

ISO GEOSPATIAL METADATA STANDARD PUBLICATIONS

Day One
*ISO Geospatial
Metadata
Standards
Overview*

Tuesday
April 16, 2013
12:00-4:00 PM

April 16, 2013

ISO Metadata Implementation Webinar
Day One: Standards Overview

1

INTERNATIONAL
STANDARD

ISO
19115

First edition
2003-05-01

Geographic information — Metadata

Information géographique — Métadonnées

Adopted by INCITS (InterNational Committee for Information Technology Standards) as an American National Standard.

Date of ANSI Approval: 12/24/2003

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Reference number
ISO 19115:2003(E)

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- Each standard published as separate ISO documents
 - Available as DIS and IS
 - Corrigendum and amendments are free
- Standards must be purchased
 - ANSI is US Publisher
- Agency Purchase
 - Check with agency library
 - Initiate agency purchase
- Free resources from NOAA
 - Transforms
 - 19115/-2 Workbook

DOCUMENT PARTS AND PIECES

Background

- Scope
- Conformance
- Related Standards
- Terms, Definitions & Abbreviations

UML Package Diagrams

Data Dictionary

External References

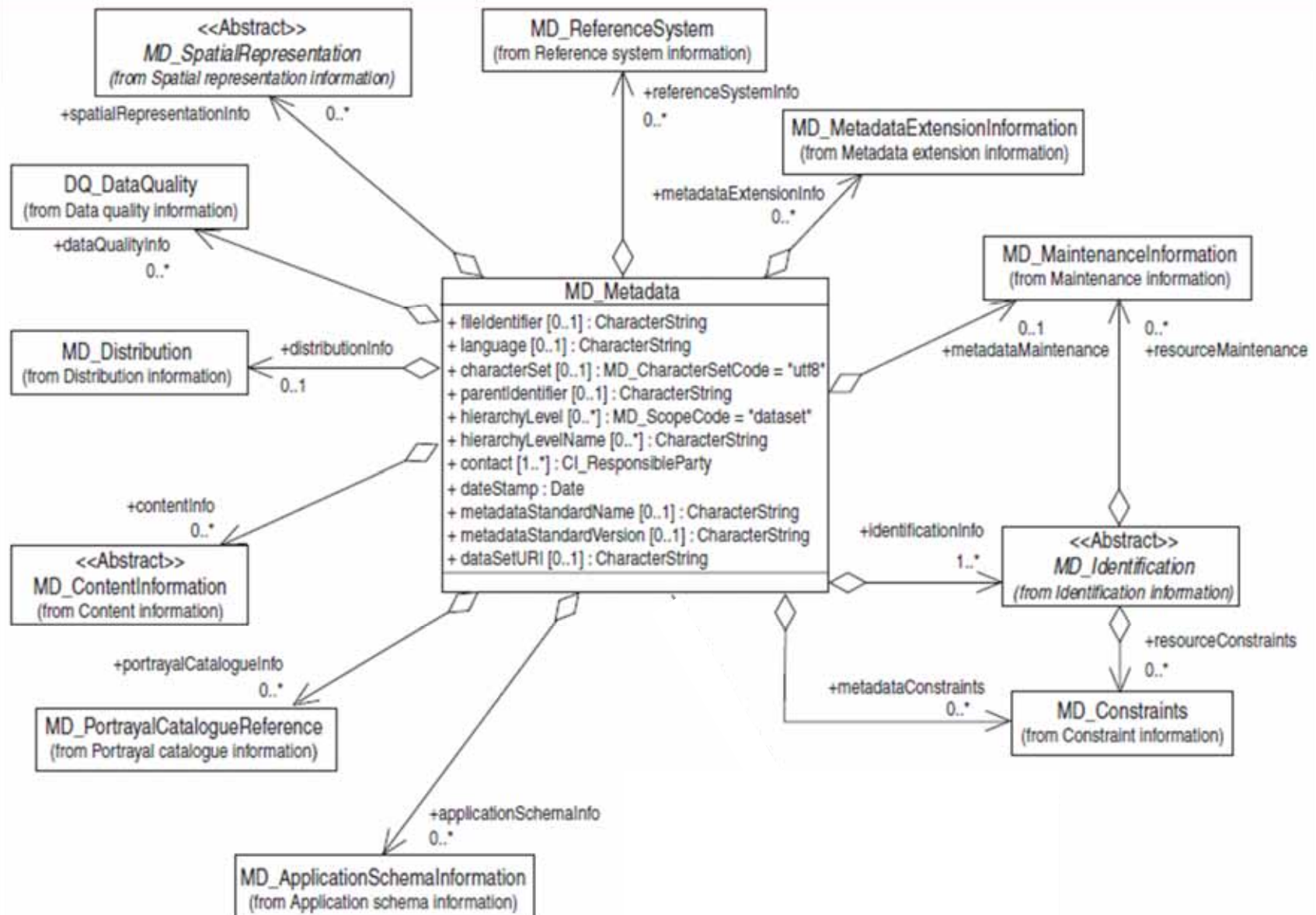
