



# **UK GEMINI Standard Version 1.0**

2004-10-12

A Geo-spatial Metadata  
Interoperability Initiative

The logo for the AGI (A Geo-spatial Metadata Interoperability Initiative) project. It features the lowercase letters 'agi' in a white, bold, sans-serif font on a dark blue rectangular background. A white curved line with a dot at its end arches over the letters.

# Table of Contents

1	UK GEMINI version 1.0.....	3
1.1	Introduction.....	3
1.2	The Profile.....	3
1.3	Historical Antecedents.....	3
1.4	Future Versions.....	3
1.5	Conclusions.....	4
1.6	Scope.....	4
1.7	Normative References.....	4
2	UK GEMINI metadata elements.....	5
2.1	Table 1: Metadata elements for geographic datasets.....	5
3	Annex A: Metadata elements.....	7
A.1	Abstract.....	7
A.2	Access constraint.....	8
A.3	Additional information source.....	10
A.4	Alternative title.....	11
A.5	Browse graphic.....	12
A.6	Data format.....	13
A.7	Dataset language.....	14
A.8	Dataset reference date.....	15
A.9	Date.....	16
A.10	Date of update of metadata.....	17
A.11	Distributor.....	18
A.12	East bounding coordinate.....	23
A.13	Extent.....	24
A.14	Frequency of update.....	25
A.15	Lineage.....	26
A.16	Metadata Standard Name.....	27
A.17	Metadata Standard Version.....	28
A.18	North bounding coordinate.....	29
A.19	Online resource.....	30
A.20	Originator.....	31
A.21	Presentation type.....	32
A.22	South bounding coordinate.....	34
A.23	Spatial reference system.....	35
A.24	Spatial representation type.....	37
A.25	Spatial resolution.....	38
A.26	Subject.....	39
A.27	Supply media.....	40
A.28	Title.....	42
A.29	Topic category.....	43
A.30	Use constraints.....	46
A.31	Vertical extent information.....	48
A.32	West bounding coordinate.....	49
4	Annex B: Changes from Glgateway™ (Informative).....	50
5	Annex C: References.....	52
5	Annex D: Revision history.....	53

# 1 UK GEMINI version 1.0

## 1.1 Introduction

Metadata is additional data about a resource, and can occur at several levels of detail. The highest level, discovery level metadata is intended to facilitate searching for a resource for an intended purpose. The UK GEMINI Discovery Metadata Standard is a defined element set for describing geo-spatial, discovery level metadata within the United Kingdom. It is:

- Derived from ISO 19115 Geographic Information – Metadata and the UK eGovernment Metadata Standard (eGMS);
- Originated by the Association for Geographic Information and the e-Government Unit of the Cabinet Office and the UK Data Archive;
- Created from a rigorous process of national consultation, feedback and revision;
- Managed by a steering group representing central and local government, the private sector, academia and the geo-spatial industry at large.

## 1.2 The Profile

A profile is a subset of one or several information standards which adopts elements, structures and/or rules for different user communities. The development of UK GEMINI proceeded according to the process defined in 'ISO 19106 Geographic Information – Profiles' and represents a profile including extensions within the permitted context.

Adherence to this application profile allows the creation of discovery metadata with either ISO 19115 or the national eGMS standard. The resulting extended profile used the following methodology in its final definition: Where an element is mandated in ISO 19115 and optional in eGMS, it is mandated in GEMINI. The GEMINI profile includes the core metadata components of both standards with those optional elements which were identified and defined as necessary via the consultation process. These extended elements were added as defined in ISO 19115. European initiatives were subordinately considered.

## 1.3 Historical Antecedents

UK GEMINI supersedes the Glgateway™ Metadata Specification, previously known as the National Geo-spatial Data Framework (NGDF) metadata standard, which was the prevailing national standard within the United Kingdom. This standard was derivative of the Federal Geographic Data Committee's (FGDC) Content Standard for Digital Geo-spatial Metadata (CSDGM), which has been the source for the creation of many international application profiles previous to the emergence of ISO 19115.

## 1.4 Future Versions

This profile which follows is a definitive metadata standard for describing geographic information. It allows immediate creation of metadata content with the assurance of stability. It will be revised periodically to ensure that it retains compatibility with ISO 19115 and eGMS. Any future revision will be part of a planned process to take account

of other relevant developments, and will not make existing users non-conforming or nullify existing investments in derived metadata records.

## **1.5 Conclusions**

The Steering Committee wishes to thank all of the geographic information users who provided feedback on this document and contributed valuable advice in the process.

## **1.6 Scope**

This standard specifies a set of metadata elements for describing geographic datasets. It is a profile of the International Standard 'ISO 19115, Geographic information – Metadata' for data discovery purposes in the UK. The standard provides a match of these metadata elements to the metadata set used by the Glgateway™ metadata service run by the Association for Geographic Information (AGI) and also to the UK e-Government Metadata Standard (e-GMS), which is based on Dublin Core. It is designed for use in Glgateway™, and for other metadata applications in the UK

## **1.7 Normative References**

ISO 19115: Geographic information – Metadata

## 2 UK GEMINI metadata elements

The elements to be used to record metadata for geographic datasets are shown in Table 1.

Table 1 shows:

- the element,
- whether it is mandatory (M), in which case a value must be provided, or optional (O), its multiplicity – single valued (1) or multi-valued (N).

