ASD S2000M

as integrated subset of the S-Series of ILS Specification

Karl-Heinz Härdtl

S-Series Specification Day 2013
Vienna, 2013-09-19

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Scope of this presentation

- Make the audience familiar with the ASD Specification for Materiel Management (S2000M) especially with the purpose of the specification
- Explain the structure of the document and also share a few words about the development history
- The integration of the S2000M into the S-Series and some use cases are important parts of the presentation
- The presentation will be closed with some remarks showing the perspectives of the Spec

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Purpose of the S2000M

- S2000M defines the Materiel Management **processes** and **procedures** to be used in support of a product in the in-service phase
- The S2000M describes the **business relationship** between **Industry** and **Customer** by providing

  the **process flow**,

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used for the Materiel Management

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Process Flow:
Example IP-Process

6 THE PROVISIONING PROCESS

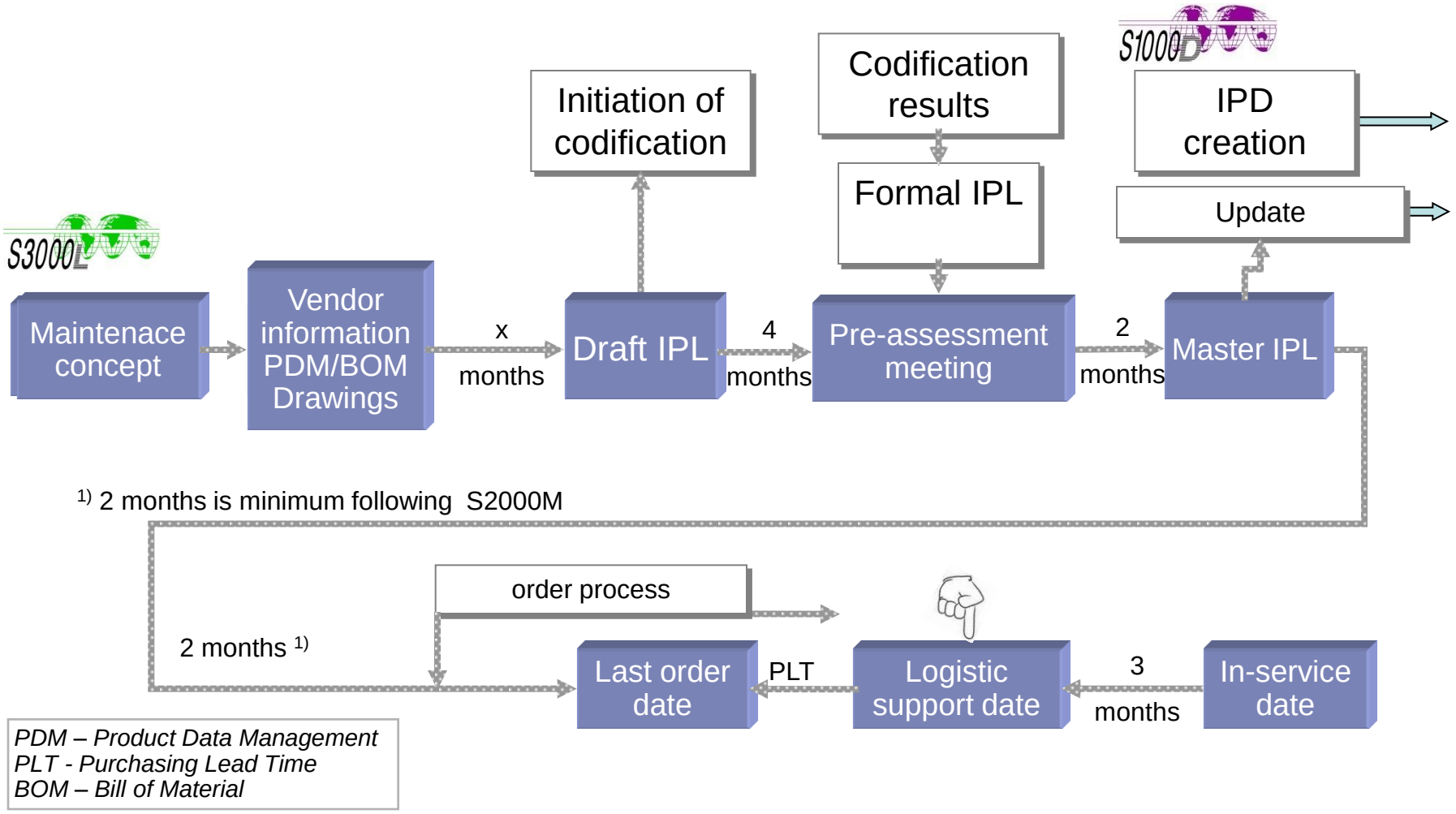
This paragraph describes the major steps in the provisioning process. These steps are also shown in Figure 1. For a full understanding of the provisioning process, reference should be made to the detailed Flow Chart at Section 1A-2, the detailed descriptions in Sections 1A-3, 1A-4, 1A-6, 1A-7 and 1A-8 of this Chapter, and in Chapter 1B and in S1000D, Chapter 3.9.2.

