

R&S®CLIPSTER

Release Note

Software Version 6.7.0.3

© Rohde & Schwarz GmbH & Co. KG

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Hanomaghof 1, 30449 Hanover, Germany

Phone: +49 511 67 80 70

Fax: +49 511 37 19 74

Internet: <http://www.rohde-schwarz.com>

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FBMS

Release Note

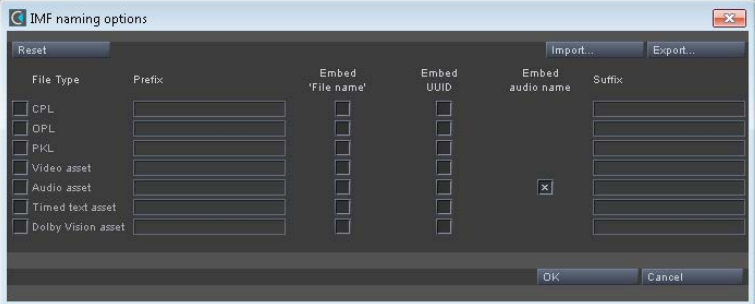
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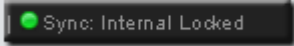
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1 Information on the Current Version and History

1.1 New Functions

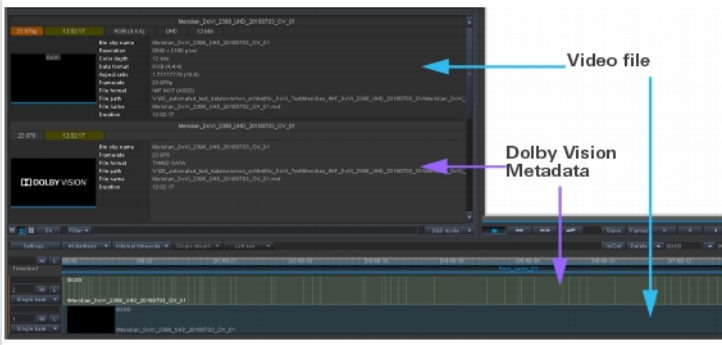
The following table lists the new functions and indicates the version the new function was introduced in:

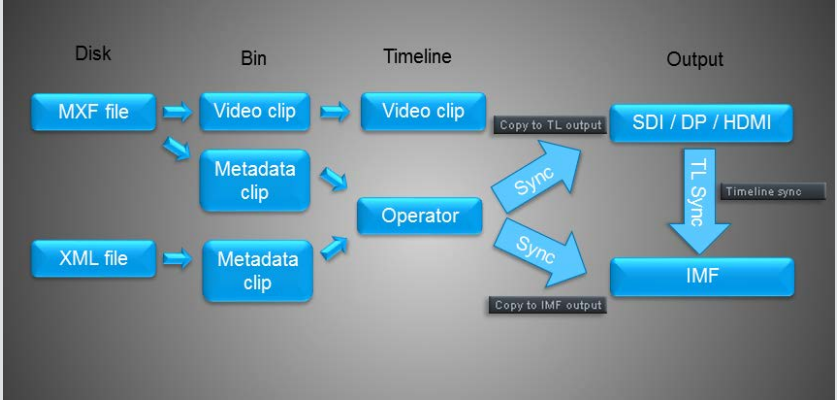
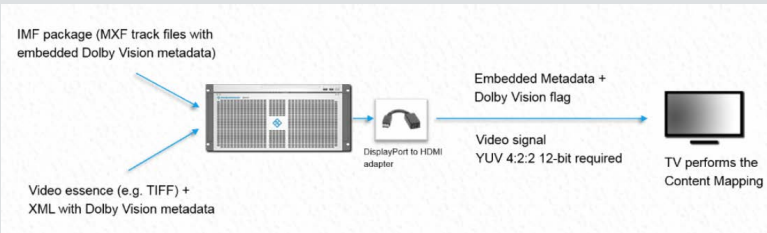
Version	Function
6.7.0.3	<p>IMF File Naming</p> <p>CLIPSTER comes with a default set of file naming rules for the generated files in an IMF package. With this new version, the user can specify a custom set of naming rules in a flexible way. Depending on the type of file, CLIPSTER can now add a specific addition to the package name specified by the user. A specific naming addition can be:</p> <ul style="list-style-type: none"> • Prefix - attaches a string of characters at the beginning of the filename. • Filename - this is the actual package name given by the user. • UUID - Universal Unique Identifier for a specific asset. • Audio name - this is the filename for the audio file(s) given by the user. • Suffix - attaches a string of characters at the end of the filename.  <p>This Wizard is accessible in the Creation page of the IMF Delivery Tool. Further, naming option presets can be set globally for any new project via the Configuration tool (Configuration Tool > Defaults > Project > Preset for IMF naming option).</p>
	<p>IMF Validation</p> <p>CLIPSTER provides an internal validation tool allowing you to verify the finalized IMPs. The validation tool is based on Photon, which is an open-source library developed at Netflix to provide validation functions for Interoperable Master Format assets (https://github.com/Netflix/photon).</p> <p>Java (JRE 8 or higher) is required to use the Photon library with CLIPSTER. The Photon tool installer is delivered with the CLIPSTER distribution package and must be installed prior to using the built-in IMF Validation tool. To install, navigate to Clipster\Photon\Install_Photon-<version>.exe and double-click the exe file.</p> <p>A validation test can be performed either right after the creation of an IMP or on already existing IMPs and will display the number of errors and warnings as well as the detailed results.</p> <p>To open the IMF Validation tool, navigate to Project > IMF Package Validation or press [Ctrl+Alt+V] on your keyboard.</p> <p>To perform a validation test right after the creation of an IMP, enable the checkbox Run IMP Validation on the Creation page of the IMF Delivery Tool.</p>

