

New Zealand Government

Geospatial Metadata Standard

v.1.2

DRAFT

Part 2 – Profile Guidelines

*Prepared by:
Geospatial Metadata Project Team
June 2004*

Version Control

Version	Date	Type of Change(s)	Who
0.1	28/03/2003	initial draft	Neil Pullar, Cadastre Ltd
0.2	1/4/2003	Add UML diagrams	Neil Pullar, Cadastre Ltd
0.3	08/04/2003	Add outlines of element descriptions	Neil Pullar, Cadastre Ltd
0.4	09/04/2003	Complete element descriptions. Add conformance section and XML schema links.	Neil Pullar, Cadastre Ltd
0.5	15/04/2003	Split to two parts (Profile Definition & Profile Guide). Add hyperlinks to XML definitions	Neil Pullar, Cadastre Ltd
0.6	24/04/2003	Creating & Maintaining Metadata Sections. Add XML examples section	Neil Pullar, Cadastre Ltd
0.7	02/05/2003	QA refinements	Neil Pullar, Cadastre Ltd
0.8	10/06/2003	QA refinements, document restructure and project teams comments added.	Sarah Zimmerman, Baz Parker, LINZ
0.9	10/06/2003	Pre-publishing content review.	Sarah Zimmerman, Baz Parker, LINZ
1.0	20/01/2004	Revision to incorporate latest (v0.8) version of iso19139 and to ensure alignment with metadata component ESA Core Data Specification. These changes are summarized in NZGMS Change Control	Neil Pullar, Cadastre Ltd
1.1	05/04/2004	Corrections from feedback (add Aggregate Element)	Neil Pullar, Cadastre Ltd
1.2	10/06/2004	Corrections to all hyperlinks for PDF	Sarah Zimmerman, LINZ

Profile Guide

Geospatial Metadata Profile

Table of Contents

1. The Purpose of the Profile Guide.....	5
Contact Details	5
2. Use of Profile Guide	5
3. Metadata Introduced	8
4. Creating Metadata.....	14
Logistics of Metadata.....	20
5. Maintaining Metadata.....	21
6. Metadata Example	22
7. ISO 19115 & the NZ Government Metadata Modules	34
8. The Metadata Element Descriptions	39
Metadata Identification Module.....	39
The Metadata File Identifier Element.....	39
The Metadata Language Element	41
The Metadata Character Set Element.....	42
The Metadata Parent Resource Identifier Element	43
The Metadata Contact Organisation Element	44
The Metadata Contact Position Element.....	45
The Metadata Email Contact Element.....	46
The Metadata Contact Role Element	47
The Metadata Date Element.....	48
The Metadata Standard Element.....	49
The Metadata Standard Version Element	50
The Resource Identification Module	51
The Resource Title Element.....	51
The Resource Alternate Title Element.....	52
The Resource Version Element.....	53
The Resource Identifier Element.....	54
The Resource ISBN Element	55
The Resource ISSN Element	56
The Resource Citation Date Element.....	57
The Resource Presentation Form Element	58
The Abstract Element	59
The Purpose Element.....	60
The Mandate Reference Element.....	61
The Mandate Type Element	62
The Resource Status Element.....	63
The Audience Element	64
The Resource Contact Organisation Element.....	65
The Resource Contact Position Element	66
The Resource Voice Phone Contact Element.....	67
The Resource Fax Contact Element	68
The Resource Mail Address Contact Element	69
The Resource Email Contact Element	70
The Resource URL Contact Element	71
The Resource Contact Role Element.....	72
The Keyword Element	73
The Resource Language Element.....	76
The Resource Character Set Element.....	77
The Topic Category Element.....	78
The Spatial Representation Type Element.....	79
The Resource Scale Element.....	80
The Resource Spatial Resolution Element.....	81
The Distribution Format Name Element	82
The Distribution Format Version Element	83

Use of Profile Guide

Distributor Contact Organisation Element	84
Distributor Contact Position Element.....	85
Distributor Voice Phone Contact Element	86
Distributor Fax Contact Element.....	87
Distributor Mail Address Contact Element.....	88
Distributor Email Contact Element.....	89
Distributor Role Element.....	90
Resource Fees Element	91
Distribution Order Instructions Element.....	92
Distribution Turnaround Element.....	93
Distributor URL Contact Element	94
Distribution Means Element.....	95
The Aggregate Element.....	96
The Spatial and Extents Module	97
The Spatial Reference System Element	97
The Spatial Topology Element	98
The Spatial Grid Dimension Total Element	99
The Spatial Grid Dimension Name Element.....	100
The Spatial Grid Dimension Size Element	101
The Spatial Grid Geometry Element.....	102
The Spatial Grid Parameter Availability Element	103
The Resource Extent Type Element.....	104
The Resource Geographic Box Element.....	105
The Resource Temporal Extent Element	106
The Resource Vertical Extent Element.....	108
The Resource Geographic Identifier Element	109
The Data Quality Module	111
The Data Quality Scope Level Element.....	111
The Lineage Statement Element.....	112
Process Description Element	113
Process Rationale Element	114
Process Date Element.....	115
Processor Organisation Element.....	117
The Processor Organisation Role Element	118
The Source Scale Element.....	119
The Source Spatial Reference System Element	120
The Source Title Element	121
The Source Citation Date Element.....	122
The Source Version Element.....	123
The Source Organisation Element	124
The Source Organisation Role Element.....	125
The Source Geographic Identifier Element	126
The Data Characteristics Module.....	128
The Resource Format Name Element.....	128
The Resource Format Version Element	129
The Use Description Element.....	130
The User Limitation Element	131
The User Organisation Element	132
The User Organisation Contact Position Element.....	133
The User Organisation Email Contact Element.....	134
The User Organisation Role Element.....	135
The Use Limitation Element	136
The Access Constraints Element	137
The Use Constraint Type Element	138
The Use Constraint Notice Element	139
9. XML Examples	140
10. Glossary	141
11. Change History	142

Geospatial Metadata Profile

1. The Purpose of the Profile Guide

The purpose of the profile guide is to illustrate how a metadata record / instance should be created for a given geospatial dataset. This guide will be reviewed regularly based on comments and feedback from user community. As part of an ongoing communication / education program it is anticipated that additional examples of completed geospatial metadata data records compliant with the profile will be made available.

Contact Details

Contact the Geospatial Metadata Standards team to provide feedback via:

Attn: Geospatial Metadata Standards (NTHA)
Land Information New Zealand
Private Box 5501
Wellington

Ph: 04 460 0110
Fax: 04 472 2244

Email:

info@linz.govt.nz

Website:

<http://www.linz.govt.nz/rcs/linz/pub/web/root/core/Topography/ProjectsAndProgrammes/geospatialmetadata/index.jsp>

2. Use of Profile Guide

Overview

The purpose of this document is to provide a guide to people wanting to use the New Zealand Government Geospatial Metadata Standard. This document is to help New Zealand Government Agencies to effectively comprehend metadata.

The standard is a profile of the international geospatial metadata standard, ISO 19115, and defines a geospatial metadata standard applicable for the gathering, describing and storing of geospatial metadata information for New Zealand Government agencies. The aim of the metadata standard is to facilitate inter-operability and encourage organisations to take a whole of government approach by making it easier to find, use and share geospatial information.

What the profile does:

- Details a format for creating a metadata record for a geospatial data set.

What it doesn't do:

- Doesn't specify how to collect metadata or organise your metadata:
- Doesn't impose a standard for data transfer:

Use of Profile Guide

- Doesn't specify how to present or communicate metadata:

The Standard is not fixed / finished

It is under constant review and revision as geospatial data creators and stewards use the standard to create metadata describing their data resources. This standard will enable government agencies to locate and access available metadata resources and implement metadata creation within individual agencies.

Relationship to other Parts of the Profile Description

This document is the second component of an overall description of this metadata profile. The first part defines the metadata profile. This second component is a guide and reference source for the creation and maintenance of metadata conforming this profile.

Audience

These geospatial metadata guidelines are a technical document. It is aimed at an audience of geospatial data managers and software developers. Some knowledge of the Unified Modelling Language (UML) is necessary when reading and interpreting this profile.

Structure of Profile Guide

The guide has 7 sections:

- 1 An Introduction to Metadata and this profile;
- 2 An overview to the process of creating metadata in terms of this profile;
- 3 An example of a completed Metadata Description in terms of this profile;
- 4 An outline of metadata maintenance requirements
- 5 A Comparison between the New Zealand Geospatial Metadata Profile and ISO 19115 (in table-form)
- 6 Detailed descriptions of the 125 metadata elements comprising this Metadata Profile including definitions, corresponding metadata elements in the ISO 19115 and NZGLS metadata standards, encoding systems and refinements associated with each metadata element, the elements obligation status (Mandatory or Conditional), the purpose of each element, any default values for each element, the scope and how to interpret each element and an example for each element. It follows a similar format to the NZGLS Metadata Standard and Reference Manual¹ and some of the descriptions are sourced directly from this other manual, where appropriate.

These descriptions would help to answer questions about individual elements and in particular how to populate the element with an appropriate value or determine its corresponding NZGLS element.
- 7 Some XML Examples of stylesheets and an XML instance document for a New Zealand metadata description (the Transit New Zealand Statehighway Centreline dataset)

¹ <http://www.e-government.govt.nz/docs/nzglsv2/>

References

- “Technical Paper No. 73 Environmental Metadata Framework”, MFE, Sept '02
<http://www.environment.govt.nz/info/tech-reports/tr-73-info-management.pdf>
- “ANZLIC Metadata Guidelines Version 2”, ANZLIC, Feb '01
(<http://www.anzlic.org.au/asdi/metaelem.htm>)
- “International Standard ISO 19115 Geographic information – Metadata”, ISO/TC 211, May '03
- “Working Draft 19139 Geographic information – Metadata Implementation Specification”, ISO/TC 211, Nov '03
- “Text for IS 19106 Geographic information – Profiles”, ISO/TC 211, Sept '03
- The New Zealand Government Locator Service (NZGLS) Metadata Standard and Reference Manual Version 2.0, E-Government Unit – SSC, '02
<http://www.e-government.govt.nz/docs/nzqlsv2/>
- NZGLS thesauri (FONZ and SONZ)
<http://www.e-government.govt.nz/nzqls/thesauri/downloads.asp>

3. Metadata Introduced²

What is metadata?

Metadata are units of information about information. They are commonly used to provide descriptive information about the content, context and characteristics of data. Metadata can help to keep track of changes in data. It can also make other potential uses of the data aware of its existence and possible applications.

The most obvious example of metadata is a library catalogue system which provides a common set of summary information for books, journals and other library resources. Metadata deals with the what, when, who and how of data. Metadata needs to be collected at different levels of detail to satisfy different purposes.

Metadata doesn't just describe data, it tracks changes to it. In a networked environment, information may gain value as it changes hands but only if this history is known to the current holder. Metadata maintains the value of data for both the creator and the subsequent users by assuring its continued use.

Metadata for data discovery purposes represents the minimum amount of information required to convey to the inquirer the nature and content of the data resource. This falls into broad categories that answer the "what, when, who, where and how" questions about spatial data:

- *What* – title and description of the data set.
- *When* – when the data set was created and the update cycle, if any.
- *Who* – data set originator or creator and supplier.
- *Where* – the geographical extent of the data set based on lat / long coordinates, geographical names or administrative areas.
- *How* – how to obtain more information about the data set, how to order the data set, available formats, access constraints etc.

The New Zealand Geospatial Metadata Profile has been developed to promote a consistent standard of description for 125 metadata elements that are generally common for all types of data. The metadata elements are designed to satisfy the needs of data discovery, fitness for purpose and define data use. Thus the metadata can be used to identify what data exists, to describe its content and geographic extent, to enable potential users to assess the suitability of the data for various purposes, and to indicate where more information about the data can be obtained. As well as satisfying these needs, the geospatial metadata elements also form the basis for agencies to develop additional metadata elements to provide more detailed metadata to assist the sharing and management of data.

Geospatial metadata

Geospatial metadata incorporates the additional element of "where". A map legend is a common example of spatial metadata that provides information about the publisher and publication date, scale, accuracy, datum and other characteristics of the map. Metadata is also commonly used at the level of a series of printed maps. In a similar way, metadata is also applied to digital spatial data at the levels of series of datasets, individual datasets, tiles of datasets or even down to the feature level.

Such a standard will provide a basis from which agencies and data custodians will be able to further develop individual profiles or sub standards to meet their own detailed specific needs, particularly for data management within the agency. Standardisation and consistency are

² This explanation is largely based on a similar description contained in "Environmental Reporting Technical Paper No 73 Information Management. Environmental Metadata Framework", Ministry for the Environment (2002)

Use of Profile Guide

necessary to ensure that comparisons can be made by data users about the suitability of data from different sources.

Geospatial metadata discovery tools enable the searcher to find information through a spatial (map) interface rather than by using a text search alone.

Costs and benefits of metadata

Costs

Creating and managing metadata does involve a significant effort and hence introduces additional costs to managing an information resource. These costs can be reduced by ensuring metadata is produced at the same time and by the same people as the data is. The information needed to create metadata is often readily available when the data is collected.

An analysis which weighs the initial expense of documenting data against the potential costs of duplicated or redundant data generation will determine whether the documentation of metadata is justified. In general, investing the time and resources at the beginning of a new project will be found to pay dividends .

Benefits

Metadata produces benefits for both producers and users of data. These are outlined below:

Information Investment Management: Metadata helps organise and maintain an organisation's investment in data and provides information about an organisation's data holdings in catalogue form.

Greater Information Efficiency: Coordinated metadata development avoids duplication of effort by ensuring the organisation is aware of the existence of data sets.

Provide Complete Information: Users can locate all available data relevant to an area of interest.

Better Information Practice: Collection of metadata reinforces good data management practices (including fitness for purpose assessments) and ensures the long term value of the investment in data creation and collection.

Information Promotion: Data providers are able to advertise and promote the availability of their data and potentially link to on line services (eg. e-government) that relate to their specific datasets. Reporting of descriptive metadata also promotes the availability of environmental data beyond the environmental community.

Knowledge Management: Metadata is an important knowledge management tool preserving understanding, and preventing data from losing its value due to personnel change in an organisation.

Greater Information Longevity: Metadata maintains the value of data for the creator by assuring its continued use and update over time.

Users understand dataset: Metadata enables users to understand the purpose and intention of the dataset, and so be better able to know how to use the data and also determine its fitness for a particular use.

Use of Profile Guide

Metadata Standards

A metadata standard is simply a common set of terms and definitions known as elements that describe an information resource. Consistency in metadata is essential to ensure meaningful comparisons can be made quickly between datasets. Without standardisation of metadata, finding common elements in descriptions can be very difficult as it involves getting to grips with a range of different metadata management formats and definitions.

A metadata standard also allows for quick search and retrieval of a particular element. Using a consistent name for this element and a consistent meaning or level of information makes the process much easier.

Standards provide a common set of elements while often still allowing flexibility for additional elements to be produced to suit specialist needs. They are developed through a consultative process between experts and must be comprehensive enough that they can provide a sufficient level of detail, clarity and accuracy for users.

Metadata Profiles

A metadata profile will use a selection of some or all of the metadata elements within a metadata standard to meet the needs of a community of interest or a specific purpose. The same reasons exist for using a standardised profile for a particular inventory as for using a metadata standard.

In the case of this Metadata Profile (the New Zealand Government Geospatial Metadata Profile), the base standards are ISO 19115 (Geographic Information – Metadata) and the New Zealand Geographic Locator Service (NZGLS).

The choice of which clauses, classes, options and parameters are chosen and included in each of the Metadata Profiles, decisions were made:

- to include all Metadata Elements identified as core elements in ISO 19115 (a requirement for any metadata profile claiming conformance with ISO 19115) – 22 elements;
- to include any Metadata Element that would facilitate discovery, fitness for purpose or data use³ (and good practice with respect to providing a reference to a digital resource) – In the Environment Metadata Framework⁴ this profile covers “Level 1 – 3” profiles;
- to exclude any other elements from ISO 19115 unless they had an obligation status of “mandatory” or “conditional”;
- to add a metadata extension to allow the NZGLS Mandate element to be unambiguously recorded within the ISO 19115 structure.
- to add a number of metadata extensions to allow certain elements that are well defined in New Zealand to be included as code lists to encourage consistency in use within the metadata (eg, NZ coordinate systems, New Zealand height datums, SONZ, FONZ and ANZLIC defined keywords, similarly the use of the EPI (Environmental Performance Indicator) stream as an optional keyword and NZGLS defined categories of audience)

³ Those metadata elements related to data use are conditional for new data resources (i.e. for new data resources they are mandatory; for existing data resources they are optional)

⁴ Ministry for the Environment (2002). “Environmental Reporting Technical Paper No. 73 – Information Management”

ISO 19115 Structure

The ISO 19100 series is a multi-part International Standard for Geographic Information developed by Technical Committee 211 Geographic information/Geomatics of the International Organisation for Standardisation (ISO). ISO 19115, Geographic information – Metadata is part of the ISO 19100 series.

ISO 19115 is the more comprehensive (and complex) of the two base standards and so the structure of this Metadata Profile is based on ISO 19115. The relationship of this Metadata Profile with NZGLS has been illustrated in table form below.

This Metadata Profile describes all the NZGLS mandatory elements and many of the optional elements. The following table identifies the correlation between elements from this Metadata Profile and the corresponding NZGLS metadata element (where they exist).

Use of Profile Guide

	NZGLS Identifier	NZGLS Obligation	NZGLS Description	Metadata Profile Equivalent
1	Creator	Mandatory	The name of the organisation or person primarily responsible for the content of the resource, or the provision of the resource	MD_Identification.pointOfContact.organisationName
2	Publisher	Conditional (Mandatory, except Optional when describing a service)	The name of the entity responsible for making the resource available	MD_Identification.pointOfContact.organisationName
3	Contributor	Optional	The name of the organisation or person who has played an important role in creating the content of the resource or service but is not specified in the creator element.	DQ_Quality.lineage.processStep.processor.organisationName
4	Rights	Optional	Information about the rights for management of information resources, such as copyright, or access terms and conditions applying to the resource being described	MD_Constraints.MD_LegalConstraints.otherConstraints
5	Title	Mandatory	The name given to the resource	MD_Identification.citation.title
6	Subject	Mandatory	A succinct description of the subject or topic of the resource	MD_Keyword.keyword where MD_Keyword.thesaurusName=SONZ
7	Description	Recommended	A textual description of the content or purpose of the resource	MD_Identification.purpose
8	Source	Optional	Derivative information on the resource origins	DQ_Quality.lineage.statement
9	Language	Recommended	The language of the content of the resource, or the language in which the service is provided	MD_Identification. MD_DataIdentification.language
10	Relation	Optional	Identification of other resources or services that are related to this current resource and a description of the type of relationship	Only indirectly through: MD_MaintenanceInformation.changeIndicat or.sourceCitation & . citedResponsibleParty
11	Coverage	Optional	Coverage describes the extent or scope of the content of the resource	MD_Identification. MD_DataIdentification.extent.geographicElement.geographicIdentifier
12	Function	Mandatory	The business function of the agency to which the resource relates	MD_Identification.purpose

Use of Profile Guide

	NZGLS Identifier	NZGLS Obligation	NZGLS Description	Metadata Profile Equivalent
13	Date	Recommended	A date associated with an event in the life cycle of the resource	MD_Identification.citation.date
14	Type	Mandatory (for the Category refinement)	Category or genre of the resource	MD_Identification. MD_DataIdentification.topicCategory
15	Format	Optional	The data format of the resource, or the channels through which the service is delivered	MD_Distribution.distributionFormat
16	Identifier	Conditional (Mandatory when describing online resources)	A unique identifier for a resource	MD_Identification.citation
17	Availability	Conditional (Mandatory when describing services or off-line resources)	How the resource can be obtained, or contact information	MD_Distribution.transferOptions.online & .offline & MD_Distribution.distributor.distributorContact
18	Audience	Recommended	The target audience of the resource	MD_Identification.nzAudience
19	Mandate	Recommended	A specific legal instrument which requires the resource to be created or provided. A legal instrument can be an Act, Regulations, other secondary legislation such as Rules, or rulings or binding determinations by statutory authorities (such as Court cases)	MD_Identification.nzMandate

Where possible the encoding suggested by NZGLS has been incorporated in the specification of this Metadata Profile (refer to the individual metadata element descriptions later in this document).

ISO 19115 consists of over 400 Metadata Elements. These elements include repeatable series of elements and there is also provision for metadata extension elements to be added to cover extra characteristics considered important for a particular function. All this adds up to an extremely complex structure that cannot be described easily in a series of tables. This is not necessarily a failure of ISO 19115. The effort required to master ISO 19115 is considered worthwhile. It is exceedingly comprehensive and flexible.

To deal with this complexity and to ensure unambiguous definitions, the ISO Technical Committee for Geographic Information (ISO/TC211) has decided to use a form of data modelling, called UML (Unified Modelling Language) as the authoritative definition of ISO 19115 and other geographic information standards. To demonstrate the conformance of these Metadata Profiles with ISO 19115 a set of UML Class Diagrams have been included in the Profile Definition (Part 1 of this document). As user's understanding of the Metadata Profiles increases, it is hoped they will find the UML diagrams offer a valuable shorthand and a useful tool to understanding the requirements and scope of this profile and for designing metadata extensions to meet their own specific requirements.

4. Creating Metadata

This section provides guidance on how to create a metadata description in terms of this Metadata Profile. It deals more with the content that needs to be included in the metadata description and does not specifically deal with metadata outside the scope of this profile (other ISO 19115 metadata elements or extensions to ISO 19115) or “tools” to capture maintain and provide access to the metadata. It assumes that metadata will be made available to potential users outside of the organisation that manages, distributes or has created the data resource.

Purpose

When creating or maintaining a metadata description of a data resource it is useful to know that the purpose of this Metadata Profile is to improve interoperability and multiple use of government data resources through providing metadata descriptions that assist data discovery, fitness for purpose assessments and, provide a complete reference-like description of the data resource. Although these metadata descriptions can provide an in-house catalogue of data resources to assist the data management function, the primary aim is to provide the wider community a comprehensive catalogue of Government data resources to encourage use of these resources and discourage wasteful duplication.

Who should create Metadata?

Geospatial data owners will be encouraged to take the element definitions provided and record values for their respective geospatial information assets. The data format for recording the information is XML. New Zealand government through the e-GIF has prescribed XML as the technical standard for describing text resources and database exchange.

Steps that will make creating metadata easier:

Assemble information before you begin:

Inventory your data

Spatial data sets have an ability to multiply and consume all available disk space. What's worse, they tend to spread beyond the initial source of creation. Never-the-less, when considering the resources invested in database development, the time spent maintaining an inventory is certainly justified.

Know your data...

As GIS tools become easier to use, data developers have less contact with rigors of geographic representation. Metadata provides an opportunity to recapture much of the knowledge lost to map and data automation.

Identify what your data means

Provide information regarding the data's intended use and purpose.

Identify the time your data is valid

Identify the resources used to create the data

Providing lineage makes getting answers easier.

Identify what your data represents

Knowledge about elements that compose the map, (i.e. *themes, features, attributes, queries, resolution, etc.*) makes metadata easy to complete.

Identify how your data is represented

Knowledge of cartographic elements such as *projection, datum, Scale Factor, and coordinate system*.

Use of Profile Guide

Review other metadata examples

Examine other metadata records

Metadata can be collected in a variety of forms and varying levels of detail. Examining how other agencies document their data holdings may provide insight into the most appropriate strategy for your agency.

