

Psycho Films

Case Study



Company

Psycho Films

Location

Los Angeles, CA

Contact

www.psychofilms.org

Warning: Content on this site may be offensive to some audiences.

Industry

Video production

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Psycho Films is a leading innovator in producing cutting edge expressions for artists and performers in the hip hop industry. They are not techies, much less storage experts. They know cameras and editing. They know how to build a video business from humble dorm room beginnings at the University of Southern California into a fast-moving company that now does work for Grammy Award winners. But when it came time to treat their storage with as much planning and quality control as they put into their music videos and commercials, Psycho Films needed help—before it was too late.

Sticking to Production, Not Sticky Notes

Like so many other creative outfits, Psycho Films treated storage like most people treat batteries: Use where needed, when needed, then go buy more—often. Over time, the company amassed a collection of 30 or so USB drives, most in the 2TB to 4TB range. Daily workflow dictated that camera footage flowed from camera cards through a main computer and out to external storage, which in turn was duplicated for redundancy. The main external drive became live storage for editing and post-production while the backup landed on a shelf. Both drives were tagged and organized with sticky notes and tape.

In theory this workflow is fine, but in practice it's a recipe for disaster, especially for a growing company. Just consider the numbers involved. These days, Psycho Films shoots most of its footage on Alexa cameras, either at 1080p or 4K resolution. An average day of shooting yields about 700GB of data, and that's before backing up—and editing—and making backups of the edits. And so on.

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“Basically, these USB drives were completely full all the time,” says Psycho Films Head of Production Tyler Sobel-Mason. “If we needed to edit off of more than one computer at a time in order to make the project go faster, we would have to duplicate the footage onto a second drive so that a second computer could use it. Just copying alone was really time-consuming, and we often didn’t have enough free space to actually make a full project duplicate.”

Every time Psycho Films hit its capacity wall, which inevitably occurred under deadline, Psycho technicians made a frantic dash to the electronics store to buy whatever drives would solve the immediate problem. A better way had to be found, which was when Seagate and SimplyNAS stepped in to provide a long-term storage solution. In fact, after purchasing SimplyNAS products, Seagate and LaCie decided to provide drives to Psycho Films as well, who in turn agreed to participate in this case study documenting a positive evolution of their storage strategy.

Psycho Films faced two primary problems: First and most obviously, it struggled with being constantly pressed against a capacity ceiling. However, the real bottleneck to the company’s growth rested with data decentralization and its impact on work efficiency.

“We had a limit on how many people could be working on the same thing at once,” says Sobel-Mason. “To have two people editing on the same project, we had to duplicate all the footage and set someone up on a new computer. To edit the same thing, you couldn’t be looking at the same project files. It wasn’t like now, where if we need to get a video done, we can just throw six people at a project for two days and then all of a sudden it’s done. We had no option to do that. It just took longer, clients got mad, and we had no way to scale our workload.”

Psycho Films finally took the plunge into true professional storage when it deployed a pair of SimplyNAS storage servers. For live work, the company installed a SimplyNAS U300-P10-C316, powered by a quad-core Xeon E3 processor and 16GB of memory. The live work provides an iSCSI-ready storage area network (SAN) system optimized with several unique NAS features for the TV/video industry, such as the ability to filter processing power and RAM when the unit has an active video file open. Of the U300’s 16 drive bays, up to six can be used for SSD caching—four for read operations (important for pulling up and working on centralized files) and two for writing (also important when high-volume days can find Psycho staff uploading up to 2TB of footage). Moreover, the U300 sports seven 1-gigabit Ethernet ports, which can be aggregated for massive uplink bandwidth and/or segregated by application. For instance, Psycho Films could separate IP access for editing stations and file transfers so that the total load remains balanced and managed for optimal network performance. The U300 can be configured to automatically back up resting data to their second system—a SimplyNAS QSAN TrioNAS U210.

With 12 drive bays (including SSD caching support), a dual-core Intel i3 processor, 16GB of RAM, and six gigabit Ethernet ports, their live work server could actually function as a full-blown editing server in its own right. For the time being, though, Psycho Films wanted the U210 to operate purely in a backup function so that, in the event of any mishap on the primary server, employees would have the archived copy ready at a moment’s notice without fishing through a sea of USB drives and sticky notes.

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Head of Production
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To Each His Own Pro

When first deployed several months ago, Seagate initially stepped in to help outfit those SimplyNAS servers with a small fleet of 6TB Enterprise NAS HDDs. Psycho Films has since upgraded yet again, this time with 8TB Seagate® IronWolf Pro and 10TB Seagate® BarraCuda Pro.

