ISO GEOSPATIAL METADATA STANDARD PUBLICATIONS

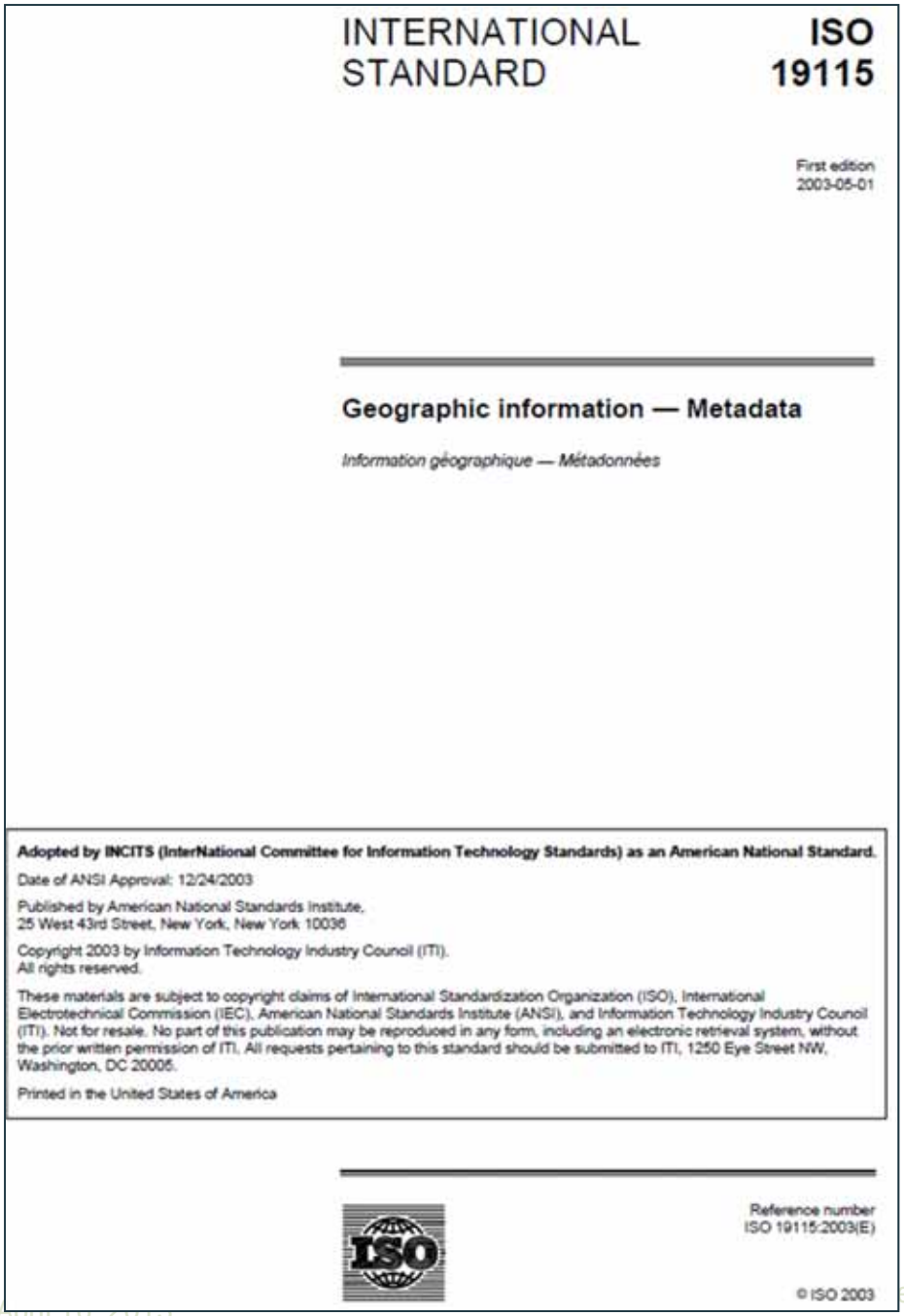
Day One

ISO Geospatial Metadata Standards Overview

Tuesday

April 16, 2013

12:00-4:00 PM



