



Visual Data teams up with Telestream to take the pain out of DPP program delivery



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Matt Gobel, Senior Solutions Architect at Visual Data

Company Background

Visual Data provides digital media supply chain services to some of the world’s largest entertainment brands. Its infrastructure is custom-built to repurpose video content and distribute it to any platform or broadcaster in any territory. The company’s suite of services includes translating metadata, captioning and digital delivery. Visual Data are approved to deliver content to the world’s leading platforms including Netflix and iTunes.

The big DPP challenge – the idea for re:io

In December 2013, Matt Goble and Symon Roue of Visual Data saw a big opportunity. The impending DPP delivery standard presented an opportunity to build a service that would make it simpler for production companies to supply their content to UK broadcasters with the confidence that it would comply with the precise and exacting requirements of the DPP standard. Visual Data started work on re:io in February 2014 and launched the service on October 1st 2014, in time to support the DPP’s “File Based Delivery Day.” The user interface of re:io is built to appear like many online retail sites. It is described as a “vending machine” for video delivery services.

How re:io works

Any customer can establish an online account, and can pay for services by credit card or on account. The user interface (UI) is extremely clear and simple, showing a list of services available with costs applicable to each one. Services currently include format conversion, transcoding, QC, delivery and back-up storage.



Visual Data DPP data center

When a job is being set up, the site gives feedback on the estimated time for upload and completion based on the duration of the asset, the file size and the available network bandwidth. At this point of submission, re:io creates a job title and submits this information to the Telestream Vantage system which underpins all of the “heavy lifting” workflow and transcoding processes contained within re:io.

Once the client’s master file is uploaded, the re:io system invokes a workflow using Vantage Analysis to perform some “pre-flight” checks on the file. It analyzes various technical properties including video format, frame rates, number of audio channels, and checks for presence of DPP metadata.

- If the file supplied is valid MXF, a separate workflow branch submits it to Vidchecker to perform a check for DPP metadata.
- The xml report out of Vidchecker is associated back with the Vantage binder and an XSD is run to extract the starting time code.
- If the file ‘passed’ the DPP test in Vidchecker, the team then runs MXF2RAW via a Vantage external shell command to extract the DPP metadata from the file.
- This is stored as a text file, which again is associated back with the Vantage binder.
- The operator then reads this attachment in Vantage as a variable, so that DataDial can strip out the metadata to present to the client in the web interface.

The outcome of this analysis is reported back to the client as a “report card”. This process can produce three results, each of which prompts the Vantage workflow to branch into a different path.

- a. Pass: file is suitable for automatic conversion to a DPP asset.
- b. Soft fail: The file needs some changes that can be accommodated in the standard process. An example would be if the program start time code is wrong and needs to be corrected.
- c. Hard fail: An example would be if the video frame size and/or frame rate format is incompatible. In such a case, a call would be made to the customer to discuss ways to correct the format, such as using frame rate conversion in Vantage Transcode Pro.

Once a file has passed this check, re:io creates a random number “security key” which will be used in later stages to identify specific asset versions.

A proxy version is then produced by Vantage, which is delivered to storage on Amazon Web Services.

According to Matt Goble, Senior Solutions Architect at Visual Data, “The intuitive Vantage workflow designer enabled us to construct some complex workflows within Vantage. Hooking into several third party applications has meant that we’re able to construct and test each part of the process, and then when happy with everything, ‘release’ it to the developer with a brief on how to access the workflow, what variables to submit, what data to expect back and much more.”

Full compliance with DPP specifications assured

Operations staff at Visual Data then use an html player in re:io to perform a visual review of the file to check that the line-up complies with DPP rules. For example, the clock in the slate must be animated with “step-motion”.

Next, re:io requires the customer to enter any required DPP metadata, and any additional metadata required by the target platform that the file should be delivered to. The re:io system checks that metadata complies with DPP requirements, and will not allow the process to continue until the metadata is fully DPP compliant.

Vantage then associates the xml metadata file with the video file and creates a label set which provides “variable values” that are injected into settings in the Vantage transcoder. The use of variable values allows a single encoder to be modified dynamically, accommodating customer preferences without the need to reconfigure encoder settings.

The DPP process requires that QC checks are performed on the asset prior to delivery. Vantage calls on Vidchecker to perform the key QC tests, including the required test for content that might trigger Photo-Sensitive Epilepsy. Other parts of the QC process are performed by operators from Visual Data. Matt Goble calls this “assisted QC” rather than “automated QC.”

At this point the file is ready to be delivered, which is achieved via an API-driven request to the Aspera server. A full QC report is produced as a pdf which can be delivered to the client.

The Visual Data solution – taking the strain and turning the lights out

According to Matt Goble, the re:io system simplifies a complex process and gives back time to their clients. If an edit is finished late at night, the editors and production staff can send it to re:io and go home. Working overnight, the re:io system and Visual Data operators will process and check the file. If anything needs to be re-edited to comply with DPP, the client will have a report by the time they return to work the next day. If it all passed through the system it will be delivered to the target broadcaster that day.

Re:io allows clients to pay for these services on account or on a credit card. It makes the process of complying with DPP requirements inexpensive, transparent and pain-free.

The results speak for themselves

Between the initial concept in Feb 2014 and service launch on October 1 2014 (DPP day), Matt Goble worked extensively with solutions architects, support engineers and product managers from Telestream and Boxer Systems to ensure that Vantage complied with the exacting technical standards of DPP, and that the workflow tools enabled them to provide a solution that fit well with production client practices.

The web developers for re:io engaged frequently with Telestream developer support to ensure smooth development and testing of interfaces using the Vantage SDK.

John Pallett, Director of Product Management at Telestream believes this project could be a key milestone in the widespread acceptance of DPP. “Our relationship with Visual Data is important to both companies,” comments Pallett. “With each new delivery requirement that they identified, our early collaboration allowed us to ensure swift compliance within Vantage, which in turn allowed Visual Data to quickly scale their service offering. Over the last year this approach has accelerated the addition of DPP, Netflix, IMF, and several other delivery formats.”

To learn more

To get more information about Telestream and Vantage, call 1-530-470-1300, or visit www.telestream.net

