

Automation Arts Creates a “Power-Hour” Think Tank for Key Execs Focused on Strategy & Sound Quality



THE CLIENT

For this successful Milwaukee Financial-Services firm, choosing Automation Arts for the technical and AV renovation of their corporate headquarters was an easy choice.

Occupying four floors in a trendy and developing area of Downtown Milwaukee, the firm’s renovation project included the build-out of a portion of the 7th floor and the creation of a high-tech, “Power-Hour” think tank for its corporate executives.

THE INTEGRATION TEAM

For the last several years, Automation Arts, a high-level Commercial & Residential AV-Integration firm based in Milwaukee has had the opportunity to work with this financial-services company on a number of other projects in their New York, San Francisco and

Milwaukee offices. When contacted about the new updates and renovation needed for this project, Automation Arts was excited to undertake the work.

ABOUT THE PROJECT

Taking approximately one year to complete, the integration and project teams had to work deftly to renovate the space while occupants were actively using and working within it.

In speaking with Andrew Smith, Sales/Design Account Manager for Automation Arts, about the project, he underscored the importance of protecting his client’s identity when sharing the success of this installation. He comments, “We do great work for our clients, and we know our craft. Maintaining a client’s confidentiality is a trust that is always first on our priority list, so although I can share general information about the project, the client wishes to remain anonymous.”

THE CHALLENGE

In addition to needing an upgrade to their headquarters, this client had a goal to create a high-tech meeting space that would be used for daily one-hour strategy sessions between key executives and producers for the company. The location of the participants could be on-site or remote, and the videoconferencing capabilities of the room had to be top-notch.

Central to Automation Arts’ work was the need to find the right audio and video systems to include in the design of this “Power-Hour” meeting space. Adding complexity to the work, the project needed to continue to progress while parts of the space remained actively in use.

Prior to the renovation, the configuration the executives used for their daily meeting was in a U-shape, and the meeting itself took place in the center of the 7th floor.

This layout was not ideal for videoconferencing, or for properly hearing participants. This was the impetus for wanting a more functional and better technically designed space. To achieve this, the AV build-out required both audio and video equipment at a level of technical sophistication that would surpass most standard videoconference room specifications and designs.

THE CLIENT'S WISH LIST

When considering the C-suite level of the executives that assembled near and far for these daily-strategy sessions, the design of the conference room was paramount. The layout had to ensure that each participant, when speaking, would be able to be both seen on camera and be heard clearly on-site and remotely.

The client's wish list included having state-of-the-art videoconference capabilities, cameras that followed every participant when speaking, a central-control system, microphones that were able to mute and unmute, as well as other collaboration tools. To ensure clarity and consistency of message, the firm placed a high priority on delivering a space and systems that focused on impeccable-audio quality.

AUTOMATION ARTS GOES TO WORK

For this project, Automation Arts knew exactly which manufacturer could provide the level of



microphone-sound quality and aesthetic they needed to achieve. Clockaudio.

The design called for every single seat around the conference table, as well as at the bar-height tables near the windows within the room, to have a Clockaudio mic with an individual mute and unmute option and clear-site lines to the projector and screen.

A key feature and part of the initial programming for the space was the integration of a customized speaker-tracking system, whereby eight cameras were installed in the space that were able to track participants based on the mute and unmute status of the microphones. This was done so that at any given time, both an audio and a visual of the participant speaking could be captured.

Smith confides, “This is really a cool space and acoustically, the room sounds incredible. When the Clockaudio mic gets unmuted and opens up, one of the cameras will cut to a wide shot of the table while the other zooms in. At any given time, all four sides of the room have two cameras ready to capture participants visually, for a total of 8 cameras and 9 displays.”

Central to the room equipment is a Crestron Control System and essentially everything from the 15” touch panel and mic levels, to the motorized shades is programmed into the system. For the daily meetings, a moderator oversees all controls, and has override control to ensure the meetings function smoothly and properly.

Equipment for the project included:

Biamp Tesira Server DSP
Vaddio Cameras
Sony Displays
Crestron for control
Crestron for video switching/routing
Cisco SX80 for video conferencing
Sonance in-ceiling speakers
Clockaudio Microphones

The room has one wall of windows for natural light and can seat 25 at the main table with an additional bar-height table that can accommodate standing participants using three additional table mics.



**ABOUT THE CLOCKAUDIO
CS1SN-RF PRODUCT**

Included in the system design is the Clockaudio CS1SN-RF high-performance, easy-installation Boundary-Layer Microphone.

Aesthetically, the streamlined design of the Clockaudio table microphone complete with status ring, allowed for a highly-finished look and a level of audio quality that ensures every participant in the space can be heard clearly within the room and via the teleconference-video stream.

Clockaudio’s CS1SN-RF (S is for the switch) features the following:

- Immunity to RF artifacts.
- Boundary-Layer single-element condenser microphone
- Cardioid-Polar Pattern.
- Fully balanced
- Engineered in high-quality brass.
- Inbuilt Phantom-Power Adaptor.
- Finish: Black Nextel® or Satin Nickel
- Also available in Nextel-Suede-Coating finishes (Custom Orders Only)

The microphone is designed to be placed in the middle of the conference table, with the participants facing the condenser element. The design accommodates both rear and bottom-cable exits, which means it can be used for either mobile or permanent applications.

ARCHITECT AND ENGINEERING SPECIFICATIONS FOR THIS MIC

The Condenser Microphone is of a single-element-boundary layer type, with a cardioid-polar pattern. The Microphone is made from solid brass and is capable of being permanently mounted with the use of an M-10 x 1 hollow bolt, nut and washer.

The Microphone includes a 6.6 ft (2 meter) cable with open-ended termination. Also included is an integral Phantom-Power Adaptor (PPA-RF) which accepts 9 to 48 volts DC.

