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ΠOΔ

✔ QualityChecker

Intellectual validation and adjustment of video material produced inhouse and externally - a tool designed to streamline and optimize your archive migration process.

During systematic validation of video material multiple tasks and decisions have to be processed in the hundreds per day to approve content to be submitted - and the operator may go through quite a list of questions:

Is the error coming from original playout, a faulty camera in use back then, from a previous migration, or a mishap at the service provider? Are there different capture attempts to be compared? Is the content within technical quality parameters? Do the actual state of the content and its

descriptive metadata coincide? Is the material to be treated as a facsimile or is it an interpretation? Will I have to do trimming or extract individual segments from the material? Did my internal NOA FrameLector digitisation process or the service provider adhere to demanded quality standards?

When validating content for submission, the choice of the tool for assessment of content is crucial - especially when considering efficiency of the entire business processes.
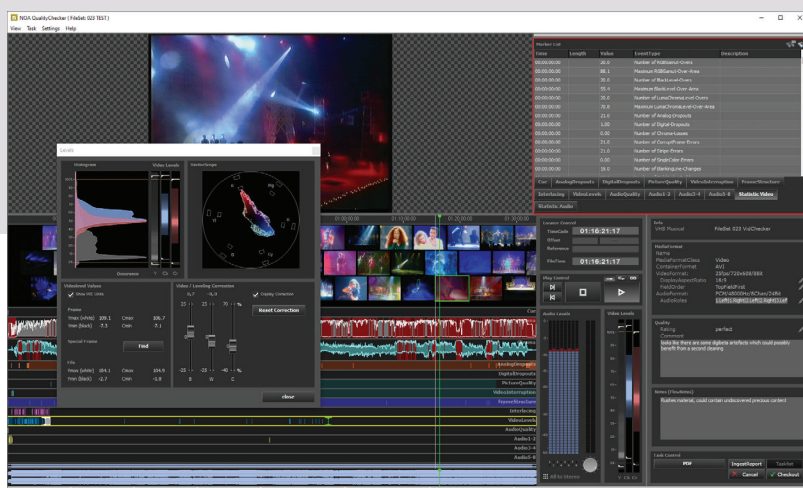
FEATURES

- **Transfer QC**
- **Baseband QC**
- **Lip sync checks**
- **Content coherency validation**
- **Trimming or segmentation**
- **Technical annotations and corrections**

Visit our website for more info on QualityChecker.

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Display of ISR/RF data for Transfer QC	Colorbar and black frame detection	Advanced peekhead / playhead / locator handling
Timecode synced A/B QC for comparison of multiple ingests	Vectorscope with separate histogram function (Y,Cb,Cr)	Annotation of video level correction incl. live preview
Advanced thumbnail lane view for content identification	Extrapolation from multiple time-code jumps/references (VITC, LTC)	Annotation of audio channel content for track/level normalization
Luma and chroma graph lanes	Multiple SD/HD formats supported	Shortcuts available for keyboard only handling
Frame exact destructive/ non-destructive trimming	2nd screen support with deinterlacing	Macro shortcuts for quick handling
Segment extraction from multi-content carriers with annotation	Loop and PreRoll play modes on detected events	Wide support for integration of 3rd party analysis results
Colorbar assisted video level correction	Display of sidecar data (optical scans, process PDFs etc.)	Fully workflow integrated with jobB and mediARC

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POSSIBLE FIELDS OF APPLICATION

**As a highly versatile tool, QualityChecker has multiple possible applications –
fully integrated into a NOA migration workflow or even as standalone process.**

Facsimile or Interpretation

...are the two ways of storing video files captured from carriers within an Archive Asset Management system. The "facsimile" is an unaltered 1:1 copy of the original content (recommended in a lossless codec), whereas the "interpretation" of the carrier's content may have corrected video and audio levels, or even re-arranged audio tracks to arrive at a normalized file format - still keeping the initial shape of the content.