Know the New Zealand Geospatial Metadata Standard (NZGMS)

The standard can be daunting to the un-initiated. By using available resources, compliant metadata does not have to require a lot of time to create.

What is planned

Geospatial metadata implementation requires additional guidance and educational resources. A separate project is to progress these initiatives.

Metadata Modules⁵

The Metadata Profile is made of groups of metadata elements that are related or describe similar characteristics. The purpose of these modules is to simplify the number of UML Classes that ISO 19115 uses to group the metadata elements. This is to assist you to interpret the UML models that define ISO 19115 and this Metadata Profile and to emphasise that the context of a particular metadata element is very important. For instance the organisation name metadata element within the Metadata Identification module is likely to be different to the organisation name metadata element within the Data Quality module.

Below each of the Modules and Sub Modules are described in general terms.

Metadata Identification Module

This module unambiguously identifies the actual metadata, defines the language and character set used (which may be apparent through the encoding process), cross-references the metadata to any earlier metadata, identifies those responsible for the producing the metadata and notes any ISO 19115 profile it conforms to. These elements are important for the long term maintenance of the metadata inventory.

Resource Identification Module

This module describes the data resource itself and includes an abstract, and details on the purpose, mandate, an indication of the spatial resolution of the dataset, whether the dataset is vector or imagery based, topic category and a series of keywords based on NZGLS, ANZLIC thesaurus and includes reference to the applicable Environmental Performance Indicators strand. Distribution (including Distributor) details are also outlined.

Spatial and Extents Module

The Spatial and Extent Module describes the Geographic, Temporal (when the data was captured/collected) and Vertical extents. The Geographic extents allow the extents to be described in terms of multiple geographic identifiers (i.e. the NZGLS Coverage element), geographic box where the extents are defined or a custom defined polygon.

This module includes a reference to the Spatial Referencing System of the dataset. Other details in this module include those specific to remote sensed or scanned imagery and in particular points used or useful to any transformation process these images may have been subject to. There is also an element to describe the level of topological complexity inherent in any vector based data.

⁵ This explanation is largely based on a similar description contained in "Environmental Reporting Technical Paper No 73 Information Management. Environmental Metadata Framework", Ministry for the Environment (2002) <http://www.environment.govt.nz/info/tech-reports/tr-73-info-management.pdf>

Use of Profile Guide

Data Quality Module

The Data Quality Module describes the overview statement of the general lineage of the dataset, plus a more detailed description of every process step and data source used in the creation of the dataset.

Data Characteristics Module

The Data Characteristics module describes any use limitations in addition to any other restraints that might apply to the dataset (including Crown Copyright notice, if this is applicable). It also describes the formats the data is held in (as opposed to distribution formats) and any known uses.

Metadata Profile Interpretation Issues

Although this Metadata Profile is a subset of the more comprehensive ISO 19115 standard, there are over 125 metadata elements and the consistent application of this Metadata Profile is not a trivial undertaking. A good knowledge of how the profile fits together will require a study of the UML models, the metadata examples and the use of the individual metadata element description (found later in this document) as a reference source during the creation and maintenance of metadata.

During the formulation of this Metadata Profile, testing was done using only an outline of the profile and without the element descriptions and examples. This testing identified some common problems in interpreting the Metadata Profile. These are outlined with some suggestions as to how they can be solved:

Dates

Dates are used in three different ways within ISO 19115 (and hence this Metadata Profile):

- Within the citation of the data resource or a source for the data resource. In these cases it is possible to record multiple dates and each date is qualified as to what the date refers to (e.g. date of creation, date of revision)
- The Metadata Date element which is not qualified but refers to the date the metadata was created/last updated.
- The Resource Temporal Extent element which refers to the date or range of dates that describes the currency of the data resource.

Quality

A conscious decision has been made to limit quality descriptions to overview statements and the identification of sources and process steps used to create the data resource. ISO 19115 does include a very comprehensive manner for describing quality but this assumes that there has been a rigorous quality regime established.

In addition to the specific quality metadata elements there are other related elements that do contain quality information:

- The Resource Spatial Resolution Element (within the Resource Identification module) records the absolute spatial accuracy (difference from the true position at 95% confidence level)
- The Spatial Topology Element (within the Spatial & Extents module) gives an indication of the what level of topology is incorporated into the data resource

Use of Profile Guide

- If there are other quality issues associated with the data resource they should be described the Lineage Statement (Data Quality Module).

Codelists

Where the value for a metadata element is identified as coming from a codelist, the “text” value and not the identifier number should always be recorded. See Pt 1 - Profile definition for the code lists. Where ever possible, a namespace had been identified representing the authoritative source of each codelist.

Multiple Values and Obligation Status

Those users who are not working from the UML diagrams should be aware that all elements have an “obligation status” and many elements can be repeated with multiple values being recorded.

Within this Metadata Profile, there are only two obligation status:

- **Mandatory**; and
- **Conditional**. Generally the condition is that there the metadata element applies to the data resource being described or it does not.

The Optional obligation status is not used in this Metadata Profile (even though it does in ISO 19115).

In the table definitions contained in this Metadata Description, it is not possible to anticipate how many values for a particular metadata element will apply for a data resource. Similarly with XML instance files automatically generated from an XML schema as a template for metadata recording. To overcome these problems, users should be guided by the UML diagrams, examples and their knowledge of what is appropriate to be recorded for a particular data resource. The UML diagrams identify implicitly where multiple values can be recorded.

An implication arising from this Metadata Profile being a profile of ISO 19115 is that when an element is included in this Metadata Profile this results in having to respect the ISO 19115 stated obligation status of all the other attributes within the same (UML) Class. For instance, as the User Limitation (and Use Description) elements are included in this Metadata Profile, ISO 19115 states that as they are attributes of MD_Usage class, then user contact details must also provided as this a mandatory element within that class. (The contact details are limited to noting the organisation name, contact position within the organisation and an email address in this Metadata Profile).

Format

There are two metadata elements that describe the data format of the data resource and care needs to distinguish between the two. The Resource Format Name (and associated Resource Format Version element) record the “native” format of the resource only and this will in most cases be a single value. The Distribution Format Name (and associated Distribution Format Version) records the potentially multiple formats that can be distributed to users by way of an export from the system hosting the data resource.

Inclusion / Exclusion

The Resource Extent Type metadata element has two possible values; “Inclusion” or “Exclusion”. This profile follows the ISO 19115 form for describing this element in the form of a Boolean variable (i.e. Inclusion = “true” or “1” and Exclusion = “false” or “0”)

Roles

Role elements are used extensively in this Metadata Profile (and ISO 19115) to qualify any reference to an organisation. They should only be applied to the **organisation** and not a position within the organisation. Where several roles could be applied to the organisation being noted, the

Use of Profile Guide

context of the specific metadata element (i.e. what module is being treated) should be considered. Where several roles could be applied, the more “senior” role should be used (i.e. steward, custodian or owner rather than publisher).

Raster Data Resources

Not all geospatial data resources are vector based; some are raster imagery (e.g. orthophotos, scanned paper maps). This Metadata Profile must be able to cater for this category of data resources. A consideration with this category of data resources is whether transformation parameters are available (Spatial Grid Parameter Availability element within the Spatial and Extents module) particularly with the move away from NZMG to NZ Geodetic Datum 2000 spatial referencing in New Zealand. As has been described in the discussion above about Multiple Values and Obligation Status, this requires a number of other related metadata elements to be included in this Metadata Profile (refer to the “Spatial Grid” elements within the Spatial & Extents module).

Parent Resource Identifier

Initially it is suggested that metadata is collected as separate dataset level metadata and hence there will be no need to record values for the Metadata Parent Resource Identifier element. However, it is important that from the beginning a consistent system of metadata identification is used. Subsequently when the data maintenance occurs in a bulk update situation (rather than as on-going, record by record maintenance) there is a new dataset ideally with metadata that needs to be referred to the principal data resource. It is in those situations where the parent resource identifier is required but if there are situations where there is a clear “parent” for a data resource, this element should be described. A dataset series might have one metadata record to describe the top level dataset, then separate metadata records to describe each level or component of the series.

Metadata Extensions

All the extensions to ISO 19115 required by this Metadata Profile are contained in the NzgeospatialMDextensions.xml file. This file is a cut-down version of a complete metadata description and so using a text editor could be added to the xml instance describing your metadata description. It should be pasted into the file after the end tag for </nzgMD:distributionInfo> and before the start tag <nzgMD:fileIdentifier>.

```
        </nzgMD:MD_DigitalTransferOptions>
      </nzgMD:transferOptions>
    </nzgMD:MD_Distribution>
  </nzgMD:distributionInfo>
  <!-- ===== END OF DISTRIBUTION INFORMATION ===== -->
  <!-- ===== METADATA EXTENSION INFORMATION ===== -->
  X
  <!-- ===== END OF METADATA EXTENSION INFORMATION ===== -->
  <!-- ===== METADATA ENTITY SET INFORMATION CONTINUED ===== -->
  <nzgMD:fileIdentifier>esametaCLegv0.01</nzgMD:fileIdentifier>
  <nzgMD:language>eng</nzgMD:language>
  <nzgMD:characterSet
```

Use of Profile Guide

Namespaces

Namespaces are an important feature when metadata descriptions are encoded into XML instance documents. They are used to identify XML schema that define the encoding of metadata elements.

The XML schema defining this metadata profile has a namespace of <http://www.linz.govt.nz/staticpages/geospatial/xml/schema/nzgmetadata> utilising a prefix of nzgMD:

Other metadata namespaces related to this metadata profile are:

ESA Metadata Profile – Namespace <http://www.linz.govt.nz/staticpages/geospatial/xml/schema/esametadata> ; prefix esaMD:

ISO 19139 Metadata Profile – Namespace <http://metadata.dgiwg.org/smXML> ; prefix smXML:

Possible Approaches

The approach taken to creating metadata will vary from organisation to organisation. The Ministry of Environment has produced a publication⁶ to help organisations choose an appropriate metadata profile to meet both internal and external business needs. This Metadata Profile addresses external/ data sharing needs and organisations will still need to consider their internal needs as well as specific external needs that apply to that organisation.

Once this preliminary analysis is complete, there will need to be a decision made as to what data resources require metadata. There will then need to be a collation exercise to gather all the details together. As part of this collation exercise decisions will need to be made as to how the geographic extents will be described and, more fundamentally, what is the primary spatial referencing system used by the organisation⁷.

The actual means of recording these details will also be influenced by how the metadata will be made available both within the organisation and also to external users outside the organisation.

The following lists reflect some options for the immediate requirement to record metadata in a digital form. Some of these options go beyond the creation stage to also providing the means to make metadata available to users. Others assume that making metadata accessible will be treated separately.

- A customised application to record xml formatted metadata on either a stand-alone workstation or as a networked application within the organisation using standard database. This application has the ability to export the resulting metadata in appropriately structured XML files;
- An off-the-shelf metadata capture tool is purchased, this Metadata Profile is defined within that tool with the tool having the ability to export appropriately structured XML files. Tool may also have basic search capability;
- Standard GIS with metadata recording capability is used for initial capture of details. (Current versions of commonly used GIS software are not able to capture the complete set of metadata elements comprising this Metadata Profile or of exporting metadata in XML structures that are compliant with ISO 19115). Once initial capture is complete export in the XML structure that most closely correlates with ISO 19115⁸. Using an XML

⁶ Environmental Metadata Framework, Environment Reporting Technical – Information Management Document 73, (2002)

⁷ refer to Section 3 of Environmental Metadata Framework, Environmental Reporting – Information Management Technical Report 73, Ministry for the Environment (2002)

⁸ refer to ISO 19139 Geographic Information – Metadata Implementation Specification (work under action as at April 2003)

Use of Profile Guide

Editor/Parser software, produce a modified XML schema to incorporate the uncaptured relevant metadata elements. Using the same XML Editor software or XML stylesheets capture the remaining metadata elements. Create XML stylesheets to transform the metadata to ISO 19115 compliant XML structures. Transform the metadata using these stylesheets and publish the metadata.

- All metadata capture is done in an on-line application based on XML documents.

In all approaches, metadata descriptions need to be encoded into XML instance documents and rigorously validated⁹ against an XML schema to check conformance to this metadata profile.

Logistics of Metadata

Agencies will need to nominate a primary contact person for geospatial metadata. This person should have good knowledge of all the geospatial information resources within their respective agency. This person will with the aid of additional resources (to be produced) communicated the requirements to other key players within their organisation. This will ensure agencies will administer the task effectively.

A geospatial metadata standard presence will be set up under the guidance of OCGI. This group will oversee the communication and outreach objectives associated with successful implementation. This group is yet to be convened.

⁹ "rigorous validation" should involve the use of more than 1 XML parser. Only well recognised XML parsers should be used in this validation process

5. Maintaining Metadata

For there to be user confidence in metadata, it is important for metadata to be kept up to date. The process for maintaining metadata is likely to be similar to that used in the initial creation. However, the difference is that this is an on-going activity and responsibilities need to be allocated and metadata maintenance processes devised.

Where a data resource is maintained on an ongoing, record by record basis as part of a routine business operation, a regular review of the metadata must be undertaken and any deficiencies remedied at that time. The review cycle should be less than an annual occurrence.

Where a data resource is maintained by a dedicated once-off effort where part or all of an existing data resource is updated, metadata should be created for the update dataset. Once the main data resource has been updated then its metadata should be updated using the details from the update dataset metadata. Version control (using the Resource Version element) is advisable.

Previous comments on the need to ensure a regime of rigorous XML validation apply equally to metadata maintenance as it does to metadata creation.

6. Metadata Example

This example is of the legacy Digital Cadastral Database (DCDB) managed by Land Information New Zealand but now superseded by the new *Landonline*/Core Record System. It is described in the table format used in **Part 1 – Profile Definition** to define the Metadata Profile.

Name	Example Values	Obligation Status
Metadata Identification Module	This module defines metadata about a resource or resources	
fileIdentifier (2) <i>mdFileID</i>	Value is a metadata file name following naming convention defined by organisation	Mandatory ISO 19115 Core Element
language (3) – refer ISO 639-2 <i>mdLang</i>	en	Default Value Mandatory
characterSet (4) – refer CodeList B.5.10 <i>mdChar</i>	Utf8	Mandatory Default Value
parentIdentifier (5) <i>mdParentID</i>		Conditional – If Resource is a sub-set of a larger Resource
contact (8) <i>mdContact</i>	<i>Party responsible for the metadata</i>	ISO 19115 Mandatory
CI_RespParty(374) <i>RespParty</i>		
pointOfContact (29) <i>idPoC</i>		Mandatory
organisationName (376) <i>rpOrgName</i>	Land Information New Zealand	Conditional – If new dataset
positionName (377) <i>rpPosName</i>	Surveyor General	Conditional – If new dataset
contactInfo (387) <i>Contact</i>		Mandatory
CI_Contactaddress (389) <i>cntAddress</i>		Mandatory
electronicMailAddress(386) <i>eMailAdd</i>	sg@linz.govt.nz	Mandatory
role (379) – ref Codelist B.5.5 <i>role</i>	steward	ISO 19115 Mandatory
dateStamp (9) refer B.4.2 ISO 8601 <i>mdDateSt</i>	2000-01-20	ISO 19115 Mandatory
metadataStandardName (10) <i>mdStanName</i>	ISO 19115 Geographic Information – Metadata, New Zealand Government Geospatial Metadata Profile	ISO 19115 Core Element Default Value
metadataStandardVersion (11) <i>mdStanVer</i>	1.0	Mandatory Default Value

Metadata Example

Name	Example Values	Obligation Status
Resource Identification Module		
MD_Distribution (17/270) <i>disInfo</i>	Distribution details to be added by distributing organisation	
distributionFormat (271) <i>distFormat</i>		ISO 19115 Mandatory
name (285) <i>formatName</i>	Arc Shape Files	ISO 19115 Mandatory
version (286) <i>formatVer</i>	8.1	ISO 19115 Mandatory
distributor (272) <i>distributor</i>	Party responsible for distribution of the resource	
distributorContact 280) <i>distorCont</i>		ISO 19115 Mandatory
organisationName (376) <i>rpOrgName</i>	ABC Ltd	Conditional – If it is a new dataset
positionName (377) <i>rpPosName</i>	Sales Manager	Conditional – If it is a new dataset
contactInfo (387) Contact		Mandatory
phone (388) <i>cntPhone</i>		Conditional – If it is a new dataset
voice (408) <i>voiceNum</i>	64 4 333 4444	Conditional – If it is a new dataset
facsimile (409) <i>faxNum</i>	64 4 333 4443	Conditional – If it is a new dataset
address (389) <i>cntAddress</i>		Mandatory
deliveryPoint(381) <i>delPoint</i>	PO Box 55555	Conditional – If it is a new dataset
city(382) <i>city</i>	Wellington	Conditional – If it is a new dataset
country(385) <i>country</i>	New Zealand	Conditional – If it is a new dataset Default value
electronicMailAddress(386) <i>eMailAdd</i>	sales@abc.co.nz	Mandatory
online (277) <i>onLineSrc</i>	Online contact details	If a new dataset and there is an online contact
linkage(397) <i>linkage</i>	www.abc.co.nz	ISO 19115 Mandatory
role (379) – ref Codelist B.5.5 <i>role</i>	Distributor	ISO 19115 Mandatory Default value
distributionOrderProcess (281/296) <i>distorOrdPrc</i>	Ordering details are described	Mandatory

Metadata Example

Name		Example Values	Obligation Status
Resource Identification Module			
	fees (299) <i>resFees</i>	\$NZ 0.35/ parcel	Mandatory
	orderingInstruction (301) <i>ordInstr</i>	Complete order details on on-line ordering system or call 0800 333 4444	Conditional – If it is a new dataset
	turnaround (302) <i>ordTurn</i>	2 working days from confirmed order to despatch	Conditional – If it is a new dataset
	MD_DigitalTransferOptions (273) <i>distTranOps</i>		
	online (277) <i>onLineSrc</i>	Some of the details of any online supply arrangements	Conditional – If there is an online distribution service
	linkage(397) <i>linkage</i>	www.abc.co.nz/spatialdata/orders	ISO 19115 Mandatory
	protocol (398) <i>protocol</i>	ftp	Conditional – If it is a new dataset
	name (400) <i>orName</i>	ABC Ordering System	Conditional – If it is a new dataset
	description (401) <i>orDesc</i>	Using online spatial window, select parcels of interest or group select by defining box-like area of interest. Make format selection (LandXML or Arc Shape Files) and mode of delivery (Email or by regular post (on CDROM) and submit.	Conditional – If it is a new dataset
	function (402) – refer CodeList B.5.3 <i>orFunct</i>	Order	Mandatory
	offline (278/291) <i>offLineMed</i>	Some of the details of any offline supply arrangements	Conditional – If there is an offline distribution service
	name (292) – refer CodeList B.5.20 <i>medName</i>	cdROM	Mandatory
	MD_Identification (15/23) <i>dataIDInfo</i>		ISO 19115 Mandatory
	citation (24) <i>idCitation</i>		ISO 19115 Mandatory
	title (360) <i>resTitle</i>	Digital Cadastral Database	ISO 19115 Mandatory
	alternateTitle (361) <i>resAltTitle</i>	DCDB	Conditional – If it is a new dataset and there is a known alternative title for the resource
	date (362/394) <i>resRefDate</i>	Reference date for the data resource	ISO 19115 Mandatory
	date (394) <i>refDate</i>	1996-01-01	ISO 19115 Mandatory
	dateType (395) – ref Codelist B.5.2 <i>refDateType</i>	creation	ISO 19115 Mandatory Default value

Metadata Example

Name		Example Values	Obligation Status
Resource Identification Module			
	edition (363) <i>resEd</i>		Conditional - If it is a new dataset and versioning is used in conjunction with this data resource
	identifier (365) <i>citId</i>		Conditional – If it is a new dataset and there is a known identifier for the resource
	presentationForm (368) – ref Codelist B.5.4 <i>presForm</i>	mapDigital	Mandatory
	ISBN (372) <i>isbn</i>		Conditional – If it is a new dataset and there is a known ISBN identifier for the resource
	ISSN (373) <i>isbn</i>		Conditional – If it is a new dataset and there is a known ISSN identifier for the resource
	abstract (25) <i>idAbs</i>	<i>The DCDB was developed 1987 – 1996 to replace the hardcopy of cadastral record sheets held in each of the 12 land districts. It shows the current cadastral boundaries (parcels), as well as legal road centrelines and the general location of all survey plans. It is a national system.</i>	ISO 19115 Mandatory
	purpose (26) <i>idPurp</i>	<i>The DCDB was designed to replace the cadastral record sheets. Its primary purpose is to support the survey plan examination and approval process. With the wide adoption of GIS, the DCDB has become one of the fundamental datasets in New Zealand and as such it is used as the base to help reference other themes of spatial data such as the recording of utility objects in map-form.</i>	Mandatory
	audience – refer Codelist NZ_Audience <i>audience</i>	Government	Mandatory
	audience – refer Codelist NZ_Audience <i>audience</i>	Business	Mandatory
	audience – refer Codelist NZ_Audience <i>audience</i>	Maori	Mandatory
	resourceNzMandate NzMandate	<i>Entity that describes the New Zealand statutory mandate for the creation of a data resource or the provision of a service.</i>	Conditional / If there is a statutory mandate for the resource
	.New Zealand mandate reference <i>manRef</i>	Cabinet 1987/54	Mandatory
	New Zealand mandate type – refer Codelist <i>manType</i>	Other	Mandatory

Metadata Example

Name	Example Values	Obligation Status
Resource Identification Module		
status (28) – refer CodeList B.5.23 <i>idStatus</i>	completed	Mandatory Default Value
pointOfContact (29/374) <i>idPoC</i>	Contact details for the Party responsible for the Resource	ISO 19115 Core Element
organisationName (376) <i>rpOrgName</i>	Land Information New Zealand	Mandatory
positionName (377) <i>rpPosName</i>	Surveyor General	Mandatory
contactInfo (387) Contact		Mandatory
phone (388) cntPhone		Conditional – If it is a new dataset
voice(408) <i>voiceNum</i>	64 4 333 4444	Conditional – If it is a new dataset
facsimile(409) <i>faxNum</i>	64 4 333 443	Conditional – If it is a new dataset
address (389) cntAddress		Mandatory
deliveryPoint(381) <i>delPoint</i>	PO Box 55555	Conditional – If it is a new dataset
city(382) <i>city</i>	Wellington	Conditional – If it is a new dataset
country(385) <i>country</i>	New Zealand	Conditional – If it is a new dataset Default value
electronicMailAddress(386) <i>eMailAdd</i>	sg@linz.govt.nz	Mandatory
online (277) onLineSrc	Some details of any online contact details	Conditional – If it is a new dataset
Linkage(397) <i>linkage</i>	www.linz.govt.nz/data	Conditional – If it is a new dataset
role (379) – ref Codelist B.5.5 <i>role</i>	steward	ISO 19115 Mandatory Default Value
descriptiveKeywords (33) descKeys	Where keywords have been identified by subject matter experts utilising ANZLIC, FONZ or SONZ keywords	Mandatory
NZGLS Function Keyword		Mandatory
keyword (53) <i>keyword</i>	Providing access to information; Informing	ISO 19115 Mandatory
keyword (53) <i>keyword</i>	Maintaining information; Informing	ISO 19115 Mandatory
type (54) - refer CodeList B.5.17 <i>keyTyp</i>	Theme	Mandatory

