S – Series ILS Specification Overview / Status of all Specifications

Bernhard Seidel

Senior Expert ILS/ISS Processes

AIRBUS DEFENCE & SPACE

Bernhard.b.seidel@airbus.com

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Index

- General Information about ASD / AIA
  - Historical background
  - Purpose & organisation
- Guideline for the Usage of the S- Series ILS specifications
- Published Specifications
- Interoperability between the ASD/AIA S – Series ILS specifications – data exchange
- Future activities – planned topics
- Website specification downloads and conclusion

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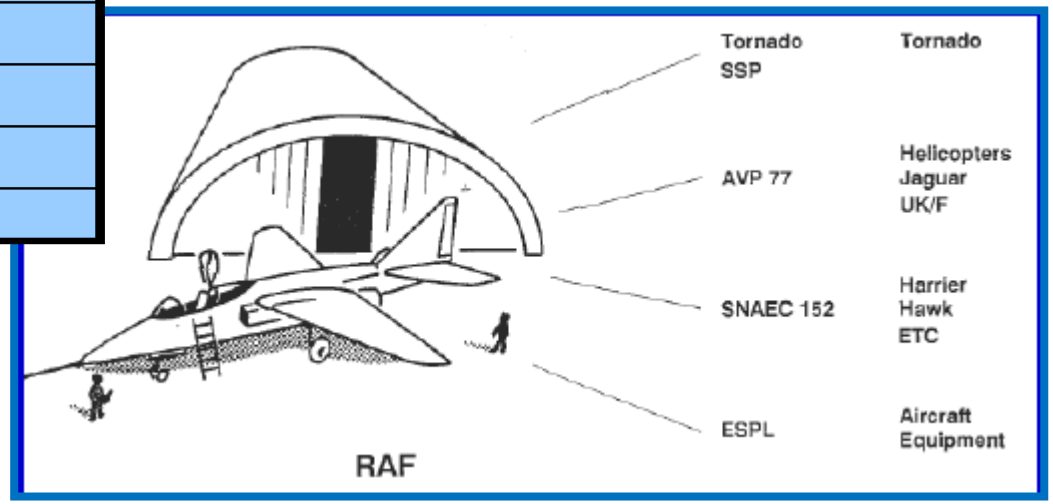
Historical Background (1/3)

Why international Specifications?

In the early 70s, each Program used their own Standards / Specifications. In the meantime most of them are obsolete and not updated. They haven't been customized in terms of new technologies / In Service experience…. etc).

Procedure	User
MIL-H-8910	Netherlands, Italy, Belgium
MIL-STD-1388	USAF
ATA 200	Civil Airlines
TORNADO SSP	RAF, IAF, GAF for TORNADO
B007 (VG 95007	German Army, Navy
GAF T.O. (C-1-4)	German Air Force
AVP 77 (AIR 104)	RAF, French AF, French Army



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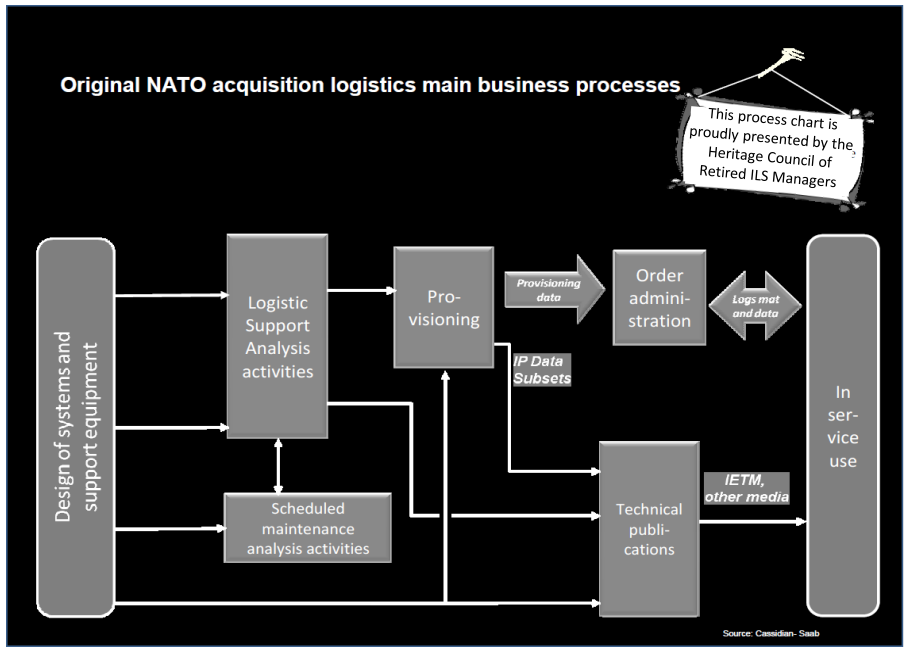
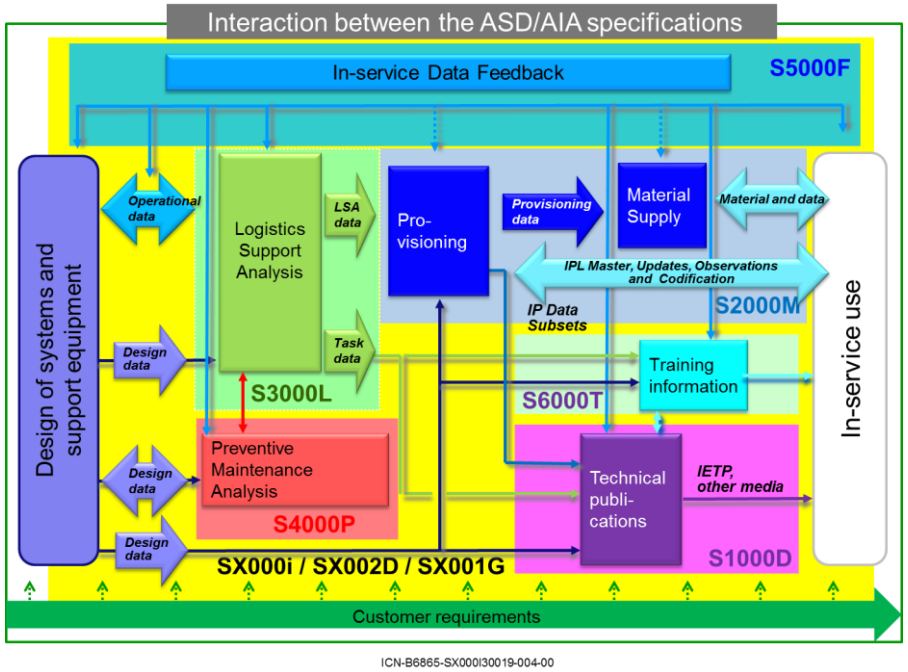
Historical Background (2/3)

Birth of Suite of S – Series ILS Specifications

Outcome of the NATO Acquisition Workshop (Paris 1983)



Suite of S – Series ILS specifications (2018)



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Historical Background (3/3)

Memorandum of Understanding between AIA and ASD

More **than 300 major aerospace and defence companies** and their suppliers are members of AIA, embodying every high- technology manufacturing segment of the US Aerospace and Defence Industry.

The ASD employs **750000 people and encompass over 2000 companies in 19 European** countries to achieve and maintain technological excellence in the segment of Aeronautics, Space, Defence and Security Industries

MoU between AIA and ASD on S-Series co-operation (21st of July 2010)

Marion Blakey (AIA)

Francois Gayet (ASD)

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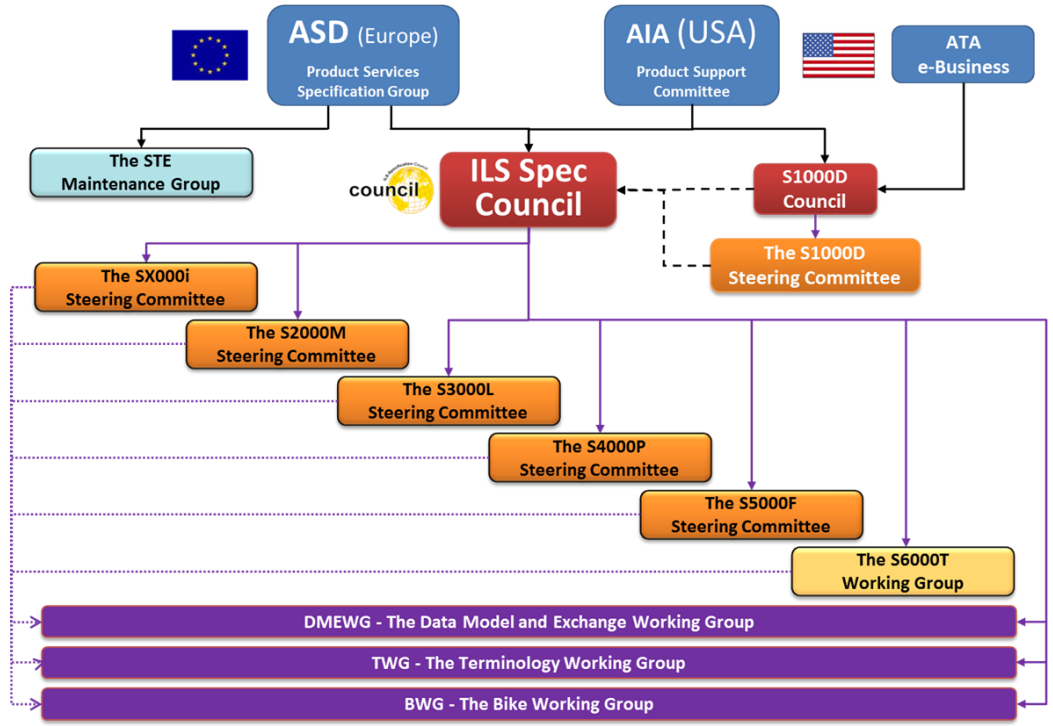
Purpose & Organisation

Purpose

- Establish a common understanding of ILS and its processes for international usage
- Optimize the Life Cycle Cost and performance of the product and support system
- Respond quickly to initial and changing requirements / technologies
- Enable collaboration between Customer and Industry through simplification of electronic information exchange

Organization



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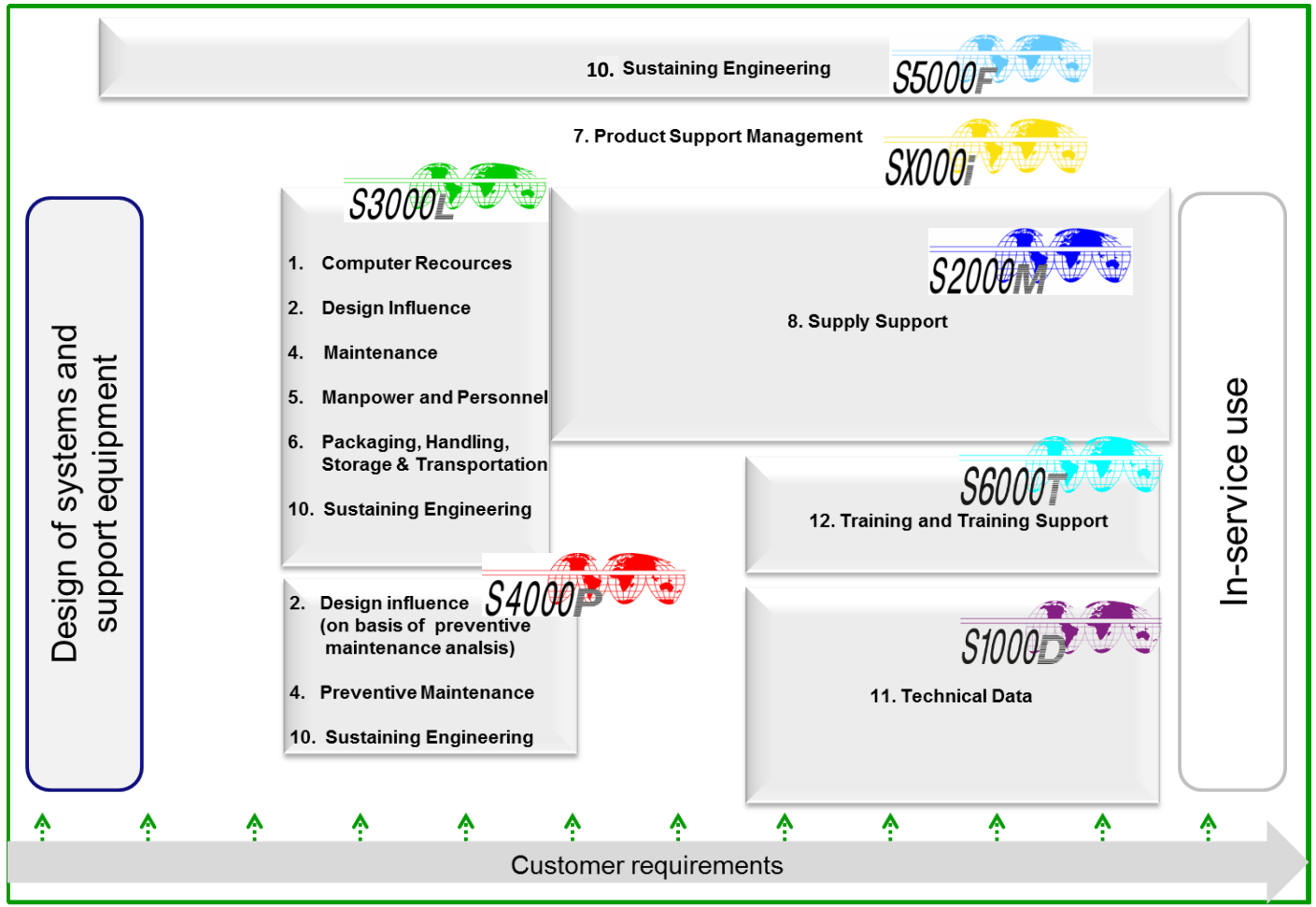
Suite of S - Series ILS specifications

