

CULINARY & AV DELIGHT

Abandoned Niagara Falls mall becomes cooking school.

BY DAWN ALLCOT

Often, all it takes to revitalize a downtown area is one key attraction. In Niagara Falls NY, that revitalization is being spearheaded by the Niagara Falls Tourism & Hospitality Center and Niagara County Community College. When most people hear the words “community college,” visions of a boring brick institution spring to mind. But the Niagara Falls Community College Culinary Institute is anything but, housed within a three-story, largely glass building on Falls Street, one block from Niagara Falls, one of the world’s seven wonders. “The proximity to tourism ‘Wow’ is unparalleled,” said Bill Riley, Vice President of Rochester NY-based AV Solutions (<http://avsolutionsny.com>), the AV integrator that installed the systems in the space. “When you’re in a second-story classroom or a third-story lab, you’re looking out the window at the Falls.”

Team

Riley’s team, which included Project Manager Mickey Ames, worked closely with audiovisual consulting firm The Sextant Group (www.thesextantgroup.com) of New York NY, which designed the extensive audiovisual and control systems. The community college’s main campus is located just outside of town, and the school has plans to grow that location, as well. “This was something they felt would not only help the community, but create a

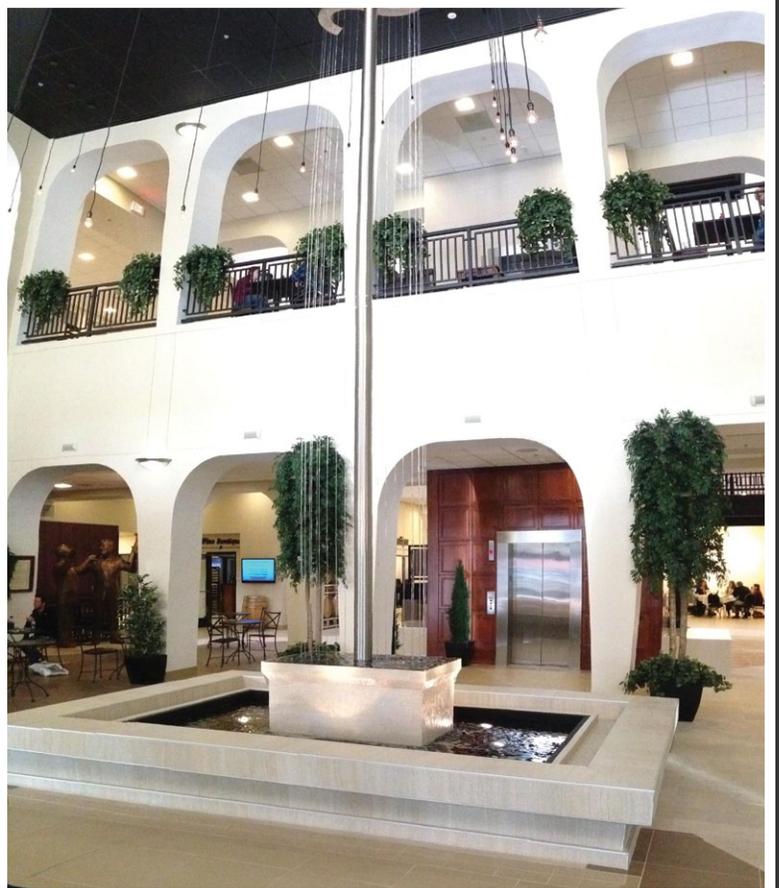
Dawn Allcot has been a writer in the AV industry and a Sound & Communications contributor for more than 15 years. As a full-time freelance writer, editor and blogger, she’s published extensively in print and on the web. Reach her at dawnallcot@gmail.com.



One of six high-tech cooking labs that feature 52-inch LCD screens at every set of two stations in each row, with cameras mounted over every cooking surface, outside the stove hood.



Rainbow Centre, home to the new site of Niagara County Community College's Culinary Institute in Niagara Falls NY. The exterior and new facade of the NCCC Culinary Institute features an LED display that can display a feed from the large lecture hall.





Classrooms include a dual screen and projector set up for demonstrations.

TheSextantGroup

destination spot downtown,” said The Sextant Group’s Mark Gillis.

In addition to classrooms and cooking labs for the students, the building includes a Barnes & Noble retail outlet with product lines tailored to the culinary arts, an intimate 200-seat theater and a fine dining restaurant run by students of the culinary institute. Digital signage and flatscreens throughout let visitors know about current and upcoming events, and broadcast demonstrations and performances taking place in the theater in real time. Zoned audio/video through a collection of surface-mount and ceiling loudspeakers play announcements and background music across the space. Nearly everything, from the ceiling speakers in the atrium to the conference systems in the classrooms, is controlled via a Crestron DigitalMatrix system.

