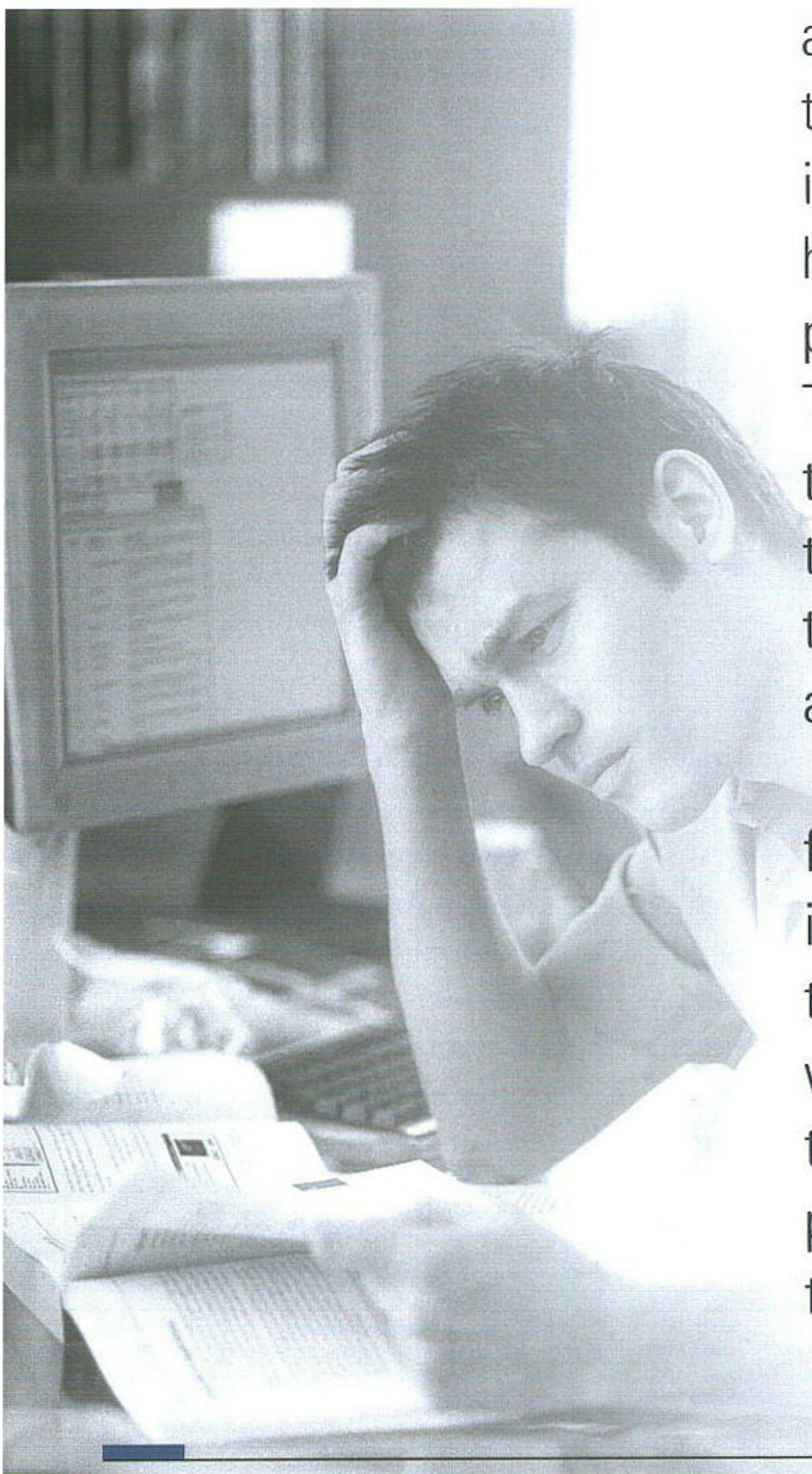


Lessons Learned From Technology Projects in Maine State Government

By James Lopatosky



In 2005, I was asked to assume the duties of information technology director for the Maine Department of Health and Human Services. Part of my charge was to help salvage the state Medicaid Information System project, whose implementation had gone terribly wrong. Many of you may have heard of it in the national news as one magazine's poster child for things that can go wrong in a large project. The other part of my job was to guide the DHHS technology team through the information technology reorganization at the Maine state government, to develop a new course, and to actually play the role of IT director, overseeing the many applications and projects.

Thinking back, that first year was very long. Aside from the fact that I was learning a new business (having never been involved with the health and human service business prior to this change), there were the many challenges associated with the project. Since then, I've been asked many times if there were any lessons learned, and if I would be willing to pass on some words of wisdom. The short answer is "yes" in the form of this article.

