

# S1000X - Input data specification for S1000D

**Joakim Lundqvist**

Technical information manager

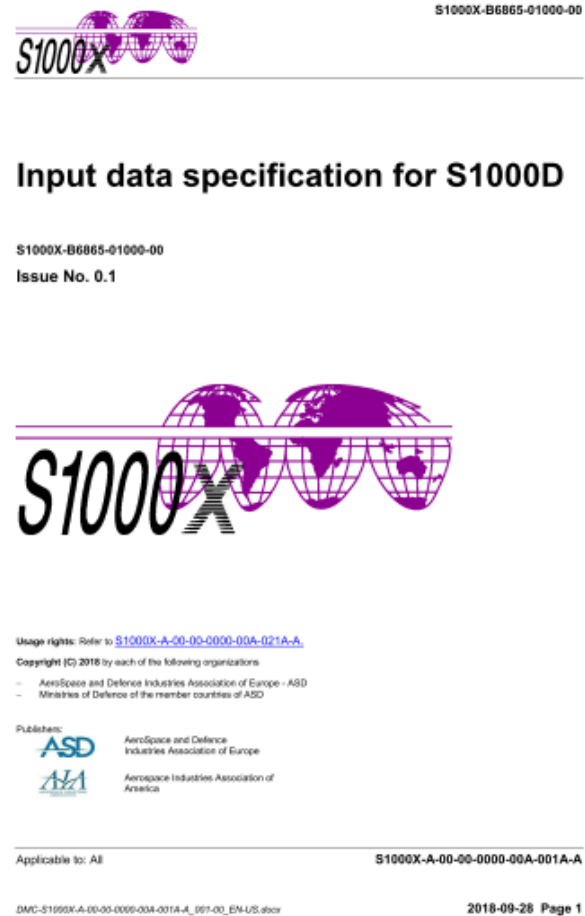
Saab

E-mail:

[joakim.Lundqvist@saabgroup.com](mailto:joakim.Lundqvist@saabgroup.com)

# Agenda

- Statement of work
- The team
- S1000D Chapter structure
- Document relationships
- Structure
- Future



# Statement of work

- The purpose of the S1000X Working Group (S1000XWG) is to specify all input data required from other specifications to S1000D. **These required data include but are not limited to the S-Series of specifications.** The task team's deliverable shall be a new specification numbered S1000X and titled "Input data specification for S1000D".
- It will first concentrate on specifying required input data from **S2000M 6.1, S3000L 1.1 and GEIA-STD-0007B to S1000D issue 4.1.**



# The team

- S1000X WG is a working group of the ILS-Council
- Current officers are:
  - Joakim Lundqvist, Chair (Saab)
  - Paul Haslam, Vice Chair (O'Neil & Associates)
  - Parker Owen, Secretary (Integrated Support Systems) (ISS))
- Companies and organizations that contribute to the S1000X work:
  - Airbus Defence and Space
  - Airbus Helicopters
  - BAE Systems
  - FBC
  - Isselnord
  - ISS
  - Leonardo
  - NAVSEA/DoD
  - Netherlands Ministry of Defence
  - NSPA/NATO
  - O'Neil & Associates
  - Saab
  - Swedish Defence Materiel Administration

# S1000X Chapter structure

- Chapter 0
  - Front matters
- Chapter 1
  - General chapter
- Chapter 2
  - How to use S1000X
- Chapter 3
  - Common information chapter
    - Refer to data dictionary
    - Refer to chapter 4
- Chapter 4
  - The specific specification mapping details
  - Mapping examples
- Chapter 5
  - Terminology and terms

# S1000X – Document relationships

General requirements for input data specification for target S-Series specification

Target S-Series specification requirements

Detailed source mapping information for applicable source data systems

Terminology Mapping

Chapter 2: General Requirements

Chapter 3: Target Requirements

Chapter 4: Source Information  
- Chapter 4.#: Mapping information from specific source data specification / system with mapping examples