**2.1 Table 1: Metadata elements for geographic datasets**

Element number	Element name	Obligation	Number of occurrences
1	Title	M	1
2	Alternative title	O	N
3	Dataset language	M	N
4	Abstract	M	1
5	Topic category	M	N
6	Subject	M	N
7	Date	M	1
8	Dataset reference date	M	1
9	Originator	O	N
10	Lineage	O	1
11	West bounding coordinate	M	1
12	East bounding coordinate	M	1
13	North bounding coordinate	M	1
14	South bounding coordinate	M	1
15	Extent	M	N
16	Vertical extent information	O	N
17	Spatial reference system	M	1
18	Spatial resolution	O	1
19	Spatial representation type	O	N
20	Presentation type	O	N
21	Data format	M	N
22	Supply media	O	N
23	Distributor	M	N
24	Frequency of update	M	1
25	Access constraint	O	N
26	Use constraints	O	N
27	Additional information source	O	1
28	Online resource	O	N
29	Browse graphic	O	N
30	Date of update of metadata	M	1
31	Metadata standard name	O	1
32	Metadata standard version	O	1

Details of these elements are given in Annex A, which also provide a mapping between the elements in the proposed metadata set and the corresponding metadata sets:

- the present Glgateway™;
- ISO 19115;
- e-Government Metadata Standard (e-GMS).

For each element, the following is given:

- the metadata element name;
- the definition;
- the current Glgateway™ identifier and element name;
- details of any changes from the current element;
- the equivalent ISO 19115 element number and element name;
- a comparison between the new element and the corresponding ISO 19115 element;
- the equivalent e-GMS metadata element name;
- a comparison between the element and the corresponding e-GMS element;
- the obligation, whether the element is mandatory (M) or optional (O);
- the maximum number of occurrences of the element – single (1) or multiple (N);
- the data type of the element – character string, real, date or abstract class (either a defined set of values or an enumerated code);
- the domain of the element – the allowable set of values (which may be taken from a pre-defined list);
- any other comments.

Where the field is restricted to a small number of pre-determined values, a code list of allowable values for these is given.

Note: These code lists may require extension at some time in the future. Proposals for new code values should be sent to the GEMINI Steering Group for consideration. If accepted, these will be assigned new codes. Existing codes will not be changed, but may be deleted.

## 3 Annex A: Metadata elements

### A.1 Abstract

Metadata element name	Abstract
Definition	brief narrative summary of the dataset
Current Glgateway™ element identifier	4
Current Glgateway™ element name	abstract
Change from current Glgateway™	none
Equivalent ISO 19115 element number	25
Equivalent ISO 19115 element name	MD_Identification.abstract
Comparison with ISO 19115 element	identical
Equivalent e-GMS element	Description
Comparison with e-GMS element	equivalent
Obligation	Mandatory
Occurrence	single
Data type	Character String
Domain	Free text
Comment	The abstract should provide a clear statement of the content of the dataset, and not general background information.

## A.2 Access constraint

Metadata element name	Access constraint
Definition	restrictions and legal prerequisites for the access of the data
Current Glgateway™ element identifier	12
Current Glgateway™ element name	access constraint
Change from current Glgateway™	change to domain
Equivalent ISO 19115 element number	70
Equivalent ISO 19115 element name	MD_LegalConstraints.accessConstraints
Comparison with ISO 19115 element	identical
Equivalent e-GMS element	Rights
Comparison with e-GMS element	equivalent
Obligation	Optional
Occurrence	multiple
Data type	Enumerated list
Domain	Code list from ISO 19115 (MD_RestrictionCode)
Comment	Additional information may be obtained from the distributor.

### MD\_Restriction Code

Name	Domain code	Definition
copyright	001	exclusive right to the publication, production, or sale of the rights to a literary, 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
patent	002	government has granted exclusive right to make, sell, use or license an invention or discovery
patentPending	003	produced or sold information awaiting a patent
trademark	004	a name, symbol, or other device identifying a product, officially registered and legally restricted to the use of the owner or manufacturer
license	005	formal permission to do something
intellectualPropertyRights	006	rights to financial benefit from and control of

		distribution of non-tangible property that is a result of creativity
restricted	007	withheld from general circulation or disclosure
otherRestrictions	008	limitation not listed

### A.3 Additional information source

Metadata element name	Additional information source
Definition	source of further information about the dataset
Current Glgateway™ element identifier	31
Current Glgateway™ element name	additional information source
Change from current Glgateway™	made single valued
Equivalent ISO 19115 element number	46
Equivalent ISO 19115 element name	MD_DataIdentification.supplementalInformation
Comparison with ISO 19115 element	identical
Equivalent e-GMS element	none
Comparison with e-GMS element	-
Obligation	Optional
Occurrence	single
Data type	Character String
Domain	Free text
Comment	This may include a reference (e.g. a URRL) to external information. Information regarding Dataset Association (from current Glgateway™) is included within this.

#### A.4 Alternative title

Metadata element name	Alternative title
Definition	short name, other name, acronym or alternative language title
Current Glgateway™ element identifier	2
Current Glgateway™ element name	alternative title
Change from current Glgateway™	none
Equivalent ISO 19115 element number	361
Equivalent ISO 19115 element name	MD_Identification > CI_Citation.alternateTitle
Comparison with ISO 19115 element	equivalent – slight change to name
Equivalent e-GMS element	Title
Comparison with e-GMS element	Is a refinement of Title
Obligation	Optional
Occurrence	multiple
Data type	CharacterString
Domain	Free text
Comment	

## A.5 Browse graphic

Metadata element name	Browse graphic
Definition	graphic that illustrates the data
Current Glgateway™ element identifier	42
Current Glgateway™ element name	sample of the dataset
Change from current Glgateway™	change of name and definition to match ISO 19115, and change of type from Image or text to free text identifying the browse graphic
Equivalent ISO 19115 element number	31
Equivalent ISO 19115 element name	MD_Identification.graphicOverview > MD_BrowseGraphic
Comparison with ISO 19115 element	ISO 19115 has a class which has been simplified to free text
Equivalent e-GMS element	none
Comparison with e-GMS element	-
Obligation	Optional
Occurrence	multiple
Data type	Character String
Domain	Free text
Comment	This may be the locate of, or a pointer to, a picture or a sample of the data

