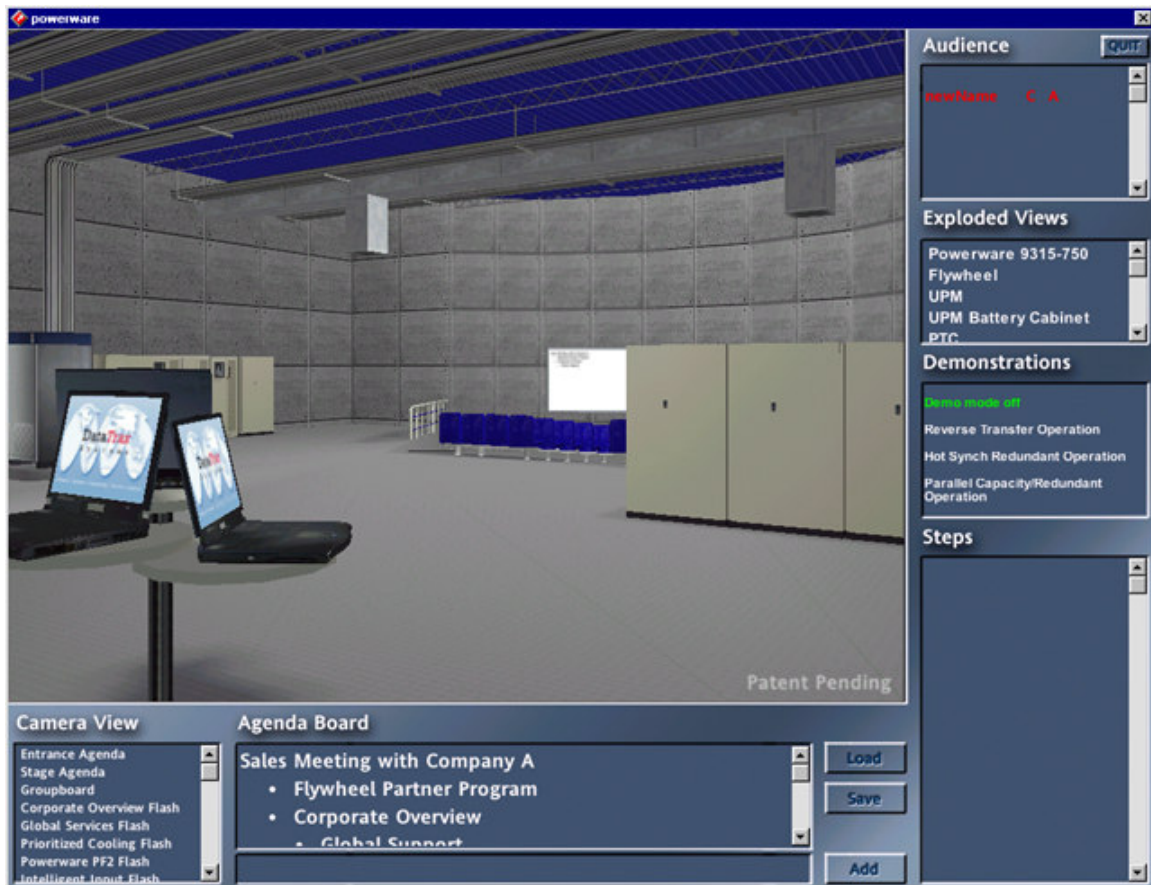# Powerware
Multi-user Online Sales Tool

The next best thing to being there: Multi-user Online 3D Provides Remote Support for Powerware VARs.

Powerware Corporation, formerly known as Exide Electronics, designs and manufactures innovative, end-to-end power protection and management solutions -- many of which are deployed by a broad range of businesses and institutions worldwide. The company differentiates itself on several levels, and is particularly known for its solutions approach to solving everyday power problems, simply and efficiently. Drawing upon a vast array of resources and experience, Powerware has earned a solid reputation for performance that gives customers added confidence in their technology investments.

Powerware integrates a full line of uninterruptible power systems (UPS), power management software and services, allowing customers to easily manage power in a way that increases enterprise-wide systems availability. Its products are typically used in

networking, PC, financial, medical, industrial, voice and data communications, military and aerospace applications - wherever continuous power is essential to daily operations.

