

The recognition that file-based workflows will sink tape

# Shift to millions of markets

## Interoperability

Telestream typically doesn't contribute to standardisation efforts: it is there to pick up the pieces. **George Jarrett** examines its pioneering transcode philosophy

When Pinnacle was in the business of buying companies seemingly for fun, none of the products it acquired would have been linkable without the enabling power of FlipFactory. Today, one of the few things that Sony's XDCAM HD, Panasonic's P2 HD, and Grass Valley's Infinity have in common is their dependence on FlipFactory, now at V5.1 maturity.

In seeking to find out what keeps Telestream as vital as the bullets for guns, *TVBEurope* started out by asking president and COO David Hepe if it is exactly the same linking software for all three formats.

"Basically, yes," he says. "There is the file access (exposing the directory on the device to find the files you want), localising, and decoding, and then the reverse to create the files. Infinity will be a bit different as nobody in the facility will be compatible with the wavelet compression, which is similar to Avid's DNxHD. However, we can start with IMX."

Telestream was founded early in 1998, when MPEG-2 was all

the rage. ClipMail Pro was its first product, and it was amongst the first companies to recognise that file-based workflows would eventually sink tape, and that older vendors would happily yield the new areas of 'glue' technology so they could concentrate on core development skills.

"Being an early starter in the game was very helpful. As we sold the first transcoders we had to add features to get the sale. People wanted features and format support," said Hepe. "Now we sell almost everything off-the-shelf. We keep adding to the ball of string that is FlipFactory."

"After people bought Clipmail, we talked to them and observed. They were sending files from say London to LA, and they had three tape decks connected because they had different format receiving needs," he says. "This sparked the idea of automatic formatting. Once we started we first got into workflows between nonlinear editors and broadcast servers. We were the translator between the NLE and server systems and we needed MPEG-2. That is kind of how we pioneered the multi-vendor file-based workflow."

If you don't remember Telestream being listed as a development partner in any of the standardisation efforts — for example MXF — it's because it is there to pick up the pieces, not



**David Hepe: "Do vendors put in the effort to accommodate multiple formats or do they trust in a third party? They recognise that it is easier to have us in the middle sometimes. We're often viewed as a necessary evil"**

help set the agenda when it comes to formats.

"MXF is one of those classic situations where commercial vendors were keen to develop and adopt something they could all use, but different vendors adopted slightly different versions," says Hepe. "We typically don't contribute to standardisation efforts. We typically react to the market. With MXF we ended up helping people transfer between the different versions!"

"We welcome standards. In some cases they provide smoother workflows. Standards just grow and grow in number, so we are not concerned that we are going to run out of formats any time soon," he adds.

The next subject was Telestream's relationships with the mainstream vendors, companies that for so long have hidden so much behind proprietary technology.

"There is so much competition between Avid, Thomson and Sony, there is a natural reticence to share knowledge. So they talk to Telestream, which helps to secure compatibility quicker. They don't need to worry so much about the glue," says Hepe. "We've seen a definite trend over the last three years, of vendors supporting multiple formats, but we are also seeing formats changing. So the question is, do vendors put in the effort to accommodate multiple formats or do they trust in a third party?"

"They recognise that it is easier to have us in the middle sometimes. We're often viewed as a necessary evil. For repurposing it makes sense to put the CPU-intensive process of encoding to multiple distribution formats off onto a dedicated machine," he adds. "For exchange in the production or pre-distribution workflow, they would like to go directly between

vendors without a translator in between. So for the more common workflows, they'll put the effort in on compatibility."

## Aggregators squeezed out

Flip4Mac has won Telestream over a million users, but it is FlipFactory Mobile that looks likely to boot it into the big time. How does Hepe see the content to mobiles business developing?

"It's a very fast-moving space. Broadcasters are evolving into content providers," he says. "In the US, we see the local broadcasters wanting to do the simple things themselves, like making podcasts available. The growth of streaming service providers has stopped as local broadcasters have realised that with automation tools like ours they can push their content to the web themselves and save the services costs."

