



**PARCA
EVM**

EVM and AGILE in a DoD Environment

Mr. Gordon Kranz, PARCA Deputy Director for EVM

**Webinar
June 17, 2015**

Supported by Kevin McKenna



PARCA
EVM

Agenda

- ▶ OSD PARCA
- ▶ Premise
- ▶ Considerations for Implementing EVM and Agile
- ▶ Other Impacted Functional Areas
- ▶ Contact Us



**PARCA
EVM**

OSD PARCA



**PARCA
EVM**

PARCA Organization

Director, Performance Assessments and Root Cause Analyses (PARCA)

Mr. Gary R. Bliss

**Deputy Director for
Earned Value
Management**

Mr. Gordon M. Kranz

**Senior Advisor for
Root Cause Analyses**

Dr. D. Mark Husband

**Deputy Director for
Performance
Assessments**

Mr. David S. Cadman

**Deputy Director for
Acquisition Policy
Analysis Center**

Dr. Philip S. Anton

**OSD EVM Policy
Holder**

**Nunn McCurdy
Breach Analysis**

**Program
Assessments and
DAES Selection**

Analysis Team

PARCA was brought into existence via the reforms called for by the Weapon Systems Acquisition Reform Act (WSARA) of 2009

As the central office for major defense authorization performance assessment, root cause analysis, and earned value management (EVM), PARCA advises AT&L on program execution status; and issues policies, procedures, and guidance to the Military Departments and the Defense Agencies to improve program management practices



PARCA EVM Vision

Foster cross functional situational awareness, visibility, and accountability through integrated program management at all levels of the acquisition community



► *Guiding Principles*

- Increase the quality and utility of EVM data
- Increase the use of EVM across the acquisition chain
- Improve acquisition professionals' ability to utilize EVM
- Reduce Contractor's administrative burden of inefficient use of EVM
- Ensure constructive 2-way communication between DoD and Industry
- EVMS is perceived by all stakeholders to be cost effective



PARCA Earned Value Management Division Authorities

Policy and Guidance

Develop, publish, and maintain DOD policy and guidance on EVM

EVM Competency

Serve as DoD EVM Functional Lead to influence EVM competency requirements; Coordinate with Defense Acquisition University (DAU)

EVM Data Requirements

Review and approve EVM data requirements for MDAP programs in coordination with Services and Defense Agencies; Resolve interpretive differences in EVM policy, practice, and requirements

EVM Central Repository

Be responsible for the Earned Value Mgt Central Repository (CR) and maintain CR data alignment with the Acquisition Visibility framework; Report EVM data compliance, integrity, and quality to AT&L

Communications and Outreach

Maintain communications with Government and Industry on EVM policy



PARCA is responsible and accountable for EVM performance, oversight, and governance across the Department



Premise

- ▶ Earned Value Management (EVM) is an inherent part of the acquisition program management value chain and provides Program Managers with accurate and timely insight into cost, schedule and performance of products, systems, and services programs
- ▶ Concurrent use of EVM and Agile development provides a program team with the ability to adapt to, track, and report on emerging requirements while significantly reducing program risk



EVM and Agile

► Definitions

- **EVM**: disciplined integrated program management tool for planning, measuring, and forecasting progress based on objective criteria.
- **Agile**: a development framework or methodology for addressing complex problems in an emerging environment

► Similarities

- Promote effective, proactive program management
- Emphasize planning and execution
- Objective technical criteria used to track progress



PARCA
EVM

Considerations for Implementing EVM and Agile

- ▶ DoD EVMS Interpretation Guide (EVMSIG)

- ▶ Definition of Work Scope

- ▶ Planning and Scheduling
 - Event Based Planning
 - Agile Road Mapping
 - Intersection of Agile and EVMS
 - Industry Examples
 - EVMS IMS – E/MRP - Agile

- ▶ Measuring Progress

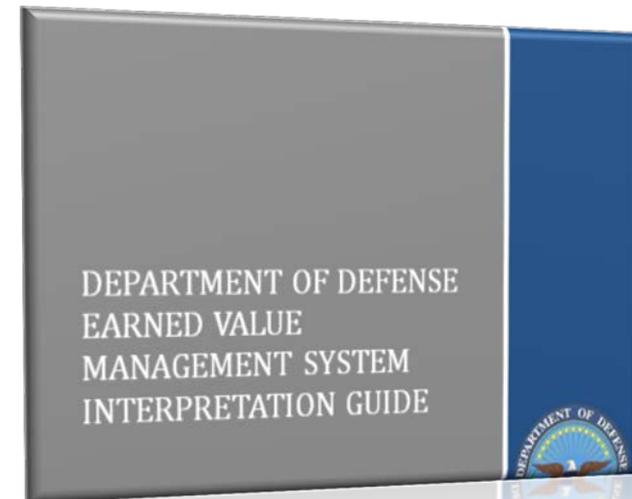
- ▶ Dollarization of Work Scope



PARCA
EVM

EVMS Compliance: DoD EVMS Interpretation Guide (EVMSIG)

- ▶ Provides the overarching DoD interpretation of the 32 Guidelines
- ▶ Facilitates consistency and a common understanding for determining EVMS compliance within DoD
- ▶ Offers flexibility for a variety of program execution and development methodologies
 - MIL-STD-881C WBS
 - Schedule level of detail
 - Emphasis on tracking progress to objective technical criteria