Metadata Example

Name	Example Values	Obligation Status
Resource Identification Module		
thesaurusName (55) – refer CodeList NZ_RecognisedThesaurus <i>thesaName</i>	FONZ	Mandatory
NZGLS Subject		Mandatory
keyword (53) <i>keyword</i>	Maps	ISO 19115 Mandatory
keyword (53) <i>keyword</i>	Surveying	ISO 19115 Mandatory
type (54) - refer CodeList B.5.17 <i>keyTyp</i>	Theme	Mandatory
thesaurusName (55) <i>thesaName</i>	SONZ	Mandatory
ANZLIC Search Words		Optional
keyword (53) <i>keyword</i>	LAND Cadastre	ISO 19115 Mandatory
type (54) - refer CodeList B.5.17 <i>keyTyp</i>	discipline	Mandatory
thesaurusName (55) <i>thesaName</i>	ANZLICsearch	Mandatory
MfE Environmental Performance Indicator Strand		Optional
keyword (53) (refer CodeList CI_EOIstrandCode) <i>keyword</i>	Maori	ISO 19115 Mandatory
type (54) - refer CodeList B.5.17 <i>keyTyp</i>	theme	Mandatory
thesaurusName (55) <i>thesaName</i>	EPIstrand	Mandatory
MD_DataIdentification (36) DataIdent		Details specific to a data resource
spatialRepresentationType (37) refer CodeList B.5.26 <i>spatRpType</i>	vector	Mandatory ISO 19115 Core Element
spatialResolution (38) dataScale		Mandatory ISO 19115 Core Element
equivalentScale (60) <i>equScale</i>	1:10,000	Conditional when distance is not populated
language (39) <i>dataLang</i>	en	ISO 19115 Mandatory Default Value
characterSet (40) – refer CodeList B.5.10 <i>dataChar</i>	utf8	Default Value
topicCategory (41) – refer CodeList B.5.27 <i>tpCat</i>	planningCadastre	ISO 19115 Mandatory

Metadata Example

Name	Description	Obligation Status
Spatial and Extents Module		
MD_ReferenceSystem (13/186) <i>refSysInfo</i>	Identifies the spatial referencing system applying to the Resource	Mandatory ISO 19115 Core Element
referenceSystemIdentifier (187) <i>refSysID</i>		ISO 19115 Mandatory
code (207) (from CodeList NZ_ReferenceSystems) <i>identCode</i>	NZMG	ISO 19115 Mandatory
codeSpace (208.1) <i>identCodeSpace</i>	http://www.linz.govt.nz/metadata/NZgeospatialNZrefSys/	Mandatory
MD_Identification (15/23) <i>dataIDInfo</i>	Details applicable to both a data or service resource	ISO 19115 Mandatory
MD_DataIdentification (36) <i>DataIdent</i>	Details specific to a data resource	ISO 19115 Mandatory
extent (45) <i>dataExt</i>	Details defining the geographical, temporal and vertical extent of the resource	
geographicElement (336)	Details defining the geographical extent	Mandatory
extentTypeCode (340) – refer CodeList B.3.1.1 <i>exTypeCode</i>	Inclusion	Mandatory Default Value
geographicIdentifier (349) <i>geolD</i>	New Zealand	ISO 19115 Mandatory
temporalElement (337) <i>tempEle</i>		Mandatory
extent (351) – refer B.4.6 <i>exTemp</i>	1999-10-20	ISO 19115 Mandatory
MD_SpatialRepresentation (12/156)	Details about the form of representation for either vector or imagery data resources	
MD_VectorSpatialRepresentation (176) <i>VectSpatRep</i>	Details about the form of representation for either vector data resources	Conditional – if vector datasets
topologyLevel (177) – refer CodeList B.5.28 <i>topLvl</i>	geometryOnly	Conditional – If new dataset

Metadata Example

Name	Description	Obligation Status
Data Quality Module		
dataQualityInfo (18) <i>dqInfo</i>	Details describing the quality of the resource	Mandatory
scope (79) <i>dqScope</i>	Defines the scope of the quality information supplied	ISO 19115 Mandatory
level (139) – refer CodeList B.5.25 <i>scpLvl</i>	dataset	ISO 19115 Mandatory Default Value
lineage (81) <i>dataLineage</i>	Describes how the resource was created	Mandatory
statement (83) <i>statement</i>	The DCDB was derived from digitising a series of imperial cadastral record sheets at scales varying from 1:792 to 1:63,360. Since the initial compilation (for all of New Zealand) was completed in 1996, the DCDB has been maintained by numeric entry of boundaries from all new cadastral survey plans lodged with LINZ. There have also been various data improvement initiatives to clean up the topology and to improve the spatial accuracy of certain areas.	Mandatory ISO 19115 Core
processStep (84) <i>prcStep</i>	<i>A description of the processes used to create the resource</i>	Conditional - Only required if new dataset AND the individual process steps are significant and cannot be adequately described in the statement (83) element <i>To be repeated for all process steps used to create data resource</i>
description (87) <i>stepDesc</i>	The original compilation was by digitising the original, imperial scale cadastral record sheets using customised data capture application. This process was undertaken by departmental staff.	ISO 19115 Mandatory
rationale (88) <i>stepRat</i>	To convert to digital format	Mandatory
dateTime (89) refer B.4.11 <i>stepDateTm</i>	1987/1996	Mandatory
processStep (84) <i>prcStep</i>	<i>A description of the processes used to create the resource</i>	Conditional - Only required if new dataset AND the individual process steps are significant and cannot be adequately described in the statement (83) element <i>To be repeated for all process steps used to create data resource</i>

Metadata Example

Name		Description	Obligation Status
Data Quality Module			
	description (87) <i>stepDesc</i>	Each new survey plan was processed by an operator who added the details defining new boundaries and parcels and extracting coordinate values for entry into the DCDB	ISO 19115 Mandatory
	rationale (88) <i>stepRat</i>	To reflect new cadastral boundaries and improve the spatial accuracy of the DCDB in the vicinity of the new survey	Mandatory
	dateTime (89) refer B.4.11 <i>stepDateTm</i>	1987/1996	Mandatory
	source (85) <i>dataSource</i>	Details of significant resources used to create this resource	Conditional - Only required if new dataset AND the individual data sources are significant and cannot be adequately described in the statement (83) element
	scaleDenominator (94) <i>srcScale</i>	7,920	Mandatory
	sourceReferenceSystem (95) <i>srcRefSys</i>	Identifies the spatial referencing system applying to the source dataset	Conditional - Populate where SRS is different from data resource being described
	referenceSystemIdentifier (187) <i>refSysID</i>		
	code (207) <i>identCode</i>	NZGD1949	ISO 19115 Mandatory
	codeSpace (208.1) <i>identCodeSpace</i>	http://www.linz.govt.nz/metadata/NZgeospatialNZrefSys/	Mandatory
	sourceCitation (96) <i>scrCitatn</i>	Citation details of source dataset	Mandatory
	title (360) <i>resTitle</i>	Cadastral Record Sheets	ISO 19115 Mandatory
	date (362) <i>resRefDate</i>	Date to be the date that best reflects the on-the-ground currency of this particular data source	ISO 19115 Mandatory
	date (394) <i>refDate</i>	1987-08-18	ISO 19115 Mandatory
	dateType (395) – ref Codelist B.5.2 <i>refDateType</i>	creation	ISO 19115 Mandatory Default Value
	citedResponsibleParty (367) <i>citRespParty</i>	Identify the party responsible for the source dataset	Mandatory
	organisationName (376) <i>rpOrgName</i>	Department of Lands & Survey	Mandatory
	role (379) - refer CodeList B.5.5 <i>role</i>	Value = "data steward"	Mandatory Default value

Metadata Example

Name		Description	Obligation Status
Data Quality Module			
	source (85) <i>dataSource</i>	<i>Details of significant resources used to create this resource</i>	Conditional - Only required if new dataset AND the individual data sources are significant and cannot be adequately described in the statement (83) element
	scaleDenominator (94) <i>srcScale</i>	1,000	Mandatory
	sourceReferenceSystem (95) <i>srcRefSys</i>	Identifies the spatial referencing system applying to the source dataset	Conditional - Populate where SRS is different from data resource being described
	referenceSystemIdentifier (187) <i>refSysID</i>		
	code (207) <i>identCode</i>	NZGD1949	ISO 19115 Mandatory
	codeSpace (208.1) <i>identCodeSpace</i>	http://www.linz.govt.nz/metadata/NZgeospatialNZrefSys/	Mandatory
	sourceCitation (96) <i>srcCitatn</i>	Citation details of source dataset	Mandatory
	title (360) <i>resTitle</i>	Cadastral Survey Plans	ISO 19115 Mandatory
	date (362) <i>resRefDate</i>	<i>Date to be the date that best reflects the on-the-ground currency of this particular data source</i>	ISO 19115 Mandatory
	date (394) <i>refDate</i>	1987/2001	ISO 19115 Mandatory
	dateType (395) – ref Codelist B.5.2 <i>refDateType</i>	creation	ISO 19115 Mandatory Default Value
	citedResponsibleParty (367) <i>citRespParty</i>	Identify the party responsible for the source dataset	Mandatory
	organisationName (376) <i>rpOrgName</i>	<i>Various Registered Surveyors</i>	Mandatory
	role (379) - refer CodeList B.5.5 <i>role</i>	originator	Mandatory Default value

Metadata Example

Name	Description	Obligation Status
Data Characteristics Module		
MD_Identification (15/23) <i>dataIDInfo</i>		ISO 19115 Mandatory
resourceFormat (32/284) <i>dsFormat</i>	A description of the format of the resource	Conditional – If data resource
name (285) <i>formatName</i>	GINA	ISO 19115 Mandatory
version (286) <i>formaVert</i>	2.4	ISO 19115 Mandatory
MD_Usage (34/62) <i>idSpecUse</i>	Brief description of ways resource is currently used	Conditional – If use of resource is known
specificUsage (63) <i>specUsage</i>	Used in the cadastral survey plan examination and approval process within LINZ	ISO 19115 Mandatory
userContactInfo (66) <i>usrCntInfo</i>	Contact details for user	
CI_RespParty(374) <i>RespParty</i>		
pointOfContact (29) <i>idPoC</i>	Identifies user organisation and contact within organisation	Mandatory
organisationName (376) <i>rpOrgName</i>	Land Information New Zealand	Conditional – If it is a new dataset
positionName (377) <i>rpPosName</i>	Surveyor General	Conditional – If it is a new dataset
contactInfo (387) <i>Contact</i>	Email contact details	Mandatory
CI_Contactaddress (389) <i>CntAddress</i>		Mandatory
electronicMailAddress(386) <i>eMailAdd</i>	sg@linz.govt.nz	Mandatory
role (379) – ref Codelist B.5.5 <i>role</i>	steward	ISO 19115 Mandatory Default value
MD_Constraints (35/67) <i>resConst</i>	Identifies any use limitations, access constraints or use constraints (such as copyright or IP) that apply to the resource	
useLimitation (68) <i>useLimit</i>	DCDB coordinate values cannot be used for most survey purposes because they lack spatial accuracy	<i>If any issues or constraints have been identified and adequately documented for the dataset</i>
MD_LegalConstraints (69) <i>LegConsts</i>	Identifies (legal) access constraints or use constraints (such as copyright or IP) that apply to the resource	

Metadata Example

	useConstraints (71) – refer CodeList B.5.24 <i>useConsts</i>	Copyright	Conditional if Crown Copyright applies Default Value
	otherConstraints (72) <i>othConsts</i>	Crown Copyright, New Zealand, 2003	Conditional if Crown Copyright applies Default Value

7.ISO 19115 & the NZ Government Metadata Modules

The following table shows how elements from ISO 19115 are used

- Fit with the 5 major modules and the extension element module
- You will note that some elements are repeated within modules. This is because the requirement for common elements such as date, addressing and phone numbers occur in multiple modules
- Although these elements are similar the values may differ. The values are specific to the need of the particular module.

Metadata Element	Metadata Identification	Spatial & Extents	Resource Identification	Data Characteristics	Data Quality	Metadata Extensions
MD_Metadata (1)						
fileIdentifier (2)						
language (3)						
characterSet (4)						
parentIdentifier (5)						
contact (8)						
CI_RespParty (374)						
pointOfContact (29)						
organisationName (376)						
positionName (377)						
contactInfo (387)						
CI_Contactaddress (389)						
electronicMailAddress(386)						
role (379)						
dateStamp (9)						
metadataStandardName (10)						
metadataStandardVersion (11)						
datasetURL (11.1)						
MD_SpatialRepresentation (12/156)						
MD_VectorSpatialRepresentation (176)						
topologyLevel (177)						
MD_GridSpatialRepresentation (157)						
numberOfDimensions (158)						
axisDimensionsProperties (159)						
dimensionName (180)						
dimensionSize (181)						
dimensionName (180)						
dimensionSize (181)						
cellGeometry (160)						
transformationParameterAvailability (161)						
MD_Georectified (162)						
checkPointAvailability (163)						
checkPointDescription (164)						
cornerPoints (165)						
Diagonal1NorthEndNorthing						
Diagonal1NorthEndEasting						
Diagonal1SouthEndNorthing						
Diagonal1SouthEndEasting						
Diagonal2NorthEndNorthing						
Diagonal2NorthEndEasting						
Diagonal2SouthEndNorthing						
Diagonal2SouthEndEasting						
pointInPixel (167)						
transformationDimensionDescription (168)						

ISO 19115 & the NZ Government Metadata Modules

Metadata Element	Metadata Identification	Spatial & Extents	Resource Identification	Data Characteristics	Data Quality	Metadata Extensions
transformationDimensionMapping (169)						
MD_Georeferencable (707)						
controlPointAvailability (171)						
orientationParameterAvailability (172)						
Parameters (174)						
MD_ReferenceSystem (13/186)						
referenceSystemIdentifier (187)						
code (207)						
codeSpace (208.1)						
MD_Identification (15/23)						
citation (24)						
title (360)						
alternateTitle (361)						
date (362/394)						
edition (363)						
editionDate (364)						
identifier (365)						
presentationForm (368)						
ISBN (372)						
ISSN (373)						
abstract (25)						
purpose (26)						
audience						
New Zealand mandate						
status (28)						
pointOfContact (29/374)						
organisationName (376)						
positionName (377)						
contactInfo (387)						
CI_Contactphone (388)						
voice(408)						
facsimile(409)						
CI_Contactaddress (389)						
deliveryPoint(381)						
city(382)						
country(385)						
electronicMailAddress(386)						
CI_OnlineResource(390)						
linkage (397)						
role (379)						
MD_MaintenanceInformation (30/142)						
maintenanceAndUpdateFrequency (143)						
dateOfNextMaintenance (144)						
maintenanceNote (148)						
resourceFormat (32/284)						
name (285)						
version (286)						
descriptiveKeywords (33)						
keyword (53) [NZGLS Subject]						
type (54)						
thesaurusName (55)						
title (360)						
date (362)						
.otherCitationDetails (370)						
keyword (53) [NZGLS Function]						
type (54)						
thesaurusName (55)						
title (360)						
date (362)						
.otherCitationDetails (370)						

ISO 19115 & the NZ Government Metadata Modules

Metadata Element	Metadata Identification	Spatial & Extents	Resource Identification	Data Characteristics	Data Quality	Metadata Extensions
keyword (53) [ANZLIC Search Words]						
type (54)						
thesaurusName (55)						
title (360)						
date (362)						
.otherCitationDetails (370)						
keyword (53) [EPI Strand]						
type (54)						
thesaurusName (55)						
title (360)						
date (362)						
.otherCitationDetails (370)						
MD_Usage (34/62)						
specificUsage (63)						
userDeterminedLimitations (65)						
userContactInfo (66)						
CI_RespParty(374)						
pointOfContact (29)						
organisationName (376)						
positionName (377)						
contactInfo (387)						
CI_Contactaddress (389)						
electronicMailAddress(386)						
role (379)						
MD_Constraints (35/67)						
useLimitation (68)						
MD_LegalConstraints (69)						
accessConstraints (70)						
useConstraints (71)						
otherConstraints (72)						
MD_DataIdentification (36)						
spatialRepresentationType (37)						
spatialResolution (38)						
equivalentScale (60)						
distance (61)						
language (39)						
characterSet (40)						
topicCategory (41)						
extent (45)						
geographicElement (336)						
extentTypeCode (340)						
geographicBox (343)						
westBoundLongitude(344)						
eastBoundLongitude(345)						
southBoundLatitude(346)						
northBoundLatitude(347)						
geographicIdentifier (349)						
polygon (342)						
temporalElement (337)						
extent (351)						
verticalElement (338)						
minimumValue (355)						
maximumValue (356)						
unitOfMeasure (357)						
verticalDatum (358)						
MD_ContentInformation (16/234)						
MD_FeatureCatalogueDescription (235)						
includedWithDataset (238)						
featureCatalogueCitation (240)						
title (360)						

ISO 19115 & the NZ Government Metadata Modules

Metadata Element	Metadata Identification	Spatial & Extents	Resource Identification	Data Characteristics	Data Quality	Metadata Extensions
date (362)						
edition (363)						
MD_Distribution (17/270)						
distributionFormat (271)						
name (285)						
version (286)						
distributor (272)						
distributorContact (280)						
organisationName (376)						
positionName (377)						
contactInfo (387)						
phone (388)						
voice (408)						
facsimile (409)						
address (389)						
deliveryPoint(381)						
city(382)						
country(385)						
electronicMailAddress(386)						
online (277)						
linkage(397)						
role (379)						
.distributorFormat (282)						
name (285)						
version (286)						
distributionOrderProcess (281/296)						
fees (299)						
orderingInstruction (301)						
turnaround (302)						
MD_DigitalTransferOptions (273)						
unitsOfDistribution (275)						
transferSize (276)						
online (277)						
linkage(397)						
protocol (398)						
name (400)						
description (401)						
function (402)						
offline (278/291)						
name (292)						
mediumFormat (296)						
mediumNote (297)						
dataQualityInfo (18)						
scope (79)						
level (139)						
report (80)						
DQ_Element (101)						
nameOfMeasure (100)						
measureIdentification (99)						
authority (206)						
organisationName (376)						
positionName (377)						
role (379)						
code (207)						
measureDescription (102)						
evaluationMethodType (103)						
evaluationMethodDescription (104)						
dateTime (106)						
result (107/128)						
DQ_ConformanceResult (129)						

ISO 19115 & the NZ Government Metadata Modules

Metadata Element	Metadata Identification	Spatial & Extents	Resource Identification	Data Characteristics	Data Quality	Metadata Extensions
specification (130)						
title (360)						
date (362)						
explanation (131)						
pass (132)						
DQ_QuantitativeResult (133)						
valueUnit (135)						
value (137)						
lineage (81/82)						
statement (83)						
processStep (84)						
description (87)						
rationale (88)						
dateTime (89)						
processor (91)						
organisationName (376)						
role (379)						
source (85)						
scaleDenominator (94)						
sourceReferenceSystem (95)						
referenceSystemIdentifier (187)						
code (207)						
sourceCitation (96)						
title (360)						
date (362)						
edition (363)						
citedResponsibleParty (367)						
organisationName (376)						
role (379)						
sourceExtent (97)						
geographicIdentifier (349)						
MD_ApplicationSchemaInformation (21/322)						
name (321)						
title (360)						
date (362)						
edition (363)						
citedResponsibleParty (367/374)						
organisationName (376)						
positionName (377)						
role (379)						
schemaLanguage (322)						
graphicsFile (325)						

Comparison of New Zealand Government Geospatial Metadata Profile with ISO 19115

8. The Metadata Element Descriptions

The following sections contain individual metadata element descriptions for each metadata element within the Metadata Profile. These element descriptions are organised into modules being a group of elements describing similar metadata characteristics. These element descriptions should be used as a reference source. The format and style of these description follows that used in the New Zealand Geographic Locator Service documentation.

Explanation of element description table format

Name	Name of metadata element
Short Name	Short name of metadata element
Superior Entities in ISO 19115 UML Structure	Identifies UML path to the parent entity(ies)
Equivalent NZGLS Element	Equivalent NZGLS metadata element (if one exists)
Definition	The definition of the metadata element being described
Purpose	A short explanation of the metadata element
Obligation	Indication of element status in regarding to completing the metadata record. Element may be mandatory or conditional (fish in the text)
Element refinements	Element refinements help to qualify a metadata element to control the format (syntax) of the value entered.
Encoding Schemes	These show where a specific set of controlled values can be sourced. These are the only permissible values for this element. These are referred to as CodeLists. To access CodeLists please refer to Part 1 Profile Definition . Namespaces identifying authoritative source for these codelists have been identified. These values should be used when metadata descriptions are encoded as XML instance documents utilising the optional "codeSpace" attribute structure within the XML instance document.
Default Value	This is the default value for the metadata element (if available).
Scope and Interpretation	This gives a broad explanation on the reason and method to complete and accurately describe the metadata element in terms of the resource being defined

Metadata Identification Module

The Metadata File Identifier Element

Purpose of this Section

Contains the rules for metadata element number 2 (ISO 19115 number series):
fileIdentifier

Rules on the Metadata File Identifier Element

Name	file Identifier
Short Name	mdFileID
Superior Entities in ISO	MD_Metadata

Metadata File Identifier Element

19115 UML Structure	
Equivalent NZGLS Element	None
Definition	The unique identifier of the metadata file.
Purpose	To differentiate one metadata file from another metadata file
Obligation	Mandatory.
Element refinements	None mandated. Organisations may define file naming conventions which identify refinements to distinguish and contain links between files pertaining to the same resource. For instance, file category (resource, metadata, feature catalogue, application schema), resource name and resource version.
Encoding Schemes	None
Default Value	None
Scope and Interpretation	This element must correctly identify the metadata file describing the current resource. Any refinements specified by an organisation must be consistently applied.

Examples

Metadata File Identifier = ContSitesmetv01-0.xml

Possible Refinements

"<fname>" describes the nature of the data resource – to be defined by the data steward. Naming should be as descriptive as possible.	Characters 1 –7
"<file category" = "met"	Characters 8 - 10
"v"	Character 11
Version number in "real number" format. 0-n only to be used for preliminary data supplies. First initial "official" supply to be "01-0". New versions resulting from maintenance updates reflected by incrementing previous version by 0-1. Significant data improvements to dataset to be marked by a new whole number (e.g. 2-0). Where maintenance is a systematic process, the anniversary of the initial supply/compilation of the dataset should be marked with a new version identified with a new whole number.	Characters 12 – 16 (including dash to represent decimal point)
".xml" to reflect data encoding	Characters 17 - 20
Example: <nztopotdbmetv01-2.xml>	Characters 1 - 20

The Metadata Language Element

Purpose of this Section

Contains the rules for metadata element number 3 (ISO 19115 number series):
language

Rules on the Metadata Language Element

Name	language
Short Name	mdLang
Superior Entities in ISO 19115 UML Structure	MD_Metadata
Equivalent NZGLS Element	None
Definition	Language used for documenting metadata.
Purpose	This element allows a search to be restricted to resources where the metadata has been created in a specific language. It is not intended to be a primary search point. For example, "find all metadata for data resources of Otago where the metadata is published in Maori".
Obligation	Conditional – required if language cannot be inferred from data encoding system.
Element refinements	None
Encoding Schemes	Compulsory – ISO 639 Part 2 "Codes for the representation of names of languages" (This is the same as the NZGLS specified encoding system of RFC3066 – tags for the identification of languages which is based on ISO 639-2) Namespace – "http://www.linz.govt.nz/metadata/codelistRegistry?LanguageType"
Default Value	eng
Scope and Interpretation	Language values are chosen from a standard set. The language value "eng" should be used in preference to "en-nz" unless a knowledge of New Zealand colloquial English is required to make sense of the resource. The language value is a two letter language code from the standard resource, which can have a two letter country code following it as an option. For example, "eng" means English, and "en-gb" means English with the United Kingdom influence or colloquial style. A full list of language codes is available at http://lcweb.loc.gov/standards/iso639-2/langcodes.html Where a single resource contains more than one language, repeat the Language element to cover each language. Where a resource exists separately in a different language, it is treated as a separate resource. Each version gets its own metadata record.

