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The Honorable Stephen A. Feinberg
Dep. Secretary of War
1010 Defense Pentagon
Washington, DC 20301-1010

Subj: Use Artificial Intelligence to Manage Cost, Schedule, and Performance

Dear Hon. Dep. Secretary of Defense Feinberg:

The responsibilities of a program executive officer or a future portfolio acquisition executive (PAE) include “manage cost, schedule, and performance.” On September 30, SOW Hegseth issued a memorandum for IG Oversight and Reform. It stated, Military Departments should explore the use of artificial intelligence (AI) with human oversight.

I recommend that you also issue acquisition reform policy and develop tools for the use of AI with human oversight to manage cost, schedule, and performance in within the digital engineering (DE) ecosystem and MBSE.

Guidance and recommended tools for using AI are provided in the *Defense Acquisition Magazine* article, “Program Management THROUGH DIGITAL ENGINEERING Updated,” July/August 2025. The article cites your comments on the transformation to digital acquisition at your confirmation hearing: “...AI, digital twin technology, and MBSE significantly enhance the department’s T&E approaches and decision-making. Advancements in these technologies lead to faster product development and reduced costs, ultimately supporting improved acquisition decisions and outcomes, even into sustainment.”

Excerpts from the article that cover guidance and best practices for using AI to manage cost, schedule, and technical performance follow.

Table 1. DoD Manual 5000.100 Supports Digital Engineering

Topic	Excerpts
Technical Baseline Requirements	Acquisition Program Baseline: States the threshold and objective values for the cost, schedule, and performance requirements for a program.
Requirements	- Describe the DoD system design with a focus on those features that would affect the test design or scope. Such features include both hardware (e.g., subcomponents, components, and subsystems) and software (e.g., architecture, supply chain components, system and user interfaces, and security levels) for the planned increments. Include survivability enhancement features. - Describe software-enabled features of the system, including control systems, databases, algorithms, system boundaries, and any autonomous or Artificial Intelligence-enabled or capabilities.
Technical Performance	Identify the technical and operational performance requirements (e.g., key performance parameters, key system attributes, survivability requirements) as determined by the user. Reference requirements and concept of operations documents.
Automated Schedule Status VV&A	- Display a schedule that includes timelines relative to acquisition and program decisions and associated T&E plans, and reporting requirements to support those decisions, in alignment with the integrated decision support key. Include timelines related to delivery of test assets and the development and VV&A of critical test enablers (e.g., threats). - Ensure sufficient time between test periods and between modeling and simulation (M&S) events to allow for corrections of deficiencies. - List all required certifications and dates. The certifications are entrance criteria or requirements to support acquisition decisions.

Data, analytics, and AI

The best practices and sources of truth cited support the DoD Data, Analytics, and AI Adoption Strategy (Data Strategy). Per Data Strategy, Agile, user-focused, product-centric development and experimenting with minimum viable products are essential. An agile approach emphasizes speed of delivery, prioritizing outcomes over processes, and adapting best practices from nontraditional partners. Outcomes-based performance indicators will be established, refined, and monitored. Measures are supported by authoritative data sources and maximize the use of automated data collection methods for efficient performance monitoring.

Requirements best practices

The DoD Guide—Software Engineering for Continuous Delivery of Warfighting Capability, April 2023, provides guidance on the qualities and components of requirements and the need to use automated tools for requirements traceability and tracking. Per Software Engineering (SWE), requirements are unambiguous, testable, consistent, and precise. Also, SWE provides guidance to track and prioritize

requirements (Product Backlog) using automated tools that integrate with the development pipeline to provide traceability. The following are best practices regarding requirements traceability and metric SWE:

- Develop a product roadmap that is traceable to the product vision, required capabilities, and to the product backlog.
- Define epics and features for the Minimum Viable Product (MVP) or upcoming release.
- Incorporate requirements as test cases into automated test suites.
- Map all test procedures to requirements.
- Develop software metrics that are consequential (connected to a program, project, or software development outcome).
- Develop technical measures of mission effectiveness to augment the software process metrics.
- Use function-related metrics involving function points (not story points).

B-2 Success Story

My 2022 article included a B-2 program success story. Schedule performance was based on the status of engineering artifacts in the requirements traceability matrix. Performance-based metrics helped make the B-2 a very successful program and demonstrated how to measure progress of systems engineering requirements management, traceability, and verification.

Conclusion

Please develop policy, provide guidance, and invest in AI tools. Then hold PAEs accountable to use AI for effective oversight. A PAE and program personnel at any level should be able to use AI tools to ensure requirements traceability from the Acquisition Program Baseline to the Integrated Master Schedule.

Yours truly,



Paul J. Solomon

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