

# Behind Schedule Again? : How Project Management Can Help.

*A new generation of online tools allow you to control a project anywhere in the world, from your browser.*

If you are like a lot of people you currently have a project behind schedule and going over budget. Can anything be done about it? Definitely. Project Management techniques can help. and a new generation of online tools means you can do it from your browser.

Project Management uses a number of tools and techniques which give the user the capability to assess the current state of the project and make adjustments to ensure the project remains on time and avoids costly late completion penalties.

*"Carnegie Mellon University in the United States says that the return on investment for those companies using project management is five to one. That means that for every \$1 spent on employing project management techniques and processes, the company gets \$5 back"*

## **Is it worth the effort to set up Project Management?**

"Carnegie Mellon University in the United States says that the return on investment for those companies using project management is five to one. That means that for every \$1 spent on employing project management techniques and processes, the company gets \$5 back" (1)

## **Gantt Charting**

*Gantt charts- invented in the 1940's to facilitate military shipbuilding revolutionized Project Management*

One of the most powerful tools in the Project Manager's repertoire is the GANTT or "bar" chart, invented by Henry Gantt in the early 1900's. Still in use today, it was originally used in shipbuilding projects and successfully helped reduce the time to build cargo ships during WWI.

This graphical tool enables you to immediately see:

- 1) The current status of the project;
- 2) The start, duration and end times of each activity in the project;
- 3) The projected completion date; and
- 4) The Critical Path activities (those determining the completion date)

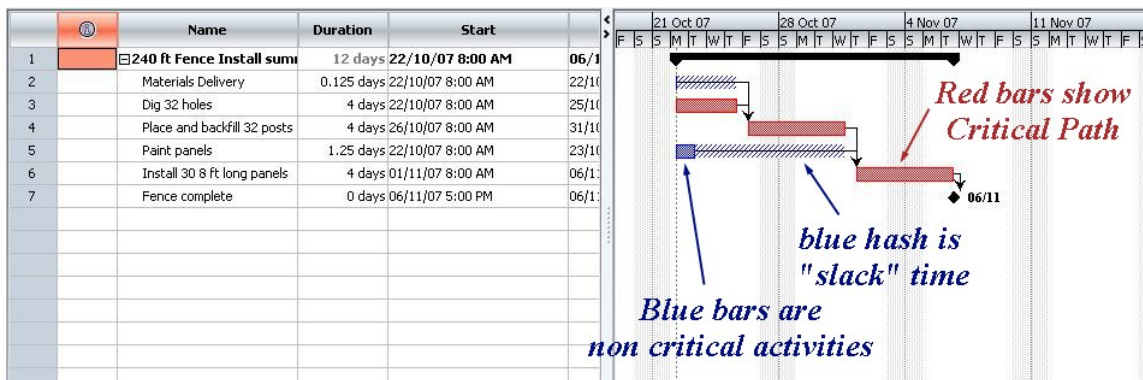
So how does it work? Let's look at a simple project to install 240 feet of fence around a building lot. This will illustrate how Project Management can help show you the status of your project and help you control it.

## Example Project: Installing 240 ft of fence

This project requires:

- 1) One delivery of fencing material – time to unload one hour;
- 2) Digging 32 post holes – one hour per hole;
- 3) Setting 32 fence posts – one hour per post;
- 4) Painting 30 fence panels (to be done before install) – 15 minutes per panel; and
- 5) Installing 30 eight foot fence sections - 30 minutes per section with 2 people.

Laid out in Project ON Demand the project looks like this:

