Supercharge Project Performance, Improve Project Capabilities, Processes and Culture using Metrics

Russ Cheesman and Martin Klubeck

Measuring "Project Performance" isn't a new idea. As a community, we've been attempting to effectively measure how well we do projects for years. The problem is that most Managers and Project Practitioners believe that buying "good" project metrics software and spend a few dollars (millions) we'll have what we need. Most end up abandoning the complicated software and settle for collecting enough data to keep their projects in the "green," but fail to demonstrate a return on investment and further do not improve their future project process capability.

Addressing the efficiency of our Project Machines is important, because in today's business environment more half of all budgets address the new, the future. Whether the program focus is IT, Marketing, Finance, Business Operations, Human Resources, or combinations of all of those or others, we use some project framework or methodology to guide us. Merely using or implementing such techniques, however, does not necessarily yield efficiency. Continuous Improvement is the concept that can keep an Organization's Project Machine efficient. In order to achieve continuous improvement, we need to examine the current state of the Project Machine, formulate desired future state, and create a plan for how to get there.

The bottom line is that we need to collect (the right) information and use it wisely to make positive project procedural changes – to improve the current performance as well as address the need for future improvements.

Trend Sculpting (™Partners In Computing, Inc.) is a new concept which successfully uses Measurement and Trending of project indicators to make immediate course correction to projects in jeopardy, as well as changing the project process (and perhaps even corporate culture) to overcome project delays, dysfunctions and other undesirable outcomes in the future. For example, let's say we are dealing with projects that require computer hardware. We would start by identifying all the issues that arise to delay hardware provisioning. Some may be situational, others may be endemic to all projects requiring Computer Hardware Acquisition. Once we begin to capture the Issue Information, we will address the immediate concerns, i.e. projects already in red on a project by project basis. If we trend the related issues over time as well, we can see how they affect the overall process and inclemently put an improved process for Computer Hardware Acquisition in place. Going one step further, once we start trending issue indicators, we can see if any present overall risks to the project. If so, can we address these risks up front on every project? Ok, then how about we trend the risks. Eventually, we can look for possible risks to other projects....

Almost every environment measures Project Indicators of some sort. But, are those indicators the right ones to make an immediate granular impact at the project by project level as well as a positive impact at the macro level where the overall project process, portfolio of projects, staff capability and organizational performance are involved?

Generally, the usual approach to performance measurement is to capture vast amounts of project data and information , and then take a myopic or even microscopic view of the performance indications. An alternative is to build a kaleidoscopic view of a project's performance. Perhaps you recall playing with such an optical toy or tool at some point. From one coin sized pile of colored matter on a slide one can create many compelling views.

The Bold Kaleidoscopic View of Project Indicators

Consider the tapestry of real Kaleidoscopic Images below. Although beautiful, it would be hard to draw any inferences about the whole picture without considerable imagination. In contrast, taking a Kaleidoscopic Picture of four Leading Indicators or Metrics related to a single process will bring to light conclusions and pathways to Continuous Improvement of a Process otherwise unseen.

Now, let us consider the Project Process Example in greater depth. We can start with 4 basic metrics or Indications of Project Performance: Project Issues, Project Risks, Staffing Levels, and Budget Burn-down. To create a visual perspective, we will use charts to represent the trends of each
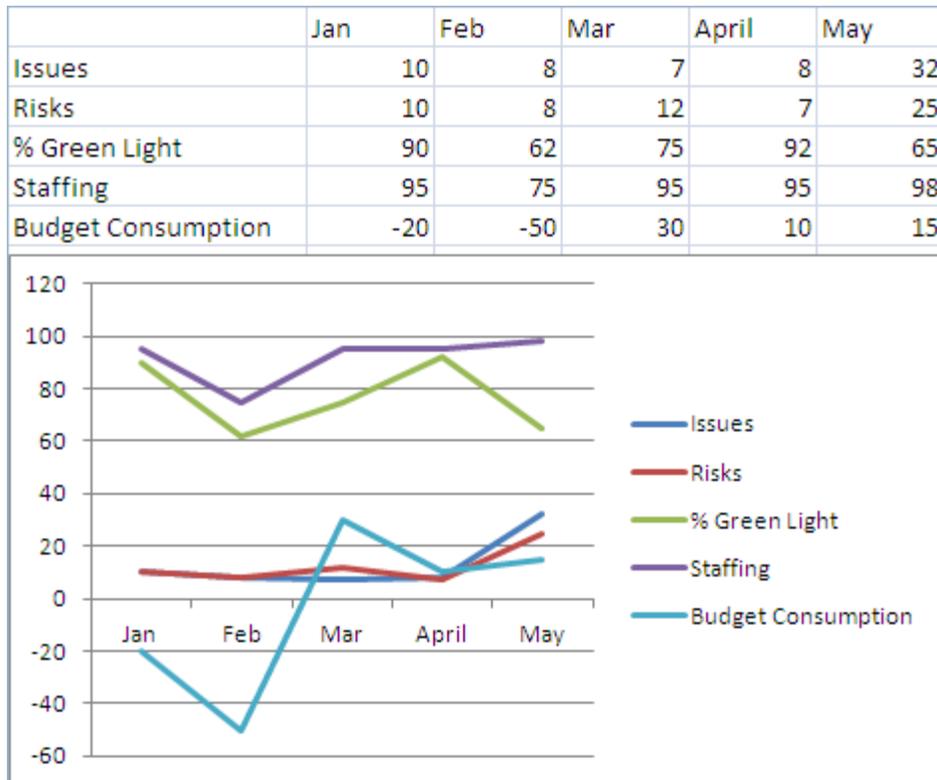.

