COMMON-SENSE PROJECT MANAGEMENT
A Personal Perspective

by

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I. Introduction

The purpose of this paper is to provide a personal perspective of some common-sense rules-of-thumb that I believe will give the reader a more practical and realistic view of what it takes to manage successful projects.

I have been involved with projects for over forty years. I've been, at one time or other, and many times over, the Project Manager (PM), a team member, the technical lead, or the program director managing a family of related projects. Lately I've been an instructor, consultant and trainer - teaching project management best practices to the employees of corporations and government agencies –large and small. I've personally experienced successes as well as failures. I've been led by good leaders, bad leaders or nobody at all, and have been in organizations where the bottom line was king – no matter that the team was worked to death ten to twelve hours a day, five, and sometimes six, days a week. (My company may have bid so low that the only way to make a profit was to extract tons of unpaid overtime from the "professionals" on the project team, or try to hire someone at a labor rate less than that which was bid).

I've completed projects for government agencies who started off not being able to find their real requirements in a desk drawer with both hands and a flashlight, and others who thought that it was their right to ignore me and task my team members directly (the noxious practice of "drive-by tasking"). Through all that time, I've gained some practical insights into what makes a project successful and, more to the point, what it takes to be a common-sense, and successful, project manager. Any paper dealing with a "common-sense" viewpoint may lead the reader to believe that what follows is just a bunch of shopworn platitudes, but I'm hopeful my approach goes beyond that to provide some more useful insights and, perhaps, some "*aha!*" moments.

Certainly there are literally hundreds of textbooks, thousands of journal articles, white papers, and scores of software packages on the subject of project management – all excellent, well-intentioned efforts to provide the reader/user the fundamentals of project management best practices. (I list a few good sources at the end of this article) But every so often the Project Manager must step back from the fray and ask the common-sense questions: *"Is this working?" "Am I doing what's right?" "Does this make sense?" Or, "Do I have what it takes to do this job?"*

Too many project managers rush headlong into the work without occasionally pausing to reflect on these, and other, crucial questions about the realistic nature of their project work, or of their own skills. This paper addresses some of these issues from a practical viewpoint– with the aim, and hope, that the project manager and his or her work will be the better for it.

II. Do I have what it takes?

Being a successful project manager is one of the toughest jobs around, and to be one "you gotta want it bad!" A good project manager has to have a basketful of opposite traits – i.e. be a generalist and have a good head for specific details, be a manager and a leader, take care of your customer, your boss and your team – and make them all happy. No wonder good project managers with a track record of success make more money, rise higher and faster in the organization than their peers and are in such high demand. But to honor the triple constraints – On Time/Within Budget/ Meet the Specs, and (for profit-making organizations), also add "make us a profit" – takes it's toll on the PM. Long days at work –and away from family- are not conducive to happy employees. Also, in many organizations, if things aren't going well in the project –the PM is the first one fired!

<u>So, why do it?</u>   *Because it just may be the most rewarding thing you'll ever do in your professional life!*   If your project is a success, and the parade goes by celebrating that fact, you and your team will stand on your tiptoes, throw your chests out, and shout with pride to all that can hear " We worked on that!", and you will feel a sense of self-fulfillment and personal satisfaction that is unmatched by any other endeavor.

III. Am I doing the Right thing?

There are a number of realistic rules-of-thumb that successful Project Managers not only believe in, but practice daily in their work. Below I discuss my "Top Ten". *How many apply to you?*

1. **The Triple Constraints are Crucial!**
   (On Time/ Within Budget/ Meet the Specs)

Why else would we be doing our work under sometimes severe constraints of time, money and technical performance- *if it's not to honor these triple constraints?* This is, after all, a *project*- we are not on an assembly line or flipping hamburgers. Projects are constrained by limits and the PM's # 1 job is to honor those limits. That's what keeps the PM up nights studying the schedule, the spend plan/burn rate, the available resources, and the ever-threatening scope creep.

