

## Important information if upgrading from an older version

Vidchecker version 7.5 uses a new licensing system which is incompatible with the older system. **Licenses from earlier versions will not work** and you need a serial number to enable this version.

Note that the new style licenses can easily be moved between machines that have internet connections by deactivating on one and then activating on another (see the help for details). If upgrading you may wish to test the license on a different machine before moving it to replace your current installation.

# Vidchecker Installation and Release Notes

## Version 7.5

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## Installation

The installer requires a serial number if Vidchecker has not previously been installed. If you do not already have your serial number contact [qcsales@telestream.net](mailto:qcsales@telestream.net).

If Windows or an installed security program asks you during the install if you want to continue click 'Allow' or 'OK'.

If you have Norton Anti Virus program installed and it reports a suspect virus in files named mc\_XXX.d11 they are false positives due to Norton's heuristics. Restore them from quarantine and instruct Norton to exclude these files from its scan.

You can optionally install Vidchecker server as a Windows service. We recommend that you start with the default installation as an application and read the Information in Chapter 2 of the Help about running Vidchecker as a Windows service and setting permissions, before you run the installer again and select 'Install as Windows Service'.

After installation read the Vidchecker help document. This can also be opened at any time by clicking on the Help link from the menu in the top right of the user interface.

## New installations and trial licenses

If you are running a trial of Vidchecker then you will have a 15-day trial license. After the trial has expired old results can still be accessed but it will no longer process files. See the Vidchecker help for details on all the limitations of the trial license.

Contact [qcsales@telestream.net](mailto:qcsales@telestream.net) if you wish to extend an expired trial license or purchase a full license.

## Upgrading

If you are installing this version as an upgrade from a previous version, simply install it over your existing installation. Do not uninstall the previous version.

Make sure that Vidchecker Server application is closed, and if you have Vidchecker installed as a service that it is stopped, before installing the update.

**We recommend that you back up your existing database and Templates before installing the update using Back Up in the Admin tab of the Vidchecker UI.**

Each new version will use your existing Templates and database if you install in the same folder.

New default Templates will appear in the Templates with '- New' at the start. Some Template test features may have changed. If this version requires you to update any of your existing Templates, a 'System note' will appear in the relevant Template and the word 'Notes' will appear in the Templates tab - to clear this you must delete the System note (as an acknowledgement that you have read it).

## Hardware requirements

The following PC/Server hardware is recommended:

- **Processor:** One or more current generation multi-core multi-thread processor(s). Recommended for processing large HD files are recent 4-core/8 thread or 6-core/12 thread processors - such as recent i7 (for example i7-W3770 / W3740) or recent Xeon (E5620 / E5649).
- **RAM:** Minimum of 4GB of RAM. Recommended 16GB or 32GB of RAM.
- **HDD:** Minimum of 500MB of disk space. Recommended 2TB or larger fast access (RAID 0) HDD. Sufficient disk space is needed for:
  - the files to be processed (if stored locally)
  - any corrected files
  - the Vidchecker database of test records: this can be many gigabytes over a long period of time; each file tested adds on average 1 KiB to 200 KiB depending upon the tests selected and the errors found (the more errors, the more thumbnails and error results)
- **I/O:** Minimum 1 Gigabit Ethernet (if files to be processed are small / low bit-rate). Recommended 4 or 10 Gigabit Ethernet or Fibre Channel if the files to be processed are large HD video files stored on a remote Storage Area Network. The hardware bottleneck when processing large video files is often reading and writing the files over the network.

### Disk requirements for corrected files

This section is intended to help estimate disk space requirements for corrected files. There must both be enough space in the selected Template's destination folder, and (if on a different drive), in the "Temporary Output Directory" as specified in the Admin tab.

For example, if Vidchecker is licensed to encode 4 files concurrently, and your output files are up to 1GB each, there must be at least 4GB of free space in the "Temporary Output Directory" before processing begins.

- Files re-encoded as IMX50: 50 Mbit/s (video) + 12.3 Mbit/s (D10 audio) = 62.3 Mbit/s = 446 MiB per minute of content.
- Files re-encoded using input format: Vidchecker will attempt to match input and output bit rates, so the output file size should be similar to the input file size.
- Files output as uncompressed YUV / PCM: Output file size varies according to frame size and frame rate. Some examples:
  - Video (1920x1080 @30fps, YUV422=16bpp)  $1920 * 1080 * 30 * 16 = 995.3$  Mbit/s  
Audio (48kHz stereo)  $16 * 2 * 48000 = 1.5$  Mbit/s  
Total = 996.8 Mbit/s = 7.1 GiB per minute of content.
  - Video (720x608 @25fps, YUV420=12bpp)  $720 * 608 * 25 * 12 = 131.3$  Mbit/s  
Audio (48kHz stereo)  $16 * 2 * 48000 = 1.5$  Mbit/s  
Total = 132.8 Mbit/s = 950 MiB per minute of content.