WBS

Traditional SW Development MIL-STD-881C WBS breakout

1.1.4.3	WBS Level 4				Navigation/Guidance			
1.1.4.3.1	WBS Level 5				Prime Mission Product(PMP)			
1.1.4.3.1.1	WBS Level 6				Prime Mission Subsystem			
1.1.4.3.1.1.1	CA				PMP Subsystem Hardware			
1.1.4.3.1.1.2	CA				PMP Subsystem Software			
1.1.4.3.1.1.3	CA				Subsystem Integration, Assembly, Test, and Checkout			
1.1.4.3.1.2	WBS Level 6				PMP Software Release 1...n			
1.1.4.3.1.2.1	CA				Software Product Engineering			
1.1.4.3.1.2.2	CA				Computer Software Configuration Item A			
1.1.4.3.1.2.2.1	WP				CSCI Requirements Analysis			
1.1.4.3.1.2.2.2	WP				CSCI Design			
1.1.4.3.1.2.2.3	WP				CSCI Code and Unit Test			
1.1.4.3.1.2.2.4	WP				CSCI Integration and Test			
1.1.4.3.1.2.3	CA				Computer Software Configuration Item B			
1.1.4.3.1.2.3	CA				Subsystem Integration, Assembly, Test, and Checkout			
1.1.4.3.1.3	WBS Level 6				PMP Integration, Assembly, Test and Checkout			
1.1.4.4	WBS Level 4				Mission Computer/Processing			

Possible Agile SW Development MIL-STD-881C WBS breakout

1.1.4.3	WBS Level 4				Navigation/Guidance			
1.1.4.3.1	WBS Level 5				Prime Mission Product(PMP)			
1.1.4.3.1.1	WBS Level 6				Prime Mission Subsystem			
1.1.4.3.1.1.1	CA				PMP Subsystem Hardware			
1.1.4.3.1.1.2	CA				PMP Subsystem Software			
1.1.4.3.1.1.3	CA				Subsystem Integration, Assembly, Test, and Check			
1.1.4.3.1.2	WBS Level 6				PMP Software Release 1...n			
1.1.4.3.1.2.1	CA				Software Product Engineering			
1.1.4.3.1.2.2	CA				Epic A			
1.1.4.3.1.2.2.1	WP				Feature 1.a			
1.1.4.3.1.2.2.2	WP				Feature 2.a			
1.1.4.3.1.2.2.3	WP				Feature 3.a			
1.1.4.3.1.2.2.4	WP				Feature 4.a			
1.1.4.3.1.2.3	CA				Epic B			
1.1.4.3.1.2.3	CA				Subsystem Integration, Assembly, Test, and Check			
1.1.4.3.1.3	WBS Level 6				PMP Integration, Assembly, Test and Checkout			
1.1.4.4	WBS Level 4				Mission Computer/Processing			



Event Based Planning (Roadmapping)

1.1.4.3	WBS Level 4	Navigation/Guidance
1.1.4.3.1	WBS Level 5	Prime Mission Product(PMP)
1.1.4	5	Prime Mission Subsystem
1.1.4		PMP Subsystem Hardware
1.1.4		PMP Subsystem Software
1.1.4		Subsystem Integration, Assembly, Test, and Checkout
1.1.4.3.1.2	WBS Level 6	PMP Software Release 1...n
1.1.4.3.1.2.1	CA	Software Product Engineering
1.1.4.3.1.2.2	CA	Comp
1.1.4.3.1.2.2.1	WP	CSC
1.1.4.3.1.2.2.2	WP	CSC
1.1.4.3.1.2.2.3	WP	CSC
1.1.4.3.1.2.2.4	WP	CSC
1.1.4.3.1.2.3	CA	Comp
1.1.4.3.1.2.3	CA	Subsy
1.1.4.3.1.3	WBS Level 6	PMP In
1.1.4.4	WBS Level 4	Mission Co

WBS

DoD IMP/IMS Preparation and Use Guide
V0.9 October 21, 2009

Activity #	Event Accomplishment Criteria	IMP	WBS REF
E	Event E - Initial Production Complete (IPC)		
E01	Version 1 Kit Production and Delivery Completed		-
E01a	Version 1 Subassemblies Completed		1.1.2.2, 1.2.2
E01b	Version 1 Assembly/Integration/Test Completed		1.1.2.2
E01c	Version 1 Packaging and Delivery Completed		1.1.2.2
E02	Version 1a Kit Production and Delivery Completed		-
E02a	Version 1a Subassemblies Completed		1.1.2.4, 1.2.2
E02b	Version 1a Assembly/Integration/Test Completed		1.1.2.4
E02c	Version 1a Packaging and Delivery Completed		1.1.2.4

- The IMP is expanded to incorporate all detailed tasks required to accomplish the individual IMP criteria
- The tasks are then applied against a time line to develop the IMS
- Tool to manage risk

