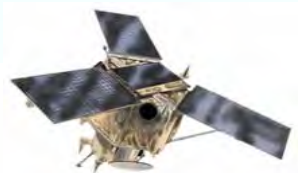




CCOP S01 and Metadata Standard for EPPM Program



Prof. Jiang Zuoqin

2010.03.24





Outline

- ***Why is talking CCOP metadata standard again?***
- ***How to make the CCOP metadata standard S01 suitable to EPPM?***
- ***Understanding CCOP metadata standard***
- ***Development of CCOP metadata system***





Why is talking CCOP metadata standard again?

- **Foundation of making the CCOP metadata standard suitable to EPPM**
 - Prerequisite to make decision whether the standard is meet EPPM program's requirement or not, is to understand the standard one element by one!
- **Foundation of CCOP metadata system**





Why is talking CCOP metadata standard again?

- **Foundation of CCOP metadata system**
 - **to development**
 - Purpose of the system is to provide software tools to collect, manage and provide metadata which conform to the standard;
 - **to evaluate**
 - *If metadata standard is not determined, even if function of metadata system is very powerful, you still can not to say whether the system is suitable to EPPM or not*
 - **to create metadata**
 - In order to create metadata with high quality , producer also need to understand the standard very well !





How to make the CCOP metadata standard suitable to EPPM?

- **Requirement analysis**
 - **According to the purpose and requirement to metadata project of EPPM program, investigate: data resources of nature gas(types, exploration, products, etc.), metadata standard used in member countries;**
 - **Discussing and Identifying what EPPM metadata project need to describing data resources above.**
- **Review CCOP S01-2009 and compare with the requirement**
 - **A full review of the standard is needed**
 - **This review should not only cover the metadata entity/element name, but also the definition, data type, obligation, domain, and the maximum number of occurrences.**
 - **It is possible that a new entity/element is not required as an existing entity/element meets the requirements.**

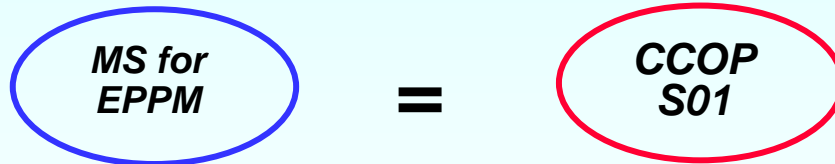




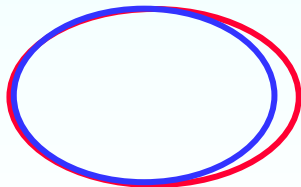
How to make the CCOP metadata standard suitable to EPPM?

- Possible solutions

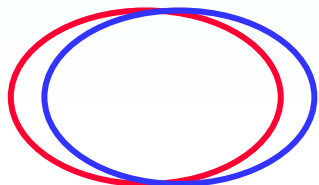
- Developing a new metadata standard by the working project of EPPM program
- Keeping the same with CCOP S01
 - Identical adoption
 - The most simple solution, but may not be the best one to EPPM



- Making some changes based on CCOP S01



deleting some unnecessary elements



deleting and adding some elements





Making some changes based on CCOP S01

- Adding new entity
- Adding new element in some entities
- Moving out some optional elements in some entities
- Making more stringent obligation to some entities and elements
- Defining a more restricted metadata domain
- Changing codelists
 - Defining a new codelist to replace a “free text” domain
 - Adding new code item in codelist
 - Selecting some code items only for EPPM





Making changes based on CCOP S01

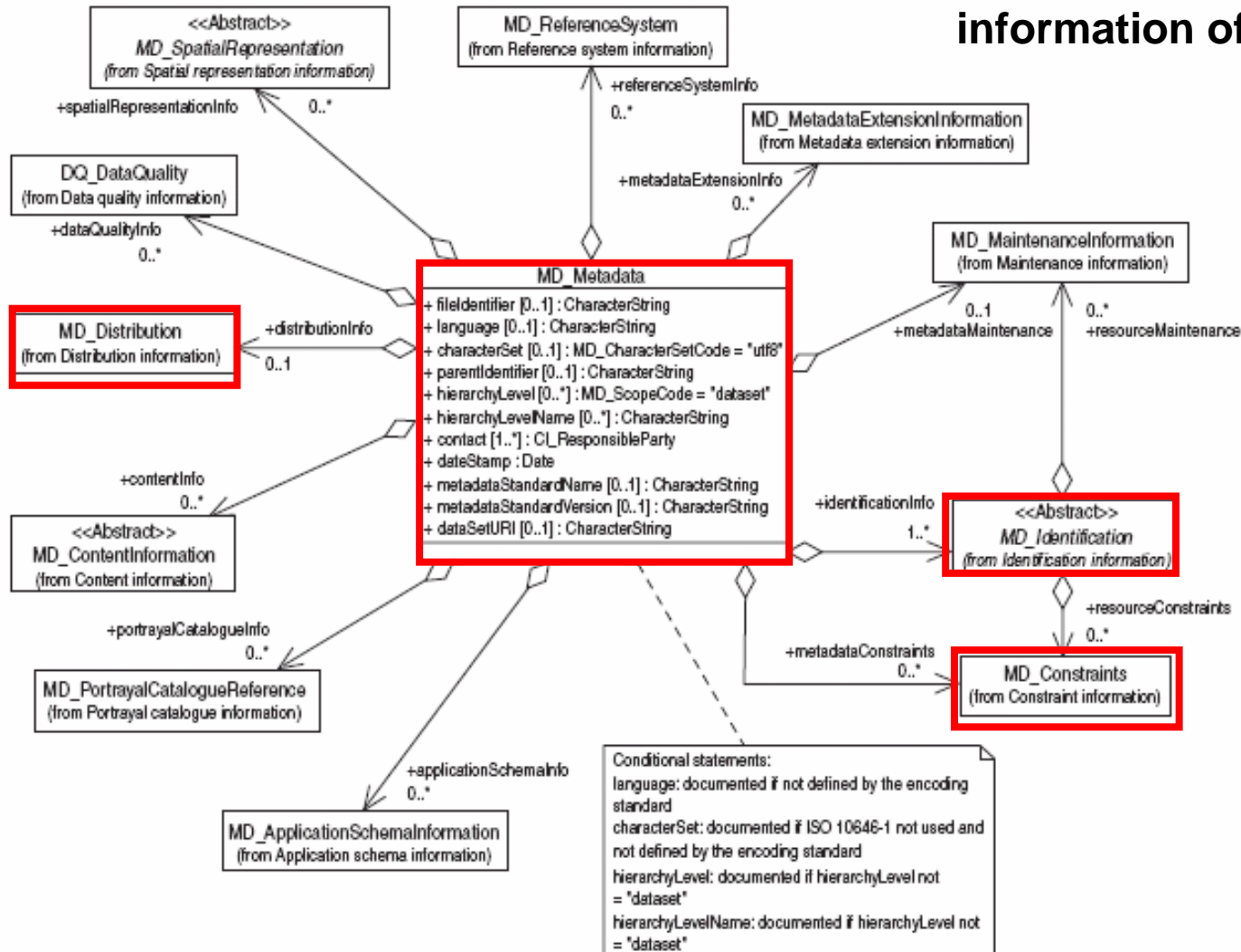
- **Adding new entity**
 - **Check metadata entity set information of ISO 19115**
 - **Select one or more needed entity (entities)**
 - **Determining which elements are needed in selected entity**
 - **Update the text of CCOP S01**