IronWolf Pro is Seagate's successor to the Enterprise NAS HDD. It has the same core qualities as the previous generation—capacity, speed and reliability—but it does so with the latest technology. IronWolf Pro features Seagate's extensive firmware optimizations specifically for NAS applications and environments, everything from how it prioritizes and accelerates random reads in multiuser settings to anti-vibration mechanisms for coping with multi-drive enclosures. However, IronWolf Pro goes further with AgileArray™ technology, which further boosts NAS performance and guards RAID arrays against unnecessary disk recovery delays. Combined with a 7200-RPM spin rate, AgileArray makes IronWolf Pro the fastest drive available in its capacity class (up to 10TB)—a key benefit for creative professionals who demand fast renders and 4K editing performance. Speed doesn't compromise reliability, though. IronWolf Pro supports an enterprise-class 300TB/year workload rate, provides a five-year warranty, and even includes two years of a Seagate Rescue Data Recovery Service Plan.

Psycho Films needed the best blend of capacity, NAS speed, and dependability to fuel the daily editing work of its primary storage server, and IronWolf Pro proved to be the clear choice for the U300.

On the U210 archiving server, BarraCuda Pro made for a more appropriate fit—capacity backed by reliability and balanced with performance and price value. At 10TB, the BarraCuda Pro delivered a huge boost in storage density, which is exactly what Psycho Films needed in its archiving solution. The company didn't need the high-volume, multi-stream flexibility of IronWolf Pro in its archiving box, but it did want a similar grade of reliability. BarraCuda Pro features the same five-year warranty and two years of a Rescue Data Recovery Service Plan. Still, not knowing if it might want to rely on those drives for more speed than archiving in the near future, Psycho Films gravitated to the Multi-Tier Caching (MTC) Technology™ built into BarraCuda Pro. MTC leverages various implementations of DRAM, NAND Flash and on-disk media cache to accelerate operations specifically skewed toward business-type workloads. Psycho Films is considering segmenting their live work server into an archive partition and creating a separate secondary live work partition as more editors come on board.

Storage-Driven Transformation

From the day Psycho Films fired up its two NAS servers, the company realized a huge, immediate benefit in the number of editors it could focus on projects. Just by centralizing its storage resources and having multiple workers able to edit from the same file sets, Psycho Films tripled its project output speed. This statement alone, however, doesn't do justice to the nature of the problem for creative professionals. Creative workflows hinge on handling large, diverse data sets hooked into editor applications in industry-specific ways.

“Now, if we're having a problem with a computer, it's easy to pull up the exact same project on a different computer because the data's all in the same place,” says Sobel-Mason. “Before we got these servers? First, you'd have to copy everything off of that computer, which takes about 10 hours. After that, because all the data is now in a new place, you'd have to go through the project and re-link every file to a new file path, which takes forever. We'd have to do that about once every week. It would take us 15 hours to do what we now can do pretty much immediately.”



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With Psycho's core storage remedied, the team also wanted to improve its operations at the edge. As noted earlier, the company was no stranger to drowning in small drives during editing. The same held true for backup drives out in the field, only these drives tended to be even smaller, slower, and even less reliable. Seagate stepped in again. This time with the help of its LaCie subsidiary.

The 4TB LaCie Rugged® RAID Thunderbolt™ proved to be the perfect tool for run-and-gun shooting on a chaotic project where equipment tends to get banged around. Equipped with two internal 2.5-inch Seagate hard drives, the Rugged can be configured in RAID 0 for backup and ingestion throughput of up to 240MB/s, or it can operate as a RAID 1 mirror for protection against possible disk failure. Given its field workflow, Psycho Films prefers the speed of RAID 1 and the full 4TB capacity for copying its rotating collections of camera media. Back in the office, techs then leverage the drive's Thunderbolt connectivity and ability to offload potentially terabytes of footage into editing in a fraction of the time previously required by USB and FireWire drives. Sometimes that offload time savings can make the difference between staff being up all night or even making a delivery deadline.

"Our reality is different now," adds Psycho Films CEO Sam Canter. "We have the capability to expand, which we didn't before. Now, no matter what projects we bring on, we have the personnel to get it all done, and they won't be held back by device limitations. If we have to edit three or four things at once, we can now bring on three or four people and not have them trading off being on a computer, dividing their time, which not only cuts our lead time in half but allows us to essentially double our productivity and the amount of work we can take on."

Beyond the productivity enabled by SimplyNAS's servers and LaCie's portable drives, Psycho Films now has unprecedented peace of mind. The team knows that their work rests on the highest quality NAS and field storage systems, with every solution built from top-caliber hard drives specifically optimized for their respective functions. Unlike in the days of office-wide USB drive sprawl, Psycho Films no longer worries about, much less copes with, sporadic drive failures and potentially catastrophic data loss. They don't lose files. They don't have editors sitting on their hands, waiting for a drive to free up or arrive from the store. And they're not wasting dollars, time and space on making unnecessary duplicates of data.

In short, Psycho Films now operates like the professional video production house it was always meant to be. The firm can continue to grow its client roster, increase customer satisfaction, and boost its bottom line, safe in knowing that the lifeblood of its business—its data—will always be ready to perform exactly as needed.



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Sam Canter
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