added warnings:
  - Added message box when memory is > 85% just after loading a file. To warn of potential memory shortage
  - Added warning message if Dolby encoding is set and audio out is not 24-bit (MT4397)
- Added "align audio read on frames" option (button)
  - Under the Buffer and Frames setting in order to "align audio read on frames"
  - This option must be enabled for MXF files
  - Will improve Audio reading performance for video file with embedded audio
  - Replaces the registry key "VS3 Virtual Tape"
- Auto fit Composition window
  - Media imported in an empty timeline will automatically fit the composition window range
  - Media imported out of the timeline displayed range will Auto fit the composition window range to show all the media clips present in timeline



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## **BUGS FIXED VCube v3.2 Release**

- MT4764: Fixed. VCube installer: AAF dlls fail to register
- MT4773: Fixed. MXFix : some files cannot be moved from process to done folder
- Fixed. VCube: FinalCheck report was incorrect regarding 'Dolby E' pairs
- Fixed. MXFix crash when selected a stereo pair before a Dolby pair with LevelMagic active

## **BUGS FIXED VCube v3.2 RC1**

- MT3437: Fixed. VCube: unicode names not supported in various xChange plugins (MXF...)
- MT4398: Fixed. Dolby Encoder crash if number track count is incorrect
- Fixed. VCube: Remote access no longer warns users with DirectDraw error message

## **BUGS FIXED VCube v3.2 beta 2**

- MT4735: Fixed. VCube: waveforms not shown with most zooms for NTSC
- MT4730: Fixed. MXFix: hang decoding multiple Dolby E files
- MT4728: Fixed. Prores HD .mov audio 32 bits fix not correctly decoded
- MT4632: Fixed. MXFix: DolbyE encode: only first file is correctly encoded
- MT4715: Fixed. MXF: report error when writing of AES3 audio for D-10 failed
- MT4715: Fixed. MXF: frame size could be incorrect in some rare cases when wrapping D-10
- MT4695: Fixed. VCube: Level Magic update, fixing the 'evaluation period' issue
- MT4713: Fixed. VCube: Import Media: auto fit Composition window
- MT4641: Fixed. VCube: Added option (button) under the Buffer and Frames setting in order to "align audio read on frames"
- Fixed: MXFix: write of 16-channel MXF files

## **BUGS FIXED VCube v3.2 beta 1**

- MT4646: Fixed. VCube: MXFix: Some audio not read due to Sampling Rate
- MT4638: Fixed. VCube: MXFix: Level Magic applied with only 2 channels could crash VCube
- MT4632: Fixed. VCube: MXFix: Dolby E encode: Only first file was correctly encoded
- MT4589: Fixed. VCube: MXFix: IRT analyzer reports an error
- MT4543: Fixed. VCube: MXFix: Added Web monitoring and simple control
- MT4127: Fixed. VCube: Reload of MXF files containing MPEG-2, which was failing (a purple frame was displayed instead of the video)
- Fixed. VCube: Name of first video clip in timeline suggested as the composition name in 'Save as'
- Fixed. VCube: Virtual Tape not working with NTSC
- Fixed. VCube: Dolby E encoding until the last frame (2 frames were wrong)
- Fixed. VCube: Potential crash when closing compos with PMF files

## **KNOWN ISSUES VCube v4.0**

(Visit the Merging VCube Support <http://forum.merging.com> Forum for all details and updates)

- **First playback when configured with a Mykerinos (VS3 Control Panel) could crash.**  
Workaround: simply select the desired sampling rate under the VCube settings.
- **Playback of QuickTime files with H.264 Encoding might cause playback stall.** Issue MT3723. Typical behavior is your movie playing for some seconds, then stops and then play again.

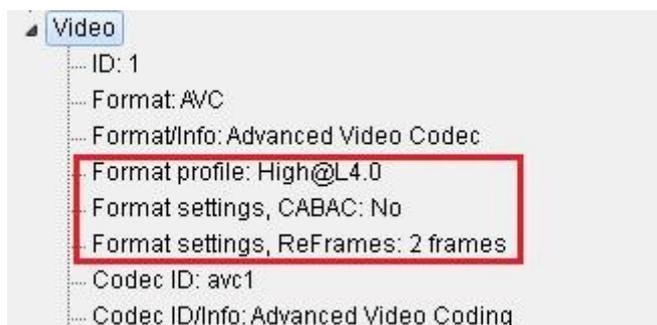
Playback Info window in Vcube will show that the read time is much too long to achieve correct playback.



H.264 can heavily compress the files, also meaning that the decompression process will require heavy processing.