"Larger, national broadcasters and major content owners need to provide content to the mobile network companies. Right now the format and metadata needs are so divergent, and evolving so quickly that aggregators and other service providers are extremely useful," he adds. "Over time, the metadata will become more standard and, again, with extensions to automation tools like FlipFactory, many customers will be able to distribute to the channels themselves. The pure aggregators will be squeezed out over time. Companies like Mobix, that also provide value-added services such as production for mobile, have a much better chance of surviving and thriving."

Telestream has started to field requests from traditional broadcasters that want to receive mobile-generated video in their newsrooms. "Some day in the not-to-distant future, the amount of web- and mobile-viewed content being produced by traditional content providers will be surpassed by consumer/prosumer generated content," said Hepe. "Content is getting easier and easier to shoot and edit. You can see it happening on youtube, Google, break, etc. Mobix is a leader in knowing both the playback and the capture capabilities of a large number of the handsets, so it will have a leg up on distributing to mobiles and in the new mobile-to-mobile sharing world."

## Millions of markets

The OEM partner market is the smaller part of Telestream's business. Direct and dealer sales are bigger, and in Europe it mainly sells through dealers. Is it a company that pumps back a regular, large percentage of income into R&D?

"Yes, R&D is a huge piece of our budget. We do a substantial amount of new feature development based on market trends or general market interest, but we probably do an equal amount based on unique customer

requests — unique in the sense that we may have only one or two customers asking for a feature now, but we have a sense that it would be a useful standard feature or at least standard option,” says Heppe.

**“The growth of acquisition devices and the formats they use continues to outpace the manufacturers’ capacities to deal with the evolving variants in wrappers, essence, or file access”**

“That quick turnaround is one of our key success factors: quickly receive the request, assess the magnitude of the task, is it something that would make sense for the broader market, get back to the customer, develop the feature, test the feature with the customer, create the patch, and then finally incorporate that as a feature in the next release. We try to keep these upfront developments no/low cost and make the margins over time with a more advanced product,” he says.

“We believe that by tackling the most difficult market — broadcast, in terms of complex formats, device access and 24x7 mission critical needs — it’s easier to extend yourself into other spaces like mobile or corporate DAM.”

This invited a double question — how many of the standards

Teletream has to support are essentially a waste of time, and which are the most difficult standards to support?

“Hmmm. Tough question. The only time we’ve really wasted on format development has been

from partner requests, who are trying to get a new device or format started. The customer requests are almost always worthwhile, as usually there is more than one needing the same thing.

“The most difficult formats to support are the ones that are not well documented by the vendors that are using them. Many times we’re asked to support a device that the OEM did not intend to offer third-party file access support for,” he says. “They’re the open-ended ones where a customer or partner says ‘I support xx’ and the variability in what it could mean is huge. MXF has been that way, so you have to go beyond just MXF and provide more specifications.”

Looking forward to IBC and its main exhibit — Teletream will

share a stand in the Mobile Zone with Mobix — Heppe pointed at something that European users have requested.

“Subtitling will be a key addition to our new product, GraphicsFactory. It’s built on our FlipFactory engine and provides an additional interface to put in graphics overlays, which can be populated directly from databases,” he says. “It’s unique in being the first completely file-based workflow for graphics, and in Europe with the language differences, sub-titling is much more important than in the US.”

Last up, *TVBEurope* asked Heppe what is his perception of the market shift around the obvious IT penetration. Are the big vendors of the last 30 years losing out to smart new kids on the block?

“The market is becoming more segregated. The acquisition and camera expertise is still absolutely critical in the market, but in the rest of the food chain you’re seeing a huge impact through the transition to IT-based infrastructure.

“The market shift is that the market is transitioning to millions of markets. Content repurposing, localising, re-branding, etc, is absolutely necessary to reach the ever narrower targeted consumer, and this all simply could not be done affordably without the shift to IT,” he adds.

“Workflow automation solutions like ours both enable these things to be possible, as well as enable them to be done efficiently enough for the content providers to make a profit. Granted, the profit for, say, mobile might not

be there today, standing on its own. But if you can easily, incrementally add mobile distribution to what you’re already doing, then it’s affordable to get started and you’ll be making money as the market gets bigger.”



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