

# ISO 21961:2003-03 (E)

Space data and information transfer systems — Data entity dictionary specification language (DEDSL) — Abstract syntax

---

## CONTENTS

<u>Section</u>	<u>Page</u>
<b>1 INTRODUCTION.....</b>	<b>1-1</b>
1.1 PURPOSE AND SCOPE.....	1-1
1.2 APPLICABILITY.....	1-2
1.3 RATIONALE.....	1-2
1.4 DOCUMENT STRUCTURE.....	1-3
1.5 DEFINITIONS.....	1-4
1.6 REFERENCES.....	1-7
<b>2 OVERVIEW.....</b>	<b>2-1</b>
2.1 GENERAL.....	2-1
2.2 USES OF DATA ENTITY DICTIONARIES.....	2-1
2.3 APPLICATION OF THE DEDSL.....	2-6
2.4 REGISTERING DED.....	2-8
<b>3 DESCRIPTORS OF A DATA ENTITY ATTRIBUTE.....</b>	<b>3-1</b>
3.1 GENERAL.....	3-1
3.2 LIST OF DESCRIPTORS.....	3-1
3.3 ATTRIBUTE_NAME.....	3-3
3.4 ATTRIBUTE_DEFINITION.....	3-4
3.5 ATTRIBUTE_OBLIGATION.....	3-5
3.6 ATTRIBUTE_CONDITION.....	3-6
3.7 ATTRIBUTE_MAXIMUM_OCCURRENCE.....	3-6
3.8 ATTRIBUTE_VALUE_TYPE.....	3-7
3.9 ATTRIBUTE_MAXIMUM_SIZE.....	3-9
3.10 ATTRIBUTE_ENUMERATION_VALUES.....	3-10
3.11 ATTRIBUTE_COMMENT.....	3-10
3.12 ATTRIBUTE_INHERITANCE.....	3-11
3.13 ATTRIBUTE_DEFAULT_VALUE.....	3-11
3.14 ATTRIBUTE_VALUE_EXAMPLE.....	3-12
3.15 ATTRIBUTE_SCOPE.....	3-12
<b>4 DATA ENTITY ATTRIBUTES AND DATA ENTITY DICTIONARY ATTRIBUTES.....</b>	<b>4-1</b>

4.1	CONCEPT DEFINITIONS.....	4-1
4.2	GENERAL VIEW OF THE STANDARD ATTRIBUTES .....	4-2
4.3	STANDARD ATTRIBUTES FOR DATA ENTITY DICTIONARIES .....	4-4
4.4	STANDARD ATTRIBUTES FOR DATA ENTITIES .....	4-13
4.5	USER-DEFINED ATTRIBUTES.....	4-34
4.6	RELATIONSHIP RULES .....	4-37
<b>5</b>	<b>IMPLEMENTATION GUIDELINES .....</b>	<b>5-1</b>
<b>6</b>	<b>DEDSL CONFORMANCE: ABSTRACT DEDSL (ADID = CCSD0011).....</b>	<b>6-1</b>
6.1	GENERAL.....	6-1
6.2	CONFORMANCE LEVEL 1: BASE COMPLIANCE .....	6-1
6.3	CONFORMANCE LEVEL 2: FULL COMPLIANCE .....	6-1
<b>ANNEX A</b>	<b>DEDSL EXAMPLES .....</b>	<b>A-1</b>
<b>ANNEX B</b>	<b>MAPPING OF THE CONCEPTS BETWEEN THIS RECOM- MENDATION AND THE ISO/IEC 11179-3:1994 STANDARD .....</b>	<b>B-1</b>
<b>ANNEX C</b>	<b>INFORMATIVE REFERENCES.....</b>	<b>C-1</b>

Figure

2-1	Organisation of the Data Product Product_X.....	2-2
2-2	Organisation of the Data Product Product_Y.....	2-3
2-3	Organisation of the DED Relative to Product_X and Product_Y.....	2-4
2-4	“Uses some models of” Links between Data Product Dictionaries .....	2-6

Table

2-1	Comparison of Community DED and Product DED Descriptions.....	2-5
3-1	General Descriptors.....	3-2
4-1	Data Entity Dictionary Attributes .....	4-2
4-2	Data Entity Attributes .....	4-3

Example

3-1	Elementary Type .....	3-7
3-2	Ordered List of Elementary Types.....	3-8
3-3	Ordered List of the Same Elementary Type.....	3-8
3-4	Use of Entity_Type .....	3-8
3-5	Use of Choice.....	3-8

## CONTENTS (continued)

<u>Example</u>	<u>Page</u>
3-6 Use of Attribute_Maximum_Size .....	3-9
3-7 Use of Attribute_Enumeration_Values .....	3-10
4-1 Defining User-Defined Attribute .....	4-35
4-2 Defining User-Defined Attribute with an External Reference.....	4-35
4-3 Usage of a User-Defined Attribute .....	4-36