I've often heard the old put-down "Here's the triple constraints—pick any two". That's OK if you want to fail, but success equals meeting all three, and **nothing less is acceptable.** If there are problems, the successful PM spots them early (because they have rigorous early warning systems in place), and, if necessary, puts in a Change Request that's investigated, discussed and formally decided upon/negotiated between customer and contractor. If approved, then and only then, can a contract and the resultant constraints be altered. **Gaming/fudging that process should never be tolerated.**

I've also observed the attitude of some PMs and their teams who are executing Time and Materials contracts (T & M). It goes something like this: "The customer has given us 2000 hours at X labor rate, and we are going to use them all up"- or- "I can't meet my profit target unless I use up all the hours". Of course, in a T&M contract, the customer cannot require, or doesn't expect, a given end result-otherwise the contract will become a Firm Fixed Price; the customer can only hope the contractor completes the task within the allotted hours- but really can't do much if the contractor falls short.

So it is the rare, but often more successful, project manager who nonetheless tracks his or her team's productivity with a proven control methodology (e.g. perhaps some version of Earned Value) and makes adjustments accordingly. For example: " To date, my Planned Value is 200 hours, the Actual Cost is 200 hours, but I believe, from our work product completed, that we only have an Earned Value (the dollar value of the work that we actually accomplished to date) of 150 hours- therefore, I have to make some adjustments now". That's the difference between a proactive PM and a passive PM in a T&M contract that will spell success.

2. **Leader vs. Manager (the game is called "Follow the Leader", not "Follow the Manager")**

I have more than a dozen books on Leadership on my bookshelves- all with either good advice or wonderful examples of good Leaders. But when the moment comes when I have to stand alone before my team and I need to motivate them to share my vision of the goal of the project --- all those books are of little or no use, because the spark that I need to ignite that motivation must come from inside me! I believe leadership cannot be taught –but it can be learned and one's inner spark can be ignited —mostly by

observing good leaders at work and emulating how they do it. Some authors will say that leaders are born, not made; others say just the opposite. I won't argue that point, but I believe that without that initial "spark" within them, all the leadership courses and lectures in the world will fall on barren ground.

Leadership is an influence process, and is distinctly different from management. A Leader is one who can motivate, inspire or otherwise influence a group (e.g. the project team, in our case) to share the leader's vision of the goal(s) of the project. If (s)he is successful, then the team has a shared vision and a shared goal, or goals, which they believe in and work toward. A good leader will overcome the fact that many project team members come to the project with their own personal agendas; (s)he will convince each team member that succeeding with the project will translate into their individual success.

A good leader is what is known as a transformational one, not a transactional one. Transformational leadership is a leadership style that focuses on "transforming" others to work together as an harmonious team and to look out for the enterprise as a whole. In this leadership style, the leader enhances the motivation, morale and performance of his/her team. A Transactional leader focuses more on a series of "transactions" (task-oriented). This person usually defines a sense of duty within the team as one with rewards and punishments to reach goals. A transactional leader is more like the manager described below.

A Manager is the person responsible for planning and directing the work of a group of individuals, monitoring their work, and taking corrective action when necessary. The four main activities of management are Planning, Organizing, Directing and Controlling. Of course, a good project manager needs to manage all four activities well in order to be successful and also has to be a good leader throughout the effort. Some will say that the Directing function also includes leadership (motivating) as well as knowing what actions to take and when to take them (actual directing)- I have no problem with that view, since management skills without the embedded leadership skills will only get you so far in executing a project successfully.

3. Excellent Communication Skills, Both Oral and Written, are Required All the Time- and You Can't Fake It!

To use the imagery one more time- if you have trouble finding a coherent sentence in your own writing with both hands and a flashlight –it's way past time to learn how. If your memos and e-mails are full of gobbledygook and are barely intelligible and/or you get physically ill each time you have to stand before the customer or your VP and give the monthly status report – you are in trouble.