- class values
- parameters

Code Lists

Annex

- Extending the standard
- Guidance
- Examples
- Summary of Changes

UML CLASS DIAGRAMS



UML CLASS DIAGRAMS

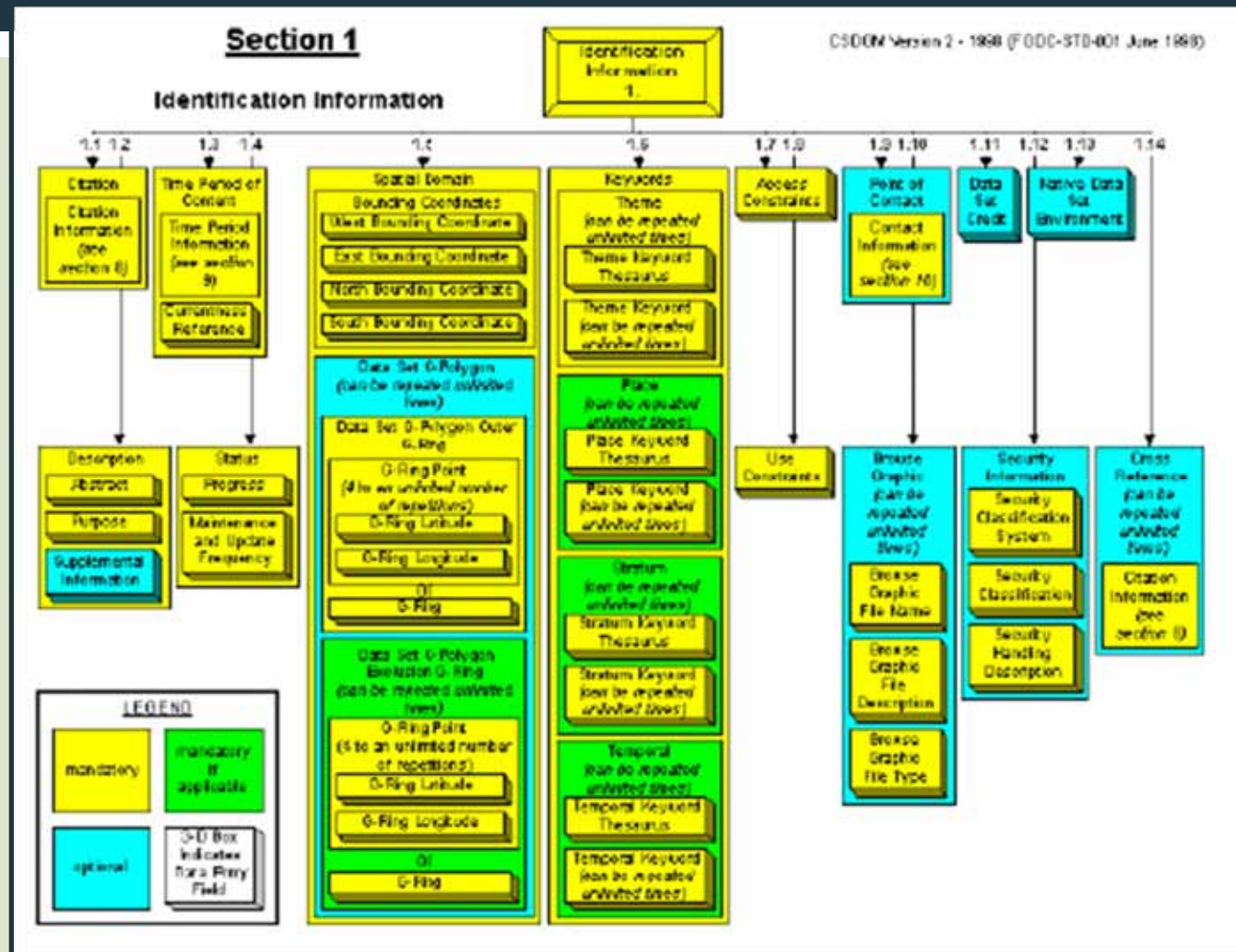
DON'T PANIC

- Most users will not use the UML diagrams
- Most will interact with the standard via:
 - Form based editor
 - Properly formatted XML

```
Mozilla Firefox
http://www.arendskart.no/wms.aspx?request=getCapabilities&version=1.1.0
http://www.arend...es&version=1.1.0
--<WMT_MS_Capabilities version="1.1.0">
- <!--
  MapServer version 5.2.0 OUTPUT=GIFF OUTPUT=PNG OUTPUT=JPEG OUTPUT=WMF OUTPUT=PDF OUTPUT=SWF OUTPUT=SVG SUP
-->
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  </ContactPersonPrimary>
  <ContactPosition/>
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  <ContactElectronicMailAddress>Jan.Christian.Andersen@arendal.kommune.no</ContactElectronicMailAddress>
  </ContactInformation>
  <AccessConstraints>none</AccessConstraints>
</Service>
- <Capability>
- <Request>
  - <GetCapabilities>
    <Format>application/vnd.ogc.wms_xml</Format>
  - <DCPType>
  - <HTTP>
```

UML CLASS DIAGRAMS

Remember
the first
time you
saw this?

