S1000D DIG Business Rules

DIG-B6865-01000-00

Issue No. 1

Usage rights: Refer to DIG-A-00-00-0000-00A-021A-A

Publisher: Defense Interest Group (DIG)

User agreement

1 Document owner

This document is written and owned by the S1000D Defense Interest Group (DIG).

No part of this document should be reproduced or transmitted in any form or by any means, electronic or mechanical, including photocopying and recording, or by any information storage or retrieval system, except as may be expressly permitted by DIG.

All correspondence and queries should be directed to the Chair of DIG:

dig-chair@members.s1000d.org

2 Agreement for use of the DIG suite of information

2.1 Definitions

DIG suite of information means, but is not limited to:

– the documented DIG Business Rules
– the DIG BREX data module
– any other software or information under the heading "**DIG suite of information**".

2.2 Notice to user

By using all or any portion of the **DIG suite of information,** you accept the terms and conditions of this User Agreement.

2.3 License to use

As long as you comply with the terms of this User Agreement, DIG grants you a non-exclusive license to use the **DIG suite of information.**

2.4 Intellectual property rights

The **DIG suite of information** is the intellectual property of and is owned by DIG. Except for as expressly stated herein, this User Agreement does not grant you any intellectual property right in the **DIG suite of information** and DIG reserves all rights not expressly granted.

2.5 No modifications

You must not modify, adapt or translate, in whole or in part, the **DIG suite of information** unless otherwise explicitly stated in the document.

2.6 No warranty

The **DIG suite of information** is being delivered to you "as is". DIG does not warrant the performance or result you may obtain by using the **DIG suite of information**. DIG makes no warranties, representations or indemnities, express or implied, whether by statute, common law, custom, usage or otherwise as to any matter including without limitation merchantability, integration, satisfactory quality, fitness for any particular purpose, or non-infringement of third parties rights.

2.7 Limitation of liability

In no event will DIG be liable to you for any damages, claims or costs whatsoever or any consequential, indirect or incidental damages, or any lost profits or lost savings or for any claim by a third party, even if DIG has been advised of the possibility of such damages, claims, costs, lost profits or lost savings.

2.8 S1000D DIG guidance

The DIG aims to provide guidance in conformity with the S1000D specification as applicable to defense projects. This encompasses in practice the definition of a common set of information regulations specific to defense projects in accordance with the S1000D specification.

2.9 Disclaimer

This document was created independently of Airlines for America ("A4A"), the Aerospace and Defence Industries Association of Europe ("ASD"), the Aerospace Industries Association of America ("AIA") and their collaborative effort to develop and publish S1000D. A4A, ASD and AIA are not responsible for the legal rights, content, products, services or opinions associated with this document. The document authors' access, use, intellectual property, liability limitation disclaimer and reproduction policies are set forth in this document. Please contact the authors with any questions related to this document.

Highlights

The following tables summarize the changes to the chapters highlighted.

Table 1 Front Matter

Chap No	Summary of changes

Table 2 Chap 1

Chap No	Summary of changes

Table 3 Chap 2

Chap No	Summary of changes

List of abbreviations

Table 1 List of abbreviations

Abbreviation	Definition
AIA	Aerospace Industries Association of America
ASD	Aerospace and Defence Industries Association of Europe
ATA	Air Transportation Association
BR	Business Rules
BRDP	Business Rules Decision Point
BREX	Business Rules EXchange
CSDB	Common Source Data Base
DIG	Defense Interest Group
DM	Data Module
DMC	Data Module Code
IC	Information Code
IPD	Illustrated Parts Data
NATO	North Atlantic Treaty Organization
NSN	NATO Stock Number
NSPA	NATO Support and Procurement Agency
TOC	Table Of Content

Table of contents

The listed documents are included in Issue 1, dated 2017-04-03 of this publication.

Chapter 1

Introduction to the document

Table of contents

Chapter 1.1

Introduction to the document - Purpose and scope

Table of contents
Page

List of tables

List of figures

References

Table 1 References

Chap. No./Document No.	Title
Chap 2	DIG Business Rules

1   Purpose

The purpose of the Defense Interest Group (DIG) Business Rules (BR) document is to tailor the use of S1000D for defense applications from a common defense perspective.