6.1 The Guidance Conference

6.1.1 As a preliminary to provisioning activities, it is necessary for the Customer and the Contractor to agree the contractual requirements to be satisfied. This is the purpose of the Guidance Conference. In particular, the Guidance Conference should:

• Explain the Customer's Maintenance Concept and Support Policy.
• Establish the level of IP presentation required.
• Establish the scope to which Parts Data Commonality (PDC) will be applied (see 1A-3 paragraph 3.3).
• Agree Project-specific use of those data elements which provide for Customer-Contractor agreed definitions.
• Identify the overall time scales for the IP Programme.
• Determine whether the Contractor will raise observations against issued IPLs. This includes an agreement on the following:
• The contents of the observations that may be raised by the Contractor, i.e. the changes he may propose;
• The mechanism used by the Contractor to do so, i.e. whether he will raise OBSINFmessages or will only include his observations in the applicable consolidated list as per 1A-1/6.4.3.
• ……

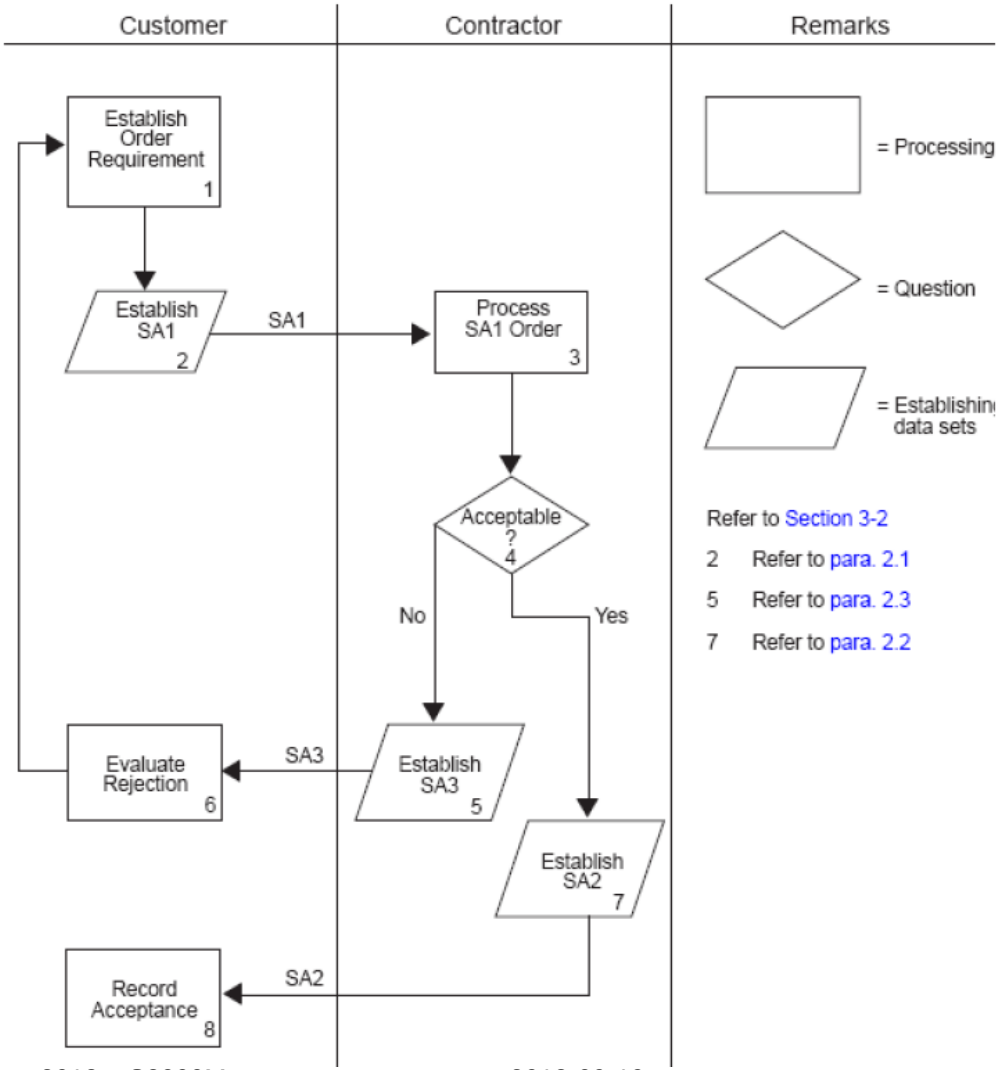
Process Flow:
Example IP-Process



PDM – Product Data Management
PLT - Purchasing Lead Time
BOM – Bill of Material

Process Flow:
Order Placement

1. ORDER PLACEMENT



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Transaction: SA1 - Order Placement

OAH+**COC:SA1**+CUU:NETMA:*K3+COU:C0419:*GY+**IPO:1234-ABC**+**PCY:440**
+ORU:EX/ILS-DAY/2013:U7998:*UK+**PCN:CONTRACT-XYZ**+PCD:M+PLC:1
+ITU:NETMA:*K3+STU:U7998:*UK+SAC:1F+REM:SA1 EXAMPLE FOR ILS DAY'
OJS+SLK:1:S:1+**PNR:HTE12345-08**+MFU:K2617:*UK+NSN:1650:996511121
+**QTY:1000**+UOI:EA+ ITY:BD+MOI:1B+UPR:123456+TPC:04:GBP+PCA:OA'
OLS+UDU:F4125:AUK+**RDD:15102013**+**PTY:A02**+PLC:1+SMB:YB18A1+SLK:2:S:1
+**QTY:100**+SPQ:1+PCO:EXW,
OLS+UDU:F4125:AUK+**RDD:15012014**+PLC:1+SLK:2:S:2+**QTY:900**+SPQ:1+PCO:EXW'