Before the Culinary Institute took over a third of the 300,000-square-foot space, the space was an abandoned building that was once home to a large parking garage and the Rainbow Centre Mall, a suburban mall concept that never quite took off the way the developers expected. The building’s architecture and the layout of the college classrooms and labs, multiple construction delays and rules regarding union labor created multiple design and, especially, installation challenges for The Sextant Group and AV Solutions. The teams met these obstacles by remaining flexible, drawing on their experience and creativity to overcome design challenges, and relying on the latest technology to create systems that would meet the client’s needs.

Tight Deadlines, Union Labor

The project’s original deadline was August 15 last year, which meant that AV integration would begin in June and AV Solutions would have time to install and tune the systems before classes started. Due to construction delays, though, AV integration work did not start until late summer. “We knew it was a tight timeline when we bid the job,” Ames said. “We needed a clean and dust-free environment for

Come see us in Orlando, FL at **Booth #1975**
Please visit our website at
www.hallresearch.com
to get your free pass!

infoComm13
INFORMATION COMMUNICATIONS MARKETPLACE
Exhibits: June 12-14

DIGITAL IP ROOM CONTROL SYSTEM

Embedded Software Accessible from any PC, Smart Phone, or Tablet
Up to 5 Modular Audio/Video Inputs (1 HDMI, 2 Composite, 2 VGA/YPbPr)
Control a Display and Devices Via RS232, IR, IP, and 2 Discrete Outputs
Task Scheduling and Automation ● Panel Lock with Inactivity Timer
Individual Audio Level Control with Amplification ● 3D HDMI Ready
Page Sense Muting ● Theft Detection Circuit with Automatic Notification



VSA-51



iPhone and iPad GUI

VIDEO UTP AUDIO UTP POWER UTP EDUCATION RS-232 dVI HD READY WIRELESS ((HDCP)) HDMI ECONTROL

The VSA-51 is a family of devices offering the most advanced, customizable, easy to use, and affordable room control solution ever. It offers greater switching capacity of analog and digital video/audio sources. Designed around the VSA-51-R receiver, all source inputs and user controls are modular and connect to it via simple Cat5 cables. Furthermore, all wall-plates are powered from the receiver for maximum flexibility and simplicity of installation.

CONTROL SCALE EXTEND SWITCH SPLIT

HR HALL RESEARCH
A New Wave In Connectivity

714.641.6607

www.hallresearch.com



the installation, and we expected to begin in June when the building was empty.”

Instead, nearly 30% of the work had to be completed during the school semester. “We had to coordinate with the college staff to understand what spaces were available at what times. We worked some second shift schedules to accommodate the school’s schedule,” Ames explained.

He added that, several times, the team had to create stopgap features or workarounds to provide the functionality the instructors needed before the technology was fully installed. “It becomes more challenging when you’re working in an active, occupied space, and the client is trying to use the technology that you’re in the middle of installing,” Ames said.

Although construction challenges

in this industry aren’t all that unusual, AV Solutions faced another challenge during the installation: the use of 50% union labor. “For every one of our non-union labor men running wires and hanging screens, we had to use a union worker, too,” Riley explained. “In total, we had 2800 labor hours: 1400 for our crew and another 1400 hours from electrical contractors.”

Although this doubled the workforce, permitting tasks to get done in fewer calendar hours, it meant some unusual project management challenges, Riley asserted. “You have to create exact documentation of every pull schedule and wire termination. If I’ve worked with an AV-certified contractor for 20 years, I barely have to say it and they know the job that needs to be done.”

The Sextant Group’s Gillis noted, “I give AV Solutions a lot of credit for

working under some pretty stressful conditions. As a renovation, we were going into a space that was not optimal. Portions of the classrooms were located in what used to be a parking garage. What the AV Solutions team was able to create in limited space and limited height was amazing.”

Designing Classrooms

Gillis described the NCCC Culinary Institute classrooms as fairly straightforward in terms of technology. The five classrooms include Epson PowerLite 915W projectors, Lumens PS750 document cameras and KSI 8081-CS-FR ceiling speakers located in a 2x2 grid. The components are connected to the Crestron DigitalMedia system.