Chapter 5: Terminology Mapping

Links from target requirements to source information

Links to target and source data element definitions, if available

Target Data Element Definitions

Source Data Element Definitions

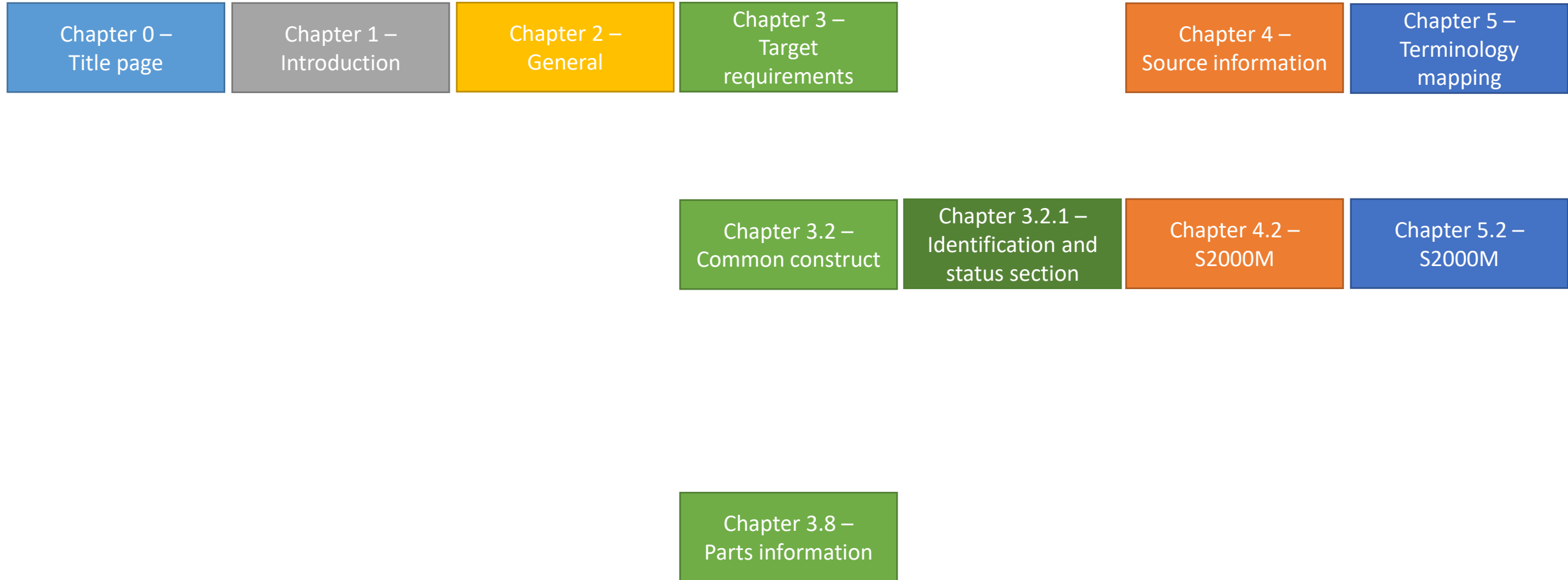
# S1000X structure, issue 0.1

Chapter 0 – Title page	Chapter 1 – Introduction	Chapter 2 – General	Chapter 3 – Target requirements		Chapter 4 – Source information	Chapter 5 – Terminology mapping
Chapter 0 – Highlights	Chapter 1.1 – Purpose and scope	Chapter 2.1 – Introduction	Chapter 3.1 – Introduction		Chapter 4.1 – introduction	Chapter 5.1 – introduction
Chapter 0 – Table of contents	Chapter 1.2 – How to use the specification	Chapter 2.2 – Implementation prerequisites	Chapter 3.2 – Common construct	Chapter 3.2.1 – Identification and status section	Chapter 4.2 – S2000M	Chapter 5.2 – S2000M
Chapter 0 – Copyright and user agreement	Chapter 1.3 – How to tailor the specification		Chapter 3.4 – Procedural information	Chapter 3.2.2 – Applicability	Chapter 4.3 – S3000L	Chapter 5.3 – S3000L
	Chapter 1.4 – Maintenance of the specification		Chapter 3.6 – Maintenance planning information	Chapter 3.2.3 – Preliminary requirements and requirements after job completion	Chapter 4.7 – GEIA-STD-0007-B	Chapter 5.7 – GEIA-STD-0007-B
			Chapter 3.8 – Parts information	Chapter 3.2.4 – Controlled content		
			Chapter 3.12 – Common information repository	Chapter 3.2.3 – Common information		

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# S1000X structure, issue 0.1



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Source Data Element Definitions