(Allocation of ILS elements)



ICN-B6865-SX000I3019-005-01

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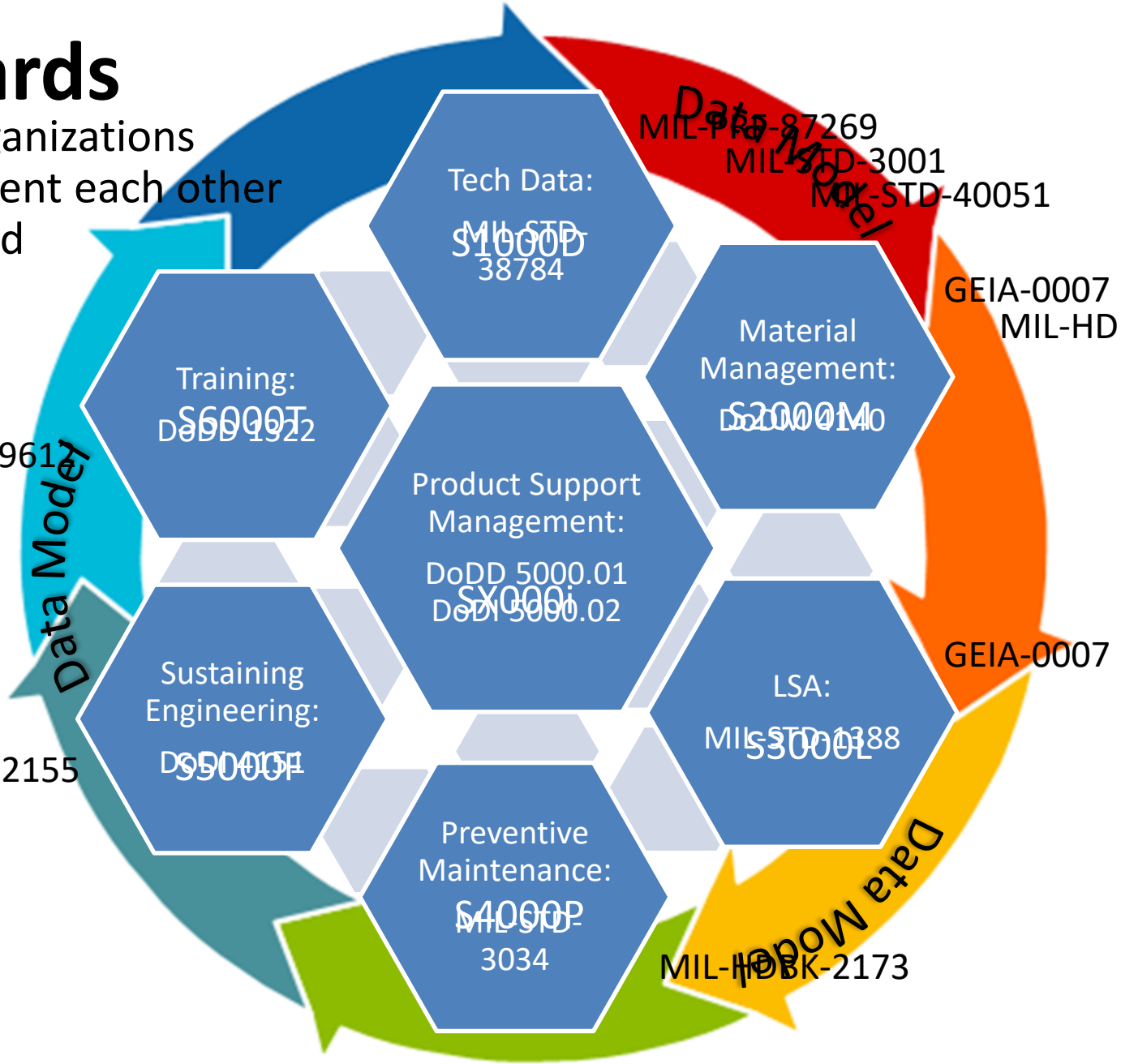
DoD Standards

- Written by disparate organizations
- Not written to complement each other
- Many are being cancelled

S-Specs

- Integrated suite of specs covering support throughout a system's life cycle
- Data re-use optimized through utilization of a common data model



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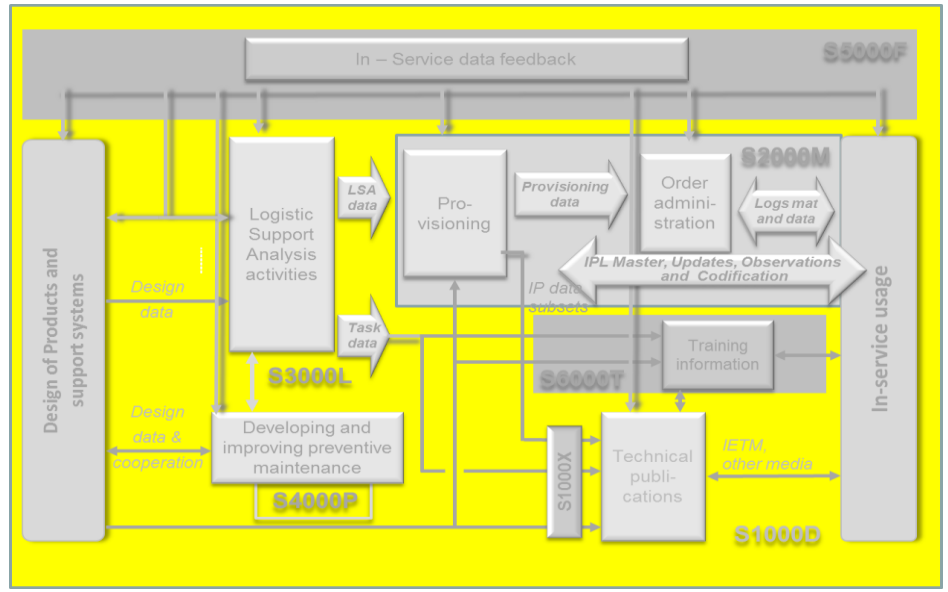
Speaker: Dawn Meyer, Boeing

ASD/AIA SX000i – Guideline for the usage of the S-Series ILS specifications



Original title:

INTERNATIONAL GUIDE FOR THE USE OF THE S-SERIES INTEGRATED LOGISTIC SUPPORT (ILS) SPECIFICATIONS

Current issue:

SX000i issue 1.1 July 2016

www.SX000i.org

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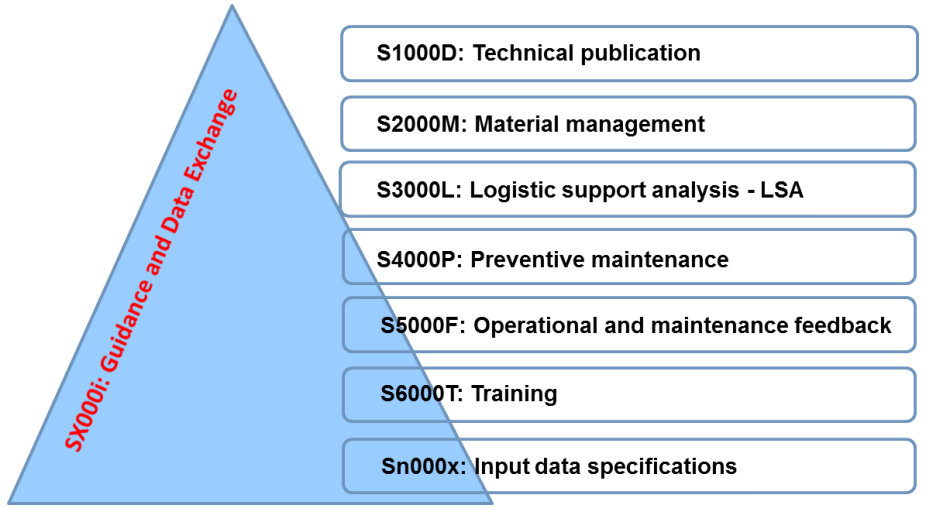
ASD/AIA SX000i – Guideline for the usage of the S-Series ILS specifications

Description:

SX000i provides a guide for the use of the S-Series ILS specifications by

- ILS managers and practitioners as well as for the management and future development of the specifications by the
- ILS specification Council and ASD Product Services Specification Group (PSSG)
- ILS specification Steering Committees (SC) and Working Groups (WG)



Its main goals are:

- Explains the vision and objectives for the S-Series ILS specifications
- Provides a framework that documents the global ILS process and interactions
- Explains how the ASD/AIA S-Series ILS specifications interface with other standardization domains including program- , global supply chain - and configuration management, engineering, manufacturing, security, safety, quality, data exchange and integration and life cycle cost
- Describes the global governance of the S-Series ILS specification development
- Provides guidance on how to meet specific business requirements using an appropriate selection of defined processes and specifications

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ASD/AIA SX000i – Guideline for the usage of the S-Series ILS specifications

Mapping of the ILS Elements (extract)

It provides a detailed mapping of the different ILS elements and associated activities to the different S-Series ILS specifications

S = Support
P = Partial in depth covered
I = not covered – only Info
T = Top – level coverage
F = Full in depth covered
Blank = not covered

* Defense Acquisition University

	DAU * ILS Element	ASD /AIA S-Series terminology		ASD Specifications coverage									
		ILS Element	Activities	S1000D	S2000M	S3000L	S4000P	S5000F	S6000T	SX000i	SX001G	SX002D	STE-100
Life Cycle Sustainment Management	Product Support Management	Product Support Management	Manage contract		S			I		F (2.0)			
			Capture product support requirement		S	P		I		T			
			Develop ILS plan		S			I		F (2.0)			
			Manage In-service ILS activities		S			I		F (2.0)			
			Configuration management	*	S	P		P		T (2.0)		S	
			Perform obsolescence management		S	F		I		T			
			Fleet management					F		T (2.0)			
			Lessons learned					I (2.0)		T (2.0)			
	Supply Support	Supply Support	Provide provisioning data		F			I		T		S	
			Perform Material Supply		F			I		T			
			Manage stocks / stores		I	Recommended		I	to use	T (2.0)	internal processes		
			Manage warranty		I	P	Extend	I	with	T (2.0)	internal processes		
	Packaging, Handling, Storage & Transport (PHS&T)	Packaging, Handling, Storage & Transport (PHS&T)	Analyse PHS&T Requirements		S	I		I		T			
	Maintenance Planning and Management	Maintenance	Develop Maintenance Concept			F	S	I		T			
			Perform Level of Repair Analysis			F		I		T			
			Develop Maintenance Plan		S	F	I	I		T			
			Execute Maintenance Tasks	S	S	Recommended		I	to use	T	internal processes		
			Perform Supportability Safety Analysis					I		T			
			Develop and continuously improve preventive maintenance			I	F	I		T			
			Perform Scheduled Maintenance Analysis				F	I		T			
			Perform in-service maintenance optimization (ISMO)				F	I		T (2.0)			
			Perform Diagnostics, Prognostics and Health Management (D&PHM) Analysis					I		T			
			Perform Software Maintenance Analysis			F		I (2.0)		T			

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ASD/AIA SX000i – Guideline for the usage of the S-Series ILS specifications

Content of the current / future SX000i

Index of the SX000i issue 1.1 and Issue 2.0

Chap. 1: „Introduction of the S-Series ILS specifications“
Chap. 2.: „ILS Framework“
Chap. 3: „Use of the S-Series ILS specifications in an ILS program“
Chap. 4: „Governance of the S-Series ILS specifications“
Chap. 5: „Terms, abbreviations and acronyms“
Chap. 6: „Comparison of the specification terminology“

Chap. 4:

Chap. 9:

Chap. **10**: „Terms, abbreviations and acronyms“
Chap. **11**: „Comparison of the specification terminology“

Outlook:

Issue 2.0 is planned to be published in 2021

- ILS program guide (ILS managers‘ s guidebook)
- ILS activities for each life cycle stage / contract type
- Support System Design effectiveness
- Tailoring / contracting against SX000i
- ILS programme data model
- ILS data elements

The existing Chapter 4 „Governance of the S-Series ILS specifications“ will be moved to a separate document, ILSC-2018-001.

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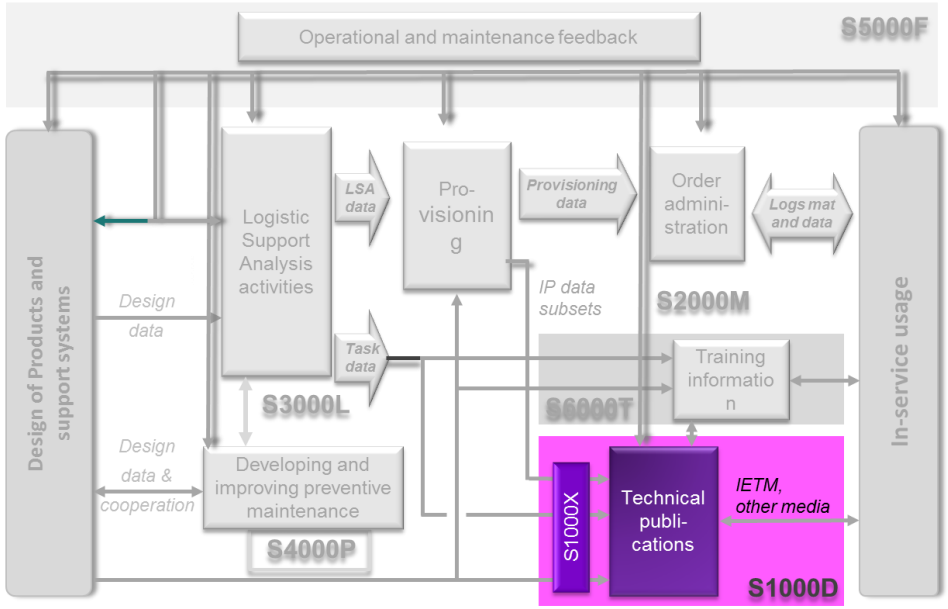
ASD/AIA/ATA – Technical Documentation



Original title:

INTERNATIONAL SPECIFICATION FOR TECHNICAL PUBLICATIONS UTILISING A COMMON SOURCE DATABASE.