2   Scope

The DIG BR document was developed to produce a common DIG layer for defense BR based on the S1000D Business Rule Decision Points (BRDP). Refer to Chap 2.

The approach is based on the development of layered BR, with the DIG BR forming the foundation layer.

This issue of the DIG BR is based on S1000D Issue 4.1.

The DIG will maintain this document in line with S1000D from Issue 4.1 and subsequent issues. Each issue will be maintained to align with issues of S1000D being used within Defense organizations.
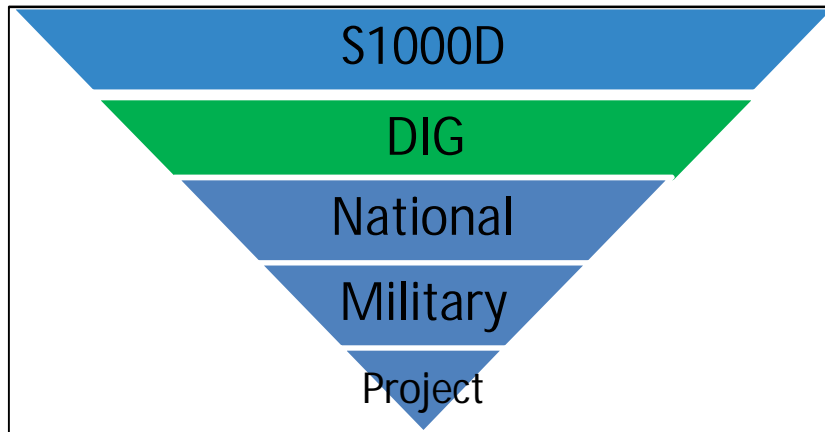
Fig 1 Layered Business Rule structure

2.1 Principles

The following principles were adopted when addressing BRDP:

1 Use lessons learned from previous nation and NSPA projects

2 In general, use the default options whenever specified

3 Consider the impact of a BRDP for the project, eg cost, schedule, skills, tools.

Applicable to: All

DIG-A-01-01-0000-00A-040A-A

End of data module

Chap 1.1

DMC-DIG-A-01-01-0000-00A-040A-A_001-00_EN_US.docx

2017-04-03 Page 2

Chapter 1.2

Introduction to the document - How to use the DIG Business Rules

Table of contents

Page

List of tables

References

Table 1 References

Chap No./Document No.	Title
None	

1   General

Rules and guidelines for the use of the Defense Interest Group (DIG) Business Rules (BR) will be included in a future issue of this document.

Chapter 1.3

Introduction to the document - How to update the DIG Business Rules

Table of contents

Page

List of tables

References

Table 1 References

Chap No./Document No.	Title
None	

1   General

Rules and guidelines for the update of the Defense Interest Group (DIG) Business Rules (BR) will be included in a future issue of this document.

Chapter 2

DIG Business Rules

Table of contents

Chapter 2.1

DIG Business Rules - Introduction

Table of contents

Page

List of tables

References

Table 1 References

Chap No./Document No.	Title
None	

1   General

An introduction to the Defense Interest Group (DIG) Business Rules (BR) will be included in a future issue of this document.

Chapter 2.2

DIG Business Rules - Decisions

Table of contents

Page

List of tables

References

Table 1 References

Chap. No./Document No.	Title
None	

1   General

The DIG Business Rules Decision Points (BRDP) table gives the documented BRDP decisions as agreed upon by the DIG members. The baseline for the BRDP table is the Business Rule Decision Points index table, refer to S1000D issue 4.1 Chap 2.5.3.

The data provided in the columns "BRDP reference/location", "BRDP unique identifier", "BRDP title" and "BRDP definition" are copied from S1000D issue 4.1 Chapter 2.5.3. The decisions agreed upon by the DIG are documented in Table 2, (column "Decision").

2   BRDP and decisions

Table 2 BRDP and Decisions

BRDP reference/ location	BRDP unique identifier	BRDP title	BRDP definition	Decision
Chap 1.3 Para 6.2.4	BRDP-S1-00001	Use of "I" and "O"	Decide whether and when to use the alpha characters "I" and "O".	The alpha characters "I" and "O" can only be used for the Model Identification code in the Data Module Code (DMC). For the rest of the DMC "I" and "O" shall not be used in data module coding.