With that question, I understood most people were referring to the MMIS project. However, I find it difficult to answer without looking across all of our applications and projects, using contracted or internal staff. In the end, I've realized that the challenges are the same, and most of the time it's a matter of scope and visibility that brings them to the forefront.

Stay Disciplined With Basic Project Management Practices

Certainly on the MMIS project, we didn't do the best job following basic project management practices. Certainly the knowledge and skill were available within the team. The discipline to continue to use project management as a tool, however, gave way to the pressures of completing the project as quickly as possible. In other words, the tool that would have provided the best chance of keeping the project focused and moving forward was the one that was set aside.

When the project went live with its many problems, a project rescue team was created. One of the first actions was to re-institute project management practices. Early activities included resetting project work plans for major areas of development and setting up a mechanism form to track and manage issues and risks. This was put together so management could see the bigger picture, regardless of how bad it was. It's more productive to work with the ugly truth than to sift through rose-colored half-truths.

Other project management practices such as tracking and managing metrics; ensuring timely, open and straight-forward communications; managing resources and managing scope and change were brought into play. And, ensuring the active participation of the

project management office is crucial. In many cases, we use them to help keep an objective view of the project and to make sure that project management disciplines are being followed. In some cases, we employ them to help coordinate projects that are large or that are associated with higher risk.