Current issue:

S1000D Issue 4.2 December 2016

www.S1000D.org

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ASD/AIA/ATA – Technical Documentation

Description:

- S1000D is an international specification for the production of technical publications
- S1000D covers relevant activities to support maintenance and operation of a product
- S1000D specifies a set of standardized rules for the creation, management, distribution, use and update of common information in a workshare environment
- S1000D is NOT a ready-to-use solution for all technical publication problems
- S1000D can NOT be implemented without thorough planning and coordination between all involved project partners

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ASD/AIA/ATA – Technical Documentation

The S1000D Process

Simplified Illustration !

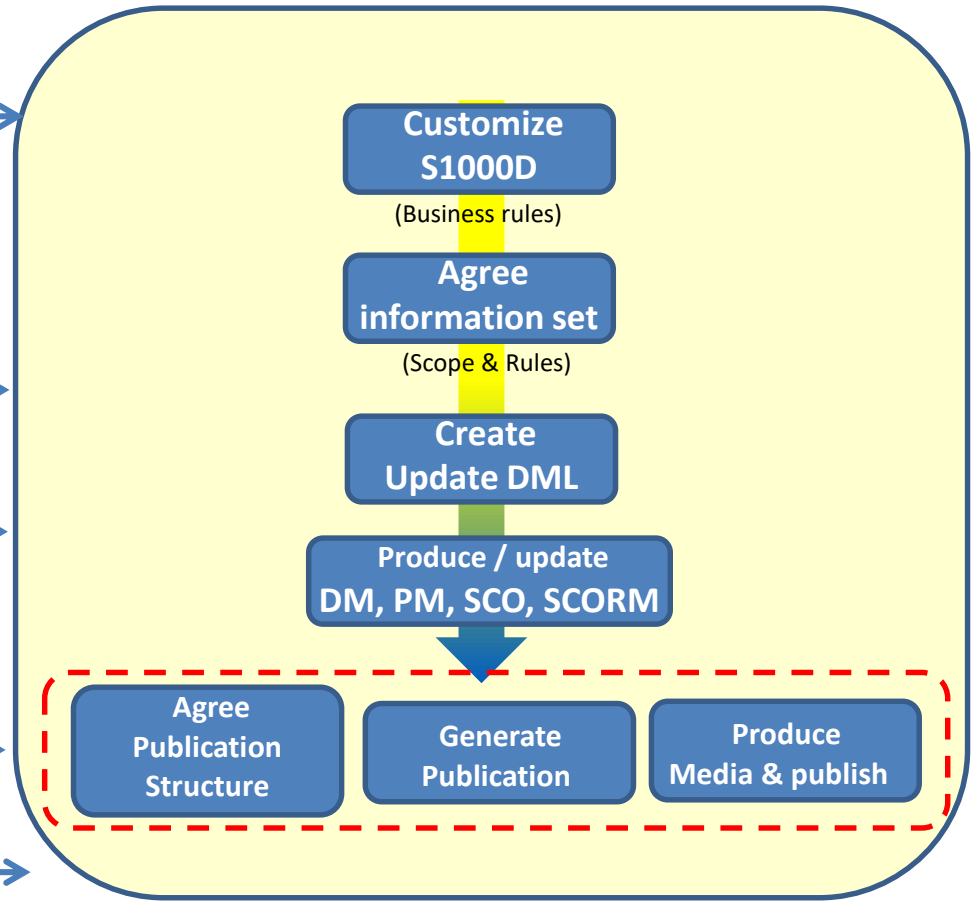
S3000L
- Maintenance/support concept
- Product breakdown
- Maintenance planning
- Maintenance tasks

S2000M
Illustrated parts List

Design:
- 3D Modules / Drawings
- Product description
- Etc…

S6000T
Req. for Training information

S5000F
Feedback / Comments



Chapter 1 Introduction

Chapter 2 Documentation process

Chapter 5 Information sets & publications

Chapter 4 Information management

Chapter 8 SNS & information codes

Chapter 3 Information generation

Chapter 6 Information presentation/use

Chapter 7 Information processing

Chapter 9 Terms & data dictionary

DML = Data Management List / DM = Data Modul / PM = Publication Modul / SCORM = Shareable Content Object Reference Model / SNS = Standard Numbering System

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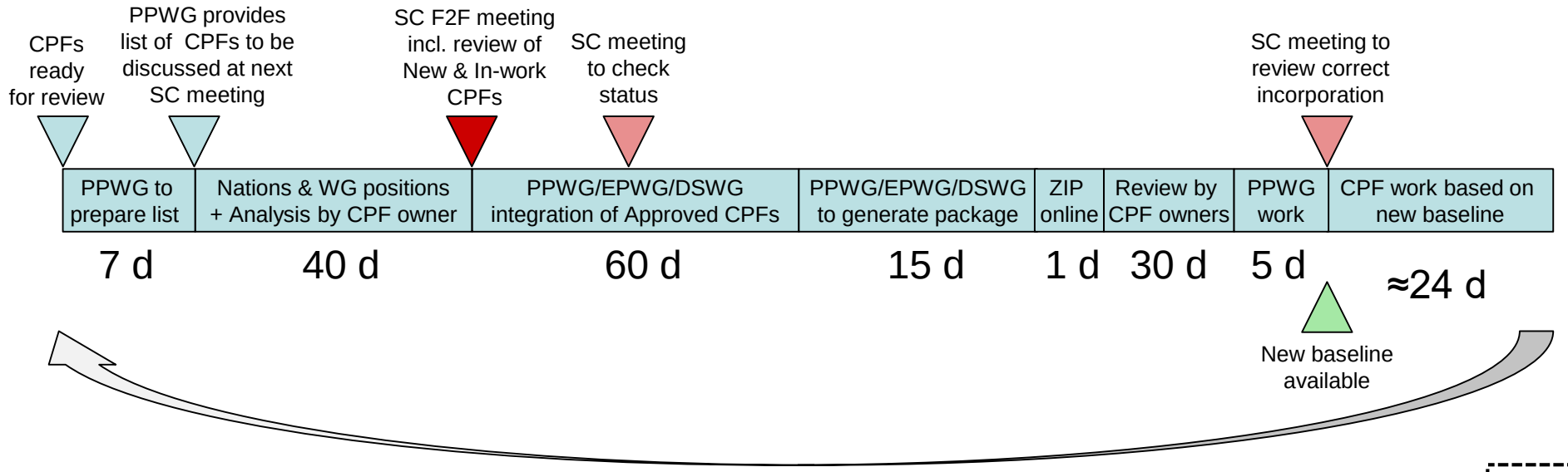
One cycle of a change process



- Min duration of one cycle to create a new baseline (Internal or Published S1000D Issue) ≈ 182 days
- Review of In-work CPFs at SC F2F meetings → two SC F2F meetings per year
- WebEx meetings in between F2F meetings to review New CPFs and review correct incorporation

Abbreviations

- CPF (Change Proposal Form)
- DSWG (Data Samples Working Group)
- EPWG (Electronic Publications Working Group)
- PPWG (Production and Publishing Working Group)
- SC (Steering Committee)

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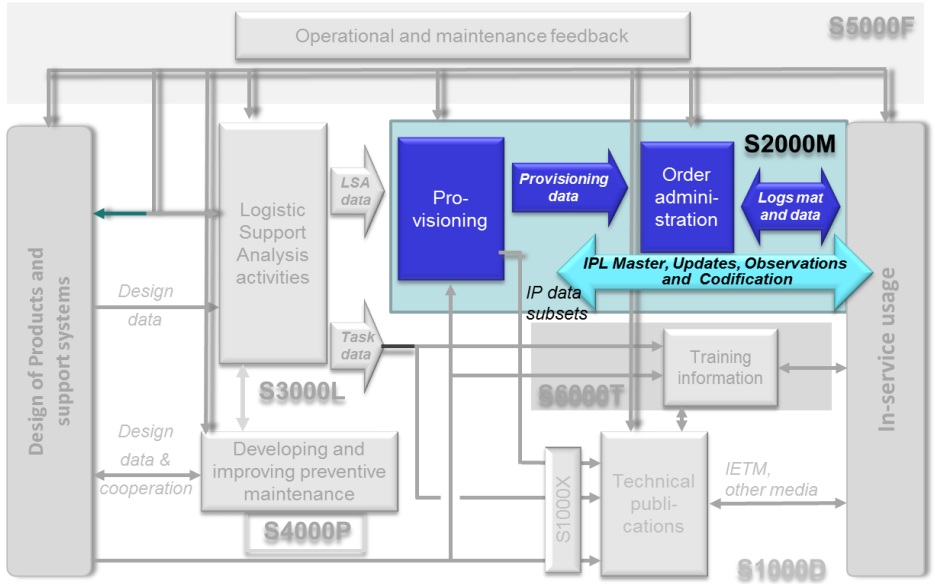
ASD/AIA S2000M – Material Management



Original title:

INTERNATIONAL SPECIFICATION FOR MATERIAL MANAGEMENT AND INTEGRATED DATA PROCESSING.

Current issue:

S2000M Issue 6.1 July 2017

www.S2000M.org

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ASD/AIA S2000M – Material Management

Description:

The specification S2000M defines the processes, procedures and provides the information for data exchange to be used for material management throughout the lifecycle of a product.

- It is the intention that S2000M shall be the common Material Support specification to be used by Governments, Procurement, Support Agencies, and Industry
- By agreement between Customer and Industry, it can be supplemented by additional international or national requirements for specific projects
- The use of the specification and any supplementary processes should always be subject of contractual agreement between Customer and Industry.
- It is also the intention of Industry that the specification shall be used, whenever possible, in projects involving other Customers throughout the world

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ASD/AIA S2000M – Material Management

The S2000M Process

Simplified Illustration !

S3000L
- Maintenance Concept
- Spares
- Tooling

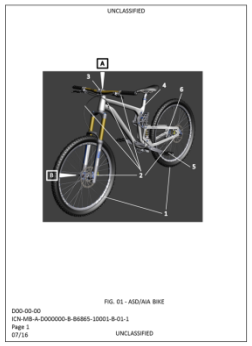
Design:
Drawings

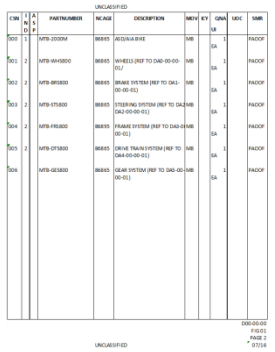
Transportation:
Storage Info

Commercial Information:

NATO-Codification
(optional)

Request ↑ ↓ NATO-Stock -Number





Draft ↓ ↑ approval

Pre-Assessment-Meeting
(optional) directly
with Customer

S1000D
Illustrated Parts Data (IPD)

S2000M
Initial Provisioning List (IPL) ➔ Candidates for maintenance repair

S2000M
Material Supply (Initial Provisioning/ reprovisioning)
➔ initiated by the Customer (Chapter 3)

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ASD/AIA S2000M – Material Management

Content of the current / future S2000M

S2000M Issue 6.1:

Chapter 1 – Provisioning

Chapter 2 – Spare Parts List (SPL)

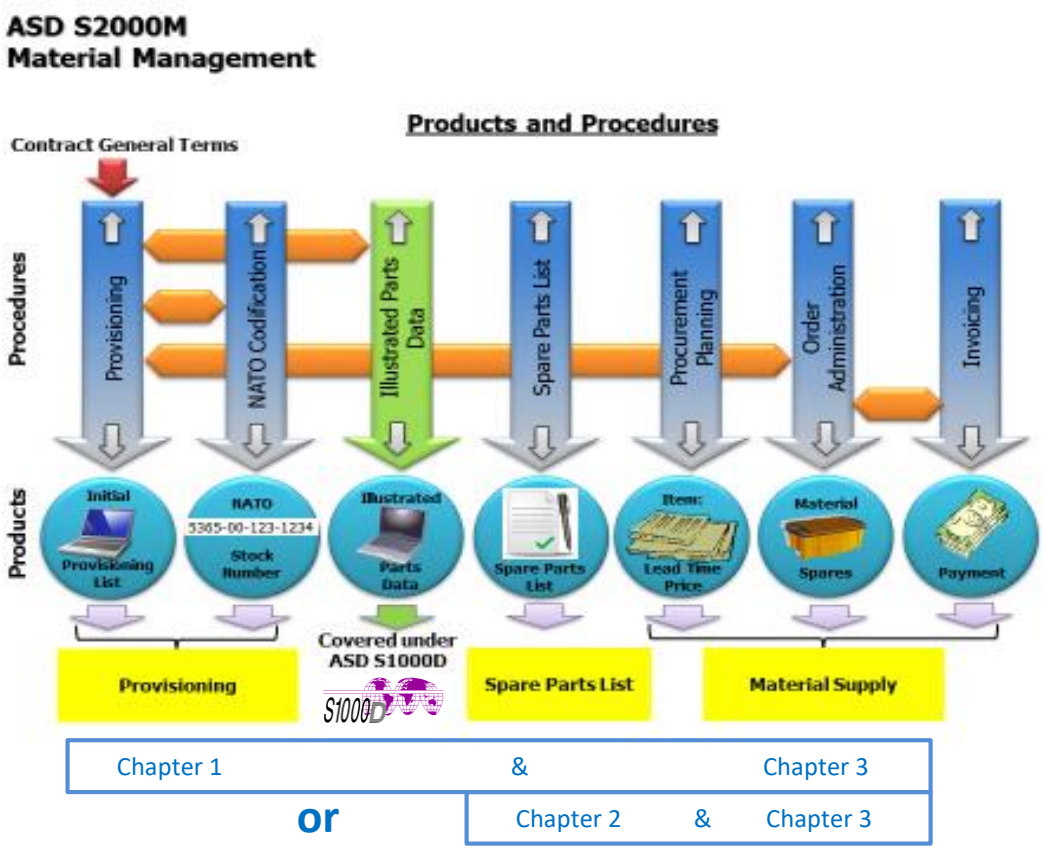
Chapter 3 – Material Supply (MS)

.