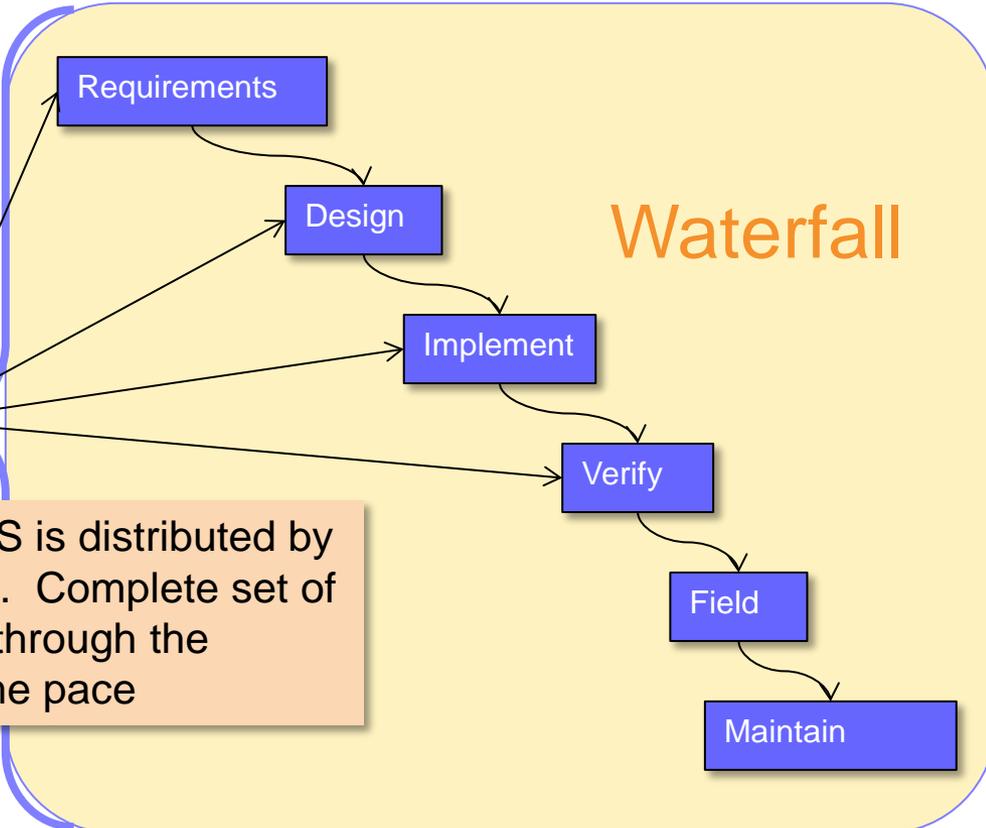
Activity#	Task Name	2004			
		Q1	Q2	Q3	Q4
E01	Version 1 Kit Production and Delivery complete	█	█	█	█
E01a	Version 1 Subassemblies Completed	█	█		
E01a01-1.1.2	Generate bill of material				
E01a02-1.1.2	Generate operation/routing sheets				
	Order components/subassemblies and raw material				
	Receive raw material				
	Fabricate in-house components/subassemblies				
	Receive purchased components/subassemblies				

Event based planning offers an organized process for planning and tracking progress on the work



WBS Work Flow into Event Based IMP/IMS

1.1.4.3	WBS Level 4		Navigation/Guidance			
1.1.4.3.1	WBS Level 5		Prime Mission Product(PMP)			
1.1.4.3.1.1	WBS Level 6		Prime Mission Subsystem			
1.1.4.3.1.1.1	CA		PMP Subsystem Hardware			
1.1.4.3.1.1.2	CA		PMP Subsystem Software			
1.1.4.3.1.1.3	CA		Subsystem Integration, Assembly, Test, and Checkout			
1.1.4.3.1.2	WBS Level 6		PMP Software Release 1...n			
1.1.4.3.1.2.1	CA		Software Product Engineering			
1.1.4.3.1.2.2	CA		Computer Software Configuration Item A			
1.1.4.3.1.2.2.1	WP		CSCI Requirements Analysis			
1.1.4.3.1.2.2.2	WP		CSCI Design			
1.1.4.3.1.2.2.3	WP		CSCI Code and I			
1.1.4.3.1.2.2.4	WP		CSCI Integration			
1.1.4.3.1.2.3	CA		Computer Softwa			
1.1.4.3.1.2.3	CA		Subsystem Integr			
1.1.4.3.1.3	WBS Level 6		PMP Integration, A			
1.1.4.4	WBS Level 4		Mission Computer/Pro			



Work from the WBS is distributed by pre-defined events. Complete set of functionality flows through the process at the same pace