NCCC Culinary Institute has six cooking labs devoted to various styles of cuisine or different aspects of cooking and food preparation, from baking

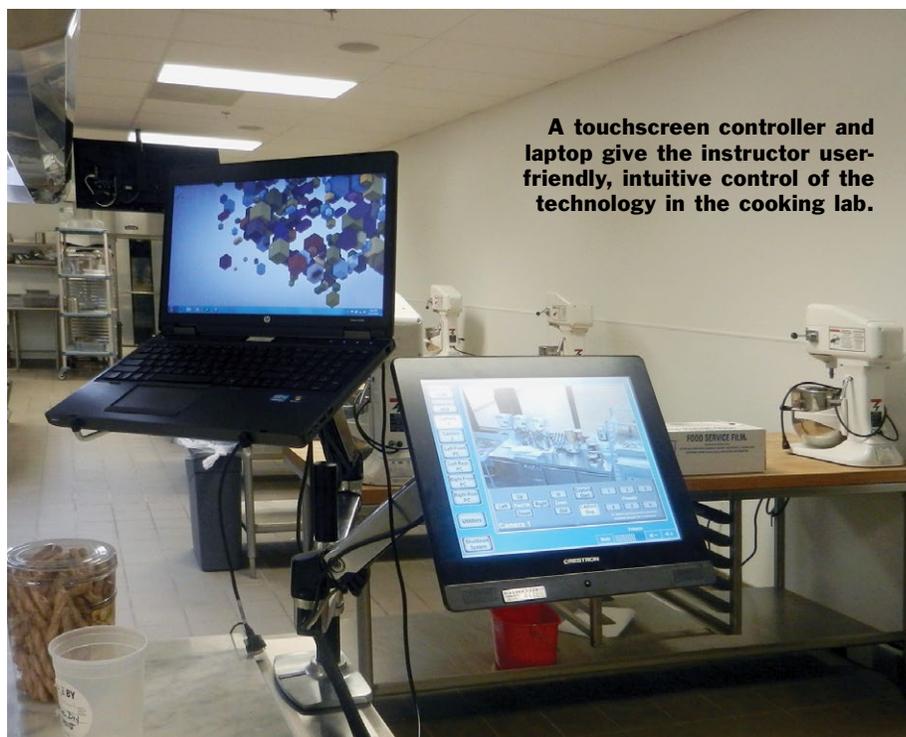
Equipment

12	ADC BK2V-STM video patch cables	4	Computer Comforts Sit-To-Stand instructor’s work stations
1	ADC PPE2232MVJT-BK video patch bay	1	Crestron AMP-3210T 3-channel amp
4	Atlas AT100D 70V volume controls	1	Crestron C2N-HBLOCK distribution block
8	Audio Technica AE4100 dynamic mics	7	Crestron Capture HD HD capture recorders
12	Audio Technica AEW-4314A wireless systems	2	Crestron CEN-HPRFGW wireless gateways
1	Audio Technica AEW-DA660D antenna distribution	6	Crestron DMC-C 8G Card DM 8G cards
5	Audio Technica AT899cW lavalier mics	2	Crestron DMCO-5300/5555 DM output cards
1	Audio Technica ATW-A64P powered dipole antenna	10	Crestron DMC-SDI SDI cards
12	Audio Technica ES933PMC ceiling mics	1	Crestron DM 16X16 DM matrix
7	Audio Technica PRO 8HEcW head worn mics	14	Crestron DMPS-300-C presentation switcher
2	Audio Technica 857QL gooseneck mics	1	Crestron DM-RMC-200-C DigitalMedia room controller w/amp
1	Aurora NXT-350 control panel	33	Crestron DM-RMC-SCALER-C DM receivers
1	AvinED PL25-RR-LAM presenter lectern	2	Crestron DM-TX-200-2G/201-C DM transmitters
1	AvinED PL32 presenter lectern	1	Crestron MC3 compact control processor
1	Biamp NEXIA CS10 10x6 audio DSP	2	Crestron M10/M50W MPC media press controllers
1	Biamp NEXIA SP 4X8 audio DSP	1	Crestron ST-IO control module
1	BTX-SLIM15FDDC HD15 terminal block connector	1	Crestron Fusion RV remote asset management software
35	C2G 29802 power cord splitters, 1:2	10	Crestron TPMC-V12 touchpanels
20	C2G 52106 USB cables, A-male to A-female, 1M	3	Crestron TPS-6X wireless touchpanels
33	Chief CMA110 ceiling flanges	1	Crestron TPS-6XWALL-W-S in-wall wireless touchpanel
8	Chief CMS0203 adjustable length pipes	3	Crown CTS-4200 amps
20	Chief LTMU 60" LCD mounts	1	Crown CTS-600 amp
2	Chief MTAPU portrait tilt wall mounts, medium	2	Epson ELPLS04 projection lenses
2	Chief MTMU horizontal tilt wall mounts, large	1	Epson G5650WNL projector
2	Chief PAC400 rotational mount accessories (l to p)	5	Epson PowerLite 915W projectors
2	Chief PAC710 stand accessory mounts	2	Epson PowerLite Pro Z8050WNL 7000 lumen projectors
24	Chief PCA251 PC display mounts	1	Epson V12H004S05 zoom lens
25	Chief PCMU 32" LCD mounts	6	Ergotron 45-248-026 dual stacking arm mounts
2	Chief PF1UB portable display stands	6	Ergotron notebook trays
6	Chief RPMAU projector mounts	20	Extron 3' micro VGA cables
3	Chief XSMU 70" LCD mounts	1	Extron HDMI/DVI-D cable
2	Chief VCMU projector mounts		

to mixology. The labs host regularly scheduled classes for NCCC students and are also open for to the community for cooking courses and classes. The layout of the room posed numerous sightline challenges in placing flatscreens for the students in the lab to see.

