Product Sheet
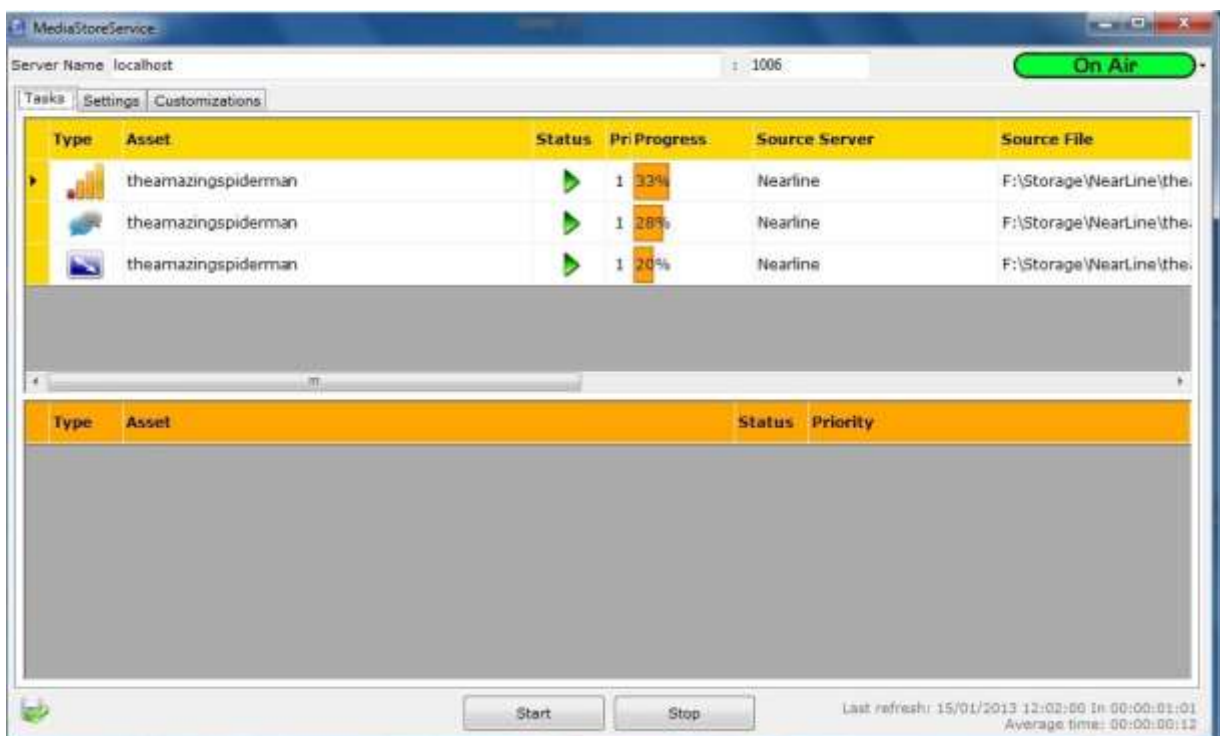
MediaStore QC

File-based Quality Check
Application Module

MediaStore QC

MediaStore QC is essentially a complete analysis of the incoming assets that allows to optimize the flow throughout the system, to significantly reduce the handling time of each file and problems concerning input formats unwelcome to the customer.

File-based media content workflows are getting more and more important, because content providers need to ensure a certain quality level for their customers. Nowadays broadcasters are receiving contents from many different sources, encoded at different file types, bitrates and quality levels. The only solution is an integrated and automatic quality check that is able to manage the entire flow without waste of time and not depending on human control.

MediaStore QC is a solution that can work in a standalone mode or fully integrated in our Mam system. It is substantially a task executed automatically by our Archive Manager to all the incoming assets, also while we're still ingesting them. The quality check analysis supports all the most common video formats, such as Mpeg2, DV, Sony, Xdcam, Avid, DNxHD, Apple ProRes and many others.

