

Exceptional or Expected: Negative Performance Reporting on Agile Programs

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Abstract

- Reporting negative performance is counter intuitive. What would cause performance to be less than the period before? According to Guideline 30 of the ANSI 748 Standard for EVM, the earned value management (EVM) system must control retroactive adjustments. One of the seven (7) “Typical Attributes” in the *NDIA PMSC Intent Guide* reads: Earned value input source documents. Negative or inappropriate amounts have appropriate explanations.
- In the case of using a desired performance report from an agile tool* for agile software development, the burn down chart, the story point** completion can be stated as a percentage. The percentage can be used in the EVMS using the earned value technique (EVT) Percent Complete. However, there are cases where it is reasonable for the denominator can be increased, prompting the potential for the percent complete to decrease without the essential scope changing and the need for a Baseline Change Request (BCR).
- This session will cover what may be considered an “appropriate explanation” for reporting negative performance and techniques for capturing performance outside the agile tool.

Guideline 30 – Control Retroactive Changes

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- c) Control retroactive changes to records pertaining to work performed that would change previously reported amounts for actual costs, earned value, or budgets. Adjustments should be made only for correction of errors, routine accounting adjustments, effects of **customer or management directed changes**, or to **improve the baseline integrity and accuracy of performance measurement data**.

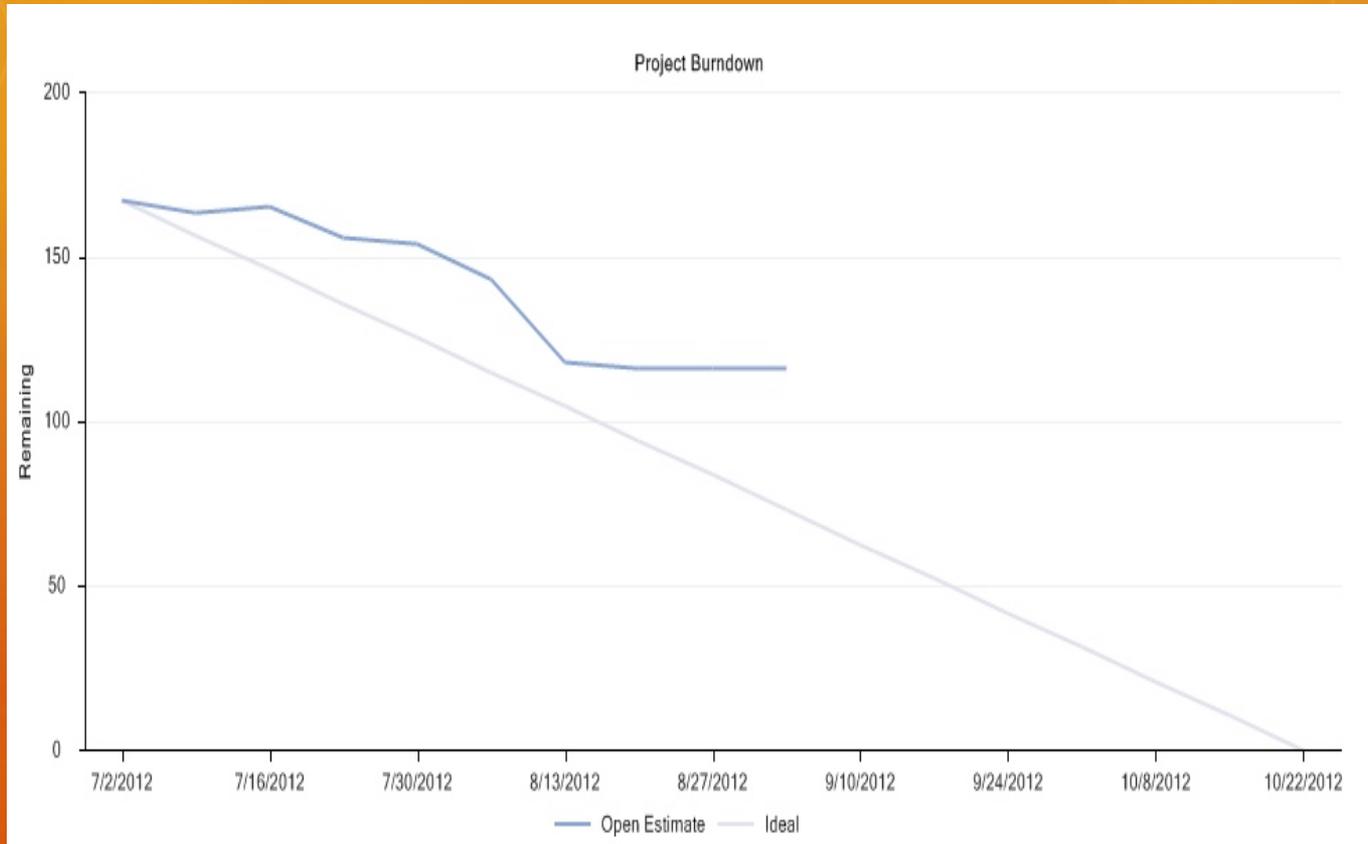
Quantifiable Backup Data (QBD)