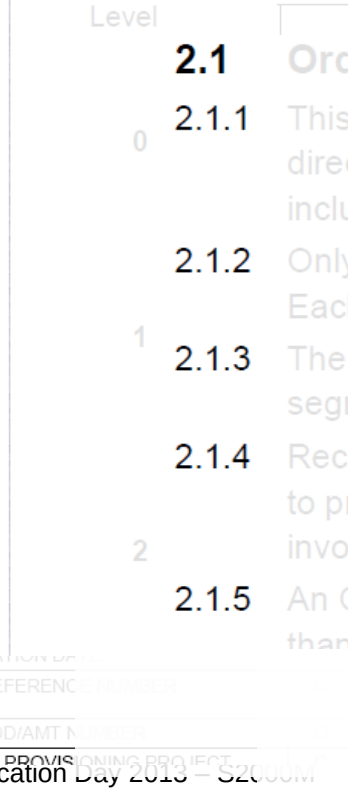
Transaction: SA1 - Order Placement

4.7 Message Layouts

4.7.1 ORDER PLACEMENT: SA1

MESSAGE IDENTIFIER:	SA1:	ORDER PLACEMENT (CUSTOMER TO CONTRACTOR)

BRANCHING DIAGRAM FOR SA1/SA2 TRANSACTION



Level

0

1

2

2.1 Order Placement – SA1

2.1.1 This transaction offers a Customer the capability of placing his order, in a standard forma

2.1.2 Only

2.1.3 The

2.1.4 Rec

2.1.5 An

1.1 Order Placement (Carrying NSN):

First Example of SA1 Transaction

A Customer (GE Logistics Centre) places an order upon a Contractor (EAD
item 2840 121976265 for delivery on 1 September 2002, 1 October 2002 a

Latest build standard per date 1 September 2002 only (i.e. the First Deliver
and Date are to be stated. The Royal Air Force and the French Air Force ar

Message Construction:

Header Segment-UNH

Level 0 Segment

OAH+COC:SA1+CUU:00DCZ:*DE+COU:C0419+IPO:DGYAEX72070177+
PVC:BC7000183ITYLR+QNO:EADSFB21-0077+QDT:19970725+UDU:DG
SMB:00DCZ+SAU:RAFA4:*UK+SAU:FAFA5:*FR'

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Data Element: SA1 - Order Placement

DATA DICTIONARY

DATA ELEMENT DEFINITION

DATA ELEMENT NAME **PART NUMBER**

ABBREVIATION **PN**

TEXT ELEMENT IDENTIFIER (TEI) **PNR**

CHARACTERISTICS

Format ..... an..32

Justification .....

Format of Hardcopy print.....

Originator of Data ..... CONTRACTOR

DESCRIPTION/PURPOSE

A combination of characters assigned to identify without ambiguity an item manufactured to a certain design intent.
To ensure no ambiguity exists PART NUMBER must be assigned in conjunction with ….the MFC …to ensure exclusivity…

CODE

The PART NUMBER allocated by the design right owner (who may not necessarily be the Manufacturer) must be given ….

REMARKS

In NATO Codification procedures, a PNR is known as a ‘Reference Number’….