(MediaStore running processes with analysis of the incoming asset)

MediaStore QC is composed by a list of processes that are integrated in a continuous flow:

Key Features:

- **Depth static analysis of the incoming assets and alert warnings**

- **Play-test for the automation**

- **Search of black frames or frozen frames**

- **Search of audio absence and audio peaks**

- **Gamut analysis**

- **Certificates management**

Static analysis

The first step is a depth static analysis of the incoming contents, where all the characteristics of the files are examined (video codecs, audio codecs, wrapper, frame-size, bit-rate, frame-rate ...).
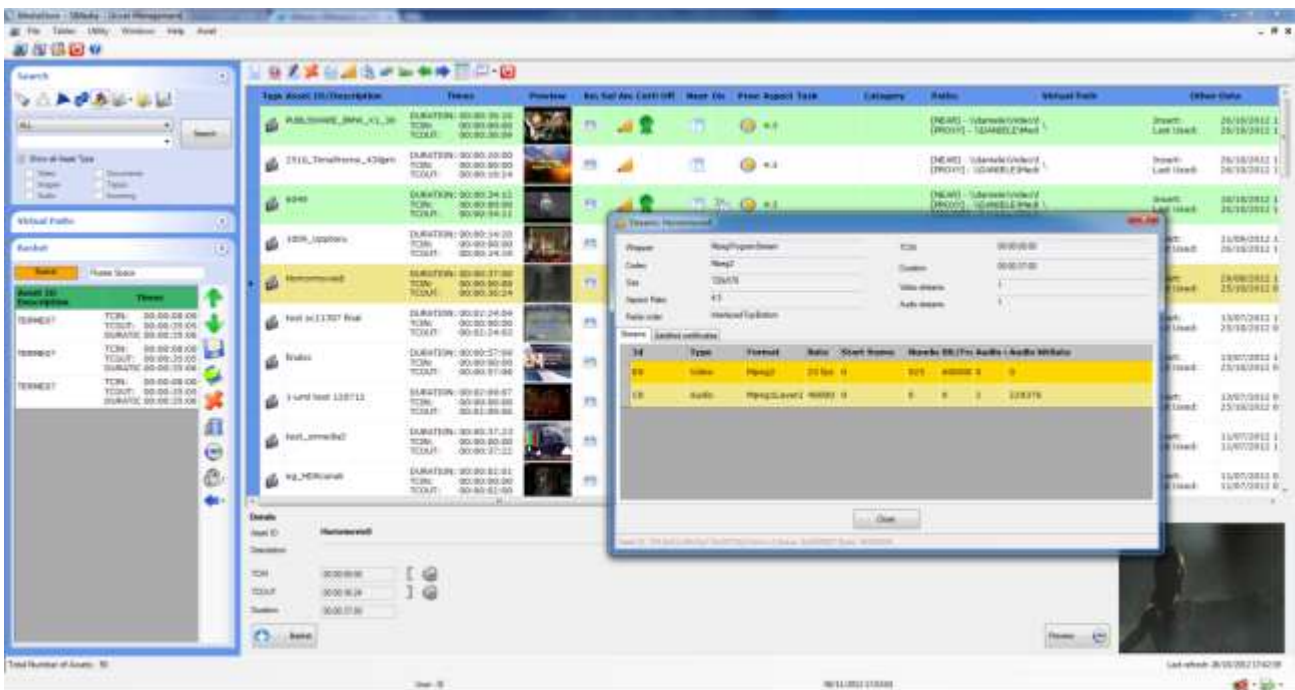
(MediaStore QC: MediaStore client interface, analysis of an incoming asset)