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

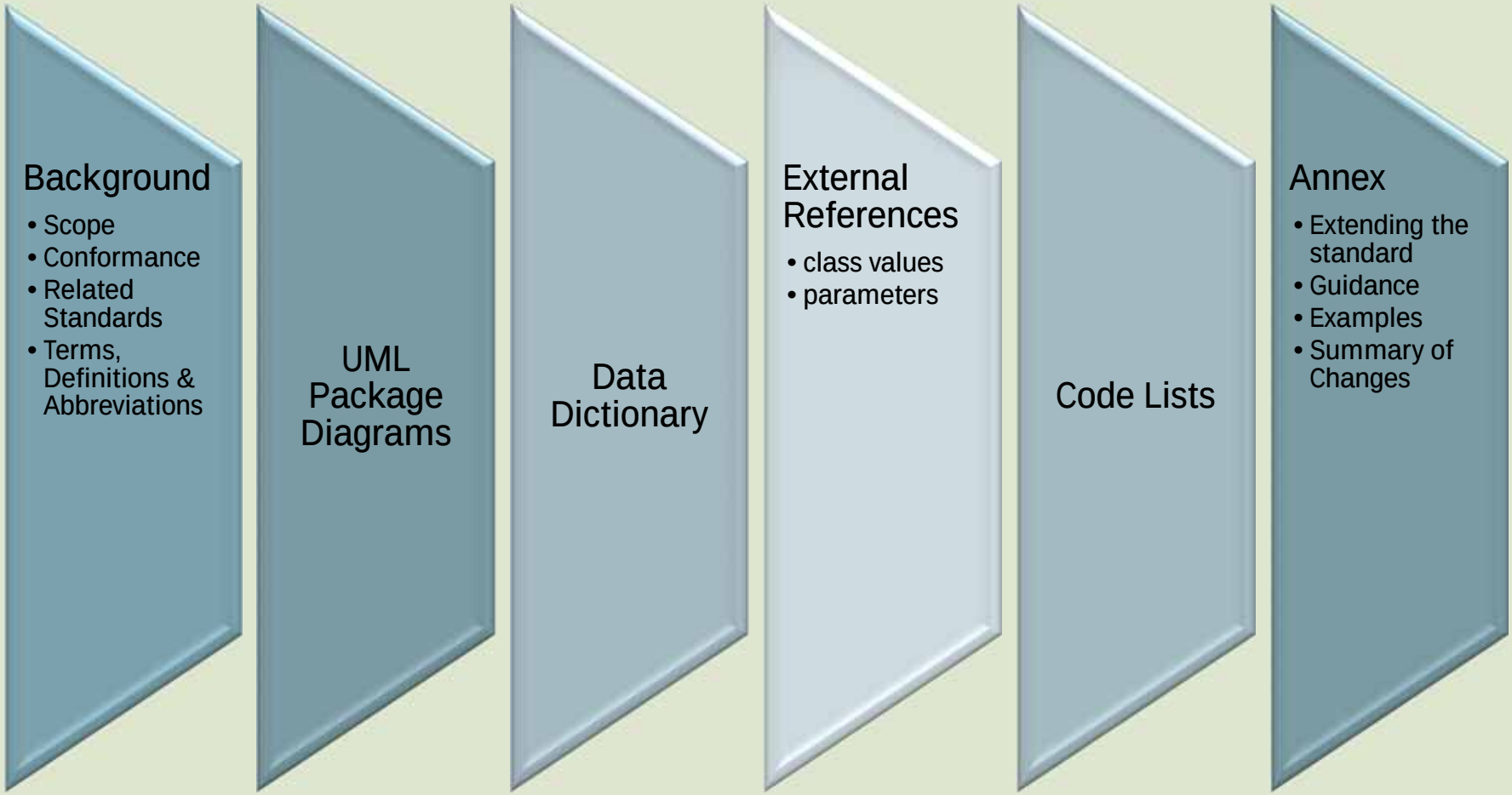
Published by American National Standards Institute,
25 West 43rd Street, New York, New York 10036

