



Defense Standardization Program (DSP) Workshop

“Configuration Management Standards”

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11 July 2018

Overview



- **Non- Government Standards Background**
- **Configuration Management Standards Working Group (CMSWG) Background**
- **EIA-649-1, Configuration Management Requirements for Defense Contracts**
- **Configuration Management Documentation and Alignment**
- **SAE EIA-649-1 Adoption and Publication**
- **Complementary Coordinated Family of CM Principles and Processes**
- **Questions**

Non- Government Standards Background



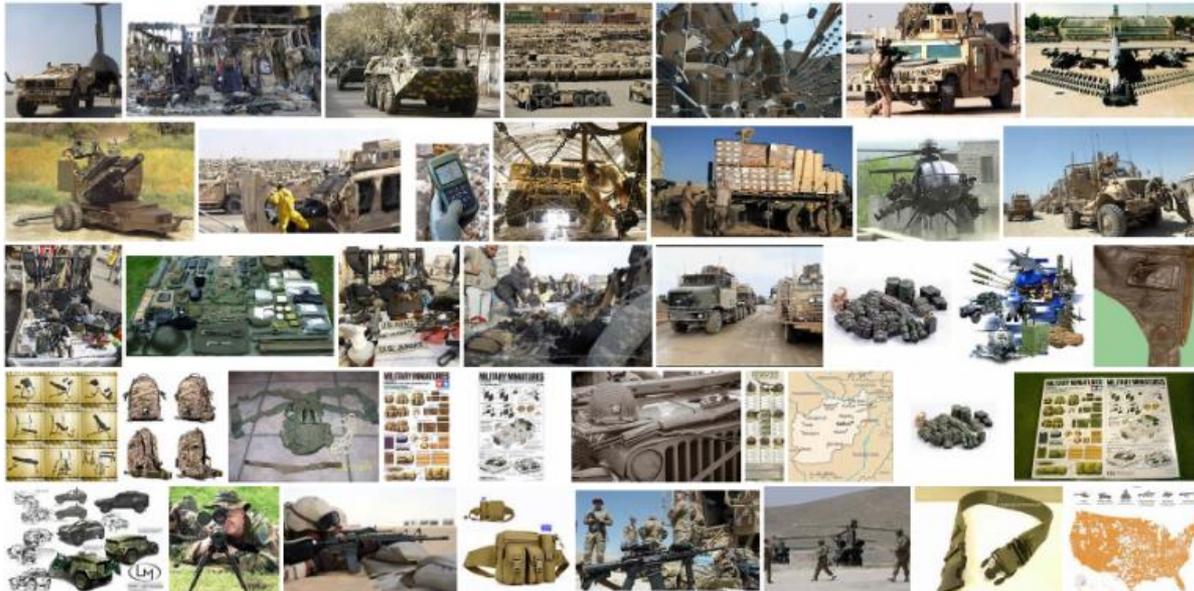
- The Department of Defense (DoD) publishes military standards (MIL-STD) to ensure defense contractors and suppliers employ consistent, efficient, and effective processes and conform to government policy.
- Section 12(d) of the National Technology Transfer and Advancement Act of 1996, Public Law (PL) 104-113, states Federal Agencies shall use technical standards developed or adopted by voluntary consensus standards bodies, unless impractical or inconsistent with law. Federal Agencies shall participate in development of voluntary consensus standards, unless incompatible with Agency mission, priorities, or resources.



Non- Government Standards Background



- During acquisition reform in the late 1990s and early 2000s, and in response to PL 104-113, the DoD cancelled many of the military standards and adopted commercial standards in their place as a cost-saving measure. For example, one of the first industry standards that the DoD adopted was the configuration management standard ANSI/EIA-649, “National Consensus Standard for Configuration Management,” then cancelled MIL-STD-973, Configuration Management (CM) in 2000.



