

Looking to A/V Technology to Help a Building Meet Stringent Green Criteria

The David and Lucile Packard Foundation HQ becomes an LEED-Platinum building with help from some well-designed A/V.

By **Dan Daley**



View the A/V installation in these conference rooms.

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[The David and Lucile Packard](#)

[Foundation](#) was created in 1964 by

[Hewlett-Packard](#) co-founder David Packard and his wife Lucile to provide grants to improve the lives of families, children and communities, and to restore and protect our planet. The Foundation recently inaugurated its new headquarters in Los Altos, CA, aiming to become the largest Net Zero Energy building in California. The guiding principle for the new HQ facility was California's stringent legislation, the Global Warming Solutions Act of 2006, more broadly known as Assembly Bill AB 32. The law works to reduce the effects and causes of climate change by establishing a comprehensive program to reduce greenhouse gas emissions from all sources throughout the state, with a goal of reducing California's greenhouse gas emissions to 1990 levels by 2020, representing a 25-percent reduction statewide, with mandatory caps for significant emissions sources.

It's a tall order, even by California standards. An important tool in this initiative is one favored by many corporations: video teleconferencing. The building has a total of nine conference rooms, six of which use [Cisco/Tandberg C50](#) video teleconferencing systems, with audio conferencing installed in the other rooms based on a [ShoreTel](#) VOIP phone system.

"Travel and commuting are probably the biggest ways we have of reducing the Foundation's carbon footprint, though we also paid attention to water conservation, lighting use, IT equipment and heating and cooling systems," says Marcus Krawinkler, manager of IT operations for the Foundation. As important, he adds, was inclusion of programming in the building's control systems that would automatically turn off A/V systems and lighting when it detected that the systems or the spaces were not in use.

Krawinkler says the architect took A/V system design into consideration early in the design process; however, the final A/V system component choices were left to the latest feasible time in order to consider the newest technologies possible. These choices were on the agenda collectively for the architects, the system designers and the A/V systems integrator, which in this case was San Jose, CA-based [Integrated Communications Systems \(ICS\)](#), a communications contractor/integrator with a client roster that includes some of the best-known names in Silicon Valley. Technology products were proposed and presented through submittals that went through a review process that included all the parties, including the Foundation, represented by the IT department.

As important, Krawinkler emphasizes, was the need to make certain that all of the technology platforms were interoperable and that they were programmed and arranged in such a way as to optimize the users' experiences. That was accomplished by choosing the Foundation's "power users" — the core personnel of the 120 or so employees who would be working in the building who would most often be using the key technology platforms such as teleconferencing — and creating a kind of informal focus group that would provide feedback that would guide the fine-tuning of the systems' programming.

"We held several 'power-user' training and orientation sessions, then had them give us their thoughts after they had used the systems enough to form opinions," Krawinkler recalls. "ICS was part of the process and they would tweak the systems based on the feedback we were getting."

One of the most common comments was the request to reduce the number of steps that users had to take to access systems, such as launching a video teleconference session or how to connect a laptop computer to the systems to use as a content source. The solution most of the time was to analyze the steps needed to perform a given task, then create macros in the control system that reduce those steps to the fewest steps possible.

ICS implemented [Creston's](#) Fusion RoomView system to (among other things) drive scheduling panels outside each meeting room. "The Foundation is very calendar-centric, so they use [Microsoft](#) Exchange manage their schedules," Krawinkler says. "The Fusion system pulls meeting room schedules from Exchange and provides users an at-a-glance view of the meeting room schedule right outside each room, lets you book the room right there if it's available and will show you other rooms which are available if that room is busy."

Acoustic Issues

The architect worked together with several consulting firms and the A/V integrator to strike a balance between architectural design and acoustical functionality for all the rooms. One of the videoconferencing rooms was quite large, holding about 100 people. It presented an acoustical challenge, due to its use of wood and glass surfaces, an interior design motif that extends throughout the building. However, that problem also needed to be buttressed by a technology solution. In this case, a [BSS Audio](#) Soundweb London conferencing system, complemented by 32 [JBL](#) Control 26CT in-ceiling speakers, six Control 128W in-wall and four Control 126W in-wall speakers.

The building was completed in mid-2012, and Krawinkler says the effectiveness of the green components of the design is on track to meet expectations. The building is an LEED Platinum-Certified Building, the highest rating given by the [US Green Building Council \(USGBC\)](#). He says he expects to have a full survey of the energy-saving elements ready for the building's first anniversary in 2013. "The A/V systems will play a big part in that," he says. 