Printed in the United States of America

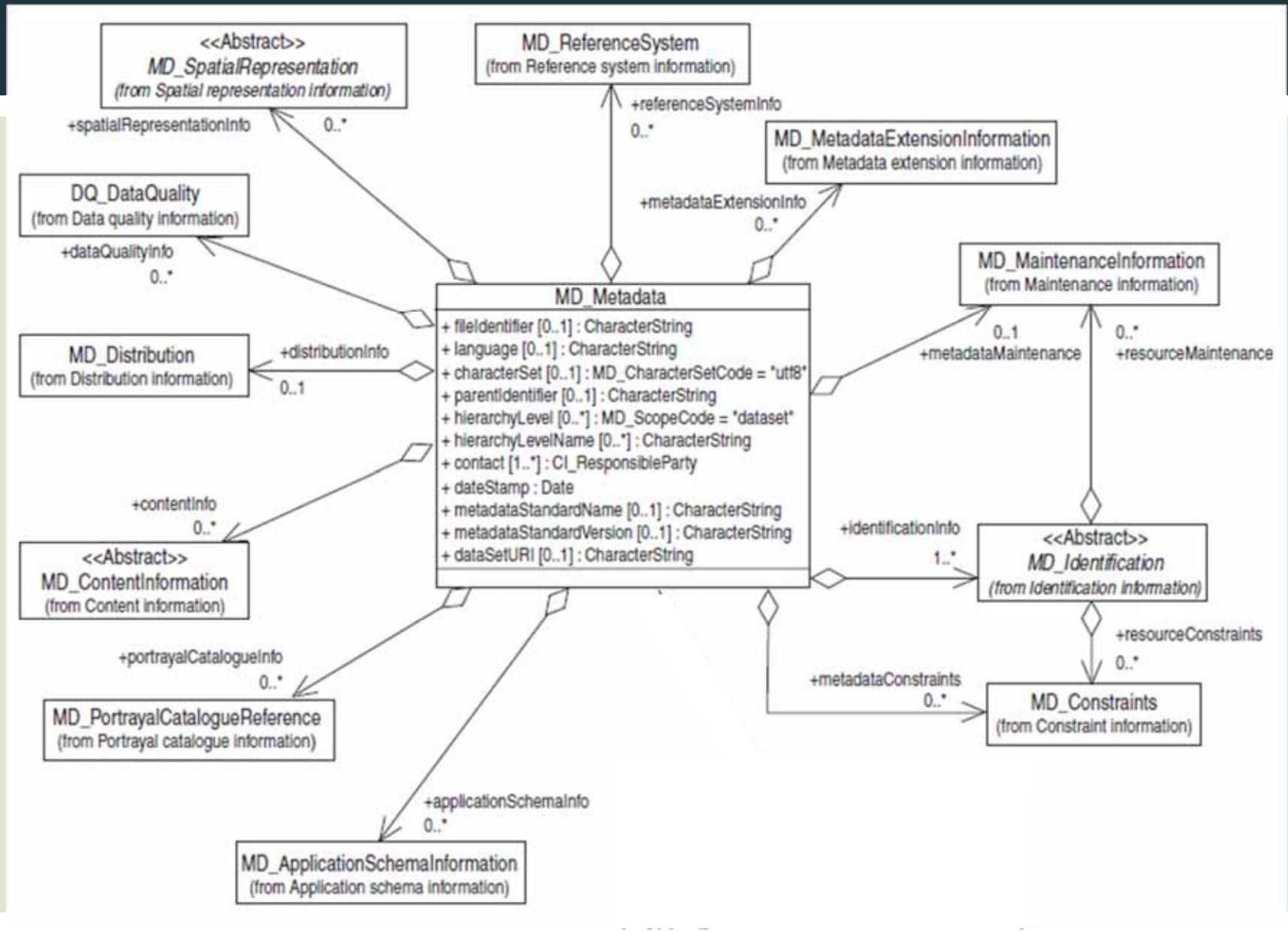
Reference number
ISO 19115:2003(E)

