An Overview to the CCOP Geoinformation Metadata System GIMS



- What is a GIMS? How is GIMS structured?
- Why we need a GIMS?
- Who will use/benefit from the GIMS?
- Where we are now?

Phnom Penh, Cambodia 13-14 Mar 2012

- 1 CCOP Metadata Standard of Geoinformation
- 2 CCOP Metadata System Software GIMS
- 3 Benefits and Suggestion



CCOP GEOINFORMATION METADATA STANDARD S01

Edition 2 published in Sep.2009

(1) SCOPE

(2) TERMS AND DEFINITIONS

- Dataset
- Metadata
- Metadata element
- Metadata section

(3) METADATA STRUCTURE AND CONTENT

- Metadata structure
- Metadata contents
- Data Dictionary

DATA DICTIONARY: 5 TABLES
ANNEX: 7 CODELISTS



(1) SCOPE

- This standard has defined the schema required for description of geoinformation and provides information about the identification, quality, contents, spatial reference information, and the distribution of geological information.
- This standard is applicable to the description, dataset information publication, and network interchanges of the geological datasets dominated by various spatial data and the non-spatial information datasets and can also be referenced in the metadata collection and the metadata database construction.
- 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.

(2) TERMS AND DEFINITIONS

A. Dataset

Identifiable collection of data.

Collection of data can be either a database or a part of the database.

B. Metadata

Data about data.

They describe the related information about the data, including the contents, coverages, quality, status, management, owner, and the distribution.

C. Metadata element

Discrete unit of metadata.

Metadata elements are collected and described in tables called metadata dictionary.

D. Metadata section/ entity

Set of metadata elements describing the same aspect of a dataset. Metadata section can be either a single section or an aggregation of one or more sections and elements.

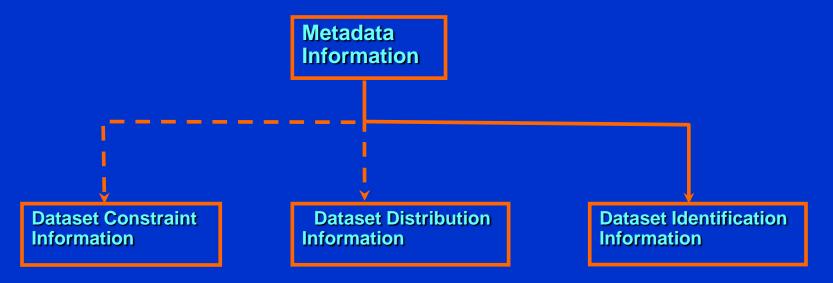
(3) METADATA STRUCTURE AND CONTENT

A. Metadata structure

Fig.1 describes the structure of geoinformation metadata.

Geoinformation metadata comprises of 4 sections:

- One mandatory section
- Two optional sections
- A common class named ResponsibleParty.



The structure diagram of geoinformation metadata

B. Metadata contents

Metadata Information

Metadata information section describes the whole metadata information of geoinformation, and is represented by the mandatory section MD_Metadata. It comprises of the following metadata sections and elements: Mandatory section, Optional section, Mandatory elements, Optional elements

Dataset Identification Information

Identification information is the basal one of geo-dataset, and is represented by MD_Identification section which is a mandatory section.

Dataset Constraint Information

Constraint Information describing general limitation for access and restrictions on using the dataset. It is an optional section.

Dataset Distribution Information

Dataset distribution information describing dataset distributor and dataobtaining method. It is an optional section.

CCOP Geoinformation Metadata Standard Sections and Elements

Section	Total	Mandatory	Conditional	Optional
Metadata information (MD_Metadata)	6	2+1		3
Dataset identification information (MD_Identification)	23	7	9	7
Dataset constraint Information (MD_Constraint)	2	1		1
Dataset distribution Information (MD_Distribution)	4	3		1
Responsible Party Information (ResponsibleParty)	10	1		9
SUM	45	15		

Metadata Information

It describes the whole metadata information of geoinformation, and comprises of the following sections and elements:

```
Mandatory section

MD_ Identification
Optional section

RS_Constraint

MD_Distribution
```

```
Mandatory elements
metadataTitle
metadataStamp
Optional elements
```

contact (refer to a common class ResponsibleParty)



Dataset Identification Information

It's the basal one of geo-dataset, and is represented by MD_Identification. It is an aggregation of the following elements:

Mandatory elements: title dateRelease language abstract dataRepresentationType topicCategory 7 Ms pointOfcontact Conditional elements: spatialResolution eastBoundLongitude westBoundLongitude southBoundLongitude northBoundLongitude 9 Cs geographicIdentification browseGraphic coordinateSystemType referenceSyetemName Optional elements: subtile dateCreate 7 Os edition seriesName characterSet **keyWords** projection



Dataset Constraint Information

It describes general limitation for access and restrictions on using the dataset. It is an optional section.

Mandatory elements:

useConstraint

Optional elements:

accessConstraint

Dataset Distribution Information

It describes dataset distributor and data-obtaining method.

Mandatory elements:

distributorContact

mediaName

dataFormatName

Optional element:

onlineSource

Responsible Party

Mandatory elements electricMailAddress <u>mm@xx.yy.zz</u>

```
Optional element:
    individualName
    organizationName
    phone
    fax
    deliveryPoint
    city
    country
    postCode
    onlineResource
```

C Data Dictionary: 5 TABLES

• Table 1 to 5 have offered a data dictionary that describes the details of geoinformation metadata sections, classes and elements with names, short names, definitions, obligation/condition, maximum occurrence, types and domain.

 They together with the metadata codelists in Annex have comprised of a complete definition of geoinformation metadata of CCOP.

DATA DICTIONARY: 4 Data Fields

Element and section names

Element name is the sole marker of metadata element.