Below an example of the information that we recover from each asset:
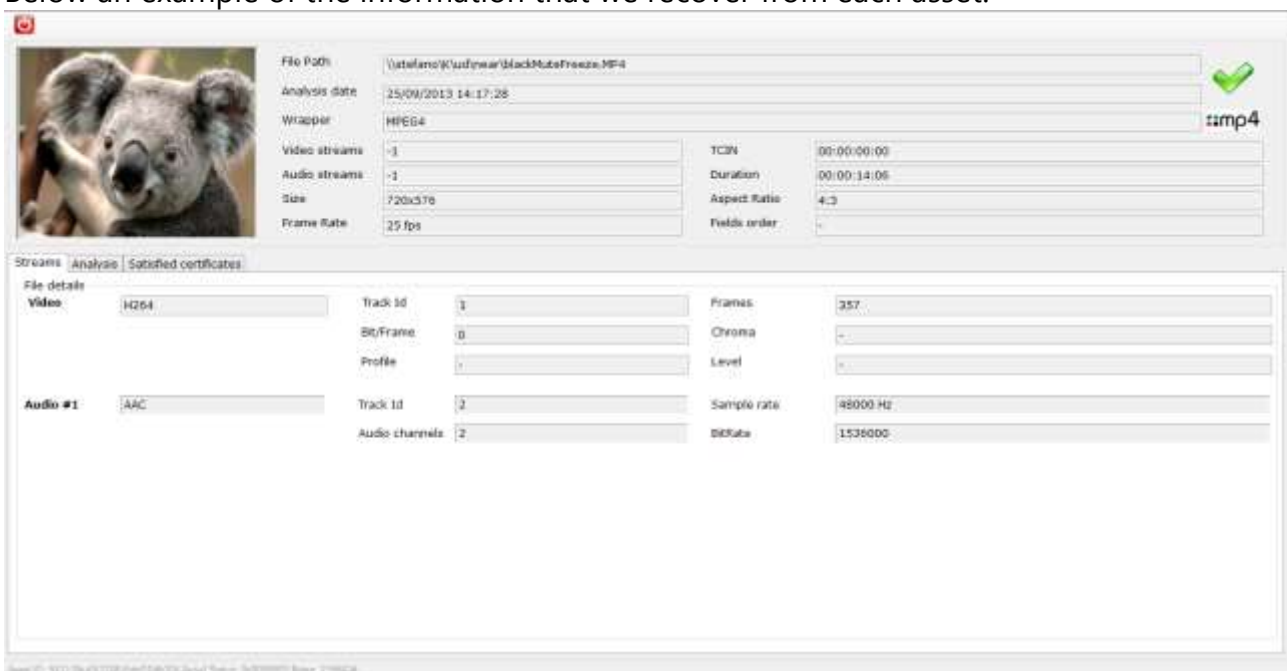
After the completion of the analysis all the information will remain available for each asset, for example to assign a certificate to them in a later time (starting from the features that we saw above in the table).

The software reports also to the user some alert messages regarding for example:

- Timecode discontinuity detected
- None audio track found
(This information will be available for all the incoming contents)

Others are specific for particular types of files:

- MXF partition open or incomplete (only for MXF)
- Mandatory item missing (for file as AVI or MXF that need to have specific initial TAG to be recognized)

Where it is possible we can also report the offset from the the starting point of the problem in the file and all the details.
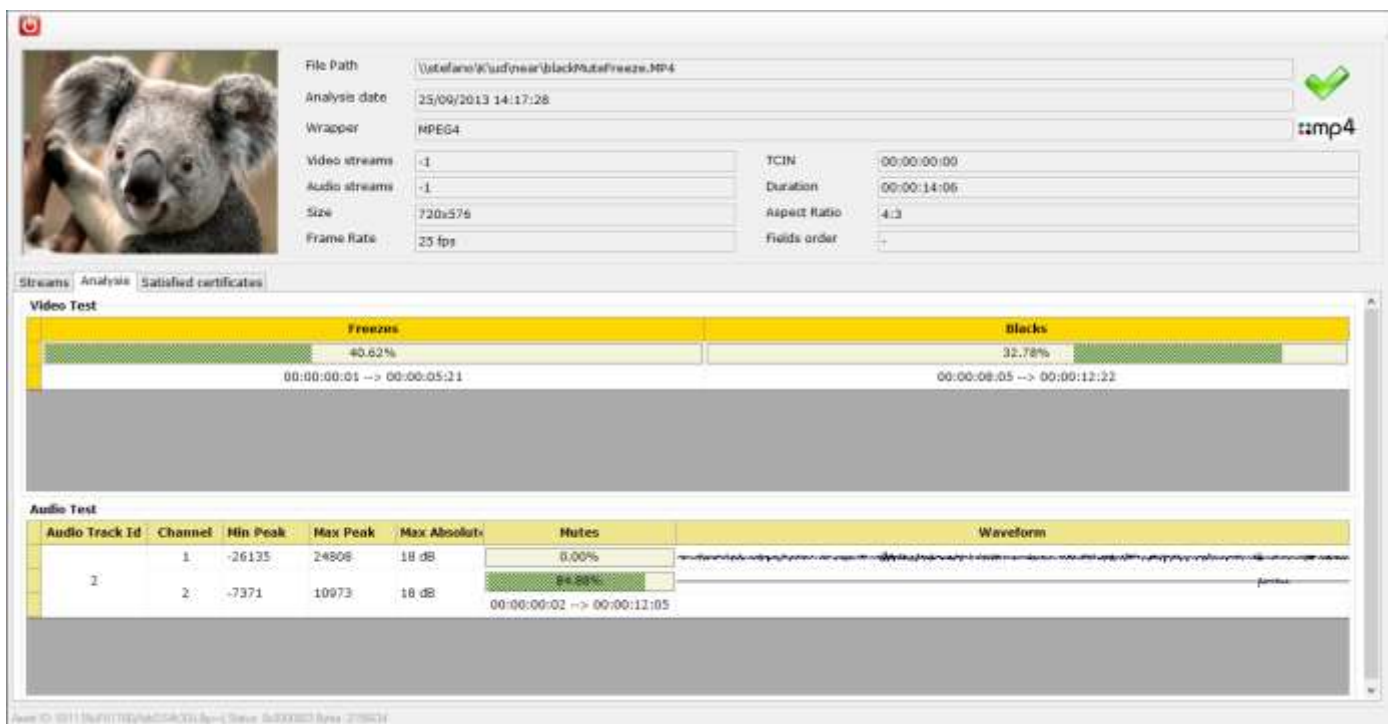
Play-test and video-audio search

