

# Elite Media Technologies Masters IMF With Help Of R&S®CLIPSTER



Elite Media Technologies, a high-profile, end-to-end post production facility that offers services and solutions with support for all formats and resolutions (SD, HD, UHD, 4K etc.)

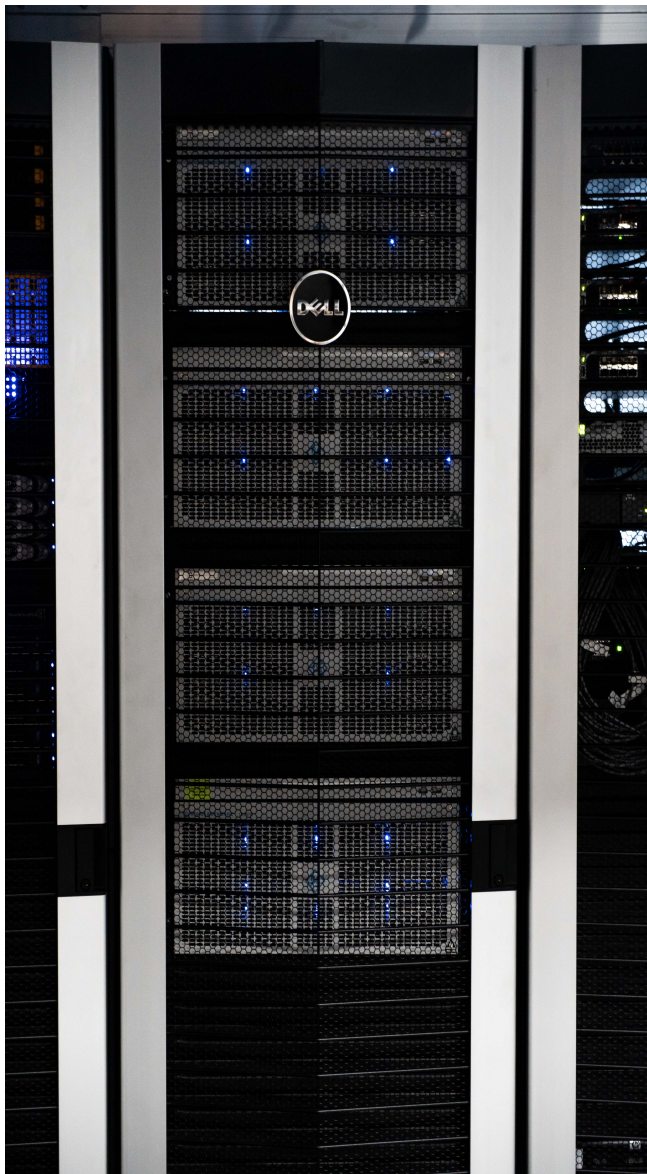
## The project

In 2018 Elite Media Technologies began helping Showtime transition away from HDCAM-SR tape masters and archives to file-based workflows and archives by creating Interoperable Master Format (IMF) deliverables for hit shows like Billions.

In January 2018, the Santa Clarita, California-based post house initiated the project with three seasons of the show. Since then, it has also remastered four seasons of Showtime's The Affair as IMF, six seasons of Ray Donovan and eight seasons of Dexter, which also were up-resed to UHD.

## Executive summary

- **Customer:** Elite Media Technologies Santa Clarita, CA
- **Task:** The ultimate adoption of IMF - Improve overall mastering workflows and create Interoperable Master Format (IMF) deliverables for premium clients
- **Solution:** Deployment of the R&S®CLIPSTER as a complete mastering solution for all post-production needs - including the creation of IMF packages
- **Key advantages of this solution:** More than an IMF Mastering station - it provides an efficient solution for all post-production needs



Elite Media Technologies Server Room

“When we decided to go with the R&S®CLIPSTER, it was because it was a tool that matched our core values..., [being] adaptable, flexible and continually exceeding expectations.”

**Marcus Clinton, Director of Operations - Elite Media Technologies**

“What I like from an engineering point of view,” says Nick Mairose, president and CEO of Elite Media Technologies, “is that IMF has bona fide specs that allow the interchange of files.”

In the past, during the migration from tape- to file-based formats, there were a seemingly endless number of variables with which to grapple. “It was kind of like the Wild West. Everybody just picked their own codec, format and wrapper flavor. For us, that meant complication, having to support a multitude of available options,” he recalls.