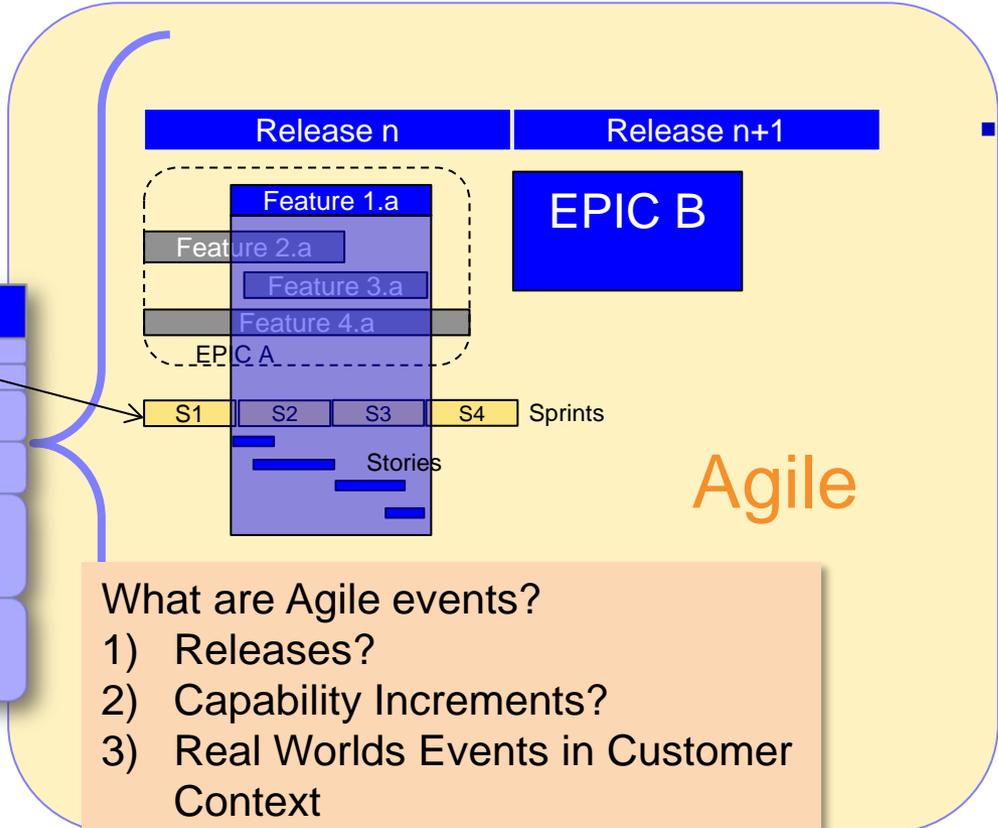
Waterfall



Can We Leverage Event Based Planning to Help with Agile Road Mapping?

1.1.4.3	WBS Level 4	Navigation/Guidance			
1.1.4.3.1	WBS Level 5	Prime Mission Product(PMP)			
1.1.4.3.1.1	WBS Level 6	Prime Mission Subsystem			
1.1.4.3.1.1.1	CA	PMP Subsystem Hardware			
1.1.4.3.1.1.2	CA	PMP Subsystem Software			
1.1.4.3.1.1.3	CA	Subsystem Integration, Assembly, Test, and Chec			
1.1.4.3.1.2	WBS Level 6	PMP Software Release 1...n			
1.1.4.3.1.2.1	CA	Software Product Engineering			
1.1.4.3.1.2.2	CA	Epic A			
1.1.4.3.1.2.2.1	WP	Feature 1.a			
1.1.4.3.1.2.2.2	WP	Feature 2.a			
1.1.4.3.1.2.2.3	WP	Feature 3.a			
1.1.4.3.1.2.2.4	WP	Feature 4.a			
1.1.4.3.1.2.3	CA	Epic B			
1.1.4.3.1.2.3	CA	Subsystem Inte			
1.1.4.3.1.3	WBS Level 6	PMP Integration			
1.1.4.4	WBS Level 4				

AGILE WBS



- What are Agile events?
- 1) Releases?
 - 2) Capability Increments?
 - 3) Real Worlds Events in Customer Context
 - a) Grand opening of a store
 - b) New finance offering application process
 - c) Etc.

Agile WBS may or may not be derived from system level WBS. It could manifest simply as a product backlog.



PARCA
EVM

Intersection of Agile and EVMS (Lockheed Martin Example)



Program
Milestones

Release 1

Release 2

Performance Measurement Baseline

Control
Account

Agile Development Control Account

- EVM Reporting
- BAC
 - Variance Analysis (CV, SV, VAC, CPI, SPI)

Work
Packages
and
Planning
Packages

Feature X1

76 Planned SPs

Feature X2

30 Planned SPs

Feature X3

82 Planned SPs

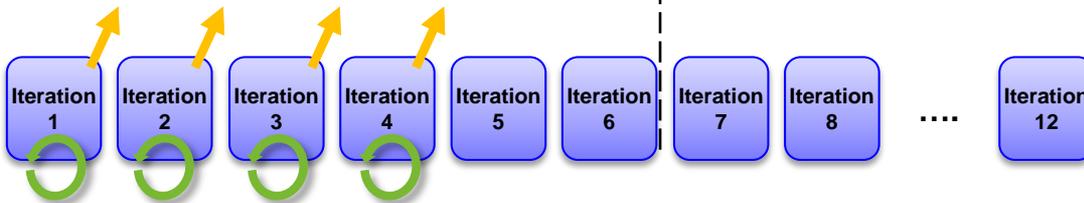
- EVM Claiming
- BCWS
 - BCWP (Feature APC)
 - ACWP

Release 2 Planning Package

TIME NOW

Objective Measurement Criteria (Analysis for BCWP)

Iterations



Note: images used with permission from Lockheed Martin Corporation. All Rights Reserved. (Copyright © 2015) Does not imply DoD endorsement



Intersection of Agile and EVMS (Raytheon Example)

EV Baseline (subject to BCR)

- Work Package and milestone scope baselined at rolling wave; revised only with BCR
- **Work Package** scope equals the features planned for the release
- **Milestone** scope equals features planned for the milestone

EV Level	Task Name	Start	Finish
	Project Start	5/28/13	5/28/13
CA	[-] Mission CSCI Development	5/28/13	4/2/14
WP	[-] Mission CSCI Eng Release 1 SOT and MOT DCTI	5/28/13	11/8/13
milestone	SOT Initiation and Maintenance	5/28/13	7/19/13
milestone	SOT Closeout; MOT Initiation	7/22/13	9/13/13
milestone	MOT Maintenance and Closeout	9/16/13	11/8/13

Supporting Data for Milestones (not subject to BCR)

modified at the discretion of the team to achieve milestone scope

- **Stories** are used as inchstones for earned value reporting to reinforce value of **working software** over completion of engineering tasks
- Inchstones are not IMS tasks and therefore do not require budget, scope or schedule assigned to them
- Story point weightings are used to calculate the earned value contribution of each completed story

Inchstones	Weight
SOT Initiation and Maintenance	39
Schedule verify waveform	3
Correlate verify detection w/ search detection	3
Schedule TI pulse pair	8
schedule track maint waveform	8
validate detection	2
associate detection with track	3
update 6-state KF	2
update 9-state KF	8
update track rate	2