Our quality analysis includes a play-test to check automatically the file and its compatibility with the system, and mostly with the automation.

This is a very powerful tool for the automation because it allows the operator to know in advance if the content will have any kind of problem at the end of the workflow.

At the same time the software searches also for black frames and/or frozen fames, and for absence of audio and/or audio peaks.
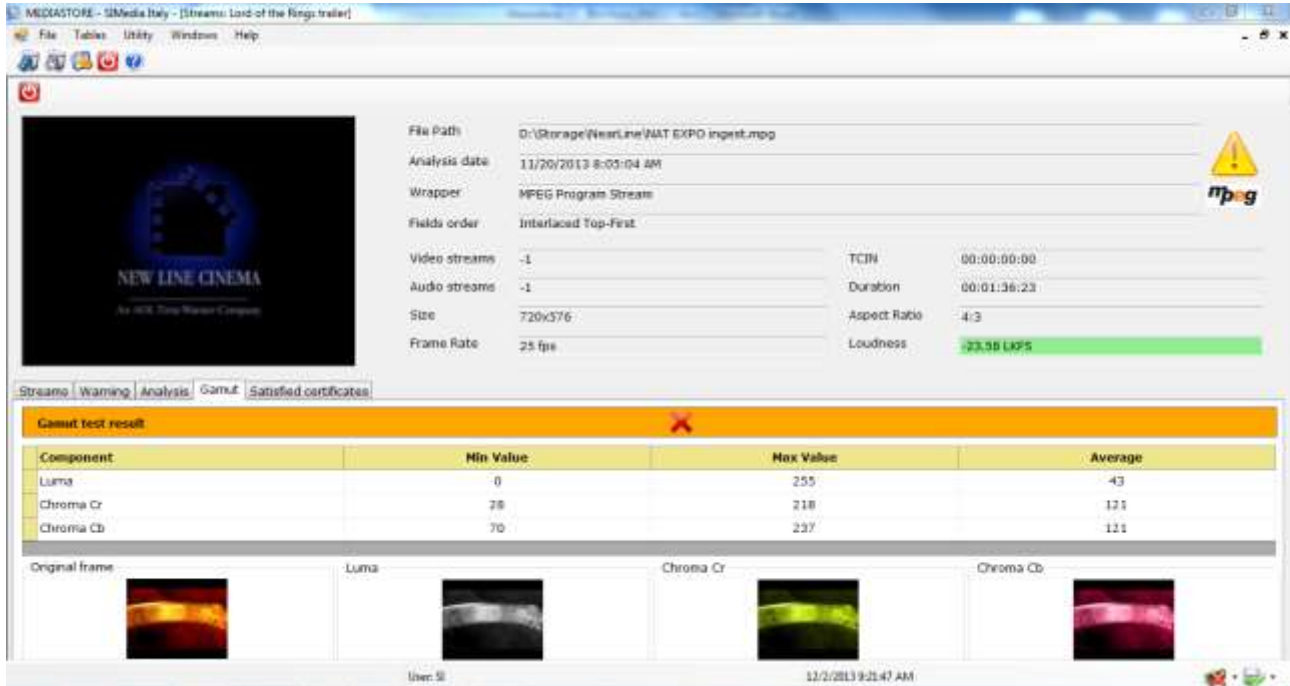
A detailed report of this analysis will be always available for each content in the asset archive.