The PM is the "face" of the project to both your executives and to the customer- and must make both stakeholders feel comfortable that you have things well in hand. Whether orally, with the help of PowerPoint slides, or in writing—if you can't convey

the message cogently and succinctly through your writing or speaking – you may be in the wrong business. If your problem is your writing skills, a Writing course at the local community college may be all you need to get the necessary practice. If your problem is your speaking skills, or, very commonly, *fear* of public speaking, I would run, not walk, to the nearest Toastmasters chapter and stay with that program until your confidence is high. You may excel at everything else –but if you can't communicate your thoughts- you are toast (no pun intended) as a PM.

4.   The Details Matter!

How important is it for the project manager to be to be skilled and/or experienced in the subject matter of the project that he or she is leading? You'll get a full spectrum of answers to that question, and the most probable answer is "It Depends". My own response to that question is my own rule-of-thumb: I want to know enough about the subject never to be snowed by one of the project team who may be briefing me, or giving me a status report. That's a tall order, but in my experience, a necessary one.

The devil is in the details, and I want to be able to ask the right questions to expose the details, and then be able to discern whether or not they are true or false, realistic or a pipedream, optimistic or pessimistic, accurate but not precise –or precise but not accurate. I can't do that if I am not technical grounded, to some reasonable degree, in the subject of the project.

You can bet your last dime that your boss, or the customer, will ask the tough technical questions at the next status report meeting. After whomever you've brought along to provide the technical answers is finished responding, your boss or your customer will turn to you and ask: " Do you agree with that?" If so, why; if not, why not?" The best project managers can answer that question cogently, and without hesitation.

Beyond the technical subject matter of the project, a PM must be very good using the tools that he/she has been given to manage the project. That includes software such as Microsoft *Project* , *Primavera* or whatever software is being used to track tasks and schedule and costs. Here again, it's not enough to leave it to the project planner/scheduler, or financial analyst, as the only ones able to work with MS *Project* – or cost accounting software –the PM must, necessarily, be able to ask the question(s): ***"Where/how did you get that number?"*** and be able to understand the answer and how it was arrived at. Ideally, the project manager should be able to work with the software to get the same answer himself/herself.

At the risk of using a politically-charged example, President Obama laid out his health-care reform vision and goals in broad strokes, but left the details of writing the bill to Congress. The resulting bill is a 2700-page monster, and even though it eventually passed Congress and was signed by the president, the details are probably going to remain a mystery to the average American for the next few years. To oversimplify,

leaving the details to someone else is problematic for both presidents and project managers.

5. I'm a Control Freak –and Proud of It!

As a necessary corollary to # 4 above, the PM must be in control of the entire spectrum of project activities: technical progress against the requirements, cost and schedule adherence, team performance and status reporting to all stakeholders. He/she must regularly monitor actual performance, at a suitable level, against what was planned to be done for that period. Beyond that, (s)he must *take action* to control variances that are beyond acceptable levels. All that requires that the PM have the technical knowledge, the financial management acumen and the proactive nature to aggressively control /minimize variances wherever, and whenever, they occur. Paying attention to the details and controlling the variances is a never-ending job for the project manager, and must be done from Day 1 until the final customer acceptance and sign-off on the project deliverables.

Exercising control does *not* mean micro-management! Each team member has a particular set of skills that are needed in the project, and they are to be considered the experts in those skills, and respected for their knowledge and ability to get the job done. The assumption must always be that they know *how* to do the job – the PM's concern is their performance in terms of productivity/work product (*what* they've accomplished) and how well it meets the technical requirements. Managing their technical work should be the job of the technical leads, who are responsible for mentoring the team technically – and adjusting the *"how"* to get the optimum results. Your involvement at that level may be counterproductive and certainly not conducive to good morale. Again, the PM's concern is the resultant work product and what it says with respect to productivity, performance and overall quality, and adherence to the requirements. The work product should be measured rigorously and regularly (and frequently enough to make a meaningful, and timely, difference if there is a variance that needs to be adjusted).