Short names

Except for the codelists, each metadata element has a unique short name in the entire standard.

<u>Definitions</u>

Definition offers accurate description of metadata entites and metadata elements.

Obligation/Condition

This is a descriptor indicating whether a metadata section or metadata element shall always be documented in the metadata or sometimes be documented (i.e. contains value(s)). This descriptor may have the following values: M (mandatory), C (conditional), or O (optional).

Data dictionary tables

Table 1

Table 1. Metadata information (MD_Metadata)

			,					
No.	Section	Name / Role name	Short name	Definition	Obligation/	Maximum	Type	Domain
					Condition	occurrence		
1	MD_Metadata		Metadata	Root section which defines metadata about	M	1	Class	1.1-1.6
				dataset or data resources				
1.1		metadataTitle	mdTitle	Name of metadata	M	1	String	Free Text
1.2		dataStamp	mdDataSt	Date that the metadata was created	M	1	Date	YYYYMMDD(i.e.YearM
								onthDay)
1.3		Role name:	dataIdInfo	Basic information about the resource(s) to	M	1	Class	MD_Identification
		identificationInfo		which the metadata applies				
1.4		Role name:	constInfo	Offering general limitation for access and	0	1	Class	MD_Constraint
		constraintsInfo	Constinio	restrictions on using the dataset		1		
1.5		Role name:	41-4-21-41-4	Describing dataset distributor and	0	N	Class	MD_Distribution
		distributionInfo	distribution	data-obtaining method	U	IN		
1.6		contact	mdContact	Party/person responsible for the metadata	О	N	Common	ResponsibleParty
				information			Class	

Table 2

Table 2. Dataset identification information (MD_Identification)

No.	Section	Element name	Short Name	Definition	Obligation/ Condition	Maximum œcurrence	Туре	Domain
2	MD_Identification 1		Id	Describing basal information about the geological dataset	M	1		2.1-2.23
2.1		title	title	Title or name of the dataset	М	1	String	Free Text
2.2		subtitle	subtitle	An alternative title or name of the dataset to describe the dataset	0	1	String	Free Text
2.3		dateCreation	dateCreat	Date of dataset creation	0	1	Date	YYYYMMDD
2.4		dateRelease	dateReles	Date of dataset release	М	1	Date	YYYYMMDD
2.5		edition	edition	Version of dataset	О	1	String	Free Text
2.6		seriesName	seriName	Name of the dataset series	О	1	String	Free Text
2.7		language	dataLan	Language(s) used within the dataset	М	N	String	LanguageCode (CodeList) A.1
2.8		characterSet	dataChar	Full name of the character coding standard used for the dataset	O	1	Class	CharacterSetCode (CodeList) A.2
2.9		abstract	idAbs	Brief narrative summary of the content of the resource(s), including purpose, source and data quality description.	М	1	String	Free Text
2.10		keyWords	kwords	Keywords used to describe the dataset	О	N	String	Free Text
2.11		dataRepresentationType	dataRpType	The expressing way of spatial data of geological information	М	N	Class	RepresentationTypeCode (CodeList)A.3
2.12		spatialResolution	dataScale	A parameter describing the spatial data density of a dataset, such as scaleDenominator, and average ground sampling intervals.	C/Spatial data is applied	N	String	Free Text
2.13		topicCategory	tрCat	Geological category codes of the main theme(s) of the dataset	М	N	Class	GeoTopicCategoryCode (CodeList) A.4
2.14		pointOfContact	idPoC	A person or party related with the dataset	М	N	Common Class	ResponsibleParty

Table 3 and 4

Table 3. Dataset constraint Information (MD_Constraint)

No.	Section	Element name	Short name	Definition	Obligation/	Maximum	Туре	Domain
					Condition	occurrence		
3	MD_ Constraint		Consts	Restriction on the access and use of a resource or metadata	0	N		3.1-3.2
3.1		accessConstraint	æcessConsts	Assure the protection of privacy or intellectual property, and any special restrictions or limitations on obtaining the resource or metadata	0	N	Class	RestrictionCode(CodeList) A.5
3.2		useConstraint	useConsts	Assure the protection of privacy or intellectual property, and any special restrictions or limitations or warnings on using the resource or metadata	М	N	Class	RestrictionCode(CodeList) A.5

Table 4. Dataset distribution information (MD_Distribution)

No.	Section	Element name	Short name	Definition	Obligation/	Maximum	Type	Domain
					Condition	occurrence		
4	MD_Distribution		Consts	Restriction on the access and use of a resource or metadata	0	N		4.1-4.4
4.1		onlineResource	onLineSrc	Information about online resources from	О	N	Class	URL (IETF RFC1738
				which the resource can be obtained;				IETF RFC2056)
				addresses that offer online access in the				
				model of URL address.				
4.2		distributorContact	distorCont	Distributor of geological information	M	N	Common	ResponsibleParty
				dataset or data resources			Class	
4.3		mediaName	medName	Medium name of dataset offered by the	M	1	Class	MediumNameCode
				distributor				(CodeList) A.7
4.4		dataFormatName	fomatName	Name and version of data transfer format(s) offered by the dataset distributor	М	1	String	Free Text

Table 5

Table 5. Responsible Party Information (ResponsibleParty)

