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Why Publish the *Best Practices for Using SE Standards on Contracts for DoD Acquisition Programs* Guidance Document?

- Ensure the appropriate use of SE standards to provide a common framework for communicating effective SE on DoD acquisition projects.
- Ensure the intent of the standard is met to achieve expected outcomes and outputs, instead of mandating strict task-level conformance.
- Focus on how to appropriately tailor the SE standards to program-specific needs before being placed on contract so that the normative requirements in the standards do not become overly burdensome and costly.
- Provide example RFP language as well as insight for interpreting and monitoring contract compliance.

The thoughtful application of standards improves confidence in achieving desired program outcomes.
Background

• Acquisition Reform efforts cancelled tens of thousands of military specifications and standards
  – DoD Components expressed a need for SE-related standards to put on contract
  – Gap analysis was conducted to determine areas where new standards are needed

• Two new SE-focused Non-Government Standards (NGS) were developed and adopted by DoD*

*Adoption is an expression of acceptance of an NGS for repetitive use by those organizations shown as adopting activity, custodians, or review activities. While it is not mandatory for an NGS to be adopted to be used, adoption is strongly encouraged to provide for document visibility and identify a DoD technical focal point.
Background

- At an NDIA SE Division meeting, industry partners expressed concern over the number of normative requirements in the new standards
  - 750+ normative requirements in 15288.1
  - 1600+ normative requirements in 15288.2

- NDIA initiated SE Standardization Working Group to develop recommended guidance for effectively and efficiently using the new SE standards on contract

Without appropriate tailoring of the SE Standards, assessing compliance could add significant burden and cost on both the Government and industry
NDIA Guidance

- NDIA, in collaboration with DoD representatives, drafted guidance for utilizing 15288.1 and 15288.2 on contract
- Provided as recommendations to DoD
- Represented industry’s perspective and is aimed at maximizing value to both Government and industry
• DoD leveraged the formally submitted NDIA recommended guidance

• Collaborated with key stakeholders:
  – Army, Navy, Air Force, DCMA, DPAP, DAU, and DSPO

• The DoD Implementation Guide:
  – Incorporates relevant DoD statute, policies, and procedures
  – Addresses ISO/IEC/IEEE 15288 as it establishes the common SE framework that is the basis for the two companion standards (IEEE 15288.1 and 15288.2)
  – Provides tailoring template that the Government can use to efficiently convey the specific set of requirements to industry
Purpose of the DoD Implementation Guide

• **Supports Program Offices in:**
  – Tailoring the 15288 Standards to meet and communicate project needs
  – Incorporating appropriate language into a Request for Proposal (RFP) to invoke the standards and express relative importance of the standards in proposal evaluations
  – Evaluating an offeror’s ability and commitment to effectively implement SE processes compliant with program office requirements based on the proposed Systems Engineering Master Plan (SEMP), project plan, master schedule, and past performance
  – Monitoring and enforcing the supplier’s compliance with the contract and delivery of the product/service/system

• **Assists Offerors in:**
  – Developing their proposals to leverage existing organizational processes, or propose alternative value-added tailoring, to support the RFP requirements and comply with the standards as tailored
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5 Contract Execution
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Appendix A – How Project Characteristics May Drive Tailoring of the 15288 Standards
Appendix B – Work Aid for Definition of Outputs to Be Supplied
Appendix C – Example Tailoring Document Template
Appendix D – Definitions and Acronyms
Appendix E – References
This DoD Implementation Guide contains:

- **Tailoring considerations**
  - Key program characteristics (e.g. complexity, size, domain, risk)
  - Acquisition phase(s)
- **Characteristics that drive tailoring of SE processes**
- **Example tailoring document template**
- **Appropriate sample language for incorporating into RFPs**

### Example tailoring document template

<table>
<thead>
<tr>
<th>Subclauses</th>
<th>Additional Requirements</th>
<th>Notes</th>
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</thead>
<tbody>
<tr>
<td>6.1 Agreement Processes</td>
<td>[Ref tailoring document]</td>
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<tr>
<td>6.1.1 Acquisition Process</td>
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<tr>
<td>6.1.1.2 Outcomes</td>
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<tr>
<td>6.1.1.3 Activities and Tasks</td>
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<tr>
<td>6.1.1.4 Outputs</td>
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<tr>
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<td>6.1.2.2 Outcomes</td>
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<td>6.1.2.3 Activities and Tasks</td>
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<td>6.1.2.4 Outputs</td>
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</tbody>
</table>

**Example RFP language**

(SOWxx1) The Contractor shall define and implement systems engineering processes in conformance with IEEE 15288.1-2014{as tailored by [Ref tailoring document]}. Conformance shall be measured via the outcomes and outputs specified by 15288.1-2014{as tailored by [Ref tailoring document]}.

(SOWxx2) The Contractor shall define and conduct technical reviews and audits in conformance with IEEE 15288.2-2014 {as tailored by [Ref tailoring document]}. Conformance shall be measured via the outputs and criteria specified by 15288.2-2014{as tailored by [Ref tailoring document]}.

(SOWxx3) The Contractor shall deliver a Systems Engineering Management Plan (SEMP) that documents the system development approach applying systems engineering standards, including processes, outputs, technical reviews, and audits, that is consistent with the government-provided Systems Engineering Plan (SEP) {RFP Document reference}.

Example RFP language
This DoD Implementation Guide provides:

- **Detailed definition, requirement, and evaluation criteria for technical reviews and audits**
- **Insight for tailoring and citing 15288.2 on DoD acquisition contracts**
- **Help monitoring and enforcing contract compliance**

<table>
<thead>
<tr>
<th>General Technical Reviews and Audits</th>
<th>Domain-Specific Technical Reviews</th>
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<tr>
<td>Alternative Systems Review</td>
<td>Software Requirements and Architecture Review</td>
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<tr>
<td>System Requirements Review</td>
<td>Software Specification Review</td>
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<td>System Functional Review</td>
<td>Integration Readiness Review</td>
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<td>Preliminary Design Review</td>
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<td>Production Readiness Review</td>
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DoD Best Practices for Using SE Standards on Contracts for DoD Acquisition Programs posted to the DASD(SE) website in April 2017

http://www.acq.osd.mil/se/pg/guidance.html

For additional information, contact osd.atl.asd-re.se@mail.mil