- 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



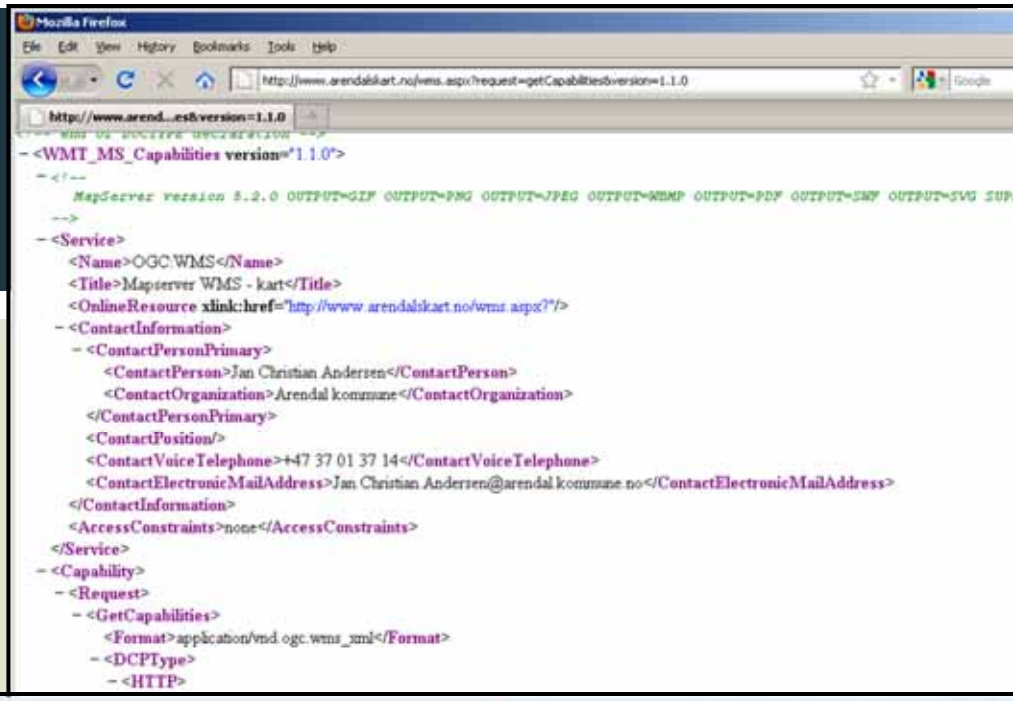
UML CLASS DIAGRAMS

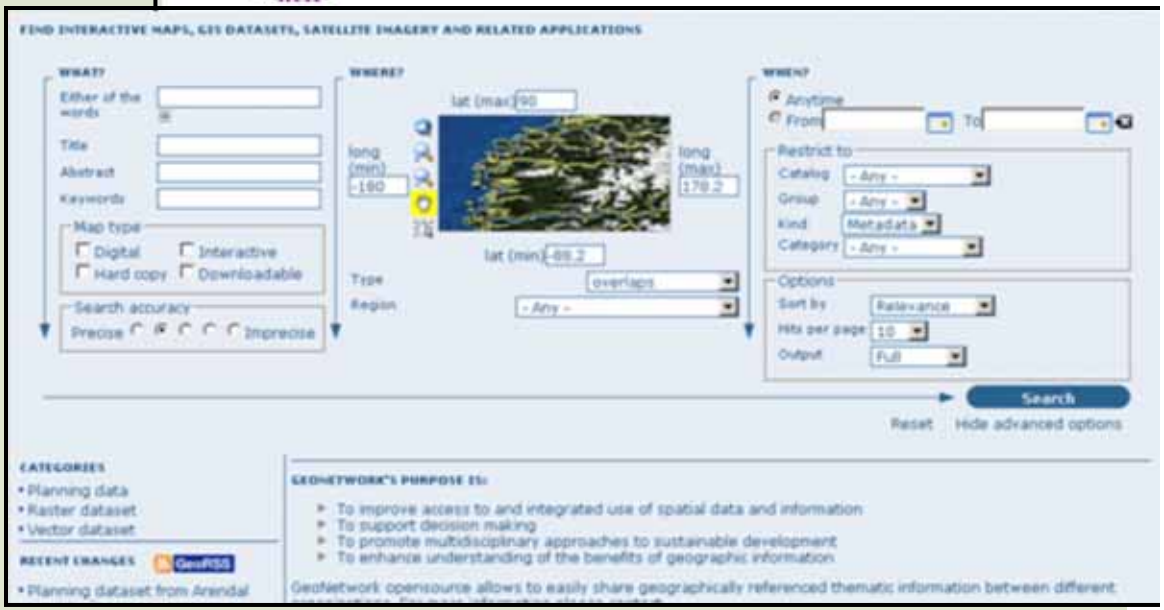


UML CLASS DIAGRAMS