## A.6 Data format

Metadata element name	Data format
Definition	format in which the digital data can be provided
Current Glgateway™ element identifier	30
Current Glgateway™ element name	data format
Change from current Glgateway™	none
Equivalent ISO 19115 element number	284
Equivalent ISO 19115 element name	MD_Distribution > MD_Format
Comparison with ISO 19115 element	ISO 19115 has this element mandatory and single valued
Equivalent e-GMS element	Format
Comparison with e-GMS element	equivalent
Obligation	Mandatory
Occurrence	multiple
Data type	Character String
Domain	Free text
Comment	

## A.7 Dataset language

Metadata element name	Dataset language	
Definition	language used in dataset	
Current Glgateway™ element identifier	-	
Current Glgateway™ element name	none	
Change from current Glgateway™	new element	
Equivalent ISO 19115 element number	39	
Equivalent ISO 19115 element name	MD_DataIdentification.language	
Comparison with ISO 19115 element	identical	
Equivalent e-GMS element	Language	
Comparison with e-GMS element	Equivalent	
Obligation	Mandatory	
Occurrence	multiple	
Data type	CharacterString	
Domain	Free text	
Comment	This is the written language used for any text in the dataset. It is recommended to select a value from a controlled vocabulary, for example that provided by ISO 639-2 which uses three-letter primary tags with optional subtags. The commonly used values for the UK are:	
	English	ENG
	Welsh	WEL or CYM
	Gallic (Irish)	GLE
	Gaelic (Scottish)	SCO
	Cornish	COR

## A.8 Dataset reference date

Metadata element name	Dataset reference date
Definition	reference date for the dataset
Current Glgateway™ element identifier	-
Current Glgateway™ element name	none
Change from current Glgateway™	new element
Equivalent ISO 19115 element number	362
Equivalent ISO 19115 element name	MD_Identification.citation > CI_Citation.date
Comparison with ISO 19115 element	identical
Equivalent e-GMS element	Date
Comparison with e-GMS element	Equivalent
Obligation	Mandatory
Occurrence	single
Data type	Class
Domain	Date
Comment	Dataset reference date is different from date of data, being a notional date of 'publication' of the dataset, rather than the actual date of the currency of the data. For example, an atlas might have the reference date '2004', but the data will have been collected over a period prior to this. Date formats are defined in ISO 8601.

## A.9 Date

Metadata element name	Date
Definition	date and time for the content of the dataset
Current Glgateway™ element identifier	5
Current Glgateway™ element name	Data capture period
Change from current Glgateway™	currently, Glgateway™ specifies status and date of start and end of data capture period
Equivalent ISO 19115 element number	351
Equivalent ISO 19115 element name	EX_TemporalExtent.extent
Comparison with ISO 19115 element	identical
Equivalent e-GMS element	Coverage, Temporal
Comparison with e-GMS element	equivalent
Obligation	Mandatory
Occurrence	single
Data type	Date
Domain	Duration of period as specified by ISO 8601
Comment	Either date may be to any degree of precision, or may be left blank to indicate uncertainty. Examples are 20010101, 1939-1945, -20030331, 2000-.

## A.10 Date of update of metadata

Metadata element name	Date of update of metadata
Definition	date on which the metadata was last changed
Current Glgateway™ element identifier	41
Current Glgateway™ element name	date of update of metadata
Change from current Glgateway™	identical
Equivalent ISO 19115 element number	9
Equivalent ISO 19115 element name	MD_Metadata.dateStamp
Comparison with ISO 19115 element	Identical
Equivalent e-GMS element	none
Comparison with e-GMS element	
Obligation	Mandatory
Occurrence	single
Data type	Date
Domain	Single date as specified by ISO 8601
Comment	This is the date at which the metadata can be considered current, rather than the dataset itself.

## A.11 Distributor

Metadata element name	Distributor
Definition	details of the organisation(s) from which the resource can be obtained
Current Glgateway™ element identifier	33
Current Glgateway™ element name	supplier
Change from current Glgateway™	change of name
Equivalent ISO 19115 element number	280
Equivalent ISO 19115 element name	MD_Distribution > MD_Distributor.distributorContact
Comparison with ISO 19115 element	Similar high level class
Equivalent e-GMS element	Publisher
Comparison with e-GMS element	equivalent
Obligation	Mandatory
Occurrence	multiple
Data type	Class
Domain	Contains the following elements <ul style="list-style-type: none"> <li>• Contact name or title</li> <li>• Full postal address of distributor</li> <li>• Postcode of distributor</li> <li>• Telephone number of distributor</li> <li>• Facsimile number of distributor</li> <li>• Email address of distributor</li> <li>• Web address of distributor</li> </ul>
Comment	

### Distributor contact title

Metadata element name	Distributor Contact title
Definition	Role or position of the responsible person
Current Glgateway™ element identifier	34
Current Glgateway™ element name	contact name or title
Change from current Glgateway™	modification of name to emphasise role and restriction to contact title
Equivalent ISO 19115 element number	377
Equivalent ISO 19115 element name	MD_Distribution >

	MD_Distributor.distributorContact > CI_ResponsibleParty.positionName
Comparison with ISO 19115 element	identical
Equivalent e-GMS element	Publisher
Comparison with e-GMS element	Publisher includes all details
Obligation	Mandatory
Occurrence	single
Data type	Character String
Domain	Free text
Comment	

#### Name of distributor

Metadata element name	Name of distributor
Definition	name of organisation supplying the dataset
Current Glgateway™ element identifier	35
Current Glgateway™ element name	Full postal address of distributor separation of distributor name from postal address
Change from current Glgateway™	separation of supplier name from postal address
Equivalent ISO 19115 element number	376
Equivalent ISO 19115 element name	MD_Distribution > MD_Distributor.distributorContact > CI_ResponsibleParty.organisationName
Comparison with ISO 19115 element	equivalent
Equivalent e-GMS element	Publisher
Comparison with e-GMS element	Publisher includes all details
Obligation	Mandatory
Occurrence	single
Data type	Character String
Domain	Free Text
Comment	