6. If You Don't Have a Sense of Humor ---Go Buy One!

I always take my project work seriously, but I try never to take myself (too) seriously. I've seen many young project managers dive into their work with enthusiasm and vigor—and they forget to come up for air once in a while. They are often Type A personalities, driven to succeed and, more often than not, they do! But, at a great cost to their own well-being in terms of family life and their own physical and mental health. This type of project manager also seems to have trouble knowing how to have fun, and, more importantly, they seem to lack a sense of humor.

A sense of humor is an essential ingredient in developing the camaraderie necessary for keeping project team cohesiveness and morale high. For example, I've always made it a practice (and still do) to post Scott Adams' latest "Dilbert" cartoon (particularly those

dealing with projects) for the team to enjoy. A small thing perhaps, but it often lightens the mood during tough times. It is important to "lighten up" once in a while and have some fun, both in general, and especially when it comes to interacting with your team members. That doesn't mean being the "class clown" (one should always keep things in perspective), but having some fun at work, or after hours, helps everyone to relieve the tension and stress that normally builds up from constant hard work and the strain of deadlines. If your personality is lacking this ability, I would strongly suggest you grab the aforementioned flashlight … and go find it.

7. Tell Everyone the Same Story, Tell it All and Never Lie…Ever!

Everyone will acknowledge that integrity (steadfast adherence to a strict moral or ethical code; always doing the right thing) - in all phases of your life - is an essential ingredient of a good person, as well as an honorable career. ***To have the reputation as a person of honor and integrity is priceless!*** But, in the real world, the temptation to fudge that ideal is ever-present. We are tempted to tell the little white lies to avoid embarrassment, shame, humiliation or punishment - whether in our personal or professional lives. So too with projects, the project manager and the team members are often tempted to shave the truth to make the results look better than they actually are. The project manager has the duty to relay information, status and results to his/her team, the boss and, of course, to the customer. Sadly, the temptation to look good to everyone all too often overcomes the truth and they lie to hide the fact that things aren't going as well as they should. This is particularly true if the stakes are high.

My (obvious) advice: ***Resist the temptation at all costs!*** It never fails that fudging the truth with a little white lie will lead to having to tell another lie, and another, and another – until the skein of fabrications becomes a house of cards that will tumble down around the liar's ears at the slightest breeze. Telling the truth to everyone is so much easier – it means not having to have a good memory – because the truth never changes –no matter to whom you are telling it. The liar must have a good memory because (s)he has to remember which version of the story was told to which person – and that's how most liars get caught.

There are two corollaries to the "tell the truth" rule: the first is the PM who tells different members of the team, or different stakeholders, different, often conflicting, versions of a particular story. For example – to the software lead: "Jane, the customer is going to focus hard on the software quality during the quarterly status meeting – I need you to get your people to stay as late as they need to so they can run the quality tests tonight and every night until they're perfect". But to the PM's boss: "Boss, my software costs are running high-so I'm having the group work some free overtime to cut costs and catch up". In my view, that example of a manipulative PM is one headed for disaster. ***The rationale for telling different versions of the same story to different people can never be justified. It is a bad habit of a poor manager and a failed leader!***

The second corollary is the PM who keeps information to himself/herself - either consciously out of out of a sense of power (I'm the boss – my team doesn't need to know what I know [you'd be surprised how common this is !]) or absentmindedly (I forgot to mention that – or — I didn't think it was important to pass along). My own rule-of-thumb, which I worked hard to put in practice as often as was sensible and practicable was, and still is, that everyone on my team should know everything I know — with two exceptions: (1) salary information was confidential (in the government even this is a moot point, since everyone who knew your grade and step level would therefore know what you earned –to the penny), and (2) classified information (if you didn't have the clearance, or the need to know, for classified information-then you didn't know and weren't told). Those exceptions notwithstanding , a team that is continuously, and fully, kept informed by the PM of what's going on in the project, and how it relates to the company and the customer – is a team that will never be in the dark, but will always feels "connected" and part of something meaningful.

