The

New Zealand Government

Locator Service

(NZGLS)

Metadata Standard

and

Reference Manual

Version 2.0

SUMMARY

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SECTION A - OVERVIEW OF METADATA

Target audience

This section is for managers and people developing a metadata creation process in their organisation.

Purpose

This section introduces the concept of metadata and provides guidelines on how to get started by deciding where to start.

The most current version of the manual

The most current version of this NZGLS Metadata Standard and Reference Manual is available from the NZGLS maintenance agency (currently the E-Government Unit at SSC) and is on-line at: www.e-government.govt.nz.

The contact e-mail address for queries is nzgls@ssc.govt.nz.

A.1   Background to Metadata

A.1.1 What is metadata?

Metadata is data about data. Metadata can be used by search engines when they search the web or an intranet looking for information on a particular subject.

The New Zealand Government is setting up metadata descriptions for all resources that someone might search for via the web – whether it is a document, a public service, a web page or a statue in front of Parliament buildings or an agency.

A metadata record is something which describes, manages, and catalogues these resources in a consistent and efficient way. This means that someone looking for the resource is more likely to find it. It also means that people searching government websites are more likely to get relevant and meaningful "hits" when they search for government information. A metadata record is made up of a number of separate elements. Most elements have encoding schemes which are controlled word thesauri or style rules.

People performing searches see the most informative elements in the standard search result, and can display the full metadata records for each resource record found.

A.1.2 Example: Book

Sample elements: *Author, Title* and *Publisher*

A.1.3 Example: Service

Sample elements: *Creator, Function* and *Availability*

A.2   The Government Mandate

Central government agencies are required to use the NZGLS Standard. This will make it easy for them to interact with similar agencies and co-ordinate resources across government.

It is recommended that the following also use the NZGLS Standard to provide comprehensive coverage across all of government, including:

- State owned enterprises
- Crown Entities
- Quasi – government bodies, and
- Local authorities

A.2.1 19 Metadata elements we will use for describing resources

- *Creator*
- *Publisher*
- *Contributor*
- *Rights*
- *Title*
- *Subject*
- *Description*
- *Source*
- *Language*
- *Relation*
- *Coverage*
- *Function*
- *Date*
- *Type*
- *Format*
- *Identifier*
- *Availability*
- *Audience*
- *Mandate*

These elements are described further in detail in other sections of this manual.

A.2.2 Where our standard came from

Our standard is closely based on the Australian government extension of DCMI (the Dublin Core Metadata Initiative), which is called AGLS. This was designed to support the description of services as well as more traditional information resources.

The Dublin Core Metadata Initiative has been adopted in many countries and across many industry and government sectors.

A.2.3 How organisations can extend the NZGLS standard to meet their own needs

NZGLS has been designed so that organisations with their own specific metadata needs can add extra elements and qualifiers to the basic NZGLS standard. This means that the standard is extensible.

When an agency is developing an extended metadata set based on NZGLS, it must comply with NZGLS so that metadata for NZGLS is created as well.

A.2.4 Changes in standards in the future

Ongoing compatibility with international standards is important to NZGLS. Changes to AGLS will be considered for inclusion in future versions of NZGLS. Similarly, any changes made to the Dublin Core will be considered.

A.3   Where Will All this Metadata be Stored?

Work is still in progress on the detail, but it is likely that:

- Each agency will be responsible for its own NZGLS metadata and will have its own storage repository, and

- Government-wide systems will collect this metadata from agencies and store it in a central repository, so searchers can access it.

A.4   Why Use Metadata?

A huge number of resources are available within organisations, across the Government and across the world.

Metadata allows us to describe these resources in simple, small packages of information which use consistent language. This makes it easier for more people to find out about the resource because they have access to the package of information.

If a resource is worth making available, then it is worth describing it with metadata, so people have the best chance possible of locating it on-line.

A.4.1 How metadata can be used

Metadata can serve many purposes, including:

- Cataloguing an organisation's resources
- Helping users decide if a resource is worth obtaining
- Stocktaking an agency's resources
- Providing access to non-electronic resources
- Publishing government resources via the Internet to anyone in the world.

A.4.2 Advantages of metadata

Business cases for adopting metadata have shown significant benefits, including:

- Government clients have a seamless method for accessing government resources
- Government clients can find government resources without knowing government structure
- Accessing government resources is simple
- High quality information and services are readily available
- It helps government have a consistent procedure for managing its own information
- It provides an effective infrastructure for distributing government resources

A.4.3 Quality is important

Providing poor quality metadata can be worse than providing none at all. Standards such as NZGLS help organisations to provide consistent quality metadata.

A.5   How Metadata Will be Used and by Whom

A.5.1 Who will use it?

Anyone searching for government resources will use NZGLS metadata.

A.5.2 How will they access it?

An ordinary Internet web browser is all someone will need to search for resources described with NZGLS metadata.

The New Zealand Government Portal at http://www.govt.nz will provide a search interface for the public. Links will lead the public to full information at agencies' websites.

People will be able to find information about **all** government services and many other resources through the Internet, even if some of them are not delivered over the Internet, by using NZGLS metadata.

A.6 Designing Metadata to Meet Your Own Customers' Needs for Resources and Services

A.6.1 Issues to consider

Each agency needs to consider its communities' needs:

- What services are used most?
- At what level do they want to find resources?
- Do they need individual documents, or collections of documents?
- What is the essential information to describe the resources?

Analysis of demands and expectations is important when working out the level of detail to apply with NZGLS metadata.

A.6.2 What gets described could be on-line or off-line

It is important to note that NZGLS metadata can be used to describe resources which could be on-line or off-line.

For example, a service provided over the counter but not on the Internet should still be described on the Internet using NZGLS metadata.

A.6.3 Working out the level of detail

Each agency will need to work out the appropriate level of detail for each type of metadata description, so that people can access the resource without being overwhelmed with unnecessary information.

For example, where services are provided, agencies will need to decide whether to describe:

- Multiple services on one high level metadata record, or
- Each service on a separate metadata record.

A.7   Overview of Logistics

A.7.1 Planning

Government agencies need to include creating NZGLS metadata in their overall information management plans.

A.7.2 Key decisions to be made

- Which resources should be described with NZGLS metadata?
- How should the resources which need metadata be prioritised for the creation of metadata?
- How much detail should be included in the metadata created for each resource?
- Who in the agency will create and maintain the metadata, and when will they create it?
- How will the organisation manage quality control, training and changes in standards?
- Where will the metadata be stored?

A.7.3 The role of the metadata manager

Each organisation will need to nominate an NZGLS metadata manager.

This person should have discretion to decide which resources require metadata. This person will also have responsibility for deciding how NZGLS is used in their own agency.

In small agencies, this person is likely to create metadata as well. In larger agencies, they will manage a number of possible approaches to metadata authoring – perhaps training individuals responsible for particular resources how to create the NZGLS metadata to describe those resources.

The metadata manager will be responsible for ensuring the agency's compliance with the government's requirement to provide NZGLS metadata. Other managers and supervisors across the organisation will need to be made aware of their responsibilities and do whatever is required to provide the metadata.

A.7.4 Time and money

It is likely that considerable input will be required to comply with the NZGLS metadata standard to start with – but that the benefits will make the investment worthwhile. As time goes on, agencies need to allow for maintenance and for creating metadata for new resources.

It is most cost effective to create metadata as early as possible in the life of a resource – ideally when the resource is created and published.

A.8   Identifying Potential Resources for Metadata Description

A.8.1 Anything can be a resource

Resources include government services (provided on-line or off-line), documents on web servers, collections of videos, an agency, people or even physical objects such as statues.

There is no real limit to what can be described using NZGLS metadata.

A.8.2 Questions to be asked on detail

- How can this metadata help searchers to locate the resources being described?
- Which parts of the NZGLS metadata set are most meaningful for the particular resources involved?
- Which metadata is readily available within the agency's systems?

Note that some metadata elements are mandatory

A.9   Collection-Level Descriptions and Item-Level Descriptions

Resources can be described individually, or at a collection or aggregate level. The levels used should meet searchers' needs.

For example, an agency could create collection-level metadata for the main pages on its website. This assumes that searchers will drill down through the site to the resources they need. This could work well if the agency's resources are tightly focussed around a few functions or services.

NZGLS metadata based searches should get the searchers to a point on the website from where they can easily find the exact resource they want. This means there are no black and white rules about levels of detail. The practical requirements of the agency's user communities will dictate this.

If the agency just chooses to create metadata for each page or item on its website, then each page would become an individual item – including the high level entry pages. Preliminary

estimates suggest that less than 10% of the pages on an organisation's website may need NZGLS metadata – so it is unlikely that every single document on a website will need an NZGLS metadata record.

A.9.1 Collection-level descriptions must meet user needs

Where a collection-level NZGLS metadata record is created, it must provide a full description of the resources in the collection. Otherwise, people will not know whether something in that collection is what they want. This means there must be a detailed description of the scope of the collection, not just the high level entry page.

A.9.2 What might be suitable for collection-level descriptions

- High level web pages where people can drill down to get to the document they need
- Collections of physical resources such as photographs
- Data sets, including databases and library catalogues
- A tightly defined service or function

A.10 Compliance – the Minimum Set of Resources which will Require NZGLS Metadata

A.10.1 Home pages

The major entry point to an organisation or distinct business unit where there is likely to be a public perception of a separate entity

A.10.2 Each government agency's succinct description of itself

A clear, precise description

A.10.3 Topics and services in high demand

Each organisation will know the demands for the communities it serves and should aim to meet the greatest needs first

A.10.4 Entitlements to government assistance or obligations

Where agency clients need to understand their entitlements to assistance or their obligations, metadata must be provided

A.10.5 On-line services

Pages that provide an actual on-line service to the public such as payment forms or applications etc will require metadata

Pages supplying essential information

Pages which are required to meet an organisation's obligations to its prescribed community for legal or service reasons

A.10.6 Specific on-line services and indexes

Entry points to specific on-line services and indexes (such as entry points to library catalogues or legal databases) all need metadata

A.10.7 Major formal publications

These include: annual reports, corporate strategic plans, public policy and accountability documents, and so on

A.10.8 Major reports about the agency and its functions

For example the Department of Child Youth and Family Services should describe the Mick Brown Report; the SSC E-Government Unit should describe Rowena Cullen's report on government websites written in 2000

A.10.9 Media releases

A.10.10 Major entry point for indexes and menus to closely related topics

Where programs, policies or topics are linked inside an organisation, the entry point for these topics requires a metadata description

A.10.11 Information about the agency which affects the public

This includes information on agency powers, manuals and other documents used in decision making affecting the public

A.10.12 Access points for common business processes as opposed to agency specific functions

These include such activities as recruitment, complaints or general enquiries

A.10.13 Descriptive or marketing information

This includes information about agencies, their services, their activities and their collections

A.10.14 What's contracted out?

There should be a metadata description for information about services that have been contracted out or which are no longer delivered

A.11 What Compliance Means

A.11.1 When an agency is compliant

An agency is considered to be NZGLS metadata compliant when:

- Good quality NZGLS metadata has been created for all the resources described in the minimum set of resources

- The contents of the agency's entire website are described at an appropriate level of aggregation (index pages, intermediate level entry pages, etc)

- The NZGLS maintenance agency has certified the agency's compliance with the NZGLS standard

A.11.2 Electronic logo of compliance

Agencies which have achieved full NZGLS compliance are entitled to display the NZGLS logo on their websites.

A.12 Approach to Metadata Creation

A.12.1 Recommendation – start with high-level collection-level records

If an agency has identifiable collections of resources, such as those found together on a particular section of an agency website, then this is the place to begin. Doing the high level collection level records first will:

• make the creation of item-level records more efficient later on

• provide good coverage of records for the searching public as quickly as possible

• achieve rapid compliance with the NZGLS standard, and

• assist external search engines and end users by providing a small amount of targeted metadata, rather than a large amount of detailed metadata.

On an agency website, collection-level resources are usually things like:

• The home page

• The media release access page

• The front page for a collection of resources on a specific topic, etc.

A.12.2 Other issues to consider

Agencies will need to develop their own criteria for ranking usefulness of metadata according to the following:

• Usefulness to their customer groups

• Gaps where there is low visibility for a resource which needs its awareness raised

• Time required to create metadata records

• Existing business processes and their suitability for creating NZGLS metadata records

• Design of an ongoing process to continually monitor and reassess the agency's needs in terms of metadata

• Priorities where services are shared across agencies

A.13 Before Beginning

Each agency will need to do the following things before beginning the creation of NZGLS-compliant metadata records:

A.13.1 Decide which services and resources to describe

Consider:

- People who will be searching the Government Portal as a main source of information on agency services and resources

- Agency interactions with clients, including knowledge of demand for individual services and resources

- Any services or resources the agency wishes to highlight

- Available resources to undertake the work

A.13.2 Decide which elements to use

Consider:

- The mandatory set of NZGLS elements

- The conditional (mandatory in some circumstances) set of NZGLS elements

- Which set of elements will, if completed, provide a meaningful description of the service or resource to enable discovery via the Government Portal

- Available resources to undertake the work

A.13.3 Set the standards for each element

The aim is to achieve consistency within agencies in the completion of agency metadata records. Decide:

- A consistent way to complete each free-text element, e.g. Description, Title; length of description, official titles or commonly known titles

- The appropriate level of detail in each element, where there is potential for degrees of detail within any element – remembering only to include the detail that a searcher needs

- Which encoding schemes or the thesauri to use

- Which language(s) to use

A.13.4 Identify any default elements for the metadata records

Decide:

- Which elements will usually be the same in every record which the agency creates, e.g. Creator

A.13.5 Select terms from the government functions and subject thesauri to describe each agency's services and resources

The aim is to minimise the reviewing of and selecting from all thesaurus terms, when each agency will commonly use a smaller subset of terms.

- Include as part of the default element set

A.13.6 Decide whether to extend NZGLS to meet the agency's needs

- Add, as appropriate, additional element fields, to the agency input screen
- Notify the NZGLS maintenance agency of any changes to ensure compliance

A.13.7 Set the default elements as the basis of each metadata record

- Customise tools to suit
- Enter the data for each default element

SECTION B - CREATING METADATA RECORDS

Target audience

Managers, metadata managers and metadata authors

Purpose of this section

This section introduces the NZGLS metadata scheme elements, and contains rules and principles which apply to NZGLS as a whole.

B.1 The NZGLS Metadata Elements

The elements are grouped in the three categories related to their purpose.

- Elements 1 to 4 describe ownership aspects of the resource.
- Elements 5 to 12 describe the intellectual content.
- Elements 13 to 19 describe other aspects of the resource.