Examples

[iso639-2]	eng	English
[iso639-2]	en-nz	English as used in New Zealand
[iso639-2]	mao	Maori
[iso639-2]	smo	Samoan
[iso639-2]	ton	Tongan
[iso639-2]	tkl	Tokelau

The Metadata Character Set Element

Purpose of this Section

Contains the rules for metadata element number 4 (ISO 19115 number series):
characterSet

Rules on the Metadata Character Set Element

Name	characterSet
Short Name	mdChar
Superior Entities in ISO 19115 UML Structure	MD_Metadata
Equivalent NZGLS Element	None
Definition	Full name of the character coding standard used for the metadata set.
Purpose	This element allows a search to be restricted to resources that the user can use and view on their system.
Obligation	Mandatory
Element refinements	None.
Encoding Schemes	Compulsory – ISO 19115 – B.5.10 MD_CharacterSetCode <<CodeList>> Namespace – “ http://metadata.dgiwg.org/codelistRegistry?MD_CharacterSetCode ”
Default Value	utf8 (8-bit variable size UCS Transfer Format, based on ISO/IEC 10646) appears to be one of the more commonly used character sets incorporated in XML tools).
Scope and Interpretation	CharacterSet values are chosen from a standard set and are usually defined as part of the data encoding standard.

Examples

[iso19115]	ucs2
[iso19115]	ucs4
[iso19115]	utf7
[iso19115]	utf8
[iso19115]	utf16

The Metadata Parent Resource Identifier Element

Purpose of this Section

Contains the rules for metadata element number 5 (ISO 19115 number series):
parentIdentifier

Rules on the Metadata Parent Resource Identifier Element

Name	parentIdentifier
Short Name	mdParentID
Superior Entities in ISO 19115 UML Structure	MD_Metadata
Equivalent NZGLS Element	None
Definition	The file identifier of the metadata to which this metadata is a subset (child).
Purpose	This element identifies that there is metadata (at a higher level) and that this metadata is based on those higher level metadata descriptions.
Obligation	Conditional – If resource is a subset of a larger resource AND metadata exists for that other resource.
Element refinements	None mandated. Organisations may define file naming conventions which identify refinements to distinguish and contain links between files pertaining to the same resource. For instance, file category (resource, metadata, feature catalogue, application schema), resource name and resource version.
Encoding Schemes	None
Default Value	None
Scope and Interpretation	This element must correctly identify the metadata file describing the current resource. Any refinements specified by an organisation must be consistently applied.

Examples

Parent Resource Identifier = NZContSitesmetav1-0.xml

Possible Refinements

"<fname>" describes the nature of the data resource – to be defined by the data steward. Naming should be as descriptive as possible.	Characters 1 –7
"<file category" = "met"	Characters 8 - 10
"v"	Character 11
Version number in "real number" format. 0-n only to be used for preliminary data supplies. First initial "official" supply to be "01-0". New versions resulting from maintenance updates reflected by incrementing previous version by 0-1. Significant data improvements to dataset to be marked by a new whole number (eg 2-0). Where maintenance is a systematic process, the anniversary of the initial supply/compilation of the dataset should be marked with a new version identified with a new whole number.	Characters 12 – 16 (including dash to represent decimal point)
".xml" to reflect data encoding	Characters 17 - 20

The Metadata Contact Organisation Element

Purpose of this Section

Contains the rules for metadata element number 376 (ISO 19115 number series):
organisationName

Rules on the Metadata Contact Organisation Element

Name	organisationName
Short Name	rpOrgName
Superior Entities in ISO 19115 UML Structure	MD_Metadata /CI_RespParty/pointOfContact
Equivalent NZGLS Element	None
Definition	The name of the organisation primarily responsible for the content of the metadata for the resource.
Purpose	The Metadata Contact Organisation element allows searchers to make contact with the creator of the metadata.
Obligation	Mandatory
Element refinements	None.
Encoding Schemes	None
Default Value	None
Scope and Interpretation	
For metadata created by government, this element value contains the name of the agency responsible for updating the metadata for the resource. Organisation name is always given in full with no abbreviations.	

Examples

Ministry for the Environment
Environment Waikato

The Metadata Contact Position Element

Purpose of this Section

Contains the rules for metadata element number 377 (ISO 19115 number series):
positionName

Rules on the Metadata Contact Position Element

Name	positionName
Short Name	rpPosName
Superior Entities in ISO 19115 UML Structure	MD_Metadata /CI_RespParty/pointOfContact
Equivalent NZGLS Element	None
Definition	The name of the position within the organisation that is directly responsible for the content of the metadata for a resource.
Purpose	This element allows the user to communicate with a specific person within the organisation responsible for the metadata. This element will not be used as a search criteria.
Obligation	Mandatory
Element refinements	None.
Encoding Schemes	None.
Default Value	None.
Scope and Interpretation	
Element values must accurately describe an actual position within the organisation.	

Examples

Manager Environmental Reporting

The Metadata Email Contact Element

Purpose of this Section

Contains the rules for metadata element number 386 (ISO 19115 number series):
electronicMailAddress

Rules on the Metadata Email Contact Element

Name	electronicMailAddress
Short Name	eMailAdd
Superior Entities in ISO 19115 UML Structure	MD_Metadata /CI_RespParty/pointOfContact / CI_ContactAddress
Equivalent NZGLS Element	None
Definition	The electronic mailbox address for metadata communications at the organisation responsible for the creation and management of this metadata.
Purpose	This element allows the user to communicate with the organisation responsible for metadata management. This element will not be used as a search criteria.
Obligation	Mandatory
Element refinements	None.
Encoding Schemes	None.
Default Value	None.
Scope and Interpretation	
Email values must accurately describe a valid email address.	

Examples

Metadata Email Contact = metadata@mfe.govt.nz

The Metadata Contact Role Element

Purpose of this Section

Contains the rules for metadata element number 379 (ISO 19115 number series): *role*

Rules on the Metadata Contact Role Element

Name	role
Short Name	role
Superior Entities in ISO 19115 UML Structure	MD_Metadata /CI_RespParty/pointOfContact
Equivalent NZGLS Element	None
Definition	The function that empowers the organization to manage this metadata.
Purpose	This element informs the user of the reason why the designated contact organization for the metadata is fulfilling that role. This may become important during the early days of metadata where data distributors may generate metadata for a data resource that they distribute on behalf of the owner or data steward because no metadata is available to them as distributors but there is a demand from users for metadata. In such a situation, the data distributor may be a little removed from the day to day management and maintenance of the data resource and hence their assessments of the quality, lineage and other metadata characteristics may be incomplete and should be treated with a little caution. This element will not be used as a search criteria.
Obligation	Mandatory
Element refinements	None.
Encoding Schemes	Compulsory – B 5.5.CI_RoleCode <<CodeList>> Namespace – “ http://metadata.dgiwg.org/codelistRegistry?CI_RoleCode ”
Default Value	None.
Scope and Interpretation	
Role values must be derived from CI_RoleCode CodeList	

Examples

[iso19115]	resourceProvider	party that supplies the resource
[iso19115]	custodian	party that accepts accountability and responsibility for the data and ensures appropriate care and maintenance of the resource
[iso19115]	owner	party that owns the resource
[iso19115]	user	party who uses the resource
[iso19115]	distributor	party who distributes the resource
[iso19115]	originator	party who created the resource
[iso19115]	pointOfContact	party who can be contacted for acquiring knowledge about or acquisition of the resource
[iso19115]	principallInvestigator	key party responsible for gathering information and conducting research
[iso19115]	processor	party who has processed the data in a manner such that the resource has been modified
[iso19115]	data steward	party with statutory responsibility for resource

The Metadata Date Element

Purpose of this Section

Contains the rules for metadata element number 9 (ISO 19115 number series):
dateStamp

Rules on the Metadata Date Element

Name	dateStamp
Short Name	mdDateSt
Superior Entities in ISO 19115 UML Structure	MD_Metadata
Equivalent NZGLS Element	None
Definition	Date that the metadata was created.
Purpose	This element allows the user to make an assessment as to the validity, in particular timeliness, of the metadata. In the case where there are a number of metadata files for a resource, the user can use the date to determine what is the most recent. This element will not be used as a search criteria.
Obligation	Mandatory
Element refinements	None.
Encoding Schemes	ISO 8601 – the list of acceptable formats is in this section
Default Value	None.
Scope and Interpretation	This date should be to record the last update of the metadata (not the data resource). Initially this will be the date the metadata was created but, over time, this date will be replaced by the date the metadata was updated..

Examples

2002-08-14 - i.e. 14 August 2002

The Metadata Standard Element

Purpose of this Section

Contains the rules for metadata element number 10 (ISO 19115 number series):
metadataStandardName

Rules on the Metadata Standard Element

Name	metadataStandardName
Short Name	mdStanName
Superior Entities in ISO 19115 UML Structure	MD_Metadata
Equivalent NZGLS Element	None
Definition	Name of the metadata standard (including profile name) used.
Purpose	This element allows the user to identify which metadata profile has been used to compile this particular metadata file. This element will not be used as a search criteria.
Obligation	Mandatory
Element refinements	None.
Encoding Schemes	None
Default Value	ISO 19115 Geographic Information – Metadata New Zealand Government Geospatial Profile)
Scope and Interpretation	
All metadata complying with this Metadata Profile should use the default value unmodified.	

Examples

See default value above.

The Metadata Standard Version Element

Purpose of this Section

Contains the rules for metadata element number 11 (ISO 19115 number series):
metadataStandardVersion

Rules on the Metadata Standard Version Element

Name	metadataStandardVersion
Short Name	mdStanVer
Superior Entities in ISO 19115 UML Structure	MD_Metadata
Equivalent NZGLS Element	None
Definition	Version of the metadata standard or profile (refer previous definition) used.
Purpose	This element allows the user to ascertain whether the metadata conforms to the latest version of this metadata standard. This element will not be used as a search criteria.
Obligation	Mandatory
Element refinements	None.
Encoding Schemes	None
Default Value	None.
Scope and Interpretation	
The version value should be the one that defined the content and structure of the metadata. In the case where a XML schema document provides that definition, the version of the Metadata Profile it conforms to should be clearly annotated within the XML schema document	

Examples

1.0

The Resource Identification Module

The Resource Title Element

Purpose of this Section

Contains the rules for metadata element number 360 (ISO 19115 number series): *title*

Rules on the Resource Title Element

Name	title
Short Name	resTitle
Superior Entities in ISO 19115 UML Structure	MD_Metadata/MD_Identification/CI_Citation
Equivalent NZGLS Element	Title
Definition	The name by which the cited resource is known.
Purpose	Searchers will use this element if they know the title of the resource or words in the title of the resource.
Obligation	Mandatory.
Element refinements	None mandated.
Encoding Schemes	None
Default Value	None
Scope and Interpretation	Where there is an official name used for the resource, this should be used in the Resource Title element. If the resource is a text document, use the full title as it appears on the title page. If the document has another common usage name, add this to the end of the title in brackets. In some situations where there is no formal name associated with the resource, the author might need to make up the most useful name for the resource, using the name which it is most commonly known by, and most likely to be searched by. If a version statement is attached to the record to distinguish this resource from others of the same title in a time series, then the version statement should be included at the end of the title.

How to use the Title element when describing a Service

For a service, use its full explanatory name, or the official name used by the agency.

In those situations where there is no official name, use the title which the creator uses to identify the service to its clients. Use a naming convention that best identifies the service to clients. The Title element could identify an individual service or a group of services, depending on the agency structure for the delivery of that service.

The content of the Title element is displayed as part of the search result, so it needs to be an accurate and clear name for the service concerned.

Examples

New Zealand Geographic Place Name Database
Landonline Survey and Title Service
The Maori Land Information Base

The Resource Alternate Title Element

Purpose of this Section

Contains the rules for metadata element number 361 (ISO 19115 number series):
alternateTitle

Rules on the Resource Alternate Title Element

Name	alternateTitle
Short Name	resAltTitle
Superior Entities in ISO 19115 UML Structure	MD_Metadata/MD_Identification/CI_Citation
Equivalent NZGLS Element	Title (alternative refinement)
Definition	The short name or other language name by which the cited resource is known.
Purpose	Searchers will use this element if they know the alternate title of the resource or words in the title of the resource.
Obligation	Conditional – If an alternate name exists for the resource (including acronyms)
Element refinements	NZGLS Alternative refinement (for Title Element)
Encoding Schemes	None
Default Value	None
Scope and Interpretation	
The Resource Alternative Title element should be described where a resource is typically referred to by an acronym.	

Examples

For the Core Record System:

[alternative]	CRS
---------------	-----

The Resource Version Element

Purpose of this Section

Contains the rules for metadata element number 363 (ISO 19115 number series):
edition

Rules on the Resource Version Element

Name	edition
Short Name	resEd
Superior Entities in ISO 19115 UML Structure	MD_Metadata/MD_Identification/CI_Citation
Equivalent NZGLS Element	None
Definition	The version of the cited resource.
Purpose	To ascertain that the version of the resource is the most current.
Obligation	Conditional – if version control applies to the identification of the resource.
Element refinements	None
Encoding Schemes	None
Default Value	None
Scope and Interpretation	Only to be described where a formal version/edition control is used in conjunction with a resource.

Examples

1.0

The Resource Identifier Element

Purpose of this Section

Contains the rules for metadata element number 365 (ISO 19115 number series):
identifier

Rules on the Resource Identifier Element

Name	identifier
Short Name	citId
Superior Entities in ISO 19115 UML Structure	MD_Metadata/MD_Identification/CI_Citation
Equivalent NZGLS Element	None
Definition	Value uniquely identifying the resource within a namespace.
Purpose	To provide a further mechanism to aid searching and locating the resource.
Obligation	Conditional – if a system of identification applies to the identification of the resource.
Element refinements	None
Encoding Schemes	None
Default Value	None
Scope and Interpretation	
Only to be used where the resource is commonly identified by this identifier.	

Examples

123467

The Resource ISBN Element

Purpose of this Section

Contains the rules for metadata element number 372 (ISO 19115 number series):
ISBN

Rules on the Resource ISBN Element

Name	ISBN
Short Name	isbn
Superior Entities in ISO 19115 UML Structure	MD_Metadata/MD_Identification/CI_Citation
Equivalent NZGLS Element	None
Definition	International Standard Book Number.
Purpose	To provide a further mechanism to aid searching and locating the resource.
Obligation	Conditional – if an ISBN value has been assigned to the identification of the resource.
Element refinements	None.
Encoding Schemes	None
Default Value	None
Scope and Interpretation	
Only of relevance to books that have been issued an ISBN number	

Examples

1-861005-59-8

The Resource ISSN Element

Purpose of this Section

Contains the rules for metadata element number 373 (ISO 19115 number series):
ISSN

Rules on the Resource ISSN Element

Name	ISSN
Short Name	issn
Superior Entities in ISO 19115 UML Structure	MD_Metadata/MD_Identification/CI_Citation
Equivalent NZGLS Element	None
Definition	International Standard Serial Number.
Purpose	To provide a further mechanism to aid searching and locating the resource.
Obligation	Conditional – if an ISSN value has been assigned to the identification of the resource.
Element refinements	None.
Encoding Schemes	None
Default Value	None
Scope and Interpretation	
Only of relevance to serials that have been issued an ISSN number	

Examples

1-861005-59-8

The Resource Citation Date Element

Purpose of this Section

Contains the rules for metadata element number 363 (ISO 19115 number series): *date*

Rules on the Resource Citation Date Element

Name	date	
Short Name	resRefDate	
Superior Entities in ISO 19115 UML Structure	MD_Metadata/MD_Identification/CI_Citation	
Equivalent NZGLS Element	NZGLS Date element	
Definition	Reference date for the cited resource.	
Purpose	This element allows the user to qualify a search for suitable resources. For instance "Find all rainfall data resources for Otago in the last 5 years".	
Obligation	Mandatory.	
Element refinements	Event used for the Resource Citation Date should be used to qualify the date value. These qualifiers must be B.5.2 CI_DateTypeCode <<CodeList>> i.e.	
	CI_DateType Values	Equivalent NZGLS Date element refinement
	Creation	Created
	Publication	Valid
	Revision	Modified
Encoding Schemes	ISO 8601 Date Encoding Scheme	
	<p>ISO 8601 is the International Standard for the representation of dates and times. ISO 8601 describes a large number of date/time formats. To reduce the scope for error and the complexity of software, it is useful to restrict the supported formats to a small number. This profile replicates NZGLS (Section K.2) and defines some date/time formats which are likely to satisfy most requirements.</p> <p>The formats are as follows. Exactly the components shown here must be present, with exactly this punctuation. Note that the 'T' appears literally in the string, to indicate the beginning of the Time element, as specified in ISO 8601.</p> <p>Date Formats Year: YYYYY (e.g. 1997) Year and month: YYYYY-MM (e.g. 1997-07) Complete date: YYYYY-MM-DD (e.g. 1997-07-16) Periods of Time when start and end dates are known: YYYY-MM-DD/YYYY-MM-DD (eg1997-07-16/1997-08-17) Periods of Time when the start or end date are not known: YYYY-MM-DD/- OR -/YYYY-MM-DD (e.g. 1997-07-16/-OR-/1997-08-17) Abbreviations used above are:: YYYY = four-digit year MM = two-digit month (01=January, etc.) DD = two-digit day of month (01 through 31)</p>	
	Default Value	None
	Scope and Interpretation	
	If metadata is created directly using an XML Schema incorporating the ISO 19115 UML structure, users should be aware the date type qualifier will be treated as a separate element to the ISO 8601 compliant date format value.	

Examples

(creation)	2002-08-08
(publication)	2002-09-06
(revision)	2003-01-30

The Resource Presentation Form Element

Purpose of this Section

Contains the rules for metadata element number 368 (ISO 19115 number series):
presentationForm

Rules on the Resource Presentation Form Element

Name	presentationForm
Short Name	presForm
Superior Entities in ISO 19115 UML Structure	MD_Metadata/MD_Identification/CI_Citation
Equivalent NZGLS Element	By inference, if Resource Presentation Form is populated, the NZGLS Type.category refinement = "document".
Definition	Mode in which the resource is presented.
Purpose	This element allows the user to locate different categories of resources (such as types of documents or services), or for results to be displayed in useful groups. The element allows a search to be restricted to resources of a certain kind. For example, "find all digital imagery of Otago".
Obligation	Conditional – if data resource and not a service
Element refinements	None.
Encoding Schemes	Compulsory – B.5.4 CI_PresentationFormCode <<CodeList>> Namespace – "http://metadata.dgiwg.org/codelistRegistry?CI_PresentationFormCode"
Default Value	None.
Scope and Interpretation	
Resource Presentation Form values must be derived from CI_PresentationFormCode CodeList	

Examples

[iso19115]	documentDigital
[iso19115]	imageDigital
[iso19115]	imageHardcopy
[iso19115]	mapDigital
[iso19115]	mapHardcopy

The Abstract Element

Purpose of this Section

Contains the rules for metadata element number 25 (ISO 19115 number series):
abstract

Rules on the Abstract Element

Name	abstract
Short Name	idAbs
Superior Entities in ISO 19115 UML Structure	MD_Metadata/MD_Identification
Equivalent NZGLS Element	None
Definition	Brief narrative summary of the content of the resource.
Purpose	The Abstract element amplifies the results of resource searches to permit users to obtain a better appreciation of the resource and assist determine fitness for purpose. This element will not be used as a search criteria.
Obligation	Mandatory
Element refinements	None.
Encoding Schemes	None.
Default Value	None.
Scope and Interpretation	
Care should be taken to make sure that the abstract describes all the content of the resource but at the same time is a summary of that content.	

Examples

The DCDB is now a legacy digital map that contained a vector based representation of all land parcel boundaries and most other legal boundaries for all of New Zealand. In addition it contained a centerline representation of all legal roads. It reflected the current cadastral pattern and was maintained through the processing of new subdivision plans. The DCDB was completely replaced in July 2002 by the Land *online* Survey and Title Service.

The Purpose Element

Purpose of this Section

Contains the rules for metadata element number 26 (ISO 19115 number series):
purpose

Rules on the Purpose Element

Name	purpose
Short Name	idPurp
Superior Entities in ISO 19115 UML Structure	MD_Metadata/MD_Identification
Equivalent NZGLS Element	None
Definition	Summary of intention for which the resource was developed
Purpose	The Purpose element is like the Abstract element in that it amplifies the results of resource searches to permit users to obtain a better appreciation of the resource and assist determine fitness for purpose. This element will not be used as a search criteria.
Obligation	Mandatory
Element refinements	None.
Encoding Schemes	None.
Default Value	None.
Scope and Interpretation	
This element may duplicate the details recorded for the Mandate Reference Element but also allows secondary purposes to be recorded and for private sector agencies to record a non-mandatory purpose.	

Examples

The DCDB was originally developed to automate the production of a new series of metric scale record sheet maps and support the efficient recording of cadastral surveys. Subsequently, subsets of the DCDB became the basis of property based GIS managed by local authorities to fulfill their obligations under the Rating Act, the Local Government Act and the Resource Management Act.

The Mandate Reference Element

Purpose of this Section

Contains the rules for metadata element number NZ1 (NZ extension to ISO 19115): *mandateReference*

Rules on the Mandate Reference Element

Name	mandateReference
Short Name	manRef
Superior Entities in ISO 19115 UML Structure	MD_Metadata/MD_Identification
Equivalent NZGLS Element	Mandate (excluding element refinement that is treated as a separate metadata element in this profile – see element Mandate Type).
Definition	Describes the type of New Zealand statutory mandate justification for the creation of a data resource or the provision of a service.
Purpose	This element refers to any legal instrument which requires the resource to be created or provided for public access. It describes the legal authority an agency has to provide a service, or information, or other resource.
Obligation	Conditional, where there is a statutory reason for its creation
Element refinements	None.
Encoding Schemes	None.
Default Value	None.
Scope and Interpretation	
The Mandate element is useful to show the legal authority or specific legal mandate which requires the resource to be created or provided to the public. It is a useful access point for searchers wanting information about specific legal instruments or cases. The content of this element will usually be a reference to a specific Act, Regulation, Rule or Case. It could also be a URI pointing to an on-line version of the legal instrument in question.	

How to use this element when describing a service

Most government services have some kind of legal authority providing the framework for their setup and delivery. This element is very useful to searchers wanting to know more about the background to a service, so its use is recommended.

Examples

Lysaght v Whakatane D.C. (1985) 11 NZTPA 134
Rating Valuation Rules, Version 3.0
Section 35(3) Resource Management Act 1991

The Mandate Type Element

Purpose of this Section

Contains the rules for metadata element number NZ2 (NZ extension to ISO 19115):
mandateType

Rules on the Mandate Type Element

Name	mandateType
Short Name	manTyp
Superior Entities in ISO 19115 UML Structure	MD_Metadata/MD_Identification
Equivalent NZGLS Element	NZGLS Mandate element refinement only.
Definition	Type of New Zealand statutory mandate justification as identified in the NZGLS mandate element refinement.
Purpose	This element allows the user to locate resources based on a type of mandate or for results to be displayed in useful groups. The element allows a search to be restricted to resources of a certain kind. For example, "find all resources with a mandate based on an Act".
Obligation	Conditional, where there is a statutory reason for its creation
Element refinements	None.
Encoding Schemes	Compulsory – NZ_MandateType <<CodeList>> Namespace – "http://www.linz.govt.nz/codelistRegistry?NZ_MandateType"
Default Value	None.
Scope and Interpretation	The Mandate Type element is useful to show the type of legal authority or specific legal mandate which requires the resource to be created or provided to the public. Mandate Type values are chosen from a standard set.