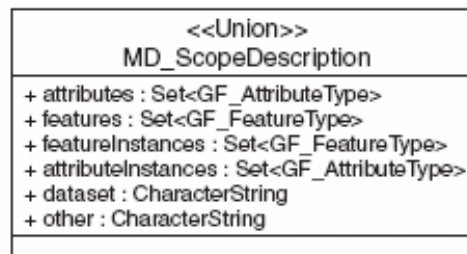
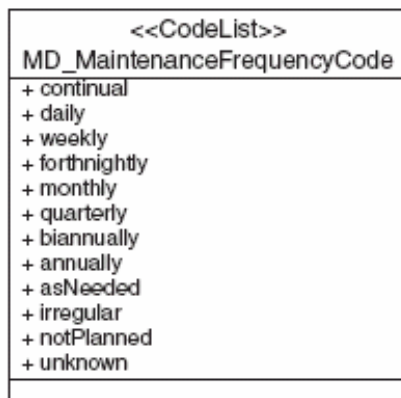
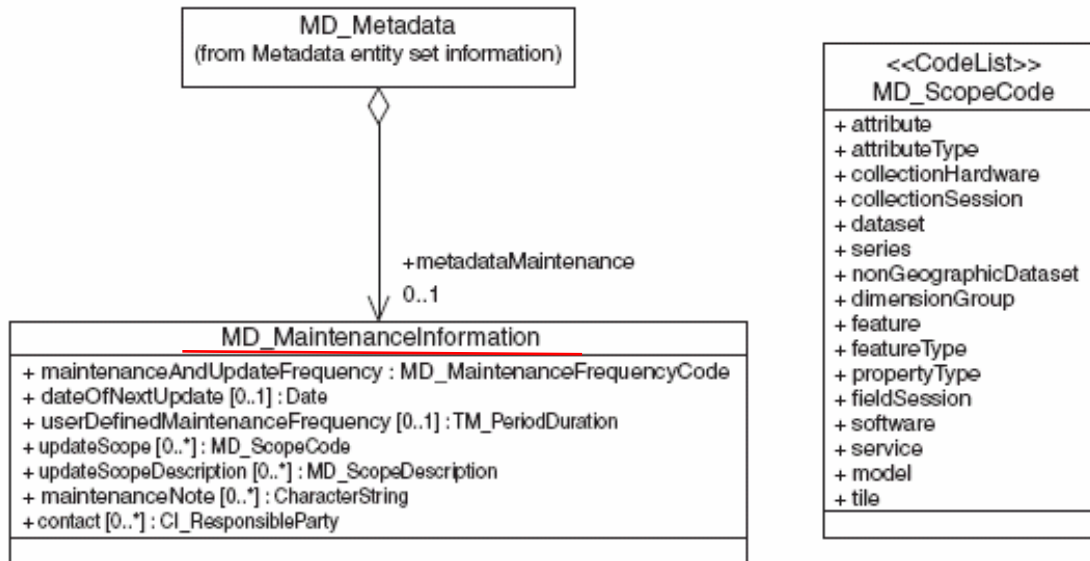
Adding a New Entity

Check metadata entity set information of ISO 19115





Examples: Adding MD_MaintenanceInformation



- **Check elements and related part of data dictionary and select**
- **Check two codelists and make decision**
- ...
- **recording the new entity in the data dictionary of CCOP S01, and update metadata structure diagram.**





Examples: *adding or moving out an element in an entity*

- **Adding a new element within an existing entity**
 - **dataSetURL** : Uniformed Resource Identifier (URI) of the dataset to which the metadata applies
 - If getting data set directly from related metadata online is needed, it is necessary to add the metadata element **dataSetURL**
 - Adding **dataSetURL** to **MD_Metadata** in **CCOP S01**: updating related text, structure and dictionary of the standard
- **Moving out an optional element in an existing entity**
 - **subtitle** is an optional element in **MD_Identification**, if an alternative title or name is not meaningful to **EPPM**, just delete it and update text of **CCOP S01**.





Other Examples

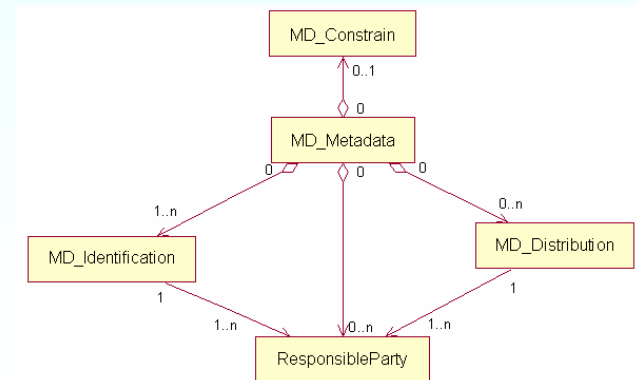
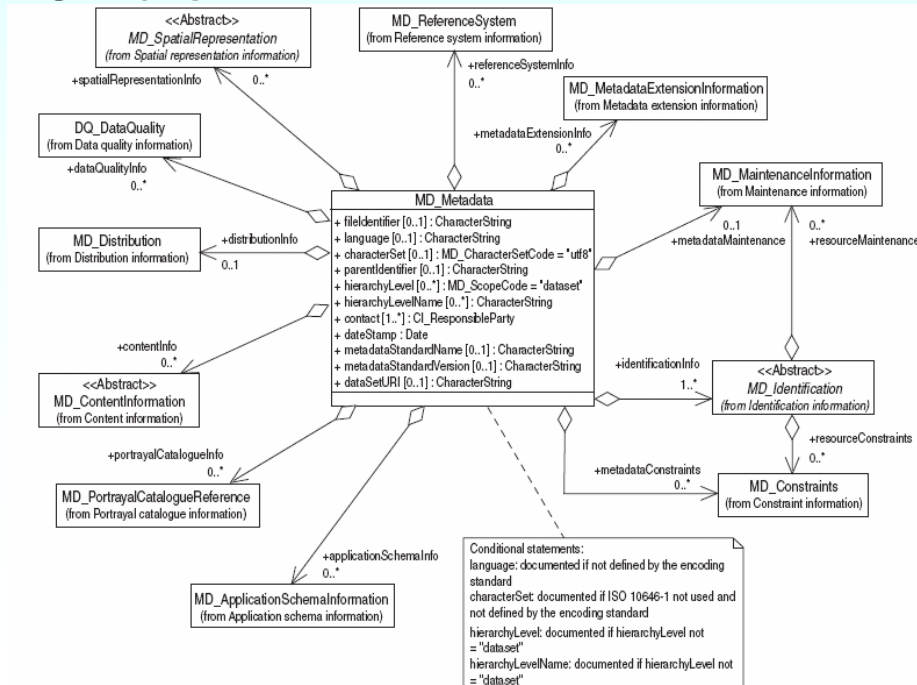
- **Making more stringent obligation to some entities and elements**
 - Changing the entity MD_Distribution from optional to mandatory
 - P7 2.8 characterSet in MD_Identification is optional, if necessary, changing it to mandatory
- **Adding new code item in codelist**
 - P14, Adding codes for some member countries not existing in CharacterSetCode
 - P17, Adding codes for detail description of oil and gas in GeoTopicCategoryCode. This is very important to EPPM
- **Selecting some code items only for EPPM**
 - It may be possible to select some codes (deleting some) from P18 A.7 MediumNameCode