B.1.1 Rules on which elements must be included - obligation

- **Mandatory** elements must be included in any NZGLS metadata record
- **Conditional** elements are mandatory in some circumstances
- **Recommended** elements should be included where possible
- **Optional** elements should be included when they will be useful for finding the resource, but for some types of resources they will not be appropriate

B.1.2 Summary of elements and their level of obligation

	Element	Obligation	Definition (taken from each element)
1	*Creator*	Mandatory	The name of the organisation or person primarily responsible for the content of the resource, or the provision of the service
2	*Publisher*	Conditional (mandatory for published resources, otherwise optional)	The name of the entity responsible for making the resource available
3	*Contributor*	Optional	The name of the organisation or person who has played an important role in creating the

	Element	Obligation	Definition (taken from each element)
			content of the resource or service but is not specified in the creator element
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
5	*Title*	Mandatory	The name given to the resource or service
6	*Subject*	Mandatory	A succinct description of the subject or topic of the resource
7	*Description*	Recommended	A textual description of the content or purpose of the resource or service
8	*Source*	Optional	Information about another resource from which the current resource is derived
9	*Language*	Recommended	The language of the content of the resource, or the language in which the service is provided
10	*Relation*	Optional	Identification of other resources or services that are related to this current resource, and a description of the type of relationship

	Element	Obligation	Definition (taken from each element)
11	*Coverage*	Optional	Coverage describes the extent or scope of the **content** of the resource: • the spatial location (a place name or geographic co-ordinates) • temporal period (a period label, a date, or a date range) or • the jurisdiction (such as a named administrative region where the content applies)
12	*Function*	Mandatory	The business function of the agency to which this resource or service relates
13	*Date*	Recommended	A date associated with an event in the life cycle of the resource
14	*Type*	Mandatory (for the Category refinement)	The category or genre of the resource or service
15	*Format*	Optional	The data format of the resource, or the channels through which the service is delivered
16	*Identifier*	Conditional (Mandatory when describing online resources)	A unique identifier for a resource
17	*Availability*	Conditional (Mandatory when describing services or off-line resources)	How the resource can be obtained, or contact information

	Element	Obligation	Definition (taken from each element)
18	*Audience*	Recommended	The target audience of the resource
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)

B.2 Qualifiers for Each Element

B.2.1 What are qualifiers?

Qualifiers are additions and extensions to the metadata elements. They give metadata authors the ability to refine the semantics and to add precision.

There are two types of NZGLS qualifiers:

- Element refinements
- Encoding schemes

B.3 Principles for Elements and Qualifiers

- Where an element can have more than one value, that element is repeatable within a record

- Qualifiers should only be used where they are needed to provide better description of the resources being described, or to make on-line searching more precise than would be possible without them

- Each element can have one qualifier

- Each element can be repeated many times to have many qualifiers

- An element's value is usually expressed according to an encoding scheme or chosen from a controlled vocabulary, but where these do not exist, use free text

- If a resource exists in more than one format then each form or type of the resource needs its own record.

B.3.1 What are element refinements?

Element refinements are like sub-elements. They define precise semantic sub-categories of the element.

The element refinements which can be used in NZGLS are listed in the section on each element.

For example, the element *Relation* has a number of refinements – including isPartOf/hasPart; isVersionOf/hasVersion.

B.3.2 What are encoding schemes?

Encoding schemes show how a given value is to be interpreted by referring to either:

- externally controlled vocabularies or thesauri, or
- rules for constructing or encoding values.

For example, an encoding scheme for a number of NZGLS elements is the International Standard Book Number (ISBN).

Encoding schemes which can be used with elements are listed in the detailed instructions for each element. However, these lists are not exhaustive, and a particular agency or sector might need to create other schemes. Unless a scheme or thesaurus is compulsory, then other encoding schemes may be used.

B.3.3 Rule for creating encoding schemes

The NZGLS maintenance agency must be advised of different encoding schemes people are using.

B.4 Format for Qualifiers

B.4.1 The format for qualifiers comes from the Dublin Core Metadata Initiative

Single word qualifiers are written all in lower case.

Qualifiers consisting of more than one word have no spaces in them between words, but have the initial letter of the second and subsequent words in uppercase.

For example, the qualifier "act" is all in lower case. The qualifier "isBasedOn" has a lower case initial letter but uppercase letters for subsequent words.

B.5 Compatibility Between NZGLS and Extension Sets in Individual Agencies

B.5.1 Rules for adding elements or qualifiers

- Any extension set must not alter the basic semantics of any of the 19 NZGLS elements
- Additional qualifiers should not conflict with the semantics of the NZGLS parent element, although they may enrich or enhance it
- Mandatory elements in NZGLS must remain mandatory in the new set
- Semantics of any qualifiers added to existing NZGLS qualifiers must be consistent with the semantics of the parent element
- The "dumb-down rule". This rule states that an element value must be meaningful when no qualifiers are present. If you knock off each qualifier starting from the lowest level, then what is left should still make sense on its own. For example, the value for the qualified element NZGLS.*Mandate*.act must make sense when the element is in the form NZGLS.*Mandate*.

B.6 Mandatory Elements for Describing a Resource

These five elements must be in any NZGLS record for any type of resource:

- *Creator*
- *Title*
- *Type* – with the category refinement
- *Function*
- *Subject*

Three other elements are mandatory for some types of resources:

- *Publisher* – mandatory for all documents, but not applicable for services or agency resources
- *Identifier* or *Availability* – resources available on-line must include an *Identifier*, and resources available off-line must include the *Availability* element.

B.7 Recommended Elements

The following NZGLS elements are recommended:

- *Description*
- *Audience*
- *Language* – especially if the resource is not in English.
- *Date* – please use a valid date where it is known – do not make it up.
- *Mandate*

B.8 Mandatory and Optional Elements where the *Type* Element Category Refinement is Agency

For agencies, the following elements are mandatory:

- *Title*
- *Subject*
- *Type*
- *Availability*
- *Function*

Recommended elements for agencies are:

- *Relation* – such as whether it is a head office, a business unit or a branch office
- *Date*
- *Mandate*
- *Description*
- *Coverage*

B.9 The Difference Between *Function* and *Subject*

A functional classification describes why a resource exists, or the government business function which caused the resource to be created. It describes the context.

Subject classification describes what the resource is about. It describes the content.

A New Zealand Government Functions Thesaurus is being developed to provide a high level description of all government functions. These high level terms will provide a good context for finding resources -–because they describe business functions. The services or resources relating to this business function will be at a lower level. This means people are more likely to know what they need by starting with the *Function* element and working down.

B.10 The Difference Between *Identifier* and *Availability*

- The *Identifier* element must be used to describe an on-line resource.

- The *Availability* element must be used to describe a service or an off-line resource.

- If the resource is available both on-line and off-line, then two metadata records are required.

It is important that a searcher can not only discover that a resource exists, but be able to access it. This is generally achieved through the *Availability* element. However, where a resource is available on line, the *Identifier* (URI) also enables access. Therefore, for on-line resources, *Identifier* is mandatory. For off-line resources, an *Identifier* (such as an ISBN) is useful for referencing the resource, and should be given where it is apparent. Such an *Identifier* is not adequate to enable a searcher to readily access the resource, and *Availability* must be used.

B.11 When to Use Audience, Coverage and Subject

Care should be taken to distinguish between people intended to use a resource (use *Audience*) and those described in a resource (use *Subject*).

For example, a report or dataset may be about "under 5s" (*Subject*), but intended for use by academic educationalists (*Audience*).

Coverage relates to the content of the resource. It should not be used to describe the intended users of the resource. Use *Audience* for this. For services, use *Coverage* for the area over which the service applies (eg the area where a licence is needed or is valid), and use *Availability* for the point(s) at which the service is delivered (eg the physical or virtual addresses where a licence can be obtained).

B.12 Tips on Analysing and Describing Resources for Metadata

B.12.1 Examining the resource

Do not read everything in or about a resource. Concentrate on what is likely to be the most informative, or scan it. Try not to spend more than five minutes analysing the content of a resource.

B.12.2 How many elements and terms should be used?

Use the mandatory elements. Identify the major subjects of the resource and put the most important concept first. Only use other terms if they add to the "discoverability" of the resource or tell the searcher something useful.

B.12.3 Use the most specific term available

Use the subject and function thesauri made available. These are mandatory.

Select the term that most accurately reflects the purpose or content of the resource being described. This applies when selecting terms from hierarchically constructed thesauri.

For example, a resource on "Child Welfare" should not have the subject keyword "Social Welfare" unless the resource also discusses social welfare more generally.

A resource that exists for two functions should be given two function element descriptions. A resource which describes two subjects should be given two *Subject* element descriptions.

If no key words exist for the concept, choose the key word that most closely represents the concept. It might be useful to look up a similar resource and check its metadata.

B.12.4 Facilitate efficient searching

Searchers want the search results to be relevant. Do not use values that represent only very minor content points because they will not be useful to the searcher. Do not create subject metadata for concepts that are mentioned rather than discussed.

For example, do not use the term "history" for a resource that only includes a small amount of introductory background history to the main subject under discussion.

B.12.5 Individuals and organisations

If the subject of the item is a person or an organisation, use the same form of the name that you would use if they were the creator. Do not repeat the name from the *Creator* element automatically.

B.12.6 Groups of people

Do not assign general terms such as "children", "ethnic groups", "women", etc to the *Subject* element for resources about, or for, these particular groups where there is a more specific heading.

For example, "Women and Employment" is more specific than "Women".

If the resource is intended for one of these groups as a target audience, this should go into the *Audience* element.

B.13 Help Available

B.13.1 Training

Training material will be available to assist the work of the NZGLS metadata manager in each agency.

Assistance with NZGLS training will be offered to agency information management staff, and guidelines will be provided by the NZGLS maintenance agency.

B.13.2 Tools

Tools will be developed to make it easy to create metadata. These should be available in the first half of 2002.

Many metadata elements will be able to be created automatically using a metadata tool.

The values for some elements can be created automatically by drawing them from existing operating systems or other software applications.

For example, *Title*, *Identifier* and *Date*.

Some agencies will have elements that have the same value across all records, such as *Creator*, *Publisher* and *Rights*. This information could be added to the template in a tool so it does not need to be individually added to each metadata record.

Elements such as *Subject*, *Function*, *Rights*, *Audience* and *Mandate* should have controlled vocabularies or thesauri that go with them, so people make a selection from a controlled list.

B.13.3 Controlled language and thesaurus terms

A thesaurus is a type of controlled vocabulary which makes sure that things are described consistently. This makes it easy to create metadata records, and it makes high quality, efficient information retrieval simple.

The Portal Thesaurus Project has been established to manage the use of thesauri to make sure they are consistent across agencies. This project has developed:

- An all-of-government subject thesaurus
- An all-of-government functions thesaurus
- A process for registering and assessing terms which agencies want to add to either thesaurus.

Other subject thesauri may also be used if they are registered with the NZGLS maintenance agency. This will only be necessary for specialist areas, such as scientific terms.

B.14 The Role of Each Element in the Portal

Element	Significance in the Portal
Creator	The Portal displays this element on the results page. It also allows services to be listed by agency. Displayed on metadata full record screen.
Publisher	The Portal displays this element on the results page. Displayed on metadata full record screen.
Contributor	Displayed on metadata full record screen.
Rights	Displayed on metadata full record screen.
Title	The Portal displays this element on the results page. Displayed on metadata full record screen.
Subject	The Portal uses this element, along with the function element, to allow the user to browse by topic. Displayed on metadata full record screen.
Description	The Portal displays this element on the results page. Displayed on metadata full record screen.
Source	Displayed on metadata full record screen.
Language	The Portal may use this element to allow searching by language. Displayed on metadata full record screen.
Relation	The Portal uses this element to relate documents to services, through the isPartOf element refinement. If you do not establish this relationship, then documents will not be discoverable in a service-based search. For example, the document whose title is 'Student Loan Application Form' will appear in the Portal as part of the 'Student Loan Scheme' service only if the document has the Relation element identifying that the document isPartOf 'Student Loan Scheme'. Displayed on metadata full record screen.
Coverage	The Portal uses the Jurisdiction refinement to enable the searcher to see resources relevant only to their (or another) location. This is especially advantageous to the searcher where equivalent resources are available for different regions. Displayed on metadata full record screen.
Element	**Significance in the Portal**

Element	Significance in the Portal
Function	The Portal uses this element, along with the subject element, to allow the user to browse by topic. Displayed on metadata full record screen.
Date	Displayed on metadata full record screen.
Type	Category refinement The Portal uses category refinement to distinguish between services, agencies, and documents, because these resources are displayed differently on the Portal. For example, agencies are displayed in A-Z listings, services are displayed by topic, agency or alphabetically, while documents are displayed in groups according to type. Type A unique and powerful feature of the Portal is that it groups search results into key document types that are meaningful to the user. All other types of document are grouped into the category 'other'. In order to ensure that a key document is given the correct prominence in the Portal, you must ensure that you complete the Type element with the appropriate term. If you do not do this, your document will be grouped into the 'other' category. Displayed on metadata full record screen.
Format	The Portal displays this element on the results page. Displayed on metadata full record screen.
Identifier	Where this element is a URI, the Portal will present the document title as a link that a user may click on to access the resource. Where the element is not a URI, the Portal will display it on the results page. Displayed on metadata full record screen.
Availability	The Portal uses this element to advise searchers where and how to access off-line resources. Displayed on metadata full record screen.
Audience	This element is used by the Portal to group resources relevant to particular communities of interest. Displayed on metadata full record screen.
Mandate	Displayed on metadata full record screen.

SECTION C – ELEMENTS WHICH USE "AGENT" – *CREATOR, PUBLISHER, CONTRIBUTOR*

Purpose of this Section

This section contains the rules for creating a metadata record using the *Creator, Publisher* and *Contributor* elements (numbers 1, 2 and 3).

Using the AGLS Agent Encoding Scheme

These three elements all use the AGLS Agent Scheme in this section. This is why they are grouped together. When the New Zealand Government Directory becomes available, this will be the preferred encoding scheme for government agencies. Until then, and for other agents, the AGLS scheme is to be used.

C.1 NZGLS Use of AGLS Agent Scheme

C.1.1 Introduction

The AGLS Agent Scheme is a method for describing characteristics of agents in NZGLS metadata descriptions. Agents are people, organisations or instruments associated with resources.

There are a number of characteristics of an agent that can be described in metadata. These include, but are not limited to:

- An identifier for the agent, usually consisting of name and possibly including a jurisdiction
- Contact information

The NZGLS metadata standard includes three elements for providing information about agents associated with a resource. These are **Creator, Publisher,** and **Contributor**. Here we define AGLS agent, a structuring scheme for providing information about agent characteristics in metadata records. We also describe a method for encoding AGLS Agent as a profile of the Dublin Core Structured Values Scheme (DCSV) at http://dublincore.org/documents/199904/30/labelled-values-syntax/.

