

**TITLE: "BEING 'EFFECTIVE' WITH PROJECT SCHEDULING"**

by Tim Bryce  
Managing Director  
M. Bryce & Associates (MBA)  
P.O. Box 1637  
Palm Harbor, FL 34682-1637  
United States  
Tel: 727/786-4567  
E-Mail: [timb001@attglobal.net](mailto:timb001@attglobal.net)  
WWW: <http://www.phmainstreet.com/mba/>  
Since 1971: "Software for the finest computer - the Mind"

*"Effectiveness Rate builds reality into a project schedule."  
- Bryce's Law*

**INTRODUCTION**

In "PRIDE" Special Subject Bulletin #17 (*"Taking the Mystery out of Estimating"*) we made a clear delineation between project estimating and scheduling; although closely related, they represent distinctly separate activities and are most definitely not synonymous. For all labor/time-based projects, an estimate is a prerequisite for performing project scheduling, not the other way around.

In the same bulletin, we also made a clear distinction in terms of how we use time. Under the "PRIDE" approach, the concept of "man hours" is invalid and, instead, time is distinguished by the activities performed during it, either "direct" or "indirect," a concept originating from construction practices half a century ago. By "direct" time, we mean the effort used to perform a given task (it represents what we, as workers, are being paid to do). "Indirect" time represents the interferences or distractions keeping us from our "direct" assignments and includes such things as personal time (breaks), meetings, etc. Whereas during project estimating we are only concerned with "direct" hours, now in project scheduling we consider the "indirect" hours.

Both "Direct" and "Indirect" make up what we call "Available Time" representing the total number of hours available to work in a day ("Unavailable Time" represents planned absences such as vacations and holidays). We refer to the relationship between "Direct" and "Indirect" as an "Effectiveness Rate" which is expressed as a percentage representing the average amount of time in a day spent on direct assignments. It would be fallacious to think of "effectiveness rate" as a measure of efficiency or productivity, it is simply an analysis of the use of time. For example, someone could have a low effectiveness

rate yet be your most productive worker; conversely someone with a high effectiveness rate could be your worst worker, he/she simply knows how to manage their time. This means "effectiveness rate" varies from person-to-person and group-to-group. As an aside, it has been our observation most IT organizations today average a 70% effectiveness rate.

**WHAT IS TIME?**

*PRINCIPLE: Time is a resource that must be managed like any other resource.*



EFFECTIVENESS RATE = DIRECT DIVIDED BY (DIRECT + INDIRECT)

Let's consider how effectiveness rate can be applied in scheduling; let's assume we have an estimate of 100 "direct" hours for one person (who averages a 70% effectiveness rate), and there are eight (8) available hours in the business day. Under this scenario, 100 Direct Hours divided by .70 (ER) equals 142.85 elapsed hours. In turn, the 142.85 would be divided by 8 (available hours per day) to equal 17.85 elapsed days which can then be posted against a calendar which considers weekends and "unavailable" time. The schedule can be graphically plotted using such things as Gantt Charts; see:

<http://www.phmainstreet.com/mba/pride/iw026.jpg>

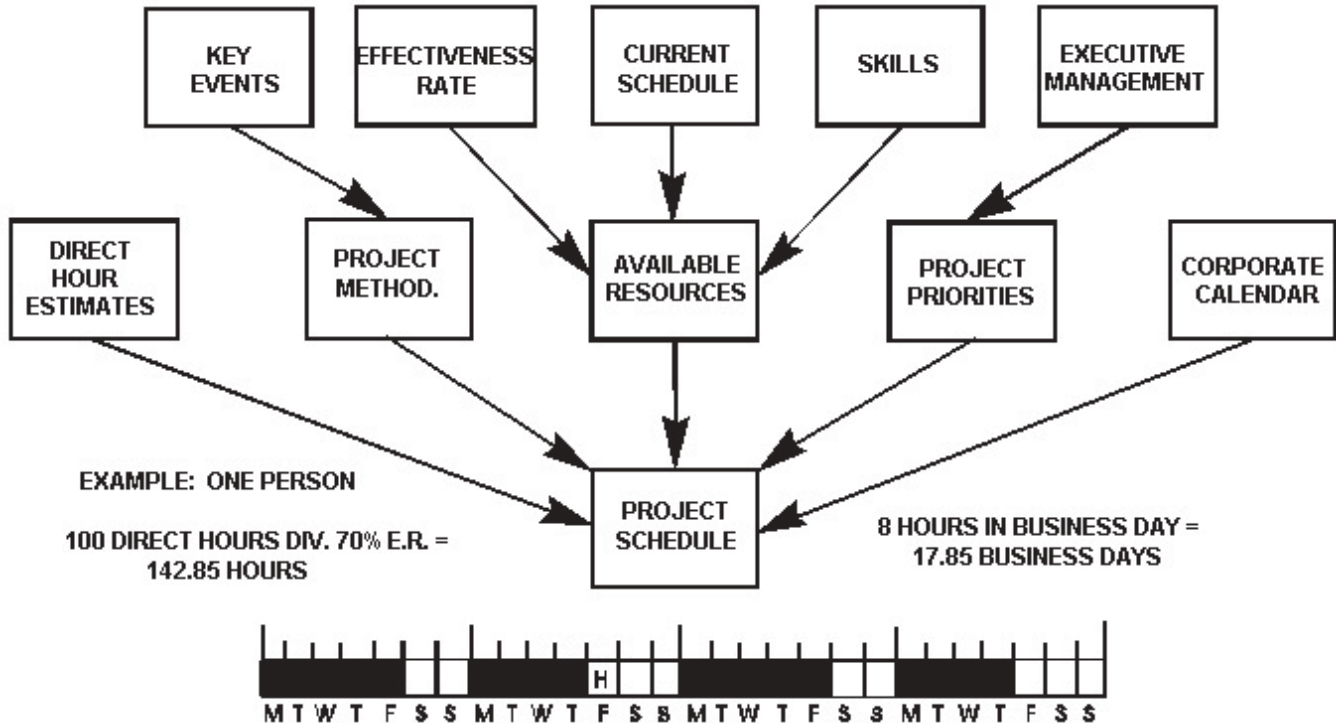
By examining the use of time, both "direct" and "indirect," realistic schedules can be prepared. The "man hour" approach mentioned earlier does not take the environmental influences into consideration and assumes an effectiveness rate of 100%. Under this approach, the sample schedule would be completed in 12.5 business days as opposed to the 17.85 days mentioned. The difference is that effectiveness rate builds reality into the schedule. It does not make use of some esoteric "fudge factor" as typically used in relation to "man hours."

*(continued on page 2)*

(continued from page 1)

**PROJECT SCHEDULING**

*"Project scheduling is the process of converting direct time estimates into date schedules."*



True, there are other elements in producing a project schedule, such as work breakdown structures and dependencies (defined by the Project Methodology), resource allocations, etc., but it is this simple concept of "effectiveness rate" that builds realistic project schedules.

This distinction between "direct" and "indirect" time is an important one and contributes to the "PRIDE" concept of the "Mini-Project Manager" whereby the individual is responsible for managing their own "direct" time and the manager is responsible for managing the "indirect" time. By doing so, the manager is trying to control the work environment by minimizing the interferences of the worker. For example, if a worker is behind schedule on an assignment, the manager may influence the worker's effectiveness rate by minimizing "indirect" distractions such as meetings. However, the manager must realize no worker can be 100% effective during the day. As human-beings, there is always going to be normal breaks or distractions during the day. Therefore, 100% effectiveness is an unlikely probability and the manager should be cautioned not to severely limit "indirect" time in fear of worker burnout.

**THE NEED FOR RECORDING HISTORY**

In order to determine an individual's effectiveness rate it is necessary to establish a mechanism to record the worker's time, such as a time screen or Time Distribution Worksheet; for a sample worksheet, please see:

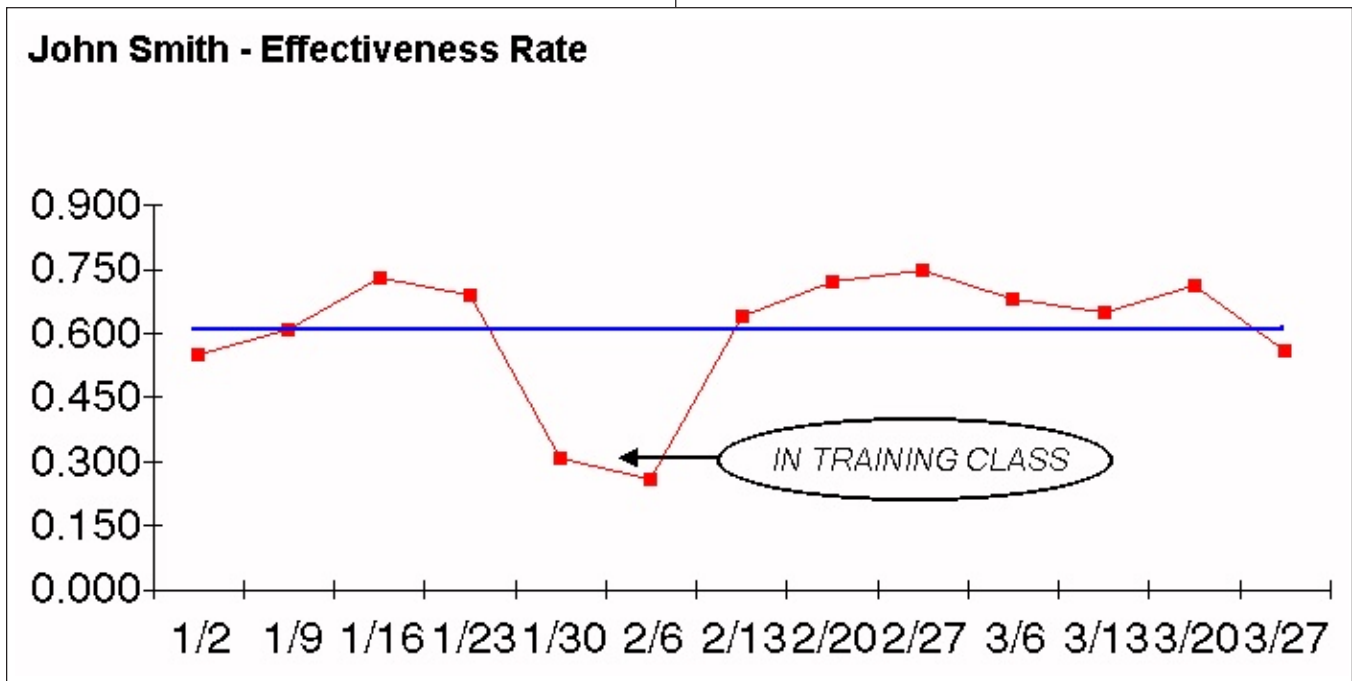
<http://www.phmainstreet.com/mba/pride/iw019.jpg>

Under this approach, time is reported for all "direct" project assignments, as well as "indirect" interferences and "unavailable" time (vacations, holidays, etc.). When using a paper-based system, such as the worksheet mentioned above, it is customary for the worker to explain their "indirects" on the back of the form. Each week, the Project Manager reviews the workers time sheets and approves them. Although this data is initially used to update project status reports, it can also be used to produce bar graphs showing a worker's effectiveness rate on a weekly basis and their average rate. This average rate becomes the standard used when calculating other project assignments by the worker. Further, departmental summaries of "direct," "indirect," and "unavailable" time can be calculated

(continued on page 3)

(continued from page 2)

and departmental "effectiveness rates" can be graphed. From this, we can see how an individual manages his/her time as compared to the overall department. Even better, we can compare departments against departments. But remember this, "effectiveness rate" was not created for competitive purposes. There can be some rather valid reasons why one person or a department has a lower rate than another.



#### CONCLUSION

Although estimating and scheduling are distinctly separate activities, they are closely coupled (the former feeds the latter). In order to get more realistic schedules (and estimates) though, it is necessary to first reconsider our use of time. The use of "direct", "indirect" and "unavailable" classes of time is a workable solution dating back to construction practices in the 1950's. It is simple and it works. Understanding the roles in terms of managing time then becomes the critical aspect to realizing successful project estimates and schedules.

Just remember this: Time lost is time lost forever, you cannot buy it back. The more we understand how time applies in the workplace, the better we can manage it.

For additional information on "PRIDE" Scheduling, see: <http://www.phmainstreet.com/mba/pride/pm30.htm>

**END**

*"PRIDE" Special Subject Bulletins can be found at the "PRIDE Methodologies for IRM Discussion Group" at:*

<http://groups.yahoo.com/group/mbapride/>

*You are welcome to join this group if you are so inclined.*

*"PRIDE" is the registered trademark of M. Bryce & Associates (MBA) and can be found on the Internet at:*

<http://www.phmainstreet.com/mba/pride/pride.htm>

Copyright © MBA 2005. All rights reserved.