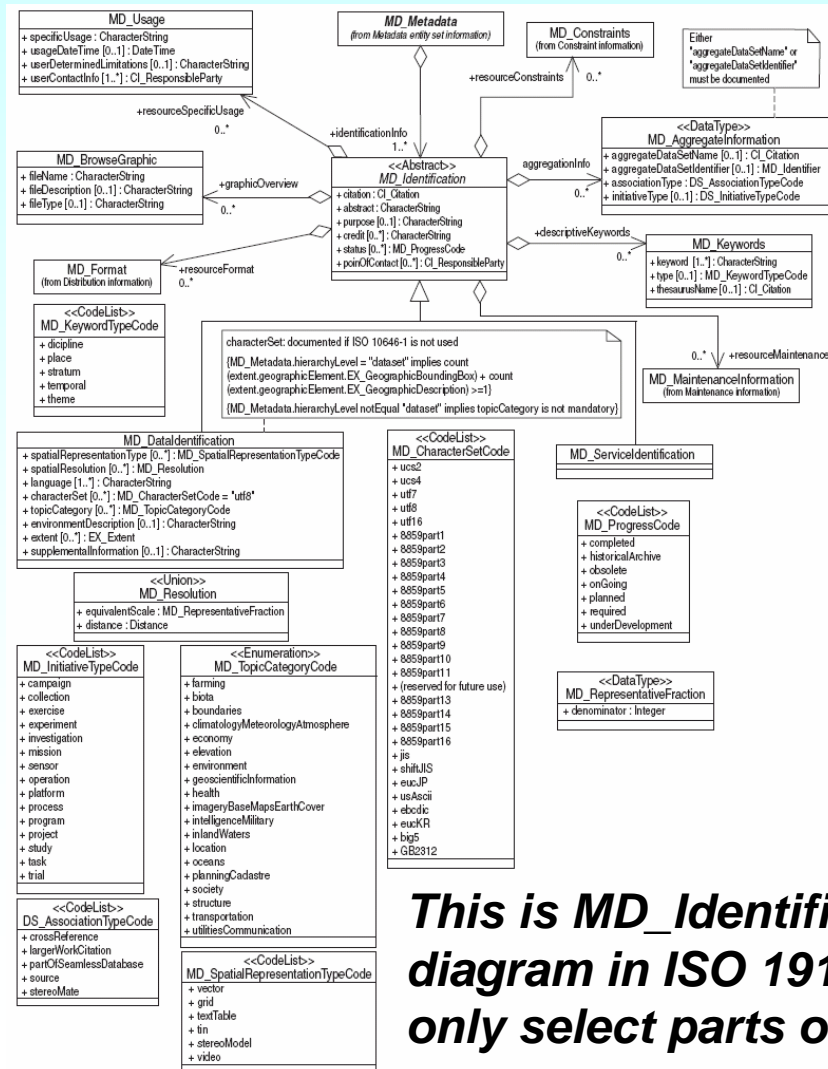
Process to Develop CCOP S01 is Very Typical Example

- Changing structure
 - ➔ From many levels to Two levels
- Only select small part of entities and elements
- Change obligation to some entities and elements
- Adding new codelist and new code item in codelist
- Others

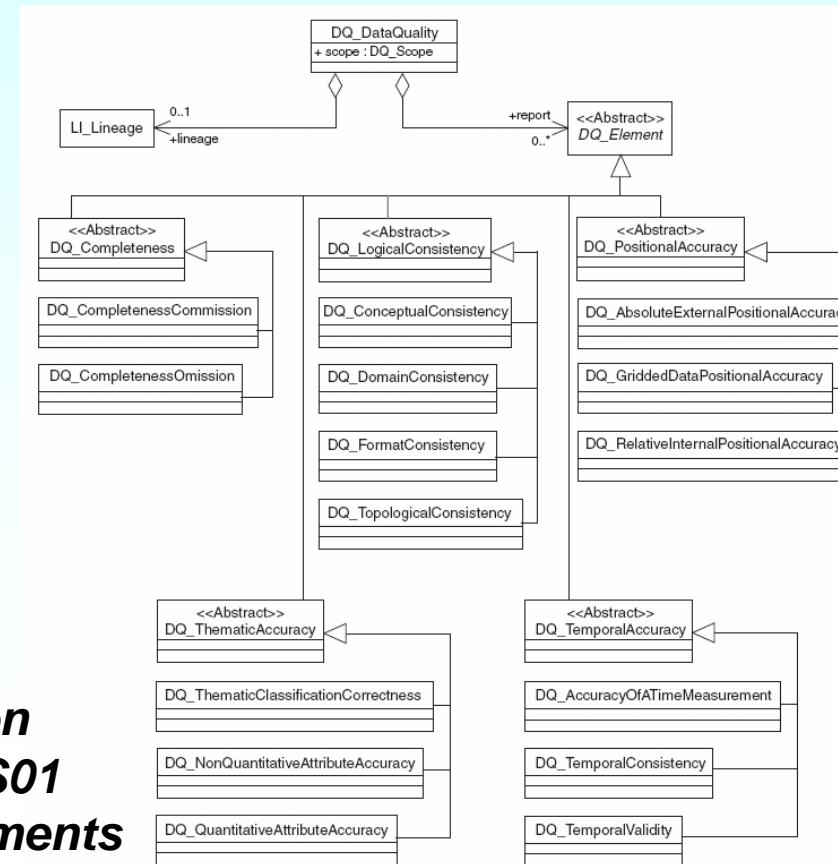




Process to Develop CCOP S01 is Very Typical Example



MD_Data quality is cut off in S01



This is MD_Identification diagram in ISO 19115, S01 only select parts of elements



There is only one code (008) in MD_TopicCategoryCode list of ISO 19115, the geoTopicCategoryCode in S01 is consist of 2 levels: first level include 6 types, the second level: 31 types

<<Enumeration>>

MD_TopicCategoryCode

- + farming
- + biota
- + boundaries
- + climatologyMeteorologyAtmosphere
- + economy
- + elevation
- + environment
- + geoscientificInformation
- + health
- + imageryBaseMapsEarthCover
- + intelligenceMilitary
- + inlandWaters
- + location
- + oceans
- + planningCadastre
- + society
- + structure
- + transportation
- + utilitiesCommunications

MD_TopicCategoryCode	TopicCat Cd	high-level geographic data thematic classification to assist in the grouping and search of available geographic data sets. Can be used to group keywords as well. Listed examples are not exhaustive. NOTE It is understood there are overlaps between general categories and the user is encouraged to select the one most appropriate.
farming	001	rearing of animals and/or cultivation of plants Examples: agriculture, irrigation, aquaculture, plantations, herding, pests and diseases affecting crops and livestock
biota	002	flora and/or fauna in natural environment Examples: wildlife, vegetation, biological sciences, ecology, wilderness, sealife, wetlands, habitat
boundaries	003	legal land descriptions Examples: political and administrative boundaries
climatologyMeteorologyAtmosphere	004	processes and phenomena of the atmosphere Examples: cloud cover, weather, climate, atmospheric conditions, climate change, precipitation
economy	005	economic activities, conditions and employment Examples: production, labour, revenue, commerce, industry, tourism and ecotourism, forestry, fisheries, commercial or subsistence hunting, exploration and exploitation of resources such as minerals, oil and gas
elevation	006	height above or below sea level Examples: altitude, bathymetry, digital elevation models, slope, derived products
environment	007	environmental resources, protection and conservation Examples: environmental pollution, waste storage and treatment, environmental impact assessment, monitoring environmental risk, nature reserves, landscape
geoscientificInformation	008	information pertaining to earth sciences Examples: geophysical features and processes, geology, minerals, sciences dealing with the composition, structure and origin of the earth's rocks, risks of earthquakes, volcanic activity, landslides, gravity information, soils, permafrost,



Some other changes in Code lists

(From ISO 19115)

<code><<CodeList>></code> <code>CI_DateTypeCode</code>
+ creation + publication + revision

Extended

<code><<CodeList>></code> <code>NAPMD_DateTypeCode</code>
+ creation + publication + revision + notAvailable + inForce + adopted + deprecated + superceeded

New code lists replacing many free text fields

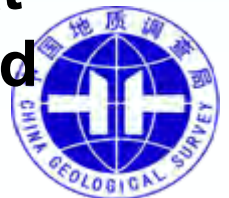
<code><<CodeList>></code> <code>NAPMD_FileFormatCode</code>
+ bil + bmp + brq + bzlp2 + cdr + cgm + cover + csv + dxf + dgn + doc + dwg + dtd