#### Postal address of distributor

Metadata element name	Postal address of distributor
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Definition	postal address of distributor
Current Glgateway™ element identifier	35, 36
Current Glgateway™ element name	Full Postal Address of Supplier, Postcode of Supplier
Change from current Glgateway™	separation of distributor name from postal address, and inclusion of postcode
Equivalent ISO 19115 element number	389
Equivalent ISO 19115 element name	MD_Distribution > MD_Distributor.distributorContact > CI_ResponsibleParty.contactInfo > CI_Contact.address
Comparison with ISO 19115 element	ISO 19115 has structured address
Equivalent e-GMS element	Publisher
Comparison with e-GMS element	Publisher includes all details
Obligation	Optional
Occurrence	single
Data type	Character String
Domain	Free Text
Comment	

#### Telephone number of distributor

Metadata element name	Telephone number of distributor
Definition	telephone number by which individuals can talk to the organisation or individual
Current Glgateway™ element identifier	37
Current Glgateway™ element name	telephone number of supplier
Change from current Glgateway™	change of name
Equivalent ISO 19115 element number	408
Equivalent ISO 19115 element name	MD_Distribution > MD_Distributor.distributorContact > CI_ResponsibleParty.contactInfo > CI_Contact.phone > CI_Telephone.voice
Comparison with ISO 19115 element	identical
Equivalent e-GMS element	Publisher
Comparison with e-GMS element	Publisher includes all details
Obligation	Optional

Occurrence	single
Data type	Character String
Domain	Free text
Comment	

#### Facsimilie number of distributor

Metadata element name	Facsimilie number of distributor
Definition	facsimilie number which individuals can use to contact the organisation or individual
Current Glgateway™ element identifier	38
Current Glgateway™ element name	facsimilie number of supplier
Change from current Glgateway™	change of name
Equivalent ISO 19115 element number	409
Equivalent ISO 19115 element name	MD_Distribution > MD_Distributor.distributorContact > CI_ResponsibleParty.contactInfo > CI_Contact.phone > CI_Telephone.facsimilie
Comparison with ISO 19115 element	identical
Equivalent e-GMS element	Publisher
Comparison with e-GMS element	Publisher includes all details
Obligation	Optional
Occurrence	single
Data type	Character String
Domain	Free text
Comment	

#### Email address of distributor

Metadata element name	Email address of distributor
Definition	internet email address which individuals can use to contact the organisation or individual
Current Glgateway™ element identifier	39
Current Glgateway™ element name	email address of supplier

Change from current Glgateway™	change of name
Equivalent ISO 19115 element number	386
Equivalent ISO 19115 element name	MD_Distribution > MD_Distributor.distributorContact > CI_ResponsibleParty.contactInfo > CI_Address.electronicMailAddress
Comparison with ISO 19115 element	identical
Equivalent e-GMS element	Publisher
Comparison with e-GMS element	Publisher includes all details
Obligation	Optional
Occurrence	single
Data type	Character String
Domain	Free text
Comment	

Web address of distributor

Metadata element name	Web address of distributor
Definition	distributing organisation's World Wide Web address
Current Glgateway™ element identifier	40
Current Glgateway™ element name	web address of supplier
Change from current Glgateway™	change of name
Equivalent ISO 19115 element number	397
Equivalent ISO 19115 element name	MD_Distribution > MD_Distributor.distributorContact > CI_OnlineResource.linkage
Comparison with ISO 19115 element	identical
Equivalent e-GMS element	Publisher
Comparison with e-GMS element	Publisher includes all details
Obligation	Optional
Occurrence	single
Data type	Character String
Domain	Free text
Comment	

## A.12 East bounding coordinate

Metadata element name	East bounding coordinate
Definition	eastern-most coordinate of the limit of the dataset extent, expressed in longitude in decimal degrees (positive east)
Current Glgateway™ element identifier	20
Current Glgateway™ element name	east bounding coordinates
Change from current Glgateway™	current Glgateway™ allows for values in (National) grid coordinates
Equivalent ISO 19115 element number	345
Equivalent ISO 19115 element name	MD_DataIdentification.geographicBox > EX_GeographicBoundingBox.eastBoundLongitude
Comparison with ISO 19115 element	Identical
Equivalent e-GMS element	Coverage
Comparison with e-GMS element	Coverage includes all aspects of spatial location
Obligation	Mandatory
Occurrence	single
Data type	Real
Domain	- 180.0 <= value <= 180.0
Comment	

### A.13 Extent

Metadata element name	Extent	
Definition	extent of dataset by subdivision of country	
Current Glgateway™ element identifier	24, 25, 26	
Current Glgateway™ element name	national extent, administrative area, Postcode district	
Change from current Glgateway™	combination of three extent elements, generalised to allow for extent outside the United Kingdom	
Equivalent ISO 19115 element number	349	
Equivalent ISO 19115 element name	EX_GeographicDescription.geographicIdentifier > MD_Identifier.code	
Comparison with ISO 19115 element	identical	
Equivalent e-GMS element	Coverage	
Comparison with e-GMS element	Coverage includes all aspects of spatial location	
Obligation	Mandatory	
Occurrence	multiple	
Data type	Enumerated class	
Domain	Code list as defined in ISO 3166. Codes for higher level areas in United Kingdom as follows:	
	<b>Code</b>	<b>Area</b>
	CHA	Channel Islands
	ENG	England
	IOM	Isle of Man
	NIR	Northern Ireland
	SCT	Scotland
	WLS	Wales
	EAW	England and Wales
	GBN	Great Britain
UKM	United Kingdom	
Comment	See <a href="http://www.iso.org/iso/en/prods-services/iso3166ma/index.html">www.iso.org/iso/en/prods-services/iso3166ma/index.html</a> for full country	

	codes list
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#### A.14 Frequency of update