## Software requirements

- **Microsoft Windows** 64-bit operating system. One of the following versions of Windows:

- **Windows:** Vista with SP2 / 7 / 8 / 8.1 / 10
- **Windows Server:** 2008 R2 / 2012 / 2012 R2

Please ensure that the latest Windows updates are installed.

- **.NET Framework version 4.0** or later must be installed and enabled.

**Note:** Windows Server is often installed as standard in a very 'locked down' manner, where many things are prevented from running and then need to be explicitly 'opened up'. Make sure that .NET 4 is not only installed but also enabled using the Add Role Services (Admin tools → Server Manager → Features → Add Features).

- **Web browser**

The Vidchecker User Interface requires a web browser. Google Chrome, Safari, Mozilla Firefox, Internet Explorer 9 or later and Microsoft Edge are supported. The browser must have JavaScript enabled.

- **MOV Files**

The following are required to be installed for processing MOV files:

- [Apple QuickTime](#), version 7.6 or later
- [Apple ProRes Decoder](#)
- [Avid decoder](#) for DNxHD, Avid YUV/RGB and Avid Meridien files
- [Calibrated Software](#) IMX, XDCAM, DV100/DVCPProHD decode plugins for Windows

- **DirectShow**

If Vidchecker cannot open a file with its own decoders it will default to using DirectShow filters. We recommend that you install the [LAV DirectShow filters](#).

## Permissions

**Vidchecker must be installed by a user with Administrator permissions.**

The Vidchecker user must have appropriate folder and network access permissions to open, move and copy media files, write corrected files and send reports to folders (which may be on another computer).

The Vidchecker Server needs to have appropriate permissions to access certain network ports. If the Vidchecker Server executes as a user without Administrator permissions, then these permissions have to be explicitly granted by a user with Administrator permissions:

The Vidchecker installer automatically runs the netsh command to allow any user to "listen" on port 51060, so there should be no problem running the Vidchecker Server without Administrator permissions. For reference, the command executed is

```
netsh http add urlacl url=http://+:51060/ sddl=D:(A;;GX;;;S-1-1-0)
```

In order to run the Vidchecker Server without Administrator permissions:

- Install the httpcfg tool, if necessary
- Execute the following command, using an account with Administrator permissions:  
`httpcfg set urlacl /u http://+:51060/ /a sddl=D:(A;;GX;;;S-1-1-0)`

This allows any user to "listen" on port 51060. Note this change is persistent but the URL reservation can easily be removed. See the httpcfg help for more details.

## Uninstalling Vidchecker

In the Windows Control Panel, select "Add or remove programs". Select "Vidchecker" to invoke the corresponding wizard. The wizard automatically removes the software.

Note: if you have an expired trial license uninstalling and re-installing the software will not renew the license. If you have a purchased license you can uninstall and re-install and it will use your valid license.

## Release Notes

Vidchecker is developing rapidly and is regularly updated with new features. Customers with Silver Support are entitled to all new versions as they are released.

### Version 7.5 (December 2017)

- HDR standard conformance checks, including measurement and testing of MaxFALL/MaxCLL for HDR10.
- Added a 'Media Offline' test to detect Adobe and Avid Media Offline messages.
- Added a Nielsen watermark detection test.
- The Black Frame test can prohibit black frames at the start and/or end of a sequence.
- The Video Segment Detection test can now look for black AND silent sections.
- Report and test HEVC/H.265 profiles and levels.
- Added some extra frame sizes to the Frame Size test (2K/4K/UHD).
- New licensing system. Replaced Sheriff licensing with Telestream's licensing technology.
- API changes to separate Watch Folder operations from Task operations.
- API documentation and code samples are now included with the standard Vidchecker installer.
- Installer always prompts for installation directory, even if Vidchecker is already installed.

- Improvements to Letterbox/Pillarbox test sensitivity.
- Improvements to the Digital Dropout test.
- Improvements to the Freeze Frame detection algorithm.
- Improvements to the Field Order algorithm.
- New poor cadence patterns detected and warned about.