Chapter 4 – Communication Techniques (CT)

Chapter 5 – Data Dictionary (DD)

Chapter 6 – Definitions, Abbreviations and Reference Documents



Outlook **S2000M issue 7.0** → **Chapter update**

- **Use of S2000M for Performance Based Logistics**
- **Economical listing of Consumables**
- **Information if an item is Export Controlled (e.g. ITAR *)**
- **Narrative wording concerning compliance with REACH****

* International Traffic in Arms Regulations
** Registration, Evaluation, Authorisation of Chemicals

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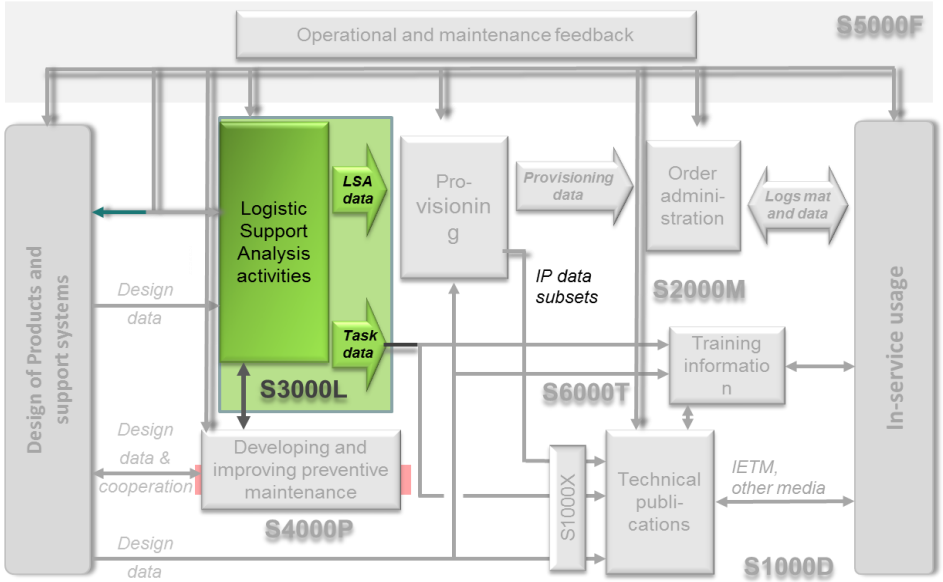
ASD/AIA S3000L – Logistic Support Analysis (LSA)



Original title:

INTERNATIONAL PROCEDURE SPECIFICATION FOR LOGISTICS SUPPORT ANALYSIS (LSA)

Current issue:

S3000L Issue 1.1 July 2014

www.S3000L.org

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ASD/AIA S3000L – Logistic Support Analysis (LSA)

Description:

Logistic Support Analysis (LSA) is an extended process to analyse carefully all elements of a complex technical product. The final goal of this analysis process is to establish an optimized support concept at reasonable costs during the complete product life cycle.

In this context, the term support concept means/includes corrective and preventive maintenance as well as operational support (e.g. transportation, packaging, storage, servicing, operational handling).

Three main goals can be identified:

- Influence on design to improve/optimize the product itself (mainly driven by RM&T analysis activities)
- Determination of the support concept and identification and optimization of the required support resources (personnel and material)
- Establishment of the basic information for the ILS elements to ensure data consistency throughout the complete product life cycle

LSA is not to be considered a standalone supportability analysis discipline or an ILS discipline. LSA does not provide a final ILS product such as technical publication, but it is the crucial coordinating element of the ILS organization to achieve the goals of an ILS approach.

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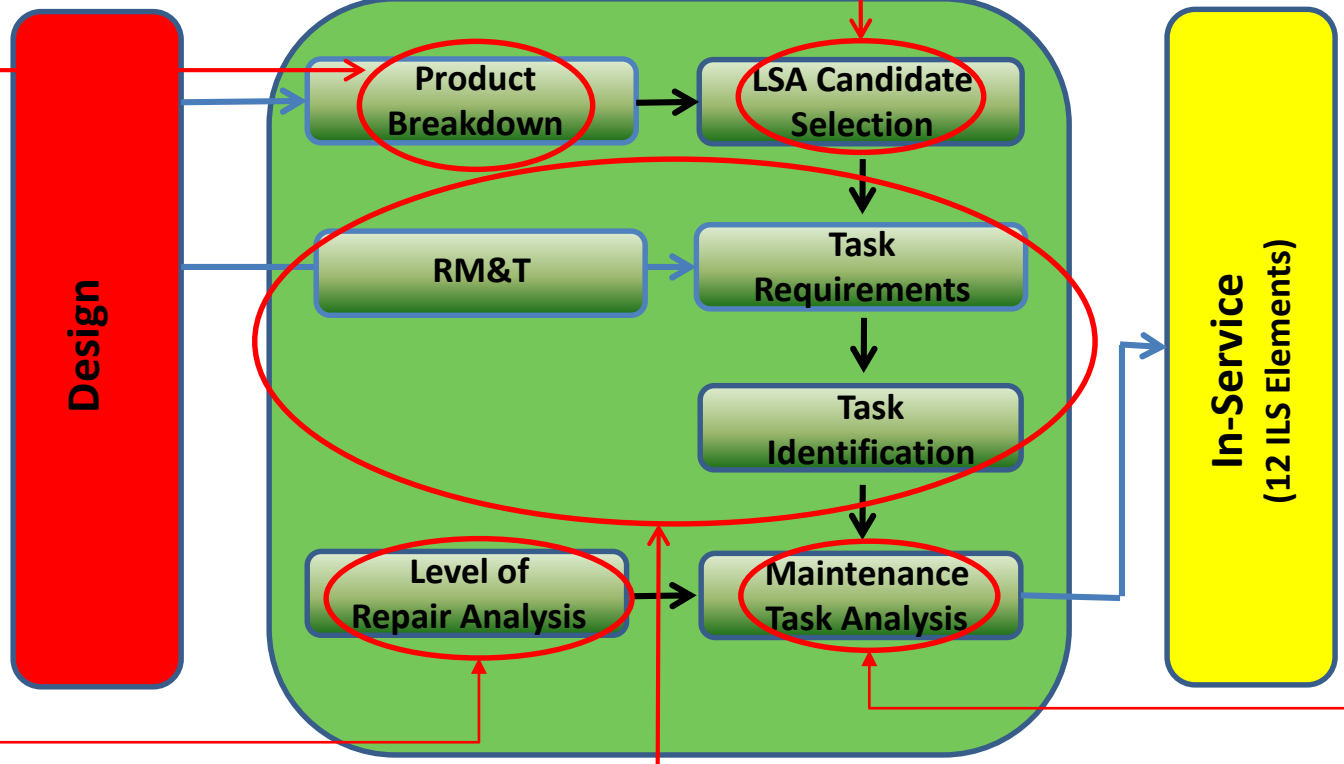
ASD/AIA S3000L – Logistic Support Analysis (LSA)

The S3000L Process

Simplified Illustration !



Definition of product breakdown structure based on design information

The LORA identifies the optimized maintenance level to perform the maintenance activities

A potential LSA candidate requires corrective, preventive maintenance or operational support.
(e.g. Equip. Subsystem, System)

Determination of tasks by identification of task requirements:

- Corrective Maintenance Task Requirements (CMTR)
- Preventive Maintenance Task Requirements (PMTR)
- Operational support task requirements (e.g. identified by „PHST*“ analysis)

Analyzing each support task concerning all 12 ILS elements
(e.g. technical documentation, Spare parts, GSTE** etc…)

PHST* = Packaging, Handling, Storage, Transportation
GSTE** = Ground Support Test Equipment

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ASD/AIA S3000L – Logistic Support Analysis (LSA)

Content of the current / future S3000L

Issue 1.1:

Introduction to the specification	Chap 1
General requirements	Chap 2
LSA business process	**Chap 3**
Configuration management in LSA	**Chap 4**
Influence on design	Chap 5
Human factors analysis	Chap 6
Chapter 7 to 10 **Identification/processing of task requirements**	
Level of repair analysis	Chap 11
Maintenance task analysis	**Chap 12**
Software support analysis	Chap 13
Life cycle cost considerations	Chap 14
Obsolescence analysis	Chap 15
In-service LSA	Chap 16
Disposal	Chap 17
Interrelation to other ASD specifications	Chap 18
Data model	**Chap 19**
Data exchange	Chap 20
Terms, abbreviations and acronyms	Chap 21
Data element list	Chap 22

Outlook:

New S3000L issue 2.0 in preparation (planned to publish in 03/2019)

- Review of all issue 1.1. chapters in terms of **editorial** and **formal** optimization/improvement:
  - Terminology and wording
  - Upgrade of illustrations
  - Harmonization with other ASD specification (especially SX000i and S4000P)
- Establishment of the **internal link to chapter 19**
  In each main **chapter 2-17**, a subchapter is added to establish the link to the data model chapter 19 ⇨ which classes (data element groups) are covered by which main chapter
- Mainly modified **chapter 16 (In-service LSA):**
  Introduction of In-Service Support Optimization (ISSO), including a generic ISSO analysis logic (comparable to the ISMO logic in S4000P)
- Update of chapter 19 in correlation with the actual Common Data Model (CDM) of the S-Series ILS specifications

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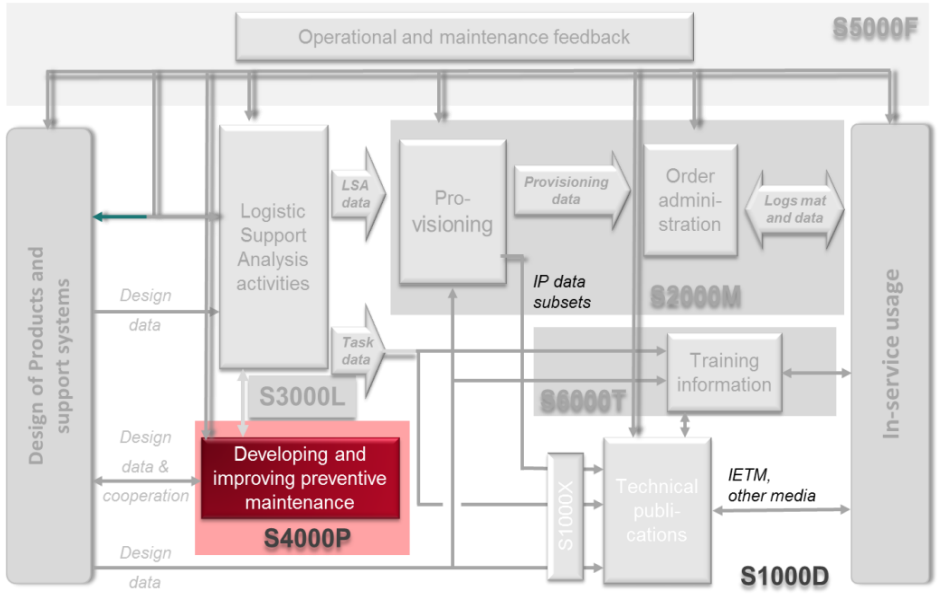
ASD S4000P – Preventive Maintenance Analysis and Optimization



Original title:

INTERNATIONAL SPECIFICATION FOR DEVELOPING AND CONTINUOUSLY IMPROVING PREVENTIVE MAINTENANCE

Current issue:

S4000P Issue 2.0 August 2018

www.S4000P.org

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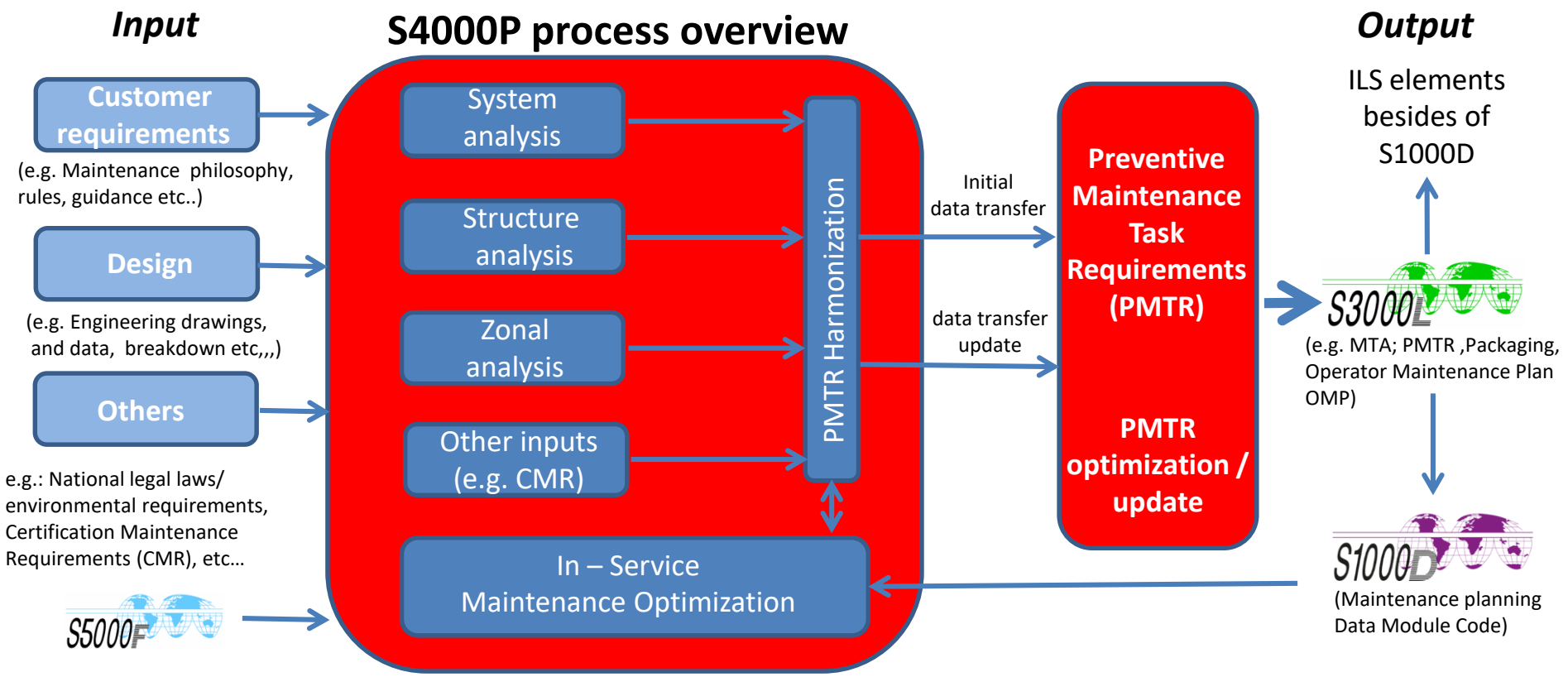
ASD S4000P – Preventive Maintenance Analysis and Optimization

Description:

Chapter 2 of the S4000P assists a Product manufacturer, suppliers, customers including regulatory authorities (if any), involved in the analysis process developing and releasing initial Preventive Maintenance Task Requirements (PMTR) and intervals for new products prior entry into service.

