



United States Department of the Interior

OFFICE OF THE SECRETARY
Washington, DC 20240

MAR 30 2012

OCIO DIRECTIVE 2012-006

To: Assistant Directors for Information Resources

From: Bernard J. Mazer
Chief Information Officer *Alycia Burns*
acting
for

Subject: Information Technology Investment Performance Measurement Baseline
Management Policy

Purpose

To ensure better performance management, transparency, and effective investment oversight of the U.S. Department of the Interior's (DOI) information technology (IT) investments, this directive establishes the policy for establishing, managing, and changing performance measurement baselines. This policy follows the guidance set forth in the Office of Management and Budget (OMB) M-10-27, Information Technology Investment Baseline Management Policy, which integrates the requirements in OMB Circular A-11, Part 7, and Federal Acquisition Regulation Subpart 34.202 with Federal IT Dashboard practices and guidance. This policy rescinds the Office of the Chief Information Officer (OCIO) Directives 2006-013, Enhanced Performance Reporting for Major Information Technology Investments and 2006-013A, Earned Value Management (EVM) for Major Information Technology Investments.

Scope

This policy applies to all of DOI's major IT investments and their associated IT components, including projects, throughout their entire lifecycles, regardless of size, scope, development methodology, complexity, funding level, or funding source, whether owned and operated by DOI or operated on behalf of DOI.

Performance Measurement Baseline

The performance measurement baseline shall cover a useful system component or capability, at a minimum. DOI encourages investment lifecycles of manageable duration so that performance measurement baselines remain relevant. Each IT investment performance measurement baseline shall include the following:

- The cost baseline, which defines the approved, projected, time-phased life-cycle costs for acquiring, operating, and disposing of the physical and/or logical IT system(s) or other IT assets represented by the scope baseline;

- The schedule baseline, which is the approved timeline for acquiring, operating, and disposing of the physical and/or logical IT system(s) or other IT assets;
- The scope baseline, which represents the approved goals, the approved work to accomplish the goals, and the approved content and configuration of the product(s) of the IT investment, as developed and described in the IT investment's or component IT project's technical documentation; and
- The performance baseline, which represents the goals and measures of an IT investment used to track the achievement of objectives.

This policy provides a consistent and repeatable process for managing, monitoring, and evaluating the performance of IT investments. This process encompasses the following:

- A standard approach for reporting, monitoring, and evaluating each IT investment's performance over its entire life cycle to enable DOI's IT investment business owners, IT management, and IT governance bodies to remain apprised as to whether and how IT investment initiatives satisfy defined requirements and attain identified results;
- An IT investment-level performance measurement baseline that comprises the cost, schedule, scope, and performance baselines, developed in accordance with DOI's Capital Planning and Investment Control (CPIC) guidance over each IT investment's entire lifecycle;
- Outcome- and output-based measurement indicators for tracking and monitoring IT investment progress and performance in achieving anticipated benefits and supporting DOI's mission needs and objectives over each IT investment's entire lifecycle;
- Operational analyses to determine the extent to which an IT investment that is wholly or partially in steady state (operations and maintenance) continues to support mission objectives and deliver anticipated benefits, and whether alternative solutions might provide benefits more efficiently or effectively; and
- This policy, as detailed in Attachment A, addresses (I) establishing an investment performance measurement baseline; (II) rebaselining an investment; (III) notifying the Office of Management and Budget (OMB) of new and changed performance measurement baselines; (IV) managing and monitoring performance measurement baselines via the use of performance management systems; and (V) complying with Federal IT Dashboard reporting requirements.

Please direct questions regarding this directive to Kelly Morrison, Director, Capital Planning and Investment Control at 202-208-5413 or Kelly_C_Morrison@ios.doi.gov.