Examples

[NZGmd]	Act
[NZGmd]	Regulation
[NZGmd]	Rule
[NZGmd]	Court Case
[NZGmd]	Other

The Resource Status Element

Purpose of this Section

Contains the rules for metadata element number 28 (ISO 19115 number series):
status

Rules on the Resource Status Element

Name	status
Short Name	idStatus
Superior Entities in ISO 19115 UML Structure	MD_Metadata/MD_Identification
Equivalent NZGLS Element	None
Definition	The progress / status of the resource.
Purpose	To provide guidance on fitness for purpose.
Obligation	Mandatory
Element refinements	None mandated.
Encoding Schemes	Compulsory – B.5.23 MD_ProgressCode <<CodeList>> Namespace – “http://metadata.dgiwg.org/codelistRegistry?MD_ProgressCode”
Default Value	completed
Scope and Interpretation	
Value must be derived from codelist.	

Examples

[iso19115]	completed
[iso19115]	historicalArchive
[iso19115]	obsolete
[iso19115]	onGoing

The Audience Element

Purpose of this Section

Contains the rules for metadata element number NZ3 (NZ extension to ISO 19115):
audience

Rules on the Audience Element

Name	audience
Short Name	audience
Superior Entities in ISO 19115 UML Structure	MD_Metadata/MD_Identification
Equivalent NZGLS Element	NZGLS Audience element
Definition	The target audience of a resource.
Purpose	The Audience element describes the intended audience of a resource. It allows searchers to specify the particular audience they belong to, so only resources relevant to them get displayed. It also allows searchers to decide whether a service or resource is worth accessing or retrieving.
Obligation	Mandatory
Element refinements	None.
Encoding Schemes	Compulsory – NZ_Audience <<CodeList>>- based on the NZGLS Portal Vocabulary for Audience (refer NZGLS Section R.2) Namespace – “http://www.linz.govt/metadata/codelistRegistry?NZ_Audience”
Default Value	All.
Scope and Interpretation	A searcher could use this element to decide whether a resource was worth accessing or retrieving based on the audience the resource was designed for. It can also be used by an agency to target a service or resource at a particular demographic or socioeconomic group. Where a target audience is described using a numbered index, it is recommended that a common use term also be used, so that a searcher can use either the code or the term. Audience values are chosen from a standard set.

Examples

[NZGmd]	All
[NZGmd]	Business
[NZGmd]	Government
[NZGmd]	Maori
[NZGmd]	Rural

The Resource Contact Organisation Element

Purpose of this Section

Contains the rules for metadata element number 376 (ISO 19115 number series):
organisationName

Rules on the Resource Contact Organisation Element

Name	organisationName
Short Name	rpOrgName
Superior Entities in ISO 19115 UML Structure	MD_Metadata/MD_Identification
Equivalent NZGLS Element	NZGLS Creator & Publisher elements (AGLS agent encoding scheme corporateName refinement)
Definition	The name of the organisation primarily responsible for the content of the resource, or the provision of the service.
Purpose	The Creator element allows searchers to find resources based on the creator of those resources. For example, it allows a searcher to discover all resources or services created by the Ministry for the Environment, or Southland District.
Obligation	Mandatory
Element refinements	None.
Encoding Schemes	None
Default Value	None
Scope and Interpretation	
For resources created by government, this element value contains the name of the agency responsible for on-going operation or maintenance of the resource or the service. Where there are a number of organizations involved in the operation or maintenance of a service or resource, the agency mostly responsible for that service or resource is designated as the Resource Contact Organisation. This element always refers to the primary agency. Other agencies may also be noted in other metadata elements (The Metadata Contact Organisation Element, Distributor Contact Organisation Element, The User Organisation Element and Processor Organisation Element). Organisation name is always given in full with no abbreviations.	

Examples

Ministry for the Environment
Environment Waikato

The Resource Contact Position Element

Purpose of this Section

Contains the rules for metadata element number 377 (ISO 19115 number series):
positionName

Rules on the Resource Contact Position Element

Name	positionName
Short Name	rpPosName
Superior Entities in ISO 19115 UML Structure	MD_Metadata/ MD_Identification
Equivalent NZGLS Element	NZGLS Creator & Publisher elements (AGLS agent encoding scheme corporateName refinement extension)
Definition	The name of the position within the organisation that is directly responsible for the content of the resource, or the provision of the service.
Purpose	This element allows the user to communicate with a specific person within the organisation responsible for the resource. This element will not be used as a search criteria.
Obligation	Mandatory
Element refinements	None.
Encoding Schemes	None.
Default Value	None.
Scope and Interpretation	
Element values must accurately describe an actual position within the organisation.	

Examples

Manager Environmental Reporting

The Resource Voice Phone Contact Element

Purpose of this Section

Contains the rules for metadata element number 408 (ISO 19115 number series):
voice

Rules on the Resource Voice Phone Contact Element

Name	voice
Short Name	voiceNum
Superior Entities in ISO 19115 UML Structure	MD_Metadata/ MD_Identification
Equivalent NZGLS Element	NZGLS Creator & Publisher elements (AGLS agent encoding scheme contact refinement)
Definition	The telephone number by which individuals can speak to the contact person within the organization responsible for the resource.
Purpose	This element allows the user to communicate with the organisation responsible for the resource. This element will not be used as a search criteria.
Obligation	Mandatory
Element refinements	None mandated.
Encoding Schemes	None
Default Value	None
Scope and Interpretation	
Phone value must be valid for the phone used by the resource contact person within the contact organization or be the main number for the organisation. The format of the number should follow the following convention 0-n- <i>nnn</i> <i>nnnn</i> .	

Examples

0-4-460 0110

The Resource Fax Contact Element

Purpose of this Section

Contains the rules for metadata element number 409 (ISO 19115 number series):
facsimile

Rules on the Resource Voice Phone Contact Element

Name	facsimile
Short Name	faxNum
Superior Entities in ISO 19115 UML Structure	MD_Metadata/ MD_Identification
Equivalent NZGLS Element	NZGLS Creator & Publisher elements (AGLS agent encoding scheme contact refinement)
Definition	The facsimile phone number by which individuals can contact the organization responsible for the resource.
Purpose	This element allows the user to communicate with the organisation responsible for the resource. This element will not be used as a search criteria.
Obligation	Mandatory
Element refinements	None mandated.
Encoding Schemes	None
Default Value	None
Scope and Interpretation	
Fax number must be valid for the fax used by the resource contact person within the contact organization or be the main fax number for the organisation. The format of the number should follow the following convention 0-n- <i>nnn</i> <i>nnnn</i> .	

Examples

0-4-460 0110

The Resource Mail Address Contact Element

Purpose of this Section

Contains the rules for metadata element number 381, 382 & 385 (ISO 19115 number series): *deliveryPoint, city & country*

Rules on the Resource Mail Address Contact Element

Name	deliveryPoint, city, country
Short Name	delPoint, city, country
Superior Entities in ISO 19115 UML Structure	MD_Metadata/ MD_Identification
Equivalent NZGLS Element	NZGLS Creator & Publisher elements (AGLS agent encoding scheme address refinement)
Definition	The mail address for the organization responsible for the resource.
Purpose	This element allows the user to communicate with the organisation responsible for the resource. This element will not be used as a search criteria.
Obligation	Mandatory
Element refinements	None.
Encoding Schemes	None
Default Value	country: New Zealand. Other sub-elements : none
Scope and Interpretation	
Address values must accurately describe a valid street or mail address.	

Examples

45 Pipitea Street, Wellington, New Zealand.

The Resource Email Contact Element

Purpose of this Section

Contains the rules for metadata element number 386 (ISO 19115 number series):
electronicMailAddress

Rules on the Resource Email Contact Element

Name	electronicMailAddress
Short Name	eMailAdd
Superior Entities in ISO 19115 UML Structure	MD_Metadata/MD_Identification/CI_RespParty/pointOfContact/contactInfo/CI_ContactAddress
Equivalent NZGLS Element	NZGLS Creator & Publisher elements (AGLS agent encoding scheme email refinement)
Definition	The electronic mailbox address for communication with the organisation responsible for the provision and management of this resource.
Purpose	This element allows the user to communicate with the organisation responsible for the resource. This element will not be used as a search criteria.
Obligation	Mandatory
Element refinements	None
Encoding Schemes	None.
Default Value	None.
Scope and Interpretation	
Email values must accurately describe a valid email address.	

Examples

data@mfe.govt.nz

The Resource URL Contact Element

Purpose of this Section

Contains the rules for metadata element number 397 (ISO 19115 number series):
linkage

Rules on the Resource URL Contact Element

Name	linkage
Short Name	linkage
Superior Entities in ISO 19115 UML Structure	MD_Metadata/MD_Identification/CI_RespParty/pointOfContact/contactInfo/CI_OnlineResource
Equivalent NZGLS Element	NZGLS Creator & Publisher elements (AGLS agent encoding scheme contact refinement)
Definition	The location (address) for on-line access using a Uniform Resource Locator address or similar addressing scheme for the resource.
Purpose	This element allows the user to communicate with the organisation responsible for the resource. This element will not be used as a search criteria.
Obligation	Conditional – if resource is accessible on-line
Element refinements	None mandated.
Encoding Schemes	None
Default Value	None
Scope and Interpretation	
A valid url must be recorded, providing a direct link to the component of the website describing the resource.	

Examples

<http://www.linz.govt.nz/core/Topography/ProjectsAndProgrammes/emergencyservices/index.jsp>

The Resource Contact Role Element

Purpose of this Section

Contains the rules for metadata element number 379 (ISO 19115 number series): *role*

Rules on the Resource Contact Role Element

Name	role
Short Name	role
Superior Entities in ISO 19115 UML Structure	MD_Metadata/MD_Identification/CI_RespParty/pointOfContact/
Equivalent NZGLS Element	None
Definition	The function that empowers the organization to manage this resource or service.
Purpose	This element informs the user of the reason why the designated contact organization for the resource or service is fulfilling that role. This may become important during the early days of metadata where data distributors may generate metadata for a data resource that they distribute on behalf of the owner or data steward because no metadata is available to them as distributors but there is a demand from users for metadata. In such a situation, the data distributor may be a little removed from the day to day management and maintenance of the data resource and hence their assessments of the quality, lineage and other metadata characteristics may be incomplete and should be treated with a little caution. This element will not be used as a search criteria.
Obligation	Mandatory
Element refinements	None.
Encoding Schemes	Compulsory – B5.5 CI_RoleCode <<CodeList>> Namespace – “http://metadata.dgiwg.org/codelistRegistry?CI_RoleCode”
Default Value	None.
Scope and Interpretation	
Role values must be derived from CI_RoleCode CodeList	

Examples

[iso19115]	resourceProvider	party that supplies the resource
[iso19115]	custodian	party that accepts accountability and responsibility for the data and ensures appropriate care and maintenance of the resource
[iso19115]	owner	party that owns the resource
[iso19115]	user	party who uses the resource
[iso19115]	distributor	party who distributes the resource
[iso19115]	originator	party who created the resource
[iso19115]	pointOfContact	party who can be contacted for acquiring knowledge about or acquisition of the resource
[iso19115]	principallInvestigator	key party responsible for gathering information and conducting research
[iso19115]	processor	party who has processed the data in a manner such that the resource has been modified
[iso19115]	data steward	party with statutory responsibility for resource

The Keyword Element

Purpose of this Section

Contains the rules for metadata element number 52 (ISO 19115 number series):

MD_Keyword

Rules on the Keyword Type Element

Name	MD_Keyword (keyword/ type / thesaurusName)
Short Name	Keywords (keyword/ keyTyp/ thesaName)
Superior Entities in ISO 19115 UML Structure	MD_Metadata/MD_Identification/MD_Keywords
Equivalent NZGLS Element	NZGLS Subject and NZGLS Function elements.
Definition	Commonly used words or formalized words or phrases used to describe the subject as well as the subject matter used to group similar keywords and the name of the authoritative source of keywords.
Purpose	This element is one of the main search elements. It incorporates both the Subject and Function NZGLS elements as well as the ANZLIC Search Words (From the ANZLIC Metadata Guidelines Version 2) as well as identifying (if relevant) the Ministry for the Environments Environmental Performance Indicator (EPI) strand. For example, "find all resources on motor camps".
Obligation	Mandatory for SONZ and FONZ Conditional (if applicable) for ANZLIC Search words and EPI strand.
Element refinements	The keyword metadata element is described in several components.

Component	Definition
keyword	Commonly used word, formalized words or phrases to describe the subject
type	The subject matter used to group similar keywords
thesaurus	Name and brief citation details of the authoritative source of keywords
Encoding Schemes	<p>Compulsory for keyword component – must be from either Subjects of New Zealand Thesaurus Version 2.20 (http://www.linz.govt.nz/metadata/codelistRegistry?SONZ_Keyword), Functions of New Zealand Thesaurus Version 1.20 (http://www.linz.govt.nz/metadata/codelistRegistry?FONZ_Keyword), be one of the EPI streams (http://www.linz.govt.nz/metadata/codelistRegistry?EV_epiStrandCode) or an ANZLIC Search Words (http://www.linz.govt.nz/metadata/codelistRegistry?ANZLIC_Search).</p> <p>Compulsory for type component – must be from B.5.17 MD_KeywordTypeCode <<CodeList>> and the value "theme" applies for three "recognized" thesaurus with only the ANZLIC thesaurus taking the value "discipline".</p> <p>Compulsory for thesaurus component :</p> <ul style="list-style-type: none"> • [title] must be from NZ_RecognisedThesaurus <<CodeList>> and recorded in the title field within the CI_Citation class (ie values of FONZ, SONZ, ANZLIC or EPI); • [date] – date of publication of the version of the thesaurus used • [dateType] – "publication" (default) • [OtherCitationDetails] – authoritative namespace for the thesaurus Either:

Keyword Element

	<ul style="list-style-type: none"> – http://www.linz.govt.nz/staticpages/geospatial/xml/schema/codelistRegistry?FONZ_Keyword – http://www.linz.govt.nz/staticpages/geospatial/xml/schema/codelistRegistry?SONZ_Keyword – http://www.linz.govt.nz/staticpages/geospatial/xml/schema/codelistRegistry?EV_epiStrandCode – http://www.linz.govt.nz/staticpages/geospatial/xml/schema/codelistRegistry?ANZLICsearchWord
Default Value	Keyword component – None Type component – theme Thesaurus component - None.
Scope and Interpretation	
<p>NZGLS Function Keyword</p> <p>Functions are the major activities organisations carry out to meet their missions and goals.</p> <p>However, agencies will need to use a subject term as well, to give searchers the complete picture. Functions in the Functions of New Zealand Thesaurus are hierarchically structured from general to more specific terms. Use the appropriate level of specificity. Use more than one where a resource relates to more than one function in a significant way.</p> <p>How to use this element when describing this service</p> <p>The Function term selected for the value in this element should reflect the actual services or functions of the organisation – not peripheral support services such as administration or human resources activities. This is not the same as the subject of a resource or service.</p> <p>It is not intended that all the resources within an agency get assigned the same Function value, because this would defeat the purpose of the element for finding resources. However, in some small agencies with limited functions, it is possible that many resources will have the same function terms in their metadata records.</p> <p>In a larger agency, it is expected that many resources might be associated with the same or with overlapping sets of Function values.</p> <p>2 NZGLS Subject Keyword</p> <p>The Subject element should tell the searcher what the resource is about.</p> <p>When selecting values for the subject element, it will be necessary to analyse the resource being described. Don't read the whole thing, but use the title, the contents, or any information about the resource to work out what the subject as a whole is. Then select a term which best describes the subject from the appropriate thesaurus. Choose the most significant and unique words as Subject element values, and avoid terms that are too general to describe that particular resource's subject. Exercise your judgement on providing sufficient Subject values to help a searcher, including major secondary subjects held in the content. Do not repeat variations of terms, synonyms, case or tense, or alternate spellings.</p> <p>If the subject of the resource is a person or an organisation do not repeat the name in the Resource Contact Organisation element.</p> <p>If you want to describe a subject which only applies to part of the resource, or if you want to refine the description in more detail, and if there is no controlled vocabulary term in the thesaurus to do this, then you can describe these other subjects using the</p>	

Keyword Element

Abstract element.

EPI Stream

The EPI (Environmental Performance Indicator) programme has defined 14 EPI streams that are to be monitored. Any resource having an association with one of these EPI streams should record that association through the Keyword element.

ANZLIC Search Words

The ANZLIC Search Words include qualifier words that are intended to allow the searcher to be very specific. For instance, a search using WATER Groundwater Research would collect only those datasets where all of those three criteria were entered.

Do not list a major Search Word i.e. "WATER" when a more detailed Search Word i.e. "WATER Rivers" is provided. That is, a metadata record would not be described by the Search Words "WATER" and "WATER Rivers"; preferably the latter.

1

Examples

Keyword	Type	Thesaurus
Conserving the Environment	theme	[title] "FONZ" [date] "2003-05" [dateType] "publication" [otherCitationDetails] "http://www.linz.govt.nz/metadata/codelistRegistry? FONZ_Keyword"
Ecosystems	theme	[title] "SONZ" [date] "2003-05" [dateType] "publication" [otherCitationDetails] "http://www.linz.govt.nz/metadata/codelistRegistry? SONZ_Keyword"
ClimateChange	theme	[title] "EPI" [date] "2004-01" [dateType] "publication" [otherCitationDetails] "http://www.linz.govt.nz/metadata/codelistRegistry? EV_epiStrandCode"
WATER Rivers	discipline	[title] "ANZLIC" [date] "2001-02" [dateType] "publication" [otherCitationDetails] "http://www.linz.govt.nz/metadata/codelistRegistry? ANZLIC_SearchWord"

The Resource Language Element

Purpose of this Section

Contains the rules for metadata element number 39 (ISO 19115 number series):
language

Rules on the Resource Language Element

Name	language
Short Name	dataLang
Superior Entities in ISO 19115 UML Structure	MD_Metadata/MD_Identification/MD_DataIdentification
Equivalent NZGLS Element	NZGLS Language element.
Definition	Language used for documenting a resource or service.
Purpose	This element allows a search to be restricted to resources where the resource or service is in a specific language. It is not intended to be a primary search point. For example, "find all the German language data resources of Otago".
Obligation	Conditional – required if language cannot be inferred from data encoding system.
Element refinements	None.
Encoding Schemes	Compulsory – ISO 639 Part 2 "Codes for the representation of names of languages" (This is the same as the NZGLS specified encoding system of RFC3066 – tags for the identification of languages which is based on ISO 639-2) Namespace – http://www.linz.govt.nz/metadata/codelistRegistry?LanguageType
Default Value	eng
Scope and Interpretation	<p>Language values are chosen from a standard set. The language value "eng" should be used in preference to "en-nz" unless a knowledge of New Zealand colloquial English is required to make sense of the resource.</p> <p>The language value is a two letter language code from the standard resource, which can have a two letter country code following it as an option. For example, "eng" means English, and "en-gb" means English with the United Kingdom influence or colloquial style. A full list of language codes is available at http://lcweb.loc.gov/standards/iso639-2/langcodes.html</p> <p>Where a single resource contains more than one language, repeat the Language element to cover each language. Where a resource exists separately in a different language, it is treated as a separate resource. Each version gets its own metadata record.</p>

Examples

[iso639-2]	eng	English
[iso639-2]	en-nz	English as used in New Zealand
[iso639-2]	mao	Maori
[iso639-2]	smo	Samoan
[iso639-2]	tog	Tongan
[iso639-2]	tkl	Tokelau

The Resource Character Set Element

Purpose of this Section

Contains the rules for metadata element number 40 (ISO 19115 number series):
characterSet

Rules on the Resource Character Set Element

Name	characterSet
Short Name	dataChar
Superior Entities in ISO 19115 UML Structure	MD_Metadata/MD_Identification/MD_DataIdentification
Equivalent NZGLS Element	None
Definition	Full name of the character coding standard used for the data resource.
Purpose	This element allows a search to be restricted to resources that the user can use and view on their system.
Obligation	Mandatory
Element refinements	None.
Encoding Schemes	Compulsory - B5.10 MD_CharacterSetCode <<CodeList>> Namespace – "http://metadata.dgiwg.org/codelistRegistry?MD_CharacterSetCode"
Default Value	utf8 (8-bit variable size UCS Transfer Format, based on ISO/IEC 10646) appears to be one of the more commonly used character sets incorporated in XML tools).
Scope and Interpretation	
CharacterSet values are chosen from a standard set and are usually defined as part of the data encoding standard.	

Examples

[iso19115]	ucs2
[iso19115]	ucs4
[iso19115]	utf7
[iso19115]	utf8
[iso19115]	utf16

The Topic Category Element

Purpose of this Section

Contains the rules for metadata element number 41 (ISO 19115 number series):
topicCategory

Rules on the Topic Category Element

Name	topicCategory
Short Name	tpCat
Superior Entities in ISO 19115 UML Structure	MD_Metadata/MD_Identification/MD_DataIdentification
Equivalent NZGLS Element	None
Definition	The main (high-level) theme of the data resource.
Purpose	This element allows a search to be restricted to resources pertaining to a particular theme or topic. For instance "find all data resources to do with the environment"
Obligation	Mandatory
Element refinements	None.
Encoding Schemes	Compulsory – B.5.27 MD_TopicCategoryCode <<CodeList>> Namespace – "http://metadata.dgiwg.org/codelistRegistry?MD_TopicCategoryCode"
Default Value	None
Scope and Interpretation	
Topic Category values must be derived from MD_TopicCategoryCode CodeList	

Examples

[iso19115]	environment
[iso19115]	farming
[iso19115]	biota
[iso19115]	boundaries
[iso19115]	climatologyMeteorologyAtmosphere
[iso19115]	economy
[iso19115]	elevation
[iso19115]	geoscientificInformation
[iso19115]	health
[iso19115]	imageryBaseMapsEarthCover
[iso19115]	intelligenceMilitary
[iso19115]	inlandWaters
[iso19115]	location
[iso19115]	oceans
[iso19115]	planningCadastre

The Spatial Representation Type Element

Purpose of this Section

Contains the rules for metadata element number 37 (ISO 19115 number series):
spatialRepresentationType

Rules on the Spatial Representation Type Element

Name	spatialRepresentationType
Short Name	spatRpType
Superior Entities in ISO 19115 UML Structure	MD_Metadata/MD_Identification/MD_DataIdentification
Equivalent NZGLS Element	None
Definition	Method used to spatially represent geographic information
Purpose	To assist potential users make a fitness for purpose assessment.
Obligation	Mandatory
Element refinements	None.
Encoding Schemes	Compulsory – B.5.26 MD_SpatialRepresentationTypeCode <<CodeList>> Namespace – "http://metadata.dgiwg.org/codelistRegistry?MD_SpatialRepresentationTypeCode"
Default Value	None
Scope and Interpretation	

Examples

vector

The Resource Scale Element

Purpose of this Section

Contains the rules for metadata element number 60 (ISO 19115 number series):
equivalentScale

Rules on the Resource Scale Element

Name	equivalentScale
Short Name	equScale
Superior Entities in ISO 19115 UML Structure	MD_Metadata/MD_Identification/MD_DataIdentification
Equivalent NZGLS Element	None
Definition	The level of resolution/ detail expressed as the scale of a comparable hardcopy map or scale.
Purpose	To assist potential users make a fitness for purpose assessment.
Obligation	Conditional – if resolution is not expressed using Resource Spatial Resolution element.
Element refinements	None.
Encoding Schemes	None
Default Value	None
Scope and Interpretation	
Where the resource is a hardcopy map or derived from a hardcopy map, the representative scale should be used. Alternatively, the Resource Spatial Resolution element should be used.	