Note: images used with permission from Raytheon Company. All Rights Reserved. (Copyright © 2015) Does not imply DoD endorsement



EVMS IMS – E/MRP - Agile

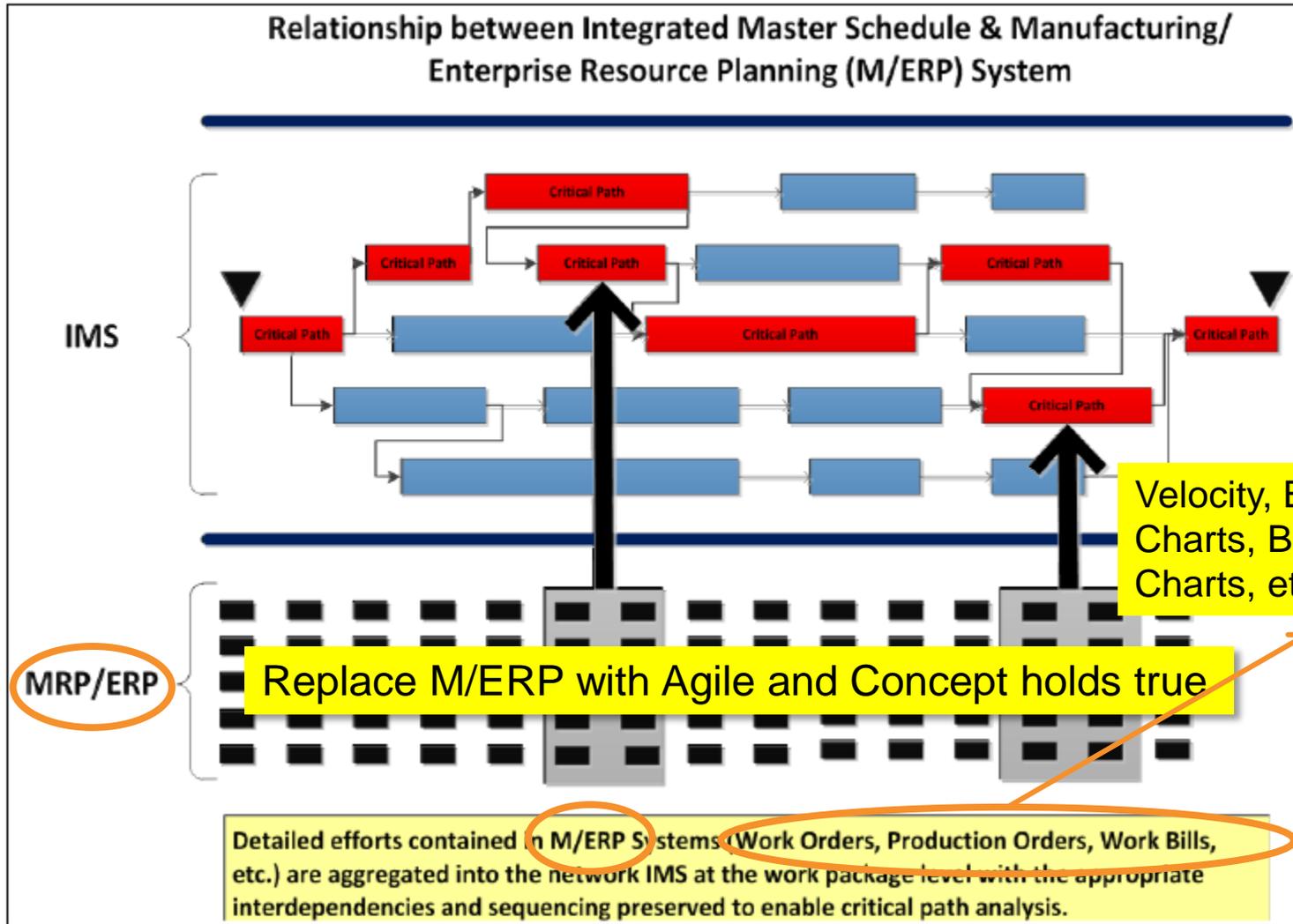
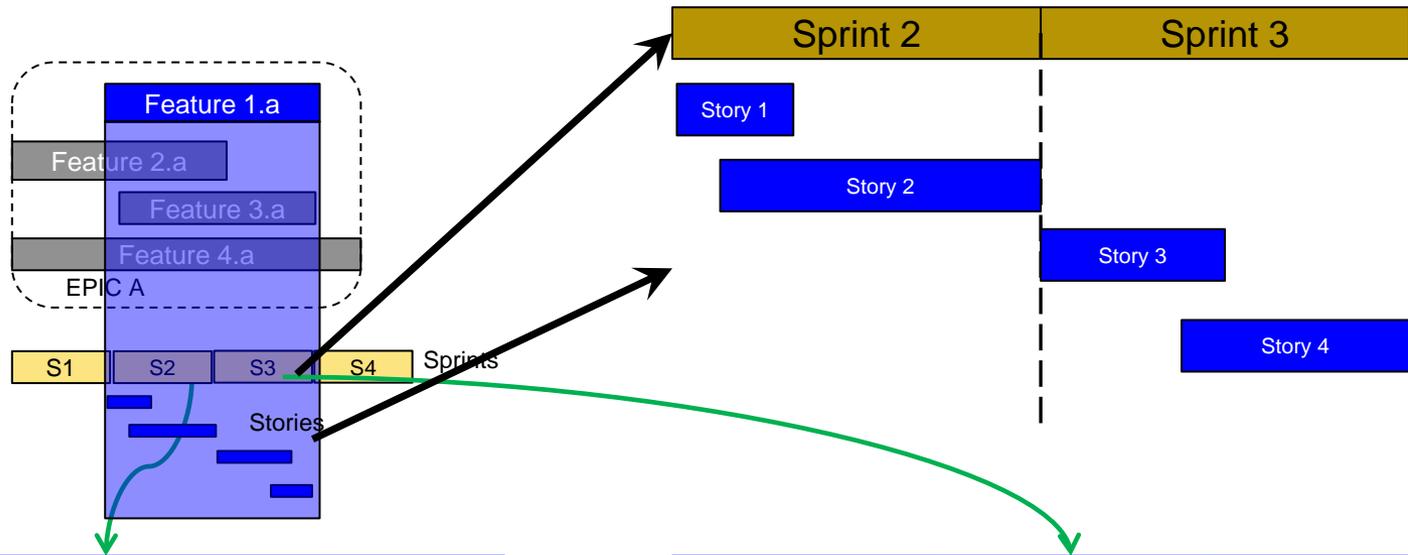


