



Projects Out of Control

It's inevitable: Challenges will arise on your next project. Here's how to meet them head-on and keep the common key elements — scope, schedule, and budget — in balance.

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EVERY PROJECT BEGINS WITH THE vision of an ideal outcome: Cool designs; seamless integration and implementation of state-of-the-art AV technology; and improved communications for the client, all provided on time and on budget. Unfortunately, as a project manager (PM), all too often systems integrators stumble across a land mine. This may occur because of unstated or unclear goals for the scope of the project, changes in the budget, or revisions to the schedule.

When you combine the complex issues of electronically enabled facilities and high-impact communication systems with a new technology implementation, expectation is often much different from perception.



Illustration: Nick Rotondo

Just as every project has an ideal vision, it also has key elements that nearly always determine its success or failure: scope, schedule, and budget. Manage these three elements effectively, and your project will succeed. Lose control of them, and you're doomed for failure. Let's explore these concepts with the help of some real-world examples.

THE SCOPE

Defining the scope of services is the first step to a successful AV project. Identifying and meeting the client's goals and determining how success is measured will inevitably lead to a satisfied customer —and potentially prompt repeat business. What does the client want, need, or expect? In the pro AV world, these answers are sometimes confusing and hard to come by.

The source of confusion often begins with the initial request for proposal. Construction projects historically have many layers of input. For instance, the client's user group defines a need for a space or building type. The client's real estate or facilities staff catalogs the needs and prepares a request for proposal, in many cases, going to a select set of interior design firms or architects. Next, the designers solicit input from a design

consultant or integration firm if the scope includes specific AV needs. If this sounds a bit like the childhood game of “telephone,” it is. With so many voices in the game, it's not surprising that the initial request bears little resemblance to the formal request for an AV proposal.

Unfortunately, the program defined by the user (translated by the client's facilities manager and then interpreted by the architect or designer) is usually not very specific about technology needs. As a result, danger looms when the architectural/interior design firm moves ahead with the project without input from an AV professional.

Additionally, the project budget is established to benchmark responses against a pre-established cost goal. That's good if the client has a recent project to compare it with; however, many times the budget is set against a prior installation that may be three or more years old. After this amount of time, not only has technology changed, but the cost of the project and labor has also changed — and typically not for the better.

There's no question that scope has always been a hard concept to pin down. No matter how experienced a client is with AV technology, decisions are often based on one set of perspectives that evolve as the client's organization changes. Frequently, a detailed scope is agreed upon, only to be modified as responsibility shifts within an organization. A new person brought in late in the game, for example, usually brings a new and different perspective. Therefore, his or her experiences, opinions, and prejudices may alter the project definition.

Another complicating factor is that clients often lack technical expertise and make decisions based on input from internal sources not directly responsible for the facility being designed.

When I worked as an AV consultant, a Silicon Valley startup company based a technical decision on internal input instead of taking my advice. On completion on the project (and with underwhelming results), the briefing center manager asked me, “Why didn't you tell me I was being stupid?” It didn't matter that I had given him the right advice in the first place. As the PM, I took the fall — and restitution to some other solution was my responsibility, regardless of fault.

What should you do if you find yourself in a similar situation? Document, document, and document some more. It also helps to keep a very open and regular dialog on potential changes and the impact of such decisions. On your last project, what arguments (aka advice) did you make to your client in writing? If you missed this step, don't make the same mistake twice. Make your position clear, early, and consistently with each change in writing. In fact, start the documentation process from day one. Strength of conviction and commitment to clarity are two key lessons many an AV systems integrator has learned the hard way.

THE SCHEDULE

Why is the AV system integrator always the last man standing? This is a difficult question to answer. In the AV systems world, the confusion usually stems from not understanding media technology and its impact on buildings and facilities. Unfortunately, AV is often the last technology considered by the design team. Due to typical logistics, it's also the last system installed in the building. As a result, the PM is continually playing catch-up with a team that's already too far down the road.

“Why didn't I call you sooner?” said a charitable foundation's facilities director when he realized that neither he nor his architect had given any thought to AV systems until the project was at the building permit stage (the end of the construction document phase). At this stage, any type of input from the AV designer or integrator would cause delays, and the budget (which was nonexistent) would have to be reviewed and approved by management — which already thought it had a fixed price for the project.

As a PM, schedule expectations and your ability to meet them should be the first determination you make with your business developer/client representative before submitting your proposal. Client, designer, and contractor expectations for delivery, based on mistaken or overlooked criteria, are often the root cause for problems. Again, in the end, the problem is yours, notwithstanding your client's delay in realizing the need for your support.

To further complicate matters, the digital age has brought with it a perception that expected results should be instantaneous. As a Wall Street broker once asked me, "What do you mean I can't have it tomorrow?" His multimillion dollar deals were made on the spot, so why couldn't the AV systems be installed right away?

Learning the lesson of time management sometimes means saying no. But before you turn down a project, remember that it might be tempered with "when." This could mean the difference between saying no and negotiating a successful solution. Proposing a realistic schedule that meets the client's needs — and one that is aligned with your abilities and those of your suppliers and other key contributors — is the path to exceeding expectations. In the end, schedule issues are the first to be forgotten if the project is an overwhelming technical success.