(View of the report of play-test, video and audio search of an asset in MediaStore Client)

Gamut analysis

The quality check includes a Gamut test analysis that verifies if the values of the color spectrum of each file respect the parameters of Gamut standards.

(View of the report of Gamut analysis in MediaStore Client)

Certificates Management

At the end of this process the asset metadata can be filtered starting from customer needs, in order to define rules to assign quality certificates (with the possibility to customize colors and icons to make the display easier to the operators).

In other words an operator can decide which requirements (for example on format side) the files must fulfill to obtain this certificate and how our Mam has to behave in case these requirements are not met, and thanks to the automatically managed normalization of the files the customer can also choose to transcode in any format he needs, contents that do not comply, in order to make them available in the system.

In other words customers can decide to define a feature that each asset has (or has not) to fulfill. This means that our certification works both in a positive way and in a negative one (for example to mark as usable a content that fulfills a certain feature A or to exclude another that doesn't fulfill another feature B).

Starting from that point he can decide to define a rule for the contents which do not fulfill these features, for example:

- Move them to another folder
- Delete them
- Restore into the archive through a transcoding
- Inform the operator by e-mail or sms about the presence of a "bad" file in the system
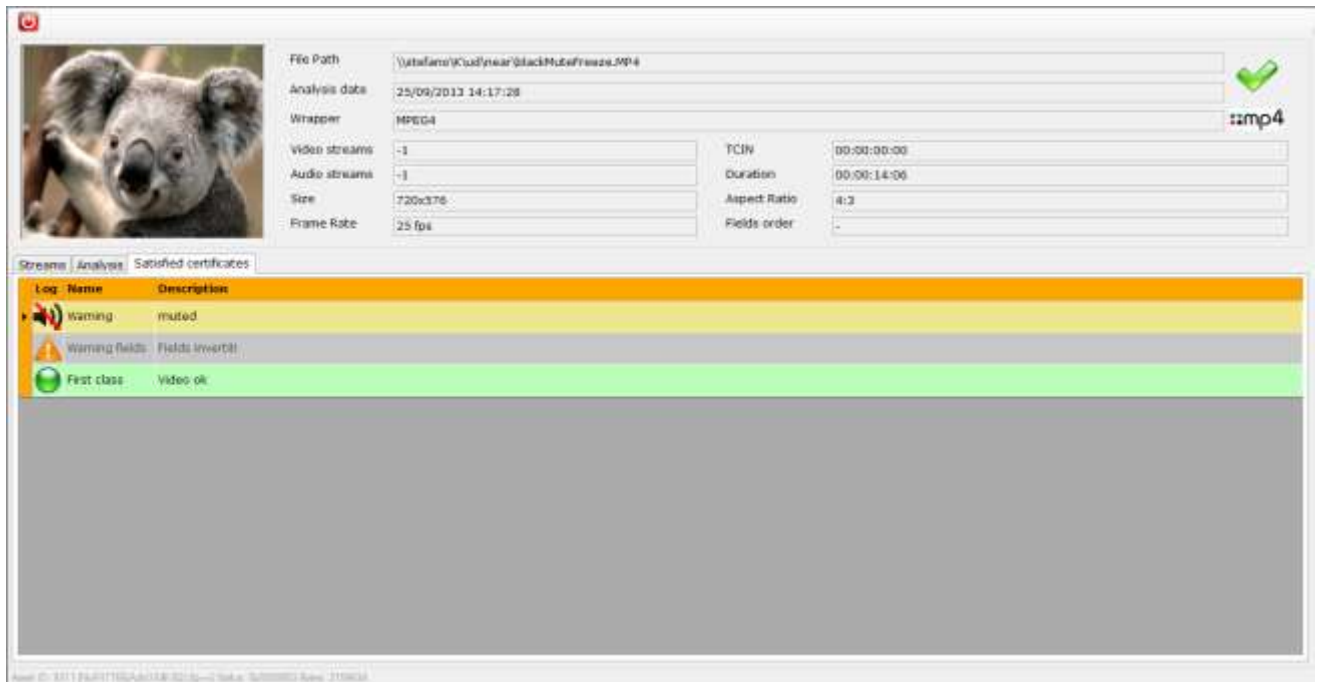
(View of a certificate in MediaStore Client)