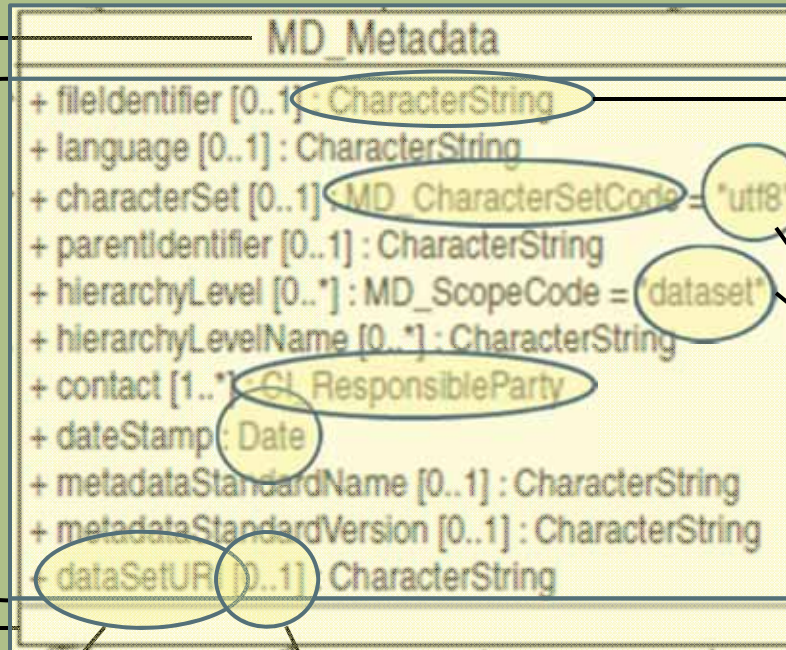


CLASS DESCRIPTION

Class Name

MD_Metadata

Class Attributes



Attribute Type
Character String
Codeset
Class
Date
Default Values

Operations/
Methods

Attribute Name

Conditionality

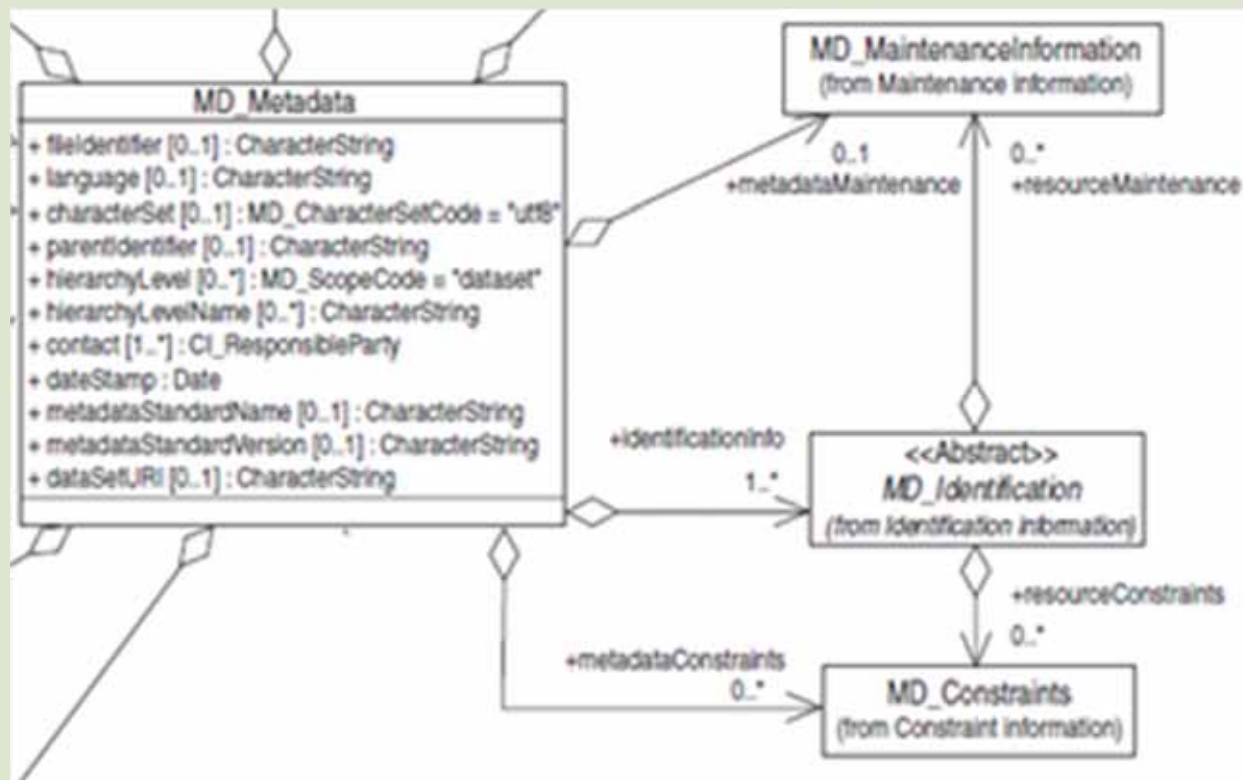
(blank) = required, not repeatable

[1..*] = required, repeatable

[0..1] = optional, not repeatable

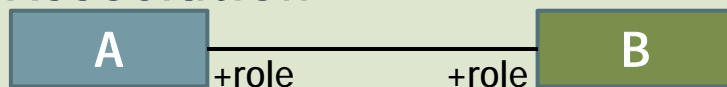
[0..*] = optional, repeatable

CLASS ASSOCIATIONS

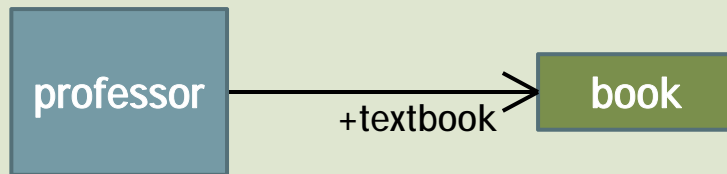


CLASS ASSOCIATIONS

Association

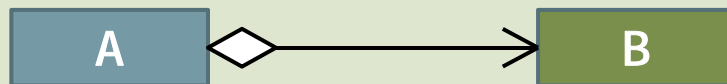


Class A is associated with Class B as defined by the role. Can be bi-directional, as shown, or unidirectional as in the example below.