To sum up: the quickest way for a PM to lose his or her credibility is by being caught in a lie or being caught telling different people conflicting versions of the same story**. *If you lose your credibility—you will never get it back, and your reputation in that organization is ruined!!***

8. The PM is Accountable—Ultimately Answerable for the Outcome of the Project.

It is a matter of some concern to me that many young project managers I talk with still use the words *responsibility* and *accountability* interchangeably. Particularly in the context of projects, these words have different meanings and connotations In addition, many managers also have trouble giving a concise definition of the terms *power* and *authority.* My own definitions of these terms are given below. They conform to the standard dictionary definitions, but, hopefully, the language is clearer:

- **Power**: The ability to do or to act; the possession of control or command over others.
- **Authority**: Power granted to someone so they can make the final decision for others to follow.
- **Responsibility:** An obligation incurred by an individual's role in an organization to effectively perform the duties of his/her job, or do a particular assignment.
- **Accountability**: The state of being totally (ultimately) answerable for the outcome of a task, event or decision.

In any project, it is my view that the project manager is *accountable* – i.e. he or she is ultimately answerable for the outcome of a project or, any task within it. In my experience, responsibility may be delegated to another; however, accountability cannot (or at least should not be) delegated to another- once you are made to be solely (ultimately) answerable, you cannot pawn that off on anyone else. A team member may be responsible for performing a particular task, and if there's a problem it is their *responsibility (*i.e. their obligation) to get it fixed. But it is the PM who must answer to

the boss or the customer for the final outcome or end result. ["the buck stops here" (with the PM)].

A reasonable example might be the following: You are a ship captain and its 3AM - you are asleep in your stateroom. The ship is at sea and is steaming on its course and the Officer of the Deck (OOD) is in charge on the bridge. For the length of his watch, the OOD has been delegated the authority and responsibility for maintaining the ship's course and speed and safe navigation, with due regard for the safely performing the mission and for the safety of the ship and its crew. Suddenly, the ship runs aground on an uncharted coral reef! Who's responsible? Who's accountable? The OOD is responsible, but it is the captain who must ultimately answer to his superiors for the grounding, even though he was asleep at the time. The captain's charter gave him the sole (and ultimate) power and authority over everyone and everything on the ship - but also made him solely and ultimately answerable for the results. Although both men may receive punishment, it is the captain will most likely suffer most – he may be relieved of his command and never again be permitted to command – a harsh fate.

So too with projects- the buck stops with the PM! He or she may delegate areas of authority and responsibility to team members – but it is the PM who must ultimately answer for the project's results and final outcome. My own rule-of-thumb says that ***you cannot point the finger at anyone else – you must be the one to take the heat.***

9. You Can't Manage What You Can't Measure!

We naturally assume that any project that is constrained by cost, schedule, technical requirements and other factors requires that these parameters be continuously measured quantitatively to gauge real progress and report status. ***Unfortunately, such is not always the case!***

In the real world, qualitative terms often substitute for real numbers in project status reports. This is particularly true of new creative developments, whether software or hardware, that may appear to have no precedents to fall back on for analogous estimating or status reporting.   Whether it is the cost and time required for development phase, the severity of the risks involved, or the quality, (i.e. the match between the end product and the actual customer specification) —the project manager too often falls back on vague, "feel-good" terms ("satisfactory", "on track", " meeting the specification", etc.) to describe progress.

 This is because the PM does not have, for any number of (usually insufficient) reasons, an appropriate metric by which to make a meaningful measurement of progress. For example, despite the abundance of available tools, software coding is often a seemingly open-ended process, and the finish line creeps farther and farther to the right. Similarly, many projects give only lip-service to real and potential risks, and risk responses are an afterthought, developed too late to be effective. Also, in many projects a formal, measured process for ensuring that the product or service delivered to the customer at

the end matches exactly what his requirements were in the beginning (e.g. systems engineering and/or configuration management) —*does not exist!* Managing projects with those shortcomings becomes a hit-or-miss endeavor - and the project manager may have already lost the battle.

