Michigan Architecture and Engineering Consultant Chooses Crestron DigitalMedia™ for New Headquarters

"We are always trying to maximize functionality in the jobs we do, while minimizing problems in the field," says Richard Bracci, Director of Electrical Engineering and Technology Services for Troy, Michigan-based Integrated Design Solutions (IDS).

This spring IDS moved into new headquarters, with AV and control systems of their own design. At the heart of these systems is DigitalMedia™, the groundbreaking signal distribution and management solution by Crestron. IDS consultants used DigitalMedia (DM) – including DM cable, switcher, transmitters and receivers – to reliably transport and manage all data, video, audio, computer and control signals in the facility's two main conference rooms. Crestron processors, amplifiers, and touchpanels completed the integrated control solution.

"Some of the systems we design are extremely complex. Crestron DigitalMedia is a clean and elegant solution that helps installers cope with that complexity while they're dealing with the noise, distractions and deadline pressures typical on a job site."
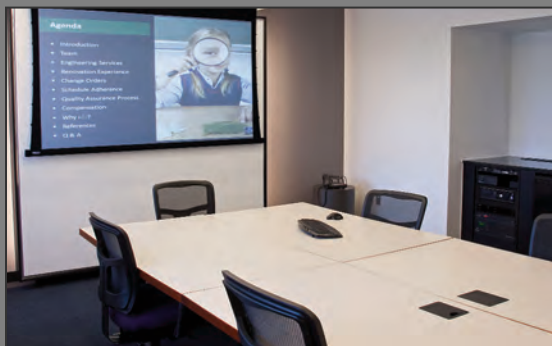
High definition digital systems

IDS is an unusual company, in that they offer a combination of architecture, engineering and technology consulting services. They have been extremely successful with that approach, so much so that they experienced very little impact during the economic slowdown. IDS management began considering a move to new headquarters last year and completed the remodel of an existing building in May.

"It was time," Bracci says. "We needed a new environment to work in and a better place to bring customers. "It was also important that we show customers the latest AV, lighting and control techniques," Bracci adds. "It's not always easy for people to visualize what we can do."

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Crestron TPS-6X touchpanel wall mounted at IDS. The touchpanel releases from the docking station and used wirelessly anywhere in the room.

Presentation room at IDS ready for a meeting with a potential client.

Equipment rack in the Presentation Room, with Crestron DM-MD8X8 DigitalMedia switcher, MC2E processor, CNAMPX-2X60 amplifier, plus Pioneer Elite Blu-ray player and Dell Optiplex computer installed.

The new space gives IDS a chance to demonstrate key technologies and, in doing so, show off their design and engineering work. Two of the new meeting spaces include installed AV systems. The Presentation Room, where the firm holds most of its customer meetings, is crucial to the company's sales effort.

"We normally have just 45 minutes to convince a new client to select us," Bracci explains. "We need a space that's comfortable, very inviting and has the graphic tools it takes to bring them on board." In the Presentation Room, IDS partners and staff can show photos, CAD drawings and high definition video of past projects, as they explain how they will work with the client on the new project.

IDS staff can use up to three computers in a presentation, plus a Blu-ray player and document camera. "We also designed a unique, patterned lighting system for this room," Bracci adds. "It's important that all the subtleties of the design and the graphics come through, and they do." There is not a minute to waste in one of these presentations. "You push a button, the lights go down and the projection starts," Bracci explains. "Meanwhile, you're still talking and not wasting time setting up. All the tools have to work perfectly."

IDS also uses the room for board and management meetings, design team meetings and project meetings with clients. "We may be working on a marketing plan where we'll bring in 12 to 15 employees. More often we'll review the progress on a project and collaborate on designs or design changes. We'll typically put the drawings on the projection screen and can make changes and see their implications for the rest of the project immediately."

I.COMM Corporation is the AV integrator that engineered and installed the IDS systems. I.COMM project manager Les Stiltner says one nice touch is the custom whiteboard IDS designed. "I almost hate to use the word whiteboard," Stiltner explains. "It's more of an eight-foot-tall obelisk, painted with a special paint so that you can draw on it from the top to the floor.

They positioned it so close to where the screen drops that if you raise the screen, you can project a blueprint on the board

without changing the focus, then highlight sections or draw in changes with a marker." The Presentation Room also uses a Mitsubishi projector and motorized Stewart projection screen.

For the Videoconferencing Room, IDS engineers designed a system using a LifeSize 200 high definition camera, codec, microphone pod and 60" Sharp LCD display. It's frequently used by IDS staff to meet with clients, especially the University of Michigan, itself a heavy videoconferencing user. Even though the university is within driving distance, both parties

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>
> **Richard Bracci,** Integrated Design Solutions

find the technology a huge timesaver.

Both rooms include a Crestron MC2E control processor, a Crestron TPS-6X wireless touchpanel (with wall-mount docking station), a dedicated Dell computer, wireless keyboard and mouse, two laptop inputs, Pioneer Blu-ray player, an AverVision document camera and a sound system using a Crestron CNAMPX-2X60 amplifier and JBL Control 26CT loud-speakers.

Because all of the systems in these rooms are high definition, using digital HDMI connections was the obvious way to go. HDMI, however, is not easy to work with. There are a number of potential pitfalls, which include issues with HDCP copyright protection on HD media and EDID handshaking, the ability of a digital device, such as a laptop, to supply the proper signal to a high definition display. Crestron addresses these and other potential problems with its DigitalMedia system and DM Tools software.

DM Tools is a resource unique to Crestron, which takes the mystery out of HDMI installation and commissioning. Simply by connecting the sources and displays to the DM switcher, the installer can view associated data such as source and device resolution and HDCP compliance, as well as pinpoint

any points of failure. After the system is set up, the switcher runs through a "Systems Commissioning" routine that includes a variety of diagnostic tests, ensuring that users get the most of their sources and displays.

Last minute rush

Bracci says the firm is practicing what it preaches when it uses DigitalMedia in its headquarters. "While these rooms are less complex than many of the venues we design, we always want systems that are as seamless as possible. If we can buy solutions from one supplier that we know are factory designed to work together, I'm happy," he explains.

"We don't want a lot of boxes from different companies because bad things can happen in the field," he adds. "We love the complete package design that Crestron provides." Bracci says the installation of the headquarters' AV systems went extremely well.

"I.COMM did a fantastic job, and they were under the gun to get everything installed on time. "The problem that I.COMM ran into," he adds, "is one that we typically run into on a job site. Construction delays tend to push the project back to the deadline, but the AV integrator can't complete his work until everything else is finished. I mean, can you imagine installing that 60" monitor before the painters are done?"

"So any time we can minimize wiring and simplify installation, that's a great thing. There is just too much potential for error when you're at deadline. We really like the complete Crestron solution, and we've had a lot of successful projects using their systems."