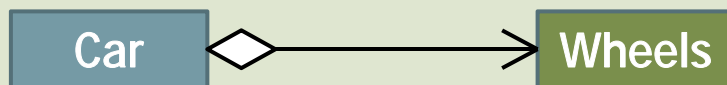


Example: A professor can assign a textbook, but the book knows nothing about the professor

Aggregation



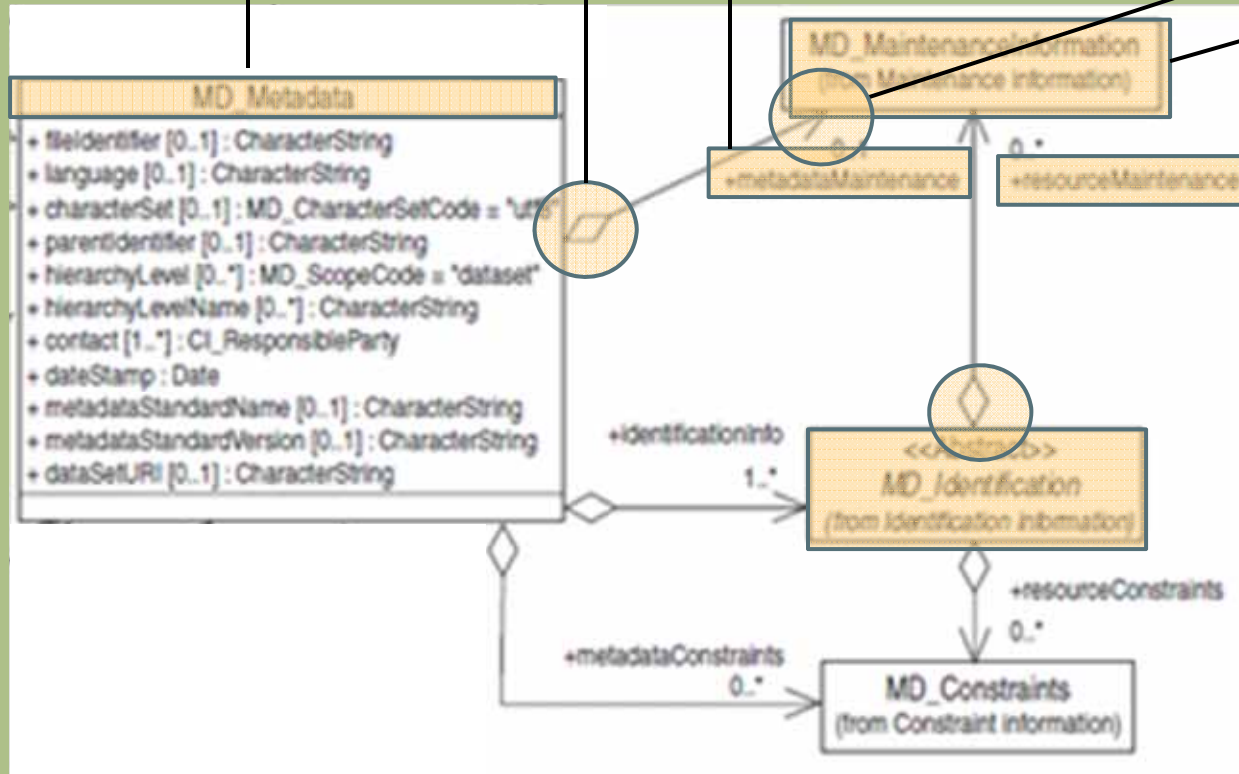
Class A contains an occurrence of Class B but does not own it exclusively