## Version 7.2 (July 2017)

- Updated UI, including improved Task Monitor filters.
- Added Netflix Photon test for validation of Interoperable Master Packages.
- Added new Templates for:
  - UK DPP HD version 5.0
  - AMWA AS-11 (X1, X8 and X9)\*
  - iTunes
  - Amazon Prime

\*These are work-in-progress as the standards are not yet finalized

- Digital Silence test now performs correction (i.e. to mute its input).
- Video Levels tests (RGB, Luma) can use the new 'digital' EBU R103-2016 transient filter.
- Added detection of OP-47 captions.
- Active Format Description (AFD) test shows an info alert if the AFD changes mid-stream (MXF only).
- The GOP Structure test can now report every error, instead of simply the first error of each type.
- Added MXF Header Metadata Size test for specifications which mandate the total size of MXF header metadata plus any subsequent KLV fill.
- Vidchecker Server console shows a warning if the database needs maintenance.
- Updated IMF test to recognize SMPTE 2067:2016 namespaces.
- Removed 'Reports' tab in UI, in favour of more flexible report options in the Task Monitor.

## Version 7.1 (January 2017)

- Support for HDR colour space ITU Rec. 2020.
- Added AMWA AS-10 templates.
- Updated suite of ARD/ZDF templates for v1.1 of IRT MXF profiles.
- Improved validation for Templates and Admin Tab settings.
- Vamp may be launched from the web GUI and displays alert details.
- Reports can be generated in the Input Folder alongside the asset under test.
- Installer gives choice of trialling Vidchecker or Vidchecker-post.

- Removed WSDL download from running server (refer to Vidchecker API SDK instead).
- PSE certificate not issued for files decoded using DirectShow or QuickTime, or for files using Rec. 2020 color space.
- Vidchecker is now part of the Telestream family!

## Version 7.0 (July 2016)

- Multilingual alert text. Japanese or English alerts can be selected for each Template.
- Advanced validation of Interoperable Master Format (IMF) metadata and essence.
- Automatic video segment detection. This identifies and reports back as timecodes the start and duration of any segments bordered by black positionals.
- Audio peak attenuation for R128 correction.
- Speedups in correction and checking.
- Start timecode correction (previously only available in Vidfixer).

All Vidfixer corrections are now available in Vidchecker as separately licensed options:

- **Transcoding:** Vidchecker users can now pre-define an in-house file format. Vidcheck can then automatically perform quality control as well as intelligent level correction and layout changes to a common file format regardless of input format.
- **Layout correction:** Automatic addition or removal of color bars and black frames to match the range required by the Template.
- **PSE correction:** This feature allows users automatically to correct content for delivery to UK DPP broadcasters, ensuring conformance with Ofcom guidelines for luminance flashing.

## Version 6.5 (Nov 2015)

- Added display of spatial location of errors
- Added generic coloured frame test
- Additional MXF syntactical checks and reports on these
- Substantial extension to generic MXF metadata checks
- Updates to ARD/ZDF and DDV2 NPO MXF tests and Templates
- Added audio tones tests for 'BLITS', 'GLITS' and EBU test tones
- Added audio silence test
- Added info alerts for maximum Momentary and Short term loudness
- Additional options on the report filters
- Multiple small UI enhancements

## Version 6.4 (July 2015)

- ProRes re-encode
- ProRes syntax checking with Enhanced Syntax Check
- Telestream Vantage agent status changes
- Unicode in PDF paths
- Changes to Dolby Dialnorm correction

## Version 6.3 (June 2015)

- Added generic MXF metadata attribute tests
- Added ARD/ZDF German and DDV2 NPO Dutch standard templates
- Added support for EBU R128 Short Form content and ARIB TR-B32 loudness
- Support for DNxHD185X in OPAtom and Canopus codecs [with 3rd party s/w]
- Added SMPTE RP219:2002 / ARIB STD-B28 colour bars check
- Added UI 'dark mode' (for use in darkened rooms) and other user-switchable style sheets
- Added Viewer level password
- Added compact view mode in Results tab (for viewing many alerts)
- Multiple performance improvements, incl. audio only decode (in files with video)
- Multiple smaller additions (e.g. support for BWAV timecodes, checks for mixed data rates [relevant for Avid], checks of CAVLC/CABAC for AVC/H.264 & HEVC/H.265)
- Multiple small UI enhancements (e.g. menu top right, incl. UI options)