Configuration Management Standards Working Group (CMSWG) Background



- In 2010, the Air Force briefed the DoD Defense Standardization Council (DSC) regarding the need to reinstate several military standards, including the cancelled MIL-STD-973 for CM.
- The DSC directed the Defense Standardization Program Office (DSPO) to work with the Services to form a CM gap analysis working group to confirm the need for an enterprise-wide approach to certain process standards, including CM.
- In March 2012, the Defense Standardization Executive directed that the standards working groups' first course of action should be to engage non-government standard organizations to determine whether existing standards could be modified or whether there is interest in developing new standards in these areas.
- In July 2012, the Navy led the chartered Configuration Management Standards Working Group (CMSWG) to develop the CM NGS. The CMSWG included participants from the uniformed Services, including the U.S. Coast Guard, and other DoD agencies (i.e., Defense Contract Management Agency, National Security Agency, and Defense Logistics Agency).



Configuration Management Standards Working Group (CMSWG) Background



- The CMSWG generated an initial draft standard, which was presented to the SAE G-33 Committee on Configuration Management in October 2013. The SAE G-33 Committee initiated a formal project in November 2013 to develop an addendum SAE EIA-649-B, referred to as SAE EIA-649-1, Configuration Management Requirements for Defense Contracts.
- The CMSWG distributed multiple drafts of the SAE EIA-649-1 for review across DoD and industry. The group adjudicated more than 3,750 comments to provide a standard compliant with DoD policy and supported by both DoD and industry.
- In addition to writing the SAE EIA-649-1, the CMSWG modified 18 CM-related data item descriptions (DID) to prescribe deliverables compliant with SAE EIA-649-1.
- Additionally, the CMSWG reviewed and updated five CM-related DoD forms (DD Forms) and added detailed instructions to support consistent implementation and use in support of SAE EIA-649-1.



SAE EIA-649-1, Configuration Management Requirements for Defense Contracts



- SAE EIA-649 and other standards, including MIL-STD-3046 and DoD addenda to ISO/IEC/IEEE 15288 Systems and Software Engineering – System Life Cycle Processes, influenced the development of the EIA-649-1.
- Other key sources of information that guided the SAE EIA-649-1 development include current DoD policy (in particular, DoD Instruction 5000.02, Operation of the Defense Acquisition System) and related DoD guidance such as the Defense Acquisition Guidebook (DAG) Chapter 4 on Systems Engineering (in particular, section 4.3.7 on Configuration Management) and the military handbook MIL-HDBK-61A, Configuration Management Guidance.



TECHNICAL REPORT	EIA-649-1	
	Issued	Proposed Draft 2014-11-17
Configuration Management Requirements For Defense Contracts		

RATIONALE

This is a defense unique standard to the non-government standard, "ANSI/EIA-649B Configuration Management Standard," that generates, manages and is controlled by the non-government standard body with Defense membership to provide requirements specific for Defense contracts.

FOREWORD

This document defines requirements for a Defense enterprise implementation of the American National Standards Institute/Electronics Industry Association, ANSI/EIA-649 in an Acquirer/Supplier contractual relationship. The requirements are intended to be tailored by the Acquirer and cited in contracts or similar agreements with Suppliers to establish requirements for Configuration Management tasks consistent with ANSI/EIA-649 and each of its functions and principles. Unless otherwise indicated, the requirements described herein apply to both hardware and software systems. It is the responsibility of the Acquirer to determine the specific needs for their respective programs and ensure that their contracts or agreements sufficiently communicate those requirements. This standard also applies when other types of agreements exist, such as agreements between government organizations who play the roles of acquirer and supplier.

Finally, this document is intended to be used as a stand-alone reference, invoked on a contract where the acquirer intends to be consistent with ANSI/EIA-649 Principles, and may be used for Department of Defense (DoD) programs in all phases of the acquisition life cycle.