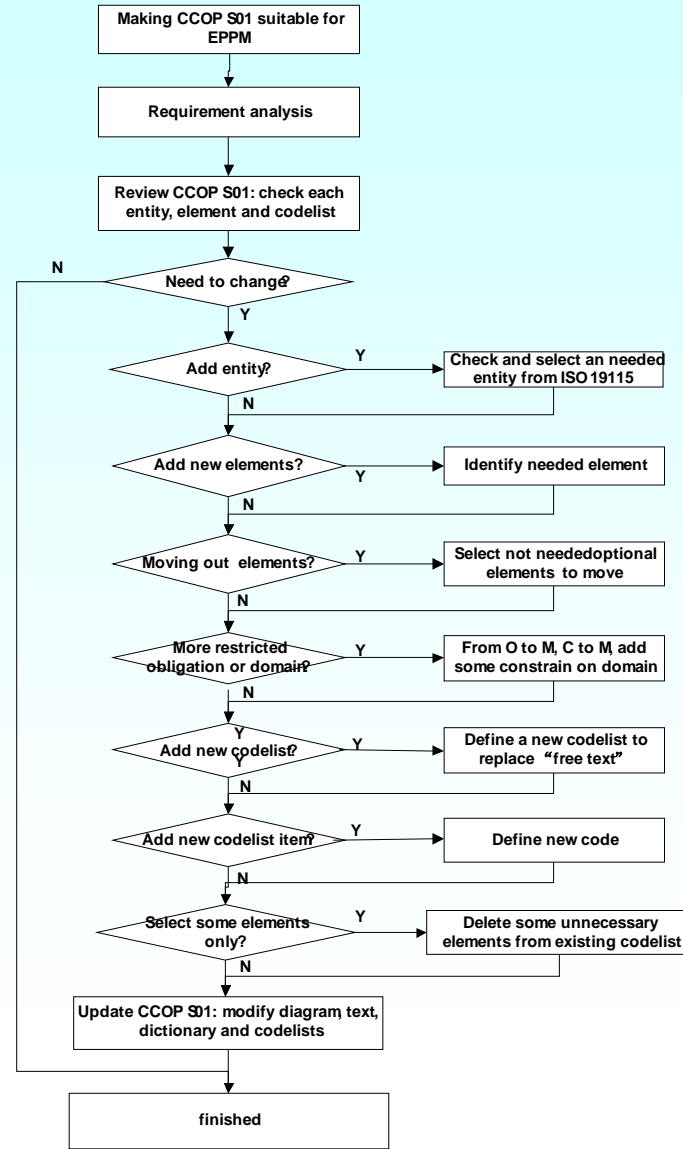
Rules for Changing CCOP S01

- To ensure that CCOP S01 can not meet the requirement and only valid changes are made to it
- Extended metadata entities and elements shall not be used to change the name, definition of existing entities and elements;
- To any change of CCOP S01, it is necessary to update the text of the standard, including adding or modifying related diagram, description words and data dictionary;
- Let CCOP metadata working group know what changes have down in order to coordinate and update CCOP S01





Summary with Flowchart of Making Changes





Several Words like to mention about how to make S01 Suitable to EPPM Program

- Talking above is from technical viewpoint, something more...
- The process of a standard develop is a process of discussion, arguing, tradeoff among members of the working group, that means need everyone to join actively
- A proposal need to work out by project responsible person or by somebody assigned by project leader, than distribute it to all members to review and comment, discuss and get an harmonized standard finely
- Need everybody do his/her best, just like the picture!





CCOP Metadata Standard S01 Version 2 -- 2009





Terms Used in the Presentation

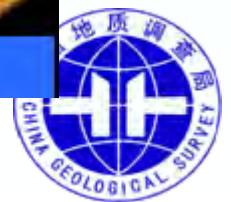
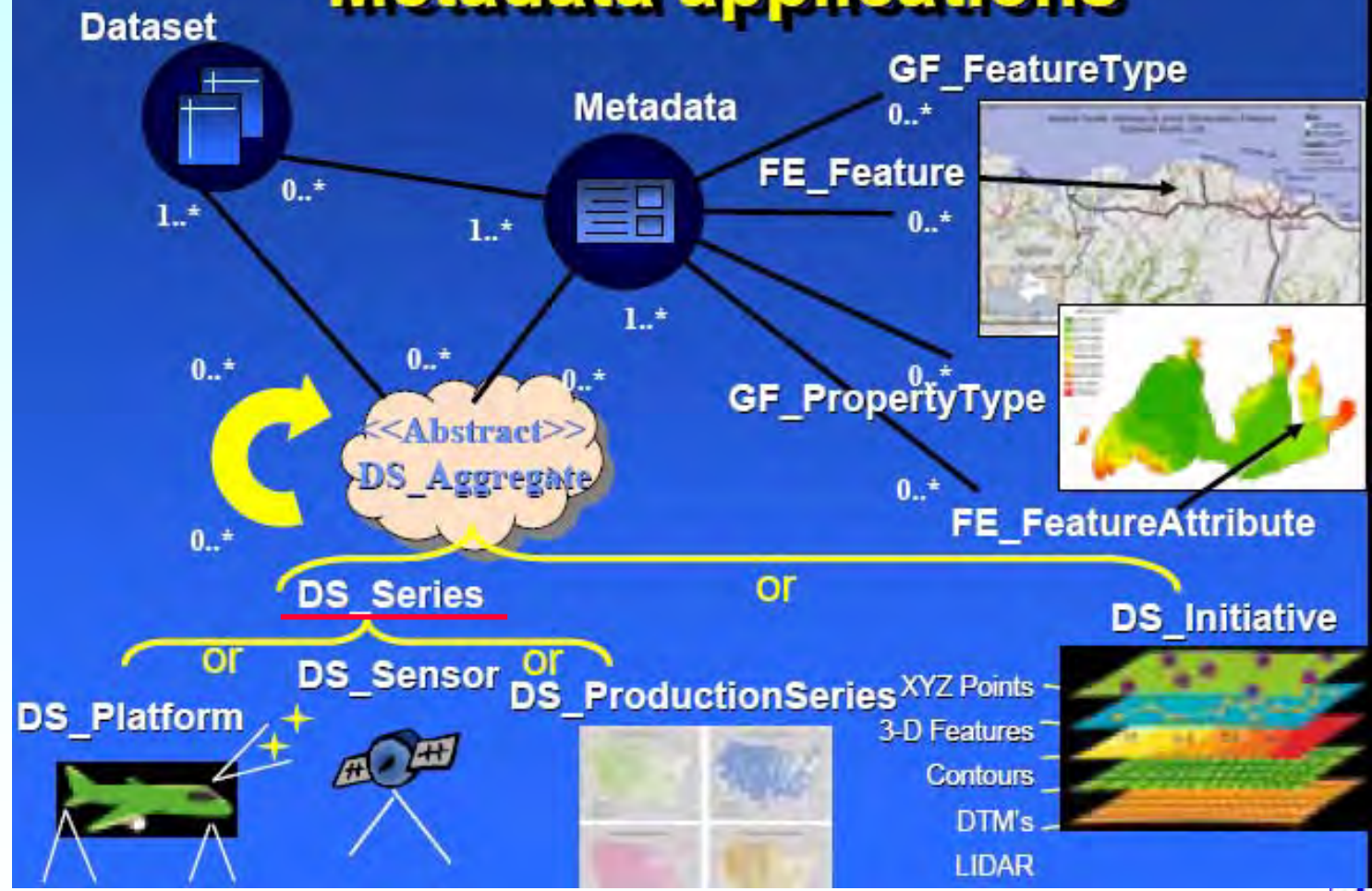
- **Dataset and dataset series**
 - Identifiable collection of data
 - collection of datasets **sharing the same product specification**
- **metadata element: discrete unit of metadata**
 - Metadata elements are unique within a metadata entity.
 - Equivalent to an **attribute** in UML
- **metadata entity: set of metadata elements describing the same aspect of data**
 - May contain one or more metadata entities.
 - Equivalent to a **class** in UML terminology.
- **Note: changing metadata section in CCOP S01 to metadata entity**
 - **Metadata section:**
 - **subset of metadata**
 - **consisting of a collection of related metadata entities and metadata elements**
 - Equivalent to a **package** in UML
 - ***Describing high level structure***





ISO 19115:2003

Metadata applications





Introduction of CCOP S01- 2009

- **Developed On the basis of ISO19115 and CGS Standard DD2006-05 by matadata working group of CCOP;**
- **Compatible with Dublin Core and covering CCOP former 28-item Standard**
- **Issued in Aug. , 2009 by CCOP**
- **Including 5 entities, 7 code lists and 35 +10 elements with 15 mandatory.**
- **Applicable to the publication and interchange of spatial and non-spatial geological information covering geological maps, minerals, groundwater, geo-hazard, oil and gas, coal, geothermal, coastal zone, geophysics, geochemistry, drilling, geo-archives, etc.**