The resulting lack of an appropriate metric reduces the status report to generalities, or to a 'red-yellow-green' dashboard system that looks pretty, but which cannot always be objectively verified. If I were sitting on the customer's side (as I have been on many occasions) and heard or saw these, my natural response would be: ***"Prove it!"*** or ***"Show me your numbers!*** More often than not, however, the customer is no smarter than the contractor in being able to develop a meaningful, quantitative or objective measure of progress – and this is when the customer substitutes a Time and Materials (T & M) contract for one that could have been, with a little effort, a less costly Firm Fixed Price acquisition.

Again, my obvious advice is to measure as much as you possibly can in the project quantitatively and objectively, and on a regular basis. You and your team should research all the proven metrics that already exist, or spend the necessary time during the planning phase to create your own objective measure. Finally, you need to convince both your boss and the customer that the measures you've chosen will objectively measure progress through the life of the project. Only then will you be able to say that you are managing the project well.

At the risk of digressing, I will mention that the most glaring real-world example of the lack of realistic and accurate metrics can be seen in the recent near-catastrophic collapse of the home mortgage market. This was due to the failure to measure the real risk, or the underlying real value, of collateralized debt obligations (CDOs) – i.e. millions of mostly sub-prime mortgages bundled together in lots of several hundred or more and then sold as securities. No one could recognize (or chose not to recognize) the truly high-risk nature of these investments (*because of the debtors' inherent inability to pay them off*) and no one could (and still can't) determine the true market value of any one of these securities. The failure to attach any meaningful metric to these instruments meant that no one could understand their true worth (or, in this case, worthlessness) and they became so-called "toxic" assets - that were totally un-manageable. When the debt burden from these "securities" became too great (in the $ trillions) – our banking and financial sectors nearly completely collapsed. [Tragically, greed also played a major role, in that a few companies made $billions by insuring themselves against default of CDOs (*that they themselves may have issued!*) by buying Credit Default Swaps (CDS) for pennies on the dollar, but which paid off the full face value in case of default]. ***For want of a metric… the kingdom was (almost) lost!***

10. Take Care of Your People

This rule-of-thumb actually may belong much higher up on my list than I have placed it. As a project manager, particularly in an organization with a matrix structure, one is

often leading a team of *borrowed* resources. This means that when the project is completed the team disbands and returns to their functional home (e.g. Software, Systems, Finance) to await their next project assignment. In my experience, the Functional Manager has the responsibility to look after the professional career training needs of those under his/her charge, and to ensure that they have the skills needed to succeed in the company. Also, it is the Functional Manager that manages the overhead dollars that are needed to keep people on board between assignments. Sadly, oftentimes the overhead money runs out before a new project assignment can be found – and the company may have to lay off that person.

So, how does all this concern the project manager? First, to lay the proper groundwork, many PMs consider that they have personal contract between themselves and each team member. While this "contract" may be informal and verbal, each team member clearly understands what their duties and responsibilities are to faithfully perform the tasks assigned to them, to keep the PM fully informed of progress and problems, and how important they are to the team and to project success. Given that as a foundation, I believe the PM is accountable to take care of the people on the team by always *"doing right"* by them. This can be done by following a few simple rules-of-thumb, for example: 1. always try to match the person and their skills with the right job on the project team; 2. get to know them as people! 3. as their leader, motivate the team and foster the team spirit; 4. keep everyone fully informed and have an open-door policy between the PM and any team member; 5. manage conflicts within the team judiciously, amicably and quickly; 5. while they are on the team, look to each team member's best interest and welfare; 6. foster a mentoring culture within the team, so that less experienced people learn, and are coached, by the more experienced people; and 7. always "stand up" for the team and each member when it is the right thing to do.

