NVIDIA QUADRO IS A GAME-CHANGER FOR SWORDFISH

San Francisco-based creative studio Swordfish specializes in motion design for marketing and software development. Founder and Executive Creative Director Matt Silverman – a longtime industry veteran with expertise in motion graphics, visual effects and animation – leads the boutique outfit. Swordfish's recent projects include a year-long engagement with Sony designing animations for a common user interface across all consumer devices, super-hi-resolution parametric animations playing on 22 projectors at Sony's CES booth and 196 smart phones at their Mobile World Congress booth, and production of a CG intensive marketing piece for Maxon to show off the integration between Cinema4D Lite and Adobe After Effects CC.

CHALL ENGE

Swordfish recently worked on a Sony project that involved a live-action production shot in London with Sony's new high-end F55 camera. The footage was stunning, however the Sony RAW MXF codec wasn't adequately supported by the tools in Swordfish's typical post-production workflow. And as usual Swordfish was faced with added pressure to deliver on a fast turnaround. This forced Silverman to seek an alternative solution in a pinch. He had tried working with DaVinci's Resolve in the past, but the performance on the CPU wasn't meeting their production needs at the time. On this project, he decided once again to experiment with Blackmagic's DaVinci Resolve, but this time running on a Mac Pro that had recently been upgraded with dual NVIDIA Quadro K5000 for Mac GPUs.

"I had beta-tested Resolve awhile back, but since we only had a single older generation Quadro GPU, we had to run it on the CPU, and it was way too slow to meet our needs," explained Silverman. "Luckily when this project came around, we still had the Resolve 9.0 software on one of our Macs. When we couldn't process the Sony RAW files, we tried loading the footage into Resolve running on the two

Swordfish Executive Creative Director Matt Silverman color grading Sony RAW MXF 4k footage in DaVinci Resolve

Quadro K5000 GPUs and it just worked beautifully and intuitively – I never even had to pick up a manual."

SOLUTION

Despite the fact that it hadn't been a frequently used tool, Resolve turned out to be far more than just a temporary solution for the Swordfish team. "Once we installed dual NVIDIA Quadro K5000 GPUs into our Mac, Resolve's performance was unbelievable. Transcoding the RAW MXF files to 16bit DPX sequences for compositing took minutes as opposed to hours in our standard workflow applications. Going from 4K RAW to 2K DPX was exported at 8 frames per second, and 4K to 2K for ProRes was faster than realtime at 28 frames per second," said Silverman. "Since our baseline exposure was completely blown out, with Resolve on the dual GPU system we could easily pull the exposure down and reveal all the details back in the footage nearly in real time."

Silverman continued, "Even though we leveraged GPU acceleration in our previous workflow, I've never experienced an application that I felt was this powerful.

Resolve really slices through giant files. The accelerated workflow and time savings are a game-changer for Swordfish – we have such a small team that those benefits have an exponential impact on our productivity and capability."

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IMPACT

Resolve – and the speed and flexibility provided by dual NVIDIA Quadro GPUs – is prompting Silverman to think of how he can leverage that combination to expand Swordfish's services. "Even through we're not a post house, adding Resolve to our workflow means that in the future Swordfish could feasibly offer color correction and high-end finishing services, keeping more aspects of our projects in-house for clients that are looking for that," said Silverman.

"Both Blackmagic and NVIDIA are helping to remove barriers to entry for small shops like ours," concluded Silverman. "With Resolve leveraging GPU acceleration on a Mac, we can offer color and high-end finishing on a cost effective system. No need for a huge finishing suite. This will really allow us to explore new opportunities without compromising our bottom line."

Swordfish Senior Creative Dean Foster designing motion graphics in Adobe After Effects CC with the help of the new Cinema4D integration
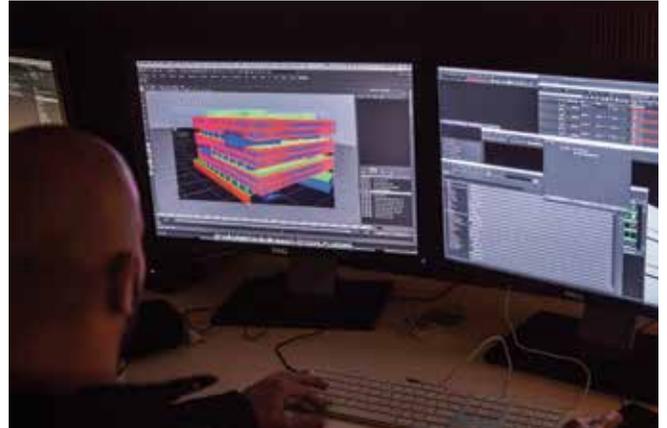
3D Artist Anthony Enos cleaning up a CAD model in Autodesk Maya

To learn more about NVIDIA Quadro, go to **www.nvidia.com/quadro**

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