QualityChecker offers frame exact trimming and 1 to n segmentation (destructive / non destructive) as well as video level corrections based upon luma and chroma level traces in one glance. Content of audio channels may be annotated and then automatically rearranged and/or normalized based on a target profile. All changes may be applied immediately by NOA's MediaButler when encoding to target format(s) and/or saved for later processing upon retrieval of the material from the archive.
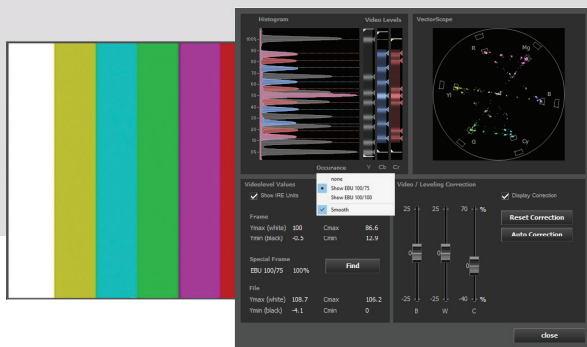
Video levels and histogram of a color bar in comparison to EBU 100/75 specifications; possibility of auto correction
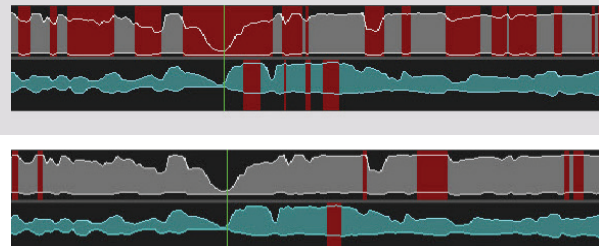

Y and chroma levels before / after correction, allowing for selective level overs/unders if content requires

Integration of Baseband Analysis Results

After encoding and before delivery, produced video files may be processed through a baseband analysis, whichs results (including false-positives in opposite to electrical metadata) are fed back into QualityChecker where they are displayed in individually configurable timelines. The operator may interpret results of solely picture/file-based

analysis for burnt-in errors (e.g. originating from a previous migration, a camera problem, an encoding artifact etc.) and may then reject the submission with the target to capture the material from its original carrier, or another copy from a previous generation respectively.

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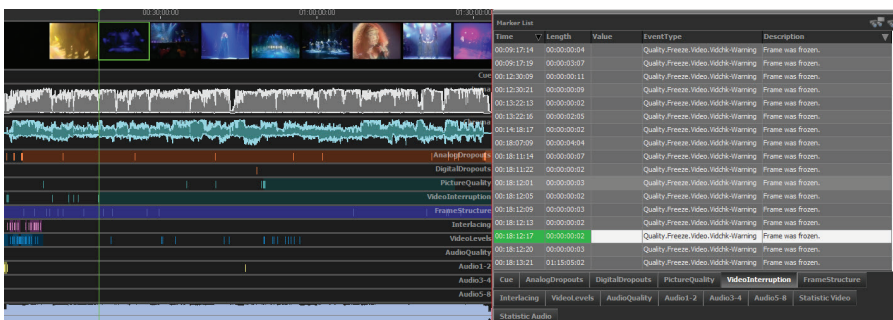
Transfer Quality Control

…describes the process of confirming that no new errors have been introduced when migrating content from physical carriers to digital files. Electrical metadata in the form of ISR events and/or RF traces (100% no false-positive events) is forwarded by NOA's capture application FrameLector and presented to the user in a clear timeline view as well as a marker list. Problematic areas can be identified within seconds, their content examined, and an informed decision can be made if the capture attempt is within quality parameters for the archive or if it has to be redone to achieve a better result. Multiple capture attempts can be compared in a time-code synced A/B comparison.

Segment extraction from multi-content carriers

In a facility which is mass-migrating physical carriers following industrial principles, it is advised to always migrate the entire carrier, as in some cases accompanying documents or other available metadata may be incorrect concerning time codes or even incomplete by not listing all content on the carrier. After material has been captured, content is available in QualityChecker for frame exact trimming and segmenting into n different segments (i.e. programs or clips). As multi content carriers may be collections of different productions and therefore may have differing color levels, each of the segments produced may undergo its own color correction process if required.