Chapter 3 provides the In-Service Maintenance Optimization (ISMO) process applicable for later optimizations/modifications of the OMP and/or of the Product design.



Simplified Illustration !

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ASD S4000P – Preventive Maintenance Analysis and Optimization

Content of the current S4000P Issue 1.0

Introduction to the specification — **Chap 1**

Development of Preventive Maintenance Task Requirements — **Chap 2**

Analysis methodologies for a Product:

- System analysis
- Structure analysis
- Zonal analysis (modular)

Continuously improving preventive maintenance „ISMO“ — **Chap 3**

Interfaces of S4000P (Dummy) — **Chap 4**

Terms, abbreviations and acronyms — **Chap 5**

Examples — **Chap 6**

… and of the future S4000P Issue 2.0

Introduction to the specifications — **Chap 1**

Titel change

Developing PMTR — **Chap 2**

NOTE:
Developing of PMTR both with intervals (PMTRI) and PMTR for special events PMTRE cover e.g. bird strike, lightning heavy landing…

New

Developing PMTR -Special event analysis — Chap 2.7

Titel change

Optimizing PMTR — **Chap 3**

NOTE:
Optimizing of PMTR both with intervals (PMTRI) with ISMO and PMTR for special events (PMTRE)

New

Optimizing PMTR - Review of PMTRE for special events — Chap 3.5

Interfaces of S4000P — **Chap 4**

New

- S4000P interfaces outside the S–Series of Spec‘s
- S4000P interfaces inside the S–Series of Spec‘s

New

Data Model and Data exchange — **Chap 5**

Terms, abbreviations and acronyms — **Chap 6**

Examples — **Chap 7**

New

Front Brake Mountain Bike, PPH contents

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ASD S4000P – Preventive Maintenance Analysis and Optimization

Outlook:

Issue 2.0 will provide additional support and additional solutions for preventive Product maintenance analysis aspects not being covered by any other analysis specification/standard today.

Main advantages and benefits:

- Applicability on and flexibility to be used for all complex Product types
- Provision of analysis methodologies and processes covering the whole Product life cycle
- Integrated specification of the ASD/AIA S-Series ILS specifications
  (harmon. processes, data model, data exchanges, integrated IT support etc.)

Remark:

- Several successful applications for military A/C and submarines in EUROPA.
- NATO signature of STANREC 4795 comprising the ISMO process
  (see chapters 3.1. to 3.4. in Issue1.0 "S4000P" and chapter 10 "S3000L")
- Signature and release of the S4000P application guideline for the German forces/German MoD in 2017

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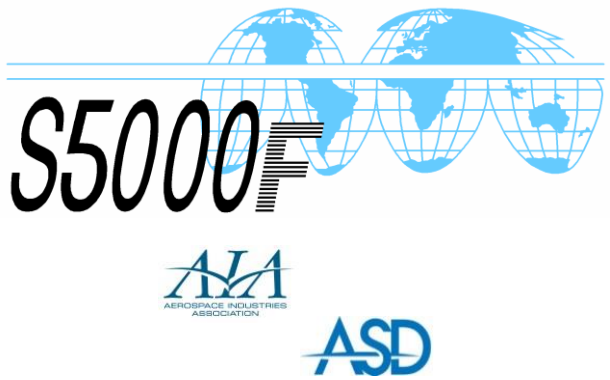
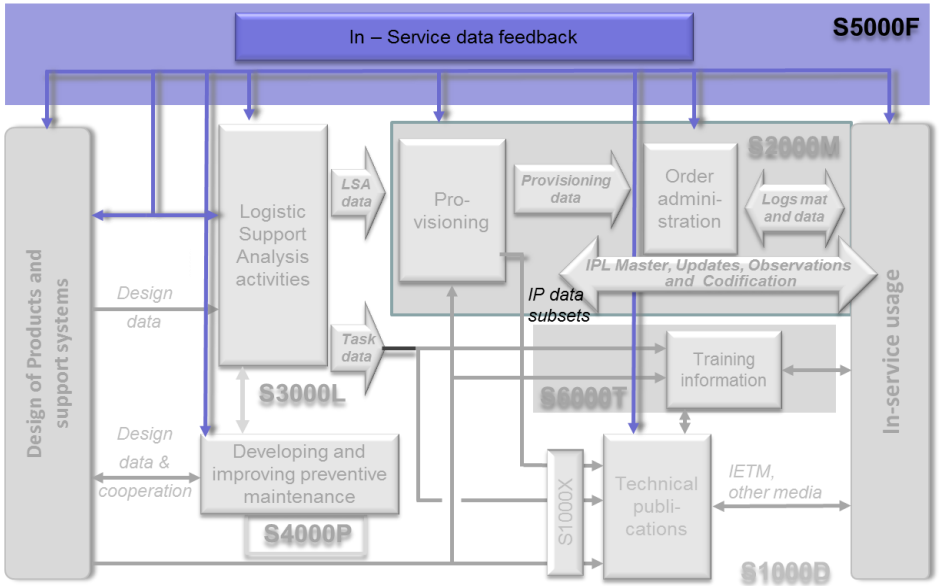
ASD/AIA S5000F – In – Service Data Feedback





Original title:

INTERNATIONAL SPECIFICATION FOR IN-SERVICE DATA FEEDBACK

Current issue:

S5000F issue 1.0 September 2016

www.S5000F.org

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ASD/AIA S5000F – In – Service Data Feedback

Description:

The S5000F - International Specification for In Service Data Feedback describes a structured way to share information between different stakeholders regarding a system or product.
The information will be transferred using an XML schema that is interoperable with the other S-Series ILS specifications.

Collection of in-service data has many purposes and is one of the most important functions of in service support. It enables fleet managers, support managers and manufacturers to perform a thorough analysis of operational and maintenance performance of a complex technical system.

The results of the analysis can be the basis for:

- Enhancement of the maintenance and support concept
- Improvement of the product or the system by modifications and retrofit activities
- Sophisticated operational planning
- Management of requirements and contract

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Content of the current S5000F

Issue 1.0:

Introduction	Chap 1
The in-service data feedback process	Chap 2
Feedback data for the purpose of Reliability, Availability, Maintainability capability and Testability analysis	Chap 3
Feedback of data for maintenance analysis	Chap 4
Feedback of safety data	Chap 5
Feedback of data for supply support	Chap 6
Feedback of Life Cycle Cost analysis	Chap 7
Feedback of data for warranty analysis	Chap 8
Feedback data for the purpose of product health and usage monitoring	Chap 9
Feedback of data to support obsolescence management	Chap 10
Feedback of data for integrated fleet management data	Chap 11
Feedback of data for configuration management	Chap 12
Feedback of data to support the management of in-service contracts	Chap 13
Feedback of non pre-defined information	Chap 14
Data model	Chap 15
Data exchange	Chap 16
Data element list	Chap 17
Tailoring and contracting against S5000F	Chap 18
Data required for the different use cases	Chap 19
Terms, abbreviations and acronyms	Chap 20

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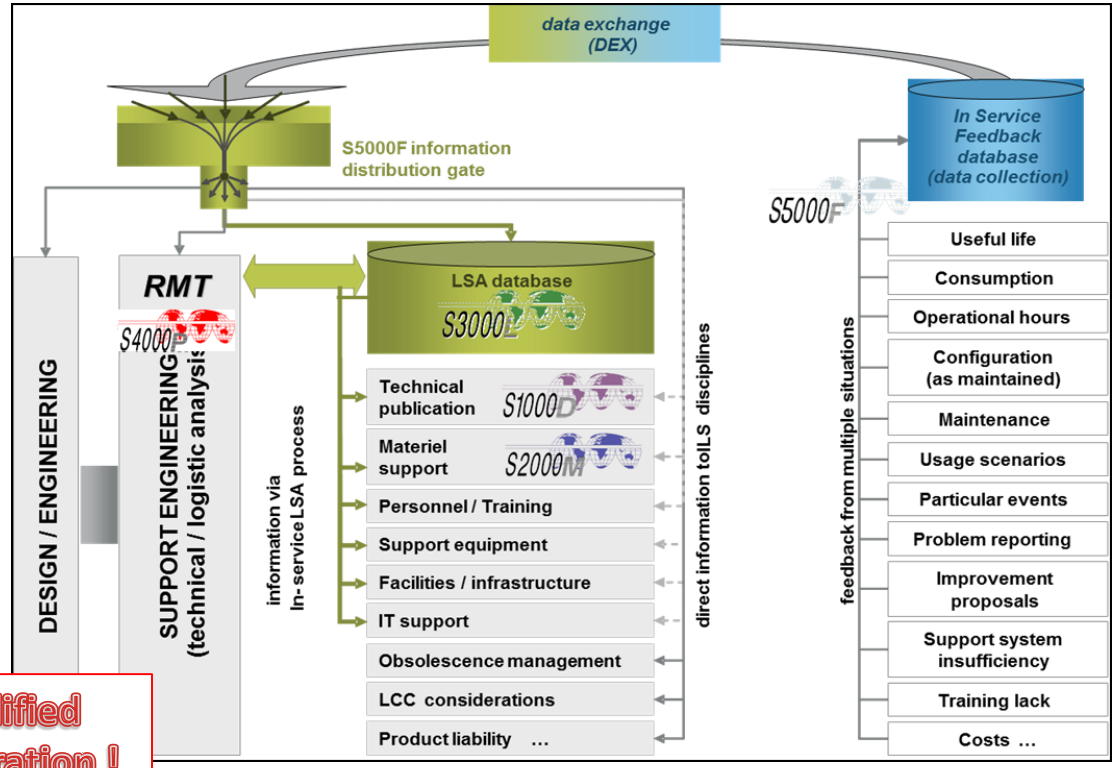
ASD/AIA S5000F – In – Service Data Feedback

Content of the future S5000F

The S5000F process



Simplified Illustration !

* European Coordination Centre for Accident and Incident Reporting system
** Standard for Software Interface for Maintenance Information Collection ans Analysis (SIMICA)
*** Registration, Evaluation, Authorisation of Chemicals

Outlook:

Issue 1.1 is planned to be published by the end of 2018 and will include the following updates:

- New software chapter
- Export Control
- Shop findings
- Enhanced environment
- Transport (to be confirmed)
- Some new other „Use Cases“

Issue 2.0 is planned to be published in 2021
First ideas are under discussion:

- New chapter for Feedback for/from Disposal
- Harmonization with ECCAIRS* (if feasible/practical)
- Harmonization with IEEE 1636** (if feasible/practical)
- Integration of REACH***
  (discussion ongoing about generic description / no REACH data)

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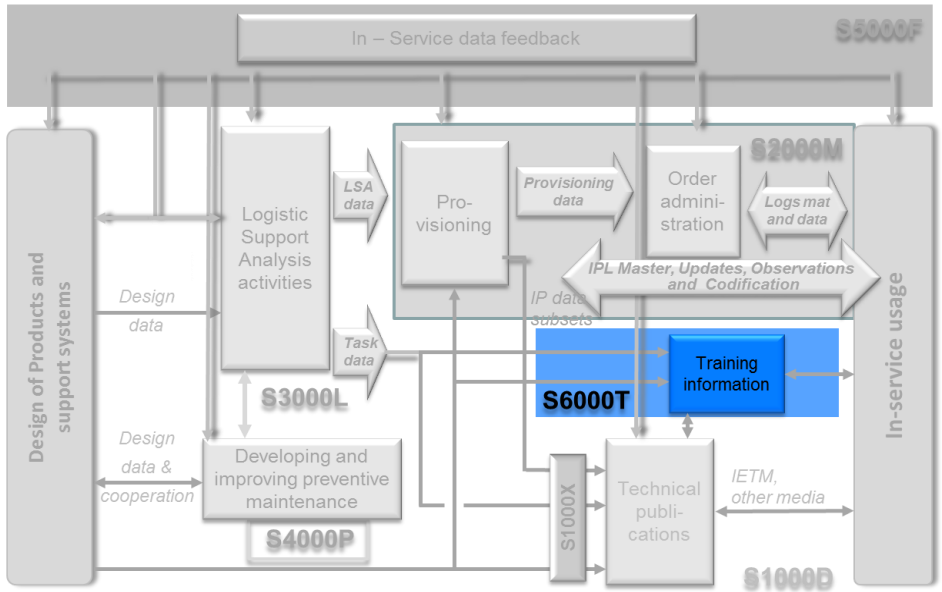
ASD/AIA S6000T – ILS Training



Original title:

INTERNATIONAL SPECIFICATION FOR TRAINING INFORMATION

Planned issue:

S6000T issue 0.1 (planned to publish in 3rd Quarter of 2018)

www.S6000T.org

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ASD/AIA S6000T – ILS Training

Description:

Successful training requires a firm foundation:

- Detailed, comprehensive requirements
- Solid design definition data

Purpose of the S6000T specification: To define all levels of requirements and design data necessary to support product training development.