Powerware offers one of the largest portfolios of power-protection products in the industry. The company dominates several commercial and federal government markets. It is also the market share leader in supplying UPS products and services for resale to Original Equipment Manufacturers (OEMs). These OEMs, which include many of the largest computer and networking companies in the world, frequently list Powerware products as the default UPS on their solution configurators.

In 2001, Powerware was faced with a growing problem of providing "live" demos of their UPS equipment to customers in locations outside of Research Triangle Park, North Carolina. The size of the equipment made taking the units on a "road show" costly and impractical. Sending sales support engineers to every VAR sales call was costing the company in travel expenses. In addition, each trip was limited to one or two presentations over a two-day period.

Powerware needed a way to have their sales engineers to more productive, more responsive, and less expensive. Wish and a Prayer Studio worked with a team at Powerware to develop a solution. From this came the Powerware Online Sales Training and Demonstration Tool.

Real Time Models

Ken Hubbell and Troy Knight, leading innovators of interactive 3D development, began to work with Powerware to develop a visual tool to help solve the problem. The goal was to turn existing data into 3D content. Ken captured digital photography data of the Powerware demonstration facility in Raleigh. They recorded the entire facility including the main demo room and twenty-eight machines. The entire process took two months resulting in a virtual representation of the space.

Using 3D Studio MAX, Troy constructed, refined and optimized the 3D models for Ken to use within the Adobe™ Shockwave 3D. Because the application would be real-time, they had to reduce the polygon count; breaking models within the scene into separate entities so that movement of specific parts could occur. After optimizing the scenes, Ken imported the file seamlessly into Wish and a Prayer Studio's custom 3D SIMply Publish authoring tool.

The next step in the process was to script the movement. Although other CAD applications can produce movies or animations, the 3D SIMply Publish tool creates immersive 3D simulations and can communicate concepts such as machine assembly and maintenance more completely. It contains a number of animation behaviors, and its export to Shockwave 3D feature allowed Ken to use the Lingo scripting language to build customized scene behaviors and add multi-user capabilities by integrating with the Adobe Multi-user Server (MUS).

"Adobe™ Director™ is a terrific multimedia development tool," says Ken. It provides support for Flash™, video, audio, graphics, 3D, and dynamic imaging. The Powerware application required all of these.

One of the biggest challenges to the project revolved around the sounds the Powerware machines make during operation. Much of what happens with their equipment is not visual. The sounds of the machines turning on and off, the breakers opening and closing, the alarms, and other sound effects were critical to demonstrating the units. Through custom 3D sound behaviors and Director's support for Microsoft's DirectSound, Wish and a Prayer Studio was able to create an audio environment that really brought the demonstration room to life.

The other challenge was to allow several remote presenters to make comprehensive support presentations to many potential customers and VARs. In addition, this had to be achieved over a 28.8kb dial-up modem to support the lowest common system a customer may to access the Internet. The MUS provided this access. The MUS allows multiple group sessions for making simultaneous presentations administered by several presenters. Each group can have any number of "audience" members identified through both name and password and then associated to the correct presenter by the server-side scripting support built into the MUS. Up to 1000 individuals can log into the system at any given time.

Powerware anticipates each presenter will be able to host up to six sessions per day. This is a marketed improvement over the one or two presentations every other day a support representative could provide by traveling to the customer's locations. In addition, the support can be provided worldwide without having to delay a sales call due to the travel time related to collocating the sales support engineer.

Providing Online Leader-Led Demonstrations

The resulting real time 3D scene is an accurate duplicate of the actual demonstration facility. Now demonstrations from the Raleigh office can be controlled via the Internet. These demonstrations include unit operation as well as part identification.

Operation of each UPS System can be performed step-by-step. The application also allows the presenter to skip around a presentation to highlight areas during condensed presentations.
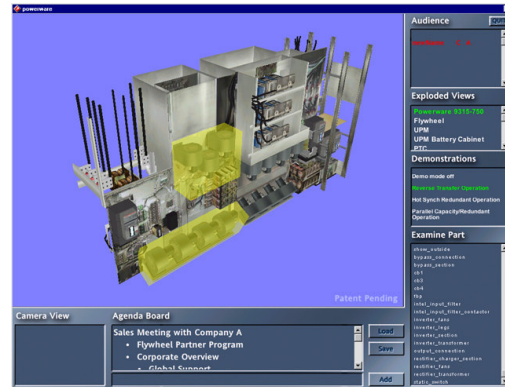
The presenter controls navigation in the scene by clicking within the 3D scene window and "driving" with the mouse. The presenter can also "auto-pilot" to specific areas in the room by selecting from a view list. At all times the presenter knows the status of the audience camera and scene actions by observing the audience status list.