Metadata element name	Frequency of update
Definition	frequency with which modifications and deletions are made to the data after it is first produced
Current Glgateway™ element identifier	10
Current Glgateway™ element name	frequency of update
Change from current Glgateway™	equivalent – modification to code list, and made mandatory
Equivalent ISO 19115 element number	143
Equivalent ISO 19115 element name	MD_MaintenanceInformation.maintenanceAndUpdateFrequency
Comparison with ISO 19115 element	identical
Equivalent e-GMS element	Updating frequency
Comparison with e-GMS element	Is refinement of Date
Obligation	Mandatory
Occurrence	single
Data type	Enumerated list
Domain	Code list from ISO 19115 (MD_MaintenanceFrequencyCode)
Comment	

#### MD\_MaintenanceFrequencyCode

Name	Domain code	Definition
continual	001	data is repeatedly and frequently updated
daily	002	data is updated each day
weekly	003	data is updated on a weekly basis
fortnightly	004	data is updated every two weeks
monthly	005	data is updated each month
quarterly	006	data is updated every three months
biannually	007	data is updated twice each year
annually	008	data is updated every year
asNeeded	009	data is updated as deemed necessary
irregular	010	data is updated in intervals that are uneven in duration
notPlanned	011	there are no plans to update the data

unknown	012	frequency of maintenance for the data is not known
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### A.15 Lineage

Metadata element name	Lineage
Definition	information about the events or source data used in the construction of the dataset
Current Glgateway™ element identifier	-
Current Glgateway™ element name	none
Change from current Glgateway™	new element
Equivalent ISO 19115 element number	83
Equivalent ISO 19115 element name	DQ_DataQuality.lineage > LI_Lineage.statement
Comparison with ISO 19115 element	identical
Equivalent e-GMS element	none
Comparison with e-GMS element	-
Obligation	Optional
Occurrence	single
Data type	Character String
Domain	Free Text
Comment	

## A.16 Metadata Standard Name

Metadata element name	Metadata standard name
Definition	name of the metadata standard (including profile name) used
Current Glgateway™ element identifier	-
Current Glgateway™ element name	none
Change from current Glgateway™	new element
Equivalent ISO 19115 element number	10
Equivalent ISO 19115 element name	MD_Metadata.metadataStandardName
Comparison with ISO 19115 element	identical
Equivalent e-GMS element	-
Comparison with e-GMS element	not included in e-GMS
Obligation	Optional
Occurrence	single
Data type	CharacterString
Domain	Free text
Comment	The purpose of this element is to record the metadata standard followed when creating the metadata. This will be important when metadata is passed from one metadata system to another.

## A.17 Metadata Standard Version

Metadata element name	Metadata standard version
Definition	version (profile) of the metadata standard used
Current Glgateway™ element identifier	-
Current Glgateway™ element name	none
Change from current Glgateway™	new element
Equivalent ISO 19115 element number	11
Equivalent ISO 19115 element name	MD_Metadata.metadataStandardVersion
Comparison with ISO 19115 element	identical
Equivalent e-GMS element	-
Comparison with e-GMS element	not included in e-GMS
Obligation	Optional
Occurrence	single
Data type	CharacterString
Domain	Free text
Comment	The purpose of this element is to record the metadata standard followed when creating the metadata. This will be important when metadata is passed from one metadata system to another.

## A.18 North bounding coordinate

Metadata element name	North bounding coordinate
Definition	northern-most coordinate of the limit of the dataset extent, expressed in longitude in decimal degrees (positive north)
Current Glgateway™ element identifier	21
Current Glgateway™ element name	North bounding coordinates
Change from current Glgateway™	current Glgateway™ allows for values in (National) grid coordinates
Equivalent ISO 19115 element number	347
Equivalent ISO 19115 element name	MD_DataIdentification.geographicBox > EX_GeographicBoundingBox.northBoundLatitude
Comparison with ISO 19115 element	identical
Equivalent e-GMS element	Coverage
Comparison with e-GMS element	Coverage includes all aspects of spatial location
Obligation	Mandatory
Occurrence	single
Data type	Real
Domain	- 90.0 <= value <= 90.0
Comment	The value of the North bounding coordinate must be greater than the value of the South bounding coordinate

## A.19 Online resource

Metadata element name	Online resource
Definition	information about the online sources from which the resource can be obtained
Current Glgateway™ element identifier	-
Current Glgateway™ element name	none
Change from current Glgateway™	new element
Equivalent ISO 19115 element number	277
Equivalent ISO 19115 element name	MD_Distribution > MD_DigitalTransferOption.onLine > CI_OnlineResource
Comparison with ISO 19115 element	identical
Equivalent e-GMS element	none
Comparison with e-GMS element	-
Obligation	Optional
Occurrence	multiple
Data type	Character String
Domain	Free text
Comment	may be a URL

## A.20 Originator

Metadata element name	Originator
Definition	person or organisation having primary responsibility for the intellectual content of the data
Current Glgateway™ element identifier	3
Current Glgateway™ element name	originator
Change from current Glgateway™	none
Equivalent ISO 19115 element number	29
Equivalent ISO 19115 element name	MD_Identification.pointOfContact
Comparison with ISO 19115 element	equivalent
Equivalent e-GMS element	Creator
Comparison with e-GMS element	equivalent
Obligation	Optional
Occurrence	multiple
Data type	Character String
Domain	Free text
Comment	

## A.21 Presentation type

Metadata element name	Presentation type
Definition	mode in which the data is represented
Current Glgateway™ element identifier	11
Current Glgateway™ element name	presentation type
Change from current Glgateway™	extended code list from ISO 19115
Equivalent ISO 19115 element number	368
Equivalent ISO 19115 element name	MD_Identification.citation > CI_Citation.PresentationForm
Comparison with ISO 19115 element	identical
Equivalent e-GMS element	Format
Comparison with e-GMS element	equivalent
Obligation	Optional
Occurrence	multiple
Data type	Enumerated list
Domain	Code list from ISO 19115 CI_PresentationFormCode
Comment	