THE BUDGET

What does it cost? In the AV systems world, this is a very common question — one that's answer is typically the first to be questioned and the last to be addressed. As with scheduling, the source of confusion here often comes from pre-programming —when the client internally establishes a budget based on its last big project. The pitfalls are the same: Too much time has passed to remember all of the details, and the approach is not adjusted for inflation or technology advancement.

I once worked with a facility manager of an Internet technology company who was perplexed about how to pay for his training center budget. After I quoted him some numbers, he asked, "But what if we don't have a million dollars?" His firm had budgeted only \$300,000 for a \$1.2 million wish list. Being an IT company, you'd think they would have known better — all the more reason never to assume.

When you face this type of client, all is not lost. Phasing the AV implementation is a good way to address this challenge. Alternately, because change is a constant, finding the "responsible minimum" solution to meeting technology needs will endear you to your clients. They will appreciate the fact that you did not gold-plate your proposal with unneeded equipment. Again, clearly documenting the proposal in user-friendly, easy-to-understand terminology, and most important, providing accurate cost estimating is critical to avoiding the next PM's dilemma.

THE BOTTOM LINE

In my experience, effective project management in any industry boils down to the three Cs: clarity, collaboration, and communication. Keep these principles foremost in your mind, and apply them to all that you do. And remember that everyone has the same ideal vision for the project's outcome; it's by working together that the vision turns into an achievable reality.

In addition to executing the perfect scope, schedule, and budget, one final element is just as vital and transcends the other three — people. Let's face it, no matter how good your project management plan may be, people can make or break the project. As the PM, working internally with management, sales representatives, designers, engineers, field supervisors, and technicians — and externally with the client's PM, management, user groups, architects, interior designers, engineers, consultants, and contractors — can be a tough job.

Because people are often the root cause of most of the PM's headaches, it's important to realize how volatile the human element can be. So next time you feel like tearing your hair out, remember that each is a part of the sum of the whole, ultimately influencing the end result and success of your project.

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THE BREAKDOWN

Building projects commonly go through six distinct phases. At each stage in the process, more information is gathered, more influences (and influencers) become part of the mix, and the project manager's (PM) responsibilities for input, deliverables, and logistics become more critical.

Following are descriptions of the six phases found on a hypothetical job, provided in the context of a typical design/bid/build project. When design/build is the project delivery method of choice, the schedule for the first three phases of design listed below is typically compressed, allowing for a guaranteed maximum price to be established and accepted early. Then the final design/engineering responsibilities are executed by the systems integrator, who may have also been the designer.

1. Programming and Feasibility Studies

These elements are the foundation of project development. At this phase, specific areas are defined, including environmental (what's it like?), spatial (how big is it?), functional (what do we do here?), and technical (what support systems do we need?). Global issues are identified, cataloged, and summarized. Budgets are established on an "order-of-magnitude" basis. The PM's responsibility is to ensure that proper input is gathered and design concepts are consistent with good practice. Cost should be referenced to similar prior experience.

2. Schematic and Concept Design

As the first two-dimensional representation of the project, this phase defines adjacency and traffic-flow issues. Budgets are identified on a space-by-space basis, usually referenced to recent experience of similar projects. The AV PM's responsibilities are to ensure that technical spaces are accounted for, sized appropriately, and provided with the electrical and mechanical support systems needed.

3. Design Development

This phase takes the schematic concept into the third (vertical) dimension and details finishing elements that will define the appearance of the project. Interconnectivity between information technology and building control systems is identified, and details of technology infrastructure are provided to other members of the team. Budgets are specific at this stage, mostly at a generic component level and labor-cost basis. At this phase, budgets are often cast in stone, thus the PM must be wary of changes.

4. Construction Documents

Detailed drawings and specifications defining what the contractor will be responsible for are developed in this phase. Very specific details of technical interrelationships and integration are set forth. The document package represents the legal responsibilities of the systems integrator, as defined by the designer. This stage presents a red-flag opportunity, as it is often the basis for litigation after the project is complete (based on someone else's interpretation and execution). The budget is now based on manufacturer/model number-specific choices, and is even harder to change.

5. Bidding/Negotiations

In the design/bid/build world, this phase is where low bid usually wins. In a design/build scenario, this step establishes a guaranteed maximum price (GMP), and takes place before the construction documents are prepared. In either case, it sets the client's expectation for the delivery of the finished project, both in cost and schedule. This is the time that the PM has many a sleepless night, thinking "What did I forget?"

6. Construction Administration

This phase is characterized as the "build" part of the project. For the designer, it includes the submittal review, coordination with field infrastructure installation, and finally, systems integration. For the integrator, it encompasses engineering, procurement, infrastructure confirmation, and again, systems integration. This is the stage where missed or forgotten items get raised, change orders appear (an embarrassment for the designer), and a negotiation challenge arises for the integrator.

Regardless of the delivery method, challenges faced by the PM remain constant. Yet understanding each phase and addressing the relevant issues is critical to your ultimate success, as is managing the three project elements — scope, schedule, and budget.