		Tarty Information	(
No.	Common Class	Element name	Short name	Definition	Obligation/Conditio n	Maximum occurrence	Type	Domain
5	ResponsibleParty			Information about the person(s) and organizations associated with the dataset	Use obligation or condition from the referencing object	Use maximum occurrence from the referencing		5.1-5.10
5.1		individualName	rpIndName	Name and title of the responsible person, separated by a delimiter	C/ organisationName not documented	1	String	Free Text
5.2		organisationName	rpOrgName	Name of responsible party	C/ individualName not documented	1	String	Free Text
5.3		electronicMailAddress	eMailAddr	Public address of the electronic mailbox of the responsible organization or individual	М	N	String	Free Text
5.4		phone	cntPhone	Telephone numbers at which the organization or individual may be contacted		N	String	Plain text with arrangement of letters as "+" (international numbering plan prefix) ""(country code) " "(city code) ""(local number), for example, +86 10 58584305
5.5		facsimile	cntFaxNum	Fax numbers at which the organization or individual may be contacted	О	1	String	Free Text
5.6		deliveryPoint	cntDelPnt	Detail physical address at which the organization or individual may be contacted, including road name and room number	0	1	String	Free Text
5.7		city	city	city of the location (city name, county name)	О	1	String	Free Text
5.8		country	country	Country of the responsible party	О	1	Class	LanguageCode (CodeList) A.1
5.9		postCode	postCode	ZIP or other postal code	О	1	String	Free Text
5.10		onlineResource	cntOnlineRes	On-line information that can be used to contact the individual or organization	0	1	String	URL (IETF RFC1738 IETF RFC2056)

Annex: Geoinformation Metadata CodeList A1 and A2

A. 1 LanguageCode (based on IS0639.2)

No.	English Nan
	LanguageCode
1	KHM
2	CHI
3	IDN
4	JPN
5	KOR
6	MAY
7	MON
8	PAA
9	TGL
10	FIL
11	THA
12	VIE
13	ENG
14	POR
15	TET

No.	English Names	nglish Names Code Definition						
	CharacterSetCode	CharSetCd	Character coding standard					
1	UTF8	004	8-bit variable size UCS Transfer Format, based on ISO/IEC 10646					
2	ISO-8859-1	006	GB/T 15273.1-1994 Information Process 8-bit single byte coded graphic character					
			setsPart 1: Latin alphabet No. 1					
3	usASCII	025	United States ASCII code set (ISO 646 US)					
4	BIG5	028	Traditional Chinese code set used in Taiwan, Hong Kong of China and other areas					
5	GB2312	029	Simplified Chinese code set					
6	Windows-874		Thai character set encoding for Windows (a standard should not be bounded with					
			particular software.)					
7	TIS 620	030	Thai Industrial Standards ,8-bits character set, a subset of ISO-IR-166, declared by					
			Thai Industrial Standards Institute (TISI)					
8	ISO-8859-11	016	ISO/IEC8859-11 Information Process 8-bit single byte coded graphic character					
			setsPart 11: Latin alphabet /Thai character					
9	eucKR	027	Korean character set					
10	TCVN3-ABC		8 bit character code set (Vietnam)					
11	TCVN 6909:2001		Unicode font (Vietnam)					
12	eucJP	024	Japanese code set used on UNIX based machine (TBC)					
13	shiftJIS	023	Japanese code set used on MS-DOS based machine (TBC)					
14	others	099	Other characters not defined above					

A. 3 RepresentationTypeCode

No.	English Names	Code	Definition		
	RepresentationTypeCode	TypeCode RepTypCode Types of spatial data			
1	Vector	001	Vector data is used to represent geographic data		
2	Grid	002	Grid data is used to represent geographic data		
3	Text	003	Textual data is used to represent geographic data		
4	TIN 004		Use triangulated irregular network to represent geographic data		
5	Stereo model	005	Multidimensional representation of data		
6	Video	006	Represent data in video		
7	Matrix	007	Matrix data		
8	Table 008		Tabular data is used to represent geographic data		
9	Raster 009		Scanned and digital images		
10	Others	099	Other types not defined above		

		No.	lst Category	Name	2nd Category Name	Definition and illustrat		code	
A4		1	Geography			The study of the Earth Geochemistry	and its lands features Geochemistry includes a biogeochemistry, organi environmental and expli such as rock geochemic geochemical exploration geochemical exploration	ic geochemistry, regional oration geochemistry, al exploration, soil n, stream sediment	, 2500
4₽	Geo-	Resou	rces₽	₽		Studies and Earth &	activities of geolo	ogic resource of	the 4000¢
				Mine	ral resource		the Earth, includir oration, mineral e		93.
				Grou	ndwater₽		r of the Earth in exploration	aquifers, includ	ing 4200₽
				Oil ar	nd Gas≠	I	petroleum geole exploitation or p		
				Coall	oed methane₽	It includes	coalbed methane exploration, c	geology, coall oalbed metha	······
				Gas h	ıydrate₽	hydrate, ga	both natural and s hydrate geolo gas hydrate exploi	gy, gas hydr	- I
				Coal	,		oal geology, coa		oal 4600₽
				Oil sl	nale#	It include oi	l shale geology, oi luction, etc.4	il shale exploration	on, 4700¢
				Geotl	hermal₽	It is related comes from geothermal	to energy and man n within the E geology, geoth exploitation, geoth	Earth. It includermal exploration	des on, tc.∉
					6 Others		encompassing importance, no	one or more sites of ot only for geological ro of its archaeological, eco	a territory Scientific easons but

A5 and A6

A. 5 RestrictionCode

No.	English Names	Code	Definition
	RestrictionCode	Restrict	Limitation(s) placed upon the access or use of the data
			Exclusive right to the publication, production, or sale of the rights to a literary,
1	1 copyright	pyright 001 dr	dramatic, musical, or artistic work, or to the use of a commercial print or label,
			granted by law for a specified period of time to an author, composer, artist, distributor
2		002	Government has granted exclusive right to make, sell, use or license an invention or
2	patent	002	discovery
3	patentPending	003	Produced or sold information awaiting a patent
		004	A name, symbol, or other device identifying a product, officially registered and legally