The room is configured in a long shoebox shape, with four rows of two cooking stations. Cooking hoods hang down in a line in the center of the room, obstructing any clear line-of-sight to the front of the room, where a traditional screen might hang to magnify the image of the instructor cooking at the front of the lab.

Sextant Group designed a layout that put 52-inch Sharp LED-backlit LCD screens at each set of two stations in each row. Vaddio WallVIEW CCU HD-19 cameras are mounted over each cooking surface, outside



A touchscreen controller and laptop give the instructor user-friendly, intuitive control of the technology in the cooking lab.

- | | | | |
|----|---|----|--|
| 1 | Extron rackmount, RSU 126 | 1 | Middle Atlantic 5-21-26 21 RU rack w/accessories |
| 7 | Extron rackmount, RSF 123 | 1 | Middle Atlantic DWR-21-22 equipment rack, 21 space |
| 6 | Extron 4x1 composite switchers | 9 | NETGEAR FS108NA 8-port Ethernet switches |
| 1 | Extron distribution amp | 2 | NETGEAR JFS516NA 16-port Ethernet switches |
| 6 | Extron 2x1 HDMI switchers | 2 | NETGEAR JFS524NA 24-port Ethernet switches |
| 6 | Extron ASA131+ audio summing adapters | 1 | Panasonic AW-HE100 PTZ camera |
| 1 | Extron DMP64 mixer/DSP | 1 | Panasonic AW-HHD100N HD/SDI card |
| 5 | Frame Jazz EYEZONE B1080PX-4 HD digital signage players w/accessories | 1 | Panphonics SSI-1200 100V directional speaker |
| 8 | Furman M-8X2 power conditioners, 15a | 1 | RDL STM-1 mic preamp |
| 12 | Gefen EXT-COMPAUD-2-HDMIN component video/audio to HDMI adapters | 9 | Sharp BDHP75U Blu ray players |
| 2 | Gefen EXT-HDMI1.3-142D HDMI splitters | 6 | Sharp LC-46LE540U 46" displays |
| 1 | Grass Valley 622041 ADVC-PSU5V power supply | 1 | Sharp LC-52LE640U 52" display |
| 1 | Grass Valley ADVC-HD50 HDMI to DV converter | 3 | Sharp LC-60LE640U 60" LCD displays |
| 1 | Haivision Video Furnace streaming system | 6 | Sharp PN-E471R 47" LCD displays |
| 8 | HP FQ481AA#ABA wireless keyboards/mouse | 29 | Sharp PN-E521 52" LCD displays |
| 47 | JBL Control 26CT ceiling speakers | 1 | Sharp PN-E702 70" LCD display |
| 2 | JBL Control 30 speakers | 4 | Sharp PN-T321 32" LCD displays |
| 49 | JBL Control 47HC ceiling speakers | 7 | Sharp PN-ZB01 video input expansion cards |
| 1 | Kramer VM-1010 1x3 VGA dist amp | 9 | SoundTube RS500I-pendant ceiling speakers |
| 22 | KSI 8081-CS-FR ceiling speakers | 12 | SoundTube SM31-EZ-T surface mount speakers |
| 18 | KSI T70-8 70V transformers | 21 | TOA H1-EX surface mount speakers |
| 1 | Listen LA-122 antenna kit | 1 | Vaddio IR Commander |
| 1 | Listen LA-304 ALS signage | 14 | Vaddio recessed camera dome mounts |
| 1 | Listen LA-326 rack mount kit | 1 | Vaddio WallVIEW HD-19 DVI/HDMI |
| 2 | Listen LR-400-216 portable receivers | 12 | Vaddio WallVIEW CCU HD-19 |
| 4 | Listen LS-05-216 advanced ALS systems | 24 | VisionTek 900335 VT2013 CandyBoard-Bluetooth keyboards |
| 1 | Listen LT-800 ALS transmitter | 14 | Visix AXIS-TV-CPA channel players |
| 5 | Lumens PS750 document cameras | 2 | Visix AXIS-TV-GW2 wireless networking support |
| 3 | Middle Atlantic 5-14-26 14 RU racks w/accessories | 14 | Visix AXIS-TV-SMX channel players |
| 6 | Middle Atlantic WRK-44SA-32 standalone rack w/accessories | 1 | Whirlwind custom rack panel |
| | | 1 | Wohler VMQ-4 audio monitor |

List is edited from information supplied by AV Solutions.

the stove hood. “We priced out putting a camera within the hood for a direct overhead shot of the cooking surface, but it would have been cost-prohibitive,” Gillis said. “We did the next best thing, getting an angle that would capture the cooking surface by mounting the camera outside the hook area. Camera locations and sightlines to the screens were two of our biggest issues.”