# S1000X – Document relationships

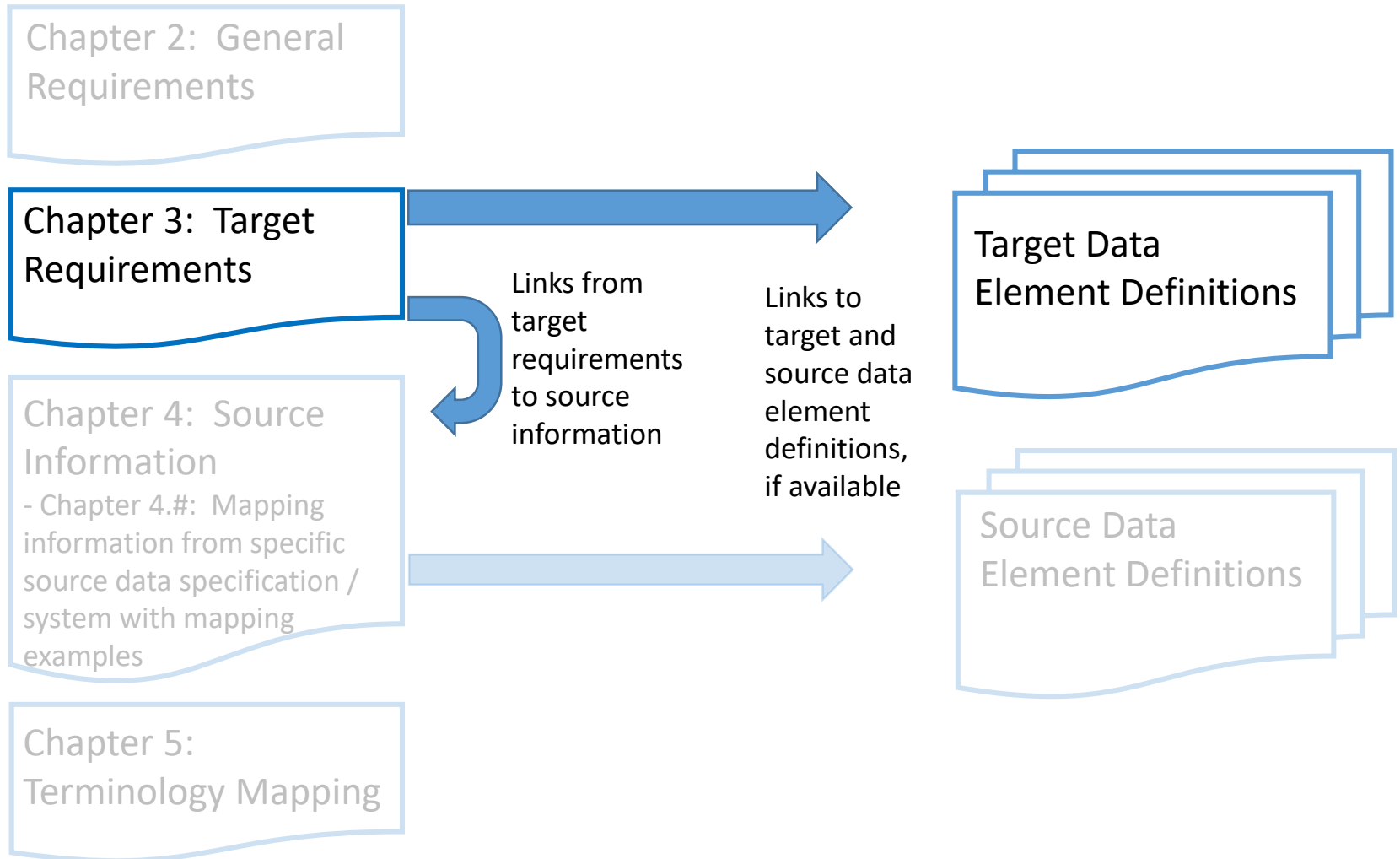
## Target requirements

General requirements for input data specification for target S-Series specification