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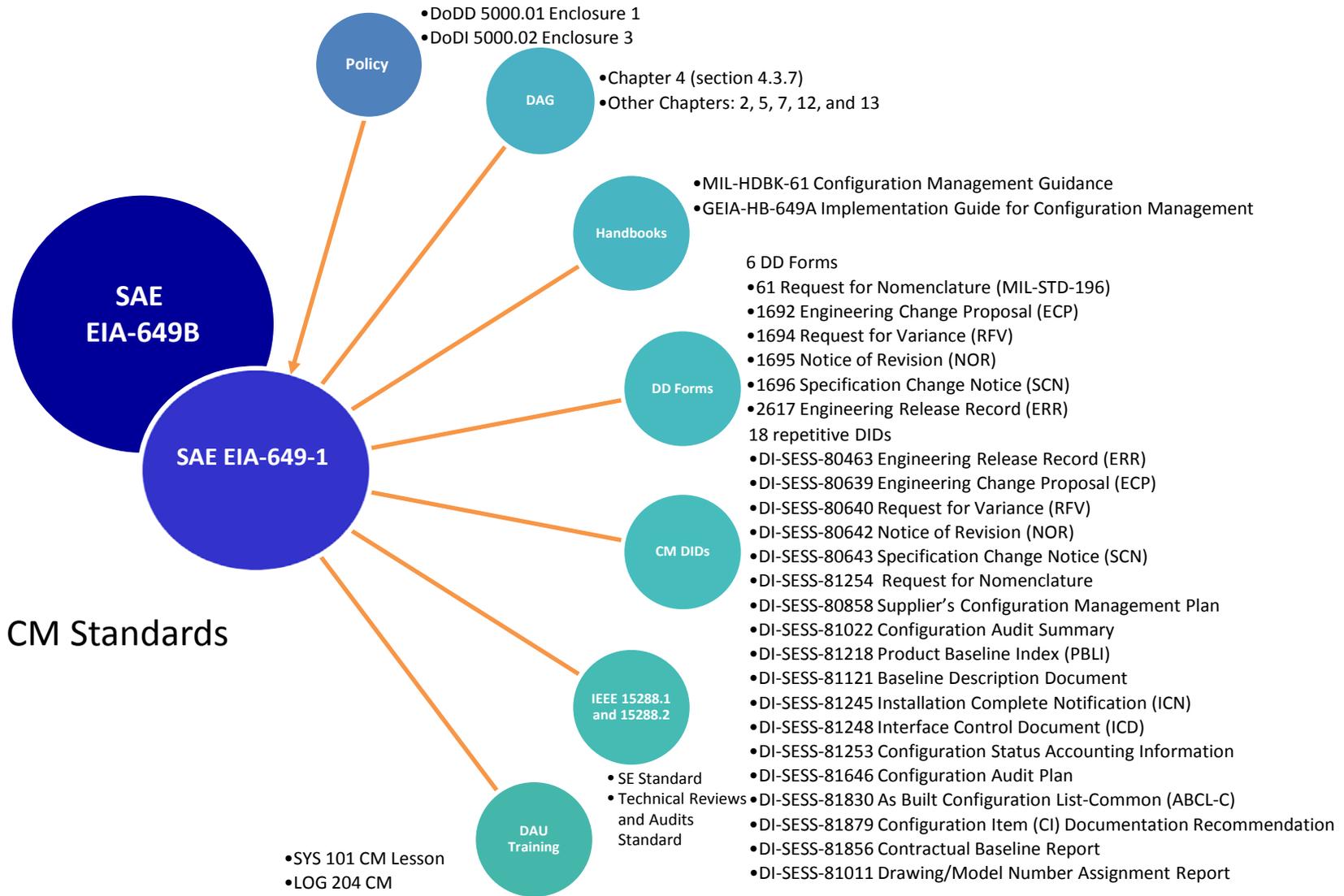
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EIA-649-1, Configuration Management Requirements for Defense Contracts



- Consistent with SAE EIA-649B, the SAE EIA-649-1 makes use of the acquirer and supplier roles to define requirements.
- By defining how CM requirements are to be applied in contracts with suppliers, SAE EIA-649-1 drives the program to understand and quantify the requirements as accurately and as early as possible to support effective CM and control of the system baseline.
- Cross-walked EIA-649-1 content with IEEE SE and TR&A standards for use on DoD contracts to verify consistency.
- Even though the SAE EIA-649-1 is intended to satisfy DoD contracting requirements, this CM standard applies to any commercial, government, or international enterprise engaged in acquirer/supplier CM activities.