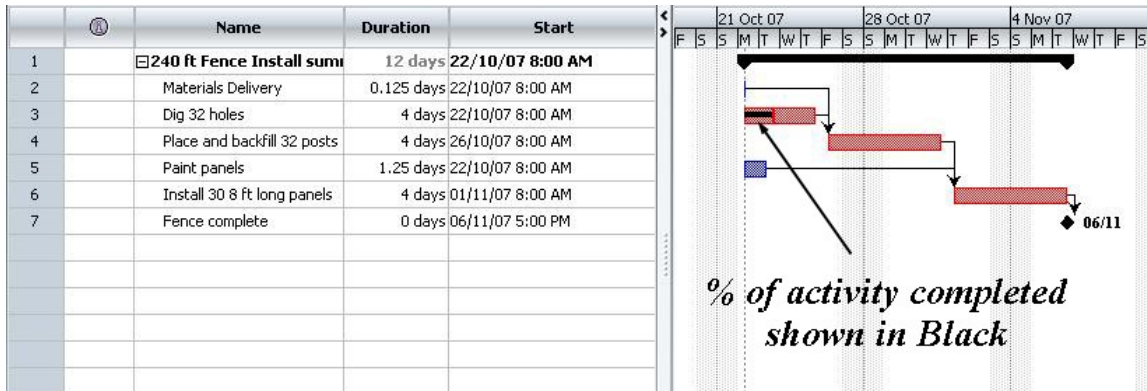


*Gantt charts show your project timing – each activity and total time.*

As you can see the Gantt chart clearly shows the entire project from initiation to completion and the start, duration and end of each activity or “task”. It also shows when an activity is scheduled to start (and which depend on a previous activity being completed). The “Critical Path” is show in Red - these activities determine the total length of the project. Show in solid blue are the non-critical path activities in this case the materials delivery and painting – the crosshatched blue shows the “slack time” indicating the activity could occur anytime in the cross hatched time without impacting the total project time. Using these coloured bars the Gantt chart allows a simple “at a glance” reading of the project.

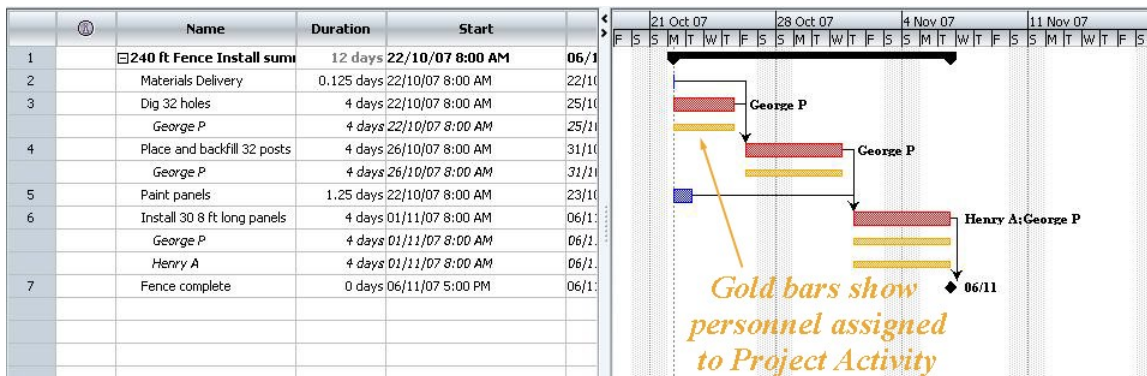
Progress is easy to see

In fact, if the project has started the Gantt also shows the amount completed of each activity. In the following diagram the “digging fence post holes” is shown 50% completed.



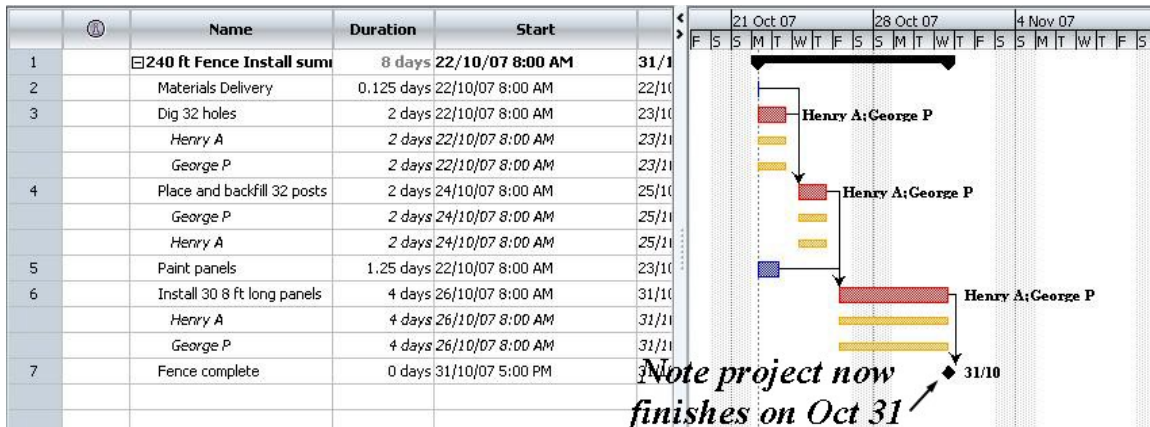
Now suppose you are late starting this work and need to finish the project in less time. How would you do it?