Attachment A

cc: Capital Planning Working Team

Attachment A: Information Technology Investment Performance Measurement Baseline Management Policy

Overview

This attachment sets forth the requirements associated with the U.S. Department of the Interior (DOI) Office of the Chief Information Officer (OCIO) Directive 2012-006, Information Technology Investment Performance Measurement Baseline Management Policy, which establishes the policy for establishing, managing, and changing Information Technology (IT) performance measurement baselines. The requirements are detailed in the following sections:

- I. Establishing an Investment Performance Measurement Baseline**
- II. Rebaselining an Investment**
- III. Notifying the Office of Management and Budget (OMB) of New and Changed Performance Measurement Baselines**
- IV. Managing and Monitoring Performance Measurement Baselines via the use of Performance Management Systems**
- V. Complying with Federal IT Dashboard Reporting Requirements**

Scope

This policy applies to all of DOI's major IT investments and their associated IT components, including projects, throughout their entire lifecycles, regardless of size, scope, development methodology, complexity, funding level, or funding source, whether owned and operated by DOI or operated on behalf of DOI.

I. ESTABLISHING AN INVESTMENT PERFORMANCE MEASUREMENT BASELINE

Prior to the development of any IT system that would result in a new investment being introduced into DOI's IT investment portfolio, DOI's Chief Information Officer (CIO) or any governance body designated by DOI's CIO to review a new investment's performance measurement baseline must first approve a performance measurement baseline for the investment. The investment's risk-adjusted budget establishes the performance measurement baseline for reporting program performance both internally, to the OMB and/or other oversight authorities. Approved investments require a clearly understood process for ensuring that the investment's budget, expected outcomes, and cost/schedule performance measurements are integrated with risk management.

The OMB requires only project, development and/or maintenance, performance measurement baseline components to be reported to the IT Dashboard. In order to improve transparency, performance management, and effective investment oversight, DOI requires that all scope be included in the performance measurement baseline. Even steady state investments must maintain performance measurement baseline management reporting internally. Regardless of development methodology, performance measurement baseline management is required. The performance measurement baseline shall cover a useful system component or capability, at a minimum, as described in OMB Circular A-11, Part 7. DOI encourages investment lifecycles of manageable durations so that performance measurement

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baselines remain relevant. The known and planned lifecycle of the investment shall be reported within the performance measurement baseline.

Governance Relationships

The DOI OCIO policy and compliance organization is responsible for integrating governance functions and relationships, including Capital Planning and Investment Control (CPIC), Enterprise Architecture (EA) and Project Management (PM). At the time the investment's performance measurement baseline is submitted for adjudication, DOI CPIC team must review the Budget Request Form and initial performance measurement baseline to determine validity and readiness to present and be approved by DOI's CIO or any governance body designated by DOI's CIO. DOI's CIO or any governance body designated by DOI's CIO must review and adjudicate the budget request and performance measurement baseline. Value and risk are considerations, as well as funding availability.

The iStat Executive Committee (IEC) serves as DOI's Investment Review Board (IRB). The IEC assesses, prioritizes, and recommends IT portfolio investments that provide optimal value and improvement to mission performance for DOI. The IEC prepares the IT investment recommendations and supporting justifications that are elevated to DOI's Deputies Operating Group (DOG).

Performance Measurement Baseline Request Requirements

All investment requests for funding must complete DOI's Budget Request form and enter the initial performance measurement baseline into DOI's portfolio management tool, through the Performance Baseline Change Request (PBCR) process. PBCRs must include:

- A description of the business need for the proposed performance measurement baseline;
- A description of performance measures that describe quantifiable measures (both business and technical), including baseline performance and proposed target performance; and
- A product and/or service-oriented work breakdown structure and cost estimate for proposed activities.

The following are requirements for the milestones/activities:

- Milestone/activity names should be descriptive and follow a "verb + noun" format to describe the activity conducted and the product or service delivered;
- The description of the milestone/activity should provide additional insight into the activity undertaken and the product or service delivered;
- Acronyms should not be used within the milestone/activity name or description; and
- Milestones/activities for anything other than operational work must not exceed six-month duration.

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Performance Measurement Baseline Validation and Approval Process or Integrated Baseline Review (IBR)

The performance measurement baseline validation and approval process must comply with DOI's OCIO Directive 2008-016, Integrated Baseline Review Policy. This policy identifies pre-defined decision criteria to be used by the decision authority to determine if the plan is valid. Specific requirements are outlined in Federal Acquisition Regulation Subpart 34.202. The proposed performance measurement baseline must be well documented, comprehensive, complete, credible, and consistent with industry and government best practices. Documentation of risks associated with cost, schedule, technical performance, and management are required.