11. BONUS RULE: Show Me Your Passion!

I've interviewed countless people for the position of Project Manager, Program Manager, Project Leader, Technical Director, Team Member etc., and, over time, I've learned that the one trait I look for in their makeup is ***passion.*** I want to see their skills and experience, of course, but with that as a given, how does one separate two or three supposedly equally talented candidates and choose just one. My discriminator is: ***is (s)he passionate about something?*** – and it doesn't have to be about the subject of the position or even about project management in general.

It may sound like a cliché, but if you bring up something that they are passionate about – you can spot it in how their attitude changes when they speak .Their facial expressions and body language change, their eyes sparkle and the tone of their voice shifts -- *you have ignited their passion!* In my experience, give me a team of people who each have that quality and I will have a successful team and a successful project – every time.

In the next section, I will address, more specifically, some common-sense project practices that a PM should pay attention to.

IV. Some Additional Food for Thought

1. PMI, PMBOK and You

I am a member of the Project Management Institute® (PMI) and have been for years, and I recognize them as the premier organization for Project Management in the US and the standards-setting body. I follow their latest standard: Guide to the Project Management Body of Knowledge, 4th Edition ® (2008) (the PMBOK Guide®) as closely as I can give the particular needs and requirements of the project at hand. I would urge anyone who is, or aspires to be, a project manager, to get involved with PMI and to thoroughly acquaint themselves with the PMBOK Guide, whether or not they wish to become a Project Management Professional (PMP).

That said, the infinitely diverse nature of project work often requires following a different path from the PMBOK Guide. If so, that's seems OK to me, and should not cause a PM any undue heartburn--as long as the needs of the project are properly served. Remember –it is a *Guide,* and is not written on stone tablets, so if one needs to deviate – don't feel guilty about it.

2. The Requirements game

Remember that Requirements, Specifications and Statements of Work form the underlying structure around which the project is built. The customer would like to see that the end product or service that's delivered matches exactly what his requirements were in the beginning, and, more rigorously, that the contractor prove that fact with hard evidence. So it is incumbent on the contractor to ensure that the requirements are defined, as detailed as possible, and agreed-to by both parties as early as possible in the project- and then baselined. Even if the requirements are sketchy and the customer has stated that he will fill them in as the project progresses, it is vital to have him sign off at each stage, the baseline formally updated, and the customer promptly invoiced accordingly. Managing the customer's expectations in this regard is a key skill that the PM needs to have.   It may sound crass –but it's good business to say "Mr. Customer, we need to do this formally, so please sign off on the dotted line" and/or "Of course you can change the requirements, Mr. Customer, but we need to do this formally , and you need to pay me accordingly."

3. Scheduling Mis-steps.

- The Work Breakdown Structure (WBS) is *not* a schedule, so please don't put milestones, which are instant time-markers that require no resources, on it.

- If your project is defined in years, *do not* define tasks that are one or two days long –that's too much detail! [You may as well shoot me now if I have to manage two hundred tasks in a two –year project].
  (There are exceptions to this rule –but they should be rare).

4. The Importance of Risk Management

- Thoroughly investigate your project's risks and then begin developing   the Risk Management Plan and the Risk Register *before* you finalize any project schedule and budget.
- When looking at risks, look for the root cause, not the symptoms.
- Don't duplicate your risk list and remember "E Pluribus Unum" (Out of Many-One) and vice versa.

5. Estimating, or "Where Did You Get That Number?"

- Single point estimates are generally useless! - always try to give a range.
- Know the difference between Estimating, Bidding and Budgeting
- Atmospheric (pulled out of the air) or Anatomical estimates are not acceptable!
- Nobody on your team (including you) is 100% productive or efficient.
- Looking at Budget vs. Actuals alone will tell you almost nothing! That's why techniques like Earned Value were developed – learn what it is and how to use it.