Target S-Series specification requirements


Detailed source mapping information for applicable source data systems

Terminology Mapping



# Chapter 3.8 – Parts information

S1000X-B6865-01000-00



No.	Target: Functionality area and Detail/Path	Target requirements	Source
3.9.5.1_2.1.1.2@5	Sub-subsystem code <a href="#">identAndStatusSection/ dmAddress/ dmIdent/ dmCode @subSubSystemCode</a>	Define the sub-subsystem code. Refer also to <a href="#">Chap 3.2.1</a> .	S2000M 0007
3.9.5.1_2.1.1.2@6	Assembly code <a href="#">identAndStatusSection/ dmAddress/ dmIdent/ dmCode @assyCode</a>	Define the assembly code. Refer also to <a href="#">Chap 3.2.1</a> .	S2000M 0007
3.9.5.1_2.1.1.2@7	Disassembly code <a href="#">identAndStatusSection/ dmAddress/ dmIdent/ dmCode @disassyCode</a>	Define the disassembly code. Refer also to <a href="#">Chap 3.2.1</a> .	S2000M 0007
3.9.5.1_2.1.1.2@8	Disassembly code variant <a href="#">identAndStatusSection/ dmAddress/ dmIdent/ dmCode @disassyCodeVariant</a>	Define the disassembly code variant. Refer also to <a href="#">Chap 3.2.1</a> .	S2000M 0007

Applicable to: All

S1000X-A-03-08-0000-00A-040A-A  
Chap 3.8

Unique ID

Link to S1000D data dictionary

The requirement for the target

Link from S1000X chap 3.8 to chap 3.2.1

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# Chapter 3.2.1 – Identification and status section



S1000X-B6865-01000-00

## S1000D Input Data Specification

No.	Target: Functionality Area	Target requirements	Source
3.9.5.1_2.1.1.2@5	Sub-subsystem code <a href="#">identAndStatusSection</a> <a href="#">dmAddress</a> <a href="#">dmIdent</a> <a href="#">dmCode</a> <a href="#">@subSubSystemCode</a>		<a href="#">S2000M</a> <a href="#">S3000L</a> S4000P S5000F S6000T <a href="#">0007</a>
3.9.5.1_2.1.1.2@6	Assembly code <a href="#">identAndStatusSection/</a> <a href="#">dmAddress/</a> <a href="#">dmIdent/</a> <a href="#">dmCode</a> <a href="#">@assyCode</a>		<a href="#">S2000M</a> <a href="#">S3000L</a> S4000P S5000F S6000T <a href="#">0007</a>
3.9.5.1_2.1.1.2@7	Disassembly code <a href="#">identAndStatusSection/</a> <a href="#">dmAddress/</a> <a href="#">dmIdent/</a> <a href="#">dmCode</a> <a href="#">@disassyCode</a>		<a href="#">S2000M</a> <a href="#">S3000L</a> S4000P S5000F S6000T <a href="#">0007</a>
3.9.5.1_2.1.1.2@8	Disassembly code variant <a href="#">identAndStatusSection/</a> <a href="#">dmAddress/</a> <a href="#">dmIdent/</a> <a href="#">dmCode</a> <a href="#">@disassyCodeVariant</a>		<a href="#">S2000M</a> <a href="#">S3000L</a> S4000P S5000F S6000T <a href="#">0007</a>
3.9.5.1_2.1.1.2@9	Information code		<a href="#">S2000M</a>

Unique ID

Link to S1000D data dictionary

Link to source information S1000X chap 4.X

# HTML file to explain the attribute

attribute **subSubSystemCode**

type	<a href="#">subSubSystemCodeAttType</a>		
used by	complexTypes <a href="#">catalogSeqNumberElemType</a> <a href="#">catalogSeqNumberRefElemType</a> <a href="#">categoryOneContainerLocationElemType</a> <a href="#">dmCodeElemType</a>		
facets	Kind	Value	Annotation
	pattern	[A-Z0-9]{1}	
source	<code>&lt;xs:attribute name="subSubSystemCode" type="subSubSystemCodeAttType"/&gt;</code>		

XML Schema documentation generated by [XMLSpy Schema Editor](http://www.altova.com/xmlspy) <http://www.altova.com/xmlspy>

Reusing the schema data to get a full definition of the data element in S1000D

HTML files for each data element per schema (IPD)

# S1000X – Document relationships

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Terminology Mapping

Chapter 5: Terminology Mapping

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Target Data Element Definitions