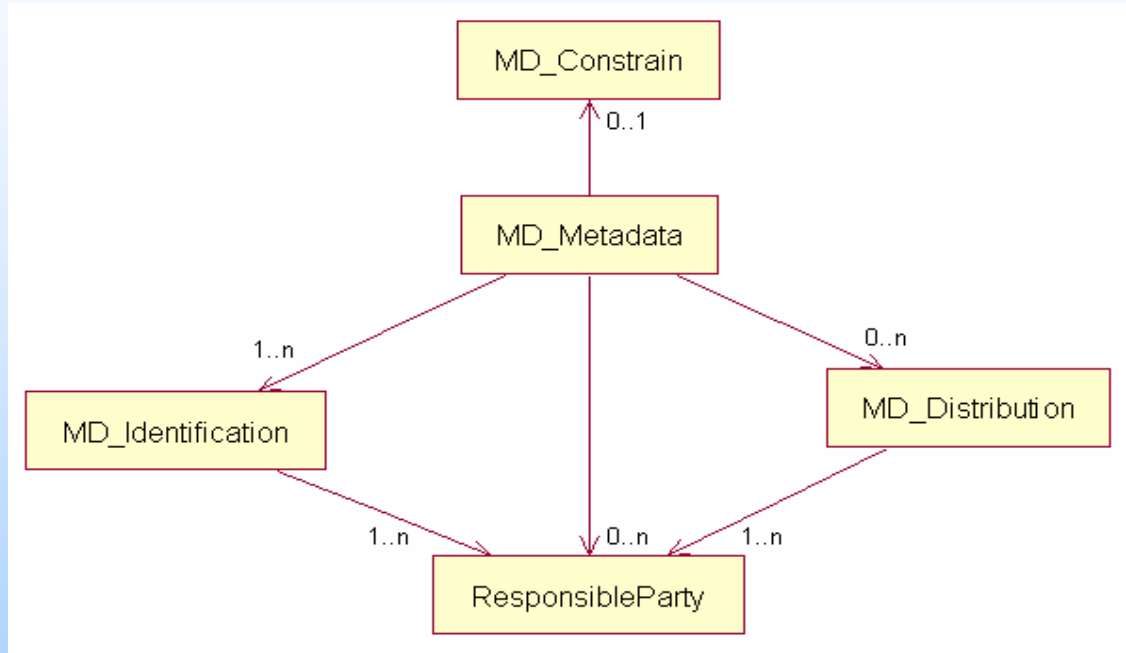
5 Entities in CCOP S01

Entity name	Definition
MD_Metadata	Root entity which defines metadata about geoscientific datasets
MD_Identification	Basic information about geoscientific datasets
MD_Constraint	Restriction on the access and use of datasets
MD_Distribution	Information about distributor of and obtaining datasets
ResponsibleParty	Information about the person(s) and organizations associated with datasets





Entity Relation Diagram of CCOP S01



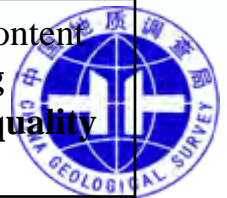
- MD_Metadata to MD_Identification : 1:1..n
- MD_Metadata to MD_Distribution : 1: 0..n
- MD_Metadata to MD_Constraint : 1: 0..n
- MD_Metadata to ResponsibleParty : 1: 0..n





Elements List and Definition of CCOP S01

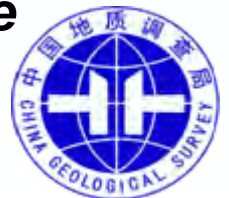
	Entity name	Elements name	Obligat./c on dit.	Definition
	MD_Metadata	metadataTitle	M	Name of the metadata
		dataStamp	M	Date that the metadata was created
		contact	O	Party/person responsible for the metadata information
	ME_Identification	title	M	Title or name of the dataset
		subtitle	O	An alternative title or name of the dataset to describe the dataset
		dateCreation	O	Date of the dataset creation
		dateRelease	M	Date of the dataset released
		edition	O	Version of the dataset
		seriesName	O	Name of the dataset series
		language	M	Language(s) used within the dataset
		characterSet	O	Full name of the character coding standard used for the dataset
		abstract	M	Brief narrative summary of the content of the resource(s), including purpose, source and data quality description.
		keyWords	O	Keywords used to describe the dataset





Understanding Metadata Elements of CCOP S01

- **About Data Dictionary of CCOP S01**
 - ***The Data dictionary describes the detail characteristics of the metadata content, defines semantics of each entities and elements and constrains that they need to follow;***
 - ***This dictionary, in conjunction with the structure diagram above serve to fully define the total model for metadata;***
 - ***Each entity is defined with a table, each element is defined with a row within a table;***
 - ***The entities and elements within the data dictionary are defined by seven attributes, which are based on those specified in ISO/IEC 11179-3;***
 - ***The term “dataset” when used as part of a definition is synonymous with all types of geographic data resources (aggregations of datasets, individual features and the various classes that compose a feature).***





Seven attributes to define The entities and elements

- **Name**
 - *A label assigned to a metadata entity or element.*
 - *Metadata entity names are unique within the entire data dictionary of this International Standard. Metadata element names are unique within a metadata entity, not the entire data dictionary of the Standard.*
- **Short name**
 - *A certain naming convention should be followed*
 - *Mainly used by software developer*
- **Definition**
 - *Meaning of metadata entity/element .*
- **Obligation/Condition: see later**
- **Maximum occurrence**
- **Data type**
- **Domain**





to define The entities and elements

- **Maximum occurrence**
 - *Specifies the maximum number of instances the metadata entity or element may have.*
- **Data type**
 - *Specifies a set of distinct values for representing the metadata elements; for example, integer, real, string, DateTime, and Boolean.*
- **Domain**
 - *specifying the values allowed or the use of free text.*
 - *“Free text” indicates that no restrictions are placed on the content of the field. Integer-based codes shall be used to represent values for domains containing codelists.*





Seven attributes to define The entities and elements

- **Obligation/Condition**

- *indicating whether a metadata entity or element shall **always** be documented or **sometimes** be documented.*
- *have the following 3 values: M (mandatory), C (conditional), or O (optional).*
- *M: the metadata entity or element shall be documented.*
- *O:*
 - *The metadata entity or the metadata element may be documented or may not be documented.*
 - *Optional entities may have mandatory elements. Those elements only become mandatory if the optional entity is used.*
 - *Note: If an optional entity is not used, the elements contained within that entity (including mandatory elements) will also not be used.*





Seven attributes to define The entities and elements

- **Obligation/Condition--C**
 - *Specifies an electronically manageable condition under which at least one metadata entity or element is mandatory.*
 - *'Conditional' is used for one of the three following possibilities:*
 - *Expressing a choice between two or more options. At least one option is mandatory and must be documented.*
 - *Documenting a metadata entity or a metadata element if another element has been documented.*
 - *Documenting a metadata element if a specific value for another metadata element has been documented.*
 - *If the answer to the condition is positive, then the metadata entity or the metadata element shall be mandatory. That is Conditional mandatory*
- **Examples**





Understanding Metadata Elements

- ***In rest part of the presentation, Obligation/Condition and Maximum occurrence are represented together and keep to the following rules:***
 - ***Put them into a bracket which follows the name of entities and elements, such as keyword(O N)***
 - ***Mandatory and value 1 are default values, such as***
 - ***topicCategory(N) equal to topicCategory(M N)***
 - ***subtitle(O) equal to subtitle(O 1) and***
 - ***MD_Identification to MD_Identification(M 1)***





Entity: MD_Identification

- ***Element: title***
- ***Definition: Title or name of the dataset***
- ***Domain: Free Text***
- ***Note:***
 - ***Need to know whether the dataset is part of a dataset series or not***
 - ***If it is, may need to assign a name to the dataset based on the name of the related dataset series***
- ***Example(s):***
 - ***If China Geological Map Database is regarded as a dataset series, data of each map sheet is part of it, when the metadata of a map sheet is collected, naming it is needed, such as data of the 1: 50000 Zhenjiang map sheet.***