Metric	Description	Relevance	Importance	Relation To Other Metrics
Risks	# of risks recognized over time Period	Moderately Significant	Great	Yes, On-time completion & others
Issues	# of critical issues created and resolved over time period	High	Great	Yes, On-time completion & others
Staffing Level	Staffing levels (head count) over time period	Moderate	Extreme	Almost all other Project Metrics
Budget Burn-down	Budget spend (in units of dollars) over time	Moderate	Moderate	Almost all other Project Metrics

Please note the real value of the table above is to set priorities and expectations when creating your kaleidoscopic view of the indicators. The ratings of Relevance and Importance of each of the Metrics are indeed, qualitative or even subjective at best.

Now we will examine 4 graphical charts representing trends of the 4 Metrics explained above and interject inferences on relationships between the Metrics. Further, we will conjecture on where and what improvement looks like. Conclusions may not always be clear-cut, but rather may lead

to another path which, when followed, will lead to the discovery of, for example, a new Key Analytical Question to be answered.

Using the Kaleidoscopic View with Project Indicators

	Jan	Feb	Mar	April	May
Issues	10	8	7	8	32
Risks	10	8	12	7	25
% Green Light	90	62	75	92	65
Staffing	95	75	95	95	98
Budget Consumption	-20	-50	30	10	15

Now what can be gleaned from the above matrix and subsequent kaleidoscopic charting of 4 vital .project metrics and one resulting measure of the overall percentage of projects in green light status?

Let's examine the green, % Green light trend line. Where is there negative deviation? Let's assume our pre-established target was to keep % Green light Projects above 75. We note that the trend line for % Green dipped below target in February to 62% and again in May to 65%.

 Looking at the purple and light blue trend lines for Staffing Level and Budget Consumption, we note that in February both declined. What happened in February? Two new competitors opened in our area at the beginning of the year, both with more attractive salary and benefits programs, resulting in a loss of 20 members of the project staff in just 2 weeks. The employee loss in turn reduced our Budget Consumption and placed many projects in Red and Yellow light status. To avoid such a decline in the future, we may want to consult HR about bringing our Employee Compensation Program up to market rates to maintain staff retention.
Then there is May where we observe that the % Green trend dipped again to 65%. We note that in May Issues and Risks increased. We know there is a cause and effect relationship between Project Risks and Issues. Many Issues are immediately flagged as Risks or become Risks in the future. Thus, most likely Issues are the root cause of the drop in Green Light Status Projects. Looking back at our Issue Management Log for February we note that there were 20 projects affected by procurement issues, and that all of the projects involved a single vendor. To prevent

this issue from recurring, we need to enlist additional vendors to improve our supply chain process.

Trend Sculpting in the Project Process

In the previous pages, we stacked 4 usually unrelated Project Metrics or Indicators on the Kaleidoscope slide and through charting, varied the lens to reveal either a meaningful course correction and/or long-term process improvements.

Again, in the previous example, we demonstrated two possibilities--one for immediate Project Performance and two for longer-term Project Process Improvement. Both HR Compensation Reform and Improvement of our Procurement Process become aids to our Project Culture but really exist outside of it. If the process resulted in suggestions for an improved process or capability directly from our Project Team, there could ultimately be a significant positive impact on our Project Culture. We all know change from within is tough stuff.

 Trend Sculpting (™Partners In Computing, Inc.) enables incremental changes from within and allows performance trends of Projects and Programs to improve over time. This concept is much different from an all-out change management approach and has the advantage of allowing staff and culture, even at lower levels of maturation to accept incremental process and procedural changes and buy-in as a result of ongoing evidence that the improvements are good for business.

Conclusion

This Article contains two novel concepts, The Kaleidoscopic Viewing of Metrics. A process where one can make a very interesting slide for the scope, adjust the viewer and lens and see pictures of process improvement previously unseen.to become visible. We used the Project Domain to illustrate the example, but the technique can apply to any business process whether in Marketing, Finance, Information Technology, Specific Operational Processes, etc. Potential of improvement become visiblefrom the Kaleidoscopic Viewing of common business Metrics and Indicators. Trend Sculpting can be employed to make such improvements to course correct current situations and ultimately to apply longer-term improvement to the underlying Processes.

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Authors

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Russ Cheesman is a senior information technology professional and consultant with experiences in all phases of the System Development Life Cycle. Much of his career had been devoted to enabling IT solutions for business problems and/or opportunities. He has served as an IT manager and practitioner in many industry sectors, including banking/financial, manufacturing, construction, retail, pharmaceutical, telecommunications, and health care. Mr. Cheesman, in recent years, has been practicing business performance measurement and management within several IT and health care organizations through the use of business strategy, balanced scorecards, metrics, key performance indicators, and business analytical systems. He also holds certifications in ITIL V3 Foundation and Agile Scrum and is a Scrum Master.

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