

Looking down into the atrium, shoppers see six plasma displays on their backs. They are kept cool by 10-inch fans mounted beneath the screens.

HISTORIC TEMPLE GOES RETAIL

Bloomington's Home Store features integrated AV systems to complete the shopping experience.

BY DAWN ALLCOT

Like many Chicago natives, systems integrator Larry Todaro, with SPL Integrated Solutions, remembers going to the Shriners' Circus in the Medinah Temple as a child. When built in 1912, the Medinah Temple was a meeting place for the Shrine of North America. The Shrine, its members belonging to the Masonic Order, was established originally to provide fun and fellowship for its members. The Shriners' circuses, parades and shows became a popular attraction for children of any (or no) religion. From the outside, the historic building at 600 N. Wabash Ave., in the city's River North area, looks much the same as Todaro remembers, its distinctive architecture and onion domes recently restored after years of falling into disrepair.

While the outside of the building evokes fond childhood memories, the interior houses Bloomington's second largest Home Store. This ultra-modern retail venue features extensive audiovisual systems, which Todaro and his colleagues at SPL installed. "I grew up here in Chicago," Todaro, SPL service coordinator, said. "I'd been here on field trips for school, and to see the circus. Now it's a store. [It was an] interesting metamorphosis."

Walking the tightrope between maintaining the historic integrity of the building and installing top-of-the-line AV systems to enhance the shopping experi-

Freelance writer Dawn Allcot specializes in the AV and music industries. A housewares enthusiast, she once spent two hours buying a set of sheets.

ence in the retail venue was no easy feat. SPL Integrated Solutions, and the systems designer, San Francisco CA-based Thorburn Associates, met the challenge.

From Shriners to Sheets

In 2001, the City of Chicago began an extensive redevelopment of the downtown block containing the Tree Studios and the Medinah Temple. Thanks, in part, to an Illinois FIRST grant, the city provided more than \$12 million in subsidies for the multi-million-dollar project, which created residential, retail and office space within historic buildings on Wabash Ave.

Bloomington's Home Store, featuring four stories of home apparel, kitchen appliances and furniture, is the anchor retail venue on the block. The store replaces the fifth and sixth floors of the chain's 900 Michigan Avenue location on Chicago's famed Magnificent Mile. It blends Arabian-influenced architecture with modern shopping conveniences. Although the plush, red-velvet theater seats are gone, the proscenium arch, lights and stage curtains remain. The center of the four-story building features a large atrium, with an elevator and escalators. Within the atrium, six plasma monitors lie on their backs, providing a visual potpourri for shoppers in the departments above. In fact, each floor offers a different audiovisual treat, from the plasma screens and DirecTV in the demonstration kitchen to DMX background music throughout.

Floating Floors, Other Challenges

Designer Thorburn Associates had worked with Federated Department Stores, parent company of Bloomingdale's, Macy's, Burdine's, Lazarus and other retail chains, on several other Bloomingdale's locations. Eric Cornwall, Thorburn Associates' senior consultant, noted that Dallas-based Sound Vision Consulting had developed the initial guidelines for each Bloomingdale's location, and Thorburn designed each individual project based on these guidelines.

The Medinah Temple location, because of its historic designation, would pose unusual challenges in the design and installation process.

"In preserving the building itself," Cronwall explained, "all of the new floors couldn't be tied into the existing walls. They go up to, but do not touch, the original walls." The architectural engineers designed a system so the new floors would float on pillars that rest below ground. Speakers on the lower floors were mounted on these "floating" ceilings, because none of the AV equipment could touch the original walls or ceiling, either.

The third floor, however, features the original, historic domed ceiling. "We had to come up with a solution that enabled us to have background music and paging capabilities on the top floor of this building without penetrations into the ceiling," he said.

Instead of mounting the speakers conventionally, Cronwall designed a system that would take advantage of the floor's layout to provide even sound coverage across the department. The third floor houses the furniture department, which is divided into several different rooms using 10-foot partitions, with a 14-foot-high ceiling.

Drawing on his theatrical background, Thorburn concluded that "in direct sound" could work well, with the right equipment. TOA H-1 speakers were mounted on the partition walls, facing upward. The speakers alternate with fluorescent lighting, so the sound, as well as the lighting, bounces off the ceiling. Cronwall stated that the TOA product was one of the only models with the fidelity he needed, which could also fit the form factor, sitting in the top of the parti-

SPL Integrated Solutions

SPL Integrated Solutions, audio and video systems integrators, has 19 offices nationwide. SPL helps to increase productivity at corporations, educational institutions and government agencies by installing videoconferencing systems and fully integrated multimedia systems.

SPL has integrated large-scale audio and video systems in locations such as Grace Church in Minnesota, Gillette Stadium in Foxboro MA, and the Budget Hearing Room in the Capitol Building in Washington DC.



The onion domes within the Medinah Temple remained untouched after all of the modern updates were made to accommodate today's technology needs.