Examples

10,000

The Resource Spatial Resolution Element

Purpose of this Section

Contains the rules for metadata element number 61 (ISO 19115 number series):
distance

Rules on the Resource Scale Element

Name	distance
Short Name	scaleDist
Superior Entities in ISO 19115 UML Structure	MD_Metadata/MD_Identification/MD_DataIdentification
Equivalent NZGLS Element	None
Definition	The absolute positional accuracy or level of resolution/ detail of the data resource expressed as an "on the ground" distance. Where possible this should be the difference from the true position at a 95% confidence level
Purpose	To assist potential users make a fitness for purpose assessment.
Obligation	Conditional – if resolution is not expressed using Resource Scale element.
Element refinements	None.
Encoding Schemes	None
Default Value	None
Scope and Interpretation	Where the resource is a hardcopy map or derived from a hardcopy map, the Resource Scale element should be used and not this element. Where this element is applicable; the distance should be in metres and, where known, reflect the value that reflects the maximum difference from true position at a 95% confidence level (2.45 times the standard deviation).

Examples

5

The Distribution Format Name Element

Purpose of this Section

Contains the rules for metadata element number 285 (ISO 19115 number series):
name

Rules on the Distribution Format Name Element

Name	name
Short Name	formatName
Superior Entities in ISO 19115 UML Structure	MD_Metadata/ MD_Distribution/MD_Format
Equivalent NZGLS Element	NZGLS Format element (in part with Distribution Format Version element)
Definition	Name of the format that describes the computer language construct that specifies the representation of data objects in a record and file storage device or transmission channel for the resource that can be distributed..
Purpose	This element allows a search to be restricted to resources that the user can use and view on their system.
Obligation	Mandatory
Element refinements	None.
Encoding Schemes	None
Default Value	None
Scope and Interpretation	
With spatial data resources, the format is likely to be a proprietary format associated with one of the GIS vendors. However, this is not always the case and as GIS move towards more open systems including web-based spatial browsers, formats may included industry standard, non-proprietary formats such as LandXML.	
The format to be recorded in this metadata element is the "distribution" format of the data resource.	

Examples

Mapinfo
ArcView

The Distribution Format Version Element

Purpose of this Section

Contains the rules for metadata element number 286 (ISO 19115 number series):
version

Rules on the Distribution Format Version Element

Name	version
Short Name	formatVer
Superior Entities in ISO 19115 UML Structure	MD_Metadata/ MD_Distribution/MD_Format
Equivalent NZGLS Element	NZGLS Format element (in part with Distribution Format Name element)
Definition	The version number of the format that describes the computer language construct that specifies the representation of data objects in a record and file storage device or transmission channel.
Purpose	This element allows a search to be restricted to resources that the user can use and view on their system.
Obligation	Mandatory
Element refinements	None.
Encoding Schemes	None
Default Value	None
Scope and Interpretation	Although most proprietary GIS data formats are backwardly compatible, some versions have physical limitations that have been subsequently overcome. For instance the number of points making up an irregular line feature which means that a feature definition in earlier formats may be broken into a number of features where in more modern versions that same feature definition may be a single feature. An awareness of these differences may be useful to users in certain situations.

Examples

8.1

Distributor Contact Organisation Element

Purpose of this Section

Contains the rules for metadata element number 376 (ISO 19115 number series):
organisationName

Rules on the Distributor Contact Organisation Element

Name	organisationName
Short Name	rpOrgName
Superior Entities in ISO 19115 UML Structure	MD_Metadata/ MD_Distribution/MD_Distributor/CI_Responsible Party
Equivalent NZGLS Element	NZGLS Availability element (AGLS agent encoding scheme corporateName refinement)
Definition	The name of the organisation that distributes the resource.
Purpose	To identify distributors of a resource to potential users
Obligation	Mandatory
Element refinements	None.
Encoding Schemes	None
Default Value	None
Scope and Interpretation	
A number of organizations may be identified as distributors of a data resource. Organisation name is always given in full with no abbreviations.	

Examples

Statistics New Zealand
ABC Limited

Distributor Contact Position Element

Purpose of this Section

Contains the rules for metadata element number 377 (ISO 19115 number series):
positionName

Rules on the Resource Contact Position Element

Name	positionName
Short Name	rpPosName
Superior Entities in ISO 19115 UML Structure	MD_Metadata/ MD_Distribution/MD_Distributor/CI_Responsible Party
Equivalent NZGLS Element	NZGLS Availability element (AGLS agent encoding scheme extension to corporateName refinement)
Definition	The name of the position within the organisation that distributes the resource.
Purpose	This element allows the user to communicate with a specific person within the organisation that distributes the resource. This element will not be used as a search criteria.
Obligation	Mandatory
Element refinements	None.
Encoding Schemes	None.
Default Value	None.
Scope and Interpretation	
Element values must accurately describe an actual position within the organisation.	

Examples

Manager Geospatial Data Supplies

Distributor Voice Phone Contact Element

Purpose of this Section

Contains the rules for metadata element number 408 (ISO 19115 number series):
voice

Rules on the Resource Voice Phone Contact Element

Name	voice
Short Name	voiceNum
Superior Entities in ISO 19115 UML Structure	MD_Metadata/ MD_Distribution/MD_Distributor/CI_Responsible Party/CI_Contact
Equivalent NZGLS Element	NZGLS Availability element (AGLS agent encoding scheme contact refinement)
Definition	The telephone number by which individuals can speak to the contact person within the organization that distributes the resource.
Purpose	This element allows the user to communicate with the organisation that distributes the resource. This element will not be used as a search criteria.
Obligation	Mandatory
Element refinements	None mandated.
Encoding Schemes	None
Default Value	None
Scope and Interpretation	
Phone value must be valid for the phone used by the distributor organization. The format of the number should follow the following convention 0-n- <i>nnn</i> <i>nnnn</i> .	

Examples

0-4-915 6000

Distributor Fax Contact Element

Purpose of this Section

Contains the rules for metadata element number 409 (ISO 19115 number series):
facsimile

Rules on the Distributor Fax Contact Element

Name	facsimile
Short Name	faxNum
Superior Entities in ISO 19115 UML Structure	MD_Metadata/ MD_Distribution/MD_Distributor/CI_Responsible Party/CI_Contact
Equivalent NZGLS Element	NZGLS Availability element (AGLS agent encoding scheme contact refinement)
Definition	The facsimile phone number by which individuals can contact the organization that distributes the resource.
Purpose	This element allows the user to communicate with the organisation responsible for the resource. This element will not be used as a search criteria.
Obligation	Mandatory
Element refinements	None mandated.
Encoding Schemes	None
Default Value	None
Scope and Interpretation	
Fax number must be valid for the fax used by the distributor organisation. The format of the number should follow the following convention 0-n- <i>nnn</i> <i>nnnn</i> .	

Examples

0-4-529 8258

Distributor Mail Address Contact Element

Purpose of this Section

Contains the rules for metadata element number 381, 382 & 385 (ISO 19115 number series): *deliveryPoint, city & country*

Rules on the Distributor Mail Address Contact Element

Name	deliveryPoint, city, country
Short Name	delPoint, city, country
Superior Entities in ISO 19115 UML Structure	MD_Metadata/ MD_Distribution/MD_Distributor/CI_Responsible Party/CI_Contact
Equivalent NZGLS Element	NZGLS Availability element (AGLS agent encoding scheme address refinement)
Definition	The mail address for the organization that distributes the resource.
Purpose	This element allows the user to communicate with the organisation distributing the resource. This element will not be used as a search criteria.
Obligation	Mandatory
Element refinements	None.
Encoding Schemes	None
Default Value	country: New Zealand. Other sub-elements :none
Scope and Interpretation	
Address values must accurately describe a valid street or mail address.	

Examples

45 Pipitea Street, Wellington, New Zealand.

Distributor Email Contact Element

Purpose of this Section

Contains the rules for metadata element number 386 (ISO 19115 number series):
electronicMailAddress

Rules on the Distributor Email Contact Element

Name	electronicMailAddress
Short Name	eMailAdd
Superior Entities in ISO 19115 UML Structure	MD_Metadata/ MD_Distribution/MD_Distributor/CI_Responsible Party/CI_Contact
Equivalent NZGLS Element	NZGLS Availability element (AGLS agent encoding scheme email refinement)
Definition	The electronic mailbox address for communication with the organisation that distributes the resource.
Purpose	This element allows the user to communicate with the organisation that distributes the resource. This element will not be used as a search criteria.
Obligation	Mandatory
Element refinements	None.
Encoding Schemes	None.
Default Value	None.
Scope and Interpretation	
Email values must accurately describe a valid email address.	

Examples

data@mfe.govt.nz

Distributor Role Element

Purpose of this Section

Contains the rules for metadata element number 379 (ISO 19115 number series): *role*

Rules on the Distributor Role Element

Name	role
Short Name	role
Superior Entities in ISO 19115 UML Structure	MD_Metadata/ MD_Distribution/MD_Distributor/CI_Responsible Party
Equivalent NZGLS Element	None
Definition	The function that empowers the organization to distribute this resource or service.
Purpose	This element informs the user of the reason why the designated contact organization for the resource or service is fulfilling that role. This may become important during the early days of metadata where data distributors may generate metadata for a data resource that they distribute on behalf of the owner or data steward because no metadata is available to them as distributors but there is a demand from users for metadata. In such a situation, the data distributor may be a little removed from the day to day management and maintenance of the data resource and hence their assessments of the quality, lineage and other metadata characteristics may be incomplete and should be treated with a little caution. This element will not be used as a search criteria.
Obligation	Mandatory
Element refinements	None.
Encoding Schemes	Compulsory - B.5.5 CI_RoleCode <<CodeList>> Namespace – “http://metadata.dgwg.org/codelistRegistry?CI_RoleCode”
Default Value	None.
Scope and Interpretation	
Role values must be derived from CI_RoleCode CodeList.	

Examples

[iso19115]	resourceProvider	party that supplies the resource
[iso19115]	Custodian	party that accepts accountability and responsibility for the data and ensures appropriate care and maintenance of the resource
[iso19115]	owner	party that owns the resource
[iso19115]	user	party who uses the resource
[iso19115]	Distributor	party who distributes the resource
[iso19115]	originator	party who created the resource
[iso19115]	pointOfContact	party who can be contacted for acquiring knowledge about or acquisition of the resource
[iso19115]	principallInvestigator	key party responsible for gathering information and conducting research
[iso19115]	Processor	party who has processed the data in a manner such that the resource has been modified
[iso19115]	data steward	party with statutory responsibility for resource

Resource Fees Element

Purpose of this Section

Contains the rules for metadata element number 299 (ISO 19115 number series): *fees*

Rules on the Resource Fees Element

Name	fees
Short Name	resFees
Superior Entities in ISO 19115 UML Structure	MD_Metadata/ MD_Distribution/MD_Distributor/MD_StandardOrderProcess
Equivalent NZGLS Element	None
Definition	The fees and terms for retrieving and using the resource
Purpose	To ensure users are aware of the level of fees associated with using the resource.
Obligation	Mandatory
Element refinements	None mandated.
Encoding Schemes	None
Default Value	None
Scope and Interpretation	Fee structure should be described simply and where there is a range of fees, record the lowest and highest values and the basis for charging. Eg per polygon or object, per supply, per Mb.

Examples

\$0.20 - \$0.50 per parcel (polygon definition and attributes)

Distribution Order Instructions Element

Purpose of this Section

Contains the rules for metadata element number 301 (ISO 19115 number series):
orderingInstructions

Rules on the Distribution Order Instructions Element

Name	orderingInstructions
Short Name	ordInstr
Superior Entities in ISO 19115 UML Structure	MD_Metadata/ MD_Distribution/MD_Distributor/MD_StandardOrderProcess
Equivalent NZGLS Element	None
Definition	General instructions, terms and services provided by the distributor
Purpose	To assist potential users in making purchase decisions.
Obligation	Mandatory
Element refinements	None
Encoding Schemes	None
Default Value	None
Scope and Interpretation	This should just include an overview of how you can order the resource. It could include a url reference to more detailed instructions.

Examples

Online ordering system (<http://www.abc.co.nz/orders>) for both casual purchasers (by way of credit card through secure site) and for regular subscribers (accounts with ABC Ltd can established by phoning 0800-888 9999). Ordering system is user name and password protected with an initial setup menu option available for first time users. Ordering system allows orders to be specified through the on-line ordering system in terms of NZMS260 mapsheets and the feature type required.

Distribution Turnaround Element

Purpose of this Section

Contains the rules for metadata element number 302 (ISO 19115 number series):
turnaround

Rules on the Distribution Turnaround Element

Name	turnaround
Short Name	ordTurn
Superior Entities in ISO 19115 UML Structure	MD_Metadata/ MD_Distribution/MD_Distributor/MD_StandardOrderProcess
Equivalent NZGLS Element	None
Definition	Typical turnaround time for the filling of an order
Purpose	To assist potential users in making purchase decisions.
Obligation	Mandatory
Element refinements	None
Encoding Schemes	None
Default Value	None
Scope and Interpretation	
A brief description of expected turnaround times.	

Examples

1 week

Distributor URL Contact Element

Purpose of this Section

Contains the rules for metadata element number 397 (ISO 19115 number series):
linkage

Rules on the Distributor URL Contact Element

Name	linkage
Short Name	linkage
Superior Entities in ISO 19115 UML Structure	MD_Metadata/ MD_Distribution/ MD_DigitalTransferOptions/ CI_OnlineResource
Equivalent NZGLS Element	NZGLS Availability element (AGLS agent encoding scheme contact refinement)
Definition	The location (address) for on-line access using a Uniform Resource Locator address or similar addressing scheme for the organization distributing the resource.
Purpose	This element allows potential users to obtain the resource through a distributor. This element will not be used as a search criteria.
Obligation	Conditional – if resource is accessible on-line
Element refinements	None.
Encoding Schemes	None
Default Value	None
Scope and Interpretation	
The correct url must be described.	

Examples

<http://www.abc.co.nz/resources>

Distribution Means Element

Purpose of this Section

Contains the rules for metadata element number 402 (ISO 19115 number series):
function

Rules on the Distribution Means Element

Name	function
Short Name	orFunct
Superior Entities in ISO 19115 UML Structure	MD_Metadata/ MD_Distribution/ MD_DigitalTransferOptions/ CI_OnlineResource
Equivalent NZGLS Element	None
Definition	The type of function performed by the online service provided by the distributor
Purpose	This element shows potential users the method of access for the online resource
Obligation	Conditional – if resource is accessible on-line through the distributor
Element refinements	None.
Encoding Schemes	Compulsory - B.5.3 CI_OnlineFunctionCode <<CodeList>> Namespace – “http://metadata.dgiwg.org/codelistRegistry?CI_OnlineFunctionCode”
Default Value	None
Scope and Interpretation	
Must be a valid entry from CI_OnlineFunctionCode codelist.	

Examples

[iso19115] download

The Aggregate Element

Purpose of this Section

Contains the rules for metadata element number 66.1 (ISO 19115 number series):
MD_AggregateInformation

Rules on the Aggregate Element

Name	MD_AggregateInformation (dataset name/ dataset identifier/ association type / initiative type)
Short Name	AggregateInfo (aggrDSName/ aggrDSIdent/ assocType/ initType)
Superior Entities in ISO 19115 UML Structure	MD_Metadata/MD_Identification/MD_AggregateInformation
Equivalent NZGLS Element	None.
Definition	Other datasets that are related to the resource through being part of the resource or the resource forms part of.
Purpose	This element identifies other datasets that form part of the resource or the resource constitutes part of the identified dataset.
Obligation	Conditional – if an “aggregate” dataset exists
Element refinements	The aggregate metadata element is described in several components.

Component	Definition
Dataset name	Brief citation details including the title of the related dataset
Dataset identifier	The identifier of the related dataset
Association type	Categorises the association of the identified dataset with the main resource
Initiative type	Categorises the initiative that relates the main resource to the identified dataset
Encoding Schemes	<p>Compulsory for Dataset name component :</p> <ul style="list-style-type: none"> [date] – date of publication of the version of the thesaurus used [dateType] – “publication” (default) <p>Compulsory for Association type component – must be from B.5.7 DS_AssociationTypeCode <<CodeList>></p> <p>Compulsory for Initiative type component – must be from B.5.8 DS_InitiativeTypeCode <<CodeList>></p>
Default Value	Dataset name component – None Dataset Identifier – None Association Type component – crossReference Initiative Type component - collection.
Scope and Interpretation	<ul style="list-style-type: none"> Dataset name only needs to use a minimum of citation details (title, publication date, presentation form) Dataset identifier only needs to include the acronym of the identified dataset Association Type and Initiative Type must utilise values from specified codelists

Example

Dataset Name	Dataset Identifier	Association Type	Initiative Type
[title] “Transit New Zealand Physical Centreline Dataset” [date] “2002-12-01” [dateType] “publication” [presentationForm] “mapDigital”	TNZCL	crossReference	collection

The Spatial and Extents Module

The Spatial Reference System Element

Purpose of this Section

Contains the rules for metadata element number 207 (ISO 19115 number series):
code

Rules on the Spatial Reference System Element

Name	code
Short Name	identCode
Superior Entities in ISO 19115 UML Structure	MD_Metadata/MD_ReferenceSystem
Equivalent NZGLS Element	None
Definition	Code for a New Zealand recognized coordinate reference system.
Purpose	This element ensures users are aware of the coordinate system defining spatial objects in different data resources and can make assessments on how compatible data resources are that are based on different coordinate systems. The element allows a search to be restricted by the coordinate reference system. For example, "find all NZMG based data resources".
Obligation	Mandatory
Element refinements	None.
Encoding Schemes	Compulsory – NZ_ReferenceSystems <<CodeList>> Namespace – "http://www.linz.govt.nz/metadata/codelistRegistry?NZ_ReferenceSystems
Default Value	None.
Scope and Interpretation	
Spatial Reference System values must be derived from NZ_ReferenceSystems CodeList .	

Examples

[NZGmd]	NZMG	New Zealand Map Grid
[NZGmd]	NZGD2000	Unprojected New Zealand Geodetic Datum 2000 (no map projection)
[NZGmd]	NORTHTAIERI2000	North Taieri 2000 Meridional Circuit

The Spatial Topology Element

Purpose of this Section

Contains the rules for metadata element number 177 (ISO 19115 number series):
topologyLevel

Rules on the Spatial Topology Element

Name	topologyLevel
Short Name	topLev
Superior Entities in ISO 19115 UML Structure	MD_Metadata/MD_SpatialRepresentation/ MD_VectorSpatialRepresentation
Equivalent NZGLS Element	None
Definition	Code which identifies the degree of complexity of the spatial relationships.
Purpose	This element provides an indication of the data structure of the resource and the likely topological quality of the resource.
Obligation	Conditional – for all resource with vector spatial definitions
Element refinements	None.
Encoding Schemes	Compulsory – B.5.28 MD_TopologyLevelCode <<CodeList>> Namespace – “http://metadata.dgiwg.org/codelistRegistry?MD_TopologyLevelCode”
Default Value	geometryOnly
Scope and Interpretation	
Spatial Topology values must be derived from MD_TopologyLevelCode CodeList .	

Examples

[iso19115]	geometryOnly
[iso19115]	topology1D

The Spatial Grid Dimension Total Element

Purpose of this Section

Contains the rules for metadata element number 158 (ISO 19115 number series):
numberOfDimensions

Rules on the Spatial Grid Dimension Total Element

Name	numberOfDimensions
Short Name	numDims
Superior Entities in ISO 19115 UML Structure	MD_Metadata/MD_SpatialRepresentation/ MD_GridSpatialRepresentation
Equivalent NZGLS Element	None
Definition	The number of independent spatial-temporal axes in a resource that has a grid based spatial representation.
Purpose	To provide an indication of any additional complexity in the resource if this value is anything other than "2".
Obligation	Conditional – if resource is an imagery data resource
Element refinements	None.
Encoding Schemes	None.
Default Value	2
Scope and Interpretation	
A value between 1 and 4	

Examples

2

The Spatial Grid Dimension Name Element

Purpose of this Section

Contains the rules for metadata element number 180 (ISO 19115 number series):
dimensionName

Rules on the Spatial Grid Dimension Name Element

Name	dimensionName
Short Name	dimName
Superior Entities in ISO 19115 UML Structure	MD_Metadata/MD_SpatialRepresentation/ MD_VectorSpatialRepresentation
Equivalent NZGLS Element	None
Definition	The name of an axis in a resource that has a grid based spatial representation.
Purpose	To provide a consistent label for each axis in order to record the Spatial Grid Dimension Size element.
Obligation	Conditional – if resource is an imagery data resource
Element refinements	None.
Encoding Schemes	Compulsory – B.5.14 MD_DimensionNameTypeCode <<CodeList>> Namespace – “ http://metadata.dgiwg.org/codelistRegistry?MD_DimensionNameTypeCode ”
Default Value	None.
Scope and Interpretation	
Must be a value from the codelist.	

Examples

[iso19115]	row	ordinate (y) axis
[iso19115]	column	abscissa (x) axis

The Spatial Grid Dimension Size Element

Purpose of this Section

Contains the rules for metadata element number 181 (ISO 19115 number series):
dimensionSize

Rules on the Spatial Grid Dimension Size Element

Name	dimensionSize
Short Name	dimSize
Superior Entities in ISO 19115 UML Structure	MD_Metadata/MD_SpatialRepresentation/ MD_VectorSpatialRepresentation
Equivalent NZGLS Element	None
Definition	The number of elements along the axis in a resource that has a grid based spatial representation.
Purpose	Defines the internal reference system in a grid based resource (required for any rectification processing).
Obligation	Conditional – if resource is an imagery data resource
Element refinements	None.
Encoding Schemes	None
Default Value	None
Scope and Interpretation	
To be taken from the producer's specification for the resource	

The Spatial Grid Geometry Element

Purpose of this Section

Contains the rules for metadata element number 160 (ISO 19115 number series): *cellGeometry*.

Rules on the Spatial Grid Geometry Element

Name	cellGeometry
Short Name	cellGeo
Superior Entities in ISO 19115 UML Structure	MD_Metadata/MD_SpatialRepresentation/ MD_VectorSpatialRepresentation
Equivalent NZGLS Element	None
Definition	The identification of grid data as a point or a cell in a resource that has a grid based spatial representation.
Purpose	Provide an indication of how any spatial analysis should treat data from this resource.
Obligation	Conditional – if resource is an imagery data resource
Element refinements	None
Encoding Schemes	Compulsory – B.5.9 MD_CellGeometryCode <<CodeList>> Namespace – “http://metadata.dgiwg.org/codelistRegistry?MD_CellGeometryCode”
Default Value	None
Scope and Interpretation	
To be taken from the producer's specification for the resource	

Examples

[iso19115]	point	
[iso19115]	area	

The Spatial Grid Parameter Availability Element

Purpose of this Section

Contains the rules for metadata element number 161 (ISO 19115 number series):
transformationParameterAvailability

Rules on the Spatial Grid Parameter Availability Element

Name	transformationParameterAvailability
Short Name	tranParaAv
Superior Entities in ISO 19115 UML Structure	MD_Metadata/MD_SpatialRepresentation/ MD_VectorSpatialRepresentation
Equivalent NZGLS Element	None
Definition	An indication of whether or not parameters for transformation between image coordinates and geographic or map coordinates exist and are available (in a resource that has a grid based spatial representation).
Purpose	To determine the ease (or otherwise) of rectifying this resource.
Obligation	Conditional – if resource is an imagery data resource
Element refinements	None
Encoding Schemes	None
Default Value	None
Scope and Interpretation	
If parameters are known to exist, they must also be generally available for a “true” value to be recorded against this element.	

