

Measurement Information Specification

Cost

Organization 9

Version 1.0

Information Need Description	
Information Need	<ul style="list-style-type: none"> • Is project spending meeting cost objectives? • Will all funding be used by the end of the fiscal year?
Information Category	Resources and Cost

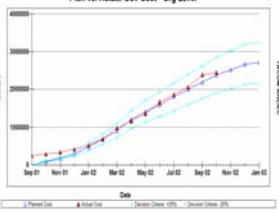
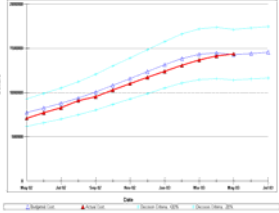
Measurable Concept	
Measurable Concept	Financial Performance

Entities and Attributes	
Relevant Entities	Cost
Attributes	Dollars

Base Measure Specification	
Base Measures	<ol style="list-style-type: none"> 1. Budgeted cost (government) 2. Actual cost (government) 3. Budgeted cost (contractor) 4. Actual cost (contractor) 5. Budgeted equipment cost 6. Actual equipment cost
Measurement Methods	<ol style="list-style-type: none"> 1. Based on engineering judgment and documented in project plan (should correlate to RSL list). 2. Total of all government costs including development, all services (e.g. CM, QA), and management. Burdened rate is used. 3. Based on engineering judgment and documented in task statement (purchase order). 4. Total of all contractor costs including development, all services (e.g. CM, QA), and management. 5. Based on engineering judgment and documented in project plan. 6. Recorded from invoices - recorded as ODC.
Type of Method	<ol style="list-style-type: none"> 1. Subjective 2. Objective 3. Subjective 4. Objective 5. Subjective 6. Objective
Scale	Positive real numbers
Type of Scale	Ratio
Unit of Measurement	Dollars

Derived Measure Specification	
Derived Measure	<ol style="list-style-type: none"> 1. Budget Variance (government) 2. Budget Variance (contractor)

Measurement Function	<ol style="list-style-type: none"> 1. $((\text{actual cost (govt)} - \text{planned cost (govt)}) / \text{planned cost (govt)})$ 2. $((\text{actual cost (contractor)} - \text{planned cost (contractor)}) / \text{planned cost (contractor)})$
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Indicator Specification	
Indicator Description and Sample	<ol style="list-style-type: none"> 1. Government Cost  2. Contractor Cost  <p>See end of file for full-size versions.</p>
Analysis Model	<p>The measure provides information about the amount of money expended on a project, compared to budgets.</p> <ol style="list-style-type: none"> 1. Trend Graph of cumulative planned cost versus cumulative actual cost for all government costs. 2. Trend Graph of cumulative planned cost versus cumulative actual cost for all contractor costs.
Decision Criteria	More than 20% variance between plan and actual - adverse trend over 3 months.
Indicator Interpretation	<ol style="list-style-type: none"> 1. The government effort data is shown in this chart. The projects that submitted government effort provided both planned and actual data. 2. The contractor effort data is shown in this chart. The four projects that submitted contractor effort provided both planned and actual data.

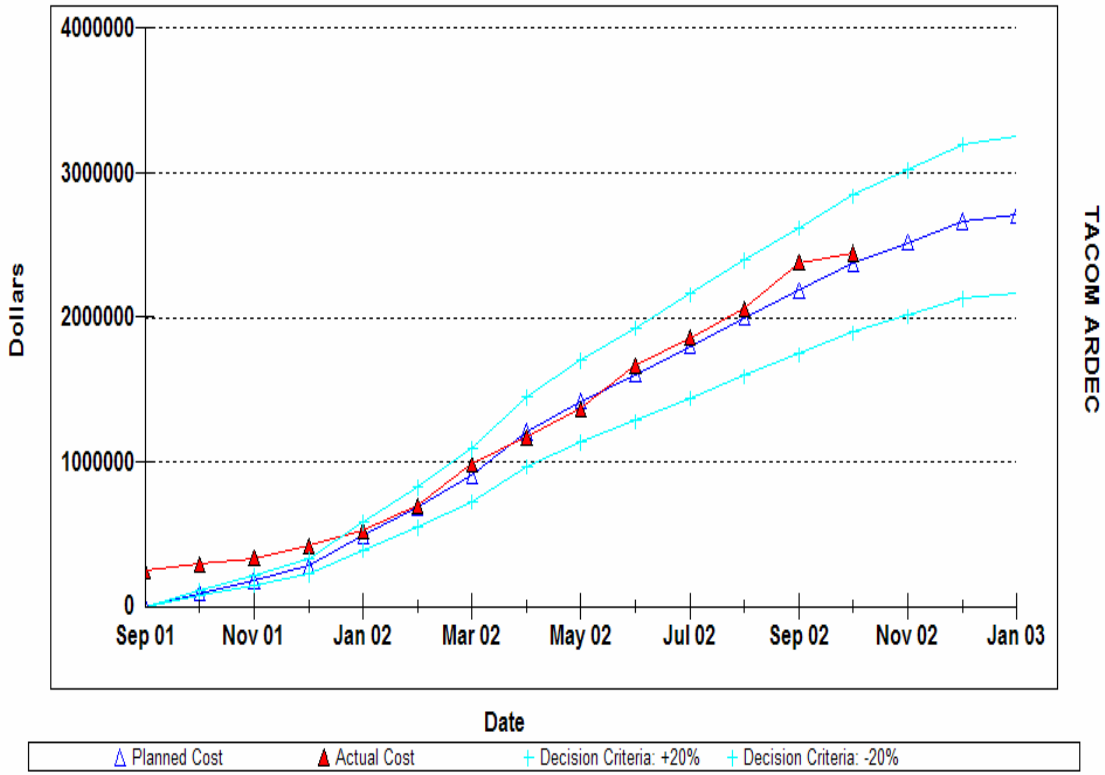
Data Collection Procedure (For Each Base Measure)	
Frequency of Data Collection	<ol style="list-style-type: none"> 1. Per update to tasking, government labor program 2. Monthly 3. Per update to purchase order 4. Monthly 5. Per update to tasking 6. Monthly
Responsible Individual	Project Leader
Phase or Activity in which Collected	All
Tools Used in Data Collection	<ol style="list-style-type: none"> 1. Approved project plan, government labor program (SAP) 2. Government labor system (SAP) 3. Signed purchase order 4. Contractor's cost accounting system reported in contractor progress report 5. Approved project plan 6. Labor program (SAP)
Verification and Validation	<ol style="list-style-type: none"> 1. Verify against budget in SAP 2. Project Measurement Analyst Representative may periodically audit against timecards. 3. Verify against purchase order. 4. Verify against contractor progress reports (project level only). 5. Verify against purchase order. 6. Verify against invoice.