Entity: MD_Identification

- ***Element: subtitle(O)***
- ***Definition:***
 - ***An alternative title or name of the dataset to describe the dataset***
- ***Domain: Free Text***
- ***Note:***
 - ***if it is not necessary for nature gas data resources, just delete it***
- ***Example (s):***





Entity: MD_Identification

- ***Element: dateCreation(O)***
- ***Definition:***
 - ***Date of the dataset creation***
- ***Domain: YYYYMMDD***
- ***Note:***
 - ***data production is finished, that means process of digitizing, data quality checking and accepting is finished***
- ***Example(s):***
 - ***19790812***





Entity: MD_Identification

- ***Element: dateRelease***
- ***Definition:***
 - ***Date of the dataset released***
- ***Domain: YYYYMMDD***
- ***Note:***
 - ***Date of the data set is approved to provide service in a certain medium, such as CD***
- ***Example(s):***
 - ***20080812***





Entity: MD_Identification

- ***Element: edition (0)***
- ***Definition: Version of dataset***
- ***Domain: Free Text***
- ***Note:***
 - ***It is optional, but If the dataset has updated since it was collected, the element should be documented***
- ***Example(s):***





Entity: MD_Identification

- ***Element: seriesName (0)***
- ***Definition:***
 - ***Name of the dataset series***
- ***Domain: Free Text***
- ***Note:***
 - ***It is optional, but If the dataset is part of the data series, the element should be documented***
- ***Example(s):***
 - ***The dataset is a frame of Spot satellite imagery, the seriesName may be National Spot Imagery Database***





Entity: MD_Identification

- ***Element: language (N)***
- ***Definition: Language(s) used within the dataset***
- ***Domain:***
 - ***LanguageCode (CodeList) see tableA.1 of the standard***
- ***Note:***
 - ***It is optional, but If the dataset is part of the data series, the element should be documented***
- ***Example(s):***
 - ***ENG***
 - ***THA***





Entity: MD_Identification

- ***Element: characterSet (0)***
- ***Definition:***
 - ***Full name of the character coding standard used for the dataset***
- ***Domain: CharacterSetCode (CodeList) , see table A.2***
- ***Note:***
 - ***Need to know whether the codelist is meet requirement of EPPM program or not;***
 - ***If not, the working group should adding some code***
- ***Example(s):***
 - ***025(usASII)***
 - ***027(eucKR, Korean)***





Entity: MD_Identification

- ***Element: abstract***
- ***Definition:***
 - ***Brief narrative summary of the resource(s), including purpose, content, source and data quality description and others.***
- ***Domain: Free Text***
- ***Note:***
 - ***This element is very important because that only small parts of entities and elements are selected from ISO 19115, from more than 200 elements to 42***
- ***Example(s): see next page***





Example(s): Abstract of Exploration Licences for Minerals dataset

- **Location of all current mineral Exploration Licences issued under the Mining Act, 1971. Exploration Licences provide exclusive tenure rights to explore for mineral resources for up to a maximum of 5 years. Comment is sought on applications for Exploration Licences from numerous sources before granting. Exploration programs are subject to strict environmental and heritage conditions. Exploitation of identified resources must be made under separate mineral production leases.**
- **Source Data History: Exploration Licence boundaries were sourced from the official Mining Register licence documents. Licence boundaries are legally defined to follow lines of latitude and longitude. The register has existed since 1930. Processing Steps: Coordinates entered by keyboard from licence documents. Linework cleaned to remove duplicate arcs. Data adjusted for accurate state border and coastline. Where appropriate, cadastral parcels removed from licence polygons. Associated attribute data also captured from licence documents.**
- **Validation checks are performed periodically, resulting in an estimated 99% accuracy. These checks include comparisons between reports from the spatial dataset and the digital Mining Register.**





Entity: MD_Identification

- ***Element: keyWords (O N)***
- ***Definition:***
 - ***Keywords used to describe the dataset***
- ***Domain:***
 - ***Free Text***
- ***Note:***
 - ***Recommended best practice is to select a value from a controlled vocabulary or formal classification scheme;***
 - ***It is difficult t to define a controlled vocabulary for the whole geoscience field, however it is possible to a certain theme, such as nature gas.***
 - ***In EPPM program, may be better to use topicCatogary only;***
- ***Example(s):***
 -





Entity: MD_Identification

- ***Element: dataRepresentationType (N)***
- ***Definition:***
 - *method to used to represent geoscientific data*
- ***Domain:***
 - *RepresentationTypeCode (CodeList), see table A.3*
- ***Note:***
 - *Elements can be used to describing non spatial geoscientific data:*
 - *Table, text and video*
 - *In ISO 19100 series standards, grid data includes raster data*
- ***Example(s):***
 -





Entity: MD_Identification

- ***Element: spatialResolution (C N)***
- ***Definition:***
 - ***factory describing the spatial data density of a dataset, such as scale denominator, and average ground sampling intervals.***
- ***Domain: Free Text***
- ***Note:***
 - ***If the dataset is spatial data, the element should be documented***
- ***Example(s):***
 - ***500000 means 1:500000 scale***
 - ***300 pixels x 300 pixels for raster data***
 - ***1.1 km X 1.1 km for imagery***





Entity: MD_Identification

- **Element:** *topicCategory (N)*
- **Definition:**
 - *Geoscience category codes of the main theme(s) of the dataset*
- **Domain:**
 - *GeoTopicCategoryCode (CodeList) , see table A.4*
- **Note:**
 - *It is very essential element used to search*
 - *It is only one code for oil and gas: 4300, similar to geoscience (008) in ISO 19115*
 - *CCOP metadata working group has extended it to a big table through a lot of discussion and consensus, although it is still not perfect;*
 - *How about EPPM program metadata project? I believe you can do it !*
- **Example(s):**





Entity: MD_Identification

- ***Element: pointOfContact (N)***
- ***Definition:***
 - ***identification of, and means of communication with, person(s) or organization(s) related with the dataset***
- ***Domain: ResponsibleParty, see table 5***
- ***Note:***
 - ***ResponsibleParty is an entity to provide contact information, which includes 10 elements***
 - ***Will talking later***
- ***Example(s):***





Entity: MD_Identification

- ***About geographic extent***
 - ***Two ways used to provide geographic extent information: by coordinates and geographic identifier***
 - ***4 Elements to be used to describe coordinates:***
 - ***eastBoundLongitude, westBoundLongitude, southBoundLatitude and northBoundLatitude***
 - ***One element to be used to describe geographic identifier:***
 - ***geographicIdentification***
- ***If the dataset is geospatial data, as long as possible, 4 coordinates to describe its geographic extent should be documented, otherwise, geographic identifier for the dataset have to be documented***
- ***The 4 elements will be described together in next page***





Entity: MD_Identification

- **Definition:**

- **eastBoundLongitude** : Eastern-most coordinate of the limit of the dataset extent
- **westBoundLongitude**: Western-most coordinate of the limit of the dataset extent,
- **southBoundLatitude** : Southern-most coordinate of the limit of the dataset extent
- **northBoundLatitude** : Northern-most, coordinate of the limit of the dataset extent
- The former two elements are expressed in longitude in decimal degrees (positive east)
- The last two are expressed in latitude in decimal degrees (positive north)