C.1.2 Characterising agents – the AGLS agent scheme

Component	Definition	Notes
personalName	The name of a person	
corporateName	The name of an organisation	
jurisdiction	The legal jurisdiction of the agent	
contact	Contact details for the agent. Can include an official title. Typically includes a phone number.	In NZGLS this information would be better placed in the *Availability* element.
address	Street or postal address for the agent.	In NZGLS this information would be better placed in the *Availability* element.
email	Email address for the agent.	In NZGLS this information would be better placed in the *Availability* element.
sector	Indicates whether the creator is from the government or non-government sector: 'government' and 'non-government' are the only allowable values	Default value is 'government'

All components are optional and ordering is not significant. All of the components except sector may be repeated.

C.1.3 Encoding AGLS agent

Within NZGLS metadata descriptions, characteristics of agents are encoded using the Dublin Core Structured Values Scheme. DCSV describes how to write a structured metadata value in a simple text string. It separates components using semicolons ";". The name of a component and the value of a component are separated by an equals sign "=".

Writing AGLS Agent using DCSV notation is straightforward using the component names defined above. For example, Archives of New Zealand could be described as

corporateName=Archives New Zealand;
jurisdiction=New Zealand Central Government

C.1.4 Examples

Agent who is a person

personalName=Jeremy Cauchi;

Note: since the sector component has "government" as the default value, government agents are not required to use the sector component.

Non-government agent

corporateName=Wellington Free Ambulance Headquarters;
sector=non-government

Corporate agent

corporateName=Office of Film and Literature Classification;
jurisdiction=New Zealand Central Government

C.2 Rules for the *Creator* Element

C.2.1 Name

Creator

C.2.2 Definition

The name of the organisation or person primarily responsible for the content of the resource, or the provision of the service.

C.2.3 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 of Education, or all books written by Maurice Gee.

C.2.4 Obligation

Mandatory

C.2.5 Element refinements

None

C.2.6 Encoding Schemes

- New Zealand Government Online Directory Service (when available)
- The AGLS agent encoding scheme

C.2.7 Default Value

None

C.2.8 Scope and Interpretation

For resources created by government, this element value contains the name of the agency responsible for creating the resource or the service.

If the creator is an individual person – like the author of a book – put the surname first, followed by a comma then the first name with no spaces. For example, Smith,Mary. If unsure, then enter the personal name as it appears on the resource.

Note that it will not be usual to have an individual person or another organisation as creators of a service or resource provided by an agency. The agency mostly responsible for that service or resource gets the *Creator* 'credit'. The others would be contributors.

This element always refers to the primary creator. Where an agency simply distributes an item or resource as a publisher, but is not responsible for the content, it cannot be the creator.

Where there are joint authors, repeat the *Creator* element and put one person's name in each element.

C.2.9 How to Use this Element When Describing a Service

When describing a service, the *Creator* will always be the name of the agency providing the service.

C.2.10 The role of *Creator* in the Portal

This element is displayed on the results page. It also allows services to be listed by agency.

Displayed on metadata full record screen.

C.2.11 Examples

Department of Inland Revenue
Department of Work and Income
Roberts, John

C.3 Rules for the *Publisher* Element

C.3.1 Name

Publisher

C.3.2 Definition

The name of the entity responsible for making the resource available

C.3.3 Purpose

This element is often the name of the agency that controls or publishes the resource in its current form. It allows a searcher to find published resources currently under the control of a particular agency. For example, it allows someone to find all the resources published by the Ministry of Agriculture and Forestry.

C.3.4 Obligation

Conditional – mandatory when referring to a published resource, but optional when describing services

C.3.5 Element refinements

None identified

C.3.6 Encoding Schemes

New Zealand Government Online Directory Service

AGLS agent encoding scheme

C.3.7 Default value

None

C.3.8 Scope and Interpretation

This element is used to provide information about distribution of the resource. It is often the name of the agency that controls, publishes or distributes the resource.

When the name of the agency publishing or controlling the resource changes, this element can be updated to reflect the name change.

For government-produced resources, the publisher will often be the same as the creator, but not always. Resources will generally be available from the publisher, but in some cases they could come from somewhere else, which should be noted in the *Availability* element.

For names of persons, put the surname first, followed by comma and then the first name with no spaces in-between. If not sure what to do then enter the name as it is shown on the resource.

Where this element often contains the name of the agency that controls or publishes the resource, the use of the element refinement "jurisdiction" is recommended.

For clarification 'publisher' should be considered a corporate author element only. For the sake of clarity, and to assist those agencies, such as the scientific and academic communities especially, the *Creator* and *Contributor* elements should operate on a hierarchical basis. For example, corporate name should always be used before a personal name can be added.

C.3.9 How to use this element when describing a service

The *Publisher* element is optional when describing services, since there is no concept of "publisher" for physical services as there is for information resources. The closest concept is the service provider, which fits better under the *Availability* element.

C.3.10 The role of *Publisher* in the Portal

The Portal displays this element on the results page.

Displayed on metadata full record screen.

C.3.11 Examples

corporateName=Department of Work and Income
corporateName=Te Hiranga Tangata
corporateName=Department of Inland Revenue jurisdiction=New Zealand
corporateName=Archives New Zealand personalName=Roberts, John

C.4 Rules for the *Contributor* Element

C.4.1 Name

Contributor

C.4.2 Definition

The name of an 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.

C.4.3 Purpose

The *Contributor* element is useful if more than one organisation or person contributes to the resource content. Often, main credit for creation is given to one or two people or organisations, and they will appear in the *Creator* element. All other contributors would appear in the *Contributor* element – and searchers might use these other contributors to look for that resource.

C.4.4 Obligation

Optional

C.4.5 Element refinements

The role of the contributor will appear as an element qualifier, for example **contributor.illustrator**. Examples of role titles which could be used include:

- author
- jointAuthor
- compiler
- resourceContributor
- editor
- illustrator
- serviceProvider
- photographer
- collaborator
- projectLeader
- investigator

Note that this list is not exhaustive.

C.4.6 Encoding Schemes

New Zealand Government Online Directory Service

AGLS agent encoding scheme

C.4.7 Default value

None

C.4.8 Scope and Interpretation

A *Contributor* could be an illustrator, editor, modifier, etc. The contributor's role is usually included as an element qualifier. Although some element qualifiers are included, the list is not exhaustive, and people should feel free to add other roles because the qualifiers used depend on the contribution being described.

When deciding what would be useful to include in this element, think about whether that name of an organisation or a person would be useful to retrieve the resource, or to differentiate it from some other resources. Exhaustive lists of contributors are not required for completeness.

The *Contributor* is usually going to be either a corporate or an individual.
This element is most useful when describing contributors to a resource with intellectual property content.

C.4.9 How to use this element when describing a service

This would only be used to describe a service where other organisations took a background or invisible role in providing a service, but a searcher might look for the service through the name of those other organisations.

C.4.10 The role of *Contributor* in the Portal

Displayed on metadata full record screen.

C.4.11 Examples

(compiler) New Zealand Department of Statistics
(jointAuthor) personalName=Roberts, John
corporateName=Archives New Zealand
(projectLeader) personalName=Taylor, Bruce
(investigator) personalName=Gebbie, Ewan
(investigator) personalName=Botherway, Kathryn
(investigator) personalName=James, Gill
(investigator) personalName=Mormorunni, Cristina

SECTION D – THE *RIGHTS* ELEMENT

Purpose of this section

This section contains the rules about creating metadata records using the *Rights* element (number 4).

D.1 Rules for the *Rights* Element

D.1.1 Name

Rights

D.1.2 Definition

Information about the rights for management of information resources, such as copyright, or access terms and conditions applying to the resource being described.

D.1.3 Purpose

The *Rights* element will be displayed to the searcher as significant information about copyright of resources, and access constraints for a resource or service.

This element is not a primary search point, and can be text or a pointer to a URI address which contains a copyright statement.

D.1.4 Obligation

Optional

D.1.5 Element refinements

None identified

D.1.6 Encoding Schemes

None compulsory – but use URI – Uniform Resource Identifier - for reference to web-pages.

D.1.7 Default value

Crown Copyright New Zealand yyyy (where yyyy represents the current year)

D.1.8 Scope and Interpretation

Although this element is optional, its use is highly recommended when information resources or services are being described.

Although the NZGLS metadata describing the resource might be freely available, the actual resource or service may have some restrictions on it regarding access. If this is the case, then the *Rights* element should be used to describe access terms and conditions. Note that there is no way of enforcing the access policy through the metadata, and agencies will need some kind of external mechanism to do this.

If a resource or service is freely available without any restrictions or conditions on usage, then this element should be left blank.

Note that this element should only be used for intellectual property rights or restrictions on access to a resource or service. Details on where and how to get at the resource or service should be recorded in the *Availability* element, not here. The *Rights* element deals with who can legitimately have access to a resource or service. *Availability* deals with how to obtain.

D.1.9 How to use this element when describing a service

When describing rights to access a service in this element, the agency will need to create free text describing who can access the service and why. For example, the service may only be available to New Zealand citizens.

D.1.10 The role of *Rights* in the Portal

Displayed on metadata full record screen.

D.1.11 Examples

[URI] http://www.archives.govt.nz/copyright.html

The Minister may refuse to issue a New Zealand passport in any of the following cases:

Where the applicant has not attained the age of 16 years and has not produced the written consent of one of his or her parents or guardians to the issue of a passport to him or her:

Where:

There is in force a warrant issued in New Zealand for the arrest of the applicant; or

The applicant is on bail or is subject to a sentence of supervision under the Criminal Justice Act 1985, or is subject to conditions of release under Part 6 of that Act; or

The applicant is required by an order made by any New Zealand Court to remain in New Zealand, or to refrain from obtaining a passport, or to surrender a passport:

Where the applicant already holds a New Zealand passport and there is no sufficient reason why another passport should be issued to him or her. This document may be copied provided the source is acknowledged

Crown Copyright, New Zealand, 2001

Viewing classification: adults only

[URI] http://www.govt.nz/all-rights-reserved/

SECTION E – THE *TITLE* ELEMENT

Purpose of this section

This section contains the rules for using the *Title* element (number 5) when creating a metadata record.

E.1 Rules for the *Title* Element

E.1.1 Name

Title

E.1.2 Definition

The name given to the resource or service

E.1.3 Purpose

Searchers will use this element if they know the title of the resource or words in the title of the resource

E.1.4 Obligation

Mandatory

E.1.5 Element refinements

alternative – another name by which the resource is known

E.1.6 Encoding schemes

None

E.1.7 Default value

None

E.1.8 Scope and interpretation

Where there is an official name used for the resource, this should be used in the *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, use the "alternative" refinement.

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

For a physical resource, which is called a "document" in the *Type.*category, there might not be a title on the object. 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. Use the *Relation* element to reference other versions if required.

E.1.9 How to use this element when describing a service

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.

Use the title element with the "alternative" element refinement if the service is commonly known by another name. For example, the official service name might be "Unemployment Benefits", but an alternative name might be "Dole Payments". 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.

E.1.10 The role of *Title* in the Portal

The Portal displays this element on the results page.

Displayed on metadata full record screen.

E-3

E.1.11 Examples

New Zealand under siege : a review of the management of biosecurity risks to the environment
Applying for a New Zealand passport
Research report 1999/2000
The New Zealand Government Locator Service (NZGLS) Metadata Standard and Reference Manual, Version 1.0
Te Pae Maori

SECTION F – THE *SUBJECT* ELEMENT

Purpose of this section

This section contains all the rules for creating a metadata record using the *Subject* element (number 6).

F.1 Rules for the *Subject* Element

F.1.1 Name

Subject

F.1.2 Definition

A succinct description of the subject or topic of the resource

F.1.3 Purpose

The *Subject* element is used by searchers who want to find resources relating to a particular topic. For example, "find all resources related to 'pest control'".

It will also serve to qualify generic terms from the *Function* element to give a precise, combined result. For example, "Registering" from *Function*, plus "marriage" from *Subject*.

F.1.4 Obligation

Mandatory

F.1.5 Element refinements

None identified

F.1.6 Encoding Schemes

SONZ – "Subjects of New Zealand" thesaurus – mandatory for at least one value.

Other subject thesauri may also be used if they are registered with the NZGLS maintenance agency. This will only be necessary for specialist areas, such as scientific terms.

F.1.7 Default value

None

F.1.8 Scope and interpretation

The *Subject* element should tell the searcher what the resource is about.

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.

A more detailed explanation is in ISO Standard 5963.

Where a thesaurus has been used to select the subject value, the thesaurus name should be included in the refinement for the element.

If the subject of the resource is a person or an organisation, use the same form of the name as you would if the person or organisation was a creator, but do not repeat the name in the *Creator* element.

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 *Description* element.

The subject comes from a controlled vocabulary or thesaurus, so the searcher might be able to browse the vocabulary for relevant topics.

F.1.9 How to use this element when describing a service

The subject of a service is what the service is about.

F.1.10 The role of *Subject* in the Portal

The Portal uses this element, along with the *Function* element, to allow the user to browse by topic.

Displayed on metadata full record screen.

SECTION G – THE *DESCRIPTION* ELEMENT

Purpose of this section

This section contains the rules required for creating a metadata record using the *Description* element (number 7).

G.1 Rules for the *Description* Element

G.1.1 Name

Description

G.1.2 Definition

A textual description of the content or purpose of the resource or service.

G.1.3 Purpose

The *Description* element allows searching based on words and phrases which describe the resource.

This is the least precise of all search points, but will often be used by searchers with vague notions of what they are looking for.

It will be used to display a summary of the resource content to the searcher.

Even where a resource is not text based, it is useful to have words or phrases describing it so that people can find it.

The *Description* element can also be used in addition to the *Audience* element to provide a text description of the intended audience for the resource.

G.1.4 Obligation

Recommended

G.1.5 Element refinements

None

G.1.6 Encoding Schemes

None

G.1.7 Default value

None

G.1.8 Scope and interpretation

The *Description* element contains text describing a resource. It can contain abstracts if these are available. It can also contain:

* a prose description of the content of the resource
* a description of the nature of the service or objects, or
* thumbnail images or other electronic samples of content.

When people write a description, they should make it concise and clear, and use non-technical language.

G.1.9 How to use this element when describing a service

This element is strongly recommended for services. It should provide a concise description of the content and/or purpose of the service. It should be short enough to be read out on the telephone, be client-focused, and identify the problem that the client might enquire about rather than the solution.

G.1.10 The role of *Description* in the Portal

The Portal displays this element on the results page.

Displayed on metadata full record screen.