BRDP reference/ location	BRDP unique identifier	BRDP title	BRDP definition	Decision
Chap 3.9.5.2.1.5 Para 2	BRDP-S1-00119	Use of cross-references from titles	Decide whether to allow cross-referencing from titles.	Cross-referencing from titles shall not be allowed.
Chap 3.9.5.2.1.5 Para 2	BRDP-S1-00120	Use of titles for the elements <levelledPara> and <proceduralStep> from sublevel six thru eight for legacy data	Decide whether titles can be included for the elements <levelledPara> and <proceduralStep> from sublevel six thru eight when converting legacy data to S1000D.	Titles for levels six thru eight in the elements <levelledPara>, <levelledParaAlt>, <proceduralStep> or <proceduralStepAlt> can be used.
Chap 3.9.5.2.1.6 Para 2.4	BRDP-S1-00122	Use of tables as graphics	Decide if tables represented as graphics are allowed, and if they are, in what situations they can be used.	Tables represented as graphics shall be allowed.
Chap 3.9.5.2.1.9 Para 2.5.1	BRDP-S1-00150	Use of the attribute id on the element <supportEquipDescr> in the element <preliminaryRqmts>	Decide whether to use the attribute id to create cross-references from the procedure to the support equipment listed in Preliminary requirements. The attribute id on element <supportEquipDescr> is used to establish the link between the two and will guarantee consistent use of identification throughout the procedure. The use of cross-references is encouraged.	The attribute id shall always be used for cross-referencing purposes.

BRDP reference/ location	BRDP unique identifier	BRDP title	BRDP definition	Decision
Chap 3.9.5.2.1.9 Para 2.6.1	BRDP-S1-00155	Use of the attribute id on the element <supplyDescr> in the element <preliminaryRqmts>	Decide whether to use the attribute id to create cross-references from the procedure to the supplies listed in Preliminary requirements. The attribute id on element <supplyDescr> is used to establish the link between the two and will guarantee consistent use of identification throughout the procedure. The use of cross-references is encouraged.	The attribute id shall be used for cross-referencing from a procedure to the supplies listed in the Preliminary requirements.
Chap 3.9.5.2.1.9 Para 2.7.1	BRDP-S1-00156	Use of the attribute id on element <sparesDescr> in the element <preliminaryRqmts>	Decide whether to use the attribute id to create cross-references from the procedure to the spares listed in Preliminary requirements. The attribute id on element <sparesDescr> is used to establish the link between the two and will guarantee consistent use identification throughout the procedure. The use of cross-references is encouraged.	The attribute id shall be used for cross-referencing from a procedure to the spares listed in the Preliminary requirements.
Chap 3.9.5.2.2 Para 2.4	BRDP-S1-00180	Level of depth of descriptive data modules	Decide whether to exceed 5 levels of depth for new data.	For new projects, the granularity of the descriptive data modules shall not exceed 5 levels. For legacy data this may be increased as required.
Chap 3.9.5.2.2 Para 2.4	BRDP-S1-00181	Minimum para occurrences	Decide whether to impose a minimum of two occurrences of child elements.	For new projects, the minimum of two occurrences shall be imposed.

BRDP reference/ location	BRDP unique identifier	BRDP title	BRDP definition	Decision
			\<levelledPara\> and/or \<levelledParaAlts\>.	
Chap 3.9.5.2.3 Para 2.4.1	BRDP-S1-00186	Decide on the maximum number of step levels in a procedure	Decide on the maximum number of step levels allowed in a procedure. Exceeding five levels of depth is strongly discouraged in development of new data. It is recommended that additional levels are only used in a conversion effort where the existing data is authored to this depth (maximum eight levels) and restructuring of data is not feasible.	For new projects, the maximum number of step levels shall be five. For legacy data this may be increased as required.
Chap 3.9.5.2.7 Para 2.2.1.2	BRDP-S1-00216	Use of the element \<natoStockNumber\> (NATO stock number)	Decide whether and how to use the NATO Stock Number, split it into its three fields using the attributes natoSupplyClass, natoCodificationBureau and natoItemIdentNumberCore or to fill it as a whole in the child element \<fullNatoStockNumber\>.	When NATO Stock Numbers (NSNs) are used in the project, the NSN shall be specified using the three attributes.
Chap 3.9.5.2.7 Para 2.4.3	BRDP-S1-00217	Use of hotspots in IPD data modules	Decide whether to use the generic hotspot mechanism in IPD data modules.	The generic hotspot mechanism shall be used in IPD data modules.
Chap 3.9.5.2.7 Para 2.5.12	BRDP-S1-00237	Use of the BREX to define the non-S2000M elements	Decide whether to use the BREX for the definition of the non-S2000M elements.	The BREX shall always be used to define any genericPartData element names.