DON'T PANIC

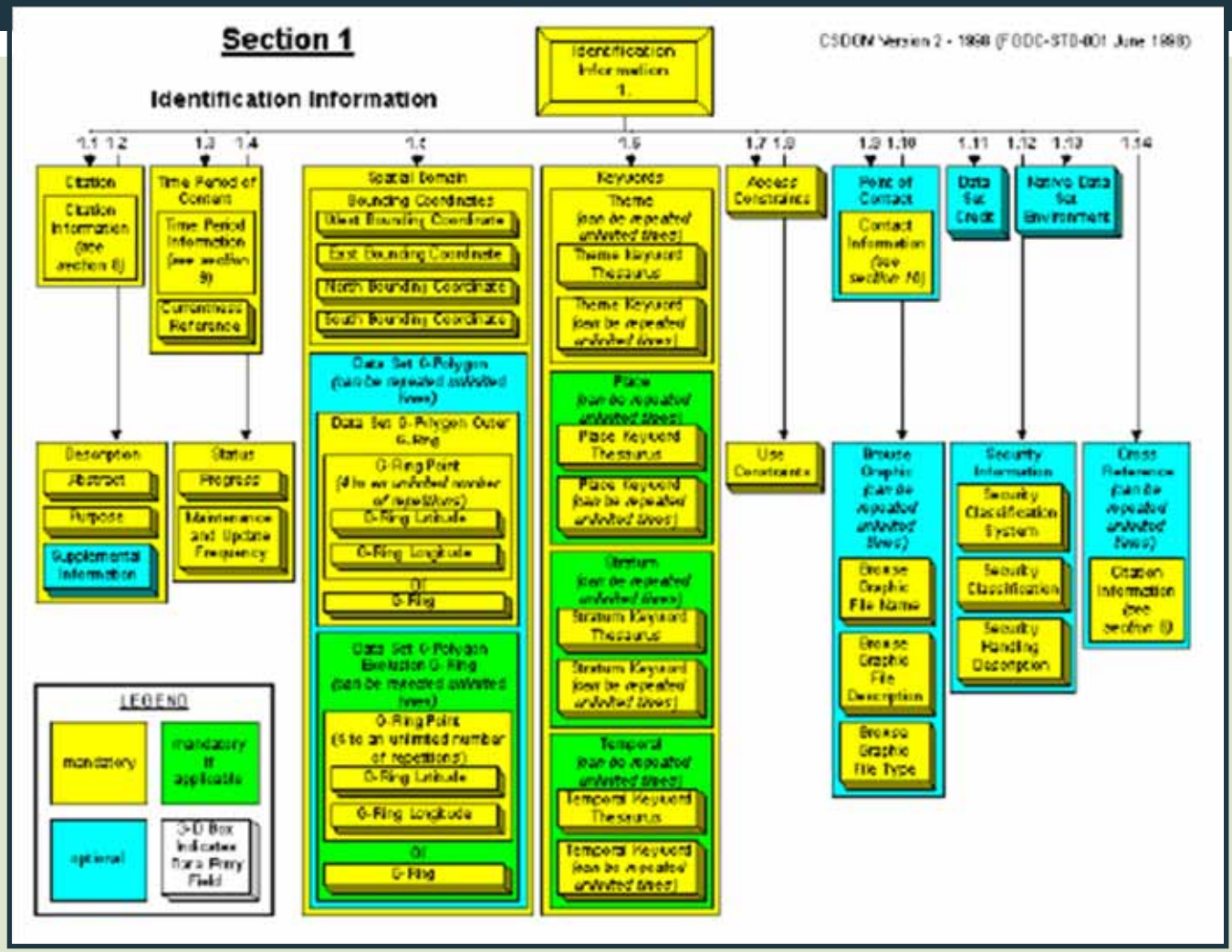
- Most users will not use the UML diagrams
- Most will interact with the standard via:
  - Form based editor
  - Properly formatted XML