It was important to keep AV equipment, including cameras and flatscreens, away from any direct heat source.

In addition to the WallVIEW cameras, each cooking station includes a Crestron Capture HD recorder, which captures the demonstration and sends it directly to a Haivision Video Furnace media server in the equipment room. Each lab station is equipped with a small form factor PC connected to the campus network, and a VisionTek 900335 VT2013 CandyBoard BlueTooth wireless keyboard. “After

a session has been captured via the Crestron camera, students can review any part of the lesson directly from their workstation,” Gillis said.

Sending The Feed

Lab instructors can send the feed from either of the two WallVIEW cameras above their own workstation or a feed from their PC to any of the screens in the lab via a Crestron PMC-V12 touchpanel, which controls a DMPS-300-C presentation switcher. Switching between cameras is accomplished by a Crestron-controlled Extron SW-2 dual HDMI switcher and an Extron DMP64 mixer/DSP. “Because we’re only showing one camera at a time in the capture or on the screens, this equipment offered an easy way to switch from camera A to camera B,” Gillis explained.

JBL 26CT ceiling speakers are mounted in the labs for sound reinforcement. The instructor uses a PRO 8HEcW headworn microphone from

Audio Technica, part of an AEW-4314A wireless system. Audio Technica ES933PMC ceiling mics are mounted above every work station to capture students’ questions for the recording. These microphones pick up voices automatically when the Crestron Capture recorders are turned on.

“The college’s goal was to create user interfaces that were easy for the faculty to use, and flexible in what they could do with the system. They liked the idea of being able to use multiple cameras, all controlled via presets,” Gillis explained. “When the instructor hits record, the process to turn on cameras and microphones is fully automated.”

The Culinary Institute doesn’t have its own onsite IT director, and the main campus is a 45-minute drive. The Crestron Fusion RV remote asset management software gives the main campus IT staff the ability to view and troubleshoot any equipment on the network from computers at the

INTRODUCING THE UNIVERSAL MEDIA PLATFORM

Splitters & Matrices:

MODELS

- HDBT-1x8 / 1x16: HDMI Splitters with HDBaseT Extenders
- HDBT-8x8 / 16x16: HDMI Matrices with HDBaseT Extenders
- HDMI-4x4 / 8x8 / 16x16: HDMI Matrices
- More to Come!

- Extend HDMI signals up to 330 feet (100 meters)
- Supports HDMI and DVI formats; 1080P, HD, 3D, 4K
- Full audio support
- InfraRed & RS232 control
- Uses a single CATx cable

Mix and match HDMI, HDBaseT and more on the same Universal Media Platform



HDBaseT HDMI Extenders / Receivers:

MODELS

- HDBT-1-E: Single-port HDBaseT HDMI Extender – up to 330 feet
- HDBT-1-R: Single-port HDBaseT HDMI Receiver – up to 330 feet
- HDBT-1-Es: Single-port HDBaseT HDMI Extender – up to 230 feet
- HDBT-1-Rs: Single-port HDBaseT HDMI Receiver – up to 230 feet
- HDBT-1-Ex: Single-Port HDBaseT HDMI Extender with IR, RS232, Ethernet, POE – up to 330 feet
- HDBT-1-Rx: Single-Port HDBaseT HDMI Receiver with IR, RS232, Ethernet, POE – up to 330 feet



3D 4K Full HD 1080p



More HDBaseT & HDMI Products Coming for:

APANTAC

info@apantac.com | 503-968-3000

Meeting Your Multiviewer & Extension Needs

infoComm13
INFORMATION COMMUNICATIONS MARKETPLACE

BOOTH: 3743

main campus. Personnel from Sextant Group can also login and view the Crestron code in order to make changes or troubleshoot.

Another challenge when it came to integrating the lab's systems related to routing cable runs. The Crestron Digital Matrix offered an advantage because it reduced the amount of wires. "We had to find creative ways to get across the lobby space because we have some labs on the opposite side of the building from the server room," Gillis said. "Finding runs under the bridge that spanned the atrium, and staying within the distance limitations for the cable, was one of the more challenging aspects of the project, requiring creative thinking and careful design."