According to the Defense Acquisition Guidebook, Chapter 11, Section 11.3.1.3, an IBR is a joint assessment of the performance measurement baseline conducted by the government program manager and the contractor, if applicable. The IBR establishes a mutual understanding of the project's performance measurement baseline, which provides for an agreement on a plan of action to evaluate the risks inherent in the program's performance and the management processes during project execution.

During the performance measurement baseline validation/review process, the objective is to: 1) verify the technical content of the performance measurement baseline; 2) assess the availability and adequacy of related resources, such as the budget, facilities, personnel, skills, etc.; and 3) identify potential risks.

Life Cycle Timing: In the context of DOI's Integrated Life Cycle (ILC), the performance measurement baseline process requires that the project plan be established/updated, validated, and the performance measurement baseline be approved/reapproved before Development Modernization and Enhancement (DME) starts or restarts, as referenced in Illustration 1.

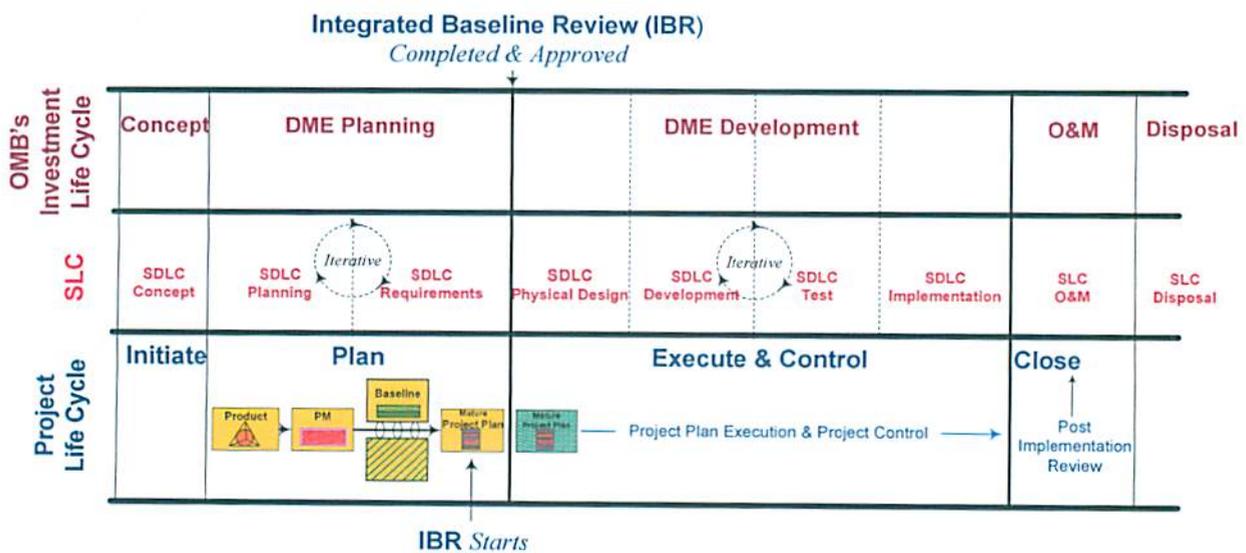


Illustration 1: Integrated Baseline Review throughout the Integrated Life Cycle

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II. REBASELINING AN INVESTMENT

Requested adjustments to an existing investment's performance measurement baseline (i.e. "rebaselining") should only be made if the program manager can demonstrate a high probability of success and a benefit-cost result that justifies continued funding after comparison with the other alternatives in the portfolio and budget limitations. All changes to the approved performance measurement baseline, regardless of change type or impact, require the use of the PBCR process.

Distinction Between Re-planning and Rebaselining

Re-planning Request

Re-planning is intended for in-scope changes and for the re-planning of future work. The net effects of such changes are reflected within adjustments to the schedule and budget distribution. Re-planning includes adding or modifying detail within the overall cost and schedule. All schedule and budget changes that affect the investment's performance measurement baseline because of internal changes shall be documented in the PBCR process. Any major changes to technical approach may be subject to IEC review and approval.