A very useful tool to check the setting of the file is MediaInfo, that you can download here : <http://mediainfo.sourceforge.net/en>

- **Workaround:**  
Here are the recommended H.264 settings (at encoder side) for a proper playback with VCube :
- Profile: Main or High
- Level: 3.0 for SD, 4.0 for HD, or less than 4.1
- CABAC: off
- Reference frames: 2 or less



Note: If you still have troubles at some locations in the video (scene change or a lot of move), please try increasing your playback buffer size around 15 frames

- On certain installation the "dict.xml" and "types.xml" files are misplaced that might result in a "Failed to load Dictionary Files" warning.  
**Workaround:**
  1. Close Vcube



2. Verify whether the xml files "dict.xml" and "types.xml" are present in C:\Program Files\Merging Technologies\VCube\Plugins\XChange
3. If they are present copy them and paste them in the VCube root directory: "C:\Program Files\Merging Technologies\VCube"
4. Relaunch Vcube and warning should no longer be present.

- AJA LHi or 2K GUI: "Audio Source" selection under construction

## **OTHER KNOWN ISSUES**

-> Installer: upgrades can at time end up with a repair process or rolling back to the previously installed version. In such case Merging recommends that you un-install the current VCube version prior to installing VCube v4.0, instead of doing an upgrade.

-> Installer: QuickTime not always seeing the current version installed  
In some case the installer will not see that a QT installer is present, you might in such case have to un-install and re-install QT.

-> For Windows XP users: This new version requires an upgrade to Windows XP-SP3

-> Canopus ADVX1000 is no longer supported in Vcube

-> VCube Runtime C++ Error when playing video file (e.g. in Follow VT mode)  
Merging recommends that all VCube 4.0 configurations have at least 2GB of Ram (memory)

-> Remote: The first time 9 pin remote and/or machine control is used, you have to confirm that you use e.g. COM3 in the 9pin settings.

-> VCube Dolby E  
Decoding and Encoding support Optional "SurCode Dolby E Decoder" and/ or "Surcode Dolby E Encoder" key needed. Dolby E is only available through a separate installer.

-> MT4478: Audio track numbers ignored by Dolby E decoder  
Dolby E decoder will only work on the first Audio track group (a1).  
*Workaround: Make sure the Audio Files are all in the same Audio Track Group. Add Audio Layers if you need more audio tracks (Ctrl + Shift + N)*

-> MT4463: Dolby E does not decode in 720p timeline  
Due to FPS (x2) Dolby E signal cannot be decoded

-> MT4343: AJA/Mykerinos audio output is delayed by 6 samples  
When playing back, audio out is delayed by about 6 samples (~ 120 us). This can cause the Dolby E start code to be out of range  
*Workaround: A Sample Audio Read offset can be used as a registry key. Contact support@merging.com for further details*

-> MT4441: Record MXF: audio first frames are corrupted when Group By Stereo Pairs option is set  
*Workaround: Disable Group By Stereo Pairs option in Audio Advanced Settings*

-> MT4470: Audio fade do not work  
Audio Fade in / Fade out / CrossFade not working





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-> MT3285: AJA playback performance issues

We have identified several hardware / software settings to improve performances. Please contact the Support team if you encounter such issue

-> MT3468: VCube: Composition with too many MXF (MPEG-2 HD) clips may crash VCube due to memory load

*Workaround: We recommend not to use more than 10 MXF containing MPEG2-HD/XDCAM-HD files simultaneously to avoid such a problem*

-> MT3497: VCube: import from "Still Images" to MXF has false colors

-> MT3266: VCube high memory consumption when searching media

-> MT3532: VCube: AVC-Intra decoder not properly initialized until 1st frame is read

-> MT3511: VCube: Some QT files (2 video layers) will cause playback problems  
QuickTime 2 Video Layers files are not yet supported, please avoid using such files

-> MT3530: VCube playback may flicker at very high speed (>60 fps)

-> MT3533: VCube could crash if Audio Meters are detached at UI launch

*Workaround: Make sure Audio Meters are attached at launch*

-> MT3538: VCube could crashes when activating AJA on PyraCube MassCore under Windows XP

*Make sure you launch the System with the proper MassCore boot line selected*

-> MT3541: VCube LTC slave with USB-Sync board - record 1 frame offset

*Workarounds:*

*A- Go to the Record settings and adjust the Audio Offset (samples) accordingly*

*B- Use Sony 9Pin mode*

*C- Use a Mykerinos instead of the USB-Sync Board*

-> MT3559: VCube SE in Simple Mode can randomly crash on exit

-> MT3560: VCube Multi-Display Windows offset (top display not aligned)

*Workarounds: In the Windows Display Properties Settings verify that the Two Screens are align from the top*

-> MT3561: MT USB Sync Board with AJA not locking in CrossLock mode (e.g. 9pin Remote 24fps + composition 25fps )

*Workarounds: Merging recommends the use of a Mykerinos & AJA in order to work in CrossLock Synchronization*