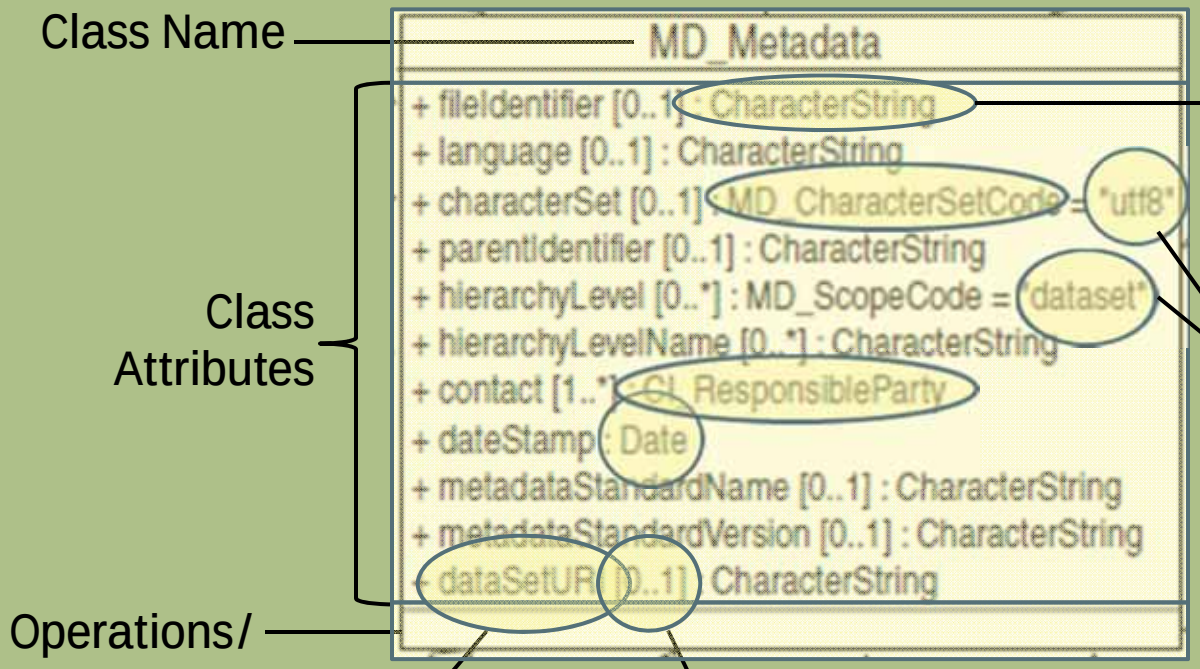


UML CLASS DIAGRAMS

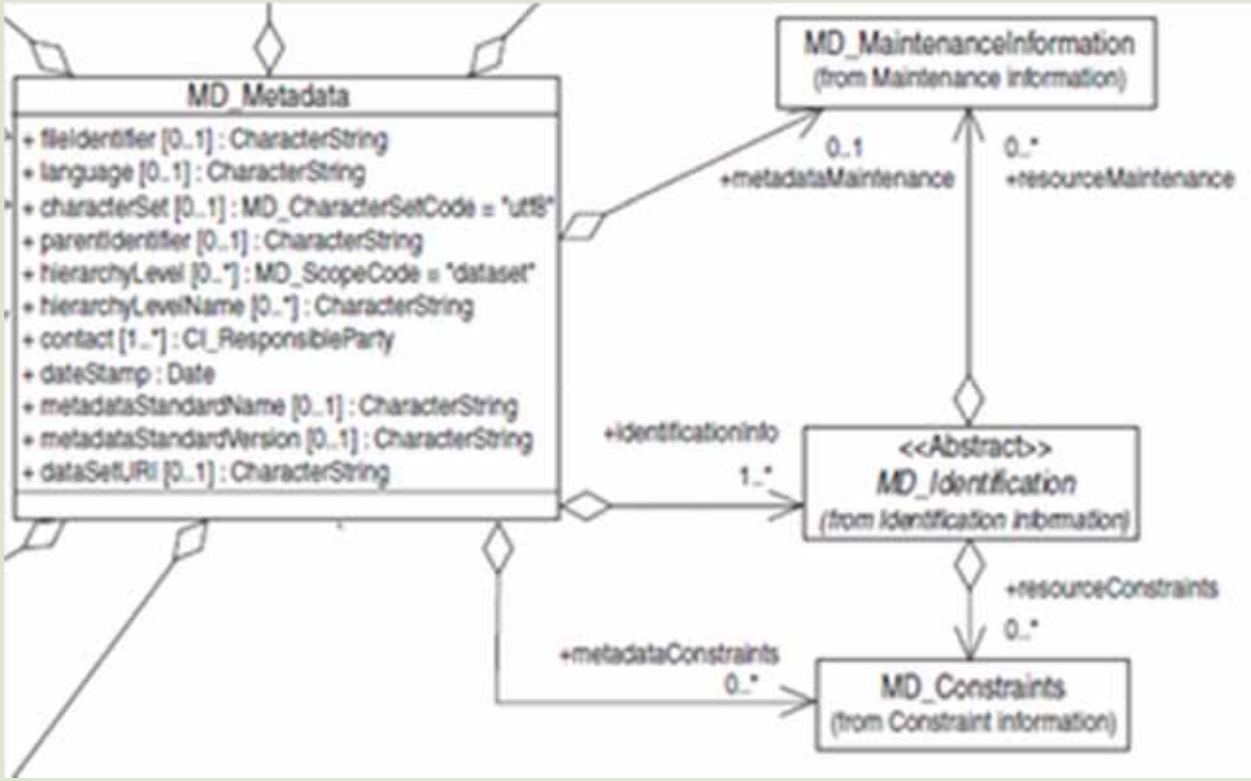
Remember the first time you saw this?