BRDP reference/ location	BRDP unique identifier	BRDP title	BRDP definition	Decision
Chap 3.9.5.2.14 Para 2.3.1.3.5	BRDP-S1-00279	Define maximum number of step levels in \<checkListProcedure>	Projects must decide the maximum number of step levels allowed.	The maximum number of step levels in \<checkListProcedure> shall be five. For legacy data this may be increased as required
Chap 3.9.5.2.16 Para 2.3.2.3	BRDP-S1-00304	Use of hierarchical Table of contents	Decide whether to use a hierarchical Table of contents and on the number of levels.	When the project applies a hierarchical Table of Contents (TOC) up to five levels shall be used.
Chap 3.9.5.2.16 Para 2.3.2.3.2	BRDP-S1-00306	Use of issue number and/or issue date in the Table of contents	Decide whether to use and present the issue number (\<issueInfo>/\<externalPubIssueInfo>) and/or the issue date (\<issueDate>/\<externalPubIssueDate>) for the entries in the Table of contents	The issue number and issue date shall not be used in the Table of Contents (TOC).
Chap 4.3.3 Para 2.2.4	BRDP-S1-00338	Number of characters in assembly code	Decide whether to use two or four characters for unit or assembly.	Four characters shall be used.
Chap 4.5 Para 2.1	BRDP-S1-00350	Use of data management requirement list	Decide whether to use the data management requirement list for specification and exchange of CSDB planning information.	The data management requirement list shall always be used in a format specified by the project/organization.
Chap 4.10 Para 2.1	BRDP-S1-00366	Use of a project-specific BREX data module	Decide whether to develop and use a project-specific BREX data module.	The project should refer to the most appropriate BREX within the layers. If required a project-specific BREX data module shall be developed.
Chap 4.10 Para 2.2	BRDP-S1-00367	Use of layered BREX data modules	Decide whether to apply a layered BREX data module structure. This decision is related to, but not entirely dependent on, whether a layered business rules structure applies.	A layered BREX data module structure shall be applied.

BRDP reference/ location	BRDP unique identifier	BRDP title	BRDP definition	Decision
Chap 4.10.2.2 Para 2.2	BRDP-S1-00370	Include restrictions in using various illustration, multimedia object or other data information formats	Decide whether to use the BREX data module to impose any restrictions in the use of various formats for illustrations, multimedia objects or other data.	The BREX data module shall be used to impose restrictions in the use of various formats for illustrations, multimedia objects or other data.
Chap 4.11 Para 2.3	BRDP-S1-00372	Use of the generic IC 951 for identification of process data modules	Decide whether to use IC 951 for identification of process data modules.	IC 951 shall not be used. The appropriate information codes relating to the content of the process data module shall be used.
Chap 4.13.4 Para 2.3.2	BRDP-S1-00385	Identification of container data module	Decide which identification method to use for container data modules. The chosen method must be used systematically.	The following value shall be assigned to the disassembly code variant: "Z, ZZ or ZZZ" in accordance with the project data module coding rules.
Chap 4.13.4 Para 2.5	BRDP-S1-00386	Use of applicability within container data module content	Decide whether applicability annotations are duplicated from the referenced data modules to the container data module.	Applicability annotations shall be duplicated from the referenced data modules to the container data module.
Chap 4.14 Para 2.1.2	BRDP-S1-00387	Use of applicability	Decide if the project will use applicability.	Applicability shall be included at the data module (DM) level and shall be optional within the content.