The system provides a real-time agenda board at the front and stage areas of the room for recording and updating the meeting information. The engineer can save the agenda and email to all parties at the conclusion of each presentation.
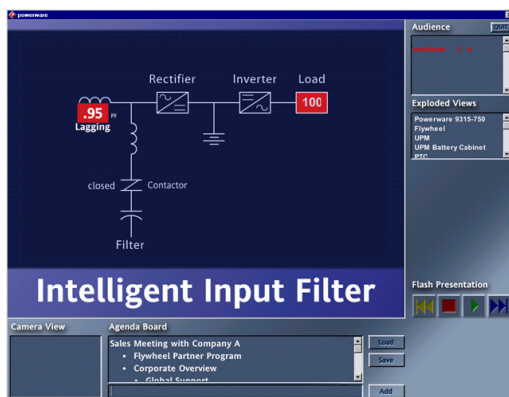
The system is not only a visual interface to viewing 3D demonstrations of the equipment; it also provides for corporate presentations in Flash and PowerPoint. Each Flash presentation is accessed through a gallery in the room. The presenter can control the Flash movie as required using simple "video" controls.

A PowerPoint board is available in the stage area of the demonstration room. The presenter exports slides from PowerPoint and places them online via FTP. The PowerPoint presentations can be customized for each session as they are streamed into the scene upon demand.

The system currently is one-way. Powerware is considering plans to make the application bi-directional for diagnostic troubleshooting as well. As the customer or VAR needs more information during a presentation, they can select the part on the visual display and the system simultaneously selects the part on the presenter's display screen. This gives a visual cue to the presenter to provide additional information.
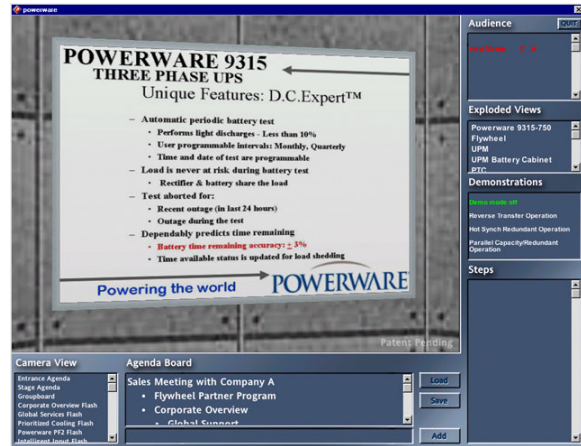
Time and Cost Savings Result

Before Wish and a Prayer Studio created this application, Powerware estimated it was losing hundreds of thousands of dollars a year to lost sales and travel expenses. On-site visits and training sessions were preventing the company from developing a cost-efficient solution to supporting and training VARs and maintaining solid client relationships based on the Powerware brand. Using the multi-user 3D presentation application, Powerware can now look at solving its future demonstration, training, and maintenance needs.

Powerware can demonstrate entire equipment configurations to customers around the world without requiring the sales engineer to travel. The combination of constant corporate communications and "hands on" sales support means the VARs have Powerware with them each step of the way. Powerware is pleased with the results. "Wish and a Prayer Studio is helping us realize the potential of real-time 3D business applications here at Powerware," said Lou Signorelli, Sales Director for Powerware Corporation. "Combining Shockwave 3D technology and their development experience, they have delivered an exciting product with great potential future benefit."

"We have made developing integrated, multi-user visual applications a reality for businesses," says Ken Hubbell. "Using a component approach to 3D programming and modeling makes it possible to link a virtual 3D interface to real time data in a cost effective and timely manner." Rapid development time means a faster return on a business investment. Interactive 3D sales support and training using the Shockwave3D gives you the most portable and affordable way to create interactive training applications that can be easily updated over the web or by email. It is the next best thing to being there!