S6000T will cover:

- An introduction to the specification
- Information gathering
- Analysis
- Design
- Touch points between the elements of S6000T and the common data model

Also under consideration:

- Human factors
- S6000X, which is the specification that will detail all the mapping between elements of S6000T and the rest of the S-Series ILS specifications

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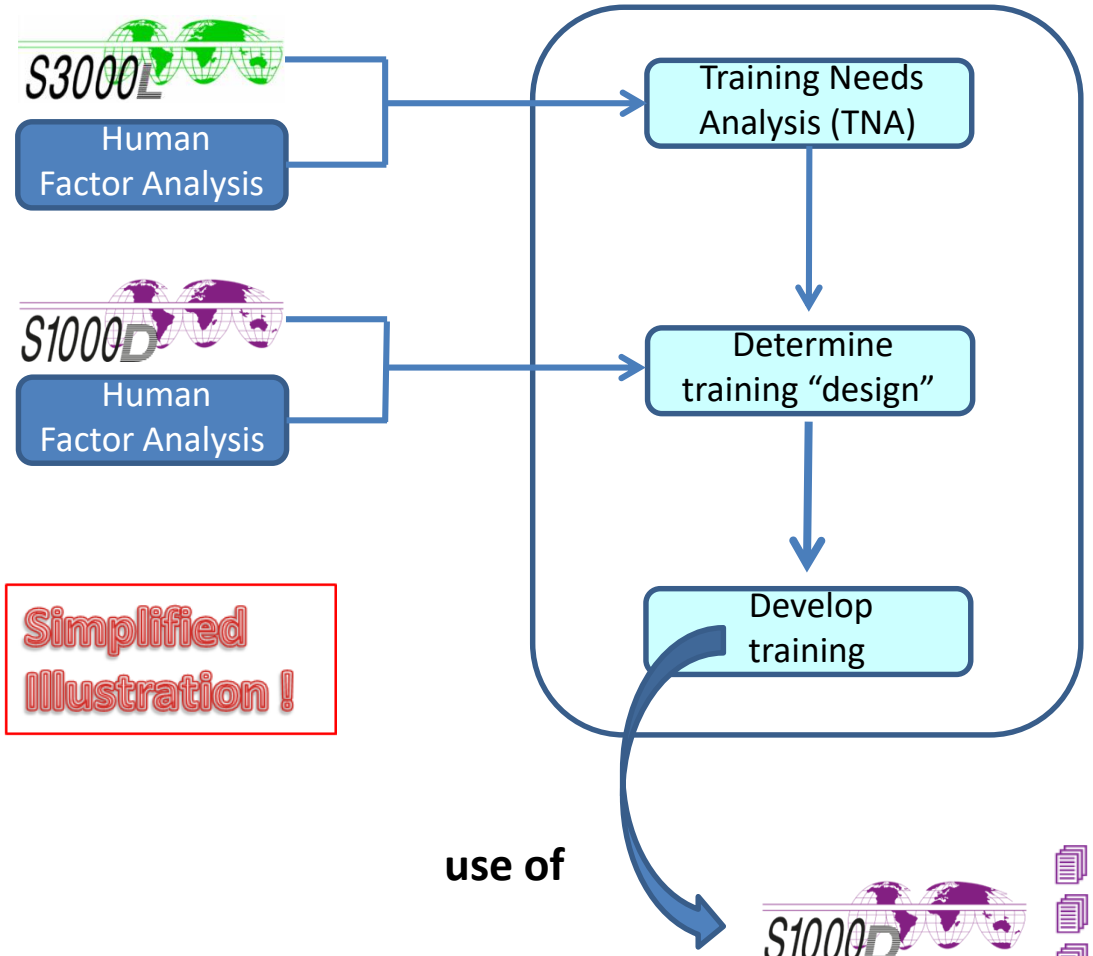
ASD/AIA S6000T – ILS Training

The S6000T Process



- Training situation analysis: Analyze operational environment, existing training capabilities and potential gaps
- Identify tasks to be trained *(input from MTA / LSA database)*
- Define classification of tasks *(difficult / simple, frequency, importance for product operability)*

- Identify background concerning experience and educational needs
- Develop training objectives *(including conditions for performance)*
- Determine required media *(including technical publications)*
- Sequence the training objectives into learning objectives
- Describe IT requirements *(e.g.: LMS* or reporting system)*

- Develop learning content (training material)
- Assembly / group learning objects and structure learning courses
- Implement sequencing requirements
- Define required data

LMS* = Learning Management System

SCORM** = Shareable Content Object Reference Model

use of S1000D

- ➔ Learning Data Modules
- ➔ SCO Content Data Modules
- ➔ SCPM (SCORM** Publication Modules)

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Interoperability between the ASD/AIA S-Series Specification - Data Exchange

DMEWG (Data Management Exchange Working Group)

Data exchange
in a common format

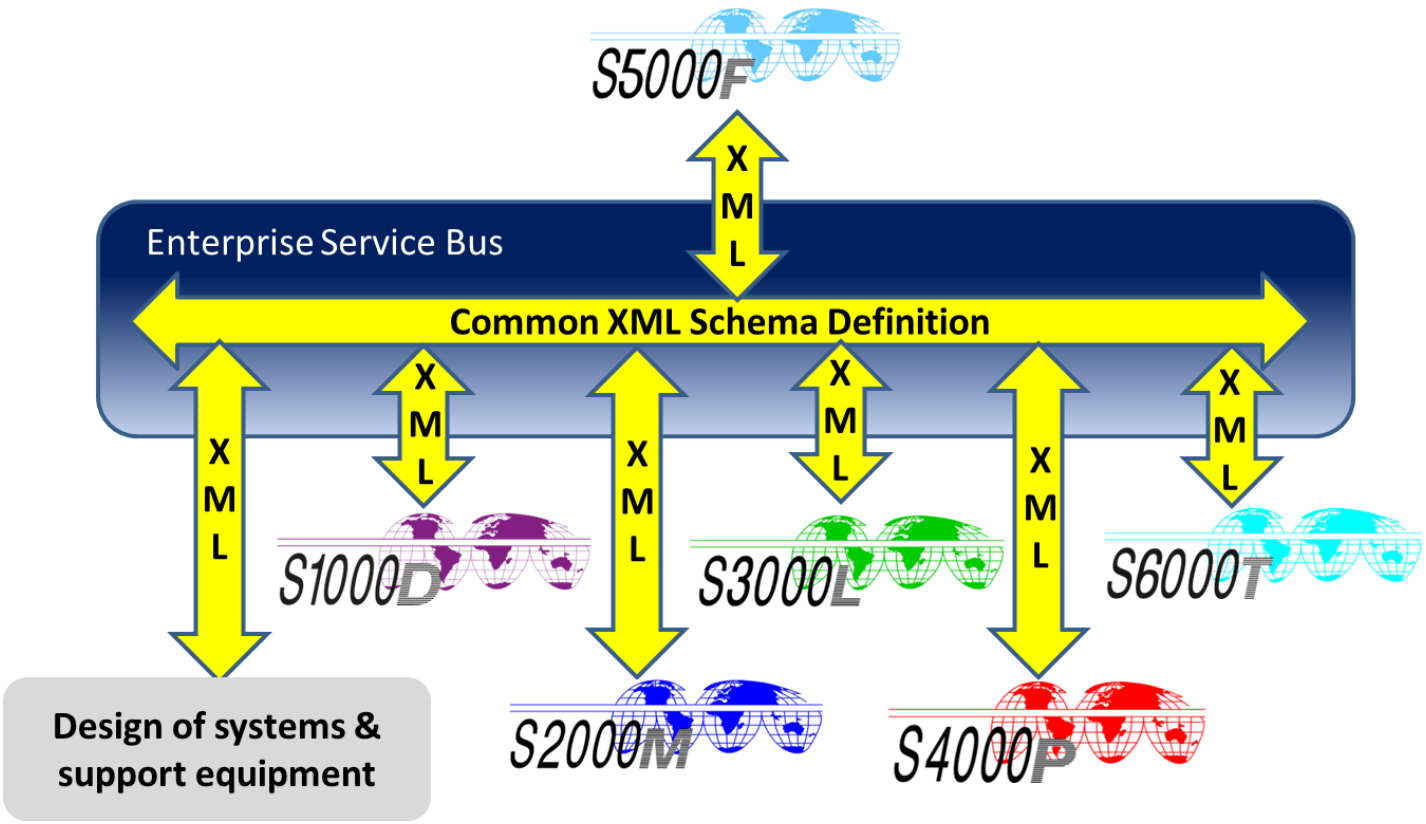
SX001G

SX002D

Auxiliary
Specifications

SX004G

SX005G



Data Input
Specifications
for Sn000X

S1000X

S2000X

S3000X

S4000X

S6000X

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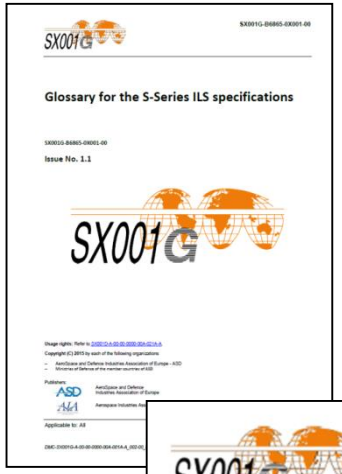
Interoperability between the ASD/AIA S-Series ILS specification – Data Exchange

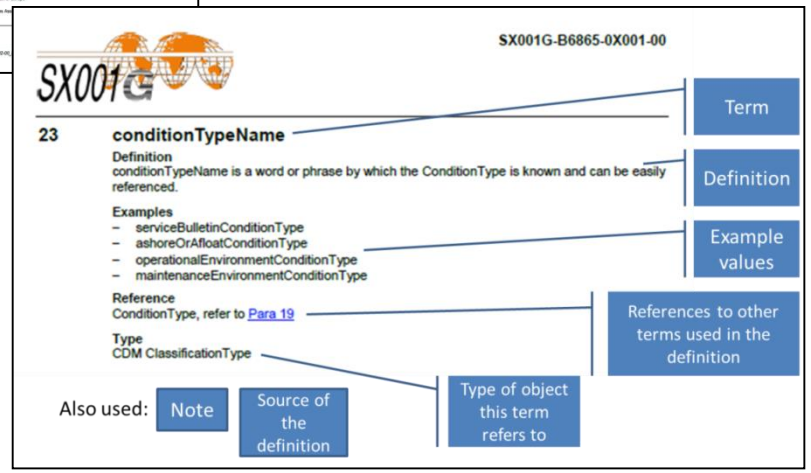
Common Format

SX001G
(Glossary for the S-Series ILS specifications)

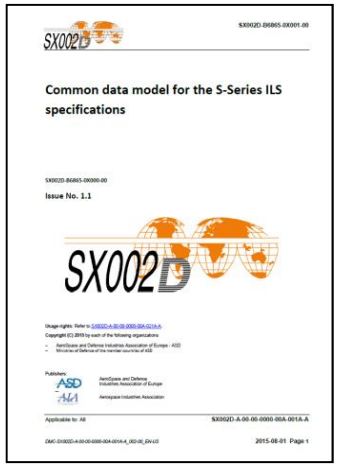


The SX001G contains:

- Issue 1.1 scope is limited to the terms & definitions of the business terms and data items.
- Business terms include concepts that are significant to understand the S-Series ILS specifications
- Data items correspond to elements defined within the data models of the S-Series ILS specifications

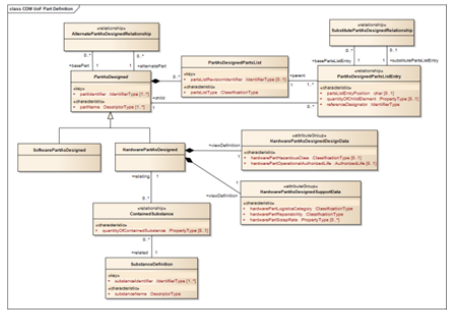


SX002D
(Common Data Model for the S – Series ILS specifications)



- Issue 1.1 (Published)
  - Product and product variant
  - Product breakdown
  - Part as designed
  - Bill of material
  - Allowed product configuration
- Issue 2.0 (Planned)
  - Project and contract
  - Task requirement
  - Task
  - Task resources
  - Time limits

Provides a harmonized information model for information that is common to more than one Specification