G.1.11 Examples

Provides information on Student Allowances, Community Wage Student, Student Loan, Legal aspects of loans, and enables people to apply for a student loan online

Tokomaha nga tauira Maori i tono mai ki nga Utu Tapui Tauira, ki nga Putea Tarewa Tauira hoki, a, me matua marama ratou ka pehea nga ahuatanga o nga utu whanui, o nga putea whanui hoki ma nga tauira.

Processing applications for dog registration.   Dealing with dangerous dogs and requiring owners to ensure dogs do not cause a nuisance, injure, distress or damage

This research report provides information about research programmes and other scientific and technological activities funded by the Foundation during 1999-2000

SECTION H – THE *SOURCE* ELEMENT

Purpose of this section

This section contains the rules for using the *Source* element to create metadata records (number 8).

H.1 Rules for the *Source* Element

H.1.1 Name

Source

H.1.2 Definition

Information about another resource from which the current resource is derived.

H.1.3 Purpose

The *Source* element allows searchers to find a derived resource when they are using search terms which describe the original resource For example, a searcher can find a scanned image of a painting when they are searching for the painting itself.

H.1.4 Obligation

Optional

H.1.5 Element refinements

None identified

H.1.6 Encoding schemes

Where there is an exact coding scheme to identify the original resource, that should be used. Examples include:

URI – Uniform Resource Identifier

ISBN – International Standard Book Number

ISSN – International Standard Serial Number

H.1.7 Default value

None

H.1.8 Scope and interpretation

This element should not be used very often. The *Relation* element is better when linking resources, because it allows a variety of explicit relationships to be described.

This element is only needed when it increases the discoverability of the resource being described.

The *Source* element should only be used when the following conditions apply:

1. The resource type.category=document, **and**

2. The source document is not simply an earlier version of the current document, **and**

3. The information would help the discovery or evaluation of the current resource, **or**

4. Most people are likely to be searching for the original resource and important retrieval information (such as *Creator, Title, Date, Identifier*) is significantly different in the current resource.

Where possible, give the full proper name of the source resource. All NZGLS metadata elements can be repeated in the *Source* element. For example, the *Title* and *Creator* for the source can be indicated. However, it is also possible to link to the description of the source and not have to repeat the NZGLS metadata elements.

H.1.9 How to use this element when describing a service

Do not use the *Source* element to describe a service.

H.1.10 Role of *Source* in the Portal

Displayed on metadata full record screen.

H.1.11 Examples

Photograph of the Waitangi sheet of the Treaty, signed on 6 February 1840.

Archive reference: Agency IA Series 9 Item 9 Archives NZ Head Office.

SECTION I – THE *LANGUAGE* ELEMENT

Purpose of this section

This section describes the rules governing the use of the *Language* element (number 9) in creating metadata records. Note that this element relates to the language of the resource itself, **not** the language of the metadata. For an example, refer to V.5.3.

I.1 Rules for the *Language* Element

I.1.1 Name

Language

I.1.2 Definition

The language of the content of the resource, or the language in which the service is provided.

I.1.3 Purpose

This element allows a search to be restricted to resources in a specific language. It is not intended to be a primary search point.

For example, "find all resources published by the Ministry of Foreign Affairs and Trade which are in German".

I.1.4 Obligation

Recommended

I.1.5 Element refinements

None

I.1.6 Encoding schemes

Compulsory   – RFC3066 – tags for the identification of languages
               – RFC3166 – tags for countries

I.1.7 Default value

en

I.1.8 Scope and interpretation

Language values are chosen from a standard set. The language value "en" 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, "en" 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://www.rfc-editor.org/rfc/rfc3066.txt .

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.

I.1.9 The role of *Language* in the Portal

The Portal may use this element to allow searching by language.

Displayed on metadata full record screen.

I.1.10 Examples

[RFC3066]en	English
[RFC3066]en-nz	English as used in New Zealand
[RFC3066]mi	Maori
[RFC3066]sm	Samoan
[RFC3066]to	Tongan
[RFC3066]tkl	Tokelau
[RFC3066]sgn-nz	New Zealand Sign Language

I.2 *Language* Element Values

I.2.1 Language codes – RFC 3066

ab Abkhazian	ml Malayalam
af Afrikaans	mn Mongolian
ar Arabic	mo Moldavian
az Azerbaijani	ms Malay
bg Bulgarian	mt Maltese
bo Tibetan	my Burmese
ca Catalan	ne Nepali
co Corsican	niu Niuean
cs Czech	nl Dutch
cy Welsh	no Norwegian
da Danish	pa Punjabi
de German	pl Polish
el Greek	pt Portuguese
en English	rar Rarotongan [Cook Islands]
es Spanish	ro Romanian
et Estonian	ru Russian
fa Persian	sa Sanskrit
fi Finnish	sh Serbo-Croatian
fj Fiji	sk Slovak
fr French	sl Slovenian
ga Irish	sm Samoan
gd Scots Gaelic	so Somali
he Hebrew	sq Albanian
hi Hindi	sr Serbian
hr Croatian	su Sundanese
hu Hungarian	sv Swedish
hy Armenian	sw Swahili
id Indonesian	ta Tamil
it Italian	th Thai
iu Inuktitut (Eskimo)	tkl Tokelau
ja Japanese	to Tonga
jw Javanese	tr Turkish
ka Georgian	ug Uigur
km Cambodian	uk Ukrainian
ko Korean	ur Urdu
ks Kashmiri	vi Vietnamese
ku Kurdish	yi Yiddish
lt Lithuanian	za Zhuang
lv Latvian, Lettish	zh Chinese
mi Maori	zu Zulu
mk Macedonian	

I.2.2 Country codes - ISO 3166

af Afghanistan	kr Korea
al Albania	kw Kuwait
dz Algeria	lb Lebanon

ar Argentina	mk Macedonia
au Australia	my Malaysia
at Austria	mx Mexico
az Azerbaijan	ma Morocco
bd Bangladesh	np Nepal
be Belgium	nl Netherlands
ba Bosnia-Herzeg.	nc New Caledonia
br Brazil	nz New Zealand
bg Bulgaria	ng Nigeria
kh Cambodia	no Norway
cm Cameroon	pk Pakistan
ca Canada	pg Papua N. Guinea
cl Chile	py Paraguay
cn China	pe Peru
cx Christmas Island	ph Philippines
cc Cocos Islands	pl Poland
co Colombia	pt Portugal
ck Cook Islands	ro Romania
hr Croatia	ru Russian Federation
cu Cuba	sa Saudi Arabia
cz Czech Republic	sg Singapore
dk Denmark	si Slovenia
tp East Timor	za South Africa
eg Egypt	es Spain
sv El Salvador	lk Sri Lanka
ee Estonia	se Sweden
fj Fiji	ch Switzerland
fi Finland	tw Taiwan
fr France	th Thailand
de Germany	tn Tunisia
gh Ghana	tr Turkey
gr Greece	ua Ukraine
hk Hong Kong	ae Un. Arab Emirates
hu Hungary	gb United Kingdom
in India	us United States
id Indonesia	uy Uruguay
ir Iran	uz Uzbekistan
iq Iraq	vu Vanuatu
ie Ireland	ve Venezuela
il Israel	vn Viet Nam
it Italy	yu Yugoslavia
jp Japan	zw Zimbabwe

SECTION J – THE *RELATION* ELEMENT

Purpose of this section

This section contains the rules for creating metadata records using the *Relation* element (number 10).

J.1 Rules for the *Relation* Element

J.1.1 Name

Relation

J.1.2 Definition

Identification of other resources or services that are related to this current resource, and a description of the type of relationship.

J.1.3 Purpose

The relation element should be used where there are significant related resources which the searcher could also find useful.

J.1.4 Obligation

Optional

J.1.5 Element refinements

The Portal will use the *Relation* element to link the documents which support a service – for example, instructions and forms.

Similarly, it will use this element to cluster services provided by a particular agency.

The best general approach is to use the name of the service concerned as the value of the *Relation* element. The service name should be chosen from the controlled list of those services (or agencies) described in NZGLS itself.

The following table shows how various types of relationships would work under this approach.

If this element is used, the type of relationship must be specified by choosing a value from one side of any of the pairs in the following list:

isPartOf/hasPart	One resource is a physical or logical part of another. Used to describe the relationship between a service and relevant documents (e.g. web pages and forms)
isVersionOf/hasVersion	One resource is an historical state or edition of another resource by the same creator.
isFormatOf/hasFormat	One resource has been derived from another by a reproduction or reformatting technique which is not fundamentally an interpretation but intended to be a representation.
references/isReferencedBy	One resource cites, acknowledges, disputes or otherwise refers to another resource.
isBasedOn/isBasisFor	One resource is a performance, production, derivation, translation, adaptation or interpretation of another resource.
isRequiredBy/requires	One resource requires another resource for its functioning, delivery, or content and cannot be used without the related resource being present. For services, includes pre-requisite information, service or activity necessary for accessing the service.
isReplacedBy/replaces	One resource supplants, displaces, or supercedes another resource.

J.1.6 Encoding schemes

Examples:

URI – Uniform Resource Identifier

ISBN – International Standard Book Number

ISSN – International Standard Serial Number

J.1.7 Default value

None

J.1.8 Scope and interpretation

Use this element to describe significant relationships from the searcher's point of view – <u>not</u> all relationships.

If the *Relation* element is used, then an element refinement must also be used to express the type of relationship. Note that each of the seven relationship types is two sided, but the chosen value must be one side of a pair only – otherwise it won't make sense.

When the other related resource has been described, give its full proper name or use a formal identifier.

It is a good idea to use this element when the information about another resource is useful for discovering or understanding the current resource. It is also a good way to link resources which contain similar or related information.

J.1.9 How to use this element when describing a service

The R*elation* element can be used to identify information necessary for using a service. It can also be used to link to another service which is related to the current service, and supports linking or integration of a number of services.

This element will be of most use where the relationship between services is not obvious, and will not be identified by the search tool. Functionally related and subject-related services should be picked up by search tools.

J.1.10 The role of *Relation* in the Portal

The Portal uses this element to relate documents to services, through the isPartOf element refinement. If you do not establish this relationship, then documents will not be discoverable in a service-based search. For example, the document whose title is 'Student Loan Application Form' will appear in the Portal as part of the 'Student Loan Scheme' service only if the document has the Relation element identifying that the document isPartOf 'Student Loan Scheme'.

Displayed on metadata full record screen.

J.1.11 Examples

references Ministry of Education strategic plan [URI] http://www.minedu.govt.nz/web/document/document_page.cfm?id=3522
references Ministry of Education annual report [URI] http://www.minedu.govt.nz/web/document/document_page.cfm?id=5188
references Ministry of Education departmental forecast report [URI] http://www.minedu.govt.nz/web/document/document_page.cfm?id=4756
isBasisFor [URI] http://www.winz.govt.nz/student/maori_alt.html
isPartOf [URI] http://student.winz.govt.nz/apply.asp
(requires) Please note that you will be asked for your IRD number, bank account number, Student ID and study details. You may wish to read through the form to make sure you have the appropriate information at hand before you start filling in the form
hasPart [URI] http://www.winz.govt.nz/student/maori_alt.html
hasPart [URI] http://www.winz.govt.nz/student/index.html
hasPart Student Services on 0800 88 99 00

J.2 How the Portal Uses the *Relation* Element

Relationship	Portal Use	How
Document -> Agency	To display the agency(ies) that relate to a discovered document – in search results.	All element values which have an encoding scheme of NZGLS-AN represent an agency name, regardless of the element they are contained in. The link to an agency metadata record is done through a search: where Title=*agency name* and Type.Category='agency'. Note: To link directly to an agency's web site (home page) from a document, if there is one, might be possible but might not be easy. A two step process might be best.

Relationship	Portal Use	How
Document -> Service	To display the service(s) that relate to a discovered document – in search results	All element values which have an encoding scheme of NZGLS-SN represent a service name, regardless of the element they are contained in. The link to a service metadata record is done through a search: where Title= *service name* (from current metadata record) and Type.Category='service'. Note: To link directly to the service page on the web, if there is one, would be possible but more complicated. A two step process might be best.
Document -> Document	To display other documents that relate to a discovered document – in search results.	This is handled by the current NZGLS *Relation* element, which would normally contain the URIs of related documents. This is basic AGLS and DC functionality. Clicking on the URI would take the user directly to the related document, if it was a web address. Note: Related documents would not necessarily have NZGLS metadata, but if they did and if the Portal wanted to link to it, this would be done with a search: where identifier= *URI* (from current metadata record).

Relationship	Portal Use	How
Service -> Agency	To indicate the agency(ies) that provide a service – in a listing of services or in search results.	Exactly the same as for Document -> Agency above. According to NZGLS, the primary agency will be identified in the *Creator* element
Service -> Service	To indicate relationships between services – in a listing of services or in search results	Exactly the same as for Document -> Service above.
Service -> Document	This is one of the main search mechanisms in the Portal whereby, once a service is chosen, a search returns all related documents.	The search would include the following criteria: where Relation=*service name* and Category.Type='document'.

Note: More specificity could be gained by adding 'and encoding scheme=NZGLS-SN' but this is probably not necessary |
| Agency -> Agency | To indicate relationships between agencies – in an agency listing or in search results. | Exactly the same as for Document -> Agency above |

Relationship	Portal Use	How
Agency -> Service	To provide a list of services, by agency.	A search is required to identify the service records, with the following criteria: where *any element=agency name* and encodig scheme='NZGLS-AN' and Type.Category='service'. Note: More specificity could be gained by limiting the search to the *Creator* element of the service record.
Agency -> Document	Possibly – to display all the documents relevant to an agency	A search is required to identify documents, with the following criteria: where *any element=agency name* and encoding scheme = 'NZGLS-AN' and Type.Category='document'.

J.2.1 Hierarchical lists

For the Portal to provide hierarchical representation of agencies or services, metadata records will need to be related to each other with Relation.isPartOf/hasPart pairings. This would still be achievable if only one side of the relationship was maintained, but it could lead to greater programming complexity.

Lower-level to higher-level relationship: where Relation.hasPart-agency/service name and Type.Category-'agency'/service'.

Higher-level to lower-level relationship: where Relation.isPartOf=agency/service name and Type.Category='agency'/'service'.

SECTION K – THE *COVERAGE* ELEMENT

Purpose of this section

This section contains the rules for using the *Coverage* element (number 11) when creating a metadata record.

K.1 Rules for the *Coverage* Element

K.1.1 Name

Coverage

K.1.2 Definition

Coverage describes the extent or scope of the **content** of the resource:

- the spatial location (a place name or geographic co-ordinates)

- temporal period (a period label, a date, or a date range), **or**

- the jurisdiction (such as a named administrative region where the content applies).

K.1.3 Purpose

The *Coverage* element allows a search to be restricted to resources about a certain place or time. This is not intended to be primary search point. It allows a search to be refined within resources that contain temporal, spatial, legislative, jurisdictional or demographic data.