CLASS DESCRIPTION

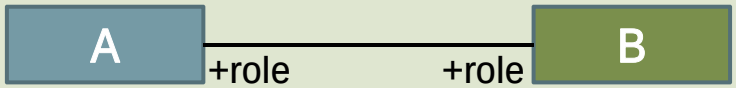


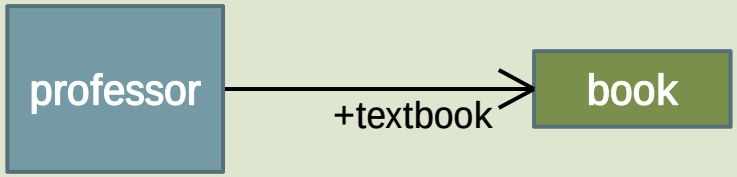
CLASS ASSOCIATIONS



CLASS ASSOCIATIONS

Association

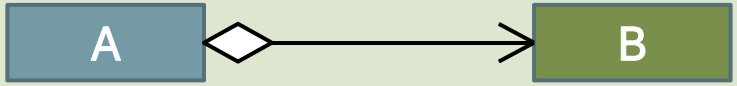


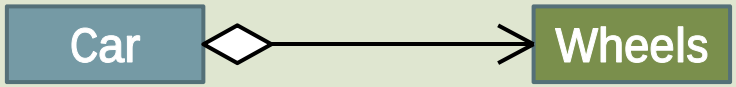


Class A is associated with Class B as defined by the role. Can be bi-directional, as shown, or unidirectional as in the example below.