XML Schema Authoring Rules

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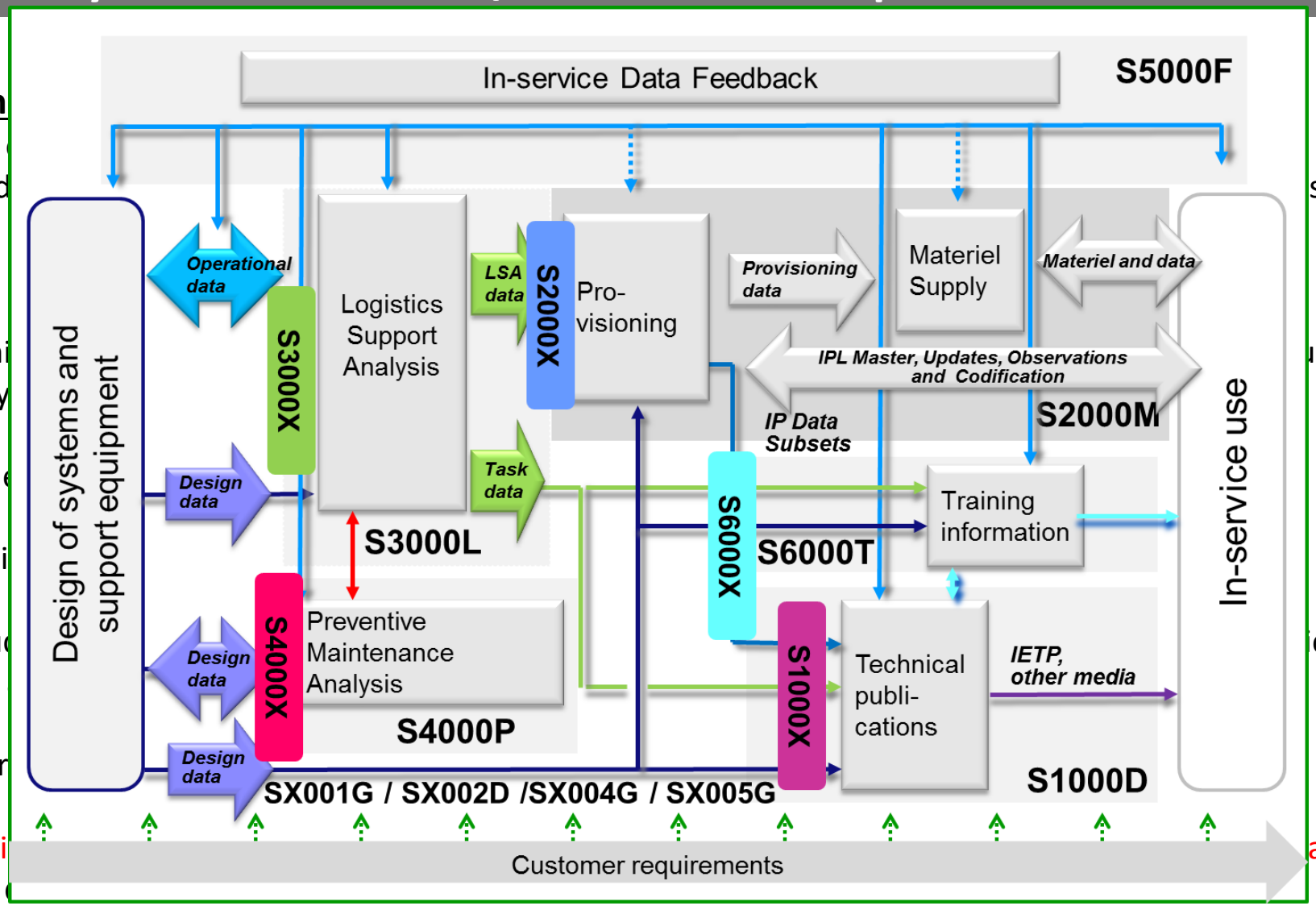
Interoperability between the ASD/AIA S-Series ILS specification – Data Exchange

Description

The purpose
data required
standardized way

Content:

- The defini
necessary
ude any source
- Sn000X de
- Sn000X gi
- This inclu
including
ications/systems
- The order
- The termi
a is based on the
common



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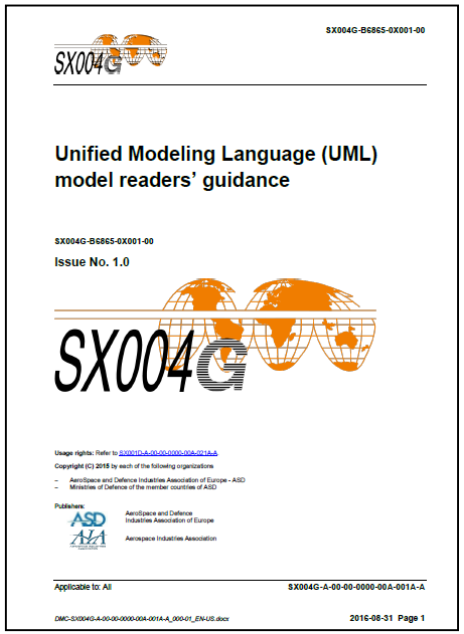
Interoperability between the ASD/AIA S-Series ILS specification – Data Exchange

Auxiliary Specifications

SX004G

(Unified Modeling Language (UML) model reader's guidance)


SX004G-B686S-0X001-00

SX004G

Unified Modeling Language (UML) model readers' guidance

SX004G-B686S-0X001-00

Issue No. 1.0

SX004G

Applicable to: All

SX004G-A-00-00-0000-00A-001A-A

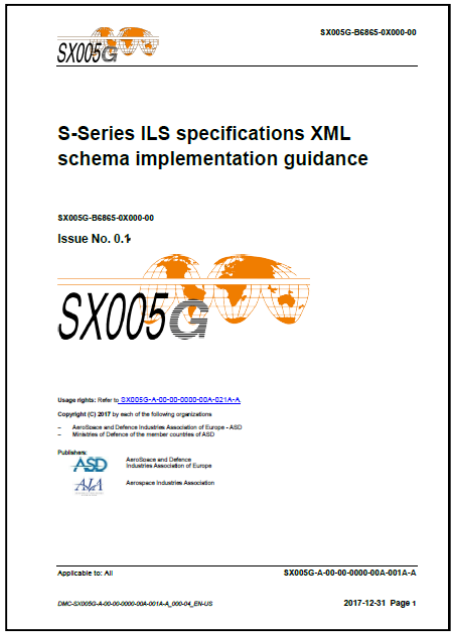
2016-08-31 Page 1

General:

- The **SX004G** describes how to read and understand the language (UML) class models that are created in the SX002D
- Provides a clear instruction on how the S – Series ILS specifications UML models need to be read and to make sure, all parties have a common understanding

SX005G

(S-Series ILS Specifications XML schema implementation guidance)


SX005G-B686S-0X000-00

SX005G

S-Series ILS specifications XML schema implementation guidance

SX005G-B686S-0X000-00

Issue No. 0.1

SX005G

Applicable to: All

SX005G-A-00-00-0000-00A-001A-A

2017-12-31 Page 1

General:

- The **SX005G** defines the rules for the managing of the data exchange via updated messages between two systems that are compliant with the respective S-Series ILS specifications.
- XML schemas defined for the respective S-Series ILS specifications define data that can be sent from one data system to another.

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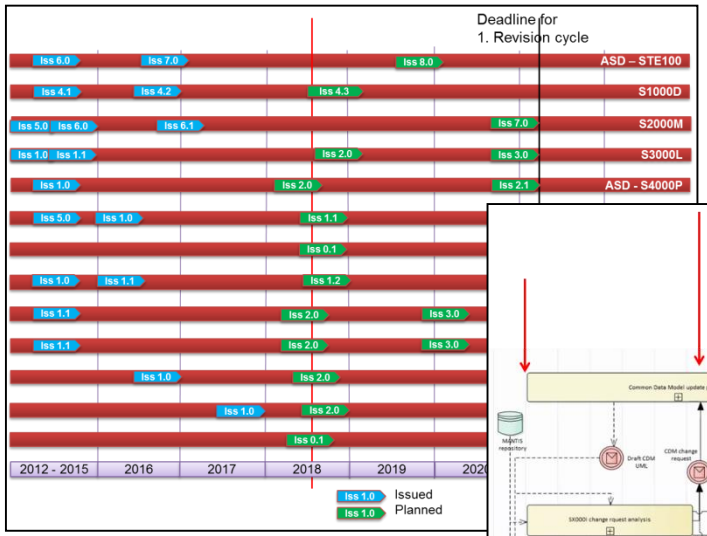
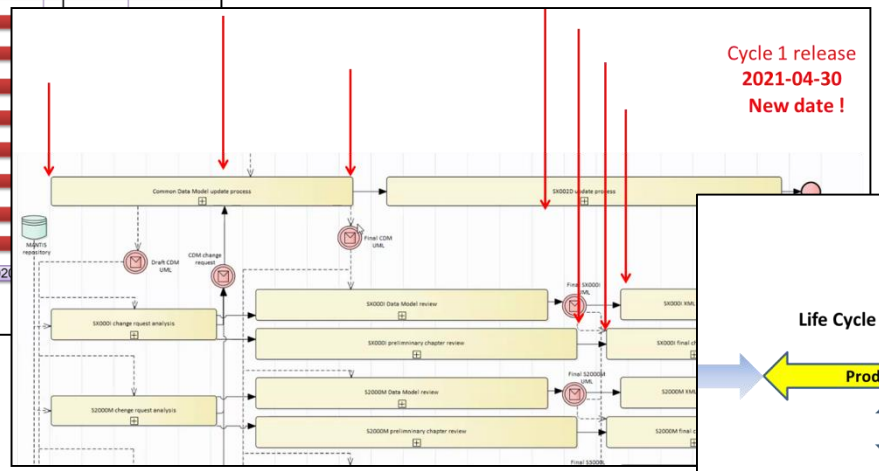
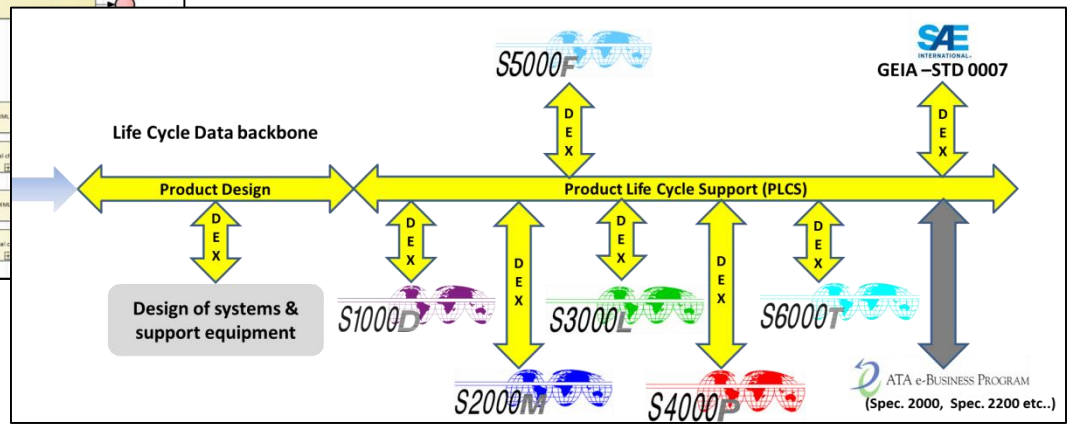
Future Activities / planned Topics







2018 | 2019 | 2020 | 2021 | 2021 | 2022 | 202x

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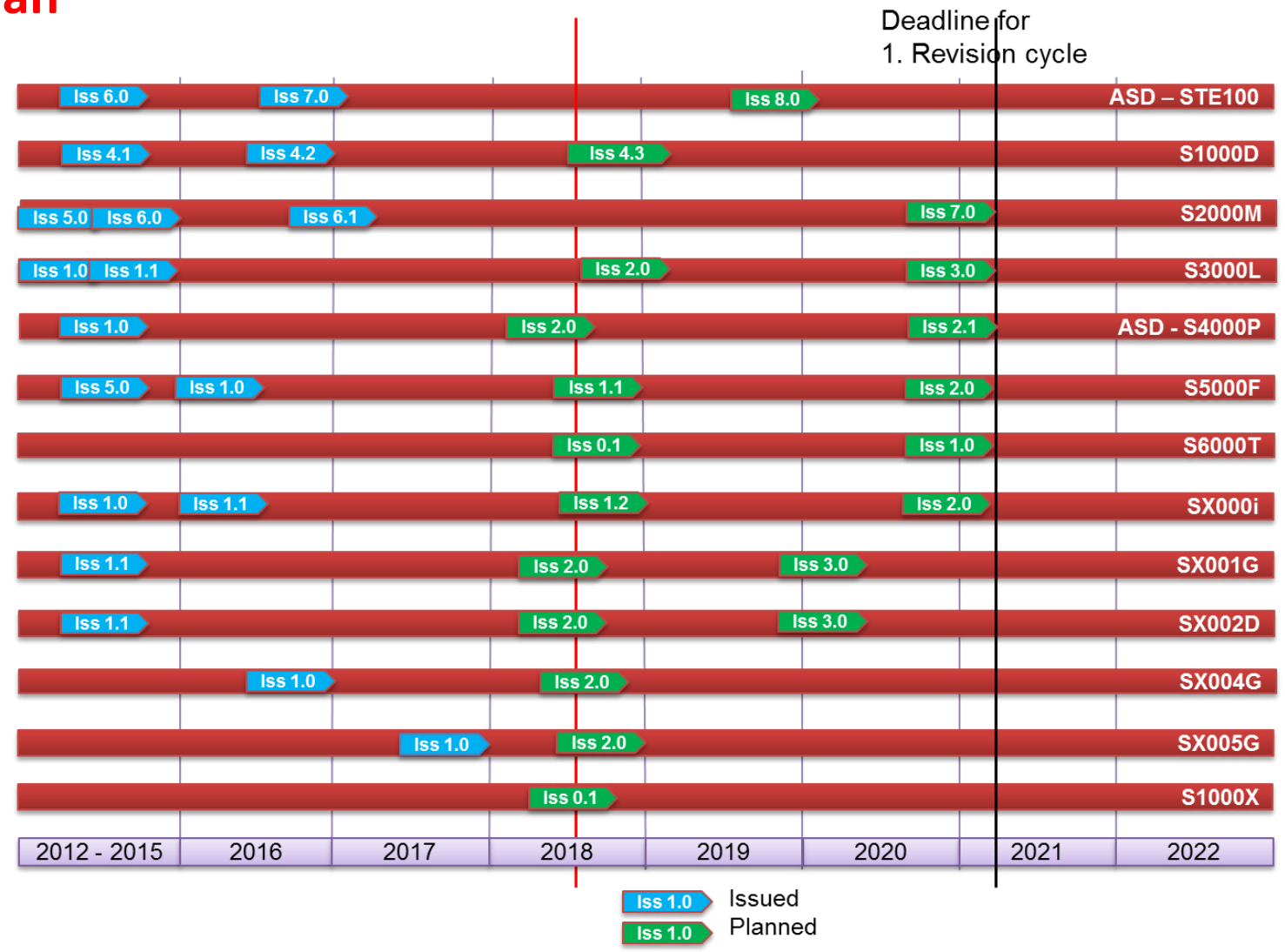
Future Activities / planned Topics