A. 6 CoordinateSystemTypeCode

No.	English Names	Code	Definition	
	CoordinateSystemTypeCode	CoorSysType		
1	Cartesian	001	A n-dimensional (n stands for an arbitrary positive integer) coordinate	1
			system that consists of n number axes which perpendicularly cut each	
			other at the origin	
2	Geodetic	002	A spherical coordinates of a ground point location expressed in	1
			longitudinal and latitudinal degrees	
3	Projected	003	Coordinate systems formed through different projection methods]
4	Polar	004	A coordinate system that describes the location of a point through the]
			distance between the point and the pole as well as the extensional	
			direction	
5	Gravity Related	005	A norm for gravity survey and related calculation	
6	WGS 84	4326	World wide GPS coordinate system.	

non-tangible property

A. 7 MediumNameCode

No. English Names Code		Code	Definition		
	MediumNameCode	MediumNameCd	Name of the medium		
1	cdRom	001	Read-only optical disk		
2	dvd	002	Digital versatile disk, include rewritable disk		
3	dvdRom	003	Digital versatile disk, read only		
4	3halfinchFloppy	004	3,5 inch magnetic disk		
5	7trackTape	006	7 track magnetic tape		
6	9trackTape	007	9 track magnetic tape		
7	3480CatridgeTape	008	3480 cartridge tape drive		
8	3490 CatridgeTape	009	3490 cartridge tape drive		
9	3590 CatridgeTape	010	3590 cartridge tape drive		
10	4mm CatridgeTape	011	4mm magnetic tape		
11	8mm CatridgeTape	012	8mm magnetic tape		
12	IquaterInch CatridgeTape	013	0.25 inch magnetic tape		
13	digitalLinearTape	014	Half inch cartridge streaming tape drive		
14	onLine	015	Direct computer linkage		
15	Satellite	016	Linkage through a satellite communication system		
16	TelephoneLink	017	Communication through a telephone network		
17	hardcopy	018	Pamphlet or leaflet giving descriptive information		
18	harddisk	019	Hard disk		
19	flashMemory	020	Flash disk		
20	electronicMail	021	Offering data in e-mail mode		
21	cdRewritable	022	Rewritable optical disk		
22	blurayDisk	023	High-definition optical disk		
23	portable hard disk	024	Portable Computer hard disk		
24	U-disc/flash disc	025	Memory disk of small size		
25	videoDigital	026	Digital video recording		
26	others	099	Medium not listed		

2 CCOP Metadata System Software GIMS

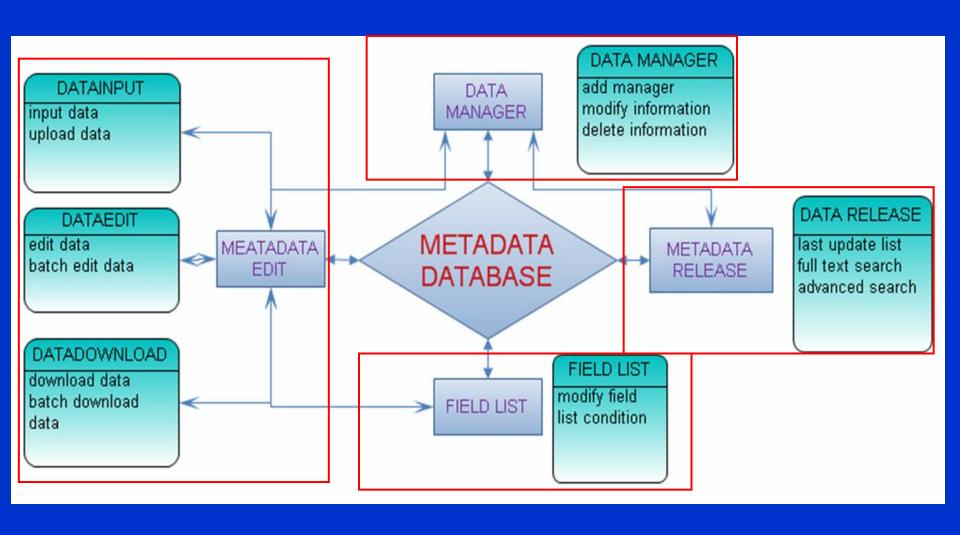
- (1) The Web based software CCOP GIMS was deployed in 2009 and installed at CCOP T/S server. . http://www.ccop.org.th
- (2) Hand on training workshop in Bangkok, Shanghai, Davao, Pattaya, Kuala Lumpur, *Phnom Penh*...

Software Name: CCOP GIMS





Software structure





Last Updated Full Text Search Advanced Search Map Search About

CCOPGIMS

topicCategory:	All	~
Bound:	Longitude: - Latitude: -	
Country:	Cambodia	Cambodia 🔻
KeyWords:		Cambodia China
geographicIdentification:		Timor-Leste Indonesia
metadataTitle:		Japan Malaysia
createTime:	-	Papua New Guinea Philippines
	Submit	Singapore Korea Thailand Vietnam

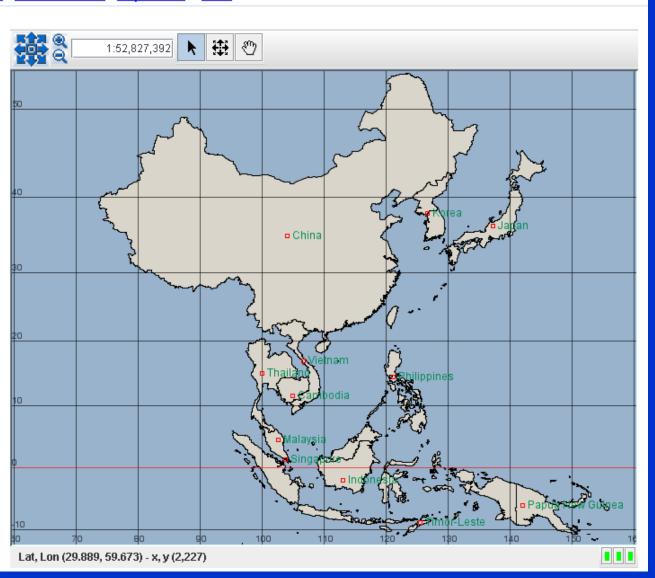
CCOPGIMS Last Updated Full Text Search Advanced Search Map Search About