- **Domain:**

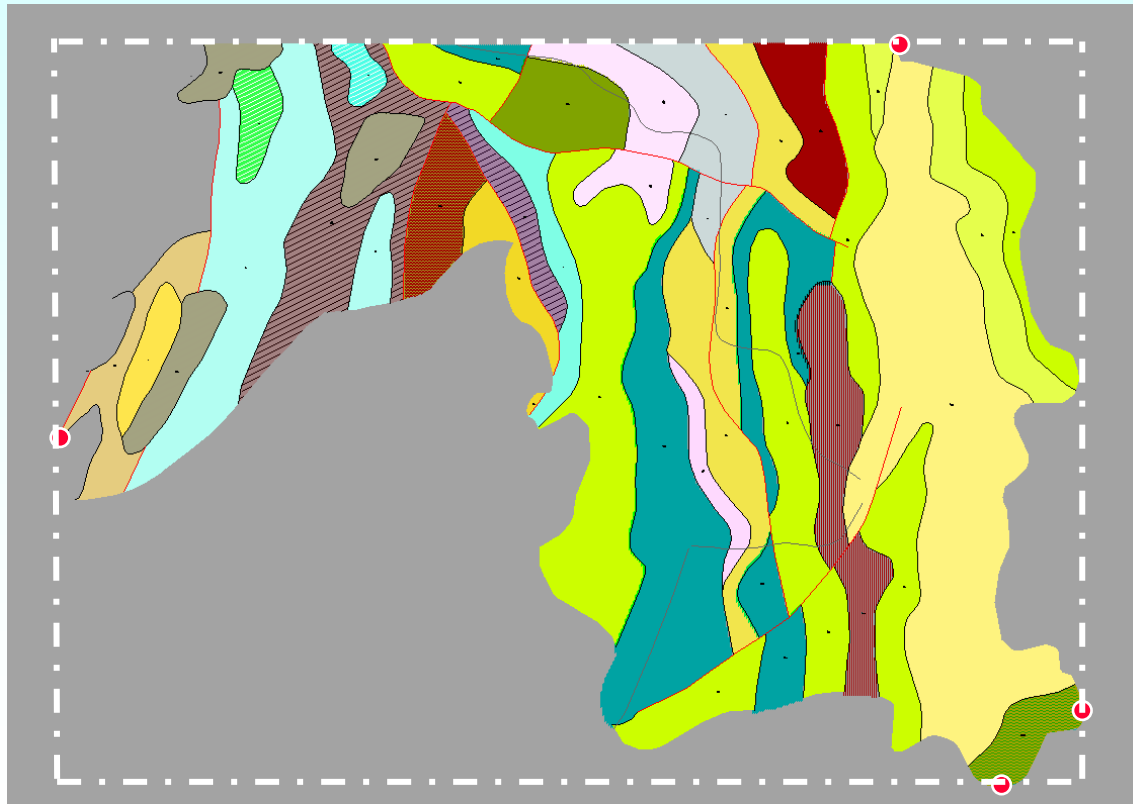
- $-180.0 \leq$ West and East Bounding Longitude Values ≤ 180.0
- $-90,0 \leq$ South and North Bounding Latitude Values $\leq 90,0$





Entity: MD_Identification

- **Example of geographic extent described by coordinate values**





Entity: MD_Identification

- **Element:** *geographicIdentifier (C N)*
- **Definition:**
 - *Identifier used to describe a geographic area.*
- **Domain:** *Free text*
- **Note:**
 - *The condition C should be changed to: the dataset is geospatial data and 4 coordinates for geographic extent of the dataset are not documented*
 - *some conventional or well-known geographic names/scopes are often used to be as geographic identifiers, including place names, map sheet names, and administration unit divisions as well as Post Codes*
- **Example(s):**
 - *Mekong River delta*
 - *Middle and lower reaches of the Yangzi River*
 - *100088 (China Post code)*
 - *Thailand*
 - *The ZhouKou Dian Map Sheet*
 - *110000 administration unit code for Beijing*





Entity: MD_Identification

- **Element:** *browseGraphic* (C)
- **Definition:**
 - *The browsing map or index map file name of a dataset*
- **Domain:** *Free text* (C N)
- **Note:**
 - *The condition C should be changed to O*
 - *the recommendation is to provide a browse map which could let readers easily have a clear picture about the dataset*
- **Example(s):**





Entity: MD_Identification

- ***Element: referenceSystemName***
- ***Definition:***
 - ***Name of spatial reference system***
- ***Domain: Free text***
- ***Note:***
 - ***As long as the dataset is spatial data, the element should be documented***
 - ***To facilitate exchange information, it is better to use geographic coordinate system***
- ***Example(s):***
 - ***The national Geodetic Coordinate System in 1984 (China)***





Entity: MD_Identification

- ***Element: coordinateSystemType***
- ***Definition:***
 - *Name of coordinate system type*
- ***Domain:***
 - *CoordinateSystemTypeCode (CodeList) see table A.6*
- ***Note:***
 - *If the name of geographic reference system is documented, the element should be documented*
- ***Example(s):***
 - *Geodetic, 002*





Entity: MD_Identification

- ***Element: projection parameter***
- ***Definition:***
 - ***Parameters of projection of the data***
- ***Domain: Free Text***
- ***Note:***
 - ***There are many projection to select, such as zone (unique identifier for 100,000 metre grid zone), longitude of central meridian, attitude of projection origin and etc.***
 - ***To select based on the reference system used***
- ***Example(s):***
 - ***39 degree zone for Gauss-Kruger projection***





Summary of *Entity: MD_Identification*

- *The entity is mandatory*
- *It describes the basic information of the datasets*
- *Including 23 Elements*
 - *Mandatory: 7*
 - *Optional: 7*
 - *conditional mandatory: 9 mainly for geospatial datasets*





Entity: MD_Constrain(O)

- **About MD_Constrain(O):**
 - **two elements included, their domain is the same codelist which specifies constraints on obtaining and using of the datasets**
- **Element: accessConstraint**
- **Definition:**
 - **Assure the protection of privacy or intellectual property, and any special restrictions or **limitations on obtaining** the resource or metadata**
- **Element: useConstraint**
- **Definition:**
 - **Assure the protection of privacy or intellectual property, and any special restrictions or limitations or **warnings on using** the resource or metadata**
- **Common domain: RestrictionCode(CodeList) see table A.5**
- **Note:**
 - **The EPPM metadata project should check the codelist to see whether it can meet EPPM program requirement or not**
- **Example(s):**





Entity: MD_Distribution(o)

- **About MD_Distribution(O) :**
 - *In my opinion, the entity should be changed from O to M*
 - *Including 4 elements: 3 mandatory, one optional*
- **Element: onlineResource (O)**
- **Definition:**
 - *Information about online resources from which the resource can be obtained;*
- **Domain:**
 - *URL (IETF RFC1738 IETF RFC2056)*
- **Note:**
 - *Brief introduction of IETF RFC1738 and IETF RFC2056 see next page*
 - *addresses that offer online access in the model of URL address.*
- **Example(s):**
 - *<http://www.cgs.gov.cn>*





IETF RFC1738 and IETF RFC2056

- **IETF : the Internet Engineering Task Force. RFC 1738 was written by the URI working group of IETF**
- **RFC1738 - Uniform Resource Locators (URL)**
 - **describe the syntax and semantics for a compact string for location and access of resources via the Internet. These strings are called "Uniform Resource Locators" (URLs).**
 - **there are many different methods of access to resources, there are several schemes for describing the location of such resources.**
 - **The schemes covered are:**
 - **ftp** **File Transfer protocol**
 - **http** **Hypertext Transfer Protocol**
 - **gopher** **The Gopher protocol**
 - **mailto** **Electronic mail address**
 - **news** **USENET news**
 - **nntp** **USENET news using NNTP access**
 - **telnet** **Reference to interactive sessions**
 - **wais** **Wide Area Information Servers**
 - **file** **Host-specific file names**
 - **prospero** **Prospero Directory Service**
- **IETF RFC2056: Uniform Resource Locators for Z39.50**





Entity: MD_Distribution(o)

- ***Element: distributorContact(M)***
- ***Definition:***
 - ***Distributor of geological information dataset or data resources***
- ***Domain:***
 - ***ResponsibleParty***
- ***Note:***
 - ***The domain is a common used entity, talk it later.***
- ***Example(s):***





Entity: MD_Distribution(o)

- ***Element: mediaName (M)***
- ***Definition:***
 - ***Medium name of the dataset offered by the distributor***
- ***Domain:***
 - ***MediumNameCode (CodeList) see table A.7***
- ***Note:***
 - ***The EPPM metadata project should check the codelist to see whether it can meet EPPM program requirement or not, there is no any unnecessary element to nature gas datasets?***
- ***Example(s):***





Entity: MD_Distribution(o)

- ***Element: dataFormatName(M)***
- ***Definition:***
 - ***Name and version of data transfer format(s) offered by the dataset distributor***
- ***Domain: Free Text***
- ***Note:***
- ***Example(s):***
 - ***ArcGIS 9 shapfile***
 - ***Oracle 11g .dmp***
 - ***GML 1.0***
 - ***XML 3.0***