Version	Function
	<p>DCI Additional Metadata</p> <p>CLIPSTER fully supports the SMPTE ST 429-16 specification when integrating metadata into a DCP. This specification defines additional D-Cinema composition metadata. It is also possible to insert custom, user-defined metadata. CLIPSTER provides a dialog to enter the required data, which can be accessed through the CPL page of the Digital Cinema Delivery Tool.</p>
	<p>HDR – EclairColor™</p> <p>EclairColor™ is a digital HDR color solution developed by Ymagis Group that combines a mastering process and the optimization of selected projection system technologies. This HDR option is now integrated in CLIPSTER when creating DCPs and can be accessed through the Digital Cinema Delivery Tool. After rendering, the EclairColor™ metadata is written into the final CPL as extension metadata.</p> <p>EclairColor™ comes with two possible color profiles you can select to integrate into the CPL:</p> <ul style="list-style-type: none"> • EDR - XYZ Primaries / Gamma 2.8 / PeakWhite 103 nits • HDR - XYZ Primaries / Gamma 2.8 / PeakWhite 300 nits <p>CLIPSTER provides therefore two new source color formats: EclairColor 1 EDR and EclairColor 1 HDR which can be set as usual.</p> <p>Please note that the commercial use of EclairColor™ HDR requires a license from Eclair/Ymagis Group.</p>
	<p>Genlock Sync Status</p> <p>As of this version, the status of the genlock sync signal of an externally connected master device can be displayed at the very right bottom corner of the UI.</p>  <p>The status display is off by default. To activate, navigate to Configuration Tool > Defaults > General and enable the Show genlock sync state in status bar checkbox.</p>

1.2 Modifications and Improvements

The following table lists the modified functions and indicates the version the modification was carried out in:

Version	Function
6.7.0.3	<p>Dolby Vision™ Home</p> <p>This release features a revised workflow for Dolby Vision Home. There is no explicit Dolby Vision operator anymore in the Effects->Metadata section. Instead, Dolby Vision metadata XML files now need to be imported into the Bin and inserted from there into the Timeline as any other Bin clip file. This metadata is always represented in CLIPSTER as a separate clip in the Bin, and takes a separate track within the timeline i.e. anytime you open an MXF with frame-wrapped Dolby Vision metadata, that metadata will be displayed as an additional Bin clip/Timeline track.</p>  <p>The Dolby Vision track must be always placed on top of the video track. The vertical lines within that track represent the boundaries of each shot.</p> <p>CLIPSTER supports the latest version of the Dolby Vision Mastering Metadata container format. Currently supported are version 2.0.5 and 4.0.2. The metadata specification is represented within the CLIPSTER User Interface and can be accessed as follows:</p> <ul style="list-style-type: none"> • Bin clip properties dialog (right-click to open the context menu of the Bin clip, select Properties > Dolby Vision). Metadata is editable. • Operator view (double click the metadata track in the timeline). Metadata is not editable. • Timeline output settings (button Settings on the timeline > enable Dolby Vision checkbox > Global metadata). Metadata is not editable. • IMF Delivery Tool, Video page (enable checkbox Metadata output > Options). Metadata is not editable. <p>CLIPSTER allows now for a flexible metadata handling of both the source and the output metadata. The Dolby Vision source metadata is the original metadata usually delivered by the color grading facility. The output metadata is the one you set for your target display - in CLIPSTER for playout (preview) and to create your IMF deliverables. Now you can edit the source metadata, set the output metadata for playout and package creation, and even sync between the different stages.</p>

Version	Function
	 <p>Dolby Vision playback is now also possible via HDMI. For this, the following conditions must be met:</p> <ul style="list-style-type: none"> • DisplayPort to HDMI adapter is required (if not already available, it can be retroactively ordered, part number 2904.1060.03) • the DisplayPort/HDMI mode must be set to YUV 4:2:2 12 bit • the maximum supported and tested frame rate for playback is 30fps  <p>IMF Asset Creation</p> <p>When working with reels, the user now has the option to choose whether to create individual files from each reel in the Timeline, or create a single master file with each reel only referenced in the CPL. Further, when creating supplemental IMPs, the options clipwise rendering and asset reuse are now forced by default. All essences not present in the source will be rendered; all existing essences will be referenced.</p> <p>In general, CLIPSTER provides the following rendering options when creating an OV:</p> <ul style="list-style-type: none"> • Clipwise rendering (on/off) - Clipwise rendering set to "off" ignores clip boundaries within the timeline to make a concatenated output file. Clipwise rendering set to "on" aims to create one output file per clip in the Timeline. Both are modified by the Cut reels physically and Reuse assets options • Reelwise rendering – CLIPSTER uses this rendering option, as soon as there are reels in the composition. All segments that are not included within a reel are ignored. When the option "Cut reels physically" is disabled, reel boundaries from the timeline are promoted to the IMF CPL as segments, but the MXF track files are not affected (i.e. not split). MXF track files will be split at reel boundaries when this option is enabled. • Reuse assets (on/off) - When disabled, CLIPSTER ignores the format source file, so even if the source could be reused because it is IMF compliant, it will be treated as any other source. However, the essence of the source will only be re-wrapped if it is compliant with the IMF target. If enabled, existing IMF track files will be reused no matter what other checkbox option has been enabled and their metadata has not been modified. <p>The rendering options can be accessed on the Creation page of the IMF Delivery Tool.</p>

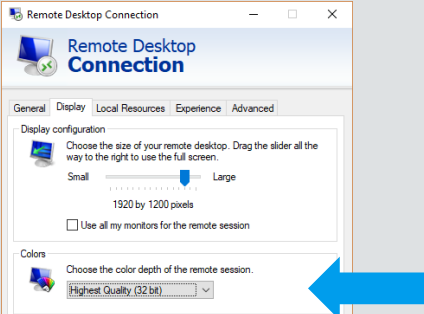
Version	Function
	IMF Subtitles The IMSC1.1 feature set is now supported with several new styling attributes: tts:luminanceGain, tts:ruby, tts:rubyAlign, tts:rubyPosition, tts:rubyReserve. NOTE: The tts:luminanceGain attribute requires all entries under Configuration Tool>Project>Color>Subtitling/Burnin to be set to Bypass.
	Audio Output Configuration The audio output configuration now allows for setting a master volume offset for the track, which is applied in addition to keyframe-based volume adjustments. Volume offset as well as slip sync settings can now be applied as absolute values or relative changes to the current value. It is now also possible to apply the changes to not only the currently selected track, but also all tracks in the timeline, or just the currently selected track and tracks with an ascending or descending track index number..
	Active Area Auto center option has been added to the active are settings. If enabled, the selected active area is automatically centered within the image.
	Miscellaneous <ul style="list-style-type: none"> • The support of connected GPFS storage via 10GigE/40GigE has been improved. The buffer handling can be adjusted for this type of storage. Please contact R&S Customer Support for more information. • In addition to loading IMP CPLs into a clean timeline they can now also be inserted into an existing timeline. This works similar to CLIPSTER project file (.cp) inserts and is accessible via the same menu entry. • HLG and HDR10 color metadata is now supported on H.264/H.265 files. • Added read and write support for SDF-01 and SDF-02 file format. • Added read and write support for DNxHR LB 8Bit, DNxHR HQ 8Bit and DNxHR SQ 8Bit file format. • Improved CLIPSTER startup and shutdown behavior. • Added JPEG2000 Sublevel information to clips in the Bin.