Image from the DoD EVMS Interpretation Guide, 2015.



Measuring Progress



Progress after Sprint 2

Progress after Sprint 3

	Weight	Earned	% Complete
Feature 1.a	29	16	55%
Story 1	3	3	
Story 2	13	13	
Story 3	5	0	
Story 4	8	0	

	Weight	Earned	% Complete
Feature 1.a	29	29	100%
Story 1	3	3	
Story 2	13	13	
Story 3	5	5	
Story 4	8	8	



Measuring Progress: Scenario 1

Baseline Plan

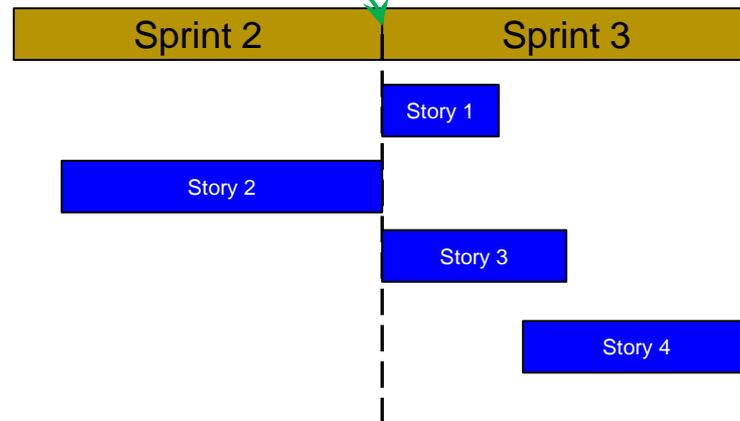
	Weight	Earned	% Complete
Feature 1.a	29	16	55%
Story 1	3	3	
Story 2	13	13	
Story 3	5	0	
Story 4	8	0	

Scenario 1

- If Story 1 was started in Sprint 2 but not completed, then no credit is earned and the Feature 1.a is only 45% complete after Sprint 2.
- Story 1 would roll into the next sprint or be sent back to the backlog.

Progress after Sprint 2

	Weight	Earned	% Complete
Feature 1.a	29	13	45%
Story 1	3	0	Behind Plan
Story 2	13	13	
Story 3	5	0	
Story 4	8	0	





Measuring Progress: Scenario 2

Baseline Plan

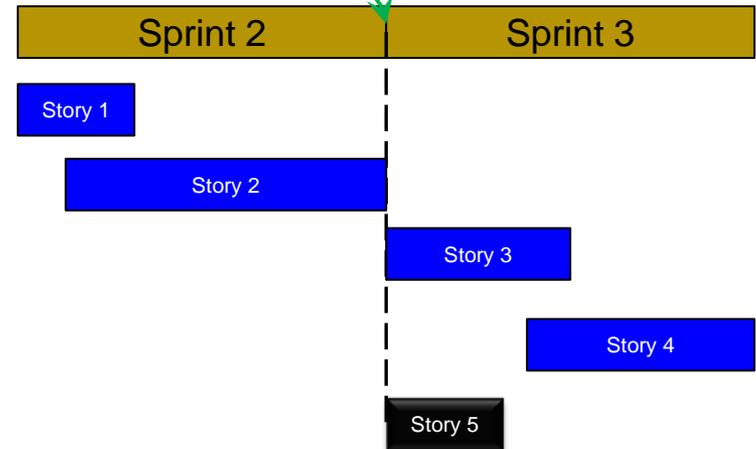
	Weight	Earned	% Complete
Feature 1.a	29	16	55%
Story 1	3	3	
Story 2	13	13	
Story 3	5	0	
Story 4	8	0	

Progress after Sprint 2

	Weight	Earned	% Complete
Feature 1.a	32	16	50%
Story 1	3	3	
Story 2	13	13	
Story 3	5	0	
Story 4	8	0	
Story 5	3	0	

Scenario 2

- During Sprint 2, the team recognizes a need for an additional story, Story 5. This changes the total weight of Feature 1.a to 32.
- At the end of Sprint 2, the same amount of credit was earned, but it is only 50% of the Feature, not 55%.



, 2015.