Source Data Element Definitions

# S1000X – Document relationships

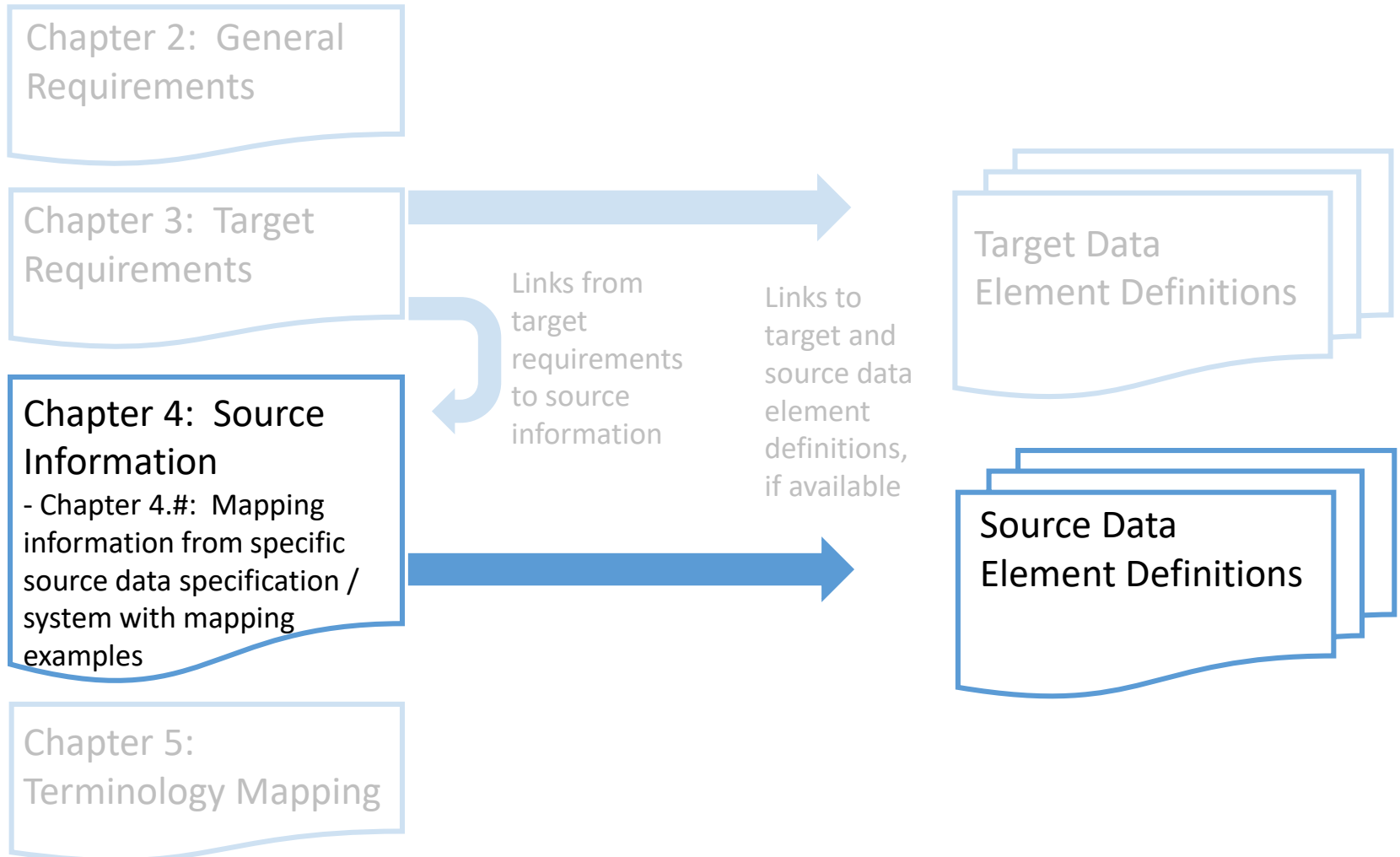
## Source Information

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Terminology Mapping





# Chapter 4 – Mapping details

No.	Target: Functionality area and Detail/Path	Source: Detail/Path	Mapping details and requirements	Triggering event BRDP
3.9.5.1_2.1.1.2@4	Subsystem code <code>identAndStatusSection/ dmAddress/ dmIdent/ dmCode @subSystemCode</code>	<a href="#">figureItemIdentifier (CSN):</a> locipd/msgContent/cas/figCsn/ csn/id  or (exclusive or): locipd/msgContent/cas/headCsn/ csn/id  or (non-chapterized) <a href="#">provisioningProjectIdentifier (IPP):</a> locipd/msgContext/ippn/ipp/id	Take the content at position 4 of child element <id> of element <csn>, formatted as an1.  If there is a space character at this position (separate IP presentation of equipment - non-chapterized), then take the content at position 6 of child element <id> of element <ipp>.	
3.9.5.1_2.1.1.2@5	Sub-subsystem code <code>identAndStatusSection/ dmAddress/ dmIdent/ dmCode @subSubSystemCode</code>	<a href="#">figureItemIdentifier (CSN):</a> locipd/msgContent/cas/figCsn/ csn/id  or (exclusive or): locipd/msgContent/cas/headCsn/ csn/id  or (non-chapterized) <a href="#">provisioningProjectIdentifier (IPP):</a> locipd/msgContext/ippn/ipp/id	Take the content at position 5 of child element <id> of element <csn>, formatted as an1.  If there is a space character at this position (separate IP presentation of equipment - non-chapterized), then take the content at position 7 of child element <id> of element <ipp>.	

