

# Tailoring Earned Value Management

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## *General Guidelines*

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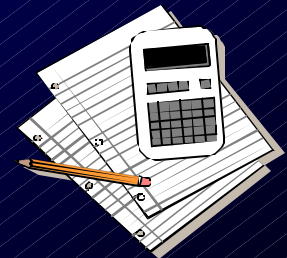
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# General Principles

- Consider all risk factors when tailoring EVMS
  - type of contract (determined by cost risk)
  - technology
  - schedule
  - past contractor performance
- May be bound by customer policies (e.g. DOD)
  - Most aspects are still able to be tailored
- Should be tailored to reflect internal management
  - should not be seen as customer report
- Written variance analysis is #1 cost driver
  - only ask for what you really need
- Apply common sense!
- Dialogue with industry



# A Spectrum of Implementation

<b>Where</b>	Commercial or Defense		Government Organic	Major Defense Contractors
	Small Companies	Larger Companies		Foreign Countries
<b>When</b>	as desired	corporate policy, "enterprise wide"	FFP contracts?	DoD Non-Major Contracts (>12 months) <\$6M*    >\$6M
				DoD Major Contracts >\$73M RDT&E >\$315M Prod
<b>Reports</b>	streamlined, no paper?	tailored to needs	C/SSR	CPR
	5 Core EV Principles	Tailored Applications	ANSI/EIA-748-1998 (32 criteria)	

\*with judgement

All \$ are BY00

# OMB Guidance

- Agency should define thresholds and applications
- Get the basic data (BCWS, BCWP, ACWP)
- Explain variances  $>10\%$  in annual reports
- Explain corrective actions
  - EAC
  - terminate?
- OMB approves baseline changes
  - at program level

# A Special Note about DOD

- EVMS started in DOD over 1/3 century ago
- DOD generally awards large, complex contracts
- Considered to be “high end” of EVMS implementation
  - Still can and should be tailored

*One size does not fit all*

# Risk Factors to Consider

	<b>Cost Risk to Agency</b>	<b>Technology Risk</b>	<b>Schedule Risk</b>	<b>Contractor Past Performance</b>
<b>HIGH RISK</b>	Cost Contracts	State of the art or beyond  IT and software development	Complex schedule, concurrency	Poor
	FPI Contracts	Under development	Moderate risk, some concurrency	
<b>LOW RISK</b>	FFP Contracts	Off the shelf	Low Risk schedule	Good

# How can EVMS be tailored?

- Application thresholds
- Guidelines
- Validation of system
- Baseline assessment
- Earning performance
- Reporting
- Analysis
- Surveillance



# Tailor EVMS to Inherent Risk



# Application Thresholds - DOD Model

HIGH RISK

- Full compliance with criteria, with CPR
  - \$73M development (BY00\$)
  - \$315M production (BY00\$)
  - \$315M O&M (BY00\$)
  - not on firm fixed price contracts
- CPR, no criteria
  - below \$ thresholds
  - if CPR level reporting is needed

LOW RISK

- C/SSR, no criteria
  - below CPR criteria
  - greater than 12 months and \$6M
  - below \$6M with judgement

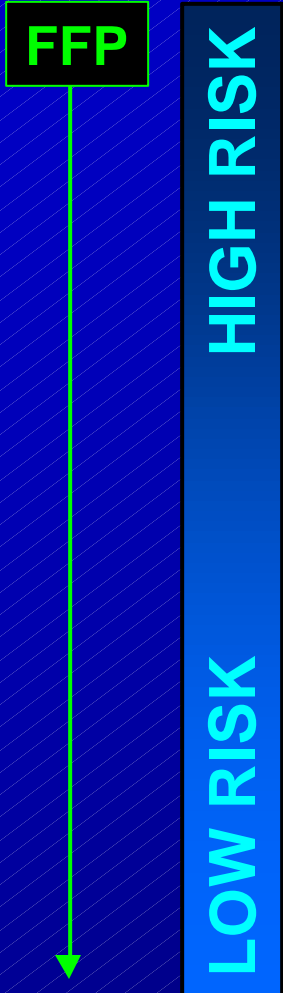
# Application Thresholds

- Agency policy should define thresholds
  - > 12 month effort
  - Significant investments (\$ threshold ?)
  - FFP, incentive, or cost contracts

Exclusions at all levels

- level of effort
- time and material
- <12 month total effort

- Agency recommendations
  - >12 months
  - Agency defined floor (e.g., >\$10M)



# Guidelines

## Current Status

- ANSI/EIA-748 is the industry standard
  - 32 guidelines (formerly known as criteria)
  - have stood the test of time
  - have been applied to significant projects in past
    - typically, government projects requiring full compliance
- Smaller projects
  - contractors could use validated system
  - if not validated, contractors needed to show how their system met general principles in C/SSR DFAR clause
- Commercial
  - wide range
  - some contractors have tailoring policy

# Application of Guidelines

- Full compliance with ANSI/EIA-748
- Recommend application of ANSI/EIA-748
- Contractor tailoring as desired
- 5 Basic Guidelines

HIGH RISK

LOW RISK

FFP



# 5 Basic Guidelines

- **Organize the project team and the scope of work**, using a work breakdown structure. Each task should have a single WBS number and organizational code.
- **Schedule the tasks in a logical manner** so that lower level schedule elements support other elements and the top level milestones.
- **Allocate the total budget resources** to time-phased control accounts.
- **Establish objective means for measuring work** accomplishment. Budget should be earned in the same way that it was planned.
- **Control the project** by analyzing cost and performance variances, assessing final costs, developing corrective actions, and controlling changes to the integrated baseline.

# Validation Options

HIGH RISK

LOW RISK

- Validation by customer
  - U.S. government, Australia, other countries
- Third party
- Self-certification
- Submission of summary description to customer
  - (optional) may use already validated system
- None

FFP



# Baseline Assessment

HIGH RISK

LOW RISK

- Formal review by customer
- Joint development of baseline
  - post award (phased: technical, schedule, budget)
  - pre award
- Integrated into program reviews
- Incremental
  - evolutionary acquisition, significant milestones, task orders, etc.
- Walk through, talk through
- Assess schedule and EV measurement only
- Self assessment

FFP





# Earning Performance

HIGH RISK

- Performance earned at control account level
  - summed up from detail level

LOW RISK

- Performance earned by logical means at higher level

FFP

# Reporting

HIGH RISK

LOW RISK

- Full performance reports (detailed cost level)
- Tailored reports (eliminate certain formats)
- Contractor defined significant variances
- Report at price or hours (FFP)
- Contractor shares internal reports
- On line, no paper
- No formal variance analysis
- Tabular or graphical status

FFP

always tailor  
data  
reporting  
level to risk

# Analysis

HIGH RISK

LOW RISK

- Formal analysis
  - by both contractor and customer
- Formal analysis by contractor
  - provided to customer
- Incorporated as part of program reviews
- Top level analysis by both or by contractor

FFP



# Surveillance

HIGH RISK

- Formal surveillance by in plant team
  - metrics, formal reports
- Periodic surveillance by visiting team (metrics)

LOW RISK

- Self reported metrics
- None

FFP

# Additional Thoughts on FFP Contracts

- Place emphasis on controlling
  - technical growth
  - schedule
- Ensure integration of work and schedule
- Use EVMS as basis for payments
  - performance metrics
  - significant milestones (contract deliverables)
- Use contractor tools and reporting

# The Bottom Line

- EVMS *can* and *should* be tailored
  - Should not be seen as a cost driver
  - Should always make common sense
  - Should always reflect how projects are managed on a daily basis