Typical re-planning requests may include:

- Redistribution of existing budget for future work;
- Scope and budget transfers between control accounts of the Work Breakdown Structure (WBS) that don't affect higher level milestones;
- Changes to the work approach that change the control account scope or the Budget at Completion (BAC);
- Future rate changes significant enough to warrant re-planning;
- Funding revisions that affect resource availability; and
- Adjusting contract/subcontract budget amounts to reflect negotiated amounts.

The following restrictions apply to any type of internal re-planning:

- Retroactive changes to the previously reported budget, cost, and schedule are prohibited, except for the correction of errors (e.g. there was an error with data entry and the amount reflects thousands instead of millions on a completed milestone);
- Only the future portion of open milestones may be changed;
- A budget transfer from one budget control/cost account to another is prohibited unless the accompanying work is also transferred; and
- DOI's OCIO must approve an internal change through the PBCR before a budget revision can be formally incorporated into the performance measurement baseline and its associated work executed.

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Performance Measurement Baseline Change Request Requirements

A rebaseline constitutes a revised implementation plan with a new milestone schedule. Rebaselining is required in response to changed requirements, funding changes, or realization that the operative implementation plan is not achievable. All performance measurement baseline change requests must be entered through the PBCR process within the portfolio management tool regardless of change type and impact. Significant rebaselines require IEC approval. Significant is defined by a greater than 10% change to the performance measurement baseline, or a major change to the technical approach¹. The IEC will review the PBCR along with a standard presentation that addresses the following:

- General description of the investment's purpose;
- Summary of the changes in the investment's scope and/or capabilities. Identification of contributing problems, why the current plan is not feasible, and remediation plans to prevent problem recurrence, if applicable;
- Business Needs: The project's performance measurement baseline change request shall be based on and explain the business needs that will be met, and/or the business needs that will not be met due to de-scoping. New or unanticipated business needs must be articulated in the updated scope. Any previously identified scope that was poorly defined should be updated to include the additional work related to corrective actions;
- A description of changes to performance goals and measures;
- An updated alternatives analysis of the chosen alternative's cost data at a minimum (or new analysis if any of the original alternatives are no longer valid) and related recommendation;
- Chronology of changes to an investment's work breakdown structure and cost estimate detailing variance from the most recently approved performance measurement baseline; and
- Description of any contract implications or necessary actions assuring that the performance measurement baseline accurately reflects contracting constraints and risks.

Examples of Acceptable Reasons for a Rebaseline Include

- Significant changes in investment goals (scope, requirements, objectives) resulting from internal or external management decisions, or changes in funding level or availability of funds (e.g. extended continuing resolution), or contracting (including contractual protests);
- In the case where an incremental or iterative system development and planning lifecycle has been chosen for the investment, progressive elaboration may be necessary when transitioning from one iteration or increment to the next, as scope and

¹ DOI OCIO CPIC team may use discretion to recommend formal governance review for baseline changes that do not meet the 10% threshold, and what constitutes a major change to technical approach.

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objectives evolve. Such rapid evolution inherent to iterative development shall be approved by DOI's CIO;

- Current performance measurement baseline is no longer useful as a management tool for realistic performance measurement as variances are so high that they lose meaning; and
- New performance measurement baselines shall not be requested due to general cost and/or schedule slippages.

III. NOTIFYING THE OFFICE OF MANAGEMENT AND BUDGET (OMB) OF NEW AND CHANGED PERFORMANCE MEASUREMENT BASELINES

Once DOI approves a new performance measurement baseline or revision to an existing performance measurement baseline, DOI's OCIO shall update the Federal IT Dashboard within 30 days with the current approved performance measurement baseline.

The following general performance measurement baseline information shall be included in the update:

- Date of DOI's approval of the rebaselining event (per the governance process);
- Updated cost and schedule information for remaining milestones/activities and newly planned milestones/activities;
- Selection of reason for change to performance measurement baseline, and brief summary of the rationale used for the rebaselining event including changes to scope and/or capabilities; and
- Additions/modifications/deletions of performance measures, as appropriate.

The update to the IT Dashboard is considered notification to OMB, and DOI's Bureaus and Offices should begin to report against the submitted performance measurement baseline.

