



# What happens when World-famous wrestlers dance with the Devil? A no holds barred graphics extravaganza!

#### Q & A with WWE Graphics Guru, Perry Harovas

## World Wrestling Entertainment (WWE) is more than meets the eye; what lies behind the spandex and showmanship?

**Harovas:** For 30 years, WWE has been the premier wrestling entertainment company with programming in more than 650 million homes worldwide, 180 countries and in 20 different languages.

From a social media perspective, it doesn't get much bigger than WWE. We have 800+ million followers and WWE is the #1 sports channel on YouTube with over 12 billion views in the last 12 months.

We have a 24-hour network and we originated pay per view. Our main event is WrestleMania—one of the top 5 most valuable sports brands in the world, behind only the Super Bowl, the Olympics, and the FIFA World Cup (Forbes). We also do Summer Slam, Royal Rumble, feature films (with and without wrestlers), animated shows, reality shows, video games, live shows, visual effects and custom graphics. In addition, we produce merchandise, toys, board games, and the list goes on...

## That's sounds like some heavyweight content generation?

**Harovas:** You could almost compare it to Disney, in terms of our voracious appetite for creating content. Between having our own 24-hour network, multiple brand properties, promos, motion graphics and the production of feature films—it's truly a massive amount of content. The number of cast, crew, production and staff for RAW (one of the longest running live shows that airs every week of the year), is huge. And that's just one of many shows.

#### That's enough to make any system tap out. How do you handle it?

**Harovas:** We were using blade servers. The struggle was always rendering time; it was never fast enough. We wanted to push our effects and graphics but as we added more blades, we saw diminishing returns because the architecture is inefficient. We needed something more scalable with more horsepower to take it to the next level.

#### How did life change when Silverdraft entered the ring?

**Harovas:** To start, Silverdraft designed a Devil Compact Supercomputer specifically to meet our challenges. We require a lot of CPU-based 3D rendering and GPU rendering for After Effects. Our blade servers could only render on the CPU, so we had to set up a separate pipeline for our GPU After Effect jobs. It was really inefficient. Our Devil is the first true hybrid system we've ever seen with 1500 CPU cores AND 20 GPUs. We can now send all our jobs to one render queue, and the Devil powers through them automatically. It's a really unique product that we hadn't seen from anyone else, and it saves us a ton of time and money.

Equally as important, Silverdraft delivered the Devil to us assembled, configured, wired and ready to go. This is unheard of in the industry. Usually you purchase something and have to put it together yourself over several days or weeks and worry about downtime and warranties if something isn't assembled correctly. But with Silverdraft, the Devil was plug and play with our existing infrastructure.

From there, of course the name itself actually kept the mood light because the Devil really is in the details, and of course, the Devil made me do it! We had fun with it.

In terms of operation, it was exactly what we greedy 3D artists crave. We are always looking for more speed and the ability to push graphics to the limit, again and again.

Another advantage of the Devil is its compact footprint. It takes up a lot less room in terms of rack space while having far more horsepower than our blade servers. Less space equates to saving money—less square feet of office space, less electricity used and less cooling needed. It was a win-win-win.

## What was it like working with the masterminds behind this little Devil?

**Harovas:** Initially, we were talking and testing with a lot of vendors. Silverdraft was willing to work with us on price, configuration, and GPUs. But one big advantage was that they were truly connected to the industry and highly experienced with all the software we use. So working with Silverdraft was like talking to peers—they spoke our language and didn't glaze over like other vendors when it came to technical details.

The longer we interact with Silverdraft, the better it gets. We have a great working relationship. They are very aware and helpful. They even supported their computer being taken apart and put back together

when we had to move locations. Other vendors may have similar hardware, but it wouldn't yield the same result. What Silverdraft brings from a personal perspective is perhaps their biggest advantage.



### Would you recommend Silverdraft to other networks?

**Harovas:** Absolutely. They are good people and make a great product. If you value having a relationship with someone directly involved with making the very equipment that helps you create your content, and on a massive scale, they really can't be beat.

The Devil is used constantly—every day, all weekend. We see volumes and volumes of content coming through, literally thousands and thousands of frames. Simply put, the Devil just enables us to do more cool stuff. In fact, the 3D department is already asking for another one!



When creatives demand best in class rendering performance, the number one VR experience on the market, or world-class content creation and VFX, the Silverdraft Supercomputing Devil and Demon are the answer.