Ambient Light

The 200-seat lecture hall provides an intimate setting, large enough to accommodate students and other guests for cooking presentations from

well-known chefs, or to host other special events that may take place in the space.

The theater has two owner-supplied projection screens flanking the cooking station in the center of the stage,

powered by a pair of Epson PowerLite Pro 7000 lumen projectors. High lumens projectors were selected because the cooking station is lit for broadcast and, in most cases, the theater's house lights remain on during presentations,

Niagara Falls: A Rising City?

In its better years, economically, Niagara Falls was a popular family vacation and honeymoon spot. The state park that surrounds Niagara Falls, one of the world's seven wonders, was the centerpiece of a bustling nightlife and shopping destination.

Rainbow Centre Mall, the new site of the NCCC Culinary Institute, never reached the level of success expected by developers. According to an article in the Buffalo News, the mall failed to make a profit for seven years after it was built in 1983. Today, concerns exist that developers won't be able to fill the space, of which the Culinary Institute and restaurants fill only 30%.

According to the same article, members of the Urban Land Institute, a not-for-profit organization, are evaluating the potential for the remaining 200,000 square feet of space. Because of the Rainbow Centre's location in a tourist destination, the space has the potential for a variety of creative uses, and is likely to include a mix of entertainment, food and beverage, and commercial office space, in addition to retail stores, such as the existing Barnes & Noble.

Having seen the completion of the \$30 million dollar construction and AV integration project, AV Solutions' Riley seems optimistic about the building's future and its crucial role in the revitalization of downtown Niagara Falls. "There was incredible vision in regard to how to utilize this underused space, to take an eyesore in the city and turn it into a showpiece."

VARIA

ADAPTIVE DIRECTIVITY

Varia is as unique as you need it to be. Highly configurable enclosures and innovative hardware make it easy to custom-design each speaker for every application. Choose from 60, 90, or 120 degree patterns, or add our Exclusive Transitional WaveGuides, progressing from 60 to 90, or 90 to 120 degrees within a single enclosure.

Varia brings together the highest quality components – powerful mid- and low-frequency woofers, lightweight neodymium Compression Drivers – integrated with our advanced enclosures and WaveGuide designs. The result is a system that delivers power and performance, with a design that gives you the coverage you need for even the most challenging environments.

infoComm13
INFORMATION COMMUNICATIONS MARKETPLACE

Learn more at Booth 913
&
Hear it in Demo Room W204B

Digital signage on the second floor, outside the elevators, overlooks the atrium.



allowing viewers to see the foods at the cooking station or view it magnified on the screens. “They wanted the images to pop. With a throw of 35 feet, the projectors compensate for that distance,” said AV Solutions’ Riley.

Camera connection points were incorporated across the theater for broadcast quality cameras to connect. Some of the

broadcast components were reused from the broadcast facility in the Culinary Institute previously located on the main campus. A Vaddio WallVIEW camera is mounted above the cooking station, offset slightly. “We can’t get those straight-on shots like the cooking channel captures,” Gillis said, “but this works well within their budget.”

BARIX

THE VOICE OF SIMPLICITY

SCHOOL'S
OOOOOOO-
OOOUT!

Some messages need to be put more gently.

That’s why Calvary Baptist School and Church (USA) run Barix audio over IP units that enable audio scheduling, and stream music and announcements during school days and worship-oriented events. The result? Crystal-clear, reliable, blessedly smooth.

You’re in education too? Visit www.barix.com/real-stories/education



A portable lectern in the lecture hall includes a Crestron TPS-6X wireless touchpanel to select projector sources from a PC, DVD player, laptop connection or the camera. The presenter uses a PRO 8HEcW Audio Technica head-worn mic, while a collection of AE4100 mics can be passed around to audience members for question-and-answer periods. Wireless system components include an AEW-4314A wireless system and AEW DA660D antenna distribution system.

JBL Control 30s flank the stage in the lecture hall for sound reinforcement, with JBL Control 26CT ceiling speakers spread throughout the space.

The lecture hall is also equipped with a Listen Technologies assistive listening system consisting of an LS-05-216 advanced ALS system, LA-122 antenna kit, an LT-800 ALS transmitter and LR-400-216 portable receivers.

The lecture hall has a production suite adjacent to it, where cooking shows are produced.

Digital Signage

Outside the theater door is one of 14 Visix AXIS-TV-CPA digital signage players with GW2 wireless networking support and a 42-inch Sharp LCD screen for digital signage. Various size screens and Visix players are used throughout the facility for program promotion and upcoming events. When there is an event in the lecture hall, visitors can stand outside the theater and watch a live camera feed from the stage.