Cooperation and Multithreading

**MediaStore QC** is a *Multi-threading* and *Cooperative* platform.

Multi-threading stands for multiple tasks executed simultaneously. For example the system can transcode several assets while deleting some other. This feature avoid performance bottleneck when multiple requests come to a server. The concurrent operations number can be tuned to the hardware performance or to other constraints.

Cooperative means that more than one server (*instance*) can run **MediaStore QC**.

Multiple servers can be configured to execute the same kind of task (*Proxy* generation, transcoding, *Key Frames* generation, etc...). Usually *Proxy* generation and transcoding are handled by more than one server.

These **MediaStore QC** instances will share the incoming requests in order to cut down execution time. This kind of *load balancing* increases reliability, providing a sort of active/active *backup*.

If one of the servers goes down, its tasks will be taken on charge by other running servers.
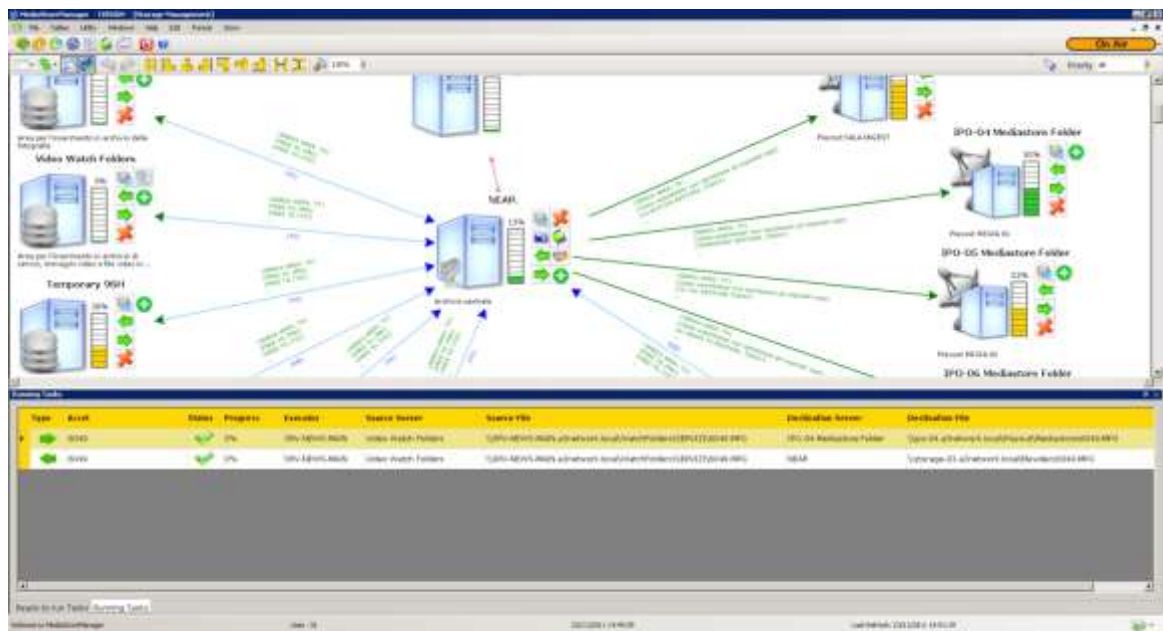
(MediaStore: main monitoring window with running tasks)

(MediaStore: running processes)