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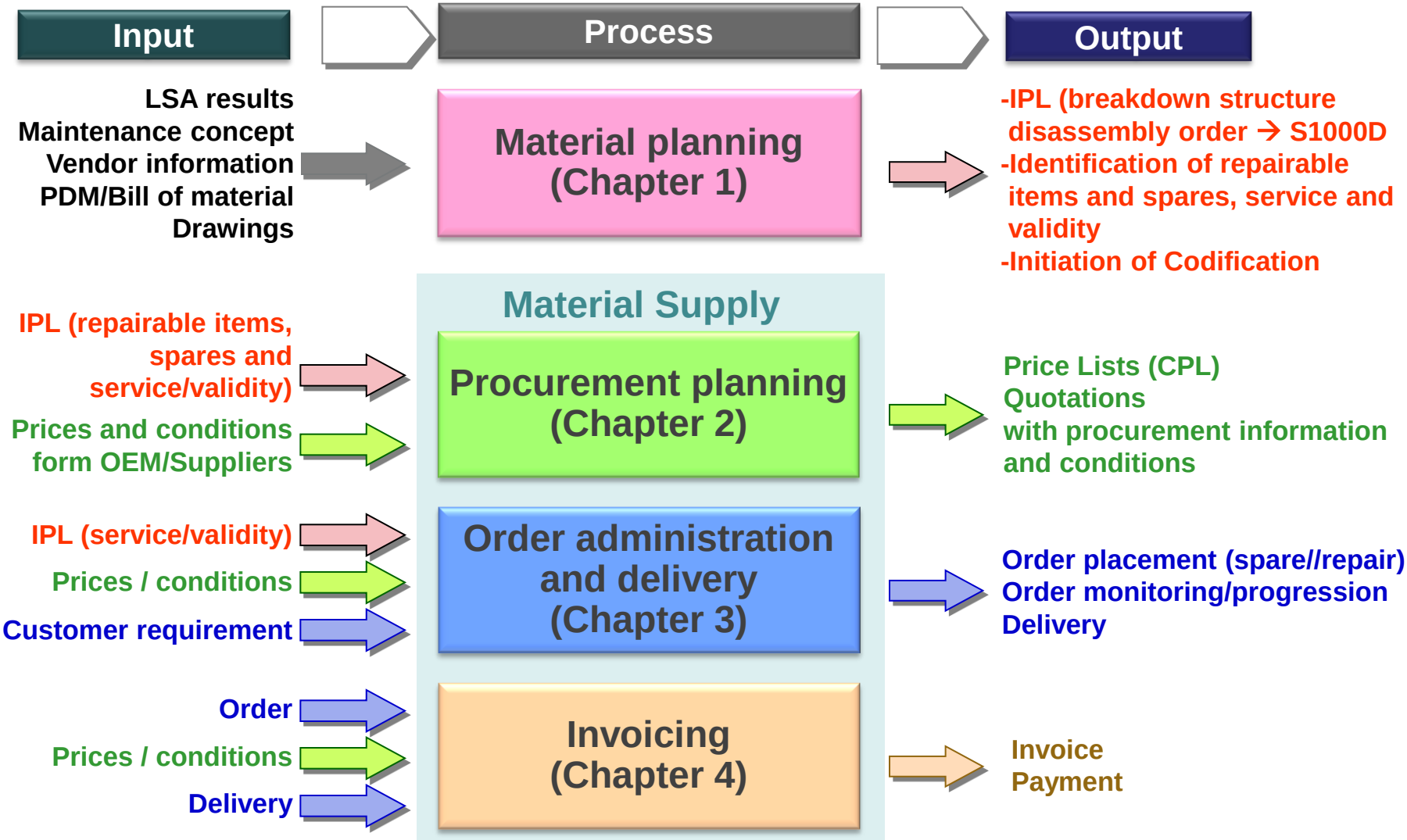
- **Explain the structure of the S2000M and also share a few words about the development history**
- The integration of the S2000M into the S-Series and some use cases
- The preser marks showing th

Structure of S2000M

and

History

Structure of the S2000M



Appendix 1: Data Dictionary - Appendix 2: Communication Techniques

History of the S2000M

- 1981: The AECMA Supply Working Group initiated the development of a harmonized civil and military procedure for the support of a computer-based Materiel Support specification.
- 1984: The world's airlines together with the civil industries developed the ATA S200 into the ATA Specification 2000.
- Different military policies and requirements prevented the adoption of the civil S2000 for military Materiel Support → S2000M was started to be develop