Search on Map

topicCategory:	A11	*
Country:		
KeyWords:		
geographic Identification:		
metadataTitle:		
createTime:		
	-	
	Submit	

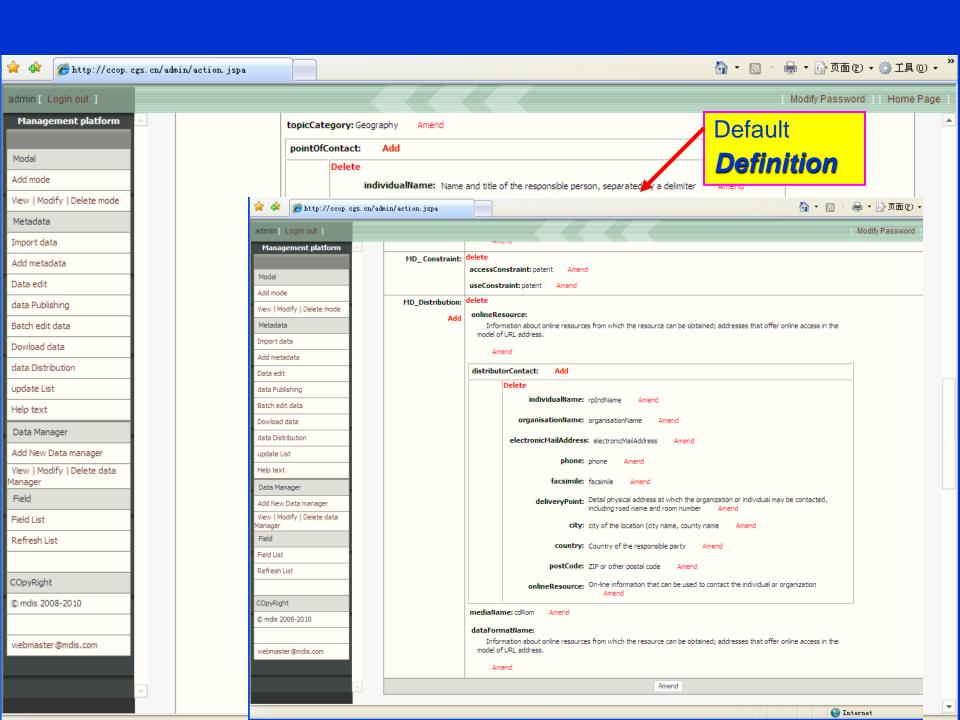
Note: If the page can display map correctly, please click <u>here</u> to download the java runtime environment.