At the end of the process and depending on the target MAM clips may be encoded and exported as individual files or be left in one single file accompanied by an EDL for future use.
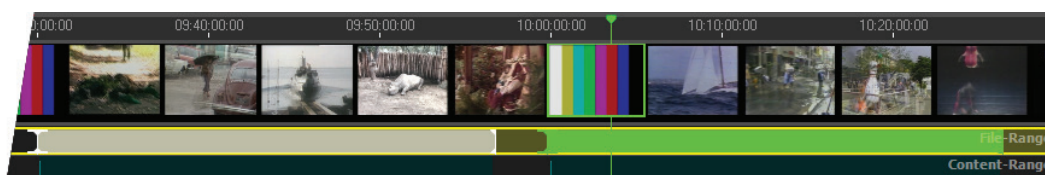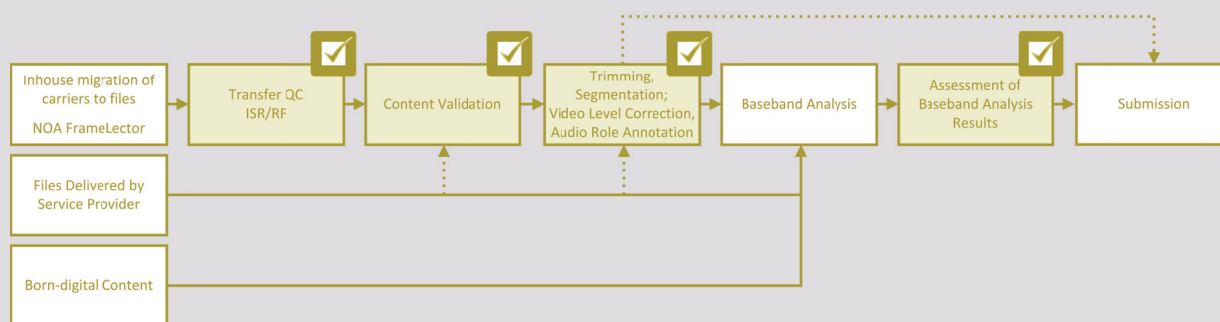
Resulting export: two individual clips (grey, green) and one file spanning both clips (dark yellow)

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QualityChecker in the Context of...

| Inhouse migration of carriers to files NOA FrameLector | Transfer QC ISR/RF | Content Validation | Trimming, Segmentation; Video Level Correction, Audio Role Annotation | Baseband Analysis | Assessment of Baseband Analysis Results | Submission |

Files Delivered by Service Provider

Born-digital Content

Migrating thousands of tapes to an archive

In projects with multiple parallel ingest lines, there is no reliable way to supervise the process in real time. On the other hand, no one would like to repeat a mass digitisation project - there is no budget for that kind of games. Luckily, the ISR and RF information collected by NOA FrameLector saves you to actively monitor the signal - a dedicated QC operator is tasked to look on each digitised item for less than a few minutes to validate the ingest following defined business procedures which could be:

- **Being sure that no new errors have been introduced during capture**
- **Detecting content which was not mentioned in metadata at all**
- **Frame exact trimming and/or 1 to n segmenting**
- **Validating QC data (ISR/RF, baseband analysis results)**

Taking over files from a service provider

Receiving 1000+ video files per week from a service provider, an archive is well-advised to create a process which validates at least 5 to 10% of all files to avoid problematic content delivery and to make sure, that SLAs are met.

QualityChecker helps you to create a streamlined process which gives you full control (also with integrated optional baseband analysis results and reports) over the delivery of the service provider to check if:

- **The files are well trimmed and lip synced**
- **Audio levels are well normalized and rearranged**
- **There are encoding artifacts visible**
- **Video levels are within EBU norms**

Validating born-digital content embedded in a process

There is a need for a high-quality inspection tool as a stand-alone version for controlled submission towards any recipient?

QualityChecker allows you to quickly scroll through your content and spot view and listen to confirm validity - it may also be easily integrated into your existing AV workflow with a lightweight process engine.

With its connectivity capabilities, QualityChecker allows you to:

- **Set up a stand-alone QC instance as independent 3rd party layer to your existing production environment**
- **Augment purely server-side 3rd party tools with a graphical user interface**
- **Quickly assess flagged content**
- **Freely configure most relevant quality lanes**

QualityChecker in action as part of an exemplary SD-video digitisation workflow.

QualityChecker in use at our clients.