

TITLE: "PROJECT MANAGEMENT SYSTEM EVALUATION CHECKLIST"

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Since 1971: *"Software for the finest computer - the Mind"*

*"An elegant solution to the wrong problem solves nothing."
- Bryce's Law*

INTRODUCTION

Commercial Project Management systems (PM) have been available since the early 1970's. As PC's proliferated in the workplace, so did PM software, which also brought an ease-of-use element to project management. A multitude of PM products are now available on the market, some expensive, and some very reasonably priced. However, to say all PM packages were created equally would be a gross exaggeration. Each has a specific niche they address in project management or target a specific industry.

As I described in "PRIDE" Special Subject Bulletin #20 (*"Why Does Project Management Fail?"*), one of the main reasons for failure is because there is a lack of consideration for the magnitude and complexities of project management and, consequently, there is a natural inclination to attack it in piece meal. As a result of the bulletin, I have been asked as to what criteria I would use to evaluate a PM package. Consequently, I have developed the following checklist for evaluating a PM package in its pristine form. I hope it will be of benefit to you.

GENERAL REQUIREMENTS:

The Project Management system should...

1. Support any type of project - large or small; not just those limited to a specific part of the business (e.g, IT applications). As such, it should be flexible in application and accommodate any and all methods of work effort (new development, maintenance, and modification/improvements).
2. Distinguish between Direct, Indirect, and Unavailable

activities. For background information, see:
<http://www.phmainstreet.com/mba/pride/pmmeth.htm#time>

3. Promote the "Mini-Project Manager" concept. For background information, see:
<http://www.phmainstreet.com/mba/pride/pmmeth.htm#minipm>
4. Provide an integrated approach to support all activities of project management, not just some; this includes Planning, Estimating, Scheduling, Reporting, and Control.
5. Promote and enforce in-house project management standards; e.g., use of standard methodologies, labor rates, time reporting, detection of estimate/schedule overruns/underruns, etc.
6. Provide a universally applicable calendar and allow for the specification of a standard reporting cycle.

PLANNING SUPPORT:

The Project Management system should...

1. Support various Work Breakdown Structures (WBS) - not just a single methodology. This includes controllable levels of WBS (number of levels of detail). Also, provides a library facility for reusable methodologies that can be automatically loaded upon request. Ideally, the WBS can be tied to specific information resources (such as systems, programs, files, etc.) thereby enabling the ability to record and monitor time for a specific information resource.
2. Support internal project dependencies (work step-to-work step) and external dependencies (project-to-project).
3. Allow for multiple projects, multiple human resources (both internal employees and external contractors), and multiple assignments for a single human resource. (A "many-to-many" relationship between projects and human resources).
4. Provide a Skills Inventory to track skills and proficiencies.
5. Be able to manage project priorities and backlogs of user service requests (business objectives). A "priority modeling" tool is highly desirable to study the impact of change.

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ESTIMATING SUPPORT:

The Project Management system should...

1. Provide for both Detail estimates (for a specific phase of a project) and Order-of-Magnitude (for the entire project). For background information, see: <http://www.phmainstreet.com/mba/pride/pm20.htm#types>
2. Allow multiple versions of estimates (after all, estimates will inevitably need to be revised).
3. Provide a means to maintain estimating guidelines and generate tentative estimates accordingly.

SCHEDULING SUPPORT:

The Project Management system should...

1. Provide for automated calculations using "Effectiveness Rate." For background information, see: <http://www.phmainstreet.com/mba/pride/pmmeth.htm#er>
2. Allow multiple versions of schedules (project schedules, like estimates, will change over time).
3. Provide facilities to manage resource allocations. This includes plotting both estimated and actual project assignments, as well as monitoring "effectiveness rates."
4. Be able to calculate critical paths of projects.

REPORTING SUPPORT:

The Project Management system should...

1. Provide facilities to record and verify time on project assignments.
2. Provide for the recording of "Estimate to Do" (the amount of time remaining on a given assignment). Note: This is different than "Percent Complete." For background information, see: <http://www.phmainstreet.com/mba/pride/pm40.htm#etd>
3. Maintain historical time data to be used in history reports and to update estimating guidelines.

4. Allow the recording of "out-of-pocket" project expenditures.
5. Provide a scratchpad facility to record project notes as well as formal reports (e.g. Project Proposals, Cost/Benefit Analysis, Project Audits, etc.).
6. Provide a standard facility to generate a variety of project reports (a "report writer" facility is ideal).

CONTROL SUPPORT:

The Project Management system should...

1. Post reported time to projects and to human resources reporting it. Also, post time to information resources to monitor activity. For example, the Order Processing system had 2,342 hours reported when it was created in 1985; 335 hours in 2000; and 246 hours in 2004.
2. Provide various summary reports to analyze projects and human resources, both by project and by department.
3. Provide the ability to bill end-users for project costs (Chargeback). This includes chargeback to multiple users at varying rates.

COMPUTER-RELATED CONSIDERATIONS:

The Project Management system should...

1. Be easy to install and test on the computer.
2. Be implemented as a cross-platform solution (operates the same on different computers) thus providing machine portability and independence from hardware manufacturers. It should also be easily accessed by all people participating in project management activities (conceivably the whole company) as an integrated approach.
3. Be easy to learn and use. It should be based on industry design standards (e.g., GUI design standards, on-line Help, use of operating system clipboard, etc.).
4. Performs reliably and productively in accordance with specifications.
5. Provide for multi-languages and multi-cultures, such as adapting to local customs for expressing dates,

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time (am-pm vs. military time), monetary values (Dollars, Pounds, Yen, etc.), and accommodating foreign languages (including the Asian Double Byte Character Set - DBCS).

6. Provide standard utilities for:
 - Monitoring and Administering the system.
 - Security - to both administer the system, and login to input data.
 - Import/Export data in various formats (Ideally an open interface should be provided).
 - File Management - to purge obsolete data, and backup files.

6. Be provided by a vendor with a reliable reputation for training, service and warranty.

I have described a pretty encompassing system with robust features. As such, a Cost/Benefit Analysis should be prepared to compare price versus the system's value to the company.

This evaluation checklist should be used as a template and modified accordingly to suit in-house requirements. Good luck.

For additional information on "PRIDE" Project Management, see:
<http://www.phmainstreet.com/mba/pride/pm.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.

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

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