Compounding the issue for content owners and post houses alike are numerous versions of deliverables –made from the same creative content with slight variations— for different audiences. Sometimes those differences might be as simple as editing out a scene to respect the sensibilities of specific audiences. Other times, they might be as all-inclusive as different dialog tracks to accommodate the language differences. Still other times, differences between versions address playback device differences, various frame rates, different resolutions and variations in aspect ratios.

“What we allow clients to do with IMF is create the primary element, the CPL [Composition Playlist] and IMP [IMF Master Package], use that as their main master and then make all of these supplemental versions without having to totally duplicate all of that data over, and over and over again,” explains Mairose.

To enable IMF versioning, Elite Media Technologies has deployed the R&S®CLIPSTER. This powerful post-production engine serves as a comprehensive IMF mastering station. It is capable of managing the various essences –image, sound and subtitling and captioning data— metadata wrapping, track files, IMP packaging and security needed for IMF mastering and versioning.

Adopting R&S®CLIPSTER as the foundation for its IMF implementation has enabled Elite Media Technologies and its clients to realize a variety of benefits. For example, versioning with R&S®CLIPSTER illustrates how IMF produces workflow efficiencies and minimizes storage demands.

“Maybe we do the primary IMP up front, and we have a few different supplementals, such as various different archival audio Stems,” explains Marcus Clinton, Director of Operations at Elite Media Technologies.

## R&S®CLIPSTER - "the [...] Swiss Army Knife"

"Six months later, the client wants a Japanese version. IMF simplifies the workflow in the sense that we don't have to recreate everything."

All that's needed is to make a new supplemental to accommodate language, closed captioning and perhaps even minor changes to visuals used along with the primary. "That saves on time and cost and everything," says Clinton.

When it comes to storage, far less is needed for IMF. Rather than having 100 GB files for each version of a movie –such as different language versions— file sizes drop to between 5 and 10 GB for each additional supplemental version after the primary version has been made, says Mairose.

With IMF, the picture can remain the same –or there can even be a few edits in different parts of the work—and new supplementals can account for the differences.

"The storage savings is massive, and IMF also allows you to put things together in a cleaner and neater package, rather than having it spread across many different sources sitting on a shelf," he says.

Elite Media Technologies is an early adopter of IMF. Three years ago, the company began providing Netflix with IMF deliverables, says Mairose.

However, in those early days before the R&S®CLIPSTER, the process of creating IMF masters and versioning was a bit klugey. Elite Media Technologies used no fewer than six different products to implement an IMF workflow. "It took multiple pieces of gear to do now what we have set up on the CLIPSTER," says Mairose.

There's more to the R&S®CLIPSTER than IMF, however. "It's kind of our Swiss Army Knife," says Mairose.

Clinton echoes the sentiment. "Overall, we are able to do most of our services utilizing the CLIPSTER," he says.



R&S®CLIPSTER



Elite Media Technologies Server Room

The post house uses the R&S®CLIPSTER for mastering, quality control (QC), reference file creation, proxy file creation, up-resing from HD to UHD, creating deliverables, creating digital cinema packages (DCPs) and conforming, says Clinton.

As an engineer, Mairose especially values the R&S®CLIPSTER because he has been able to participate in the product's development, working with Rohde & Schwarz, on tweaks and features that make the post-production engine such an integral part of Elite Media Technologies' operation, he says.

As early as the third quarter of 2017, Mairose provided input on issues related to JPEG 2000 encoding, how different source assets are treated and some audio fixes, he says.

Since then, the relationship has grown. Elite Media Technologies became a testbed for the sixth generation of R&S®CLIPSTER. "We had some of the systems at our facility," Mairose recalls. "We would beat on them and provide some feedback to find out what was working and was not."

That input helped Elite Media Technologies have a hand in the overall development of the product, something Mairose treasures.

"Rohde & Schwarz has always taken my input and put it to use, generating a feature to respond to what we are seeing in the marketplace," says Mairose. "Things like how to make deliverables, how to make things work faster, quicker and cleaner."

Clinton concurs. "The challenges we are faced with when investing in a tool or piece of equipment is to team up with companies ...that share our values," he says.

"When we decided to go with CLIPSTER, it was because it was a tool that matched our core values..., [being] adaptable, flexible and continually exceeding expectations."



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