### CI\_PresentationFormCode

Name	Domain code	Definition
documentDigital	001	digital representation of a primarily textual item (can contain illustrations also)
documentHardcopy	002	representation of a primarily textual item (can contain illustrations also) on paper, photographic material, or other media
imageDigital	003	likeness of natural or man-made features, objects, and activities acquired through the sensing of visual or any other segment of the electromagnetic spectrum by sensors, such as thermal infrared, and high resolution radar and stored in digital format
imageHardcopy	004	likeness of natural or man-made features, objects, and activities acquired through the sensing of visual or any other segment of the electromagnetic spectrum by sensors, such as thermal infrared, and high resolution radar and reproduced on paper, photographic material, or

Name	Domain code	Definition
		other media for use directly by the human user
mapDigital	005	map represented in raster or vector form
mapHardcopy	006	map printed on paper, photographic material, or other media for use directly by the human user
modelDigital	007	multi-dimensional digital representation of a feature, process, etc.
modelHardcopy	008	3-dimensional, physical model
profileDigital	009	vertical cross-section in digital form
profileHardcopy	010	vertical cross-section printed on paper, etc.
tableDigital	011	digital representation of facts or figures systematically displayed, especially in columns
tableHardcopy	012	representation of facts or figures systematically displayed, especially in columns, printed on paper, photographic material, or other media
videoDigital	013	digital video recording
videoHardcopy	014	video recording on film

## A.22 South bounding coordinate

Metadata element name	South bounding coordinate
Definition	southern-most coordinate of the limit of the dataset extent, expressed in longitude in decimal degrees (positive north)
Current Glgateway™ element identifier	22
Current Glgateway™ element name	South bounding coordinates
Change from current Glgateway™	current Glgateway™ allows for values in (National) grid coordinates
Equivalent ISO 19115 element number	346
Equivalent ISO 19115 element name	MD_DataIdentification.geographicBox > EX_GeographicBoundingBox.southtBoundLatitude
Comparison with ISO 19115 element	identical
Equivalent e-GMS element	Coverage
Comparison with e-GMS element	Coverage includes all aspects of spatial location
Obligation	Mandatory
Occurrence	single
Data type	Real
Domain	- 90.0 <= value <= 90.0
Comment	The value of the South bounding coordinate must be less than the value of the North bounding coordinate

### A.23 Spatial reference system

Metadata element name	Spatial reference system
Definition	Name or description of the system of spatial referencing, whether by coordinates or geographic identifiers, used in the dataset
Current Glgateway™ element identifier	27
Current Glgateway™ element name	spatial reference system
Change from current Glgateway™	Change to code from list rather free text
Equivalent ISO 19115 element number	187
Equivalent ISO 19115 element name	MD_ReferenceSystem.referenceSystemIdentifier
Comparison with ISO 19115 element	Equivalent – 19115 has class comprising code list identifier and code
Equivalent e-GMS element	none
Comparison with e-GMS element	-
Obligation	Mandatory
Occurrence	single
Data type	Class
Domain	Code list SpatialReferenceSystem
Comment	

#### SpatialReferenceSystem

Domain code	Definition
001	National Grid of Great Britain
002	Irish Grid
003	Irish Transverse Mercator
004	WGS84
011	postcode
012	parish
013	ward
014	electoral constituency
015	census area
016	local authority (county/unitary/district/borough)
017	region
018	country
019	Health Authority area

<b>Domain code</b>	<b>Definition</b>
020	travel-to-work area
021	other area type

## A.24 Spatial representation type

Metadata element name	Spatial representation type
Definition	method used to represent the spatial aspect of the data
Current Glgateway™ element identifier	-
Current Glgateway™ element name	none
Change from current Glgateway™	new element
Equivalent ISO 19115 element number	37
Equivalent ISO 19115 element name	MD_DataIdentification.spatialRepresentationType
Comparison with ISO 19115 element	identical
Equivalent e-GMS element	none
Comparison with e-GMS element	-
Obligation	Optional
Occurrence	multiple
Data type	Enumerated class
Domain	Code list MD_SpatialRepresentationTypeCode
Comment	

### MD\_SpatialRepresentationTypeCode

	Name	Domain code	Definition
1	vector	001	vector data is used to represent geographic data
2	grid	002	grid data is used to represent geographic data
3	textTable	003	textual or tabular data is used to represent geographic data
4	tin	004	triangulated irregular network
5	stereoModel	005	three-dimensional view formed by the intersecting homologous rays of an overlapping pair of images
6	video	006	scene from a video recording

## A.25 Spatial resolution

Metadata element name	Spatial resolution
Definition	measure of the granularity of the data (in metres)
Current Glgateway™ element identifier	28
Current Glgateway™ element name	level of spatial detail
Change from current Glgateway™	change name from level of spatial detail to spatial resolution to be consistent with ISO 19115 and modify definition
Equivalent ISO 19115 element number	61
Equivalent ISO 19115 element name	MD_DataIdentification.spatialresolution > spatial resolution.distance
Comparison with ISO 19115 element	equivalent
Equivalent e-GMS element	none
Comparison with e-GMS element	-
Obligation	Optional
Occurrence	single
Data type	Real
Domain	Real > 0
Comment	This is equivalent to the ground sample distance. For data captured in the field, it will be the precision to which the data is captured. For image data, it will be the resolution of the image. For data taken from maps, it will be the positional accuracy of the map.