6. Projects and Companies

- Why do companies send out the Marketing person (all alone without a representative from the Technical side to add reality to the pitch) to sell the customer a bill of goods that cannot possibly be delivered with the resources the company has available?? If Marketing is successful, then a Project Manager is assigned—that poor PM is now the" stuckee"!
- Why is it that companies rarely send the Project Manager to sit in with the Negotiating team in contract negotiations??
- How many people on your team (other than perhaps the Project Manager) have ever read (or even had access to) the contract??
- How can following project management best practices help a PM who doesn't have control of the project budget $ and/or the people resources??
- Finally, I would vote for the "strong matrix" organizational structure as the ideal structure in which to manage projects.

7. Lessons Learned
- We learn more from our mistakes than our successes, so keeping track of Lessons Learned is vital in any project.

V. Conclusion

In this paper, I have addressed my favorite rules-of-thumb for project managers, and some additional thoughts that bear on managing projects with some common-sense in mind. The reader can see that they are really nothing more, or less, than good rules of behavior that successful people practice in their everyday lives –not just when they are running projects. These rules are nothing new, but they are meant to convey, in a project context, what the author/ lecturer Stephen Covey and many others have preached for years: honesty, fairness, integrity, and dignity in managing one's own life and in dealing with people. It is for the Project Managers to keep these rules in the forefront of their minds as they ask themselves the questions: *"Is this working?" "Am I doing what's right?" "Does this make sense?"- Or - "Do I have what it takes to do this job?"*

VI. Sources for Further Reading

 [**Note:** *Listed below are only the most commonly cited texts, websites and sources; please note the list below is not comprehensive.*]

Textbooks and Reference Books:

Billows, R., 2002. Project Manager's Knowledge Base, 4th Edition, 4PM Publishers,
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    "   , 2003. Risk Management. RMC Publ., 320pp.
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        GOAL/QPC., 148pp.
Wysocki, R.K., et. al, 2003. Effective Project Management, 3rd Edition. John Wiley,
        500pp.

Project Management Glossaries:

Ward, J.L., 2000. Project Management Terms: A Working Glossary, Second
        Edition. ESI International, 250pp.

 Project Management Institute (PMI), 2008. A Guide to the Project Management
        Body of Knowledge (PMBOK), 4th Edition, PMI 390pp. (Glossary)

Project Management Websites:

Academy of Management www.aomonline.org
    Professional development in all aspects of management.
American Management Association (AMA) www.amanet.org
    Good site for PM information, news and seminars
American National Standards Institute (ANSI) www.ansi.org
    The national standards organization
Department of Defense www.dau.mil   www.acq.osd.mil
    Good sites for the DOD Earned Value and PM standards
Educational Services Inc. (ESI International) www.esi-intl.com
    Good site for PM/PMP training and publications
Electronic Industries Alliance (EIA)   www.eia.org
    A key national standards organization
Gantthead.com www.gantthead.com
    Online community for IT Project Managers
Project Management Institute (PMI) www.pmi.org
    The national organization for project managers

Dr. Joseph Spigai has over forty years experience managing project and programs in the government, defense, industrial and educational arenas. Since 2006, Dr. Spigai has been the Senior Project Management Consultant for WOOD Consulting Services, Inc. of Fulton, MD, where he consults on project and program standards and practices, and directs their project management training/mentoring. A PMP since 1995, Dr. Spigai is also a PMI-Certified OPM3 Professional (Assessor/Consultant), one of about 100 worldwide. Prior to his current position, Dr. Spigai was President of Spigai Associates, Inc., a project management and systems engineering consulting/ training company, which he founded in 1995. His company consulted with, and trained, many government agencies, defense and commercial companies to solve project problems. Prior to that time, he held positions as Adjunct Professor and Director of the Engineering Management Program at the UMUC Graduate School and as Program Manager and Technical Director in the Naval Systems Division of the (then) Martin Marietta Corporation, where he participated in numerous defense and research projects in various roles. Dr. Spigai's early career was spent in the U.S. Navy, as both a line officer and as a Naval Oceanographer specializing in antisubmarine warfare and underwater acoustics. During his naval career, he managed numerous scientific and technical projects; he retired as a Commander in 1983. He holds a Ph.D. in Oceanography from Oregon State University and has been a PMI member since 1995.