S1000X-B6865-01000-00



Link from the mapping details to the mapping examples

Source (S2000M) path

Description of the mapping details and/or special requirements

Same unique ID

Link to S1000D data dictionary

Applicable to: All

S1000X-A-04-02-0000-00A-040A-A

Chap 4.2

# Chapter 4 – Mapping examples



S1000X-B6865-01000-00

No.	Target: Functionality area and Detail/Path	Target example (XML fragment only)	Source data (XML fragment only)
3.9.5.1_2.1.1.2@5	Sub-subsystem code <code>identAndStatusSection/ dmAddress/ dmIdent/ dmCode @subSubSystemCode</code>	<code>&lt;dmCode subSubSystemCode="0"/&gt;</code>	figureItemIdentifier (CSN): <code>&lt;locipd&gt;...&lt;msgContent&gt;&lt;cas&gt;...&lt;headCsn&gt;&lt;csn&gt; &lt;id&gt;D0000000001A000A&lt;/id&gt;&lt;/csn&gt;&lt;/headCsn&gt; &lt;/cas&gt;&lt;/msgContent&gt;&lt;/locipd&gt;</code>
3.9.5.1_2.1.1.2@6	Assembly code <code>identAndStatusSection/ dmAddress/ dmIdent/ dmCode @assyCode</code>	<code>&lt;dmCode assyCode="0000"/&gt;</code>	figureItemIdentifier (CSN): <code>&lt;locipd&gt;...&lt;msgContent&gt;&lt;cas&gt;...&lt;headCsn&gt;&lt;csn&gt; &lt;id&gt;D0000000001A000A&lt;/id&gt;&lt;/csn&gt;&lt;/headCsn&gt; &lt;/cas&gt;&lt;/msgContent&gt;&lt;/locipd&gt;</code>
3.9.5.1_2.1.1.2@7	Disassembly code <code>identAndStatusSection/ dmAddress/ dmIdent/ dmCode @disassyCode</code>	<code>&lt;dmCode disassyCode="01"/&gt;</code>	figureItemIdentifier (CSN): <code>&lt;locipd&gt;...&lt;msgContent&gt;&lt;cas&gt;...&lt;headCsn&gt;&lt;csn&gt; &lt;id&gt;D0000000001A000A&lt;/id&gt;&lt;/csn&gt;&lt;/headCsn&gt; &lt;/cas&gt;&lt;/msgContent&gt;&lt;/locipd&gt;</code>
3.9.5.1_2.1.1.2@8	Disassembly code variant <code>identAndStatusSection/ dmAddress/ dmIdent/ dmCode @disassyCodeVariant</code>	<code>&lt;dmCode disassyCodeVariant="A"/&gt;</code>	figureItemIdentifier (CSN): <code>&lt;locipd&gt;...&lt;msgContent&gt;&lt;cas&gt;...&lt;headCsn&gt;&lt;csn&gt; &lt;id&gt;D0000000001A000A&lt;/id&gt;&lt;/csn&gt;&lt;/headCsn&gt; &lt;/cas&gt;&lt;/msgContent&gt;&lt;/locipd&gt;</code>

Same unique ID

Link to S1000D data dictionary

What are we looking for (S1000D)

Where to find it in the source (S2000M)

Applicable to: All

S1000X-A-04-02-0000-00A-040A-A

Chap 4.2

# S1000X – Document relationships

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# S1000X – Document relationships

## Terminology mapping

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Chapter 3: Target Requirements