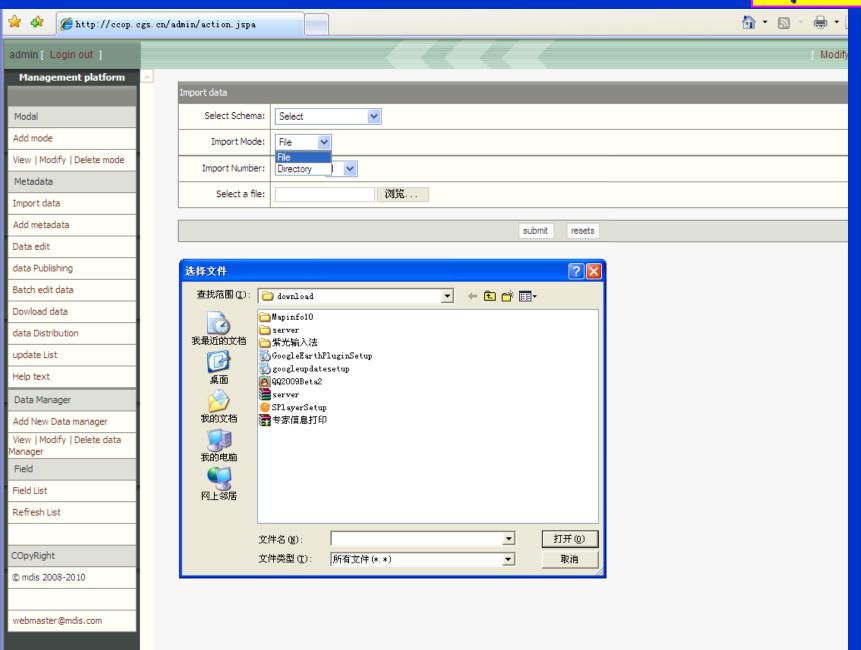




			The metadata
CCOPGIMS Last Updated Full Text Search Advanced Search Map	Search About		
Search: Submit /	Advanced Searc	<u>h</u>	
Result List:			172 found
K4826 Shalataoerhan base on Geological survey result. With AcrInfo and MapGIS Format, managed b attribute data. Provide geological map products of 1:200,000 standard map sh	eet. K4826 Shalatao	erhan K4826 Shalataoe	rhan Quadrangle of 1:200,000 scale Digital Geological
Map Database 2002-10-09 2003-03-05 Geological Map Database Published	on Mar. 5, 2003. Digi	tal Geological Map 1:200	0,000 CHI BIG5 (. <u>Text View</u>
K4826 Shalataoerhan base on Geological survey result. With Acrinfo and MapGIS Format, managed tattribute data. Provide geological map products of 1:200,000 standard map shall be supported by the standard of the standard map shall be supported by the standard of the standard map shall be supported by the standard of t		Vindows Internet	
Map Database 2002-10-09 2003-03-05 Geological Map Database Published	Metadata metadataTitle:	K4826 Shalataoerhan	
K4928 Huhehaote city	dataStamp:		↓
base on Geological survey result. With Acrinfo and MapGIS Format, managed to	_	title:	K4826 Shalataoerhan
attribute data.Provide geological map products of 1:200,000 standard map sh Map Database 2002-10-09 2003-03-05 Geological Map Database Published		subtitle: dateCreation:	K4826 Shalataoerhan Quadrangle of 1:200,000-scale Digital Geological Map Database
Facts 2000		dateRelease:	
Facts 2009 The publication provides a general overview of information regarding the petro			
Petroleum Sector Facts of the Norwegian Petroleum Sector2009 2009-06-09			Published on Mar. 5, 2003. Digital Geological Map 1:200,000
UTF8 Text View		language:	
K4825 Guaizihunan		characterSet:	BIG5
base on Geological survey result. With AcrInfo and MapGIS Format, managed to attribute data. Provide geological map products of 1:200,000 standard map sh			base on Geological survey result. With AcrInfo and MapGIS Format, managed by GIS, queried with standard map sheet and attribute feature. 25 geological layers with attrib data. Provide geological map products of 1:200,000 standard map sheet.
Database 2002-10-09 2003-03-05 Geological Map Database Published on M		keyWords:	Geological Map Database
		dataRepresentationType:	Vector
		spatialResolution:	200K

topicCategory: Regional geology





This web based CCOP Geoinformation Metadata System (CCOP-GIMS) is developed and supported by China Geological Survey based on 'CCOP Geoinformation Metadata Standard-CCOP S01'.

Software design and programming is led by Dr. Zhang Minghua and Dr. Wang Chengxi in The Development Research Center of China Geological Survey.

Software test and comments are form experts in CCOP member countries, CCOP Technical Secretariat and CCOP- EPPM project. Main experts are Mr. Sieng Sotham and Mr. Vorakcheat Huot(Cambodia), Dr. Jiang Zuoqin, Dr. Zhang Zhenfang, Mr. Liu Liqun, Ms. Chen Fangli and Mr. Zhang Qinhe(China), Mr. Calvin Karo Karo Gurusinga, Mr. Hanafi Suroyo and Ms. Rina Wahyuningsih(Indonesia), Mr. Kazuaki Watanabe and Mr. Yuichiro Fusejima and Mr. Yoshiaki Sugawara(Japan), Mr. Young-Kwang Yeon, Dr. Seonghyung Jang and Dr. Jaehong Hwang (Korea), Ms. Brendawati Ismail and Mrs. Norzilah Jaffar(Malaysia), Mr. William Tau-Vali and Mr. John Arumba(Papua New Guinea), Ms. Czarina Morgia, Mr. Demujin Antiporda and Mr. Michael Santiago J. Luna(Philippines), Mr. Sompob Wongsomsak and Ms. Kanitta Danudom (Thailand), Mr. Le Tuan Anh, Mr. Hoang Hai Bui and Mr. Luu Quang Viet (Vietnam), Mr. Inpong Homsombath (Laos), Mr. U Toe Aung Kyaw(Myanmar), Dr. Hee-Young Chun, Dr. He Qingcheng, Ms. Marivic Pulvera Uzarraga and Mr. Simplicio Caluyong (CCOP Technical Secretariat).

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What is new

Data manager_ Three level

Superadministrator

view\modify\delete\release all of the metadata, Add \manage data manager & data loader.

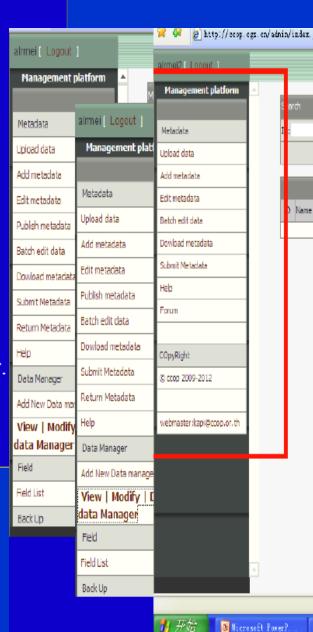
data manager

view\modify\delete\release own metadata, retrun metadata to data loader.

Add \manage data loader.

data loader

view\modify\delete\ own metadata, submit metadata to data manager.





A group photo of the metadata software Training Course in Malaysia, Jan.2010





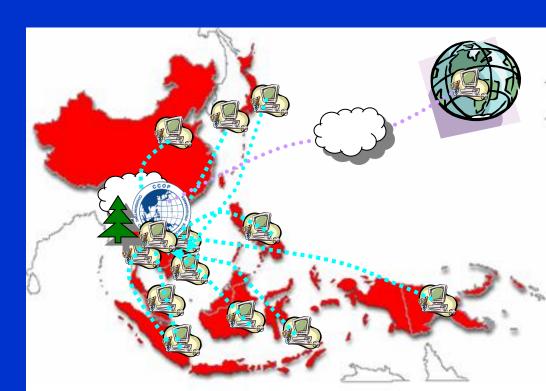
3 Benefits and Suggestion

- Geoinformation sharing amongst CCOP Member countries.
- The member country who use GIMS will benefit first in geoinformation sharing nationwide and worldwide.
- CCOP Geoinformation sharing worldwide, such as with ASEAN...
 for bilateral and International cooperation...

Answer What, Who, Where, When, Why and How.....

