
Corporate Board Rooms

Audio-Visual System Considerations



Designing Corporate/ Board Room/ Training Room Audio-Visual Systems

Overview

When designing an audio-visual system to function within a specific venue, DVA considers a wide range of factors that will affect the selection of AV components and the installation requirements. Our designers are typically tasked with designing an AV system that meets the presentation requirements for a specific room. The purpose of each specific room affects our approach to the AV system design. For example, boardrooms have different requirements from classrooms, which are different from conference rooms.

This brief is intended to provide clients with a basic understanding of typical AV systems found within corporate board rooms, to provide a foundation with which to pursue further information.

Introduction

Typical AV systems for today's corporate boardrooms consist of:

- ✦ Presentation display system
- ✦ Audio system for program and voice reinforcement
- ✦ Audio-visual control system
- ✦ Video conferencing system
- ✦ Audio conferencing system
- ✦ Electronic white boards and interactive displays
- ✦ Lighting and lighting control

Obtaining, through client and end users meetings, an understanding of the exact nature of the space and the end users' expectation is crucial when embarking on a corporate board room system design. DVA designers listen carefully to the client's requirements and make system feature recommendations.

Typical questions we present during our consultative meeting are:

- ✦ How frequently will room be utilized?
- ✦ How many people will typically attend these meetings?
- ✦ Do auxiliary staff participate in the meetings?
- ✦ What type of presentations are required?
- ✦ What type of materials are presented?
- ✦ Is there a need to incorporate audio- and/or video-conferencing?

This fact finding mission will help determine design elements as they pertain to tabletop connectivity, motorized projection screens, shades and blinds, and proximity of room to noise-inducing systems (i.e. air handlers and plumbing).

Our designers also discuss the room infrastructure which includes topics such as floor boxes, conduit, power requirements, and locations for racking and displays.

Lighting is another design criterion. A boardroom should have several zones of architectural lighting, providing general room lighting, task lighting at the boardroom table and, if video conferencing is requested, color corrected indirect video conference lighting fixtures.

Presentation Display Systems

Choosing the appropriate display for a board room depends on the following criteria:

- ✦ Room size
- ✦ Usage
- ✦ Budget

Front projection is typical but can be a poor choice if video conferencing is planned as part of the system design. Rear projection is often a good solution for both presentation and video conferencing but requires a rear projection room and often a costly projector mirror stand in addition to the screen. An additional advantage of rear projection is that the projector's cooling fans do not cause as much noise as front projection does.

Flat panel displays are very popular and work well for display and video conferencing. Their limitation, however, is their size, which currently does not approach the sizes attainable through projection systems. LCD and LED panels produce less heat than plasma and do not suffer with image burn like plasmas.

Audio Systems

In a boardroom that does not require sound reinforcement or use audio and video conferencing, only program audio is necessary. This typically entails loudspeakers flanking the display to provide audio support for the material being displayed. If, however, the room is large enough to require voice reinforcement or audio and video conferencing are required, then a distributed voice reinforcement system will be required in addition to the program audio system. This system would typically require ceiling loudspeakers evenly spaced throughout the room.

Control Systems

Most of today's modern boardrooms have an AV control system. The control system typically consists of a control processor which can communicate to all of the necessary AV components and take control of them. The user interface is often a wired or wireless touch panel, in wall button panels or table top button panels. The intent of these systems is to replace all of the hand held remote controls that are provided for each of the AV components, to provide simplified operation of the systems often by pressing one button.

In addition to taking control of the AV components, these systems can control the boardroom's lighting system, drapes, blinds and HVAC systems.

Audio Conferencing Systems

If audio conferencing is planned as a feature of a boardroom's AV systems, the mechanical systems' ambient noise level is more important and the mechanical engineer should be asked to design the mechanical systems to the noise criteria (NC) 25 standard. This will prevent minimal extraneous ambient noise from interfering with the audio conferencing system's functionality.

Video Conferencing Systems

If video conferencing is planned as a feature of the boardroom's AV system, the room lighting, colour temperature, surface colours, table and furniture colours need to be considered. In addition, the mechanical system's ambient noise levels are important. The mechanical engineer should be asked to design the mechanical systems to the NC 25 standard. This will ensure minimal extraneous ambient noise detracts from the video conferencing system's functionality.

Connectivity with other networks and system is another important issue.

Electronic Whiteboards and Interactive Displays

Electronic white boards and interactive displays are popular in today's boardrooms. They can be stand-alone wall-mounted units or overlays for flat panel displays. The purpose of an interactive display is to enable the user to annotate over a projected presentation using a special pen or stylus and be able to save the projected image and annotation to a computer file for later use or distribution.

Lighting and Control

Lighting and lighting control are two critical elements in the design of a boardroom. Providing multiple zones of varying types of light is important. A combination of incandescent lights and fluorescent fixtures is common, with wall wash accent lighting and cove lighting also frequently used.

A dimming system providing multiple zones with the ability to recall multiple scenes is the norm. The systems can be tied into the AV control system for seamless integration and simplistic, intuitive, operation. The key to a successful boardroom design is choosing the appropriate technology based on the defined client needs and integrating it into the room in a simple, intuitive, system.

About DVA

Davidson Violette is a design-build firm specializing in technology infrastructures. We embrace standards-based solutions, and provide innovative solutions to the challenges presented by diverse technological needs. Our customers view our solutions as critical to their success, both strategically and tactically.