Measuring Progress: Scenario 3

Baseline Plan

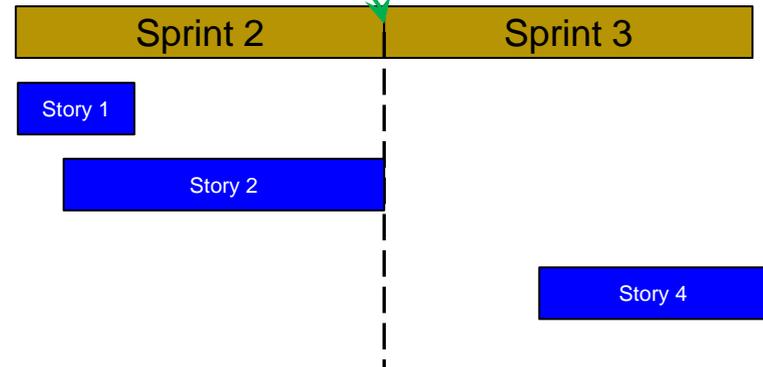
	Weight	Earned	% Complete
Feature 1.a	29	16	55%
Story 1	3	3	
Story 2	13	13	
Story 3	5	0	
Story 4	8	0	

Progress after Sprint 2

	Weight	Earned	% Complete
Feature 1.a	24	16	67%
Story 1	3	3	
Story 2	13	13	
Story 4	8	0	

Scenario 3

- During Sprint 2 the team recognizes it can meet the completion criteria for the feature without completing Story 3. This changes the total weight of Feature 1.a to 24.
- At the end of Sprint 2, the same amount of credit was earned, but it is 67% of the Feature, not 55%.





Earned Value Performance (\$)

- ▶ Establish a budget
 - Work is decomposed to Control Accounts.
 - Resources are assigned to accomplish work at Control Account.
 - Budgets are established at Control Account Level.
 - Budgets are distributed by time phasing the work into an IMP/IMS.

- ▶ EVM performance is taken and value is dollarized based on the budget
 - Incremental progress is taken via Work Package, Task, Material receipt, etc.
 - Full Control Account credit taken when all lower level work is successfully completed



Two Methods for Estimating BCWS

Assumptions:

1 Sprint Team - 8 Members - \$100/hour
 2 Week Sprints – 80 hours - \$64,000/sprint
 Historical Velocity: 15 SP / sprint

WBS#	Level				Story Pts	BCWS	BCWP	ACWP
1.1.4.3.1.2.2	CA			Epic A	176	\$ 627,200		
1.1.4.3.1.2.2.1	WP			Feature 1.a	29	\$ 123,733	\$ -	
		Sprint 2		Story 1.a.1	3			
		Sprint 3		Story 1.a.2	13			
				Story 1.a.3	5			
				Story 1.a.4	8			
1.1.4.3.1.2.2.2	WP			Feature 2.a	26	\$ 110,933		
1.1.4.3.1.2.2.3	WP			Feature 3.a	32	\$ 136,533		
1.1.4.3.1.2.2.4	WP			Feature 4.a	60	\$ 256,000		
1.1.4.3.1.2.3	CA			Epic B	175	\$ 746,667		

Dollars per story point calculated using velocity

$$$/SP = (\$/sprint) / (velocity)$$

$$$/SP = \$64,000 / 15 = \$4,267/SP$$

$$\text{Feature 1.a BCWS} = \$4,267 * 29 SP = \$123,733$$

WBS#	Level				Story Pts	BCWS	BCWP	ACWP
1.1.4.3.1.2.2	CA			Epic A	176	\$ 640,000		
1.1.4.3.1.2.2.1	WP			Feature 1.a	29	\$ 128,000		
		Sprint 2		Story 1.a.1	3			
		Sprint 3		Story 1.a.2	13			
				Story 1.a.3	5			
				Story 1.a.4	8			
1.1.4.3.1.2.2.2	WP			Feature 2.a	26	\$ 128,000		
1.1.4.3.1.2.2.3	WP			Feature 3.a	32	\$ 128,000		
1.1.4.3.1.2.2.4	WP			Feature 4.a	60	\$ 256,000		
1.1.4.3.1.2.3	CA			Epic B	175	\$ 700,000		

Dollars per story point calculated using planned story points

$$$/SP = (\$/sprint) * (\# of sprints) / (\text{planned points})$$

$$$/SP = \$128,000 / 29 = \$4,414/SP$$

$$\text{Feature 1.a BCWS} = \$128,000$$



Dollarization of Work Scope

1 Sprint Team
 8 Members - \$100/hour
 2 Week Sprints – 80 hours - \$64,000/sprint
 Quarterly Releases – 4 sprints
 \$256,000/release
 Historical Velocity: 15 SP / sprint

Release n			
Sprint 1	Sprint 2	Sprint 3	Sprint 4

- Good estimation requires historical data
- Velocity as relates to sprint costs?
- Costs associated with features?
- Dollarized story points?

Feature budgets based on historical velocity and sprint cost.