Michael Stepters, www.tametheweb.com.

tion walls. A high-frequency boost was required to compensate for the bounce. According to Cronwall, the system provides a “nice, indirect, full sound.” Todaro agreed, “You get a reflected sound off the ceiling, and it works pretty well.”

The speakers are used for the background music and paging systems, which are all controlled via a Crestron Pro 2 control computer and TPS-5000L touchpanel, located in a rack in the control room. The Crestron system allows the end user, primarily the store’s operations manager, to have control over volume and source selection, although the system is set to an “always on” configuration. The video displays, lighting and music source

turn on with the store power at the beginning of the day. “The Crestron is basically transport controls for DVD players, VCRs and volume control for the audio system.”

Cronwall said that one of the benefits of the system is its user-friendly centralized control, which makes routing audio and video simple. Many other Bloomingdale’s locations do not have centralized control systems, but instead have smaller sub-racks that make routing sound and video from different sources more of a hassle. “In theory,” he offered, “if all of the stores were designed and installed like this one, if a store manager were to be transferred to another facility, there would be no learning curve.”

Food TV

The AV systems in the store were designed to transform shopping from an errand into an experience. The second floor—the home appliance department—features a demonstration kitchen, where chefs showcase various products. Two Sony DXC-190 cameras capture the action and display it on plasma screens in the kitchen, as well as on the first floor. When there’s no demonstration going on, the screens in the kitchen display content from Food Network and other DirecTV channels. Cronwall said that the DXC cameras, with a high resolution of 470 TVL, were the standard choice for Federated Department Stores. “They provide a consistent, high-quality image,” he offered. One camera is mounted on the vent hood, above the stove, providing close-ups, while the other is mounted 20 feet in front of the kitchen, for wide shots. An Extron MAV62 switches between the video sources.

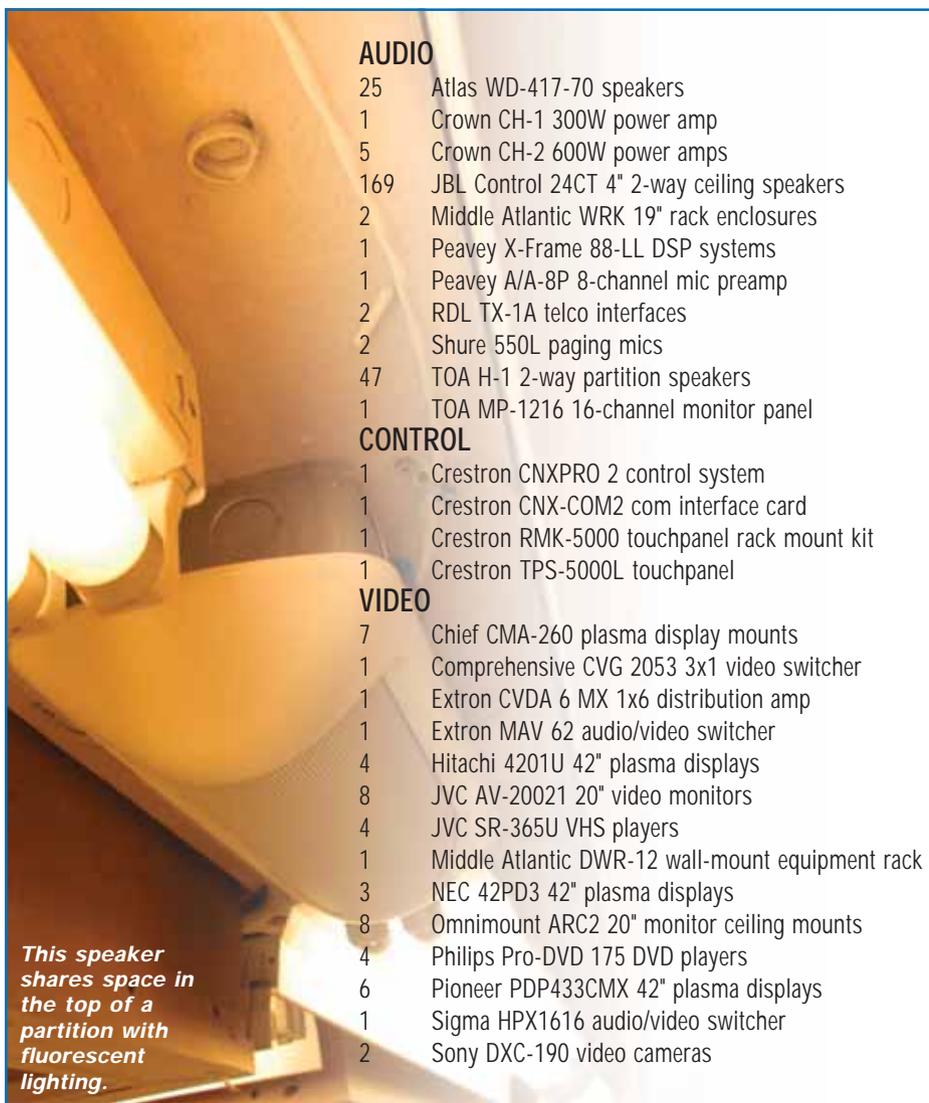
The kitchen houses three Hitachi 42-inch plasma displays—once again, the preferred choice for Federated Department stores. Two of the screens are mounted on columns in the kitchen, while the third sits above the fume hood. “You’re dealing with a fume hood that is supposed to capture and then extinguish flammable material,” Cronwall explained. In several store locations, the integrator was prohibited, due to fire code, from mounting the screens above the hood. In Chicago, they were allowed to mount the screen, which enabled them to choose a larger, 42-inch plasma model, rather than a 12-inch television screen. The installer and designer had to coordinate on the best methods for running conduit for signal and power without disrupting the operation of the ventilation system.