Example: Cars must have wheels but wheels are not only found on cars

CLASS ASSOCIATIONS

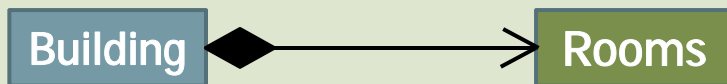
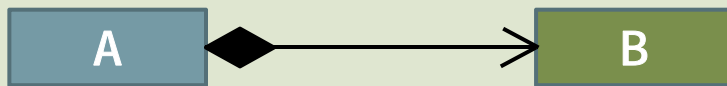
MD_Metadata aggregates metadataMaintenance info from the associated class, MD_Maintenance



In a similar manner - resourceMetadata info is aggregated from MD_MaintenanceInfo into MD_Identification

CLASS ASSOCIATION TYPES

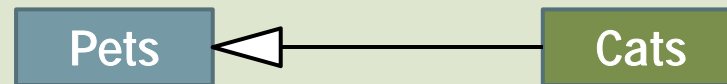
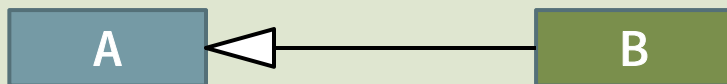
Composition



Class A owns Class B exclusively. B cannot exist without A.

Example: A building is comprised of rooms but if the building is destroyed the room are also destroyed.

Generalization



Class A is the general class and Class B is a specific instance of Class A.

Example: Cats are a type of pet.

DATA DICTIONARY

	Name	ShortName	Definition	Conditionality	Max#	Data Type	Domain
	Name / Role name	Short Name	Definition	Obligation / Condition	Maximum occurrence	Data type	Domain
1	MD_Metadata	Metadata	root entity which defines metadata about a resource or resources	M	1	Class	Lines 2-22
2	fileIdentifier	mdFileID	unique identifier for this metadata file	O	1	CharacterString	Free text
3	language	mdLang	language used for documenting metadata	C / not defined by encoding?	1	CharacterString	ISO 639-2, other parts may be used
4	characterSet	mdChar	full name of the character coding standard used for the metadata set	C / ISO/IEC 10646-1 not used and not defined by encoding?	1	Class	MD_CharacterSetCode <<CodeList>> (B.5.10)
5	parentIdentifier	mdParentID	file identifier of the metadata to which this metadata is a subset (child)	C / hierarchyLevel is not equal to "dataset"?	1	CharacterString	Free text
19	<i>Role name:</i> portrayalCatalogueInfo	porCatInfo	provides information about the catalogue of rules defined for the portrayal of a resource(s)	O	N	Association	MD_PortrayalCatalogue Reference (B.2.9)
20	<i>Role name:</i> metadataConstraints	mdConst	provides restrictions on the access and use of metadata	O	N	Association	MD_Constraints (B.2.3)
21	<i>Role name:</i> applicationSchemaInfo	appSchInfo	provides information about the conceptual schema of a dataset	O	N	Association	MD_ApplicationSchema Information (B.2.12)
22	<i>Role name:</i> metadataMaintenance	mdMaint	provides information about the frequency of metadata updates, and the scope of those updates	O	1	Association	MD_MaintenanceInformation (B.2.5)

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Includes both
Attributes &
Associations/Roles

19	Role name: portrayalCatalogueInfo	porCatInfo	provides information about the catalogue of rules defined for the portrayal of a resource(s)	O	N	Association	MD_PortrayalCatalogue Reference (B.2.9)
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CODE LISTS

B.5.3 CI_OnLineFunctionCode <<CodeList>>

	Name	Domain code	Definition
1.	CI_OnLineFunctionCode	OnFuncCd	function performed by the resource
2.	download	001	online instructions for transferring data from one storage device or system to another
3.	information	002	online information about the resource
4.	offlineAccess	003	online instructions for requesting the resource from the provider
5.	order	004	online order process for obtaining the resource
6.	search	005	online search interface for seeking out information about the resource

Use 'CamelCase' values that are concatenatedWithEachNewWordCapitalized

QUESTIONS?