IV. MANAGING AND MONITORING PERFORMANCE MEASUREMENT BASELINES VIA THE USE OF PERFORMANCE MANAGEMENT SYSTEMS

Use of a Performance Management System

- Performance measurement shall occur at the investment level to be applied to both Government and contractor efforts, regardless of contract type;
- DOI's bureaus and offices shall provide the data necessary to populate the Federal IT Dashboard cost and schedule, and performance tables on a monthly basis;
- Earned value principles shall be used to plan and manage development activities for major IT investments (including development efforts supporting a mixed-lifecycle investment) and project future impact of variance (e.g. Budget at Completion, Estimate at Completion);
- Bureaus and offices shall measure against both the current approved performance measurement baseline and the original performance measurement baseline; and

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- For any contracts requiring earned value management, earned value data and documentation certifying the use of an earned value management system (EVMS) compliance with American National Standards Institute (ANSI)/Electronic Industry Alliance (EIA) - Standard (STD) 748 should be submitted to DOI on a monthly basis to include the following data elements at a minimum:
 - Associated Unique Investment Identifier;
 - Federal Procurement Data System (FPDS) Contract Identifier;
 - Planned Start and End Dates;
 - Budget At Completion;
 - Cumulative to Date: Budgeted Cost of Work Schedule, Budgeted Cost of Work Performed, Actual Cost of Work Performed;
 - Cost Variance, Cost Performance Indicator; and
 - Schedule Variance, Schedule Performance Indicator.

Creation, Review and Monitoring of Corrective Action or Recovery Plans

Investments with cost and/or schedule variances exceeding +/-10% in DOI's portfolio management tool are required to submit a Corrective Action Plan (CAP) and may be subject to further review.

Variance Reports

If there is a cost and/or schedule variance that appears as yellow or red on the Federal IT Dashboard, an explanation will be required. Similarly, if an investment's overall status changes downward from one month to the next (from green to yellow, or yellow to red) an explanation will be required.

Note: Should DOI's portfolio management tool and the IT Dashboard utilize the same calculations, only the CAP will be required.

Operational Analysis

In order to measure how well the investment is achieving expected cost, schedule, technical, and customer performance goals, an annual operational analysis (OA) must be conducted. This applies to each steady state IT investment or for each steady state portion of a mixed life cycle IT investment to assess the extent to which the IT investment or operational portion of the IT investment continues to deliver anticipated benefits effectively and efficiently. OMB Circular A-123, Management's Responsibility for Internal Control, emphasizes effectiveness and efficiency of operations as one of its three core objectives. The IT investment manager shall conduct an annual OA for each of the IT investment's steady state IT projects.

- When an IT investment includes multiple steady state IT projects, the IT investment's OA shall comprise summaries of the processes used and results of the annual OAs conducted for the IT investment's steady state IT projects;

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- When an IT investment includes only one steady state IT project, the annual OA conducted for the steady state project shall serve as the OA for the IT investment; and
- The costs and schedule required to perform the OA shall be included in the IT investment's performance measurement baseline captured in the portfolio management tool.

V. FEDERAL IT DASHBOARD REPORTING REQUIREMENTS

Transparency on the Federal IT Dashboard

The Federal IT Dashboard is not intended to be a replacement or substitution of DOI or contract required EVMS. Rather, the Federal IT Dashboard collects and creates visualizations of aggregate cost and schedule data for major IT investments, among other performance data. Analysis of data represented on the Federal IT Dashboard should supplement existing investment control mechanisms within DOI.

IT investments are required to update cost, schedule, and performance measurement data for major investments on a monthly basis, and CIO Assessments and contract data when significant changes occur with the investment. Investment data must be submitted through the portfolio management tool **the first Monday of each month** (or the first business day thereafter if that Monday is a federal holiday). Updates should reflect the most current information available. Estimated actuals can be provided in place of cost and schedule actuals, but will need to be updated when the finalized actuals are known. All investments should be reporting on data no older than two months prior to the reporting month.

The DOI bureaus and offices are encouraged to report a transparent view of the investment's performance measurement baseline on the Federal IT Dashboard (Level 3 of the WBS has been communicated as a guideline). Levels 1 and 2 typically do not provide enough information to describe the work to be accomplished in short enough duration that early warnings of investment performance can be identified.

Point of Contact: Any questions related to this attachment, please direct to Kelly Morrison, Director, Capital Planning and Investment Control at 202-208-5413 or Kelly_C_Morrison@ios.doi.gov.