Examples

True
False

The Resource Extent Type Element

Purpose of this Section

Contains the rules for metadata element number 340 (ISO 19115 number series):
extentTypeCode

Rules on the Resource Extent Type Element

Name	extentTypeCode
Short Name	exTypeCode
Superior Entities in ISO 19115 UML Structure	MD_Metadata/MD_Identification/MD_DataIdentification/EX_Extent/EX_GeographicExtent
Equivalent NZGLS Element	None
Definition	Indication of whether the Resource Geographic Identifier element encompasses an area covered by the resource or an area where the resource is not present
Purpose	Allows users to define the geographic extent (using the Resource Geographic Identifier element) in the most efficient and accurate manner. This element will not be used as a search criteria.
Obligation	Mandatory (Value is either "Inclusion" or "Exclusion").
Element refinements	None
Encoding Schemes	None
Default Value	Inclusion
Scope and Interpretation	
The Resource Extent Type element needs to be populated in conjunction with the Resource Geographic Indicator element. It may be that the location of the resource can more accurately or more succinctly be described by describing the location not covered. However, the default value for the Resource Extent Type is for inclusion and so normally the Resource Geographic Indicator element will be the location covered.	

Examples

Inclusion
Exclusion

The Resource Geographic Box Element

Purpose of this Section

Contains the rules for metadata element number 343, 344, 345, 346 (ISO 19115 number series): EX_GeographicBoundingBox, westBoundLongitude, eastBoundLongitude, southBoundLatitude, northBoundLatitude

Rules on the Resource Geographic Box Element

Name	EX_GeographicBoundingBox, westBoundLongitude, eastBoundLongitude, southBoundLatitude, northBoundLatitude
Short Name	GeoBndBox, westBL, eastBL, southBL, northBL
Superior Entities in ISO 19115 UML Structure	MD_Metadata/MD_Identification/MD_DataIdentification/EX_Extent/EX_GeographicExtent
Equivalent NZGLS Element	Coverage (spatial location and jurisdiction but not temporal)
Definition	Describes the geographic area (extent) covered by the content of the resource in approximate terms by defining the bounding longitude and latitude values for the resource.
Purpose	This element allows a search to be restricted to resources about a certain place. This is not intended to be primary search point but it does allow a search to be refined. When spatially displayed, this element assists the potential user to assess its fitness for purpose as to whether the resource covers the user's location of interest.
Obligation	Conditional – If it is not possible to accurately describe the extent of the resource using the Resource Geographic Identifier element
Element refinements	None
Encoding Schemes	None
Default Value	None
Scope and Interpretation	Latitude and longitude values should be in terms of the same datum as described in the Spatial Reference System element, reflect the known spatial resolution of the extent and follow the convention of negative values for all (south) latitude values and positive for all longitude values (east of 0 degrees longitude).

Examples

westBoundLongitude	176.50
eastBoundLongitude	177.50
southBoundLatitude	-44.00
northBoundLatitude	-44.75

The Resource Temporal Extent Element

Purpose of this Section

Contains the rules for metadata element number 351 (ISO 19115 number series):
extent

Rules on the Resource Temporal Extent Element

Name

extent

Short Name	exTemp
Superior Entities in ISO 19115 UML Structure	MD_Metadata/MD_Identification/MD_DataIdentification/EX_Extent/EX_TemporalExtent
Equivalent NZGLS Element	Coverage (temporal only)
Definition	The time and date (range) that describes the currency of the resource.
Purpose	This element allows a search to be restricted to resources about a certain time although it is not intended to be a primary search point. It can be specified as an additional element with the primary search criteria.
Obligation	Mandatory.
Element refinements	NZGLS refinements will apply namely: temporal – temporal coverage, or the time periods covered in the content of the resource.
Encoding Schemes	ISO 8601 Date Encoding Scheme
<p>ISO 8601 is the International Standard for the representation of dates and times. ISO 8601 describes a large number of date/time formats. To reduce the scope for error and the complexity of software, it is useful to restrict the supported formats to a small number. This profile replicates NZGLS (Section K.2) and defines some date/time formats which are likely to satisfy most requirements.</p> <p>The formats are as follows. Exactly the components shown here must be present, with exactly this punctuation. Note that the 'T' appears literally in the string, to indicate the beginning of the Time element, as specified in ISO 8601.</p> <p>Date Formats Year: YYYYY (e.g. 1997) Year and month: YYYYY-MM (e.g. 1997-07) Complete date: YYYYY-MM-DD (e.g. 1997-07-16) Periods of Time when start and end dates are known: YYYY-MM-DD/YYYY-MM-DD (eg1997-07-16/1997-08-17) Periods of Time when the start or end date are not known: YYYY-MM-DD/- OR -/YYYY-MM-DD (e.g. 1997-07-16/-OR-/1997-08-17) Abbreviations used above are:: YYYY = four-digit year MM = two-digit month (01=January, etc.) DD = two-digit day of month (01 through 31)</p>	
Default Value	None
Scope and Interpretation	
<p>The temporal extent should be defined in the format prescribed by ISO 8601 and should only incorporate days and time values if that level of precision is important to users of the data resource.</p>	

Resource Temporal Extent Element

Examples

2002-10/2003-04

The Resource Vertical Extent Element

Purpose of this Section

Contains the rules for metadata element number 338, 355, 356, 357 & 358 (ISO 19115 number series): *verticalElement*, *minimumValue*, *maximumValue*, *unitOfMeasure*, *verticalDatum*

Rules on the Resource Vertical Extent Element

Name	verticalElement, minimumValue, maximumValue, unitOfMeasure, verticalDatum
Short Name	VertEle, vertMinVal, vertMaxVal, vertUoM & vertDatum
Superior Entities in ISO 19115 UML Structure	MD_Metadata/MD_Identification/MD_DataIdentification/EX_Extent/ EX_VerticalExtent
Equivalent NZGLS Element	None
Definition	A description of the reference vertical component defining the resource.
Purpose	This element allows a search to be restricted to resources within a certain height range. This is not intended to be primary search point but it does allow a search to be refined.
Obligation	Conditional – If resource has vertical component..
Element refinements	None
Encoding Schemes	For Vertical Datum – NZ_HeightDatums <<CodeList>> Namespace – “http://www.linz.govt.nz/metadata/codelistRegistry?NZ_HeightDatums”
Default Value	Units of Measure - metre Vertical Datum – Mean Sea Level (MSL) Other sub-elements - None
Scope and Interpretation	Minimum and maximum values for the New Zealand land surface should be between 0 and 4,500 metres above MSL. Where possible the Resource Vertical Extent should be expressed in terms of the default values for units of measure (i.e. metres) and vertical datum (i.e. MSL).

Examples

	minimum Value	0
	maximum Value	100
	unitOfMeasure	metre
[NZGmd]	verticalDatum	MSL

The Resource Geographic Identifier Element

Purpose of this Section

Contains the rules for metadata element number 349 (ISO 19115 number series):
geographicIdentifier

Rules on the Resource Geographic Identifier Element

Name	geographicIdentifier
Short Name	geolD
Superior Entities in ISO 19115 UML Structure	MD_Metadata/MD_Identification/MD_DataIdentification/EX_Extent/EX_GeographicExtent/EX_GeographicDescription
Equivalent NZGLS Element	Coverage (spatial location and jurisdiction but not temporal)
Definition	Describes the geographic area (extent) covered by the content of the resource by reference to existing authoritative sets of spatial locations.
Purpose	This element allows a search to be restricted to resources about a certain place. This is not intended to be primary search point but it does allow a search to be refined. When spatially displayed, this element assists the potential user to assess its fitness for purpose as to whether the resource covers the user's location of interest.
Obligation	Mandatory.
Element refinements	NZGLS refinements will apply namely: jurisdiction - the jurisdiction affected by the content of the resource – a legal concept – use the current versions of the lists defined in Section K.3 of NZGLS. spatial – spatial coverage or locations or areas covered in the content of a resource – use values from one of recognized encoding schemes. Note that this metadata profile does not include spatial refinements such as the geographic box type of definition or the adhoc bounding polygon definition permitted within ISO 19115 and other metadata standards.
Encoding Schemes	One of the following: NZGLS Jurisdiction Refinement Controlled Vocabulary (annotated to reflect currency of jurisdiction boundaries) [jurisdiction2002] Namespace yet to be defined NZGLS List of Territories for Place Names Refinement[spatialTerritories] Namespace yet to be defined LINZ Index to Places – by reference to the unique RelatedID attribute from the LINZ Index to Places database [spatialIndexPlaces] Namespace yet to be defined LINZ NZMS 260 Map Series – by reference to the unique map sheet reference [spatial260] Namespace yet to be defined
Default Value	New Zealand
Scope and Interpretation	Note that this element always relates to the content of the resource, not to the users or the availability of the resource. The Resource Geographic Indicator element needs to be populated in conjunction with the Resource Extent Type element. It may be that the location of the resource can more accurately or more succinctly be described by describing the location not covered. However, the default value for the Resource Extent Type is for inclusion and so normally the Resource Geographic Indicator element will be the location covered.

Resource Geographic Identifier Element

The refinement “jurisdiction” refers to the territory over which a particular government or government agency exercises its authority. Where the content of the resource has a jurisdiction, it is recommended that the jurisdiction covered by the resource be included in this element.

The refinement “spatial” refers to locations or areas that are covered by or discussed in the content of the resource. These are usually standard place names of a location. For services, this describes the geographical area covered by the service – as opposed to the legal jurisdiction.

The points at which the services are delivered would come under the Availability element, not the Coverage element.

Examples

[jurisdiction2002]	Selwyn District
[spatial260]	R27 (Wellington)
[spatialTerritories]	Offshore Islands
[spatialIndexPlaces]	42243 (Awaateatua Beach)

The Data Quality Module

The Data Quality Scope Level Element

Purpose of this Section

Contains the rules for metadata element number 139 (ISO 19115 number series):
level

Rules on the Data Quality Scope Level Element

Name	level
Short Name	scpLvl
Superior Entities in ISO 19115 UML Structure	MD_Metadata/DQ_DataQuality/
Equivalent NZGLS Element	None
Definition	The hierarchical level of the data described in the other data quality metadata elements within this metadata profile.
Purpose	This element confirms to the potential user of the resource that the other quality metadata elements pertain to the whole data resource or warns them that those elements only pertain to certain critical subset of the data resource.
Obligation	Mandatory
Element refinements	None.
Encoding Schemes	Compulsory – B.5.25 MD_ScopeCode <<CodeList>> Namespace – “http://metadata.dgwg.org/codelistRegistry?MD_ScopeCode”
Default Value	dataset
Scope and Interpretation	In most cases, the quality scope will be the same as the resource or service. The most likely situations where only a subset of the resource is commented upon in the metadata quality elements will be where the data resource is a data series or a dataset. In these situations, the quality descriptions may be limited to critical dataset or feature types.

Examples

[iso19115]	series
[iso19115]	dataset
[iso19115]	featureType
[iso19115]	service

The Lineage Statement Element

Purpose of this Section

Contains the rules for metadata element number 83 (ISO 19115 number series):
statement

Rules on the Lineage Statement Element

Name	statement
Short Name	statement
Superior Entities in ISO 19115 UML Structure	MD_Metadata/DQ_DataQuality/Lineage
Equivalent NZGLS Element	NZGLS Source element
Definition	A general explanation of the data producer's knowledge about the lineage of a data resource including general comments on the sources used to create the data resource and the processes used to create it.
Purpose	This element should provide the potential user with an appreciation of the sources and processes used to create the data resource. This understanding will help the user decide whether the data resource is fit for their particular purpose, and also, where there are two similar resources, which is the most appropriate one to use. In other situations, it may guide the user to find some other distinguishing characteristic where a search has returned a number of data resources that have been based on the same sources and created in the same fashion.
Obligation	Mandatory
Element refinements	None.
Encoding Schemes	None
Default Value	None
Scope and Interpretation	This description should be brief but include reference to all significant sources and significant processes used to create and maintain the data resource. Where there are more than one source or process, these are individually described in two series of separate metadata elements. In this situation, the lineage statement should provide an abstract statement of the content within the these other metadata elements.

Examples

The ecosystem boundaries have been derived by on-screen digitizing over a base of NZTopo hydrology, vegetation and contour features. Ecosystem boundaries not coinciding with NZTopo features were derived from field notes from field surveys undertaken by the Botany Department of the University of Otago during January 2000.

Process Description Element

Purpose of this Section

Contains the rules for metadata element number 87 (ISO 19115 number series):
description

Rules on the Data Quality Process Description Element

Name	description
Short Name	stepDesc
Superior Entities in ISO 19115 UML Structure	MD_Metadata/DQ_DataQuality/LI_Lineage / LI_ProcessStep
Equivalent NZGLS Element	None
Definition	A description of the different processes involved in the creation of the resource.
Purpose	This element should provide the potential user with an appreciation of the sources and processes used to create the data resource. This understanding will help the user decide whether the data resource is fit for their particular purpose, and also, where there are two similar resources, which is the most appropriate one to use. In other situations, it may guide the user to find some other distinguishing characteristic where a search has returned a number of data resources that have been based on the same sources and created in the same fashion.
Obligation	Conditional – If more than one process was used to create the resource.
Element refinements	None.
Encoding Schemes	None
Default Value	None
Scope and Interpretation	A brief description of the processes used to create the resource. One description/element for each process.

Examples

An aerial photography campaign using 153mm camera and flying height of 8,000 metres was undertaken
Rectified orthophotos were created using xyz rectification software
Heads-up digitizing using orthophotos was used to capture road centrelines

Process Rationale Element

Purpose of this Section

Contains the rules for metadata element number 88 (ISO 19115 number series):
rationale

Rules on the Data Quality Process Rationale Element

Name	rationale
Short Name	stepRat
Superior Entities in ISO 19115 UML Structure	MD_Metadata/DQ_DataQuality/LI_Lineage / LI_ProcessStep
Equivalent NZGLS Element	None
Definition	The requirement or purpose of each different processes involved in the creation of the resource.
Purpose	This element should provide the potential user with an appreciation of the sources and processes used to create the data resource. This understanding will help the user decide whether the data resource is fit for their particular purpose, and also, where there are two similar resources, which is the most appropriate one to use. In other situations, it may guide the user to find some other distinguishing characteristic where a search has returned a number of data resources that have been based on the same sources and created in the same fashion.
Obligation	Conditional – If more than one process was used to create the resource.
Element refinements	None.
Encoding Schemes	None
Default Value	None
Scope and Interpretation	
A brief description of why each process was required to create the resource. One description/element for each process.	

Examples

(should be read in conjunction with examples for the Process Description metadata element.)

To provide base imagery for subsequent heads-up digitising
Systematic rectification was required as there was significant ground level variation across the project area
To provide spatial definitions of road centrelines within the project area

Process Date Element

Purpose of this Section

Contains the rules for metadata element number 89 (ISO 19115 number series):
dateTime

Rules on the Process Date Element

Name	dateTime
Short Name	stepDateTm
Superior Entities in ISO 19115 UML Structure	MD_Metadata/DQ_DataQuality/LI_Lineage / LI_ProcessStep
Equivalent NZGLS Element	None
Definition	The date and time (or range of dates) on or over which each different processes involved in the creation of the resource occurred.
Purpose	This element should provide the potential user with an appreciation of the sources and processes used to create the data resource. This understanding will help the user decide whether the data resource is fit for their particular purpose, and also, where there are two similar resources, which is the most appropriate one to use. In other situations, it may guide the user to find some other distinguishing characteristic where a search has returned a number of data resources that have been based on the same sources and created in the same fashion.
Obligation	Conditional – If more than one process was used to create the resource.
Element refinements	None.
Encoding Schemes	ISO 8601 Date Encoding Scheme
<p>ISO 8601 is the International Standard for the representation of dates and times. ISO 8601 describes a large number of date/time formats. To reduce the scope for error and the complexity of software, it is useful to restrict the supported formats to a small number. This profile replicates NZGLS (Section K.2) and defines some date/time formats which are likely to satisfy most requirements.</p> <p>The formats are as follows. Exactly the components shown here must be present, with exactly this punctuation. Note that the 'T' appears literally in the string, to indicate the beginning of the Time element, as specified in ISO 8601.</p> <p>Date Formats Year: YYYYY (e.g. 1997) Year and month: YYYYY-MM (e.g. 1997-07) Complete date: YYYYY-MM-DD (e.g. 1997-07-16) Periods of Time when start and end dates are known: YYYY-MM-DD/YYYY-MM-DD (eg1997-07-16/1997-08-17) Periods of Time when the start or end date are not known: YYYY-MM-DD/- OR -/YYYY-MM-DD (e.g. 1997-07-16/-OR-/1997-08-17) Abbreviations used above are: YYYY = four-digit year MM = two-digit month (01=January, etc.) DD = two-digit day of month (01 through 31)</p>	
Default Value	None
Scope and Interpretation	
Dates and date ranges should be recorded in the ISO 8601 format	

Examples

(should be read in conjunction with examples for the Process Description metadata element.)

2002-10-30

Process Date Element

2002-12-01

2003-01/2003-02

Processor Organisation Element

Purpose of this Section

Contains the rules for metadata element number 376 (ISO 19115 number series):
organisationName

Rules on the Processor Organisation Element

Name	organisationName
Short Name	rpOrgName
Superior Entities in ISO 19115 UML Structure	MD_Metadata/DQ_DataQuality/LI_Lineage / LI_ProcessStep/ CI_ResponsibleParty
Equivalent NZGLS Element	None
Definition	The name of an organisation that undertakes a process in the creation of the resource.
Purpose	This element should provide the potential user with an appreciation of the processes used to create the data resource (and particularly the organization who undertook this work) and assist potential users to make a fitness for purpose assessment.
Obligation	Conditional – if the organization is not the resource steward
Element refinements	None.
Encoding Schemes	None
Default Value	None
Scope and Interpretation	
A brief description of why each process was required to create the resource. One description/element for each process.	

Examples

(should be read in conjunction with examples for the Process Description metadata element.)

ANZ Aerial Mapping Limited
ANZ Aerial Mapping Limited
ABC Limited

The Processor Organisation Role Element

Purpose of this Section

Contains the rules for metadata element number 379 (ISO 19115 number series): *role*

Rules on the Processor Organisation Role Element

Name	role
Short Name	role
Superior Entities in ISO 19115 UML Structure	MD_Metadata/DQ_DataQuality/LI_Lineage / LI_ProcessStep/ CI_ResponsibleParty
Equivalent NZGLS Element	None
Definition	The function that describes the nature of the relationship of an organization to the resource.
Purpose	This element should provide the potential user with an appreciation of the processes used to create the data resource (and particularly the organization who undertook this work) and assist potential users to make a fitness for purpose assessment. This element will not be used as a search criteria.
Obligation	Mandatory
Element refinements	None.
Encoding Schemes	Compulsory – B.5.5 CI_RoleCode <<CodeList>> Namespace – “http://metadata.dgiwg.org/codelistRegistry?CI_RoleCode”
Default Value	processor.
Scope and Interpretation	
Role values must be derived from CI_RoleCode CodeList	

Examples

[iso19115]	resourceProvider	party that supplies the resource
[iso19115]	custodian	party that accepts accountability and responsibility for the data and ensures appropriate care and maintenance of the resource
[iso19115]	owner	party that owns the resource
[iso19115]	user	party who uses the resource
[iso19115]	distributor	party who distributes the resource
[iso19115]	originator	party who created the resource
[iso19115]	pointOfContact	party who can be contacted for acquiring knowledge about or acquisition of the resource
[iso19115]	principallInvestigator	key party responsible for gathering information and conducting research
[iso19115]	processor	party who has processed the data in a manner such that the resource has been modified
[iso19115]	data steward	party with statutory responsibility for resource

The Source Scale Element

Purpose of this Section

Contains the rules for metadata element number 94 (ISO 19115 number series):
scaleDenominator

Rules on the Resource Scale Element

Name	scaleDenominator
Short Name	srcScale
Superior Entities in ISO 19115 UML Structure	MD_Metadata/DQ_DataQuality/LI_Lineage / LI_Source
Equivalent NZGLS Element	None
Definition	The level of resolution/ detail of the source resource (map) expressed as the scale of a comparable hardcopy map or scale.
Purpose	This element should provide the potential user with an appreciation of the sources used to create the data resource and assist potential users to make a fitness for purpose assessment. This element will not be used as a search criteria.
Obligation	Mandatory
Element refinements	None.
Encoding Schemes	None
Default Value	None
Scope and Interpretation	Where the resource is a hardcopy map or derived from a hardcopy map, the representative scale should be used. Alternatively, the ground truth spatial accuracy measure (at 95% confidence level) should be calculated as a fraction being the equivalent of 1 millimetre at plan scale.

Examples

10,000 (for 10 metre spatial accuracy at 95% confidence level).

The Source Spatial Reference System Element

Purpose of this Section

Contains the rules for metadata element number 207 (ISO 19115 number series):
code

Rules on the Source Spatial Reference System Element

Name	code
Short Name	identCode
Superior Entities in ISO 19115 UML Structure	MD_Metadata/DQ_DataQuality/LI_Lineage / LI_Source
Equivalent NZGLS Element	None
Definition	Code for the New Zealand recognized coordinate reference system used in the source resource.
Purpose	This element should provide the potential user with an appreciation of the sources used to create the data resource and assist potential users to make a fitness for purpose assessment. This element will not be used as a search criteria.
Obligation	Conditional – Only where the spatial reference system is different to the main resource.
Element refinements	None.
Encoding Schemes	Compulsory – NZ_ReferenceSystems <<CodeList>> Namespace – “http://www.linz.govt.nz/metadata/codelistRegistry?NZ_ReferenceSystems”
Default Value	None.
Scope and Interpretation	
Spatial Reference System values must be derived from NZ_ReferenceSystems CodeList .	

Examples

[NZGmd]	NZMG	New Zealand Map Grid
[NZGmd]	NZGD2000	Unprojected New Zealand Geodetic Datum 2000 (no map projection)
[NZGmd]	NORTHTAIERI2000	North Taieri 2000 Meridional Circuit

The Source Title Element

Purpose of this Section

Contains the rules for metadata element number 360 (ISO 19115 number series): *title*

Rules on the Source Title Element

Name	title
Short Name	resTitle
Superior Entities in ISO 19115 UML Structure	MD_Metadata/DQ_DataQuality/LI_Lineage / LI_Source/ CI_Citation
Equivalent NZGLS Element	None
Definition	The name by which the cited source is known.
Purpose	This element should provide the potential user with an appreciation of the sources used to create the data resource and assist potential users to make a fitness for purpose assessment. This element will not be used as a search criteria.
Obligation	Conditional – if more than one source
Element refinements	None.
Encoding Schemes	None
Default Value	None
Scope and Interpretation	
Where there is an official name used for the resource, this should be used in the Source Title element. If the resource is a text document, use the full title as it appears on the title page. If the document has another common usage name, add this to the end of the title in brackets. In some situations where there is no formal name associated with the resource, the author might need to make up the most useful name for the resource, using the name which it is most commonly known by, and most likely to be searched by. If a version statement is attached to the record to distinguish this resource from others of the same title in a time series, then complete the Source Version Element.	