The *Coverage* element can be specified as an additional element within the primary search criteria.

K.1.4 Obligation

Recommended when describing a service, otherwise optional.

K.1.5 Element refinements

jurisdiction - the jurisdiction affected by the content of the resource – a legal concept – use the provided lists (see K.3), but these are examples only

spatial – spatial coverage or locations or areas covered in the content of a resource – use the provided lists (see K.4), but these are examples only:

- geographicDescription – a proper name – from LINZ database, or list in this section

- geographicBox – use the DCMI Box Encoding Scheme at: http//dublincare.org.documents/2000/07/28/dcmi-box/

- geographicElements – defined polygons

temporal – temporal coverage, or the time periods covered in the content of the resource.

K.1.6 Encoding schemes

Examples only:

- The New Zealand Geographic Place Names Database (LINZ) - recommended
- ISO 8601 – standard for dating and coding
- GED98, MED98, and TA01 – Statistics New Zealand classifications for general electoral districts, Maori electoral districts, and territorial authorities as listed in this section. Electoral Districts and their authoritative codes are defined by the New Zealand Representation Commission and are published in their report. Ref: Report of the Representation Commission 1998 (ISBN: 0-478-20139-7).
- LCSH – Library of Congress Subject Headings
- TGN – Getty Thesaurus of Geographic Names
- NZMS 260 – a map series
- NZMS 262 – a map series
- DCMI period

K.1.7 Default value

All of New Zealand

K.1.8 Scope and interpretation

Further refinements to this element will follow.

If an agency uses its own standard scheme for either spatial or temporal coverage, the scheme name should be included in the *Coverage* element.

Note that *Coverage* always relates to the **content** of the resource, not to the users or the *Availability* of the resource.

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.

The refinement "temporal" refers to time periods that are covered by or discussed in the content of resource – such as the middle ages. This is usually stated in a standard period name for the time, or using a date or a date range. The rules on dates and date ranges are attached in this section.

If you are attempting to describe the group you expect to use the resource, use the *Audience* element rather than *Coverage*.

K.1.9 How to use this element when describing a service

Coverage relates to the content of the resource.

For example, for something like a fishing licence, you could use the *Coverage* element as follows:

- Use the spatial refinement to describe the area for which the fishing licence is valid

- Use the temporal refinement to show the date range of the time the licence was valid for

- Use the jurisdiction refinement to show the name of the authority regulating the licence and its jurisdiction

The *Audience* element would be used to show who should use the resource, but the *Availability* element would be used for the points at which the service is delivered – the physical or virtual addresses where someone can get a licence.

K.1.10 The role of *Coverage* in the Portal

The Portal uses the Jurisdiction refinement to enable the user to see resources relevant only to their (or another) location. This is especially advantageous to the user where equivalent resources are available for different regions.

Displayed on metadata full record screen.

K.1.11 Examples

(jurisdiction) New Zealand
(temporal) [ISO 8601] 2000-07-01/2001-06-30
(spatial) Wellington, New Zealand

K.2 Date Encoding Scheme

K.2.1 Introduction

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 defines some date/time formats which are likely to satisfy most requirements.

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.

K.2.2 Date Formats

Year:
YYYY (e.g. 1997)

Year and month:
YYYY-MM (e.g. 1997-07)

Complete date:
YYYY-MM-DD (e.g. 1997-07-16)

Complete date plus hours and minutes:
YYYY-MM-DDThh:mmTZD (e.g. 1997-07-16T19:20+01:00)

Complete date plus hours, minutes and seconds:
YYYY-MM-DDThh:mm:ssTZD (e.g. 1997-07-16T19:20:30+01:00)

Complete date plus hours, minutes, seconds and a decimal fraction of a second:
YYYY-MM-DDThh:mm:ss.sTZD (e.g. 1997-07-16T19:20:30.45+01:00)

Periods of Time when start and end dates are known:
YYYY-MM-DD/YYYY-MM-DD (eg1997-07-16/1997-8-17)

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-/1997-8-17)

Hours and minutes may be expressed in periods of time, using the conventions described above, where:

YYYY = four-digit year

MM = two-digit month (01=January, etc.)

DD = two-digit day of month (01 through 31)

hh = two digits of hour (00 through 23) (am/pm NOT allowed)

mm = two digits of minute (00 through 59)

ss = two digits of second (00 through 59)

s = one or more digits representing a decimal fraction of a second

TZD = time zone designator (Z or +hh:mm or -hh:mm)

K.3 Controlled Vocabulary for the *Jurisdiction* Refinement

The Portal prototype has been constructed with the capacity to represent information relevant to the user's territorial authority and electoral district. There therefore needs to be an encoding scheme for Coverage.jurisdiction with values for these areas. Currently, this encoding scheme might have values as per the Statistics NZ classifications GED98 (1998 General Electoral District), MED98 (1998 Maori Electoral District) and TA01 (2001 Territorial authority), as shown below. Electoral districts and their authoritative codes are defined by the New Zealand Representation Commission and are published in their report. Ref: Report of the Representation Commission 1998 (ISBN: 0-4783-20139-7). Regional authority areas are also likely to be required.

K.3.1 Default

All of New Zealand

K.3.2 General electoral districts

Albany
Aoraki
Auckland Central
Banks Peninsula
Bay of Plenty
Christchurch Central
Christchurch East
Clutha-Southland
Coromandel
Dunedin North
Dunedin South
East Coast
Epsom
Hamilton East
Hamilton West
Hunua
Hutt South
Ilam
Invercargill
Kaikoura
Karapiro
Mana
Mangere
Manukau East
Manurewa
Maungakiekie
Mt Albert
Mt Roskill
Napier

Nelson
New Plymouth
North Shore
Northcote
Northland
Ohariu-Belmont
Otago
Otaki
Pakuranga
Palmerston North
Port Waikato
Rakaia
Rangitikei
Rimutaka
Rodney
Rongotai
Rotorua
Tamaki
Taranaki-King Country
Taupo
Tauranga
Te Atatu
Titirangi
Tukituki
Waimakariri
Wairarapa
Waitakere
Wellington Central
West Coast-Tasman
Whanganui
Whangarei
Wigram

K.3.3 Maori electoral districts

Hauraki
Ikaroa-R◎whiti
Te Tai Hau◎uru
Te Tai Tokerau
Te Tai Tonga
Waiariki

(Note that macronised characters might not print properly.)

K.3.4 Territorial authorities

Far North District
Whangarei District
Kaipara District
Rodney District
North Shore City
Waitakere City
Auckland City
Manukau City
Papakura District
Franklin District
Thames-Coromandel District
Hauraki District
Waikato District
Matamata-Piako District
Hamilton City
Waipa District
Otorohanga District
South Waikato District
Waitomo District
Taupo District
Western Bay of Plenty District
Tauranga District
Rotorua District
Whakatane District
Kawerau District
Opotiki District
Gisborne District
Wairoa District
Hastings District
Napier City
Central Hawke's Bay District
New Plymouth District
Stratford District
South Taranaki District
Ruapehu District

Wanganui District
Rangitikei District
Manawatu District
Palmerston North City
Tararua District
Horowhenua District
Kapiti Coast District
Porirua City
Upper Hutt City
Lower Hutt City
Wellington City
Masterton District
Carterton District
South Wairarapa District
Tasman District
Nelson City
Marlborough District
Kaikoura District
Buller District
Grey District
Westland District
Hurunui District
Waimakariri District
Christchurch City
Banks Peninsula District
Selwyn District
Ashburton District
Timaru District
Mackenzie District
Waimate District
Chatham Islands District
Waitaki District
Central Otago District
Queenstown-Lakes District
Dunedin City
Clutha District
Southland District
Gore District
Invercargill City

K.4 List of Territories for Place Names Refinement

New Zealand [for national coverage]
NZ Antarctic Territory
North Island
South Island
Stewart Island
Offshore Islands
NZ Overseas Territories

Purpose of this section

This section contains the rules relating to the use of the *Function* element (number 12) when creating metadata records.

L.1 Rules for the *Function* Element

L.1.1 Name

Function

L.1.2 Definition

The business function of the agency to which this resource or service relates.

L.1.3 Purpose

This element is essential for searchers who want to find resources relating to a particular government business function or activity.

L.1.4 Obligation

Mandatory

L.1.5 Element refinements

None

L.1.6 Encoding schemes

The New Zealand Government "Functions of New Zealand" Thesaurus (FONZ) – mandatory

L.1.7 Default value

None

L.1.8 Scope and interpretation

Functions are the major activities organisations carry out to meet their missions and goals. 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.

Agencies might want to add their own *Function* descriptor values to supplement the Government Thesaurus. These will be considered as candidates for additional terms by the thesaurus maintenance group. In this situation, the agency would have to develop its own thesaurus, and the thesaurus name should be included in the value for the element. Again, the NZGLS Maintenance Agency would need to approve any agency thesauri, which would need to follow the same principles as the government-wide thesaurus.

L.1.9 How to use this element when describing a service

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.

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.

In a larger agency, it is expected that many resources might be associated with the same or with overlapping sets of *Function* values.

L.1.10 The role of the *Function* element in the Portal

The Portal uses this element, along with the *Subject* element, to allow the searcher to browse by topic.

Displayed on metadata full record screen.

L.1.11 Examples

Function	Subject
Registering	Teachers
Analysing information	Income
Consulting on policy	Biosecurity

SECTION M – THE *DATE* ELEMENT

Purpose of this section

This section contains the rules for entering a value for the *Date* element (number 13) when creating a metadata record.

M.1 Rules for the *Date* Element

M.1.1 Name

Date

M.1.2 Definition

A date associated with an event in the life cycle of the resource.

M.1.3 Purpose

The *Date* element allows a searcher to restrict their search to resources relating to a certain date – when the resource was created, modified, valid or issued.

M.1.4 Obligation

Recommended

M.1.5 Element refinements

When *Date* is used, you must use one of the following:

created – the date the resource was created.

modified – the date on which the resource was last modified

valid – the date when the resource becomes valid, or ceases to be valid, or the date range for when the resource is valid

issued – the date on which the resource was made formally available

M.1.6 Encoding schemes

ISO 8601 – the list of acceptable formats is in this section

DCMIPeriod – a standard for expressing validity dates and date ranges, which uses ISO 8601 for formatting the actual dates

M.1.7 Scope and interpretation

The *Date* element can also indicate time, if it is relevant information about the particular resource.

Date ranges can be expressed using "/" as a separator, according to ISO 8601. For example, 2001-01-01/2001-01-31

For a collection, a date range can be used to describe the collective creation date range of all the resources which make up the collection.

If the resource being described is only valid for a certain time, or if it is only valid up to one date from another date, then the valid qualifier should be used with the DCMIPeriod encoding scheme.

It is up to individual agencies to decide when a change is a modification to a resource, and when changes to a resource are so significant that they actually create a new resource – which will require its own set of metadata.

Note that where there are multiple versions of a resource, each resource will need its own metadata set or record with one set of dates. Do not attempt to use multiple dates to describe multiple resources within one metadata entry for something like a web-based version of a resource and a paper version. You need one metadata record for each resource.

Where the content of a resource refers to a period or time, this should be described using the *Coverage* element. The *Date* element only refers to the resource itself, not the intellectual content. The *Coverage* element refers to time periods covered or discussed in the content of the resource.

If the date is not known, do not guess it.

M.1.8 How to use this element when describing a service

The *Date* element is for the resource itself, such as the web site, the form, or whatever. It is not likely to apply to the service itself. If the service itself has periodic or seasonal dates when it is available, then the *Availability* element should be used to describe this, not the *Date* element.

M.1.9 The role of *Date* in the Portal

Displayed on metadata full record screen.

M.1.10 Examples

(valid) [DCMIPeriod] start=1999-01-01
(created) [ISO 8601] 1999
[ISO 8601] 2001
(valid) 1996 -

M.2 Formats for Metadata *Date* Element Encoding

M.2.1 Introduction

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 defines some date/time formats which are likely to satisfy most requirements.

The exact components shown here must be present, with exactly this punctuation. Note that the 'T' appears in the string, to indicate the beginning of the Time element, as specified in ISO 8601.

M.2.2 Date Formats

Year:
YYYY (e.g. 1997)

Year and month:
YYYY-MM (e.g. 1997-07)

Complete date:
YYYY-MM-DD (e.g. 1997-07-16)

Complete date plus hours and minutes:
YYYY-MM-DDThh:mmTZD (e.g. 1997-07-16T19:20+01:00)

Complete date plus hours, minutes and seconds:
YYYY-MM-DDThh:mm:ssTZD (e.g. 1997-07-16T19:20:30+01:00)

Complete date plus hours, minutes, seconds and a decimal fraction of a second:
YYYY-MM-DDThh:mm:ss.sTZD (e.g. 1997-07-16T19:20:30.45+01:00)

Periods of Time when start and end dates are known:
YYYY-MM-DD/YYYY-MM-DD (eg1997-07-16/1997-8-17)

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-/1997-8-17)

Hours and minutes may be expressed in periods of time, using the conventions described above, where:

YYYY = four-digit year

MM = two-digit month (01=January, etc.)

DD = two-digit day of month (01 through 31)

hh = two digits of hour (00 through 23) (am/pm NOT allowed)

mm = two digits of minute (00 through 59)

ss = two digits of second (00 through 59)

s = one or more digits representing a decimal fraction of a second

TZD = time zone designator (Z or +hh:mm or -hh:mm)

SECTION N - THE *TYPE* ELEMENT

Purpose of this section

This section contains the rules for creating metadata records using element number 14: *Type.*

N.1 Rules for the *Type* Element

N.1.1 Name

Type

N.1.2 Definition

The category or genre of the resource or service

N.1.3 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 **images** of the Prime Minister".

N.1.4 Obligation

Mandatory, with the refinement category="Type.category"

N.1.5 Element refinements

Category is mandatory and is one of two refinements used for *Type*. There are only three values:

- **Service** – used when describing a service directly, not a document about a service

- **Document** - for all resources which are not services or agencies, even if they are not traditional "documents" – for example, a sculpture

- **Agency** – used to describe an organisation

The second refinement is aggregation level, which has two possible values:

- item - for a single resource
- collection – for a logical grouping of resources

Item is the default.

N.1.6 Encoding schemes

Where the category is document, use the list in this section.

N.1.7 Default value

The default for the category refinement is "document".

The default for the aggregation level refinement is "item".

N.1.8 Scope and interpretation

The *Type* element **must** be used to distinguish between the different major categories of document, agency and service.

It can be used to specify the nature of the resource being described – what you would hold in your hand if you could pick it up.

N.1.9 How to use this element when describing a service

Use the category refinement to indicate that the resource is a service.