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# Chapter 5

S1000X

Unique for S2000M – The acronym

Table 3 Terminology mapping - S2000M

No.	Data element name	TEI / Acronym	Format	Type	Min length	Max length	Definition / Purpose
1	<u>figureItemAttachingStorageOrShippingItem</u>	ASP	n1	string	1	1	Indicates an item to be an attaching, storage or shipping part at a specific <u>figureItemIdentifier (CSN)</u> . <b>Notes</b> - 1 = Attaching part - 2 = Storage part - 3 = Shipping part
2	<u>changeAuthorizationIdentifier</u>	CAN	an..20	string	1	20	Identifies an authority or an authorizing notice for engineering or other changes.
3	<u>customerIdentifier</u>	CIN	a2	string	2	2	Identifies the customer to whom specific data is applicable. It contains either a country code <u>per ISO 3166-1</u> , or an organizational code maintained by the S2000M administrator.
4	<u>hardwarePartCalibrationRequirement</u>	CMK	n1	boolean	1	1	Identifies an item that requires calibration. <b>Notes</b> - 0 = False: Item does not require to be calibrated. - 1 = True: Item requires to be calibrated.
5	<u>figureItemIdentifier</u>	CSN	an16	string	16	16	Identifies the location of the item within the illustrated parts catalog (IPC) according to the standard numbering system. <b>Notes</b> - Position 1: Material item category code (alphanumeric) - Positions 2 and 3: Product chapter number (alphanumeric) - Position 4: Section (alphanumeric) - Position 5: Subsection (alphanumeric) - Positions 6 thru 9: Subject (alphanumeric) - Positions 10 and 11: Figure number (alphanumeric) - Position 12: Figure number variant (alpha except "I" and "O") - Positions 13 thru 15: Item number (numeric) - Position 16: Item number variant (alpha except "I" and "O")
6	<u>figureItemContainerLocation</u>	CTL	an7	string	7	7	Identifies the location at which the data record for the item's category 1 container is held.

Applicable to: All

S1000X-A-05-02-0000-00A-040A-A  
Chap 5.2

Sequence number

The name of source data element

Build up for the data element

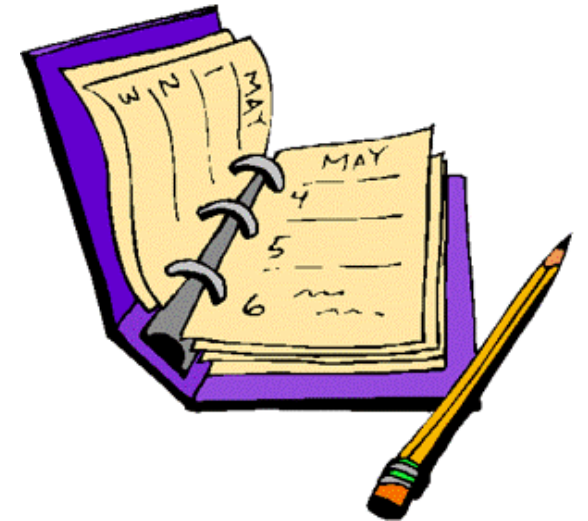
Definition of the source data element

# Tailoring of S1000D

- **Business rules**
- Example: [S3000L](#) vs GEIA-STD-0007 for procedural information
  - **Business rule decision point BRDP-1X-00001 - Applicable source specifications:**
    - Identify the source specifications applicable to the mapping of required input data for [S1000D](#) in a given project.

# Schedule

	2018							2019		
	June	July	August	September	October	November	December	January	February	March
Current plan	EDIT	EDIT	EDIT	REVIEW Publishing	Extended Review	Extended Review	Extended Review	Extended Review	Extended Review	Extended Review



# Beyond issue 0.1

Chapter 3.3 – Descriptive information	Chapter 3.14 – Learning data module	Chapter 4.4 – S4000P	Chapter 5.4 – S4000P
Chapter 3.5 – Fault information	Chapter 3.15 – Maintenance checklists and inspections	Chapter 4.5 – S5000F	Chapter 5.5 – S5000F
Chapter 3.7 – Crew/Operator information	Chapter 3.16 – Service bulletin data module	Chapter 4.6 – S6000T	Chapter 5.6 – S6000T
Chapter 3.9 – BDAR information	Chapter 3.17 – SCO content data module	Chapter 4.8 – Other sources	Chapter 5.8 – Other sources
Chapter 3.10 – Wiring data	Chapter 3.18 – Incremental update		
Chapter 3.11 – Process data module			
Chapter 3.13 – Container data module			



# Beyond issue 0.1

- S1000D issue 4.2
- S2000M 6.2
- S3000L 2.0
- S4000P
- S6000T

**Thank you**  
for your attention!

**Questions?**