

# ISO/IEC TR 20943-3:2004-03 (E)

## Information technology - Procedures for achieving metadata registry content consistency - Part 3: Value domains

---

<b>Contents</b>		<b>Page</b>
Foreword .....		iv
Introduction .....		v
<b>1</b>	<b>Scope .....</b>	<b>1</b>
1.1	Background .....	1
1.2	Purpose .....	1
1.3	Limits of this Technical Report .....	1
1.4	Registration approach -- value domains and data elements .....	1
<b>2</b>	<b>Normative references .....</b>	<b>1</b>
<b>3</b>	<b>Terms and definitions .....</b>	<b>2</b>
<b>4</b>	<b>Understanding value domains .....</b>	<b>2</b>
4.1	Introduction .....	2
4.2	General principles .....	3
4.2.1	Introduction .....	3
4.2.2	Choice of codes .....	4
4.2.3	Number of permissible values .....	4
4.2.4	Conceptual domain hierarchies .....	4
4.2.5	Sharing value meanings across permissible values .....	5
4.2.6	Sharing value domains across data elements .....	5
4.2.7	Associating value domains with concepts (data element concepts and conceptual domains) .....	5
4.2.8	Value domains not associated with data elements .....	6
4.2.9	Contrasting conceptual domains and data element concepts .....	6
4.2.10	Non-enumerated value domains .....	6
4.2.11	Value domains with enumerated and non-enumerated components .....	7
4.2.12	Semantic restriction of use of value domains .....	8
4.2.13	Rapidly changing enumerated value domains (UPC example) .....	8
4.3	Structure in value domains .....	9
4.3.1	Introduction .....	9
4.3.2	International Standard Industrial Classification (ISIC) .....	9
4.3.3	Logical Observation Identifiers Names and Codes (LOINC) .....	11
4.4	Code sets as value domains .....	12
4.5	Classification schemes as value domains .....	13
4.6	Data types and value domains .....	15
4.6.1	Basics .....	15
4.6.2	Value domains with more than one data type -- limitations of value meaning .....	15
4.7	Units of measure .....	16
4.8	Dimensionality .....	18
4.9	Classifying value domains .....	19
<b>5</b>	<b>Registering value domains .....</b>	<b>20</b>
5.1	Introduction .....	20
5.2	Rules for registering value domains .....	20
5.3	Strategies .....	23
5.4	Examples .....	23
5.4.1	Enumerated value domain .....	24
5.4.2	Non-enumerated value domain .....	30
Annex A Metamodel for value domains and conceptual domains .....		33
Bibliography .....		35