N.1.10 The role of *Type* in the Portal

The category refinement

The Portal uses Type.category to distinguish between services, agencies, and documents, because these resources are displayed differently on the Portal. For example, agencies are displayed in A-Z listings, services are displayed by topic, agency or alphabetically, while documents are displayed in groups according to type.

Type as used by the Portal

A unique and powerful feature of the Portal is that it groups search results into key document types that are meaningful to the user. All other types of document are grouped into the category 'other'. In order to ensure that a key document is given the correct prominence in the Portal, you must ensure that you complete the *Type* element with the appropriate term. If you do not do this, your document will be grouped into the 'other' category.

Displayed on metadata full record screen.

N.1.11 Rule

Where the category is document, then repeat the *Type* element to describe the content using the list provided in this section.

N.1.12 Examples

a)   For a manual: The category would be document, the content of the repeated *Type* element would be text/manual.

b)   For a map: The category would be document, and the content of the repeated *Type* element would be image/map.

N.2 Controlled Vocabulary for Document Resources

This list is based on DCMI and AGLS encoding schemes.

N.2.1 Text

Meaning	Format / genre Refinements (optional)
A text is a resource whose content is primarily words for reading. Note that facsimiles or images of texts are still of the genre text.	/advice, /agenda, / checklist, /contract, /correspondence, /form, /guide,/ homepage, /instructions, /journal, /manual, /minutes, /newsletter, /promotion, /report

advice   =   advisory publications – often technical on particular topics

agenda   =   meeting, conference, training or other event agenda

checklist   =   a list of instructions relating to resources required to obtain a service or some other resource

contract   =   a legal document recording an agreement between two or more parties

correspondence   =   letter, e-mail or any other text-based communication

form   =   a template to be filled in by an applicant for a service or other resource

guide   =   a document specifically produced to guide in the use of a particular resource or service

homepage   =   web site main page

instructions	=	any training materials in text form
journal	=	publishing vehicle for formal papers – often scientific or technical, or relating to a trade or profession
manual	=	a document like this one
minutes	=	minutes recording a meting or other event
newsletter	=	a publication advising those interested in its main subject are of new events or resources
promotion	=	any advertising material
report	=	findings of any project or a record of recent operations in an organisation

N.2.2 Dataset

Meaning	Format / genre Refinements (optional)
A dataset is information encoded in a defined structure (for example, lists, tables, and databases), intended to be useful for direct machine processing.	/ geospatial

N.2.3 Event

Meaning	Format / genre Refinements (optional)
An event is a non-persistent, time-based occurrence. Metadata for an event provides descriptive information that is the basis for discovery of the purpose, location, duration, responsible agents, and links to related events and resources. The resource of type event may not be retrievable if the described instantiation has expired or is yet to occur. Examples – exhibition, web-cast, conference, workshop, open-day, performance, battle, trial, wedding, tea-party, conflagration.	/conference, /exhibition, /webCast, /workshop

N.2.4 Image

Meaning	Format / genre Refinements (optional)
An image is a primarily symbolic visual representation other than text. For example – images and photographs of physical objects, paintings, prints, drawings, other images and graphics, animations and moving pictures, film, diagrams, maps, musical notation. Note that image may include both electronic and physical representations.	/art, /hologram, /map, /plan, /movie, /photograph

N.2.5 Interactive resource

Meaning	Format / genre Refinements (optional)
An interactive resource is a resource which requires interaction from the user to be understood, executed, or experienced. For example – forms on web pages, applets, multimedia learning objects, chat services, virtual reality.	/art, /form, /physicalObject, /webPage

N.2.6 Software

Meaning	Format / genre Refinements (optional)
Software is a computer program in source or compiled form which may be available for installation non-transiently on another machine. For software which exists only to create an interactive environment, use interactive instead.	

N.2.7 Sound

Meaning	Format / genre Refinements (optional)
A sound is a resource whose content is primarily intended to be rendered as audio. For example – a music playback file format, an audio compact disc, and recorded speech or sounds.	

SECTION O – THE *FORMAT* ELEMENT

Purpose of this section

The rules for creating a record using the *Format* element (number 15).

O.1 Rules for the *Format* Element

O.1.1 Name

Format

O.1.2 Definition

The data format of the resource, or the channels through which the service is delivered.

O.1.3 Purpose

This element allows a search to be restricted to resources of a particular digital format.

It also allows searchers to decide if the resource is worth accessing or retrieving, because they can tell whether their own software will cope with the format of the resource. For this reason, the element refinement "extent" can also be useful to searchers.

For example, "find all mpeg videos of the Prime Minister".

O.1.4 Obligation

Optional.

O.1.5 Element refinements

Extent, which refers to the size or duration of the resource.

Medium, which refers to the material or physical carrier of the resource.

O.1.6 Encoding schemes

Examples only:

IMT   Internet Media Types from the Internet Assigned Numbers
Authority

ISO   International Standards Organisation-based resource In this case
the value will refer to the ISO standard which defines the format of
the resource

O.1.7 Default value

None

O.1.8 Scope and interpretation

For electronic resources, the values can be selected from the IMT list of terms in this section.

This element can also be used to describe the size of electronic resources in bytes by using the "extent" refinement.

The ISO scheme can also be used to indicate that the resource is available via an ISO-based standard.

O.1.9 How to use this element when describing a service

Format is not generally useful for describing services.

Where a service is delivered electronically, and is also delivered through a physical channel such as a branch office or a shop front, you would make this clear by using the *Availability* element.

O.1.10 The role of the *Format* element in the Portal

The Portal displays this element on the results page.

Displayed on metadata full record screen.

O.1.11 Examples

[IMT] text/html
[IMT] application/pdf
(extent) 24 Mb
(medium) CD-ROM
30 pages
30 cm high
100 grams
[ISO] 23950
[IMT] video/quicktime (extent) 6 minutes

O.2 *Format* Element Values

The more commonly used values for the NZGLS *Format* element that use the Internet Media Types (IMT) are listed here. The full listing is available from: http://www.isi.edu/in-notes/iana/assignments/media-types/media-types

IMT	Description
text/plain	Unformatted text
text/html	Web pages (HTML)
text/sgml	SGML document
text/xml	XML document
multipart/mixed	Mixed format resources, which are encoded according to Internet MIME standard
message/rfc822	Electronic mail (Internet format)
application/postscript	Postscript document
application/rtf	Rich Text Format document
application/wordperfect	WordPerfect document
application/pdf	Portable Data Format document
application/msword	Microsoft Word document
application/EDIFACT	Electronic Data Interchange For Administration, Commerce and Transport resource
image/jpeg	JPEG encoded image

IMT	Description
image/gif	GIF encoded image
image/png	PNG encoded image
video/mpeg	MPEG encoded video
video/quicktime	Quicktime encoded video
model/vrml	VRML encoded resource

SECTION P – THE *IDENTIFIER* ELEMENT

Purpose of this section

This section contains the rules for using the *Identifier* element (number 16) when creating a metadata record.

P.1 Rules for the *Identifier* Element

P.1.1 Name

Identifier

P.1.2 Definition

A unique identifier for a resource.

P.1.3 Purpose

If people search using an *Identifier* they will go straight to the resource. Search tools can use this element to find and combine different descriptions of the same resource. It's used for electronic web pages, books and serials.

To use this element in a search, searchers have to know the *Identifier* of the resource they're looking for.

P.1.4 Obligation

Conditional – mandatory for online resources, otherwise recommended where available

P.1.5 Element refinements

None

P.1.6 Encoding schemes

Examples:

URI – Uniform Resource Identifier for online or electronic resources
ISBN – International Standard Book Number – for books
ISSN – International Standard Serial Number – for serials

P.1.7 Default value

None

P.1.8 Scope and interpretation

The identifier for most electronic resources will be a URI. It is important to note that the *Identifier* element will only work if the online resource being described has a stable or persistent URL/URI. Web systems that dynamically generate pages with a different URL/URI are not stable in terms of their metadata. In these cases, a higher level stable URI should be used for creating a metadata record.

Non-electronic resources can use ISBN, ISSN or other forms of identification.

Note that the *Availability* element can be used with the *Identifier* element to show how to obtain the resource.

P.1.9 How to use this element when describing a service

Do not use this element where the *Type* category is service. You can use this element to identify documents relating to the service.

P.1.10 The role of *Identifier* in the Portal

Where this element is a URI, the Portal will present the document title as a link that a user may click on to access the resource. Where the element is not a URI, the Portal will display it on the results page.

Displayed on metadata full record screen.

P.1.11 Examples

| [URI] http://www.winz.govt.nz/student/index.html |
| [URI] http://www.minedu.govt.nz/web/document/document_page.cfm?id=3611&p=0 |
| [ISBN] 0-908804-93-8 |
| [ISSN] 1174-3549 |

SECTION Q – THE *AVAILABILITY* ELEMENT

Purpose of this section

This section contains the rules on the *Availability* element (number 17) which need to be applied when creating a new metadata record.

Q.1 Rules for the *Availability* Element

Q.1.1 Name

Availability

Q.1.2 Definition

How the resource can be obtained, or contact information.

Q.1.3 Purpose

The *Availability* element is mostly used for services and non-electronic resources, to provide information for searchers about physical access to the resource.

Q.1.4 Obligation

Conditional – mandatory for off-line resources and services.

Q.1.5 Encoding schemes

New Zealand Government Directory – when available.

AGLS Availability Scheme – in this section.

Q.1.6 Scope and interpretation

The *Availability* element should be repeated to show multiple access points – for example, a service where someone could pay a bill at two separate locations.

Generally, full details of how any service can be obtained, or contact information, should be provided.

Metadata provided in this element should support:

- direct searching by people who want to use a service or off-line resource, and

- mediated searching by people like call centre operators.

For personal names, put the surname first, then a comma, then the first name with no spaces in between. If you are not sure, then enter the name as it is shown on the resource itself.

The *Availability* element is not used to describe an on-line resource – where you should use the *Identifier* element instead.

If you are describing a service or an off-line resource, then the *Availability* element must be used.

If a resource is available both on-line and off-line, then two metadata records are required.

For a service, you may need to describe both:

- the service itself, and

- the resources such as web pages used in delivery or in providing information about the service.

Q.1.7 How this element should be used describing a service

The *Availability* element should always be used to describe how people locate a service.
It should include enough information so somebody knows where to go to obtain the service.
The element can be repeated for different contact points or personal names etc.

Q.1.8 The role of *Availability* in the Portal

The Portal displays this element on the results page.

Displayed on metadata full record screen.

Q.1.9 Examples

corporateName=Foundation for Research, Science and Technology
address=PO Box 12 240, Wellington
contact=(phone) 0-4-917 7800
contact=(fax) 0-4-917 7850

---

corporateName=Ministry of Agriculture and Forestry. Animal Biosecurity
personalName=Edwards, Pam.
address=PO Box 2526, Wellington
contact=(phone) 0-4-474 4100
contact=(fax) 0-4-474 4111
email=edwardsp@maf.govt.nz

---

corporateName=Auckland City Dog Registrations
address=Private Bag 92516, Wellesley St, Auckland
contact=(phone) 0-9-379 2020
contact=(website) http://www.akcity.govt.nz/council/services/dogs/#Registration

---

corporateName=Ministry of Education, National Office
address=45-47 Pipitea St.
address=PO Box 1666, Thorndon, Wellington
contact=(phone) 0-4-463 8000
contact=(fax) 0-4-463 8001
email=communications@minedu.govt.nz
contact=(website)
http://www.minedu.govt.nz/web/document/document_page.cfm?id=3611&p=0

Q.1.10 The New Zealand Government Directory

When the New Zealand Government Directory becomes available, this will be the preferred encoding scheme. Until then, and for other agents, use the AGLS Availability Scheme.

Q.2 AGLS Availability Scheme

Q.2.1 Introduction

The NZGLS metadata standard allows the description of both electronic and non-electronic resources. Electronic resources are accessed through a URL in the *Identifier* element. Information about how to obtain non-electronic resources is provided by the *Availability* element. The AGLS Availability Scheme is a method for describing accessibility characteristics of the person or organisation making non-electronic resources available.

There are a number of characteristics of resource accessibility that can be described in metadata. These include, but are not limited to:

- An identifier for the agent, usually consisting of name and possibly including a jurisdiction
- Contact information
- Cost
- Geographic location of service accessibility

Here we define AGLS availability, a structuring scheme for providing information about accessibility characteristics of non-electronic resources, and describe a method for encoding AGLS Availability as a profile of DCSV.

Q.2.2 Characterising resource accessibility

The AGLS Availability Scheme describes resource accessibility using the following characteristics:

Component	Definition
personalName	The name of a person making the resource available
corporateName	The name of an organisation making the resource available
jurisdiction	The legal jurisdiction of the agent making the resource available
contact	Contact details for the agent making the resource available. Can include an official title. Typically includes a phone number
address	Street or postal address for the agent making the resource available
email	Email address for the agent making the resource available
hours	Hours during which service can be accessed at the locations identified in address components

Component	Definition
cost	Cost of obtaining the resource
postcode	New Zealand postcode(s) where the resource is available. Typically used in describing availability of services

All of these components are optional and ordering is not significant. All of the components may be repeated.

Q.2.3 Encoding AGLS availability

Within AGLS metadata descriptions, characteristics of resource accessibility are encoded using the Dublin Core Structured Values scheme (http://dublincore.org/documents/1999/04/30/labelled-values-syntax). DCSV describes how to write a structured metadata value in a simple text string. It separates components using semicolons ";". The name of a component and the value of a componet are separated by an equals sign "=".

Writing AGLS Availability using DCSV notation is straightforward using the component names defined above. For example:

corporateName=Ministry of Consumer Affairs; jurisdiction=New Zealand; address=PO Box 1473, Wellington; contact=Phone (04) 474 2750

Q.2.4 Examples

Off-line service

Applying for a birth certificate

corporateName=Central Registry, Births Deaths and Marriages; address=PO Box 31-115, Lower Hutt, New Zealand; contact=Phone+64 04 474 8000; contact=Phone 0800 22 52 22; email=bdm.nz@dia.govt.nz; cost=$NZ21.00

Service with availability hours

corporateName=Archives New Zealand; jurisdiction=New Zealand; address=10 Mulgrave Street, Wellington, New Zealand; address=PO Box 12-050, Wellington, New Zealand; contact=Phone+64 04 499 5595; contact=Fax+64 04 495 6210; hours = Monday to Friday, 9 : 00 am – 5 : 00 pm (excluding public holidays), Saturday, 9 : 00 am - 1 : 00 pm (exhibitions only)

SECTION R – THE *AUDIENCE* ELEMENT

Purpose of this section

This section outlines the rules for creating metadata records for the *Audience* element (number 18).