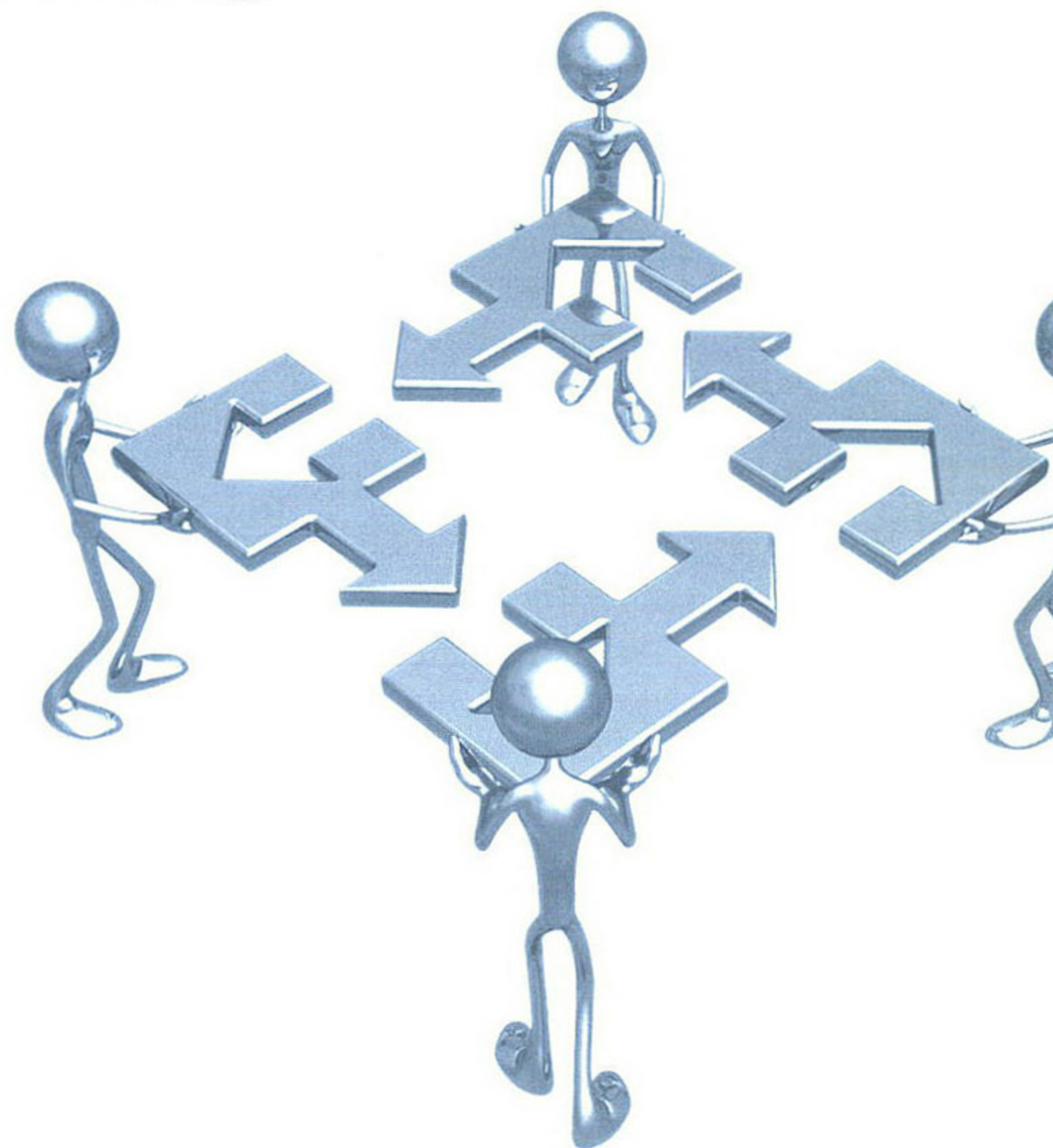
Leadership Must Provide Direction

Loss of direction and focus can create havoc. Throughout our careers, we've all been in these situations. Speaking for myself, I've experienced this in my jobs as a computer programmer all the way to my current position as an information technology director. From time to time, I seem to get pulled into the details of my work, and need some external force to help keep me cognizant of the direction we are heading. Often, the force comes from higher up as well as from my peers, but it can come from many sources.

With respect to technology projects, the same holds true. Some of the problems occurred because even management (both business and technology) were pulled enough into the details to obscure their sight of the finish line. Or for that matter, even the end of the first lap.

Good project management sets up a periodic review of the project status and ensures its focus on completing the mission. However, there were several projects where this was not a regular occurrence, so by the time the project teams stepped back, the minor course adjustments that often happen with periodic

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and regular assessments became major ones. This was often costly and required much rework. Sad to say, this concept is not new. Good management techniques, such as total quality management and many others, all employ similar tactics.

As we've started with newer projects, we ensure that there is a good management team in place, including sponsors, business and technology owners, project managers, and a steering committee. We make an effort to make sure that everyone understands his or her roles and responsibilities, especially to keep the project heading in the appropriate direction and assessing the status. It is also important to understand their responsibility as enablers rather than as detailed problem solvers.

IT and Business Must Stay Partnered

Following on the heels of leadership, their responsibility is to provide direction and to stay engaged. I cannot stress this enough. It is not just a matter of management and leadership being part of every detailed discussion. Rather, through the roles of project sponsors, owners, or even members of the steering committee, leadership needs to have open conversations about the challenges that stand in the way of a project's success. The fact is, there are always problems. Rather than set them aside, the barriers need to be discussed and tackled, often with a minor course adjustment. The challenges need to be

dealt with before they can slow or cripple a project.

By the way, this also provides a huge benefit for the people performing project work. It makes them feel supported and not abandoned, even in the most stressful times.

The Three C's

When I first joined the MMIS project rescue team, I encountered a lot of hardworking people, all working at 100 miles per hour doing their best to help solve the problem. Unfortunately, missing were the three C's of teamwork—collaboration, communication and coordination. I take that back, there was some of this going on in pockets, but not across the project. Often, there were duplicate efforts to research and solve the same problems. And, frustration was higher because people were talking past one another.

What we did was institute some practices to improve these areas. One was to coordinate virtually all major activities through the project management team. Any new efforts were assigned by the project management team to the appropriate group. We spent a great deal of effort communicating this, not only to the project team, but to other vested parties, such as the business customer. They were a great source of new requests.

Second, to create a relief valve for new requests, we instituted an application help desk. The intent was to provide a mechanism for users to report the problems they were experiencing.

This information funneled into the project team to address with software patches.