Issue 1 1988

Issue 2.1 1992

Issue 3.0 1998

Chapter 5 (Repair), SQ1 (Order based Pricing) …

Issue 4.0 2005

Land & Sea (MOI, ISO …); Chapter 6 (Spec Light)…

Issue 5.0 2011

del. Ch 5 – Repair/Warranty in Ch3; SJ5/SR5; PNMIPD/SO4 (Shopping List) …

Issue 6.0 2014

PLCS (ILS integration), XML …

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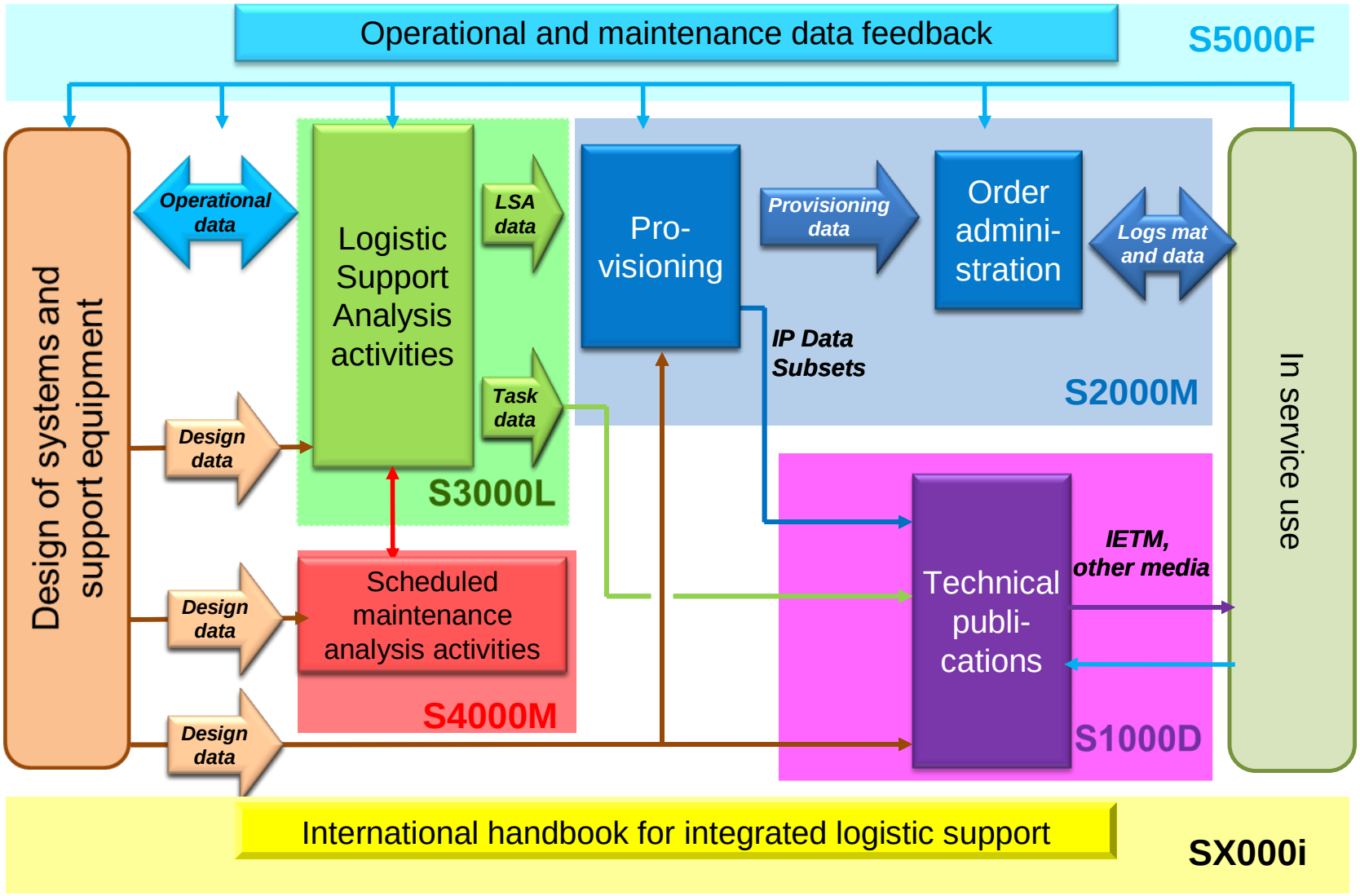
Integration into S-Series