R.1 Rules for the *Audience* Element

R.1.1 Name

Audience

R.1.2 Definition

The target audience of the resource

R.1.3 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.

R.1.4 Obligation

Recommended

R.1.5 Element refinements

None identified

R.1.6 Encoding Schemes

Examples only:

NZGLS Portal vocabulary for *Audience*– included in this section
ANZSIC – Australian and New Zealand Standard Industrial Classification
NZSCO99 – New Zealand Standard Classification of Occupations 1999
NZSC – New Zealand Standard Classification for Age 1995

R.1.7 Default value

All

R.1.8 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.

R.1.9 The role of *Audience* in the Portal

This element is used by the Portal to group resources relevant to particular communities of interest.

Displayed on metadata full record screen.

R.1.10 Examples

All
[NZSCO99] 12222 [Administration Manager]
Auckland City dog owners
Potential tertiary and secondary students

R.2 NZGLS Portal Vocabulary for *Audience*

All
Business
Community organisations
Disabled
Families
Government
Maori
Migrants
Rural
Senior citizens
Students
Visitors
Women
Youth

Note that this list will be continually updated.

SECTION S – THE *MANDATE* ELEMENT

Purpose of this section

This section contains the rules for the *Mandate* element (number 19) when creating metadata records.

S.1 Rules for the *Mandate* Element

S.1.1 Name

Mandate

S.1.2 Definition

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).

S.1.3 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.

S.1.4 Obligation

Recommended

S.1.5 Element refinements

act – the specific Act which requires the resource to be created or provided

regulations – the specific regulations which requires the resource to be created or provided

rules – the specific rule or bylaw which requires the resources to be created or provided

courtCase – reference to the actual court case which requires the resource to be created or provided

S.1.6 Encoding schemes

None – but please use generally accepted legal notation.

S.1.7 Default value

None

S.1.8 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.

S.1.9 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.

S.1.10 The role of *Mandate* in the Portal

Displayed on metadata full record screen.

S.1.11 Examples

(act) Student Loan Scheme Act 1992
(act) Official Information Act 1982 [1982 No 156]
(regulation) Health (Bursaries) Regulations 1965 [SR 1965/141]
(courtCase) Radio NZ v R [1994] 1 NZLR 48

SECTION T – WORKED EXAMPLES

Target audience

This section of the manual is for metadata authors and quality assurance people.

Purpose of this section

This section contains examples of completed metadata records for different resource types, so authors can see what a good job looks like.

T.1 Service – Student Loans

Element Name	Refinement	Encoding Scheme	Value
Creator		AGLS Agent	corporateName=Department of Work and Income corporateName=Te Hiranga Tangata jurisdiction=New Zealand
Publisher			
Contributor			
Rights			You should not apply for a student loan without careful consideration of the consequences. For more information, read the Student Loans page of the Web site http://www.winz.govt.nz/student/index.html or call Student Services on 0800 88 99 00.
Title			Applying for a student loan
Subject		SONZ	To be developed
Description			You can apply for a student loan by completing the online application - or over the phone by calling Student Services on 0800 88 99 00. You can also apply by filling in a Student Loan application (or together with Student Allowance and/or Community Wage Student application).
Source			
Language		[RFC 3066]	en
Relation	requires		Please note that you will be asked for your IRD number, bank account number, Student ID and study details. You may wish to read through the form to make sure you have the appropriate information at hand before you start filling in the form
	hasPart	URI	http://www.winz.govt.nz/student/maori_alt.html
	hasPart	URI	http://www.winz.govt.nz/student/index.html
	hasPart	URI	http://www.winz.govt.nz/student/apply.asp
	hasPart	URI	Student Services on 0800 88 99 00

SECTION T – WORKED EXAMPLES

Element Name	Refinement	Encoding Scheme	Value
Coverage	jurisdiction		New Zealand
Function		NZ Government Functions Thesaurus	(to be developed)
Date	valid	DCMIPeriod	start=1999-01-01
Type	category		service
Format			
Identifier		URI	http://student.winz.govt.nz/apply.asp
Availability		URI	corporateName= Department of Work and Income address=PO Box 12-136, Wellington address=8th Floor, Bowen State Building, Bowen St contact=(phone) 0-4-916 3300 contact=(freephone): 0800 88 99 00 contact=(free fax) 0800 88 33 88 contact=(fax) 0-4-918 0099 http://student.winz.govt.nz/apply.asp
Audience			Potential tertiary and secondary students
Mandate			Student Loan Scheme Act 1992

T.2 Student Loans – English

Element Name	Refinement	Encoding Scheme	Value
Creator		AGLS Agent	corporateName= Department of Work and Income corporateName=Te Hiranga Tangata jurisdiction=New Zealand
Publisher		AGLS Agent	CorporateName= Department of Work and Income
Contributor			
Rights			DISCLAIMER: The information contained on this site is designed to help you understand student finances. It is not a substitute for those policies. All decisions on applications will be taken in line with all the various policies relating to Student Allowances, Community Wage Student, Student Loans and extra help. Work and Income NZ has taken every care to ensure that the information is as accurate as possible
Title			Student services
Subject		SONZ	(to be developed)
Description			Provides information on Student Allowances, Community Wage Student, Student Loan, Legal aspects of loans, and enables people to apply for a student loan online
Source			
Language		RFC 3066	en
Relation	isBasisFor	URI	http://www.winz.govt.nz/student/maori_alt.html
	isPartOf	URI	http://student.winz.govt.nz/apply.asp
Coverage	jurisdiction		New Zealand
Function		FONZ	(to be developed)
Date		ISO 8601	2001
Type	category		document text/guide
Format		IMT	text/html
Identifier		URI	http://www.winz.govt.nz/student/index.html

Element Name	Refinement	Encoding Scheme	Value
Availability			corporateName= Department of Work and Income
			address=PO Box 12-136, Wellington
			address=8th Floor, Bowen State Building, Bowen St
			contact=(phone) 0-4-916 3300
			contact=(freephone) 0800 88 99 00
			contact=(free fax) 0800 88 33 88
			contact=(fax) 0-4-918 0099
			email=info@winz.govt.nz
Audience			Potential tertiary and secondary students
Mandate			Student Loan Scheme Act 1992

T.3 Student Loans – Maori

Element Name	Refinement	Encoding Scheme	Value
Creator		AGLS Agent	corporateName= Department of Work and Income corporateName=Te Hiranga Tangata jurisdiction=New Zealand
Publisher		AGLS Agent	corporateName= Department of Work and Income
Contributor			
Rights			DISCLAIMER: The information contained on this site is designed to help you understand student finances. It is not a substitute for those policies. All decisions on applications will be taken in line with all the various policies relating to Student Allowances, Community Wage Student, Student Loans and extra help. Work and Income NZ has taken every care to ensure that the information is as accurate as possible
Title			Te Pae Maori
Subject		SONZ	(to be developed)
Description			Tokomaha nga tauira Maori i tono mai ki nga Utu Tapui Tauira, ki nga Putea Tarewa Tauira hoki, a, me matua marama ratou ka pehea nga ahuatanga o nga utu whanui, o nga putea whanui hoki ma nga tauira.
Source			
Language		RFC 3066	mi
Relation	isBasedOn	URI	http://www.winz.govt.nz/student/index.html
	isPartOf	URI	http://student.winz.govt.nz/apply.asp
Coverage	jurisdiction		New Zealand
Function		FONZ	(to be developed)
Date		ISO 8601	2001
Type	category		document text/guide
Format		IMT	text/html

Element Name	Refinement	Encoding Scheme	Value
Identifier		URI	http://www.winz.govt.nz/student/maori_alt.html
Availability		AGLS Agent	corporateName= Department of Work and Income address=PO Box 12-136, Wellington address=8th Floor, Bowen State Building, Bowen St contact=(phone) 0-4-916 3300 contact=(freephone) 0800 88 99 00 contact=(free fax) 0800 88 33 88 contact=(fax) 0-4-918 0099 email=info@winz.govt.nz
Audience			Potential tertiary and secondary students
Mandate			Student Loan Scheme Act 1992

T.4 Off-Line Publication

Element Name	Refinement	Encoding Scheme	Value
Creator		AGLS Agent	corporateName=Foundation for Research, Science and Technology corporateName=Tuopapa Toha Putea Whakatakoto Kaupapa Rangahau Putiao jurisdiction=New Zealand
Publisher		AGLS Agent	corporateName=Foundation for Research, Science and Technology
Contributor			
Rights			Crown Copyright, New Zealand, 2001
Title			Research report 1999/2000
Subject		SONZ	(to be developed)
Description			This research report provides information about research programmes and other scientific and technological activities funded by the Foundation during 1999-2000
Source			
Language		RFC 3066	en
Relation	replaces	URI	http://www.frst.govt.nz/
Coverage	jurisdiction		New Zealand
Function		FONZ	(to be developed)
Date	issued	ISO 8601	2001
Type	category		document text/report
Format			743 pages, 24 cm high, 350 grams
Identifier		ISSN	1174-3549
Availability		AGLS Availability	corporateName=Foundation for Research, Science and Technology address=PO Box 12 240, Wellington contact=(phone) 0-4-917 7800 contact=(fax) 0-4-917 7850
Audience			All
Mandate			Foundation For Research, Science, And Technology Act 1990

SECTION T – WORKED EXAMPLES

T.5 On-Line Publication

Element Name	Refinement	Encoding Scheme	Value
Creator		AGLS Agent	corporateName=Office of the Parliamentary Commissioner for the Environment corporateName=Te Kaitiaki Taiao a Te Whare Paremata jurisdiction=New Zealand
Publisher		AGLS Agent	corporateName=Office of the Parliamentary Commissioner for the Environment
Contributor	projectLeader	AGLS Agent	personalName=Taylor, Bruce
	investigator	AGLS Agent	personalName=Gebbie, Ewan
	investigator	AGLS Agent	personalName=Botherway, Kathryn
	investigator	AGLS Agent	personalName=James, Gill
	investigator	AGLS Agent	personalName=Mormorunni, Cristina
Rights			This document may be copied provided the source is acknowledged
Title			New Zealand under siege: a review of the management of biosecurity risks to the environment
Subject		SONZ (others if needed)	(to be developed)
Description			
Source			
Language		RFC 3066	en
Relation	isBasedOn	URI	Biosecurity review: key economic issues facing New Zealand's biosecurity system http://www.pce.govt.nz/Reports/Biosecurity/biosecurity%20home.htm
	isBasedOn	URI	Biosecurity threats to indigenous biodiversity in New Zealand http://www.pce.govt.nz/Reports/Biosecurity/Biosecurity_threats.pdf
	isBasedOn	URI	Review of biosecurity influences of the last decade: a report http://www.pce.govt.nz/Reports/Biosecurity/review_of_biosecurity_influences.pdf

Element Name	Refinement	Encoding Scheme	Value
Coverage	jurisdiction		New Zealand
Function		FONZ	(to be developed)
Date	created	ISO 8601	2001
Type	category		document
			text/report
Format		IMT	text
Identifier		ISBN	0-908804-93-8
Availability			corporateName=Office of the Parliamentary Commissioner for the Environment
			address=PO Box 10-241, Wellington
			contact=(phone) 0-4-471 1669
			contact=(fax) 0-4-495 8350
			contact=(website) http://www.pce.govt.nz/reports.html
			email=pce@pce.govt.nz
Audience			All
Mandate			

T.6 Service – Passport Application

Element Name	Refinement	Encoding Scheme	Value
Creator		AGLS Agent	corporateName=Department of Internal Affairs. Passport Office corporateName=Te Tari Taiwhenua jurisdiction=New Zealand
Publisher		AGLS Agent	corporateName=Department of Internal Affairs
Contributor			
Rights			The Minister may refuse to issue a New Zealand passport in any of the following cases: (a) Where the applicant has not attained the age of 16 years and has not produced the written consent of one of his or her parents or guardians to the issue of a passport to him or her: (b) Where (i) There is in force a warrant issued in New Zealand for the arrest of the applicant; or (ii) The applicant is on bail or is subject to a sentence of supervision under the Criminal Justice Act 1985, or is subject to conditions of release under Part 6 of that Act; or (iii) The applicant is required by an order made by any New Zealand Court to remain in New Zealand, or to refrain from obtaining a passport, or to surrender a passport: (c) Where the applicant already holds a New Zealand passport and there is no sufficient reason why another passport should be issued to him or her.
Title			Applying for a New Zealand passport
Subject		SONZ	(to be developed)
Description			New Zealand passports are issued to New Zealand citizens, which includes people born in the Cook Islands, Niue, Ross Dependency, and the Tokelau Islands, in accordance with the Passports Act 1992. Except as provided in the Act, every New Zealand citizen is entitled as of right to a New Zealand passport
Source			

Element Name	Refinement	Encoding Scheme	Value
Language		RFC 3066	en
Relation	hasPart	URI	http://www.passports.govt.nz
	requires		Your New Zealand Passport, current or expired, or Full birth certificate stating your parent's names, showing you were born in New Zealand, Cook Islands, Niue or Tokelau, or Citizenship Certificate, or other proof of citizenship. If you want your new passport in a name other than that on your previous passport, birth certificate or citizenship certificate, enclose your marriage certificate, Change of Name by Statutory Declaration or Deed Poll. The documents you provide must be originals not photocopies or certified photocopies.
	requires		Two identical photos.
	requires		Someone you know to formally identify you on the application form and to identify your photos.
Coverage	jurisdiction		New Zealand
Function		FONZ	(to be developed)
Date		ISO 8601	2001-01-24
Type	category		service
Format			
Identifier			
Availability		AGLS Availability	corporateName=New Zealand Passport Office, Department of Internal Affairs
			address=PO Box 10-526, Wellington
			contact=(freephone) 0800 PASSPORT
			contact=(freephone) 0800 22 50 50
			contact=(fax) 0-4-474 8002
Audience			All
Mandate			Passports Act 1992

T.7 Resource – Licence Application

Element Name	Refinement	Encoding Scheme	Value
Creator		AGLS Agent	corporateName=Auckland City Council
Publisher		AGLS Agent	corporateName=Auckland City Council
Contributor			
Rights		URI	All dogs over the age of 3 months are required to be registered. http://www.akcity.govt.nz/council/services/dogs/#Registration
Title			Dogs - registration
Subject		SONZ	(to be developed)
Description			
Source			
Language		RFC 3066	en
Relation	hasPart	URI	http://www.akcity.govt.nz/council/services/dogs/pdf/1017.pdf
Coverage	jurisdiction		Auckland City, New Zealand
Function		FONZ	(to be developed)
Date	valid	ISO 8601	2000-08-01
Type	category		document text/guide
Format		IMT	text/html
Identifier		URI	http://www.akcity.govt.nz/council/services/dogs/#Registration
Availability		AGLS Availability	corporateName=Auckland City Dog Registrations address=Private Bag 92516, Wellesley St, Auckland contact=(phone) 0-9-379 2020 contact=(website) http://www.akcity.govt.nz/council/services/dogs/#Registration
Audience			Auckland City dog owners
Mandate	act		Dog Control Act 1996
	rules		Auckland City Council Consolidated Bylaw, 1998