Configuration Management Documentation and Alignment



EIA-649-1 Adoption and Publication



- SAE EIA-649-1 was published on November 20, 2014 and DOD adopted both the SAE EIA-649-B and the SAE EIA-649-1 on March 4, 2015. Posted in ASSIST db on the March 18, 2015.
- 10 Data Item Descriptions approved on April 7, 2015 and uploaded into the ASSIST db on 13 April 2015. Additional DID's were updated prior.
- DD Forms approved on the April 7, 2015 and posted on the DTIC “DoD Forms Management Program” website on May 15, 2015.
- All DD Forms have been again updated and posted onto the <http://www.esd.whs.mil/Directives/forms/>

Complementary Coordinated Family of CM Principles and Processes



- SAE EIA-649B “Configuration Management Standards”
 - This is an industry standard and is intended to be used when establishing, performing, or evaluating CM processes.
- SAE EIA-649-1 “Configuration Management Requirements for Defense Contracts”
 - This is a defense unique standard to the non-government standard, that generates, manages and is controlled by the non-government standard body with Defense membership to provide requirements specific for Defense contracts. This standard is for placing tailored Configuration Management requirements on Defense contracts.
- GEIA-HB-649A “Configuration Management Implementation Guide Handbook”
 - Initiated to synchronize content and harmonize terminology contained in both the GEIA-HB-649 and the MIL-HDBK-61A with its companion standard ANSI/EIA-649 by consolidating the two handbooks.
 - This handbook provides a one-stop shop for all CM professionals and practitioners to obtain recommended practice implementation guidance information that has actual use cases provided by Industry/Commercial and the Government/Department of Defense representing a cohesive and aligned community.
- ❖ EIA-649B “Configuration Management Standards” is in the process of being updated to EIA-649C and revised IAW with the SAE five year review cycle. Thus any changes to the principles and after the SAE balloting and approval process is completed the updated EIA-649-1A “Configuration Management Requirements for Defense Contracts”, updated GEIA-HB-649B “Configuration Management Implementation Guide Handbook” will be required for balloting and approval also.

Complementary Coordinated Family of CM Principles and Processes (cont.)



- The acquirer should use SAE EIA-649-1 in concert with the SAE EIA-649B and leverage the guidance provided in associated handbooks, such as GEIA-HB-649A and MIL-HDBK-61A.
- With this arsenal of collaborative and standardized CM requirements and guiding information, the CM professional should have a strategic advantage in implementing and executing acquirer/supplier (i.e., government/contractor) CM more efficiently and effectively.



Questions?



