

New ST 2067-70 Standard



SMPTE, the home for media professionals, technologists, and engineers - and a global organization dedicated to advancing interoperability of hardware and software by developing engineering standards and guidelines - has joined with Avid, a global leader in media technology for broadcast customers, to publish a new standard for the VC-3 codec in Interoperable Master Format (IMF).

The VC-3 standard, a codec implementation that Avid provides under the DNx brand, is a primary production codec used by enterprise media organizations around the world for critical broadcast functions such as capture, editing, rendering, base transcoding, and long-term archive. SMPTE ST 2067-70 is a new standard that specifies an application of the IMF framework covering usage of VC-3 as specified in SMPTE ST 2019-1.

"For many of Avid's customers, the DNx family of codecs, VC-3, is used in their productions as a mezzanine format to maximize quality while obtaining superior editing performance on common off-the-shelf desktop and server platforms," said Avid VP of Technology, Shailendra Mathur. "This newly published standard will ensure that the same mezzanine-quality codec used in production can now be passed through to the IMF mastering stage for distribution."

IMF is an important international media standard for providing a single

interchangeable master file format and structure for the distribution of content. IMF is a family of SMPTE Standards (SMPTE ST 2067) that simplifies the storage of all the audiovisual content needed to create different versions for distribution to multiple territories and platforms in one package. It is an essential component of modern, high-scale content fulfillment and has enabled the building of simplified delivery and processing systems for versioning. The IMF package itself can be used for B2B content exchange between content owners, post facilities, and distribution platforms.

As VC-3 is a primary production codec used when delivering to a variety of broadcasters, the new ST 2067-70 standard covers its usage with IMF, which enables delivery in VC-3 codecs that closely matches the ideals of IMF in keeping the maximum quality possible for future distribution/reversion and archive. The standard allows any broadcast facility to deliver final assets for broadcast/archive with as much of the original creative intent in place as possible. It also offers a choice to use a constant bit rate (CBR) codec profile, which enables predictability for storage and network transport. The standardization will provide time and cost savings, and it bypasses quality degradation due to the ability to pass through previously encoded content without having to transcode into a different format.

The DPP, an organization whose membership spans the media supply chain including media technology and production companies, initially approached SMPTE and Avid as a co-proponent in the development of this standard, which offers significant workflow advantages over the alternatives currently in the specification, including the easy insertion of changes (before creating a final IMF deliverable) and potentially faster turnaround times.

"It has been great to support the collaboration between Avid and SMPTE to enable the use of VC-3 codec within the IMF framework," said DPP Technology Strategist David Thompson. "This addition meets a clear business need for companies who use VC-3 as their primary production codec and wish to adopt IMF for distribution and archiving."

"We are pleased to be working with SMPTE on improvements to the DNx family of codecs, VC-3, for the benefit of our valued member partners in the DPP," said Avid Chief Technology Officer Kevin Riley. "Avid understands that improving DNx is critical to our customers in keeping existent media processing chains intact. This new standard maintains the ability for our DNx codec to be storage- and network-friendly while also producing time and cost savings, as the delivery format can now match the production codec used by our partners and customers."

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