1.3 Fixed Issues

The following table lists the issues that have been confirmed to be resolved:

Version	Function
6.7.0.3	Active area is now auto adjusted on raster changes.
	CLIPSTER ignores incorrect active area metadata when adding clips to the Bin. A notification message is displayed when such clips are being added. In software version 6.6 clips with incorrect active area could impede playout or rendering.
	Fixed an XAVC encode problem. In rare cases, XAVC files rendered with prior software versions had small encoding artefacts.
	Fixed an audio distortion during ingests in SD rasters. This problem was introduced with software version 6.6.0.2.
	Essence descriptors in IMF CPLs are no longer repeated in case of using resources that share a common track file.
	Fixed scaling of images in pulldown workflows. In prior CLIPSTER 6 versions, these scaling could introduce blur and/or artifacts.
	Fixed problem with loading of IMF CPLs into the timeline referencing more than 16 mono or 32 stereo channels.
	HLG format is now correctly written to XAVC MXF files. Rec2020 was set as transfer function in prior versions.
	OPLs are now referenced by the PKL and Assetmap when creating IMPs.

1.4 Known Issues

Version	Issue
6.7.0.3	<p>XAVC</p> <ul style="list-style-type: none"> When playing out H.264, the async option in the Configuration Tool must be disabled first. XAVC projects generated with Software Version 6.0 may not be played out properly with a current version.
	<p>TTML</p> <ul style="list-style-type: none"> Only one track can be correctly wrapped at the same time (at package creation). This does not affect rendering of subtitles into image. All used fonts have to be located in the Windows Fonts folder. TTML files have to be edited/trimmed only outside of TTML events otherwise their events cannot be correctly wrapped into IMF packages. When trimming/editing TTML files, the wrapped result can contain empty TTML events. This does not affect functionality. Wrapping TTML files with sequential time container may cause wrapping issues. Wrapping TTML files containing the timing attribute duration (dur) may cause wrapping issues. PNG-based TTML files are not fully supported yet (no size adjustments to region, no tts:luminanceGain support, no re-wrapping).
	<p>HDMI 2.0</p> <ul style="list-style-type: none"> UHD/4k 12Bit RGB @ 25,29 or 30fps support might require newer HDMI2.0 4k displays. UHD/4k 24p/12Bit RGB not functional yet. YUV 4:2:0 should only be used in UHD/4k @ 50/60fps as a workaround when the HDMI display does not support 6Gbit/s on the cable. This mode only works in 8bit and uses 3Gbit/s on the HDMI cable.
	<p>Color Format</p> <ul style="list-style-type: none"> Color checks issuing a warning when an inconsistent configuration concerning source, output, working and eventually subtitle color space has been set, are only performed when configuring the output. This means that e.g. changing the working color space after having configured the output may result in such an overall inconsistency leading to playout not being possible. The corresponding warning will be issued when re-opening the output configuration dialog. The conversion from "PQ above 1000nt" to "HLG 1000" is clipping at 1000 nit.
	<p>Remote Desktop</p> <ul style="list-style-type: none"> Decreased GUI performance and responsiveness on Windows 7 systems when working over remote desktop. If the bit depth is not set to 32 bit in the Windows remote connection application, the overlay is not displayed. 