Data title
Abstract
Quality
Constrains
Contact

.



Suggestion: Future activity

 Hand on training on request to the member country by the CGS project group.

And/or , translated into local language by the member country...

 Web based metadata software system be look after by CCOP TS, and necessary extension making to the standard to meet the need of any other CCOP projects by the working group...

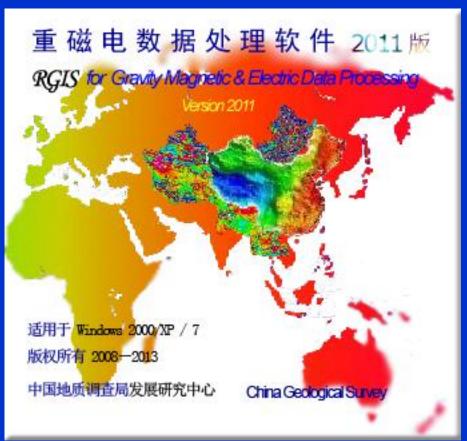
and ,Software upgrading and training will be continually supported by the CGS group...

 A New project on geo-data processing abilities launched this year supported by CGS...

CCOP-ASEAN 物化探数据管理与处理软件

Phase I Geophysical Geochemical Data Processing





THANK YOU!





History of CCOP Metadata Standard

2006

Pic. By Marivic

Seminar on Geoinformation Technology and 4th Workshop of CCOP Metadata Working Group (September 5-7,2006,Guangzhou,China)

CCOP-CGS-GSJ/AIST



 CCOP Metadata working group workshop in 2006

Guangzhou, China 2006

Summary on 28-item standard

Requirement Analysis for an entire coverage metadata standard

Advanced IT application and products for geological survey and exploration

CCOP metadata project phase II

2007

CGS submitted a proposal to support phase II CCOP metadata standard work and was approved in 43rd annual meeting at Daejeon, Korea, 2006.

English version of Chinese *Geo-information Metadata Standard* sent to most of the CCOP member countries as reference.

CGS launched a project early 2007 to fund CCOP metadata phase II



Cataloguing information 1		
	Metadata file identifier	
	Title in English Translation (Full)	
	Edition	
	Series name	
	Reference date	
Resp	onsible party information	
	Responsible party organization name	
	Postal address	
	City	
	Postal Code	
	Country	
	On-line resource linkage	
ļ	Electronic mail address	
	Voice telephone	
	Fax number	
Loca	tion information	
	West bounding coordinate	
	(Generally Lat-Lon decimal degree) East bounding coordinate	
	North bounding coordinate	
	South bounding coordinate	
	Geographic extent name	
	Resolution level (Map scale)	
Coms	traint information	
COVE	The agreement	
	Access constraints	
	Use constraints	
Cata	loguing information 2	
	Spatial reference system (Description)	
	Distribution data format name	
	(like Shape, Raster, DXF, etc.)	
	Distribution media	
	Language of metadata code	
	Metadata character code set (ASCII)	
	Metadata date	

CCOP 28 Item Standard For geological maps





CCOP Metadata Project Phase | - First Workshop 17-21 March 2008, Hainan, China

CCOP Metadata standard General Draft



CCOP Metadata Project Phase II – First Workshop
18 – 20 March 2008, Haikou, China

FINAL INTERNATIONAL ISO/FDIS DRAFT STANDARD 19115

ISO/TC 211
Secretariat: NSF
Voting begins on: 2003-01-23
Voting terminates on: 2003-03-23

Geographic information — Metadata

Information géographique — Métadonné

ISO19115

Please see the administrative notes on page i

SUBMIT, WITH THEIR COMMENTS, NOTIFICATION OF ANY RELEVANT PATENT ROUTE OF WHO THEY ARE ANALISE AND PROVIDE SUPPORT HIS DOCUMENTATION.

H. ADDITION TO THEIR ENALIZATION AS BEING ACCOPTABLE FOR ROUTIFIES, TECHNOLOGICAL, COMMERCIAL, AND USER PURPOSES CORPET INTERPROCESS.



Reference numb ISO/FDIS 19115:2003

ISO TC 46/SC 4 N515

Date: 2003-02-28

ISO TC 46/SC 4

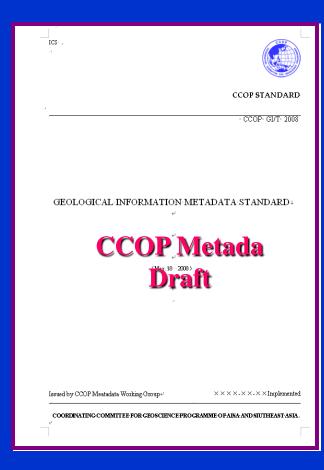
Dublin Core

Information and documentation — The Dublin Core metadata element set Information et documentation — Élémente fondamentaux de métadonnées appelée

Occument type: International Standar Occument subtype: Occument stage: (80) Publication Occument language: E

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	(like Shape, Raster, DXF, etc.) Distribution media	
	Language of metadata code	
	Metadata character code set (ASCII)	
	Metadata date	
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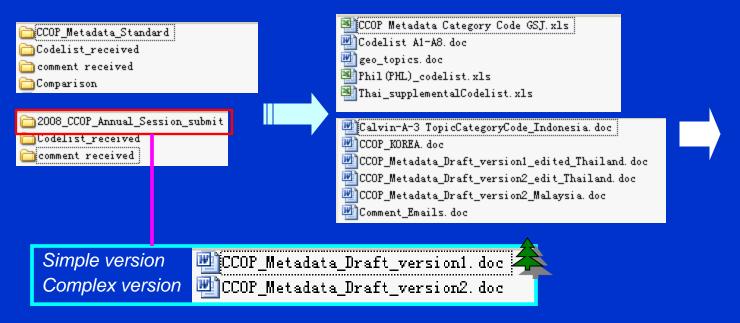
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GEOLOGICAL TRADE STANDARD OF	PEOPLE'S REPUBLIC OF CHINA-	
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5 packages6 code-list56 elements

2 circulations since Mar.,2008

2008



GEOINFORMATION METADATA
STANDARD

Version 2

version 2 (Draft)

Dec, 2008

Livelly CCCP Markey Valing Courg.

