



## At Armstrong White, High-Performance Network Storage Supports Breakthroughs & Beauty in High-End Graphic Design

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**“It’s really been a night-and-day changeover for us. We haven’t had any non-rendering due to the server, we’re not missing textures, not missing frames, and we hardly have any downtime other than scheduled maintenance. The increase in productivity has not just improved morale, it has had a significant impact on the bottom line as well.”**

John Willette,  
Partner and Director of CGI,  
Armstrong White

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Jason Sparks,  
Vice President of Storage and Systems,  
Xiologix

### Summary

Creating sophisticated high-resolution 3D graphics for video and print is both an artistic and technological challenge. The artists and creators of the content need to be highly skilled and talented, but they also must have the high-performance tools and infrastructure necessary for their work to be built and seen. Armstrong White is one of the leading developers of 3D imagery and other groundbreaking content for the automotive industry and others, and its projects require massive amounts of data and high-performance throughput. It’s talented team of artists and producers are often working on deadline and can’t afford any downtime or glitches. Two previous storage solutions failed to deliver on the availability and productivity Armstrong White required. Since turning to a BlueArc network storage solution at the end of 2008, Armstrong White has seen a significant boost in productivity and, basically, the elimination of unplanned downtime. Plus, it is positioned to scale up quickly and easily as its storage requirements increase.

### The Customer

Armstrong White is a pioneer in producing sophisticated high-resolution 3D motion, video and print imagery for a demanding customer base that requires crisp, clear, accurate and eye-catching graphics. It works primarily with advertising agencies and its video and print creations appear in commercials, print ads, and on the Web. Armstrong White prides itself in its ability to turn complex languages of data into art. Based in Bloomfield Hills, MI, Armstrong White was launched in 1996 as a boutique retouching studio primarily serving the automotive industry. It now has approximately 30 full-time employees and, while the bulk of its work is still for the automotive industry, it boasts a growing global customer base that includes work for companies such as Sony, Eli Lilly, Heineken, UPS, and many other widely known brands.

### The Challenge

Much of the work created by the artists and producers at Armstrong White requires huge amounts of data and demands extremely high levels of performance and throughput. “We work with CAD data, which can be very heavy,” says John Willette, Partner and Director of Computer Generated Imagery at Armstrong White. “If we’re working on a 3D file it could be 10 million polygons – that’s the language of 3D models. To give an example, our CAD files inside of 3D programs can approach half a gigabyte per file, plus we are also rendering high-resolution files from those. In addition, we are mapping other heavy-data images onto these files. We use a render farm with approximately 300 computers. It means there’s a lot of activity on the server.”

Armstrong White had tried two solutions to address its needs, but neither was up to the task. First there was a vendor-provided solution that fell short on performance. Then, Armstrong White built its own in-house Linux server using state-of-the-art disk management. It worked fine most of the time, but most of the time was not good enough. “We’d get a server freeze from time to time,” Willette says. “And in this business, you’re only as good as your last job. The quality was there, but



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if you miss a delivery or a deadline, that is a major problem. Because of the nature of our business, we are always rendering – 24 hours a day, seven days a week. With our old systems, the rendering wasn't bullet-proof. When the server would crash or freeze in the middle of the night, someone would have to come in and restart it."

Armstrong White realized it couldn't continue with the storage system it had in-house and began looking for a better solution. "We began looking into alternatives right at the time the market was tanking," Willette recalls. "But we realized, whether or not the market tanked, we were going to survive. In order to survive, making a change to our infrastructure was one of the critical things we needed to do. We had to have a platform that would scale up. We needed the productivity and security of having an enterprise-class solution for our business."

### The Solution

Armstrong White turned to Xiologix, a leading systems integrator based in Tualatin, OR. "We listened to their challenges and immediately told them that a change to their storage solution was necessary," recalls Jason Sparks, Vice President of Storage and Systems at Xiologix. "Their finished product comes from rendering – commercials, other media, video, diagnostic imaging of an automobile, and its parts. Every time that render farm is down they're not making money. They were concerned about performance in an enterprise storage array and 500-megabytes-per-second sustained was the performance requirement they wanted. That's when we turned to BlueArc. We knew BlueArc could deliver the performance and could deliver additional functionality to solve their other problems as well."

Xiologix specializes in helping customers solve their most complicated IT needs. Its expertise includes enterprise architecture and high availability, infrastructure optimization, storage and resource management, identity management, and business continuity. "We introduced them to BlueArc, describing the features and functionality of BlueArc solutions," Sparks says. "We understood that they had a massive data movement problem and we were able to show them that a high-speed storage infrastructure would help them reduce costs and save them time. We introduced them to the concept of a tiered architecture with automated data movement."

Armstrong White now has a BlueArc Titan 3100 network storage solution with 10 terabytes of usable fibre channel storage and an additional 30 terabytes of SATA storage. In addition to getting the performance the company required, Armstrong White is also using features such as Snapshot – which wasn't available on their previous systems – and Data Migrator for intelligent tiering to move data between the fibre channel and SATA disks. "All of our newest data is on the fast storage. We have migration rules for when it moves to the secondary storage," Willette says. "If it is not on the active jobs partition, or if it is older than a certain date, then it goes on the slower disk arrays. The newest and most important data are always running off of the fastest storage tier."

Armstrong White realized another significant benefit to the BlueArc solution. By using Data Migrator, Armstrong White was able to protect the investment they had already made in disk storage by re-deploying the storage within the BlueArc solution. "With Data Migrator we were able to extend the storage life of their pre-existing devices," Sparks says. "They haven't had to buy any new storage over the past 18 months." The BlueArc solution was rolled out over a two-to-three-week period with Xiologix because Armstrong White did its own migration from its old server to the new one. "We cloned the data, moved it, and then we were testing and doing copy updates," Willette recalls. "We have different operating systems – we're about a third Mac – and it was important that we could hook everything to the BlueArc."

### The Results

The BlueArc solution has been running since the end of 2008. "It has been a night-and-day transformation for us," Willette says. "With the old system, we were actually losing data. With BlueArc, we haven't had any non-rendering time due to the new implementation. We are not missing textures, not missing frames. We haven't lost any data with BlueArc, short of someone deleting a file that hadn't been snapshot yet. And, our only downtime comes from scheduled maintenance. The increase in productivity has improved morale and it has had a significant impact on the bottom line," says Willette.

"We've seen our billable hours increase and our freelance hours decrease," Willette says. "If we were paying a freelancer for an eight-hour-day job and the server was down for an hour, we still pay the freelancer even though they were not working. In essence, we were paying extra for downtime. We used to worry about server issues and staffing. That's all changed."

### The Conclusion

"Around here it was normal to hear, 'The server's down!' When we'd have those 'server down' days, inevitably someone was working on something very important. They were on track to meet a deadline – until. With the server down, they would have to wait, and ultimately end up working late through the night due to no fault of their own."

"Now there's never a server down," Willette says. "What this means is pretty simple, it has reduced a lot of stress! Reduced stress for the artists and for the IT staff. It has improved morale and productivity."

The other big benefit of having the BlueArc solution in place is that it has given Armstrong White comfort and piece of mind that it can grow its business, taking on any customer challenge without having to worry about whether the technology is in place to support it. "As of yet, we have not scaled up, but I think there's going to be a time, probably in the next year or so, when we are going to have to do that," Willette says. "I don't have any data concerns. The BlueArc has removed that part of the equation. Now, storage issues are non-issues."



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