## A.26 Subject

Metadata element name	Subject
Definition	topic of the content of the dataset
Current Glgateway™ element identifier	-
Current Glgateway™ element name	none
Change from current Glgateway™	new element
Equivalent ISO 19115 element number	53
Equivalent ISO 19115 element name	MD_Identification > MD_Keywords.keyword
Comparison with ISO 19115 element	equivalent
Equivalent e-GMS element	Subject
Comparison with e-GMS element	equivalent
Obligation	Mandatory
Occurrence	Multiple
Data type	CharacterString
Domain	Free text
Comment	<p>For a list of possible subject categories, see the GCL (Government Categories List) on the GovTalk web site (<a href="http://www.govtalk.gov.uk/schemasstandards/gcl.asp">www.govtalk.gov.uk/schemasstandards/gcl.asp</a>). This should be used by government departments.</p> <p>This element is similar to Topic, which has a coded list of high-level categories, whereas Subject allows a greater range of detail.</p>

## A.27 Supply media

Metadata element name	Supply media
Definition	type of media in which the data can be supplied
Current Glgateway™ element identifier	29
Current Glgateway™ element name	supply media
Change from current Glgateway™	more extensive code list from ISO 19115
Equivalent ISO 19115 element number	292
Equivalent ISO 19115 element name	MD_Distribution.offline > MD_Medium.name
Comparison with ISO 19115 element	-
Equivalent e-GMS element	none
Comparison with e-GMS element	-
Obligation	Optional
Occurrence	multiple
Data type	Enumerated list
Domain	Code list from ISO 19115 (MD_MediumNameCode)
Comment	

### MD\_MediumNameCode

Name	Domain code	Definition
cdRom	001	read-only optical disk
dvd	002	digital versatile disk
dvdRom	003	digital versatile disk, read only
3halfInchFloppy	004	3.5 inch magnetic disk
5quarterInchFloppy	005	5.25 inch magnetic disk
7trackTape	006	7 track magnetic tape
9trackTape	007	9 track magnetic tape
3480Cartridge	008	3480 cartridge tape drive
3490Cartridge	009	3490 cartridge tape drive
3580Cartridge	010	3580 cartridge tape drive
4mmCartridgeTape	011	4 millimetre magnetic tape
8mmCartridgeTape	012	8 millimetre magnetic tape
1quarterInchCartridgeTape	013	0.25 inch magnetic tape
digitalLinearTape	014	half inch cartridge streaming tape drive
onLine	015	direct computer linkage
satellite	016	linkage through a satellite communication system
telephoneLink	017	communication through a telephone network

<b>Name</b>	<b>Domain code</b>	<b>Definition</b>
hardcopy	018	pamphlet or leaflet giving descriptive information

## A.28 Title

Metadata element name	Title
Definition	name given to the dataset
Current Glgateway™ element identifier	1
Current Glgateway™ element name	title
Change from current Glgateway™	none
Equivalent ISO 19115 element number	360
Equivalent ISO 19115 element name	MD_DataIdentification.citation > CI_Citation.title
Comparison with ISO 19115 element	identical
Equivalent e-GMS element	Title
Comparison with e-GMS element	Equivalent
Obligation	Mandatory
Occurrence	single
Data type	CharacterString
Domain	Free text
Comment	

## A.29 Topic category

Metadata element name	Topic category
Definition	main theme(s) of the dataset
Current Glgateway™ element identifier	14
Current Glgateway™ element name	keywords
Change from current Glgateway™	Change name from Keywords to Topic category, which is equivalent element in ISO 19115. Modified topic code list from ISO 19115 has some categories combined
Equivalent ISO 19115 element number	41
Equivalent ISO 19115 element name	MD_DataIdentification.topicCategory
Comparison with ISO 19115 element	identical
Equivalent e-GMS element	Subject
Comparison with e-GMS element	Similar, but e-GMS allows a wider range of keywords
Obligation	Mandatory
Occurrence	multiple
Data type	Class
Domain	Code list MD_TopicCategoryCode from ISO 19115
Comment	For greater detail of subject topic, use element Subject

### MD\_Topic Category

Name	Domain code	Definition
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

Name	Domain code	Definition
		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, hydrogeology, erosion
health	009	health, health services, human ecology, and safety Examples: disease and illness, factors affecting health, hygiene, substance abuse, mental and physical health, health services
imageryBaseMapsEarthCover	010	base maps Examples: land cover, topographic maps, imagery, unclassified images, annotations
intelligenceMilitary	011	military bases, structures, activities Examples: barracks, training grounds, military transportation, information collection
inlandWaters	012	inland water features, drainage

Name	Domain code	Definition
		systems and their characteristics Examples: rivers and glaciers, salt lakes, water utilization plans, dams, currents, floods, water quality, hydrographic charts
location	013	positional information and services Examples: addresses, geodetic networks, control points, postal zones and services, place names
oceans	014	features and characteristics of salt water bodies (excluding inland waters) Examples: tides, tidal waves, coastal information, reefs
planningCadastre	015	information used for appropriate actions for future use of the land Examples: land use maps, zoning maps, cadastral surveys, land ownership
society	016	characteristics of society and cultures Examples: settlements, anthropology, archaeology, education, traditional beliefs, manners and customs, demographic data, recreational areas and activities, social impact assessments, crime and justice, census information
structure	017	man-made construction Examples: buildings, museums, churches, factories, housing, monuments, shops, towers
transportation	018	means and aids for conveying persons and/or goods Examples: roads, airports/airstrips, shipping routes, tunnels, nautical charts, vehicle or vessel location, aeronautical charts, railways
utilitiesCommunication	019	energy, water and waste systems and communications infrastructure and services Examples: hydroelectricity, geothermal, solar and nuclear sources of energy, water purification and distribution, sewage collection and disposal, electricity and gas distribution, data communication, telecommunication, radio, communication networks

### A.30 Use constraints

Metadata element name	Use constraint
Definition	Restrictions and legal restraints on using the data
Current Glgateway™ element identifier	13
Current Glgateway™ element name	use constraint
Change from current Glgateway™	Glgateway™ currently has free text rather than an enumerated list
Equivalent ISO 19115 element number	71
Equivalent ISO 19115 element name	MD_LegalConstraints.useConstraints
Comparison with ISO 19115 element	Identical
Equivalent e-GMS element	Rights
Comparison with e-GMS element	Rights also includes access constraints
Obligation	Optional
Occurrence	multiple
Data type	Enumerated list
Domain	Code list from ISO 19115 (MD_RestrictionCode)
Comment	