WBS#	Level			Story Pts	BCWS	BCWP	ACWP
1.1.4.3.1.2.2	CA		Epic A	147	\$ 627,200		
1.1.4.3.1.2.2.1	WP		Feature 1.a	29	\$ 123,733	\$	
1.1.4.3.1.2.2.2	WP		Feature 2.a	26	\$ 110,933		
1.1.4.3.1.2.2.3	WP		Feature 3.a	32	\$ 136,533		
1.1.4.3.1.2.2.4	WP		Feature 4.a	60	\$ 256,000		
1.1.4.3.1.2.3	CA		Epic B	175	\$ 746,667		
1.1.4.3.1.2.3	CA		Subsystem Integration, Assembly, Test, and Checkout				
1.1.4.3.1.3	WBS Level		PMP Integration, Assembly, Test and Checkout				
1.1.4.4	WBS L		Mission Computer/Processing				

$$\begin{aligned}
 &\$64\text{k/sprint} \\
 &\times \\
 &29 \text{ SP} / 15 \text{ SP} \\
 &= \\
 &\$123,733
 \end{aligned}$$



Dollarization of Work Scope

1 Sprint Team
 8 Members - \$100/hour
 2 Week Sprints – 80 hours - \$64,000/sprint
 Quarterly Releases – 4 sprints
 \$256,000/release
 Historical Velocity: 55

Release n			
Sprint 1	Sprint 2	Sprint 3	Sprint 4

WBS#	Level			Story Pts	BCWS	BCWP	ACWP
1.1.4.3.1.2.2	CA		Epic A	147	\$ 627,200		
1.1.4.3.1.2.2.1	WP		Feature 1.a	29	\$ 123,733	\$ 123,733	\$ 102,400
			Story 1.a.1	3	\$ 12,800	\$ 12,800	\$ 12,800
			Story 1.a.2	13	\$ 55,467	\$ 55,467	\$ 55,467
			Story 1.a.3	5	\$ 21,333	\$ 21,333	\$ -
			Story 1.a.4	8	\$ 34,133	\$ 34,133	\$ 34,133
1.1.4.3.1.2.2.2	WP		Feature 2.a	26	\$ 110,933		
1.1.4.3.1.2.2.3	WP		Feature 3.a	32	\$ 136,533		
1.1.4.3.1.2.2.4	WP		Feature 4.a	60	\$ 256,000		
1.1.4.3.1.2.3	CA		Epic B	175	\$ 746,667		

It was discovered that Story 1.a.3 was not needed in order to meet the completion criteria for Feature 1.a.

Since **budget is assigned at the Feature level** the BCWP remains the same, but the ACWP shows a **positive cost variance** for the Feature.

The stories are not part of EV reports since they are below the WP level. They may be in an Agile management tool as the QBD for EV reports



Dollarization of Work Scope

1 Sprint Team
 8 Members - \$100/hour
 2 Week Sprints – 80 hours - \$64,000/sprint
 Quarterly Releases – 4 sprints
 \$256,000/release
 Historical Velocity: 55

Release n			
Sprint 1	Sprint 2	Sprint 3	Sprint 4

- Good estimation requires historical data
- Velocity as relates to sprint costs?
- Costs associated with features?
- Dollarized story points?

WBS#	Level				Story Pts	BCWS	BCWP	ACWP
1.1.4.3.1.2.2	CA				147	\$ 627,200		
1.1.4.3.1.2.2.1	WP			Feature 1.a	29	\$ 123,733	\$ 123,733	\$ 136,533
				Story 1.a.1	3	\$ 12,800	\$ 12,800	\$ 12,800
				Story 1.a.2	13	\$ 55,467	\$ 55,467	\$ 55,467
				Story 1.a.3	5	\$ 21,333	\$ 21,333	\$ 21,333
				Story 1.a.4	8	\$ 34,133	\$ 34,133	\$ 34,133
				Story 1.a.5	3	\$ -	\$ -	\$ 12,800
1.1.4.3.1.2.2.2	WP			Feature 2.a	26	\$ 110,933		
1.1.4.3.1.2.2.3	WP			Feature 3.a	32	\$ 136,533		
1.1.4.3.1.2.2.4	WP			Feature 4.a	60	\$ 256,000		
1.1.4.3.1.2.3	CA			Epic B	175	\$ 746,667		

A 5th (originally unplanned) story was needed in order to meet the completion criteria for the feature.

No budget is assigned at the story level (yellow highlight) so BCWP remains the same, but the ACWP shows a **negative cost variance** from the baseline.

The stories are not part of EV reports since they are below the WP level. They may be in an Agile management tool as the QBD for EV reports



Other Impacted Functional Areas

▶ Contracting

- When is it appropriate for Agile development practices to be designated as a contractual requirement?
- How do we ensure that contracting personnel understand the flexibility for EVM requirements to be tailored?

▶ Systems Engineering

- How can Systems Engineering Lifecycle (SELC) activities be tailored to suit Agile development environments?

▶ IT



**PARCA
EVM**

Contact Us

PARCA EVM Website:

The screenshot shows the PARCA EVM website homepage. At the top left is the Department of Defense logo. The main header reads "Performance Assessments and Root Cause Analyses - Earned Value Management". Below this is a navigation bar with links for Home, Resources, FAQs, Issue Resolution, AEP, and Contact us. The main content area is divided into three columns. The left column, titled "The Latest", contains two news items: one dated March 9, 2015 about the "Department of Defense Earned Value Management System Interpretation Guide" and another dated March 9, 2015 about the "PARCA EVM Acquisition Exchange Program". The middle column, titled "Welcome", contains a general introduction to PARCA, a "Vision" section, and a list of "Initiatives/Duties" including EVM Policy and Guidance Ownership, EVM Central Repository (EVM-CR) Management, Integrated Product Team (IPT) Stakeholders Coordination, EVM Data Requirements Review and Approval, and DoD EVM Interpretation and Issue Resolution. The right column, titled "Leadership Spotlight", features a photo of Gordon M. Kranz, Deputy Director of Earned Value Management, with a brief bio and a link to read the full biography.

Thoughts? Questions?

PARCA EVM Email:

osd.pentagon.osd-atl.mbx.evm-interpretation@mail.mil

OR

osd.pentagon.osd-atl.mbx.parca-evm@mail.mil

<http://www.acq.osd.mil/evm/index.shtml>