Repository for Collected Data	<ul style="list-style-type: none"> • Measurement template (Org-Measure-Contractor Cost and Effort Template(V 5-17-02).xls and Org-Measurement-Gov-Cost-Effort Ver2 Jun03.xls)(project level) • PAL • PSM Insight (org. level)
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Data Analysis Procedure (For Each Indicator)	
Frequency of Data Reporting	Monthly
Responsible Individual	Project Measurement Analyst (project level) and Org. Measurement Analyst (org. level)
Phase or Activity in which Analyzed	All
Source of Data for Analysis	Measurement template and PSM Insight
Tools Used in Analysis	Measurement template and PSM Insight
Review, Report, or User	SMR project meetings (project level) BAMs (org. level) Senior Management (org. level)

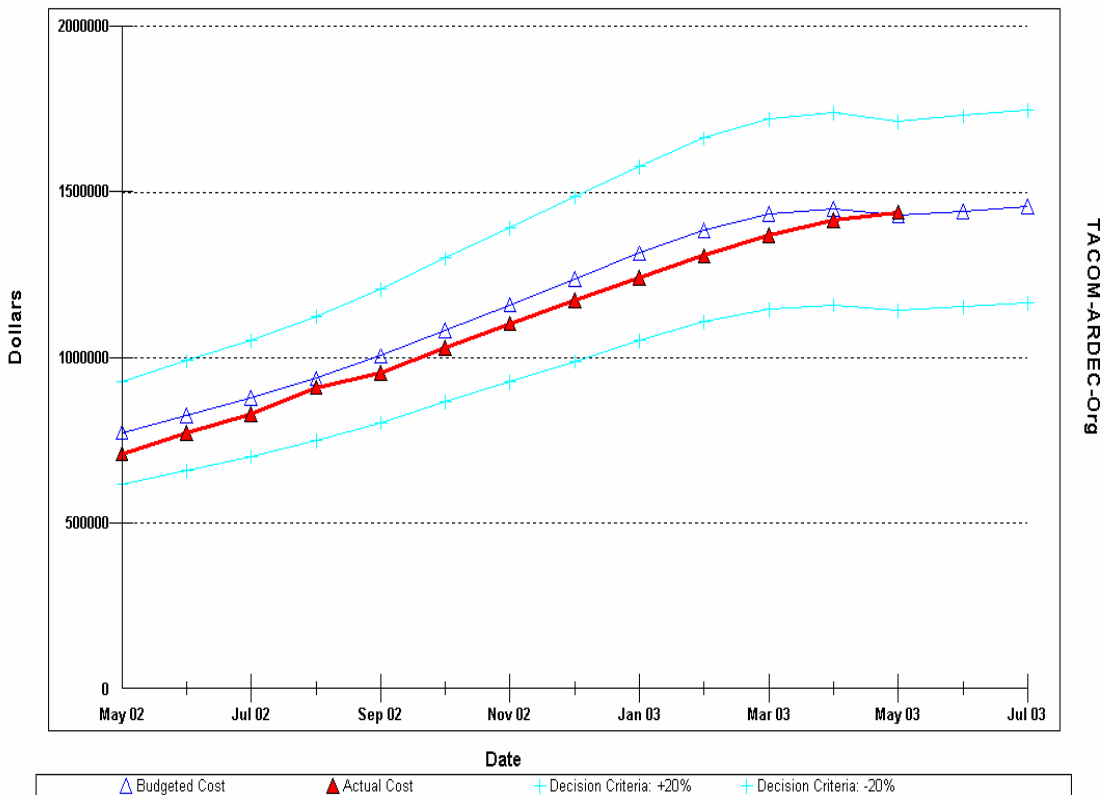
Additional Information	
Additional Analysis Guidance	This measure does not address the amount of work completed for the costs incurred.
Implementation Considerations	Since software development is a labor-intensive activity, this data should track closely to effort data.

Plan vs. Actual Gov Cost - Org Level



TACOM ARDEC

Plan vs. Actual Contractor Costs - Org Level



TACOM-ARDEC-ORG