Examples

New Zealand Geographic Place Name Database
Landonline Survey and Title Service
The Maori Land Information Base

The Source Citation Date Element

Purpose of this Section

Contains the rules for metadata element number 363 (ISO 19115 number series): *date*

Rules on the Source Citation Date Element

Name	date
Short Name	resRefDate
Superior Entities in ISO 19115 UML Structure	MD_Metadata/DQ_DataQuality/LI_Lineage / LI_Source/ CI_Citation
Equivalent NZGLS Element	None
Definition	Reference date for the cited source resource.
Purpose	This element should provide the potential user with an appreciation of the sources used to create the data resource and assist potential users to make a fitness for purpose assessment. This element will not be used as a search criteria.
Obligation	Mandatory.
Element refinements	Event used for the Source Citation Date should be used to qualify the date value. These qualifiers must be from the B.5.2 CI_DateTypeCode <<CodeList>> i.e.
CI_DateType Values	Equivalent NZGLS Date element refinement
Creation	Created
Publication	Valid
Revision	Modified
Encoding Schemes	ISO 8601 Date Encoding Scheme
<p>ISO 8601 is the International Standard for the representation of dates and times. ISO 8601 describes a large number of date/time formats. To reduce the scope for error and the complexity of software, it is useful to restrict the supported formats to a small number. This profile replicates NZGLS (Section K.2) and defines some date/time formats which are likely to satisfy most requirements.</p> <p>The formats are as follows. Exactly the components shown here must be present, with exactly this punctuation. Note that the 'T' appears literally in the string, to indicate the beginning of the Time element, as specified in ISO 8601.</p> <p>Date Formats Year: YYYYY (e.g. 1997) Year and month: YYYYY-MM (e.g. 1997-07) Complete date: YYYYY-MM-DD (e.g. 1997-07-16) Periods of Time when start and end dates are known: YYYY-MM-DD/YYYY-MM-DD (eg1997-07-16/1997-08-17) Periods of Time when the start or end date are not known: YYYY-MM-DD/- OR -/YYYY-MM-DD (e.g. 1997-07-16/-OR-/1997-08-17) Abbreviations used above are: YYYY = four-digit year MM = two-digit month (01=January, etc.) DD = two-digit day of month (01 through 31)</p>	
Default Value	None
Scope and Interpretation	
<p>If metadata is created directly using an XML Schema incorporating the ISO 19115 UML structure, users should be aware the date type qualifier will be treated as a separate element to the ISO 8601 compliant date format value.</p>	

Examples

(creation)	2002-08-08
(publication)	2002-09-06
(revision)	2003-01-30

The Source Version Element

Purpose of this Section

Contains the rules for metadata element number 363 (ISO 19115 number series):
edition

Rules on the Resource Version Element

Name	edition
Short Name	resEd
Superior Entities in ISO 19115 UML Structure	MD_Metadata/DQ_DataQuality/LI_Lineage / LI_Source/ CI_Citation
Equivalent NZGLS Element	None
Definition	The version of the cited resource.
Purpose	This element should provide the potential user with an appreciation of the sources used to create the data resource and assist potential users to make a fitness for purpose assessment. This element will not be used as a search criteria.
Obligation	Conditional – if version control applies to the identification of the source resource.
Element refinements	None mandated.
Encoding Schemes	None
Default Value	None.
Scope and Interpretation	
Only to be described where a formal version/edition control is used in conjunction with a resource.	

Examples

1.0

The Source Organisation Element

Purpose of this Section

Contains the rules for metadata element number 376 (ISO 19115 number series):
organisationName

Rules on the Source Organisation Element

Name	organisationName
Short Name	rpOrgName
Superior Entities in ISO 19115 UML Structure	MD_Metadata/DQ_DataQuality/LI_Lineage / LI_Source/ CI_Citation / CI_ResponsibleParty
Equivalent NZGLS Element	None
Definition	The name of an organisation that is responsible for a source used to create the resource.
Purpose	This element should provide the potential user with an appreciation of the sources used to create the data resource and assist potential users to make a fitness for purpose assessment. This element will not be used as a search criteria.
Obligation	Conditional – if the organization is not the same as the organization responsible for the resource.
Element refinements	None.
Encoding Schemes	None
Default Value	None
Scope and Interpretation	Organisation name is always given in full with no abbreviations.

Examples

Waikato District Council
ABC Limited

The Source Organisation Role Element

Purpose of this Section

Contains the rules for metadata element number 379 (ISO 19115 number series): *role*

Rules on the Source Organisation Role Element

Name	role
Short Name	role
Superior Entities in ISO 19115 UML Structure	MD_Metadata/DQ_DataQuality/LI_Lineage / LI_Source/ CI_Citation / CI_ResponsibleParty
Equivalent NZGLS Element	None
Definition	The function that describes the nature of the relationship of an organization to the resource.
Purpose	This element should provide the potential user with an appreciation of the sources used to create the data resource and assist potential users to make a fitness for purpose assessment. This element will not be used as a search criteria.
Obligation	Mandatory
Element refinements	None.
Encoding Schemes	Compulsory – B.5.5 CI_RoleCode <<CodeList>> Namespace – “http://metadata.dgiwg.org/codelistRegistry?CI_RoleCode”
Default Value	None.
Scope and Interpretation	
Role values must be derived from CI_RoleCode CodeList	

Examples

[iso19115]	resourceProvider	party that supplies the resource
[iso19115]	custodian	party that accepts accountability and responsibility for the data and ensures appropriate care and maintenance of the resource
[iso19115]	owner	party that owns the resource
[iso19115]	user	party who uses the resource
[iso19115]	distributor	party who distributes the resource
[iso19115]	originator	party who created the resource
[iso19115]	pointOfContact	party who can be contacted for acquiring knowledge about or acquisition of the resource
[iso19115]	principallInvestigator	key party responsible for gathering information and conducting research
[iso19115]	processor	party who has processed the data in a manner such that the resource has been modified
[iso19115]	data steward	party with statutory responsibility for resource

The Source Geographic Identifier Element

Purpose of this Section

Contains the rules for metadata element number 349 (ISO 19115 number series):
geographicIdentifier

Rules on the Source Geographic Identifier Element

Name	geographicIdentifier
Short Name	geoID
Superior Entities in ISO 19115 UML Structure	MD_Metadata/DQ_DataQuality/LI_Lineage / LI_Source/ EX_Extent/ EX_GeographicExtent
Equivalent NZGLS Element	None
Definition	Describes the geographic area (extent) covered by the content of a source (used in the creation of the resource) by reference to existing authoritative sets of spatial locations.
Purpose	This element should provide the potential user with an appreciation of the sources used to create the data resource and assist potential users to make a fitness for purpose assessment. This element will not be used as a search criteria.
Obligation	Conditional – If extent of the source is different from the main resource.
Element refinements	<p>NZGLS refinements will apply namely:</p> <p>jurisdiction - the jurisdiction affected by the content of the resource – a legal concept – use the current versions of the lists defined in Section K.3 of NZGLS.</p> <p>spatial – spatial coverage or locations or areas covered in the content of a resource – use values from one of recognized encoding schemes.</p> <p>Note that this metadata profile does not include spatial refinements such as the geographic box type of definition or the adhoc bounding polygon definition permitted within ISO 19115 and other metadata standards.</p>
Encoding Schemes	<p>One of the following:</p> <p>NZGLS Jurisdiction Refinement Controlled Vocabulary (annotated to reflect currency of jurisdiction boundaries) [jurisdiction2002] Namespace – not yet defined</p> <p>NZGLS List of Territories for Place Names Refinement[spatialTerritories] Namespace – not yet defined</p> <p>LINZ Index to Places – by reference to the unique RelatedID attribute from the LINZ Index to Places database [spatialIndexPlaces] Namespace – not yet defined</p> <p>LINZ NZMS 260 Map Series – by reference to the unique map sheet reference [spatial260] Namespace – not yet defined</p>
Default Value	New Zealand
Scope and Interpretation	<p>Note that this element always relates to the content of the resource, not to the users or the availability of the resource.</p> <p>This element can be repeated if it takes more than one geographic identifier to describe the extent of the data resource. Where possible, geographic identifiers that most precisely define the extent should be used (i.e. the most “local level” geographic identifier)</p> <p>In this element, it is assumed that it is describing the extent by inclusiveness (rather than exclusiveness) and there is no implicit extent type element required.</p>

Distribution Means Element

The refinement “jurisdiction” refers to the territory over which a particular government or government agency exercises its authority. Where the content of the resource has a jurisdiction, it is recommended that the jurisdiction covered by the resource be included in this element.

The refinement “spatial” refers to locations or areas that are covered by or discussed in the content of the resource. These are usually standard place names of a location. For services, this describes the geographical area covered by the service – as opposed to the legal jurisdiction.

Examples

[jurisdiction2002]	Selwyn District
[spatial260]	R27 (Wellington)
[spatialTerritories]	Offshore Islands
[spatialIndexPlaces]	42243 (Awaateatua Beach)

The Data Characteristics Module

The Resource Format Name Element

Purpose of this Section

Contains the rules for metadata element number 285 (ISO 19115 number series):
name

Rules on the Resource Format Name Element

Name	name
Short Name	formatName
Superior Entities in ISO 19115 UML Structure	MD_Metadata/MD_Identification/MD_Format
Equivalent NZGLS Element	None
Definition	Name of the format that describes the computer language construct of the original host system for the resource that specifies the representation of data objects in a record and file storage device or transmission channel.
Purpose	This element allows the user to assess fitness for purpose and the likelihood of what aspects of the data resource may be lost as part of the reformatting into the distribution format.
Obligation	Mandatory
Element refinements	None.
Encoding Schemes	None
Default Value	None
Scope and Interpretation	
With spatial data resources, the format is likely to be a proprietary format associated with one of the GIS vendors. However, this is not always the case and as GIS move towards more open systems including web-based spatial browsers, formats may included industry standard, non-proprietary formats such as GML. The format to be recorded in this metadata element is the "native" format of the data resource as it is held by the data custodian or data steward. The only exception to this situation is where there is a service that makes this resource available to external users directly – in this situation, the format supported by the service should be noted. Distribution formats, where the data resource has been reformatted for distribution purposes that format name value is recorded in the Distribution Format Name element and not this element.	

Examples

Mapinfo
ArcView

The Resource Format Version Element

Purpose of this Section

Contains the rules for metadata element number 286 (ISO 19115 number series):
version

Rules on the Resource Format Version Element

Name	version
Short Name	formatVer
Superior Entities in ISO 19115 UML Structure	MD_Metadata/MD_Identification/MD_Format
Equivalent NZGLS Element	None
Definition	The version number of the format that describes the computer language construct of the original host system that specifies the representation of data objects in a record and file storage device or transmission channel.
Purpose	This element allows the user to assess fitness for purpose and the likelihood of what aspects of the data resource may be lost as part of the reformatting into the distribution format.
Obligation	Mandatory
Element refinements	None
Encoding Schemes	None
Default Value	None
Scope and Interpretation	Although most proprietary GIS data formats are backwardly compatible, some versions have physical limitations that have been subsequently overcome. For instance the number of points making up an irregular line feature which means that a feature definition in earlier formats may be broken into a number of features where in more modern versions that same feature definition may be a single feature. An awareness of these differences may be useful to users in certain situations.

Examples

8.1

The Use Description Element

Purpose of this Section

Contains the rules for metadata element number 63 (ISO 19115 number series):
specificUsage

Rules on the Use Description Element

Name	specificUsage
Short Name	specUsage
Superior Entities in ISO 19115 UML Structure	MD_Metadata/MD_Identification/MD_Usage/
Equivalent NZGLS Element	None
Definition	A description of an application using the resource.
Purpose	This element allows the user to assess fitness for purpose and the relevance of the resource to the user's proposed use.
Obligation	Conditional – if a use of the resource is known
Element refinements	None.
Encoding Schemes	None
Default Value	None
Scope and Interpretation	Keep description brief with the emphasis on details useful for future fitness of purpose assessments by other potential users.

Examples

An application using the topo road centerlines data has been created to support the scheduling of milk tankers in the Wairarapa. Bridges were identified by point features snapped onto the road centerlines and Bridge loading and width restrictions recorded. No plans to update the road centerline. Application only used by Transport Scheduling Manager.

The User Limitation Element

Purpose of this Section

Contains the rules for metadata element number 65 (ISO 19115 number series):
userDeterminedLimitations

Rules on the User Limitation Element

Name	userDeterminedLimitations
Short Name	userDetLim
Superior Entities in ISO 19115 UML Structure	MD_Metadata/MD_Identification/MD_Usage/
Equivalent NZGLS Element	None
Definition	Applications determined by the user for which the resource is not suitable.
Purpose	This element allows the user to assess fitness for purpose.
Obligation	Conditional – if a limitation of the resource is known
Element refinements	None.
Encoding Schemes	None
Default Value	None
Scope and Interpretation	
A brief description of any limitation	

Examples

Not to be used for Navigation

The User Organisation Element

Purpose of this Section

Contains the rules for metadata element number 376 (ISO 19115 number series):
organisationName

Rules on the User Organisation Element

Name	organisationName
Short Name	rpOrgName
Superior Entities in ISO 19115 UML Structure	MD_Metadata/MD_Identification/MD_Usage/CI_ResponsibleParty
Equivalent NZGLS Element	None
Definition	The name of an organisation that uses the resource.
Purpose	This element allows the user to contact a user organization to make further enquiries with respect to assessing the resource's fitness for purpose.
Obligation	Conditional – if there are any known organizations using the resource
Element refinements	None.
Encoding Schemes	None
Default Value	None
Scope and Interpretation	
Organisation name is always given in full with no abbreviations.	

Examples

New Zealand Fire Service

The User Organisation Contact Position Element

Purpose of this Section

Contains the rules for metadata element number 377 (ISO 19115 number series):
positionName

Rules on the Resource Contact Position Element

Name	positionName
Short Name	rpPosName
Superior Entities in ISO 19115 UML Structure	MD_Metadata/MD_Identification/MD_Usage/CI_ResponsibleParty
Equivalent NZGLS Element	None
Definition	The name of the contact position within an organisation that uses the resource.
Purpose	This element allows the user to contact a user organization to make further enquiries with respect to assessing the resource's fitness for purpose. This element will not be used as a search criteria.
Obligation	Conditional – if there is a organization known to be using the resource
Element refinements	None.
Encoding Schemes	None.
Default Value	None.
Scope and Interpretation	
Element values must accurately describe an actual position within the organisation.	

Examples

Manager Information Services

The User Organisation Email Contact Element

Purpose of this Section

Contains the rules for metadata element number 386 (ISO 19115 number series):
electronicMailAddress

Rules on the User Organisation Email Contact Element

Name	electronicMailAddress
Short Name	eMailAdd
Superior Entities in ISO 19115 UML Structure	MD_Metadata/MD_Identification/MD_Usage/CI_ResponsibleParty/pointOfContact/contactInfo/CI_ContactAddress
Equivalent NZGLS Element	None
Definition	The electronic mailbox address for communication with the organisation using the resource.
Purpose	This element allows the user to contact a user organization to make further enquiries with respect to assessing the resource's fitness for purpose. This element will not be used as a search criteria.
Obligation	Conditional – if there is a known organization using the resource
Element refinements	None.
Encoding Schemes	None.
Default Value	None.
Scope and Interpretation	
Email values must accurately describe a valid email address.	

Examples

data@mfe.govt.nz

The User Organisation Role Element

Purpose of this Section

Contains the rules for metadata element number 379 (ISO 19115 number series): *role*

Rules on the User Organisation Role Element

Name	role
Short Name	role
Superior Entities in ISO 19115 UML Structure	MD_Metadata/MD_Identification/??/CI_RespParty/pointOfContact/
Equivalent NZGLS Element	None
Definition	The function that describes the nature of the relationship of an organization to the resource.
Purpose	This element informs the user what role this organization performs with respect to the resource. This element will not be used as a search criteria.
Obligation	Mandatory
Element refinements	None.
Encoding Schemes	Compulsory – B.5.5 CI_RoleCode <<CodeList>> Namespace – "http://metadata.dgiwg.org/codelistRegistry?CI_RoleCode"
Default Value	user
Scope and Interpretation	
Role values must be derived from CI_RoleCode CodeList	

Examples

[iso19115]	resourceProvider	party that supplies the resource
[iso19115]	custodian	party that accepts accountability and responsibility for the data and ensures appropriate care and maintenance of the resource
[iso19115]	owner	party that owns the resource
[iso19115]	user	party who uses the resource
[iso19115]	distributor	party who distributes the resource
[iso19115]	originator	party who created the resource
[iso19115]	pointOfContact	party who can be contacted for acquiring knowledge about or acquisition of the resource
[iso19115]	principallInvestigator	key party responsible for gathering information and conducting research
[iso19115]	processor	party who has processed the data in a manner such that the resource has been modified
[iso19115]	data steward	party with statutory responsibility for resource

The Use Limitation Element

Purpose of this Section

Contains the rules for metadata element number 68 (ISO 19115 number series):
useLimitation

Rules on the Use Limitation Element

Name	useLimitation
Short Name	useLimit
Superior Entities in ISO 19115 UML Structure	MD_Metadata/MD_Identification/MD_Constraints/
Equivalent NZGLS Element	None
Definition	A limitation affecting the fitness for use of the resource.
Purpose	To assist with fitness for purpose assessments.
Obligation	Conditional – if a limitation of the resource is known
Element refinements	None.
Encoding Schemes	None
Default Value	None
Scope and Interpretation	A brief description of any known limitation with the emphasis on advise useful to potential users of the resource.

Examples

Vegetation coverage derived from aerial photography in the 1980s. In recent years there has been considerable logging in Western Southland and this has dramatically reduced the on-the-ground accuracy of these vegetation coverages in this area.

The Access Constraints Element

Purpose of this Section

Contains the rules for metadata element number 70 (ISO 19115 number series):
accessConstraints

Rules on the Access Constraints Element

Name	accessConstraints
Short Name	accessConsts
Superior Entities in ISO 19115 UML Structure	MD_Metadata/MD_Identification/MD_Constraints/
Equivalent NZGLS Element	None
Definition	Access constraints applied to assure the protection of privacy or intellectual property and any special restrictions or limitations on obtaining the resource.
Purpose	To assist with fitness for purpose assessments.
Obligation	Conditional – if a limitation of the resource is known
Element refinements	None.
Encoding Schemes	Compulsory – B.5.24 MD_RestrictionCode <<odelist>> Namespace – “http://metadata.dgiwg.org/codelistRegistry?MD_RestrictionCode”
Default Value	None
Scope and Interpretation	
Must be valid value from MD_RestrictionCode codelist.	

Examples

[iso19115]	restricted
------------	------------

The Use Constraint Type Element

Purpose of this Section

Contains the rules for metadata element number 71 (ISO 19115 number series):
useConstraints

Rules on the Use Constraint Type Element

Name	useConstraints
Short Name	useConsts
Superior Entities in ISO 19115 UML Structure	MD_Metadata/MD_Identification/MD_Constraints/
Equivalent NZGLS Element	NZGLS Rights element (in part)
Definition	Categories of constraints applied to assure the privacy or intellectual property or any special restrictions or limitations on obtaining the resource.
Purpose	This element allows the user to be warned of any constraints applied to the access or use of a resource. This element would not be used for search purposes.
Obligation	Conditional – if constraints apply to this particular resource
Element refinements	None.
Encoding Schemes	Compulsory – B.5.24 MD_RestrictionCode <<CodeList>> Namespace – “http://metadata.dgwg.org/codelistRegistry?MD_RestrictionCode”
Default Value	copyright
Scope and Interpretation	Most government data resources will be subject to Crown Copyright. In the case of Crown Copyright, the actual copyright notice would be included in the Use Constraint Notice metadata element. Similarly, if the “otherRestrictions” category is used in this metadata element, the description of the actual limitations should be included in the Use Constraint Notice metadata element.

Examples

[iso19115]	copyright
[iso19115]	patent
[iso19115]	patentPending
[iso19115]	trademark
[iso19115]	license
[iso19115]	intellectualPropertyRights
[iso19115]	restricted
[iso19115]	otherRestrictions

The Use Constraint Notice Element

Purpose of this Section

Contains the rules for metadata element number 72 (ISO 19115 number series):
otherConstraints

Rules on the Use Constraint Notice Element

Name	otherConstraints
Short Name	othConsts
Superior Entities in ISO 19115 UML Structure	MD_Metadata/MD_Identification/MD_Constraints/
Equivalent NZGLS Element	NZGLS Rights element
Definition	Other restrictions, limitations or legal prerequisites for accessing or using the resource.
Purpose	This element allows the user to be warned of the nature of any constraints pertaining to the access or use of a resource. This element would not be used for search purposes.
Obligation	Conditional – if constraints apply to this particular resource which include any specific notices or amplifications of what the constraint means to potential users.
Element refinements	New Zealand Crown Copyright to be noted as follows: "Crown Copyright, New Zealand, YYYY" where YYYY is the year the resource was published.
Encoding Schemes	None.
Default Value	copyright
Scope and Interpretation	Most government data resources will be subject to Crown Copyright. If the "otherRestrictions" category is used in the Use Constraint Type metadata element, the description of the actual limitations should be included in this metadata element.

Examples

Crown Copyright, New Zealand, 2002

9. XML Examples

XML Instance

Transit Statehighway Centreline Dataset

<http://www.linz.govt.nz/staticpages/geospatial/xml/schema/samples/nzgmetaCLI1v0.01.xml>

Style Sheets

For viewing the metadata extensions to ISO 19115 of a XML instance conforming to the New Zealand Government Geospatial Metadata Profile:

<http://www.linz.govt.nz/staticpages/geospatial/xml/schema/samples/nzgMDextensionsVersion1.0.xslt>

For transforming XML instance document conforming to the ESA Metadata Profile to the New Zealand Government Geospatial Metadata Profile:

<http://www.linz.govt.nz/staticpages/geospatial/xml/schema/transforms/ESAtoNZG.xslt>

10. Glossary

Adapted From <http://www.e-government.govt.nz/docs/nzglsv2/chapter24.html> accessed 25 May 03

AGLS	The Australian Government Locator Service
ANZLIC	Australia New Zealand Land Information Council
ANZLIC SDI SC	ANZLIC Spatial Data Infrastructure Steering Committee
ASDD	Australian Spatial Data Directory
ASDI	Australia Spatial Data Infrastructure
CANRI	Community Access to Natural Resource Infrastructure
DGIWG	(US) Digital Geographic Information Working Group
e-GIF	e-Government Interoperability Framework
EGU	e-Government Unit
FGDC	Federal Geographic Data Committee
FONZ	The "Functions of New Zealand" thesaurus.
GIS	Geographic Information System
HTML	HyperText Markup Language
ISO	International Standards Organisation
NSDI / SDI	(National) Spatial Data Infrastructure
NZGLS	New Zealand Government Locator Service standard
NZGO	New Zealand Government Online
OCGI	Officials Committee for Geospatial Information
SONZ	The "Subjects of New Zealand" thesaurus
URI	Uniform Resource Identifier
URL	Uniform Resource Locator
WALIS	Western Australia Land Information System
XML	eXtensible Mark-up Language
Z39.50	An ISO standard (ISO23950) for common access to repositories for metadata
MFE	Ministry for the Environment
EMF	Environmental Metadata Framework
TC211	Technical Committee 211 (Of ISO)
DCDB	Digital Cadastral Database

11. Change History

This section will record substantive changes to the profile. This will allow future users to see the rules for encoding that existed at the time the metadata was created. Each release will continue to be available from the [Geospatial Metadata Internet website](#).