The Phantom-Power Adaptor includes filters which will eliminate all GSM frequencies from 800 MHz - 1.2 GHz.

Frequency response: 50Hz to 18KHz; Sensitivity -37dB +/- 3 dB @ 1KHz (0dB = 1V/Pa)
Impedance 200 Ohms.

Total Harmonic Distortion (THD) at an operating level of 120dB no greater than 1%.

For this project a total of 28 CS1SN-RF microphones were used.

OTHER CONDITIONS & FINISHES

The new conference table for the meeting room was designed in a customized "C" configuration to best suit the camera's ability to capture each participant when speaking. This table had to have holes precut for the table mics in order for



the mics to be installed. Here, proper specs and exact locations needed to be determined, leaving no room for error.

Finishes in the space included carpet, fabric-wrapped panels, and acoustic-wood ceilings that provided the room with a superior backdrop for the audio quality. Reverb and bounce back were tackled using acoustic baffling and adding small perforations on the wood-ceiling boards to further improve the acoustics.

WORKING WITH CLOCKAUDIO

Automation Arts had worked with Clockaudio previously, and trusted their engineers to develop a solution that the client felt was customized to their needs.

Says Smith, "In the past we had used several of their retractable mics in other locations as well as a number of other Clockaudio microphones. We chose Clockaudio because of the client's desire to focus on sound quality. We knew they could provide a higher-end product, while maintaining a minimalistic footprint and simplified functionality for ease of muting and unmuting."

Smith notes that Clockaudio was a great company to work with through the process. He says, "When I needed a sample of the mic to get to the client quickly, I spoke with Simon LeDuc, Clockaudio Product Manager, and he was able to get it out to me immediately and facilitate the return process." Adding that sometimes you really understand how a manufacturer operates when there is an issue and you can see how they deal with it, Smith says that when his installer had a hiccup with one of the retractable mics, "Clockaudio was super responsive and able to resolve it quickly and allow the project team to move on and finish the install."

THE RESULT

The result of the new facility and upgrade to the "Power-Hour" meeting space is that the client has harnessed technology to work better to suit its purposes and communication needs. In particular, the meeting room for the daily-strategy sessions have become even more streamlined and productive. Smith recalls, "Remember, previously this critical meeting was conducted using a series of tables in the middle of the office area. The result we were able to deliver went way above even what the client was asking for."

Truly, this company's "power-play" to invest in its technology for this executive space created a foundation of stable-communication systems and will ensure that no million-dollar idea is left unheard. Smith comments, "The built-in features that enable remote participants to take part of the entire meeting enable all attendees to be more engaged."

He adds, "It is incredible that so much technology and engineering has gone into this one space that is exclusively used for one hour every day. This demonstrates the value that the

client places on the "think-tank" space and the people that use it. It also clearly shows how much the client values the products we chose to include in the design."

VALUE ADD

For the group itself, the renovation of their headquarters has improved its design aesthetic and technology across the board. In the strategy-meeting room, it has allowed them to integrate a level of AV-system consistency and stability they did not have before.

When asked about the "value add" for Automation Arts, Smith says, "This project was really unique and enabled us to step outside the norm from our everyday conference-room design. Here I think we were able to showcase our expertise while demonstrating to the client that we could handle every parameter they needed to meet. A happy client means repeat work, and we look forward to that."

ABOUT AUTOMATION ARTS



Automation Arts has been at the forefront of high-level Residential & Commercial Audio-Visual Integration since 1993. In 2011, Automation Arts was purchased by Ben Scharpf. Since 2011, Automation Arts has emphasized business development through optimizing client experiences.

With an emphasis on client relationships, Automation Arts has proven successful and has grown to become one of the largest Audio-Visual Integrators in the state of Wisconsin.

Their mission is to provide the highest quality end-user experience possible. This objective is reached through their passion for customer service, attention to detail, and experience with deploying high-level, innovative-product offerings.

Regarding the staff at Automation Arts, every person in the company is a team member, and a team player. Through an extremely selective-hiring process, they truly believe they have assembled the most passionate, driven, and talented professionals in the AV industry. Click to connect with Automation Arts on [LinkedIn](#).

This case study was developed to highlight and showcase the talent and skills of Automation Arts and their confidence in Clockaudio products. Automation Arts is happy to allow us to share the success of this project and have asked that we keep the corporate identity of their client confidential.

OUR SPECIAL THANKS to Automation Arts for their confidence in Clockaudio's products and to Andrew Smith for his assistance in creating this case study.



*Andrew Smith,
Sales/Design
Account Manager
for Automation Arts
is a Sales
Professional
dedicated to the
successful
achievement of
company,
customer, and
personal goals. His
strengths include*

proficient use of consultative-sales process, account management, and market-share growth by developing long-term customer relationships.

ABOUT CLOCKAUDIO

For over 20 years, Clockaudio has been dedicated to manufacturing innovative pro-audio products.

With corporate headquarters and manufacturing located in the United Kingdom and additional offices in both North America (Montreal, Canada) and Asia (Singapore), Clockaudio is led by a talented team of audio specialists dedicated to quality, service and innovation.

Globally, audio professionals actively seek out and recommend Clockaudio for its reputation as a trusted and responsive manufacturer and its customer-driven approach to audio solutions. Central to this is the in-house research and development that Clockaudio consistently reinvests in, which allows clients to explore customized prototypes and develop specific briefs in partnership.

Consultants and contractors alike help to drive Clockaudio's product-development process and appreciate the opportunity to be involved in the engineering process and final solution. The ability to customize is just one of the many factors which makes Clockaudio...clearly different.

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For more on this project or other Clockaudio projects, please contact news@clockaudio.com.