Let Sleeping Plasmas Lie

The modern display systems sit as a sharp contrast to the ancient green copper onion domes that cap off the top floor, yet somehow blend seamlessly into the overall aesthetic

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EQUIPMENT



This speaker shares space in the top of a partition with fluorescent lighting.

AUDIO	
25	Atlas WD-417-70 speakers
1	Crown CH-1 300W power amp
5	Crown CH-2 600W power amps
169	JBL Control 24CT 4" 2-way ceiling speakers
2	Middle Atlantic WRK 19" rack enclosures
1	Peavey X-Frame 88-LL DSP systems
1	Peavey A/A-8P 8-channel mic preamp
2	RDL TX-1A telco interfaces
2	Shure 550L paging mics
47	TOA H-1 2-way partition speakers
1	TOA MP-1216 16-channel monitor panel
CONTROL	
1	Crestron CNXPRO 2 control system
1	Crestron CNX-COM2 com interface card
1	Crestron RMK-5000 touchpanel rack mount kit
1	Crestron TPS-5000L touchpanel
VIDEO	
7	Chief CMA-260 plasma display mounts
1	Comprehensive CVG 2053 3x1 video switcher
1	Extron CVDA 6 MX 1x6 distribution amp
1	Extron MAV 62 audio/video switcher
4	Hitachi 4201U 42" plasma displays
8	JVC AV-20021 20" video monitors
4	JVC SR-365U VHS players
1	Middle Atlantic DWR-12 wall-mount equipment rack
3	NEC 42PD3 42" plasma displays
8	Omnimount ARC2 20" monitor ceiling mounts
4	Philips Pro-DVD 175 DVD players
6	Pioneer PDP433CMX 42" plasma displays
1	Sigma HPX1616 audio/video switcher
2	Sony DXC-190 video cameras

HISTORIC TEMPLE

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experience. Perhaps the most unique modern aspect of this 1912 structure is an array of six plasma screens in the first-floor bedding department. The screens sit atop a fixture used to merchandise linens, and can be viewed from all other levels of the building.

“Getting the plasmas to function on their backs, that was a challenge,” said SPL’s Todaro. Pioneer PDP-433 CMX displays used here were designed to be able to function horizontally, with internal fans to keep the units cool. However, due to the lack of ventilation within the bedding fixture, additional cooling was needed. “The way the fixture was designed, there’s no real gap for the air to get out from under the plasmas,” Todaro explained. “They were still getting pretty warm.” Ten-inch fans were mounted beneath each of the six screens to blow the air down and keep the units cool.

AV Investment Pays

The Medinah Temple store is one of nearly 100 Federated Department stores that have been revamped since 2000, part of a growing nationwide retail trend. According to Rick Absi of Federated Department Stores, the modern technology is de-

Thorburn Associates

Thorburn Associates is a full-service acoustic and audiovisual system design and engineering firm, with corporate offices in Castro Valley CA and branch offices in Burbank CA and Morrisville NC. Founded in 1992 by Lisa A. and Steven J. Thorburn, the company employs a 17-person engineering and technical support staff. The principals have consulted on and managed more than 1800 different projects. Several employees presented training sessions at the most recent year’s InfoComm in Las Vegas.

In addition to working with Federated Department Stores on a number of AV renovation projects, Thorburn Associates has completed design work for Tomb Raider: The Ride, at Paramount’s Kings Island in Cincinnati; Universal Studios’ Amazing Adventures of Spiderman and Islands of Adventure, and the University of North Carolina. The company serves the commercial, retail, corporate and leisure industries, as well as residential clients.

signed to “provide our shoppers with a unique experience. It sets us apart from some of the competition.”

Several Bloomingdale’s stores are rolling out high-end plasma screens and Renkus-Heinz sound systems in the Juniors’ Departments, to achieve a club-like atmosphere. Many stores are being outfitted with flat panel televisions and DirecTV in the fitting room vestibules. “If the girlfriend or wife is shopping, the husband or boyfriend can watch CNN or ESPN,” Cronwall said. “Child-

ren’s departments are getting video, and a whole new visual look within the store.”

Cronwall observed, “[Stores are seeing] a return on the investment of putting in higher-end multimedia systems. They are extending the longevity of a customer’s stay, which then directly affects how much money is being spent.”

The AV systems in place at the Medinah Temple, in fact, might just make buying sheets as much fun as a day at the circus. ■