Version	Issue
	<p>DCI</p> <ul style="list-style-type: none"> When opening a DCP (CPL) to create a new CPL via "CPL Only" option in the DCI Wizard, this option might not be available. As a workaround, we recommend enabling the "Supplemental DCP" option, closing the Wizard and opening it again. After that, the "CPL Only" option will be available. Clipster will not display subtitles from folders with special characters. Workaround: avoid special characters in folder names.
	<p>Dolby Vision Home</p> <ul style="list-style-type: none"> PsF SDI signals may cause a system lockout of the Dolby Vision CMU unit during playout. To avoid problems we recommend changing the timeline settings for the default raster to 24p. For this, open the Config Tool and navigate to Defaults > Timeline > Default raster and select SMPTE274/24P. Copy/paste of Dolby Vision metadata not functional yet. Workaround: import bin clips multiple times. Dolby Vision only works with simple video track + Dolby Vision track timelines. Using any other operators (e.g. merge/compositing operators) breaks the Dolby Vision metadata embedding. Level 5 metadata embedding over HDMI has been disabled due to problems most Dolby Vision TVs have with handling this type of metadata (TVs were flickering with L5 enabled). Dolby Vision longplay XML sidecar export only supported in IMF output, not in Finalize output.
	<p>HDR10 Analysis</p> <p>HDR analysis fails between in/outpoints. Solution: In the Config tool navigate to Project -> Timeline and disable the checkbox Ignore in/outpoints for play.</p>
	<p>Miscellaneous</p> <ul style="list-style-type: none"> Support for BCP Level 6 not available yet. The external command interface via Telnet is not functional in Gen VI. After upgrading 5+ to 6 the automatic loading of KDMs for DCPs created on 5+ does not work. The serial number of the new board must be manually entered in the KDMs. CLIPSTER does not notify when a "no-data" frame is rendered due to an unreadable/undecodable source frame. No audio when playing out 1080p 96 Hz videos. It is no longer possible to change paths directly in the Bin clip properties dialog when the clips are in the timeline. We recommend instead using the "Relink" option in the timeline element context menu or the "Clip relink" option under "Bin > Clip relink". When creating supplemental IMPs, the state of the setting "Cut reels physically" defaults to "On" (on the Creation page of the IMF Delivery Tool). The user has to disable it explicitly if this behavior is not desired. Loading CLIPSTER project files or IMPs containing Dolby Vision metadata might take longer than expected. In some rare cases, the CLIPSTER application might not start up. In this case, the system must be rebooted. On Windows 10, the CLIPSTER uninstallation process may take longer than usual.

2 Firmware

Software version 6.7.0.3 is compatible with the following Firmware:

Digilab2 firmware version:

Version	Function
2.12.0.6	<ul style="list-style-type: none">• Added Dolby Vision support over HDMI• Display port output: infoframe and audio packet generation (prepared for DP1.4)• Display port: link training phase 3 (necessary for DP1.2)

Hydra3 firmware version:

Version	Function
3.0.13.2	No changes
3.0.13.4	No changes

Nvidia GPU:

Version	Function
398.75	CUDA version updated to 9.2

3 Customer Support

Technical support – where and when you need it

For quick, expert help with any Rohde & Schwarz equipment, contact one of our Customer Support Centers. A team of highly qualified engineers will provide telephone support and will work with you to find a solution to your query on any aspect of the operation, programming or applications of Rohde & Schwarz equipment.

Up-to-date information and upgrades

To keep your R&S product up-to-date and to be informed about new application notes related to your system, please send an e-mail to the Customer Support Center stating your system and your wish. We will take care that you will get the right information.

Headquarters

Phone: +49-511-67807-125

Fax: +49-511-371985

support.media@rohde-schwarz.com

North America

Phone 1-818-846-3600

support@dvsus.com

Latin America

Phone +1-410-910-7988

customersupport.la@rohde-schwarz.com

Asia/Pacific

Phone +65 65 13 04 88

customersupport.asia@rohde-schwarz.com

China

Phone +86-800-810-8828 / +86-400-650-5896

customersupport.china@rohde-schwarz.com