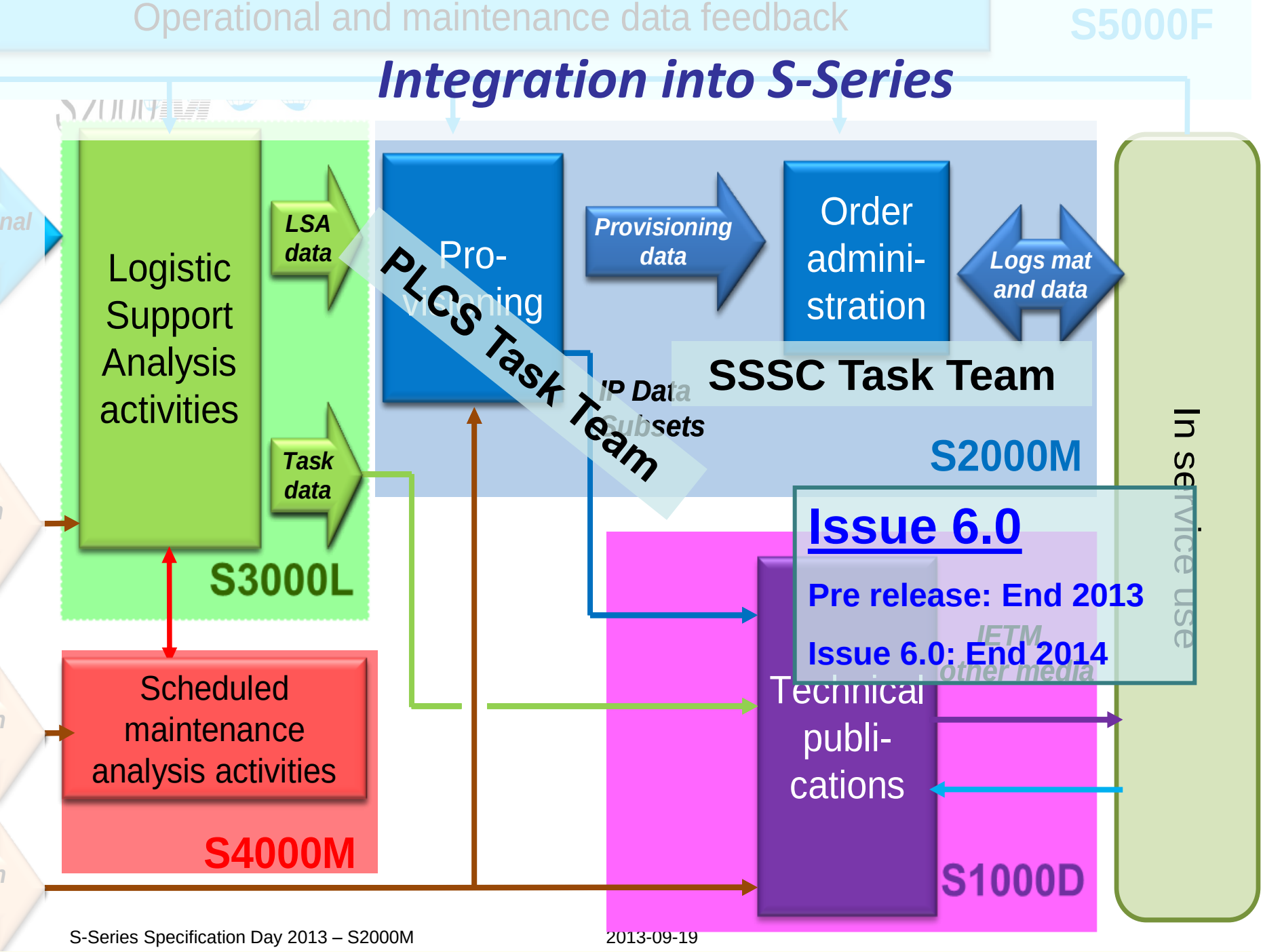
and

Use Cases

Integration into S-Series



Integration into S-Series



Use Case: LSA (S3000L) to IPL (S2000M Ch 1)

BE ID	BE Name	1388 Task Code	InfoCode	Part Identifier (PNR)	Part Name	ICC	QTY	UM
X321101	SHOCK STRUT,MLG	HGHFDAA	921	201328244	LOCKRING	Y	1	EA
X321101	SHOCK STRUT,MLG	HGHFDAA	921	201328670	BOLT	Y	1	EA
X321101	SHOCK STRUT,MLG	HGHFDAA	921	201328671	BOLT	Y	1	A
X321101	SHOCK STRUT,MLG	HGHFDAA	921	201328672	SLEEVE	Y	1	A
X321101	SHOCK STRUT,MLG	HGHFDAA	921	201328673	WHEEL NUT	Y	1	EA
X321101	SHOCK STRUT,MLG	HGHFDAA	921	201328776	SHIM	Y	1	EA
X321101	SHOCK STRUT,MLG	HGHFDAA	921	201328782	SHIM	Y	1	EA
X321101	SHOCK STRUT,MLG	HGHFDAA	921	201328784	NUT	Y	1	EA
X321101	SHOCK STRUT,MLG	HGHFDAA	921	201328794	BOLT	Y	1	EA
X321101	SHOCK STRUT,MLG	HGHFDAA	921	201342629	BOLT	Y	1	EA
X321101	SHOCK STRUT,MLG	HGHFDAA	921	201342630	WASHER	Y	1	EA
X321101	SHOCK STRUT,MLG	HGHFDAA	921	201342634	WASHER	Y	1	EA
X321101	SHOCK STRUT,MLG	HGHFDAA	921	201354605	BOLT	Y	1	EA
X321101	SHOCK STRUT,MLG	HGHFDAA	921	201593007	SHOCK STRUT,MLG	X	1	EA
X321101	SHOCK STRUT,MLG	HGHFDAA	921	AHO90104	SPACER	Y	1	EA
X321101	SHOCK STRUT,MLG	HGHFDAA	921	AHO90111	TAB WASHER	Y	1	EA

Fig. 02 INSTALLATION MLG SHOCK STRUT

Item	IND	Part No.	NSCM	Description	UCA
NIL		NSN			UCE/MOV/EFY
006	2	201593005	K0654	SHOCK ABSORBER, DIRECT ACTION, LANDING GEAR	A-----
		1620-99-212-4418		(LH / PRE-MOD 600188 / XB321101 / Container see / Refer to IPPNC04192022)	GT 00010008
006	2	201593007	K0654	SHOCK ABSORBER, DIRECT ACTION, LANDING GEAR	A-----
		1620-99-232-3167		(LH / PRE-MOD 600234 MOD 600188 / XB321101 / Container see / Refer to IPPNC04192022)	GT 00090015
006	2	201688003	K0654	SHOCK ABSORBER, DIRECT ACTION, LANDING GEAR	A-----
		1620-99-741-1961		(LH / MOD 600234 / XB321101 / Container see / Refer to IPPNC04192022)	GT 00169999
006		201593007	K0654	SHOCK ABSORBER, DIRECT ACTION, LANDING GEAR	A-----
		1620-99-232-3167		(LH / PRE-MOD 600234 / XB321101 / Container see / Refer to IPPNC04192022)	GS 00010028

Use Case: IPL (Ch 1) to CPL (Ch 2)

CRE	CEF	CEX	MOI	CUR
K0654SN11001	01.01.2010	31.12.2010	1B	GBP

PNR	MFC	PLT	MSQ	QFR1	QTO1	UPR1	QFR2	OTO2	UPR2	QFR3	QTO3	UPR3
201042737	K0654	8	16	16	99	8,98	100	99999	5,50			
201042427	K0654	9	6	6	15	113,20	16	99999	73,18			
201042424	K0654	9	6	6	15	113,20	16	99999	73,18			
201328672	K0654	6	16	16	99999	6,40						
201608212	K0654	14	6	6	10	4131,88	11	15	3305,57	16	99999	2754,64
201608529	K0654	8	16	16	99999	247,52						
201697202	K0654	14	16	16	99999	871,49						
201697530	K0654	7	16	16	99999	81,05						
201566149	K0654	11	1	1	99999	2023,65						
201566156	K0654	6	5	5	99999	119,77						
201608217	K0654	13	1	1	5	5216,34	6	10	3129,81	11	99999	2503,85
201608213	K0654	13	1	1	5	5216,34	6	10	3129,81	11	99999	2503,85