Entity: ResponsibleParty

- **Definition:**
 - **Information about the person(s) and organizations associated with datasets**
- **It includes 10 elements among them:**
 - **1 mandatory: electronicMailAddress**
 - **2 Conditinal : individualName and organisationName**
 - **7 Optional: phone , facsimile, deliveryPoint, city, country , postCode and onlineResource**
- **The entity is related to the following 3 entities**
 - **ResponsibleParty to MD_Identification : one to many**
 - **ResponsibleParty to MD_Metadata: zero to many**
 - **ResponsibleParty to MD_Distribution: zero to many**
- **Note:**
- **Example(s):**





Entity: ResponsibleParty

- ***Element: individualName(C)***
- ***Definition:***
 - ***Name and title of the responsible person, separated by a delimiter***
- ***Domain: Free Text***
- ***Note:***

If organisationName is not documented, this one should be
- ***Example(s):***





Entity: ResponsibleParty

- ***Element: organisationName(C)***
- ***Definition:***
 - ***Name of responsible party***
- ***Domain: Free Text***
- ***Note:***
 - ***If individualName is not documented, this element should be, that means, selecte one from the two elements.***

- ***Example(s):***





Entity: ResponsibleParty

- **Element: *electronicMailAddress(N)***
- **Definition:**
 - *Public address of the electronic mailbox of the responsible organization or individual*
- **Domain: *Free Text***
- **Note:**
 - *Which email address is documented deepens on the selection between the two elements*
- **Example(s):**
 - *sim@ccop.or.th*





Entity: ResponsibleParty

- ***Element: phone***
- ***Definition:***
 - ***Telephone numbers at which the organization or individual may be contacted***
- ***Domain:***
 - ***The letters “+” as international numbering prefix and followed by country code + one space + city code + one space + local phone number***
- ***Note:***
 - ***Which number is documented depends on the selection between individualName and organizationName***
- ***Example(s):***
 - ***+86 10 58584305***





Entity: ResponsibleParty

- ***Element: facsimile***
- ***Definition:***
 - ***Fax numbers at which the organization or individual may be contacted***
- ***Domain: Free TextNote:***
 - ***The same as domain of the phone number***
- ***Example(s):***
 - ***+86 10 58584308***





Entity: ResponsibleParty

- ***Element: deliveryPoint(O N)***
- ***Definition:***
 - ***Detail part of physical address at which the organization or individual may be contacted, including road name and room number***
- ***Domain: Free Text***
- ***Example(s):***
 - ***# 64, Funei Street,***
 - ***#31, XueYuan Road,***





Entity: ResponsibleParty

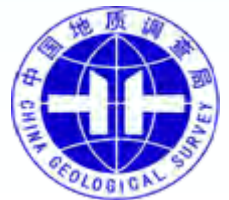
- **Element: city**
- **Definition: city of the location (city name, county name)**
- **Domain: Free Text**
- **Example(s):**
 - # 64, Funei Street, Beijing
- **Element: country**
- **Definition:**
 - Country of the responsible party
- **Domain:**
 - LanguageCode (CodeList) see table A.1
- **Example(s):**
 - # 64, Funei Street, Beijing, P.R.China





Entity: ResponsibleParty

- ***Element: postCode***
- ***Definition:***
 - *ZIP or other postal code*
- ***Domain: Free Text***
- ***Example(s):***
 - *# 64, Funei Street, Beijing, P.R.China , 100812,*





Entity: ResponsibleParty

- ***Element: onlineResource***
- ***Definition:***
 - ***On-line information that can be used to contact the individual or organization***
- ***Domain:***
 - ***URL (IETF RFC1738 ,IETF RFC2056)***
- ***Note:***
- ***Example(s):***
 - ***<http://www.cgs.gov.cn>***
 - ***sim@ccop.or.th***





Responsible Party Example

CI_ResponsibleParty

organisationName: Department of Primary Industries and Resources SA

positionName: GIS Coordinator

contactInfo:

CI_Contact

phone:

CI_Telephone

voice: 61 8 8463 3306

facsimile: 61 8 8463 3268

address:

CI_Address

deliveryPoint: GPO Box 167

city: Adelaide

administrativeArea: South Australia

postalCode: 5001

country: Australia

electronicMailAddress: pirsa.spatial@saugov.sa.gov.au

onlineResource:

CI_OnlineResource

linkage: <http://www.pir.sa.gov.au>

role: 007





Entity: MD_Medatada

- ***Element: metadataTitle***
- ***Definition:***
 - ***Name of the metadata set(s)***
- ***Domain: Free Text***
- ***Note:***
 - ***Name of metadata set usually is name of the data set plus metadata, such as name of dataset is China Geological Map Database, name of its metadata set is Metadata of China Geological Map Database.***
 - ***It should be fileIdentifier based on ISO 19115 and is a optional element.***
 - ***Definition: unique identifier for this metadata file***
- ***Example(s):***





Entity: MD_Metadata

- ***Element: dataStamp***
- ***Definition:***
 - ***Date that the metadata was created***
- ***Domain:***
 - ***YYYYMMDD(i.e. YearMonthDay)***
- ***Note:***
- ***Example(s):***
 - ***20100324***





Entity: MD_Medatada

- ***Element: contact(O)***
- ***Definition:***
 - ***Party/person responsible for the metadata information***
- ***Domain:***
 - ***ResponsibleParty***
- ***Note:***
 - ***Because that CCOP is consist of more than 10 member countries, and the metadata is centralized management , users may need to know who is provider of the metadata***
 - ***Suggest: change the obligation from O to M***
- ***Example(s):***





Development of CCOP Metadata System

- ***Background:***

- CGS submitted a proposal to support CCOP metadata standard phase II project and was approved in 43rd annual meeting in Korea, 2006.
- CGS launched a project early 2007 to fund CCOP metadata phase II, and promise to develop software system on Internet for CCOP based on CCOP metadata standard

- ***Purpose:***

- Develop and provide a software tool for CCOP and member countries to manage the metadata on Internet
- Facilitate to exchange and share geoinformation within CCOP

- ***CCOP S01 was finished to published in June, 2009. After that, the system was started to develop***

- **Web based software prototype named *CCOP MDIS* for metadata management was implemented in September, 2009.**
- **Request suggestions to improve from experts from CGS, and modify**
- **It has configured at CCOP T/S website for member countries to review since Nov. , 2009**





Comments

- **Comments received:**
 - Adding a searching function based on spatial area, such as polygon area created on map by mouse, map sheet, administration unit and etc
 - Developing a metadata editor on PC with function of creating metadata in XML format automatically, users can collect metadata offline and upload to the server;
 - Adding a new function to transform the metadata following CCOP former 28 items metadata standard to S01
 - In order to meet new requirement, it is necessary to enhance the management function on the structure of CCOP S01
- **Status:**
 - Still under testing
- **Welcome comments from EPPM program!**



admin [Login out]

Management platform

- Modal
- Add mode
- View | Modify | Delete mode
- Metadata
 - Import data
 - Add metadata
 - Data edit
 - data Publishing
 - Batch edit data
 - Download data
 - data Distribution
 - update List
 - Help text
- Data Manager
 - Add New Data manager
 - View | Modify | Delete data Manager
 - Field
 - Field List
 - Refresh List
- CopyRight
 - © mdis 2008-2010
 - webmaster@mdis.com

Metadata [Amend](#)

metadataTitle:	The first complete metadata Amend
dataStamp:	20090819 Amend
ResponsibleParty:	delete
Add	individualName: Name and title of the responsible person, separated by a delimiter Amend
	organisationName: Name and title of the responsible person, separated by a delimiter Amend
	electronicMailAddress: Public address of the electronic mailbox of the responsible organization or individual Amend
	phone: cntPhone Amend
	facsimile: Amend
	deliveryPoint: Detail physical address at which the organization or individual may be contacted, including road name and room number Amend
	city: jinan Amend
	country: america Amend
	postCode:



Questions and Discussion ?





Thank you !