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

Aggregation



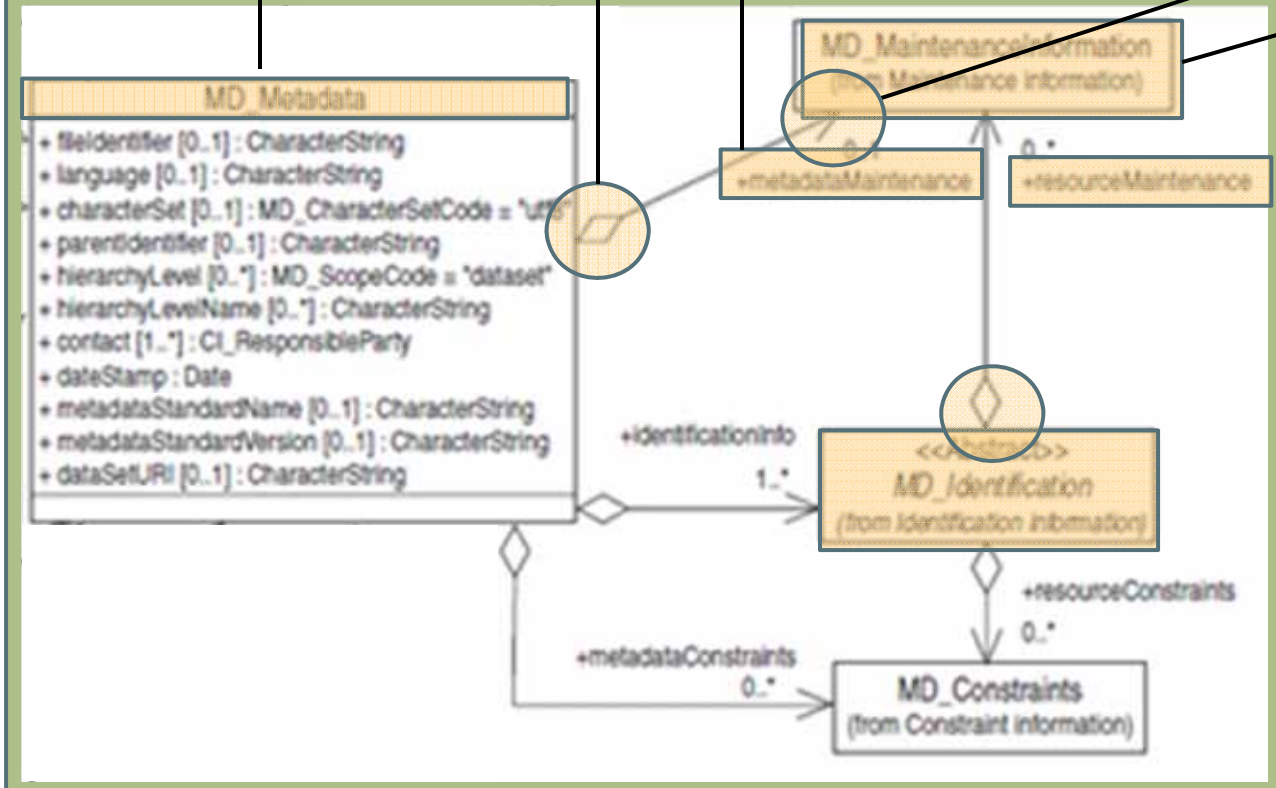


Class A contains an occurrence of Class B but does not own it exclusively

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

CLASS ASSOCIATIONS

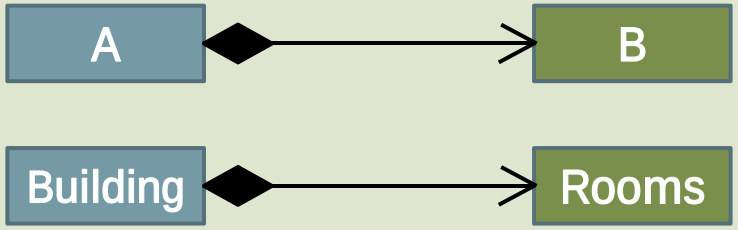
MD_Metadata aggregates metadataMaintenance info from the associated class, MD_Maintenance



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

CLASS ASSOCIATION TYPES

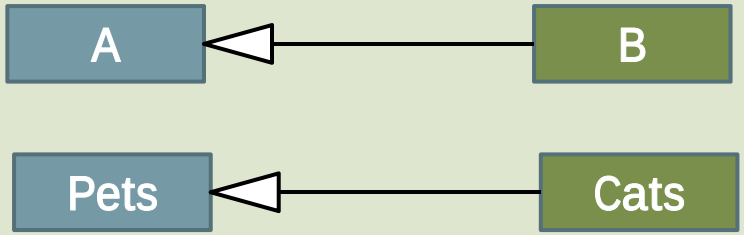
Composition



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

ShortName Conditionality Data Type

Name Definition Max# 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	*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)
20	*Role name:* metadataConstraints	mdConst	provides restrictions on the access and use of metadata	O	N	Association	MD_Constraints (B.2.3)
21	*Role name:* applicationSchemaInfo	appSchInfo	provides information about the conceptual schema of a dataset	O	N	Association	MD_ApplicationSchema Information (B.2.12)
22	*Role name:* 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

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CODE LISTS

B.5.3 CI_OnLineFunctionCode <<CodeList>>

	Name	Domain code	Definition
1.	CI_OnLineFunctionCode	OnFunctCd	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 concatonatedWithEachNewWordCapitalized

QUESTIONS?