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X321101	SHOCK STRUT,MLG	HGHFDAA	921	201328[illegible]	SHIM	Y	1	EA
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201608213	K0654	13	1	1	5	5216,34	6	10	3129,81	11	99999	2503,85

Use Case: CPL (Ch 2) to Order/Delivery (Ch 3)

PNR	MFC	PLT	MSQ	QFR1	QTO1	UPR1	QFR2	OTO2	UPR2	QFR3	QTO3	UPR3
201042737	K0654	8	16	16	99	8,98	100	99999	5,50			
201042427	K0654	9	6	6	15	113,20	16	99999	73,18			
201042424	K0654	9	6	6	15	113,20	16	99999	73,18			
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201608213	K0654	13	1	1	5	5216,34	6	10	3129,81	11	99999	2503,85

Order Placement SA1

OAH+COC:SA1+CUU:NETMA:*K3+COU:C0419:*GY+IPO:476292+PCY:340+ORU:1B/ABC/EXA:U7998:*UK
+PCN:CONTR-01+PCD:M+ITU:C7503:*GY+STU:U7998:*UK '
OJS+SLK:1:S:1+PNR:201328672+MFU:K0654+NSN:1620:999404025+QTY:100+UOI:EA+ITY:BD+MOI:1B+PCA:OA,
OLS+UDU:F4125:AUK+PDD:20072010+PLC:4+SMB:B95A1+SLK:2:S:1+QTY:100+SPQ:1+UPR:640+CUR:GBP
+TPC:01:GBP+PCO:EXW'

Delivery Advice SJ1

OCH+COC:SJ1+CUU:NETMA:*K3+COU:C0419:*GY+IPO:476292+ORU:1B/ABC/EXA:U7998:*UK+PCN:CONTR-01'
OJS+SLK:1:S:1+PNR:201328672+MFU:K0654:*UK+QTY:100+UOI:EA+SRU:K0654:*UK'
OLS+UDU:F4125:AUK+PLC:4+SMB:B95A1+SLK:2:S:1+QTY:100+SPQ:1+DEL:29072010+DIU:EMD0004959:K0654:*UK
+CNO:18653'
UNT+5+

