2. How To Manage Fixed Date Projects

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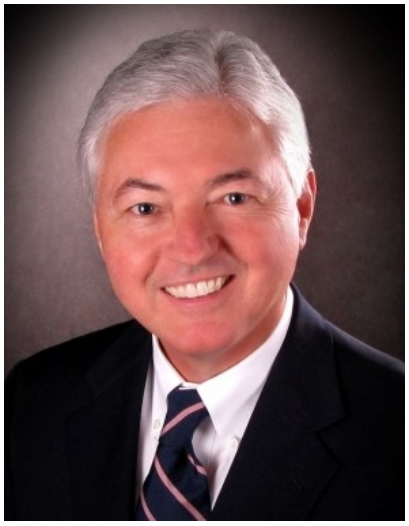

Sometimes you just get handed the date for project delivery on a plate. No discussion. That's not the best way to manage project schedules, but unfortunately you don't always have a choice. I asked J. LeRoy Ward, PMP, PgMP, Executive Vice President Product Strategy & Management at ESI International for some advice in these situations.

What sort of projects have the delivery date fixed in advance?

Projects that have their delivery dates in advance can be found in every industry vertical and around the world. Key ones are projects that are required by law, such as new tax codes that take effect on at the beginning to the tax year, a court order, a regulation, or other governmental or judicial edict.

Many construction projects have fixed delivery dates if the project is being done in an area where the weather prohibits work before or after a certain date or 'season'. Think, Sweden, Antarctica, the Middle East or other places with extreme weather conditions which simply prohibit construction during certain seasons.

Many projects that launch new products will also have fixed dates to take advantage of seasonal activities, buying habits, the phase out of an old product for a new one to avoid overlap. Consider the announcement of iPad. Very carefully timed to coincide with a range of marketing and production moments in time.

Fixed delivery dates are found in any project whose end date is critical to revenue generation, service to a client, or maintaining operations. For example, many telecom projects have fixed end dates. In the case where the telecom 'switch' (the computer than runs the phone and data system for a large building or group of buildings) is being swapped out for a new switch, this is often done over the weekend. Outsourcing operations or functions are another good example here. When a company moves to outsource services such as payroll, there is a critical date when everything must be tested and ready to go live to ensure continuity of operations.

Quite frankly, most organisations, governmental and non- governmental alike, mandate that projects be done by a date certain. So, these days, project managers are faced with such demands and edicts on all projects.

What are the challenges of managing projects where the delivery date is fixed in advance?

The main challenge is resource availability and allocation in order to get the job done by the fixed end date. When a project's end date is fixed in advance, the project needs to be planned 'backwards'. In other words, the project manager takes the end date and develops a plan of action working backward in time to a start date. It is hoped that the start date is after the date the analysis is done. If the start date, based on the plan, falls earlier than the date on which the plan is constructed this means that the project is already late.

In this case, the project team needs to formulate a plan that will actually cause the project to be completed when required. In short, the project manager needs to compress the schedule to meet the end date if it is physically possible to do so.

In classic project management terms, schedule compression is achieved through two approaches:

- Fast-tracking, where project activities are done in parallel or with overlap to the greatest extent practicable; and,
- Crashing, where additional resources are allocated to those activities on the critical path, thus reducing time.

In many instances, the network diagram developed by the project team represents how the project should be done, based on best practice, experience, or desires of the team, rather than how it 'must' be done due to physical constraints. For example, it is obvious that you cannot build floor two of a building before floor one is built, but you don't always have to have the design of a building complete before you start its construction. It is rumoured that Burj Khalifa in Dubai had not completed its design until it was almost complete thus keeping people in suspense to the end as to how tall it actually was going to be.

In reality, and in very tough circumstances, an experienced project manager will employ both fast tracking and crashing simultaneously. Each approach has disadvantages: fast tracking increases risk because of doing more work concurrently rather than sequentially; crashing, on the other hand tends to increase cost.

Additionally, on certain types of projects, crashing can actually lengthen a schedule because adding more people increases the number of communication channels in a non-linear manner. This is expressed by the formula (N2 – N) /2, where N is the number of people. When adding more people a project manager must put into place a well thought out division of labour. Fred Brooks, father of OS 360 at IBM put it best when he said, "Adding people to a late software project will only make it later."

What are your tips for getting these projects right?

The key to success lies in the project manager's ability to negotiate for the key resources that are going to be required to meet the schedule and making sure they are available when needed. Additionally, project managers need to practice micro-management more than they otherwise would, or would want to, to make sure they know what the team is doing on a daily basis. Keeping a close eye on progress and problems is of paramount importance in order to meet the completion date.

How can you convince management to extend the timescale, especially when the date is arbitrary?

The best way to do this is by showing management how much more it will cost to do it by a date certain, as opposed to how much it will cost if planned based on available resources. The question to management is this: Is the time saved worth the cost? With money in seemingly short supply these days, an analysis like this can have a great impact.

You can also show the level of risk introduced by completing on the date that may not exist, or exist to a much lesser extent, if done according to a more realistic plan. Taken together, costs and risks can make a powerful argument for doing things rationally.