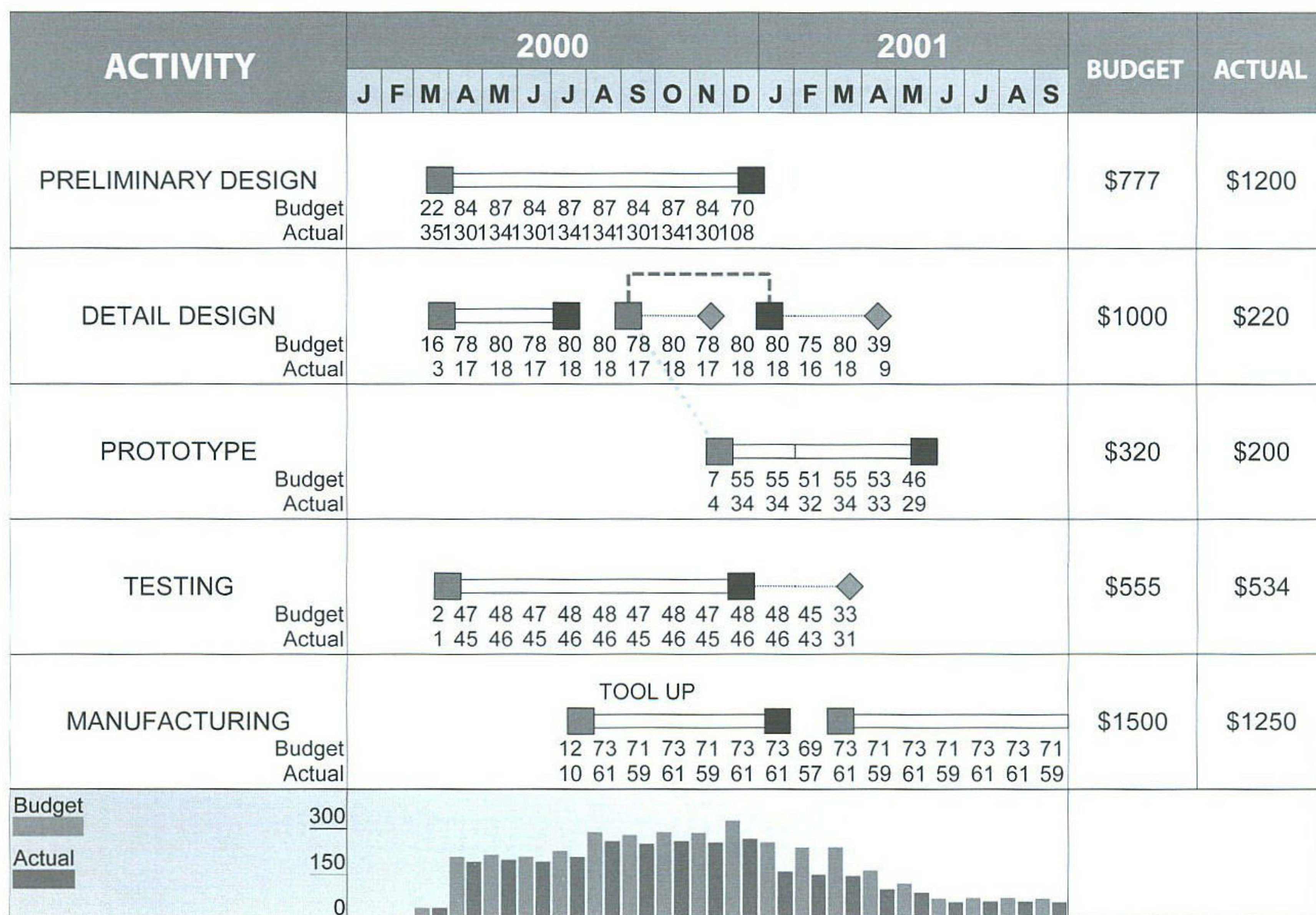
Third was getting the right people together to discuss problems and solutions. Often, energy was expended on long e-mail trails that provided no subsequent resolution, or time was spent with people going off in directions that ended in a not-so-desirable conclusion. Our focus was to bring the right people—subject matter experts from business and technology—together early in the conversation.

One side effect of this action was that we realized quickly we were entirely dependent on a few subject matter experts for everything. We then implemented a loose mentorship program where these experts could bring others up to speed over time.

Scope Management

Too often, our projects experience scope creep. And too often, it's because people are basically goodhearted and want to get the job done, and done right. Unfortunately, this often conflicts with the ability to lock down scope. In the case of our MMIS system, the implementation team was too willing to adjust the requirements to meet business needs that weren't quite understood. The result was we were unable to meet the schedule and were uncertain about the details of final product delivery.

What we did include as part of our practices was to insert and promote a more formal change management



A **Gantt chart** is one of the many tools available to project managers, representing project phases and activities.

process, including signoff on major changes in functionality and completion dates. This was probably a more difficult challenge, as it required a culture change for both business and technology teams; both were used to a very informal process.

No Substitute for Good Testing

Hand in hand with scope management is the importance of good testing to ensure that the new system functions so that the business team can do their work. Good software developers know that their testing should align with the details that come from scope development—the requirements.

Along with this, good regression testing is crucial. This is the ability to make sure that new versions of software do

not break any software that is already working and in production. In our environment, we're working to build these regression tests, either manually or through the use of an automated tool, for all of our more critical systems.

Not to downplay the importance of testing to make sure the application works, it is also important to add testing to ensure that the application doesn't break if incorrect information is entered. In other words, making sure good edits are in place for data entry.

Parallel and Phased Implementation

In hindsight, for a system as large as MMIS, touching the number of parties it did, we should have chosen a different implementation approach. One option would have been to phase

in (over time) the people who would be using the new system. For our needs, we could have turned different provider groups over to the new system one group at a time, giving us time to work through defects with smaller groups instead of the entire population. Another approach would have been to run the old and new systems in parallel for a period of time as well. Of course, neither option was selected; the rest is history.

Going forward, we're assessing each implementation of any new function. Part of the assessment is the ability to mitigate potential risks by choosing either one of these two options. It is just good strategy.

I could go on, but these are just some of the more dramatic memories. I hope you can use this information to help prevent similar mistakes.