Backup



PUBLIC LAW 114–328—DEC. 23, 2016

NATIONAL DEFENSE AUTHORIZATION ACT

FOR FISCAL YEAR 2017



- PUBLIC LAW 114–328—DEC. 23, 2016
- NATIONAL DEFENSE AUTHORIZATION ACT
- FOR FISCAL YEAR 2017
- 10 USC 2305
- **SEC. 875. USE OF COMMERCIAL OR NON-GOVERNMENT STANDARDS**
- **IN LIEU OF MILITARY SPECIFICATIONS AND STANDARDS.**
- (a) IN GENERAL.—The Secretary of Defense shall ensure that the Department of Defense uses commercial or non-Government specifications and standards in lieu of military specifications and standards, including for procuring new systems, major modifications, upgrades to current systems, non-developmental and commercial items, and programs in all acquisition categories, unless no practical alternative exists to meet user needs. If it is not practicable to use a commercial or non-Government standard, a Government unique specification may be used.
- (b) LIMITED USE OF MILITARY SPECIFICATIONS.—
 - (1) IN GENERAL.—Military specifications shall be used in procurements only to define an exact design solution when there is no acceptable commercial or non-Government standard or when the use of a commercial or non-Government standard is not cost effective.
 - (2) WAIVER.—A waiver for the use of military specifications in accordance with paragraph (1) shall be approved by either the appropriate milestone decision authority, the appropriate service acquisition executive, or the Under Secretary of Defense for Acquisition, Technology, and Logistics.
- (c) REVISION TO DFARS.—Not later than 180 days after the date of the enactment of this Act, the Under Secretary of Defense for Acquisition, Technology, and Logistics shall revise the Defense Federal Acquisition Regulation Supplement to encourage contractors to propose commercial or non-Government standards and industry-wide practices that meet the intent of the military specifications and standards.
- (d) DEVELOPMENT OF NON-GOVERNMENT STANDARDS.—The Under Secretary for Acquisition, Technology, and Logistics shall form partnerships with appropriate industry associations to develop commercial or non-Government standards for replacement of military specifications and standards where practicable.
- (e) EDUCATION, TRAINING, AND GUIDANCE.—The Under Secretary of Defense for Acquisition, Technology, and Logistics shall ensure that training, education, and guidance programs throughout the Department are revised to incorporate specifications and standards reform.
- (f) LICENSES.—The Under Secretary of Defense for Acquisition, Technology, and Logistics shall negotiate licenses for standards to be used across the Department of Defense and shall maintain an inventory of such licenses that is accessible to other Department of Defense organizations.

EIA-649-1 Content



FORWARD

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TECHNICAL REPORT

EIA-649-1

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Configuration Management Requirements For Defense Contracts

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EIA-649-1 Content (cont.)



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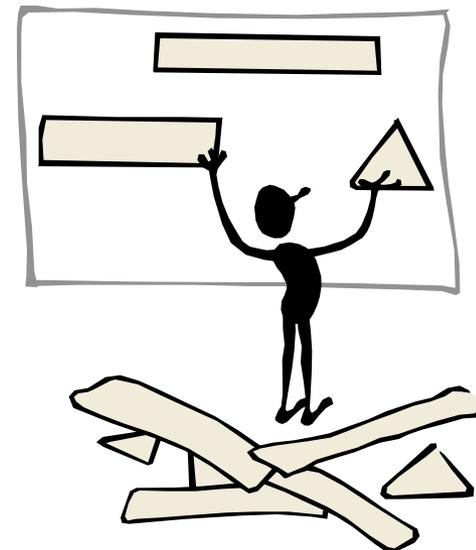
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EIA-649-1 Content (cont.)



Table 1 Cross Reference for Principles from ANSI/EIA-649

Table 2 Data Item Descriptions (DIDs) and DD Forms

Table 3 Additional Associated DIDs

ANNEX A Tailoring Checklist

ANNEX A - TAILORING WORKSHEET

A.1 GENERAL

This Annex is a tool for practitioners to use to aid them in tailoring requirements of this standard and is not intended to be part of the contract.

A.2 MATRIX DESCRIPTION

A check mark in the column entitled "Applies" indicates where the Acquirer has determined the applicability of the SAE Configuration Management Requirements for Defense Contracts, EIA-649-1.

Paragraph	Requirement	Sub Requirement	Applies Y/N	Change or Clarification	SOW Paragraph	DID No.	CDRL Number	CDRL Tailoring
3. Configuration Management Requirements	(1)							
	(2)							
	(3)							
	(4)							
3.1 Planning and Management	(1)	a.				DI-SESS-80858 Supplier's Configuration Management Plan		
		b.						
		c.						
		d.						
		e.						
		f.						
		g.						
		h.						
		i.						
		j.						
		k.						
3.1.1 Monitoring Configuration Management Performance	(1)							
3.1.2 Supplier's Configuration Management Plan	(1)					DI-SESS-80858 Supplier's Configuration Management Plan		
3.1.3 Technical Reviews	(1)							
3.1.4 Product Configuration Documentation Processes	(1)							
3.2 Configuration Identification	(1)							
	(2)							
	(3)	a.				DI-SESS-81254 Request for Nomenclature, DI-SESS-81121 Baseline Description Document		
		b.						
		c.						
		d.						
		e.						
		f.						
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