Specification Issue plan



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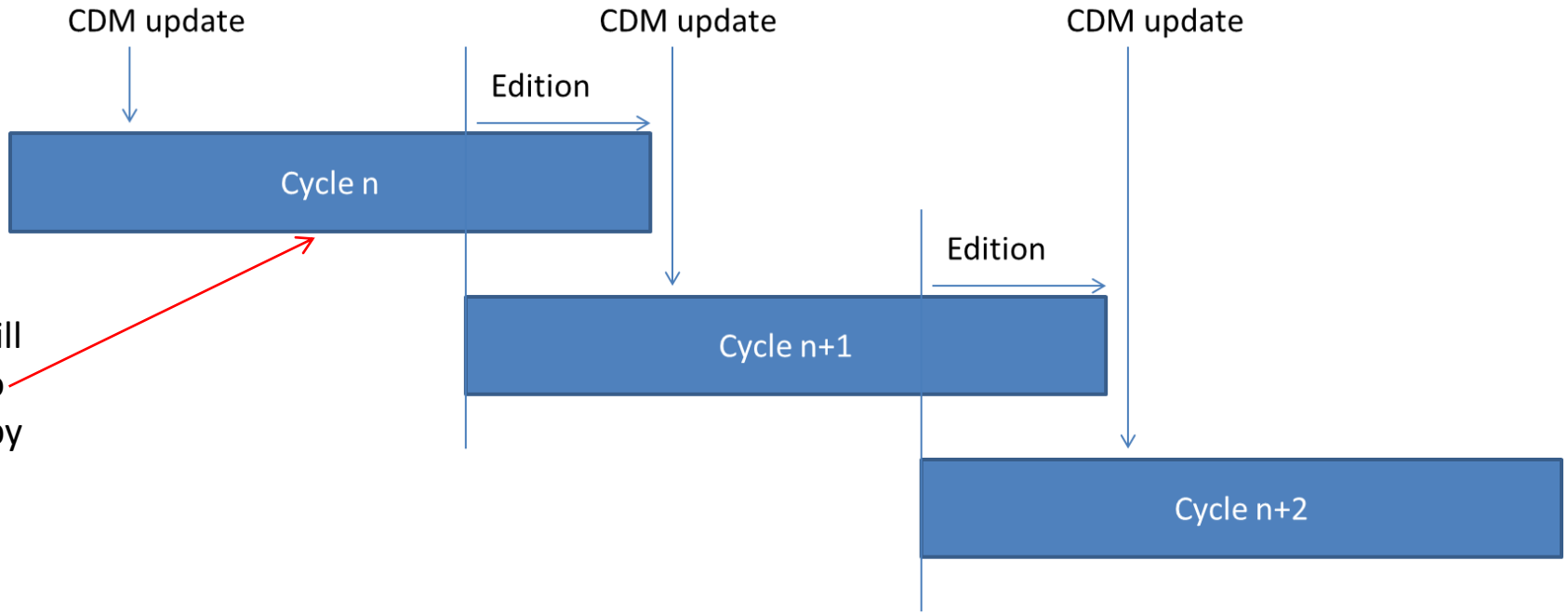
Future Activities / planned topics

S – Series ILS Specification Publication Process:

The ILS Council has agreed to perform a block release for all S-Series ILS specifications, with the exception of S1000D. This means that all specifications will be published at the same time, so as to ensure the interoperability of the whole S-Series of ILS specifications.
The cycles of the different block releases will overlap, so as to ensure that each SC/WG can continue working without having to wait for all the editorial work to finish.



This block release will take place every two years, at a date set by the ILS Council

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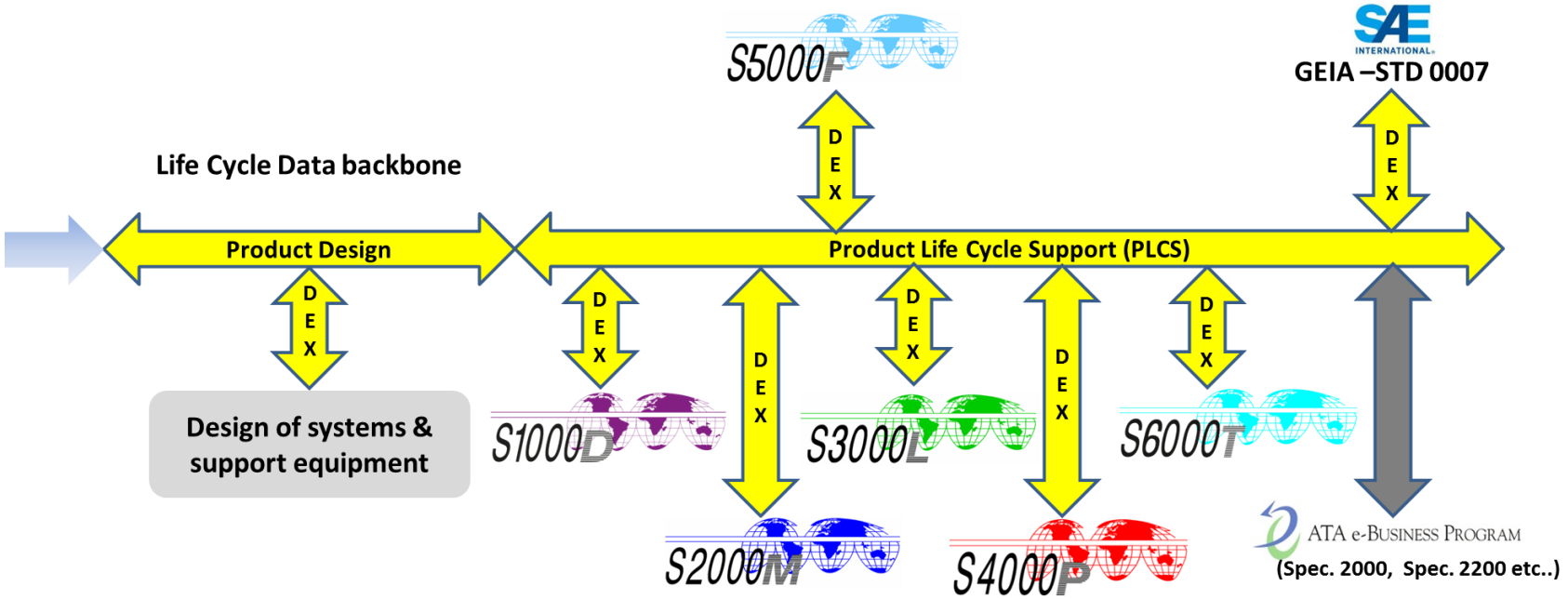
Future Activities / planned Topics

DMEWG objective to fully adopt AP239 ed. 3 into the S – Series ILS Specifications

For the time being the S-Series are using XML schema but in the future it has to be taken in account that the data exchange outside the scope of the S-Series ILS specifications (e.g. 3D models) needs a new approach and in this case the AP239 ed. 3 could be an adequate option.

Nevertheless the PSSG agreed as long as PLSC ed.3 is in the development phase and not mature enough (based on their complexity) no change from XML to PLCS ed.3 is planned.
The close contact to the PLCS WG is guaranteed by the active participation of ASD / AIA DMEWG members.



A coherent set of standards

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Website visits and specification downloads 2017

Website	Unique visitors	Document	Downloads
s1000d.org	No data	S1000D Issue 4.0 & 4.1 & 4.2	624 / 1,208/2,891
		S1000D (older issues, 1.7 to 4.1)	1,726
s2000m.org	6,742	S2000M Issue 5.0	4,284
		S2000M Issue 6.0 / 6.1	1,804 / 2,603
s3000l.org	8,130	S3000L Issue 1.0	2,249
		S3000L Issue 1.1	5,970
		Data model / XML schema	930 / 799
s4000p.org	5,558	S4000P Issue 1.0	1,223
s5000f.org	5,021	Issue 1.0	2,436
		Data model	533
s6000t.org	2,715	N/A	N/A
sx000i.org	8,373	SX000i Issue 1.0 / 1.1 SX001G SX002D Issue 1.0 / 1.1 S4000G Specifications Issue Plan /Overview	318 / 1,302 591 148 / 683 379 411/ 595

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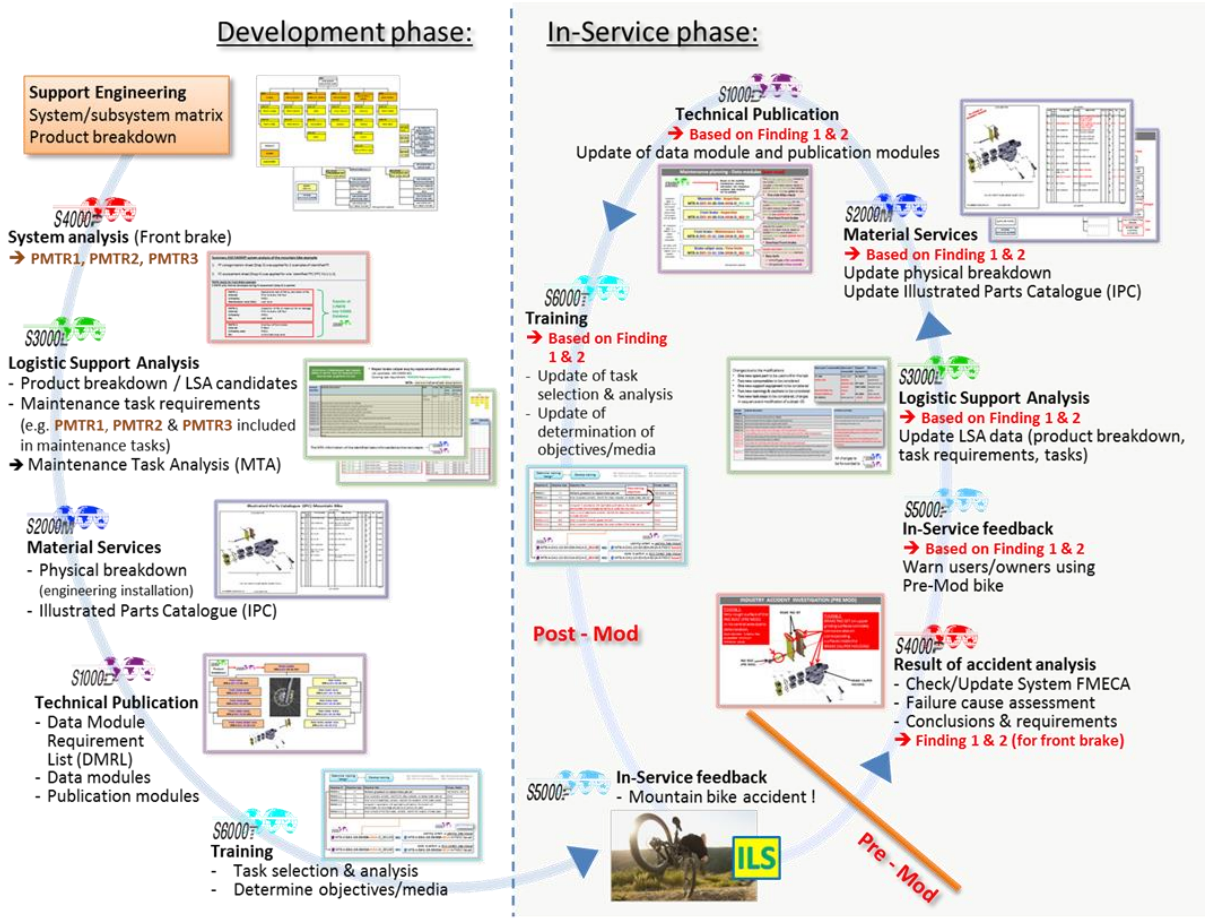
Conclusion / Summary

Conclusion

The S-Series ILS specifications offers a powerful collection of specifications, which ensures the implementation and execution of an effective and efficient ILS process about the whole Product Life Cycle.

Future Developments will improve the performance of the ASD / AIA S-Series ILS specifications and their harmonization among each other (e.g.: Sn000X, Sx001G, Sx002D etc…).
This includes a high potential of cost optimization and ensure the interoperability of the ILS disciplines.

The specifications are developed further by Experts and Providers of technically complex products under the umbrella of the international industrial Organizations (ASD, AIA, ATA)



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Key OSD Messages and S-Series Touchpoints*

Alignment with the National Defense Strategy

- SECDEF Mattis:
  - Lethality & Readiness
  - **Strengthen Alliances and Partners ***
  - **Bring business reform to DoD (DEPSECDEF Shanahan focus) ***
- USD(A&S) Lord:
  - Significantly improve F-35 program execution
  - Ensure nuclear enterprise is whole
  - Fund S&T critical technologies
  - **Identify a better process for FMS ***
  - Reconfigure acquisition workforce
  - **Implement acquisition reform ***
  - Implement A&S structure
- ASD(L&MR) McMahon:
  - Revitalize weapons system readiness, get to “apples to apples” comparisons on Material Availability
    - This year is the “year of metrics”
  - Fix F-35 readiness and sustainment
  - **Make sustainment more effective ***
  - **Make logistics more effective (Executive Agent responsibilities) ***

Speaker: Mike Kelly, NGC

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SUMMARY

- Alignment with the National Defense Strategy
  - Expand regional consultative mechanisms and collaborative planning
  - Deepen interoperability
  - Fortify the Trans-Atlantic NATO Alliance
  - Sustain advantages in the Western Hemisphere
  - Deliver performance at the speed of relevance
  - Organize for innovation
  - Drive budget discipline and affordability to achieve solvency
  - Streamline rapid iterative approaches from development to fielding
  - Harness and protect the National Security Innovation Base
- Programs invoking S1000D have the foundation for S-Series adoption
- As weapon systems are become more sophisticated, in-service feedback is imperative to ensure lower sustainment costs and improve readiness
- S-Series Specifications utilize a common data model ensuring interoperability and the reuse of data
- Lowers the cost of ILS documentation during the development cycle and significantly decreases the costs resulting from block-upgrades throughout a weapon system's lifecycle

Speaker: Mike Kelly, NGC

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Thank you

for your attention!

Questions?

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