

A photograph of the Lincoln Memorial in Washington, D.C., taken at night. The memorial is illuminated with warm, golden lights, and its reflection is clearly visible in the water of the reflecting pool in the foreground. The sky is a deep twilight blue, and the surrounding trees are silhouetted against the light.

## 2016 Earned Value Management Practitioners (EVMP) Training and Symposium in Partnership with FPS

# Agile & EVM: A Lean Approach to Implementing EVM on Agile Projects

Applying EVM on Agile Development - Organizing and Planning

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**Date: July 27, 2016**

# Learning Objectives

## Applying EVM on Agile Development

- Learn how scope on an Agile program can be broken down
- Understand how to objectively measure performance
- Learn how to decide where to measure performance
- Learn how to structure the IMS so that data is not duplicated
- Learn how to maximize use of Agile data

# Applying EVM on Agile Development

- EIA 748 EVMS Standards regardless of development methodology
  - Organization
  - Planning, Scheduling and Budgeting
  - Accounting Considerations
  - Analysis and Management Reporting
  - Revision and Data Management

# Organizing

- Work Breakdown Structure / Scope Hierarchy
  - Epics > (Capabilities) > Themes/Features > Stories  
(consistent with MIL-STD-881C)

SCOPE	DESCRIPTION	SPRINTS	RELEASES
• Epic	The largest piece of scope that comprises related features forming a complete workflow.	Many	Many
• Feature	A collection of stories that are related in some way, typically through a common user or workflow.	Multiple	No more than 1
• Story	A self-contained piece of work and the smallest decomposition of scope. Stories may be added, changed or deleted as scope is defined.	No more than 1	No more than 1

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# Performance Measurement

- Goldilocks Theory of Measuring Performance
  - Objectivity comes when:  
Duration = 2 periods or less  
Scope = Well defined / stable
- Measurement Options
  - Sprints / Iterations / Releases = too vague (time bound)
  - Epics = too long
  - Stories = too volatile
  - Features = Just right

# Work Packages & Control Accounts

- Performance Measurement Level = Work Package = Feature
- What about Control Accounts?
  - Epic
  - Capability
  - Component / Module
  - Not Releases

# Planning, Scheduling and Budgeting

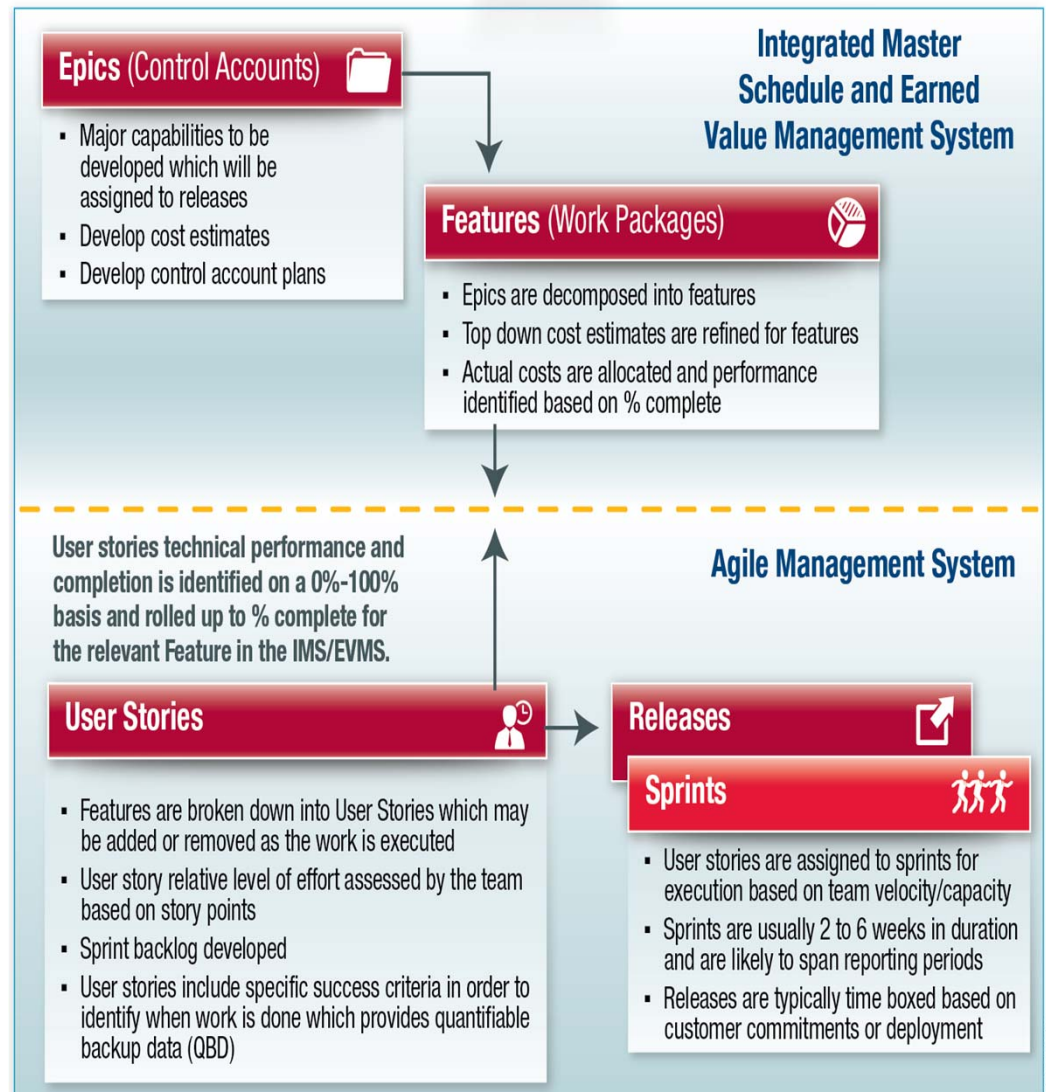
- Inputs: SOW/PWS, Contract T&Cs, Contract Values
- Process:
  - Initial Framework
    - Break down core capabilities into Epics/Components/Themes
    - Develop cost estimates based on effort x resources x rate
    - Compare to available funding and adjust if necessary
  - Release Planning
    - Develop Release Backlog and breakdown Epics into Features
    - Assign feature level resources and budget





# System Overview

- IMS ends at Features
- Agile tool stores the quantifiable back up data
- EVT for WP = % Complete based on Story 0:100



# Project Execution and Performance Analysis

- Agile tool used to manage development
- IMS/EVM tools used to manage project
- Agile updates
  - Stories are added, deleted, and completed over time
  - Story points (SP) completed/current SP total=% complete
    - NOTE: % complete base is current SP total, not original SP total
- Document process in EVMSD

# Percent Complete Calculation

- Example Feature = WP and is baselined in May with a total of 100 SP
- At June end total estimated SP = 125, total completed SP = 100
  - Using the original SP, WP shows 100% complete BUT there is still 25 SP remaining
  - Using the estimated SP, WP shows 80% complete
- Example Feature = WP and is baselined in May with total of 100 SP
- At June end total estimated SP = 75, total completed SP = 75
  - Using the original SP, WP shows 75% complete BUT there are 0 SP remaining
  - Using the estimated SP, WP shows as 100% complete

# Traceability/Technical Completion

- Align performance with technical accomplishment/completion
- Align performance with actual cost
- Agile tool traceable to IMS/EVM tool
  - Agile tool = Quantifiable Backup Data (QBD)
- Bottoms Up EAC still required periodically
  - Forecast = SP remaining in Agile tool > Work remaining in IMS > Cost remaining (ETC) in EVM tool

Questions???