The Question:

How do we simplify and make credible the quantifiable backup data (QBD) from agile to EV?

- Solution A: Use the burndown chart's % complete be used directly. If the number of storypoints increases due to scope churn, the denominator increases and all work is redistributed which could cause the % complete to decrease.
- Solution B: Maintain the previous period's % and not allow it to go negative by only re-distributing work remaining

Example: VersionOne Burndown Chart



For traditional Agile teams, the Project Burndown report provides the visual indication of the team's current progress against the "ideal line" given the time that has elapsed.

Scenarios

Sprint is 1 week Assumed Velocity 5 pt each sprint																	
		Current			Cummulative												
		BCWS	BCWP	ACWP	BCWS	BCWP	ACWP	BAC	EAC	VAR	SPI	CPI	SPIC	CPIc			
P1		40	40	35	40	40	35	160	160	0	1	1.1429	1	1.1429			
P2		40	120	40	80	160	75	160	200	-40	3	3	2	2.1333			
		160						160									
Release (w/P level) Feature		S1	S2	S3	S4												
		40	40	40	40												
Period 1								Period 2									
Story	Agile pts	From Burndown	EV Weight	EV EV%	Hours	Story	Agile pts	From Burndown	EV Weight	EV EV%	Hours						
	20	20	1	0.25	160		25		1	1	200						
US1	5		0.25	0.25	Sprint1	40	5	0.20	0.25	0.25	Sprint1	40					
US2	5		0.25		Sprint2	40	5		0.1875	0.188	Sprint2	40					
US3	5		0.25		Sprint3	40	5		0.1875	0.188	Sprint3	40					
US4	5		0.25		Sprint4	40	5		0.1875	0.188	Sprint4	40					
						US5	5		0.1875	0.188		40					
										0.75							
<p>Period 1 had 4 sprints. Agile assigns 20 points and 160 hours to complete this effort with 4 sprints worth 5 points each EV assigns the EV weight of 1 divided by 4 or .25 each for the budget in Period 1 Sprint 1 is completed and a 5th sprint is added that remains within scope. For BCWP and completion, EV takes the .25 of the 160 hours A CPR is sent to the stakeholder or customer for Period 1</p>						<p>Period 2 now has 5 sprints, but the first one was already completed Agile assigns another sprint and the 160 remains the same EV has to reweight work forward and since sprint 1 is complete, it is 1 minus .25 and the remaining sprint work is reweighted Sprint 2 - 5 now get completed, and the release is done For BCWP, EV takes US2 + US3 +US4 +US5 EV% against the 160 hours or the total of .75 that was reweighted forward gets A CPR is sent to the stakeholder or customer for Period 2</p>											

Presenter: Barbara Phillips, PMP, EVP



- Ms. Phillips is Director of Performance Management Solutions at Eagle One Solutions, Inc. (EOSi), a small business specializing in performance management, acquisition and contraction management, business process management, human capital management, IT project management, strategic planning, cost/schedule analysis, and program assessment support. Ms. Phillips develops the EVM Implementation Plans and WBS at start up and continues to support the programs through DCMA Surveillance.
- She directs and leads consulting assignments to develop and implement earned value management systems (EVMS) for contractors and large-scale Federal programs. She has trained hundreds of participants in the specifics of project management best practices with an emphasis on EVM. Ms. Phillips is a recognized leader in the EVM community.
- Prior to joining EOSi, Ms. Phillips was the EV Program Architect at L-3 NSS (formerly STRATIS) Center for Performance Management. In this role, she initiated and deployed a strategy for the development and implementation of sustainable earned value management systems across the division and other divisions.
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