#### MD\_Restriction Code

Name	Domain code	Definition
copyright	001	exclusive right to the publication, production, or sale of the rights to a literary, 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
patent	002	government has granted exclusive right to make, sell, use or license an invention or discovery
patentPending	003	produced or sold information awaiting a patent
trademark	004	a name, symbol, or other device identifying a product, officially registered and legally restricted to the use of the owner or manufacturer
license	005	formal permission to do something
intellectualPropertyRights	006	rights to financial benefit from and control of distribution of non-tangible property that is a result of creativity

<b>Name</b>	<b>Domain code</b>	<b>Definition</b>
restricted	007	withheld from general circulation or disclosure
otherRestrictions	008	limitation not listed

### A.31 Vertical extent information

Metadata element name	vertical extent information
Definition	vertical domain of the dataset
Current Glgateway™ element identifier	-
Current Glgateway™ element name	none
Change from current Glgateway™	new element
Equivalent ISO 19115 element number	354
Equivalent ISO 19115 element name	MD_Metadata > MD_DataIdentification.extent > EX_Extent > EX_VerticalExtent
Comparison with ISO 19115 element	identical
Equivalent e-GMS element	none
Comparison with e-GMS element	-
Obligation	Optional
Occurrence	multiple
Data type	Class
Domain	EX_VerticalExtent, see below
Comment	This information is required for above- and below-ground data.

EX\_VerticalExtent:

Element name	Element Definition	Obligation	Maximum Occurrence	Data Type	Domain
minimum value	lowest vertical extent contained in the dataset	M	1	Real	Real
maximum value	highest vertical extent contained in the dataset	M	1	Real	Real
unit of measure	vertical units used for vertical extent	M	1	Character String	Free Text
vertical datum	the origin from which the elevation values are measured	M	1	Character String	Free Text

### A.32 West bounding coordinate

Metadata element name	West bounding coordinate
Definition	Western-most coordinate of the limit of the dataset extent, expressed in longitude in decimal degrees (positive east)
Current Glgateway™ element identifier	19
Current Glgateway™ element name	west bounding coordinates
Change from current Glgateway™	Current Glgateway™ allows for values in (National) grid coordinates
Equivalent ISO 19115 element number	344
Equivalent ISO 19115 element name	MD_DataIdentification.geographicBox > EX_GeographicBoundingBox.westBoundLongitude
Comparison with ISO 19115 element	identical
Equivalent e-GMS element	Coverage
Comparison with e-GMS element	Coverage includes all aspects of spatial location
Obligation	Mandatory
Occurrence	single
Data type	Real
Domain	- 180.0 <= value <= 180.0
Comment	

## 4 Annex B: Changes from Glgateway™ (Informative)

The main modifications from the current Glgateway™ metadata set are as follows:

- i) Replace 'Data capture period' with a single field that may be either an instant or a range.
- ii) Change the domain of the 'Bounding rectangle' to be latitude/longitude.
- iii) Change name of element 'Keywords' to 'Topic category'.
- iv) Modify the domain for National Extent to use a code for the country as defined in ISO 3166 *Codes for the representation of names of countries and their subdivisions*.
- v) Modify the domain for 'Spatial Reference System' to use a code.
- vi) Modify Level of 'Spatial detail' to be 'Spatial resolution' as defined in ISO 19115.
- vii) Change 'Contact name or title' to 'Contact title'.
- viii) Change name of element 'Supplier' to 'Distributor'
- ix) Separate 'Full postal address of distributor' into two elements 'Name of distributor' and 'Postal address of distributor'.
- x) Change the element 'Sample' of the dataset to browse graphic and change its data type to free text.
- xi) Replace code lists with comparable code lists from ISO19115.

The following elements are to be deleted from the Glgateway™ element set:

6. Status of start date of capture – replaced by single date element
7. Start date of capture – replaced by single date element
8. Status of end date of capture – replaced by single date element
9. End date of capture – replaced by single date element
16. Spatial referencing by coordinates – no data entry required (heading only)
17. System of spatial referencing by coordinates – used only for bounding box, which should now be described in lat/long
18. Bounding rectangle - no data entry required (heading only)
23. Spatial referencing by geographic identifiers – no data entry required (heading only)
24. National extent - combined into a single element extent
25. Administrative area extent - combined into a single element extent
26. Postcode district extent - combined into a single element extent
32. Dataset Association – included within Additional Information Source (This element is not included in ISO 19115, but has some use in Glgateway™)
36. Postcode of Distributor – included within Postal Address of Distributor

The following elements are added to the metadata set:

- Dataset reference date,
- Dataset language,
- Lineage,
- Metadata standard name,
- Metadata standard version,
- Online resource,
- Spatial representation type,

- Subject
- Vertical extent.

Note: As part of the implementation programme, a crosswalk is required to migrate data from other formats into Glgateway™.

## 5 Annex C: References

ISO 639-2 Codes for the Representation of Names of Languages Part 2: Alpha-3 Code

ISO 3166 Codes for the representation of names of countries and their subdivisions – Part 2 Country sub-division code

ISO 8601: 2000 Data elements and interchange formats – Information interchange – Representation of dates and times

ISO 19106 Geographic information – Profiles

e-Government Metadata Standard. UK Cabinet Office (see [www.govtalk.gov.uk/metadata.asp](http://www.govtalk.gov.uk/metadata.asp))

GCL (Government Codes List). UK Cabinet Office (see [www.govtalk.gov.uk/schemastandards/gcl/asp](http://www.govtalk.gov.uk/schemastandards/gcl/asp))

## 5 Annex D: Revision history

<b>Version</b>	<b>Date</b>	<b>Author</b>	<b>Status</b>
1	2003-12-21	R Walker	Draft for public consultation
2	2004-03-05	R Walker	Incorporation of comments from public consultation
2 rev1	2004-04-01	R Walker	Addition of examples
2 rev2	2004-09-04	R Walker	Final Draft
1.0	2004-10-12	F Ahmed	Final Version

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