## Version 6.2 (Jan 2015)

- Update of DPP templates to DPP spec 4.3
- Additional MXF AS-11 DPP descriptive and structural metadata testing
- Updated Netflix templates
- PSE algorithms updated to PSE V5.0
- PSE certificate included in reports
- User notes can be appended to individual alerts
- Report filenames user definable
- Audio channels positions test for surround sound tracks
- Reference files over network

## Version 6.1 (Sep 2014)

- Support for HEVC/H.265 video codec

- Extended support for 16-channel audio (including combining channels for test without channel mapping)
- Updated Netflix templates
- Progressive video display of test progress - current video frame being tested
- Multiple report formats
- Multiple small UI enhancements

API users please note: The API is changing from V6.1 with the previous task and configuration services being deprecated over the next 6 months. All integrators should now use the new public service. Please contact [qcsupport@telestream.net](mailto:qcsupport@telestream.net) for further details.

## Version 5.7 (Mar 2014)

- Test and correction of multiple loudness modes concurrently (I-mode, S-mode and M-mode). API users please note: Additional alert IDs have been added for S-mode and M-mode.
- Multiple mono audio track detection
- Update of DPP templates to DPP spec 4.1
- Additional visual drop-out detections
- Detection of short sections of letterboxing
- Test for breaks in 2:3 cadence pattern
- MXF timecode continuity check
- Minor improvements to UI (e.g. report options)

## Version 5.6 (Dec 2013)

- 64 bit processing
- Fixes to processing some AVC-I files
- Additional XML tags

## Version 5.5 (Nov 2013)

- Significant enhancements to the UI
- Closed Captions checking: support for Line 21, ATSC A/53 & SMPTE 436m
- Cadence checks: check for continuous / correct cadence (pull-down)
- Visually corrupt frame test (advanced visual checking)
- Faster video processing on time-intensive video tests\* (blockiness, dropouts) – better uses processor cores [\*depends upon number of processing cores available]
- Netflix Templates provided as standard (with further optional Netflix Templates)
- Easy Template sharing / import / export individual or multiple Templates

- Ability to add user notes to Templates (e.g. to record reasons for changes)
- Update audio loudness checking to include 1770-3
- Add Warning folder as output destination

## Version 5.1 (July 2013)

- AVC SPS/PPS tests (DPP / SMPTE 2027)
- Advanced GOP length tests
- Additional digital dropouts test
- GUI speed improvement under high workloads.

## Version 5.0 (May 2013)

- Post-processing facility e.g. allow ProRes/DNxHD re-encode (with external proprietary or open-source encoders)
- Faster processing of the time-intensive video tests
- Apple® iTunes® compatibility test (atoms tests)
- DPP MXF meta-data checking and reporting
- Support for JPEG2000 decode & encode
- Integration with Telestream Vantage (as well as Root6 ContentAgent, Amberfin iCR, DVS, Envivio OnDemand, SuitcaseTV)
- Additional checking of MXF header versus essence meta-data (mismatch check)
- Batch delete Results of old tasks from database
- Start time of processing task also displayed
- Automatic aggregation of multiple video alerts

# Technical Support

## Fault Finding

In case of problems check that the installation requirements have been met, and that Vidchecker Server is running and says 'Vidchecker server is now ready'. If it does not:

- Check the install requirements and that you have the full standalone version of .NET 4.0 or later installed and enabled.
- Make sure you install using a Windows account with Admin rights.
- Try re-installing.
- Check that there are no errors reported during the installation process.

Please read the appendix on Fault Finding in the Help. In most cases it should help solve any problem. If you can't access the Help via the UI it can be opened directly from the installation directory, default `c:\Program Files(x86)\Vidchecker\gui\help\help.html`.

If you still have problems contact [qcsupport@telestream.net](mailto:qcsupport@telestream.net) or your local Reseller. We can usually diagnose with a quick online 'GotoMeeting' call, where we can see your PC screen and talk you through the steps.

## API for workflow/asset management system integration

Vidchecker already integrates well with many third party programs, such as encoders, transcoders and asset management systems. The list of integrations is continually increasing: please see [the Vidcheck website](#) or contact Vidcheck for the current list.

In addition to the integrations already done Vidchecker has a straightforward SOAP webservice-based Application Program Interface, which allows users and third parties to quickly integrate with other workflow management and asset management systems.

The API documentation and client sample are installed with the product - see the API documentation (default location '`C:\Program Files(x86)\Vidchecker\SampleClient\README.html`') for more information.