

Your New Best Friend: *The Standard Guide for AV Systems Design*

Avoid the nightmares of tacked-on AV systems that undercut architecture



September 2010

Your New Best Friend: The Standard Guide for AV Systems Design

Avoid the nightmares of tacked-on AV systems that undercut architecture

By Brian Huff

You've probably seen the TV ad featuring the gecko and the CEO desperately trying to make an AV presentation to a full house of shareholders. The CEO attempts to advance the slide only to have the screens go up and down erratically, the sound system squeal, and the lights dim to highlight the disco ball.

And you've probably seen this project scenario: A room design is nearly complete, 95% of the contract documents have been issued, and finally the AV system designer is brought in to build a presentation system. However, the project team quickly realizes that there is no place for the loudspeakers or AV equipment, that the pendant-hung light fixtures block the projector's light path, and the screen cannot be mounted in the ceiling. There's only one solution at this point:

use a wall-mounted screen and loudspeakers, mount the screen and projector off the room's center axis, place a credenza or other housing in the room to hold the AV equipment, and hope that you can either paint or purchase equipment in a color that complements the space.



Another tacked-on system born from a lack of planning. Whether on television or in real life, AV system nightmares like these are all too common – and avoidable.

A Different Approach to AV Systems Design

Realizing that AV systems affect – and may even dominate – the architecture of spaces, InfoComm International has created a standard guide that dispels the notion that AV systems are necessarily complicated and problematic. InfoComm is the 5,000-member organization that represents the global AV industry.

The InfoComm guide, recently approved by the American National Standards Institute (ANSI), is titled ANSI/InfoComm 2M-2010 Standard Guide for AV Systems Design and Coordination Processes. In essence, the Guide is a playbook and checklist for planners, owners, architects, and technology managers developing medium- to

large-size AV construction or renovation projects. While designed to coordinate with the Construction Specifications Institute's MasterFormat, it applies to any AV project.

The Guide addresses ways to avoid such nightmares as:

- * "spaghetti-like" equipment rooms with gnarled, tangled, unlabeled, and unterminated cabling everywhere;
- * the black trim plate mounted on the white wall;
- * the AV control panel at a different height than the thermostat control;
- * the speaker suspended with chain in plain view;
- * the screen image that is dull and washed out;
- * the unintelligible sound system;
- * switches or buttons that do not work.

The Guide outlines every aspect of professional AV integration. It is organized chronologically to follow the conception, design, construction, and building occupancy activities typically associated with technology-intensive construction projects. It includes descriptions of the tasks, activities, deliverables, and protocols required for proper construction documents.

The Guide at Work

The Guide's Design Phase section discusses infrastructure requirements, electrical coordination, workmanship, acoustics and information technology. Standard documentation requirements are outlined, including specifications organization, systems and facilities drawings, and custom application instructions for asset management, digital signal processing, software, and graphical user interfaces. The Construction Phase section summarizes the tasks and deliverables expected from the AV installation firm, and offers review and testing procedures to verify compliance with the design.

To provide universal applicability, the Guide does not differentiate between consultant and contractor, instead referring to the "designer," "contractor," and "owner," which in some circumstances could be members of the same organization. The "responsible party" (i.e. Electrical Engineer, Control System Programmer, Facility Manager, etc.) is designated to participate in tasks listed in the Verification Checklist section. Activity codes are provided: "M" for meetings, "C" for coordination, "T" for tasks, etc. The user then fills in the date, activity code, and responsible party, and the assigned compliance manager signs off on each item.

The Guide stresses the importance of having the AV system designer onboard during the preliminary stages and working with the architect to interface the AV system into the architecture.

Using the Guide for AV Success

Participation with the ANSI/InfoComm 2M-2010 Standard Guide is voluntary. However, the Guide is valuable for its sequence and task descriptions alone, or even more simply as an educational tool for the apprentice project manager, designer, or systems engineer. It is equally useful for seasoned professionals as a project kickoff or needs analysis agenda, and can be easily modified for use as a questionnaire to encourage owner input.

Brian Huff is a senior AV systems consultant at Acentech, Inc. He served on the InfoComm Standards Planning Committee from 2008 to 2010.