Project Management allows you to adjust the resources on a project – the current resources for this project are shown below



George P is digging the holes and installing the posts. He then is helped with Henry A when installing the fence panels.

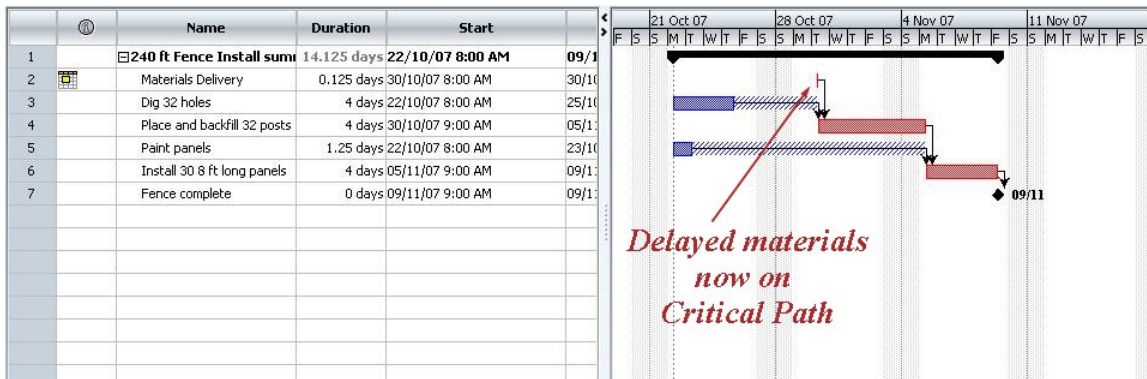
Now we can look at adding some more “resources” (another person) to the project in this case we can add a second person to the first and second activities -digging the post holes and setting the posts. This halves the estimated time as each person can work independently at digging holes or putting in posts. The result clearly shows on the Gantt Chart.



Correctly applying resources can reduce the elapsed project time

You can see the time is now shorter for the first and second tasks (two days instead of four) and for the total project. The project is complete on Thursday the 31<sup>st</sup> of October. As mentioned above the post hole digging task is also an example of a Critical Path item... an item which prevents any other activity occurring until it is complete. You cannot set posts without a post hole and you cannot put up fence sections until the post are in.

Project Management allows you to immediately see the effect timing has on your project. In this example we had four days to get materials (since they did not have to be there until all the holes were dug) and hence it was a none critical path item and had slack time. Now suppose your materials are delayed until the 30<sup>th</sup> of October



The Gantt chart enables you to quickly how delays could affect your project

Suddenly the material delivery IS on the Critical Path and has moved out the project completion date (and put "slack" in the post hole digging activity). The Gantt chart enables you to quickly "see" factors affecting your project and the resulting effect on the completion date.

So if you want to start having your project complete on time and on budget get your projects set up with Project Management tools and you'll be able to "see" how the project is progressing and make allowances to ensure it proceeds on schedule. Even complex projects can be clearly "read" to determine project status and necessary changes.

You can get Project Management tools to load on your computer from a number of sources. An inexpensive package is available from Minute Man systems, for more info see <http://www.minuteman-systems.com/>. Another alternative is FastTrack Schedule 9 which works for both Mac's and PC's, check out <http://www.aecsoftware.com/products/fasttrack/> for more information. Microsoft also has a package, "Microsoft Project" now called Microsoft Office Project. This is a full featured and fairly expensive package. You can find more info at <http://office.microsoft.com/en-us/project/>

*A new innovation is web based Project Management tools : View your project status from anywhere.*

A new innovation is online, web based Project Management tools. These allow you to input project information and **view** the project details from anywhere in the world using a standard web browser (like the one you are reading this paper from).

Online Project tools are available from a number of suppliers and range from simple to very complex. AceProject at <http://www.aceproject.com/> offers a straight forward implementation but without budget information. A more complex project implementation "Project on Demand" is available from Projity at <http://www.projity.com/> or for large multicorporation project rollup Vertabase at <http://www.vertabase.com> has a full solution incorporating budget/costing information.

*Don't have Project Management skills? Get a Third Party to set your project up on the web! All the advantages without having to learn how.*

Both the computer and online packages do require you understand Project Management in order to set up and run the project but what if you don't have that skill? Third party Project Management firms such as [HotStart Enterprises Ltd.](#) now offer to set up the project (and update it) while you gain the ability to view and determine project status without the hassle of understanding how to set the system up or run the software.

(1) Globe and Mail Project World articles Feb 22, 2001

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