The player directly outside the theater offers low latency because viewers may be able to see the source material and the screen at the same time. “If you’re on the third floor, around a corner, looking at a display on a wall, latency doesn’t matter because you can’t see the original,” Gillis explained. “But if you’re waiting in line outside the theater and watching that screen, the image had to be as close to the original as we could get it.”

NCCC’s main campus also uses a Visix digital signage network. The client had content ready to go when the new building opened, and there was no learning curve to use the players. Con-

trol over the network and a software-based solution were other benefits to the system.

Video & Sound In Barnes & Noble

Integrating sound and video in retail locations often poses challenges that require different considerations than integrators face in educational facilities. Barnes & Noble in the Rainbow Centre is not a college bookstore; it is a mainstream retail location with a culinary twist. Although not part of NCCC, it was a part of this redevelopment project, with the same team of architects, designers and integrators, and the same timeframe.

The key challenges, as outlined by Gillis and Riley, were to create high-quality sound for background music in a user-friendly, primarily hands-off, system, without breaking the already stretched-thin budget.

Additionally, the client wanted a flatscreen and wireless mic capabilities for cooking presentations that occur in the store, near the entrance. A 52-inch Sharp LED-backlit LCD flat-panel is mounted on the wall, typically tuned to one of many available cable cooking channels. Audio is routed to JBL Control 26CT ceiling speakers spaced across the store.

Often, professional chefs, culinary school instructors or students host cooking demonstrations in the Barnes & Noble, handing out freshly prepared food for shoppers to sample. The space in front of the LCD screen is equipped with a Panasonic AW-HE100 PTZ camera to provide image magnification of the presenter, who uses an Audio Technica 857QL gooseneck microphone.

The content captured by this mic is not broadcast throughout the store. Instead, the mic is connected to a Panphonics SSI-1200 100V directional speaker, which amplifies the presenter only for the small crowd viewing the presentation. Other shoppers will still hear the background music, which is broadcast not only in Barnes & Noble, but across other public spaces in the building, including the atrium, hall-



This is one of the standard teaching stations located in each of the classrooms.

TheSextantGroup



Unleash the Limitless Potential of Your Training Room

Insta-DE2 Classroom wall coverings to convert your entire wall space into a dry-erase "whiteboard" writing surface with professional-grade projector screen qualities.



Instant Dry-Erase White Board Projection Screen
 USC by Golden Star Tech
 Insta-DE series | IWB4x10HW (4pcs)

- Pliable material for an easy cut/fit room installations
- 1.1 gain matte white projection material
- Optical nanotech resin allows dry-erase function

Also Available:

- Insta-DE "foam backed" for use on textured walls
- Insta-DEM "magnetic" for ferromagnetic surfaces
- WhiteBoardScreen Universal "hard-backed" whiteboard-projection screen



Insta-DE2 Screen
 Model: IWB4_2x30W2

InfoComm 2013
 Booth# 3823



Simple as ABC...



The NEW IR-802 Classroom System

- Complete System!
Everything needed to install & operate.
- Fast, easy connection of Integrated Ceiling Speaker/Amplifier & IR Sensors to mixer/tuner via single CAT5 cable.
- Exclusive TOA Wide-dispersion speaker technology for even coverage of typical classroom (30' x 30')
- UL Listed for plenum installation
- Compact control unit with inputs for teacher/student IR mic Aux sources (MP3 player, DVD, PC) Output for Assisted Listening/Distance Learning feed. Mute override input.
- Compatible with existing TOA rechargeable IR microphones
- Competitively priced
- 5 year TOA warranty

**TOA now offers
FREE design assistance!**

TOA Electronics, Inc.
www.toaelectronics.com
800-733-4750



ways and the restaurant.

The space is equipped with an Atlas AT100D 70V volume control, a simple knob mounted in the wall, to provide easy volume control of the background music without the expense of adding the store to the Crestron network.

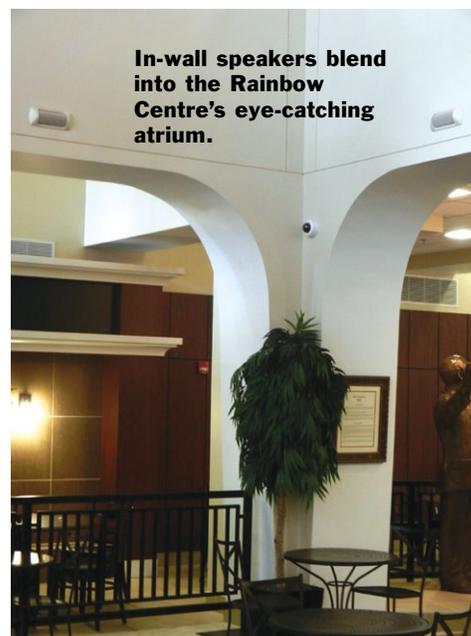
Expansive Atrium

The most impressive technology is not tucked away on the third floor labs or hidden in the lecture hall's production suite, either. Filling the high-ceiling glass atrium with sound, and adding a presentation area in the back corner that would virtually disappear when not in use, were among the challenges in this important space that sets the stage as visitors enter the building.