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Perspectives of the S2000M

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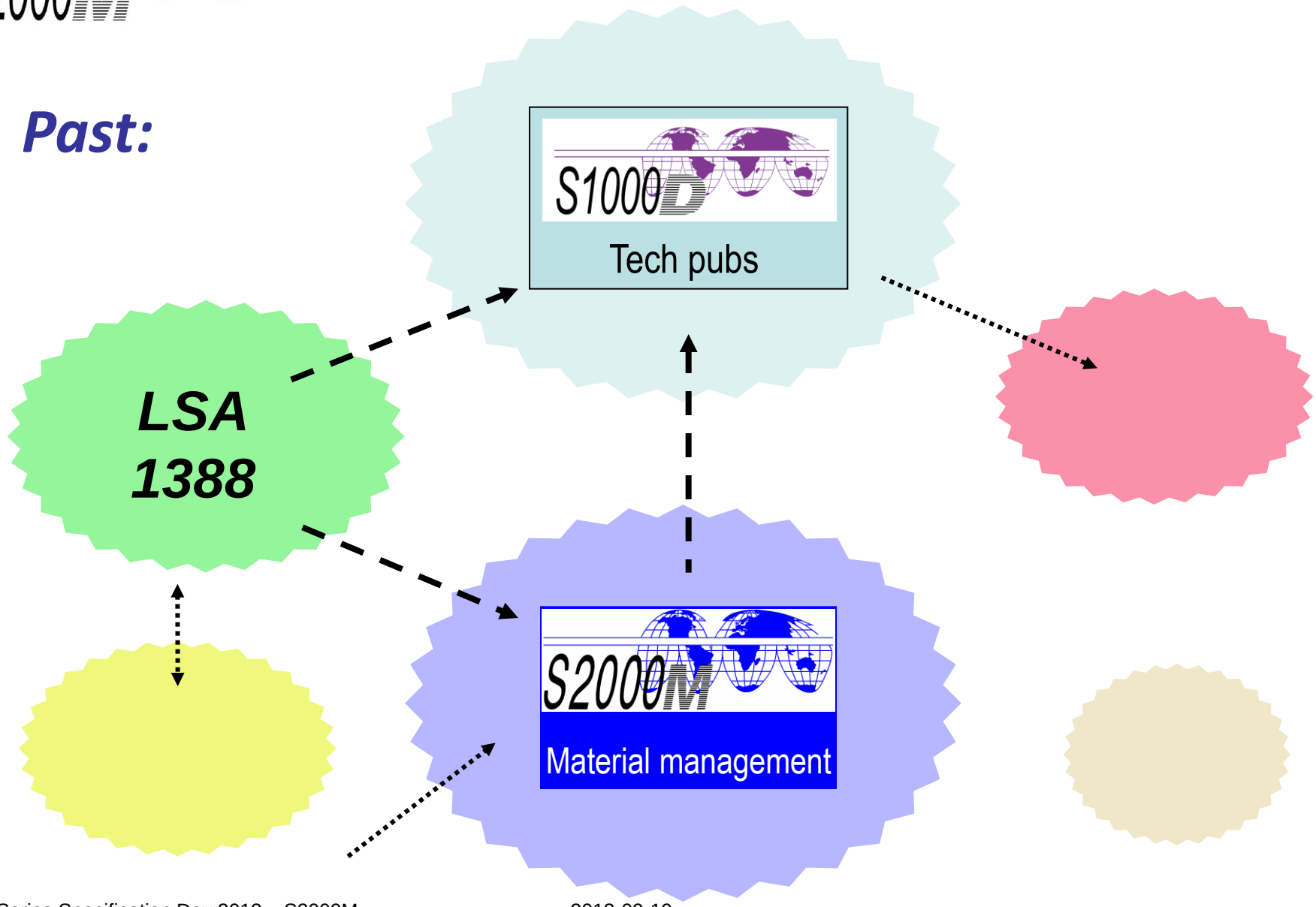
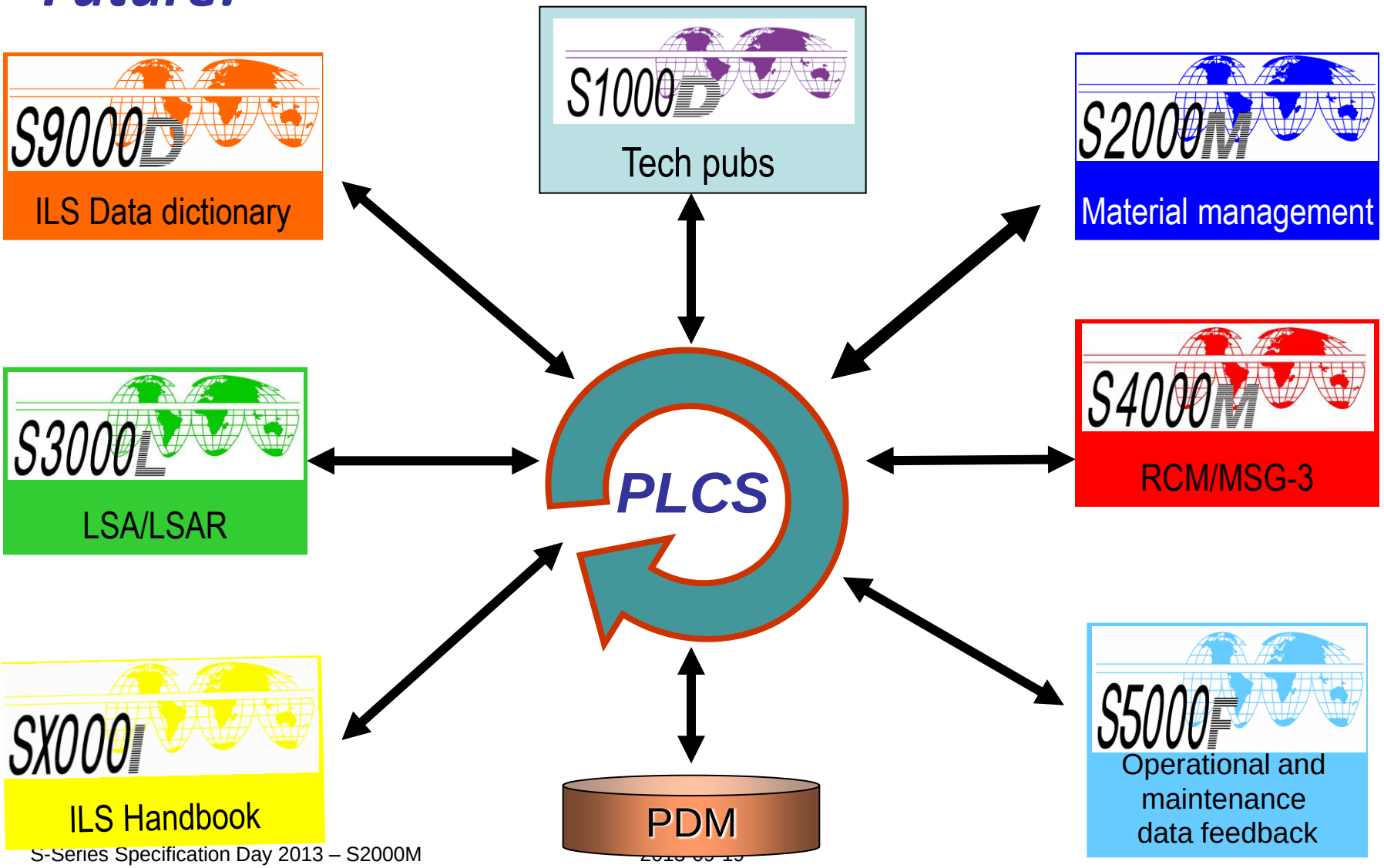
Past:



Perspectives of the S2000M

Future:



Perspectives of the S2000M

Issue 6.0:

- Integration into ILS suite
- Processes will be ‘streamlined’
- Structure of transactions will be ‘straitened’
- EDI text messages will be developed into XML

Conclusion:

13 years in use:

Advantage for complex projects to provide a solid basis

- for the Materiel Management Process
- for the structure of data needed
- for the electronic information exchange between the parties involved
- and as standard is re-usable for other projects

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(free) Download website:

www.s2000m.org

Thank you for your attention!

Questions?