- Mr. xxx, Cambodia
- Dr. Zhang Minghua, Dr. Jiang Zuoqin and Dr. Zhang Zhenfang, China
- Mr.Calvin Karo Karo Gurusinga, Indonesia
- Mr.Kazuaki Watanabe and Mr.Yuichiro Fusejima, Japan
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in Cooperation with

CCOP Metadata Project Phase II

Shanghai, China, 1 -3 April 2009



CCOP Metada Standard Version 2 final

Second workshop



CCOP STANDARD

CCOP GI/T 2008

GEOINFORMATION METADATA STANDARD

Version

Issued by CCOP Metadata Working Group,

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COORDINATING COMMITTEE FOR GEOSCIENCE PROGRAMME OF EAST AND SOUTHEAST ASIA

CCOP

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Language Code 11	1
Character Set Code	1
MD RepresentationTypeCode 12	2
GeoTopicCategoryCode 12	2
RestrictionCode 10	1
Coordinate SystemType Code	1
MediumName Code 15	5

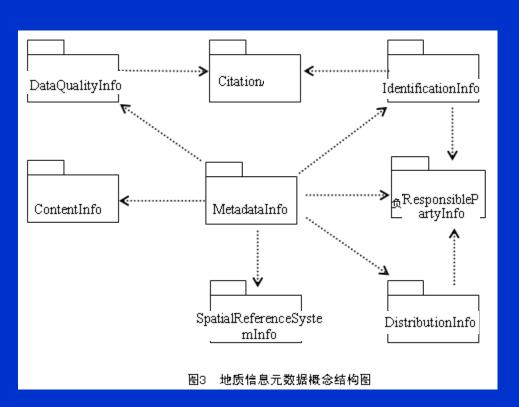
5 packages 7 code-list 45 elements

CGS issued and released CGS Geinformation Metadata Standard (DD2006-05) in 2006

For geoinformation collection and release Since 2005. With coverage of

geological mapping, minerals, groundwater, geo-hazard, oil and gas, coal, geothermal, coastal zone, geophysics, geochemistry, drilling, geo-archives, etc.

8 entities 88 elements (46 mandatory, 19 conditional) 1 annex.



ISO 19115 Organization

Metadata

Language Character Set Hierarchy Standard Name, Version Date Metadata Contact

Data Identification Info

Content Information

Distribution Info

Spatial Representation

Data Quality Info

Reference System

Metadata Maintenance

Metadata Constraints

Application Schema Info

Portrayal Catalog Info

Extension Information

Responsible Party

Online Source

Citation

Required

Conditional or Optional

- MD_identification (M)
- MD_Constraints
- DQ_DataQuality
- MD_MaintenanceInformation
- MD_SpatialRepresentation
- MD_ReferenceSystem
- MD_ContentInformation
- Mb_PortrayalCatalogueReference
- MD_Distribution
- MD_MetadataExtensionInformation
- MD_ApplicationSchemaInformation

Table 3 — Core metadata for geographic datasets

Dataset title (M)	Spatial representation type (O)
(MD_Metadata > MD_DataIdentification.citation > CI_Citation.title)	(MD_Metadata > MD_DataIdentification.spatialRepresentationType)
Dataset reference date (M)	Reference system (O)
(MD_Metadata > MD_DataIdentification.citation > CI_Citation.date)	(MD_Metadata > MD_ReferenceSystem)
Dataset responsible party (O)	Lineage (C
(MD_Metadata > MD_DataIdentification.pointOfContact > CI_ResponsibleParty)	(MD_Metadat
Geographic location of the dataset (by four	On-line res
coordinates or by geographic identifier) (C)	(MD_Metadat Dublin Core
(MD_Metadata > MD_DataIdentification.extent > EX_Extent > EX_GeographicExtent > EX_GeographicBoundingBox or EX_GeographicDescription)	MD_DigitalTra Information and documentation — The Dublin Core metadata element set Information et documentation — Éléments fondamentaux de métadonnées appelée
Dataset language (M)	Metadata 1
(MD_Metadata > MD_DataIdentification.language)	(MD_Metadat
Dataset character set (C)	Metadata s 15 Elements
(MD_Metadata > MD_DataIdentification.characterSet)	(MD_Metadat
Dataset topic category (M)	Metadata s
(MD_Metadata > MD_DataIdentification.topicCategory)	(MD_Metadat
Spatial resolution of the dataset (O)	Metadata I
(MD_Metadata > MD_DataIdentification.spatialResolution > MD_Resolution.equivalentScale or MD_Resolution.distance)	Document by: Informational Standard Comment and Commen
Abstract describing the dataset (M)	Metadata character set (C)
(MD_Metadata > MD_DataIdentification.abstract)	(MD_Metadata.characterSet)
Distribution format (O)	Metadata point of contact (M)
(MD_Metadata > MD_Distribution > MD_Format.name and MD_Format.version)	(MD_Metadata.contact > CI_ResponsibleParty)
Additional extent information for the dataset (vertical and temporal) (O)	Metadata date stamp (M) (MD_Metadata.dateStamp)
(MD_Metadata > MD_DataIdentification.extent > EX_Extent > EX_TemporalExtent or EX_VerticalExtent)	(ms_motocolonip)