Riley described the atrium: "As you enter the building, you step into this expansive, impressive lobby area, with a bridge that spans across the space, and a three-story glass elevator with a fountain behind it. In some areas, the ceilings are more than 18 feet high. Toward the back, there's an exhibit area where crowds can gather for shows and seasonal exhibits. This is where they host Santa Claus in December, and they show presentations of various types throughout the year, some related to the college and others not."

To cover the space without excess reverberation, Sextant Group designed an audio system with eight zones and digital signal processing achieved through a Biamp CS10 10X6 DSP. "During business hours, the client wanted to have background music across the public areas, including the atrium, stores, restaurants and hallways," Gillis explained. "But if they're hosting an event in the presentation area, they didn't want that audio going all the way to the front doors."

Zones five through eight are covered by a collection of TOA Electronics H1 EX speakers, which are in-wall speakers that fit into a backbox and can tilt and angle for the right coverage angles. "Those gave us the ability to cover the space well, acoustically,



by getting an angle into the space on a side wall position," Gillis said. "The covers were painted so the boxes disappear, visually, into the wall, even though they are surface-mounted and protrude out slightly to achieve the coverage angles we required."

Paint Match

Creating an exact paint match for the speakers was not an easy feat, according to the AV Solutions team. "They were already installed and were 17 feet in the air," Ames said. "We removed one grille, got it painted, got it approved and then removed and painted the other 20 grilles to an exact beige match, so they are nearly invisible."

The presentation space required creative designs so the equipment would disappear when not in use. The consultant specified, and AV Solutions installed, an Epson PowerLite projector and a Chief projector mount that rises into the ceiling out of view when it's not being used. A Da-Lite screen was owner-supplied and installed during the construction process.

The space also includes an AvinED PL25 portable presenter lectern equipped with an Audio-Technica 857QL gooseneck mic and a Crestron TPS-6X wireless touchpanel. There is another TPX-6X in the atrium wall, for operations when the lectern isn't present, and one in the second floor IT

closet, which also houses the brains of the Crestron DM system.

Integrated Control

At the heart of the audiovisual systems' flexibility and ease-of-use throughout most of the facility is a Crestron DigitalMedia system with a 16x16 DM matrix. The system uses two DM-TX-2002G/201-C transmitters and 33 DM-RMC Scaler-C receivers. Riley explained, "There's a receiver in even the most basic spaces, providing zoned audio control via presets and video control, all across Ethernet over a single wire."

Relying on the control system, Riley said, created common building blocks for greater ease of use in the classrooms, labs, theater and exhibit space. "We can put the transmitter in a lectern, for instance, in the exhibit hall, hook up the PC, Blu-ray player and a microphone. Then it's just a matter of plugging a network cable into the floor-box." This reduces cabling from two or



A flat panel display on the wall of NCCC's mixology lab is controlled by wall-mounted button panels.

TheSextantGroup

three conduits down to just one, while improving signal strength for longer cable runs across the lobby.

Because the consultant and integration team were both familiar with the Crestron DM system, programming and installation were not difficult. "It was just a matter of working with Crestron to see how we could realize

our vision for the space using their equipment," Gillis said. Ultimately it worked, providing the client with the capabilities and automation required for what promises to be a busy campus setting and a bustling commerce and entertainment venue for tourists, and for residents of the City of Niagara Falls.

Thanks for making a product that really does what it promises...

"We fed live HD video to a QMOD-HD. The result was far better than anything we've used before - less noise in the shadows, no macro blocking - integration and set-up is much easier as well. Kudos for putting out a better product!"

David Cooke,
Video System Director, Willow Creek Community Church

QMOD HDTV Modulators



QMOD-HD
Accepts RGB, Component,
Composite video sources



QMOD-SDI
Accepts studio-quality
HD and SD-SDI



QMOD-HDSC
Internal HD scaler for PC
or digital signage.

Visit us at InfoComm 2013 - Booth 3859

Willow Creek Community Church in So. Barrington, IL, is a non-denominational evangelical Christian megachurch whose three weekend services at its seven campuses attract more than 24,000 worshipers.



972.931.2728 • 888.972.2728 • sales@crwww.com
contemporaryresearch.com • 4355 Excel Pkwy • Suite 600 • Addison, TX 75001



Made in USA



For more information please visit our website