T.8 Online Resource

Element Name	Refinement	Encoding Scheme	Value
Creator		AGLS Agent	corporateName=Ministry of Education corporateName=Te Tahuhu o te Matauranga jurisdiction=New Zealand
Publisher		AGLS Agent	corporateName=Ministry of Education
Contributor			
Rights			
Title			About the Ministry: A short summary of the purpose and mission of the Ministry of Education, link to Strategic Business Plan and Ministry contact points
Subject		SONZ	(to be developed)
Description			A short summary of the purpose and mission of the Ministry of Education
Source			
Language		RFC 3066	en
Relation	references	URI	Ministry of Education strategic plan http://www.minedu.govt.nz/web/document/document_page.cfm?id=3522
	references	URI	Ministry of Education annual report http://www.minedu.govt.nz/web/document/document_page.cfm?id=5188
	references	URI	Ministry of Education departmental forecast report http://www.minedu.govt.nz/web/document/document_page.cfm?id=4756
Coverage	jurisdiction		New Zealand
Function		FONZ	(to be developed)
Date	modified	ISO 8601	2000
Type	category		document text/promotion
Format		IMT	text/html
Identifier		URI	http://www.minedu.govt.nz/web/document/document_page.cfm?id=3611&p=0

Element Name	Refinement	Encoding Scheme	Value
Availability		AGLS Availability	corporateName=Ministry of Education, National Office address=45-47 Pipitea St. address=PO Box 1666, Thorndon, Wellington contact=(phone) 0-4-463 8000 contact=(fax) 0-4-463 8001 email=communications@minedu.govt.nz contact=(website) http://www.minedu.govt.nz/web/document/document_page.cfm?id=3611&p=0
Audience			All
Mandate			Education Act 1989

T.9 Off-Line Publication

Element Name	Refinement	Encoding Scheme	Value
Creator		AGLS Agent	corporateName=Animal Welfare Advisory Committee jurisdiction=New Zealand
Publisher		AGLS Agent	corporateName=Ministry of Agriculture and Forestry, Animal Biosecurity
Contributor			
Rights			Crown Copyright, New Zealand, 1999
Title			Code of recommendations and minimum standards for the welfare of broiler chickens
Subject		SONZ	(to be developed)
Description			This code of recommendations and minimum standards for the welfare of broiler chickens was endorsed as the national code at the committee meeting held 17 November 1999. This version was endorsed as a deemed code for the purpose of the Animal Welfare Act, 1999
Source		URI	http://www.maf.govt.nz/animalwelfare/codes/cow_broiler_chickens.pdf
Language		RFC 3066	en
Relation	isBasisFor	URI	http://www.maf.govt.nz/MAFnet/issues/animal/codes.html
Coverage	jurisdiction		New Zealand
Function		FONZ	(to be developed)
Date	created	ISO 8601	1999
Type	category		document text/report
Format			30 pages
Identifier		ISBN	1171-090X
		ISBN	0-478-07560-X

Element Name	Refinement	Encoding Scheme	Value
Availability		AGLS Availability	corporateName=Ministry of Agriculture and Forestry. Animal Biosecurity personalName=Edwards, Pam. address=PO Box 2526, Wellington contact=(phone) 0-4-474 4100 contact=(fax) 0-4-474 4111 email=edwardsp@maf.govt.nz
Audience			All
Mandate			Animal Welfare Act, 1999

T.10 Service – Licence Application

Element Name	Refinement	Encoding Scheme	Value
Creator		AGLS Agent	corporateName=Wellington City Council
Publisher			
Contributor			
Rights			
Title			
Subject		SONZ	(to be developed)
Description			
Source			
Language		RFC 3066	en
Relation			
Coverage	jurisdiction		Wellington City, New Zealand
Function		FONZ	(to be developed)
Date		ISO 8601	1996-07-01
Type	category		service
Format			
Identifier			
Availability		AGLS Availability	corporateName=Wellington City Council address=PO Box 2199, Wellington 6015 address=101 Wakefield St, Wellington contact=Animal Control, Environmental Control Business Unit contact=(phone) 0-4-801 3881 for registration enquiries contact=(phone) 0-4-388-8212 for Animal Control Service
Audience			Wellington City dog owners
Mandate	act		Dog Control Act, 1996

SECTION U – QUALITY ASSURANCE

Target audience

NZGLS metadata managers within agencies

Purpose of this section

To provide guidelines for managers to set up good quality assurance processes so that the quality of their agency's metadata remains high.

U.1 Overview of Quality Assurance

U.1.1 Purpose of quality assurance

Providing out of date metadata or inaccurate metadata is worse than providing no metadata. Searchers will not find the resources they require. Quality assurance processes need to be put in place to make sure that good metadata is produced and then kept up to date.

U.1.2 Responsibility for quality control or quality assurance

Responsibility for quality assurance and quality control needs to be assigned to someone with professional expertise in classifying and describing information and other resources. This person should not be the same person as the author for a record.

U.1.3 What needs quality assurance?

When an organisation is creating a relatively small quantity of metadata records, then everything should be checked for quality.

Where an organisation creates and maintains a large quantity of NZGLS records, quality assurance could be designed to be more selective. For example, it might be set up on a random "spot-check" basis, or by targeting the most important records.

U.1.4 Quality control outside the agency

There will also be some form of centralised quality assurance run by the NZGLS maintenance agency. Thesaurus use will be quality assured by the thesaurus maintenance agency.

Thesaurus use will be quality assured by the thesaurus maintenance agency. Further guidance will be given as tools are developed.

U.1.5 Quality assurance when resources are scarce

In some small agencies, the metadata manager will be the only person creating records. In this situation it is worth setting up a quality assurance process with another agency, so people can check each other's work.

SECTION V - TECHNICAL MANAGEMENT – STORING AND SUBMITTING METADATA RECORDS

Target audience

IT managers and NZGLS metadata managers within agencies.

Purpose of this section

This section contains general information and suggestions for agencies. It will be expanded in future.

V.1 What's Happening

V.1.1 More information is coming

Technical options are developing all the time. The NZGLS maintenance agency will keep you advised of these developments. There will be tools for creating and storing metadata, which are due to be developed by the end of March 2002.

V.1.2 Format standards

Metadata for web pages should be in HTML. Some agencies may want to keep it in database format as well. In the future, it is likely that metadata records will be kept in XML.

V.1.3 Key technical issues

Key technical issues include:

- Creating and storing metadata
- Metatags, repository and harvesting
- Making a search engine NZGLS – compliant
- Syntax
- NZGLS metadata tools

V.1.4 Creating and storing metadata

Ideally, metadata should be created using a purpose-built tool, so cataloguers need not be concerned with the syntax of the metadata. Metadata creation tools can be:

- Part of a resource creation system, such as a word processor

- Part of a resource management system, such as an electronic record keeping system or a web-based registration system

- Stand-alone tools

V.1.5 Storing metadata

Metadata can be stored in two main ways:

- In a database separately from the resource

- Embedded within the resource being described

A database storing metadata can be implemented using many technologies. It may be a relational database management system, or just a file system containing metadata records. Metadata storage choices will be determined, to a large extent, by specific business needs and resource types.

V.2 Metatags, Repositories and Harvesting

V.2.1 Options

There are a number of choices open to a metadata manager for storing the NZGLS metadata used in their agency. The decisions on whether to embed metadata in individual source files or to store it centrally in a database will be based on business needs. The benefits of improved access to information will be balanced against administrative costs and the impositions on authors.

V.2.2 Metatags

In many cases, the lowest-cost solution for moving to metadata-based information access tools will be to embed metadata, known as metatags, in the headers of key HTML documents. For small or simple websites, this may be all that is ever required.

If metadata is simply stored within individual files on a large site, however, it becomes impractical for the metadata manager to keep abreast of changes to individual files. Many authors could be using templates to create new pages and some may be tagged inappropriately.

V.2.3 Repositories

Agencies that distribute non-HTML material through their websites (such as PDF files or compressed word-processing documents), or who describe offline resources, will need to consider creating an online database of metadata about these resources.

Alternatively, they could create separate HTML files that can contain the metadata about those resources and act as 'pointers' to them.

Metadata databases with standard query interfaces are often called metadata repositories. Metadata databases are queried for metadata records using standard information retrieval protocols such as Z39.50 or X.500/LDAP.

V.2.4 Advantages of repositories

This mechanism (i.e. storing metadata in a database) provides more flexibility, as there are no static records. The metadata can be made available in various arrangements or syntaxes that can easily be modified over time.

An added advantage of storing NZGLS metadata in a database is the ease with which global changes and amendments can be made after initial creation.

On the other hand, setting up the metadata repository in the first place is more difficult than simply embedding metadata in HTML pages, and does have implications for retrieval of the metadata by search engines.

Initially, the metadata records from the databases should support their native syntaxes, but move towards standards such as Z39.50 and RDF.

V.2.5 Harvesting

One of the biggest advantages of NZGLS being implemented across all government agencies is the opportunity to share data easily, and for Portal sites to collate information from across the government.

This can be done automatically with software tools known as **harvesters** or **spiders**.

V.2.6 The importance of location and indexes

Where an agency is creating metadata that is going to be harvested by another agency, the location of the metadata makes a difference.

For example, a site may hold many thousands of HTML pages, of which only a few dozen have been tagged as key points within the structure. In the worst case, the harvesting software would have to read the header of every file on the site to identify the few that were to be indexed.

To simplify management of the site, and make it as efficient and accurate as possible for external agencies to harvest relevant metadata, some form of index of the key pages containing NZGLS metadata is needed. This can take the form of a simple list of links to key pages which have the full NZGLS metadata embedded within them.

Alternatively, the index itself can contain the full NZGLS metadata for each key page on the site. This index page is referred to as a **harvest control list**.

V.3 Making a Search Engine NZGLS-Compliant

It is important that the metadata on an agency's website is able to be exploited by both external search engines (such as those operated by the government Portal) and by an agency's own web search engine.

Unfortunately, a large number of commercial search engines do not have the capacity to exploit NZGLS or Dublin Core metadata.

When purchasing a search engine for an agency's website, make sure that it has the capacity to understand, interrogate and retrieve NZGLS metadata.

V.4 Syntax

For metadata to be read and understood by external search engines, it needs to be written in a standardised syntax.

In other words, individual metadata values need to be signposted by standardised symbols that indicate their role and meaning.

Correct syntax also enables search engines to identify particular metadata elements in isolation from what would otherwise be a mass of indistinguishable data.

For NZGLS metadata there are two recommended forms of syntax:

- HyperText Markup Language (HTML)
- eXtensible Markup Language using the Resource Description Framework (XML/RDF)

In time XML is expected to overtake HTML as the preferred web-based syntax because of its greater syntactic power and flexibility.

V.5 HTML Syntax

Compared to XML, HTML is syntactically limited. Nevertheless, suitable conventions regarding the content of attributes of <META> elements permit recording of most aspects of NZGLS (qualified DC).

The conventions for recording NZGLS in HTML are currently the same as those for the Australian AGLS standard, which are based on a Note for the Dublin Core Metadata Initiative, titled 'Recording qualified Dublin Core metadata in HTML', by Dr Simon Cox. A full version of this can be found at: http://www.agcrc.csiro.au/projects/3018CO/metadata/qdchtml.

Note that each element has a prefix indicating which metadata schema the element is drawn from: 'DC' for Dublin Core, 'AGLS' for Australian Government Locator Service. There might be some slight changes in the NZGLS standard.

V.5.1 Element refinements

Element refinements are not supported directly in HTML <META> elements, so a syntax convention relying on the use of characters within these text strings is used.

To accommodate Element refinements, dots (.) are used to append qualifiers to DC element names, following much existing practice. If a hierarchical qualification scheme is being used, multiple qualifiers, separated by dots, may be appended.

V.5.2 Encoding schemes

HTML version 4 allows use of two additional attributes of the <META> elements, SCHEME and LANG[UAGE]. These both accommodate Value Qualifiers, i.e. the indication of use of an encoding scheme or controlled vocabulary for the metadata element value.

Where a SCHEME or LANG is specified, the value must be encoded in the element CONTENT according to that scheme, including use of any punctuation characters.

V.5.3 Example: NZGLS metadata record in HTML 4.0

```
<link rel = "schema.DC" href="http:/purl.org/DC/elements/1.1/">
<link rel = "schema.NZGLS" href="http://www.yet-to-be-determined">
<META NAME="DC.Identifier" SCHEME="URI" CONTENT="http:// www.yet-to-be-determined
">
<META NAME="DC.Creator" LANG="en" CONTENT="corporateName=State Services Commission>
<META NAME="DC.Publisher" LANG="en" SCHEME=AGLS Agent" CONTENT="corporateName=
State Services Commission">
<META NAME="DC.Rights" SCHEME="URI"
CONTENT="http://www.ssc.govt.nz/documents/copyright.htm">
<META NAME="DC.Title" LANG="en" CONTENT="E-government">
<META NAME="DC.Subject" SCHEME="SONZ" CONTENT="public administration">
<META NAME="DC.Description" LANG="en" CONTENT="This page provides access to information
about the New Zealand government's electronic government programme.">
<META NAME="DC.Language" SCHEME="RFC3066" CONTENT="en">
<META NAME="DC.Coverage.jurisdiction" LANG="en" CONTENT="New Zealand">
<META NAME="NZGLS.Function" SCHEME="FONZ" CONTENT="strategic policymaking">
<META NAME="DC.Date.modified" SCHEME="ISO8601" CONTENT="2001-04-26">
<META NAME="DC.Type.category" SCHEME="NZGLS" CONTENT="Document">
<META NAME="DC.Type.Text" SCHEME="NZGLS" CONTENT="home page">
<META NAME="DC.Type.aggregationLevel" CONTENT="collection">
<META NAME="DC.Format" SCHEME="IMT" CONTENT="text/html">
```

V.6 XML and RDF

The eXtensible Markup Language (XML) is a more sophisticated markup language than HTML, so it is possible to use the Resource Description Framework (RDF) to express quite complex metadata structures. RDF achieves this by using a facility in XML known as XML-namespace. Use of XML-namespace allows any number of different metadata schemas to be used together to achieve the structured expression of detailed and complex resource description metadata.

Now that RDF has the status of a W3C Recommendation, RDF in XML may become the preferred syntax for expressing NZGLS metadata. It is intended that an RDF schema for NZGLS be developed in the future. For the time being, however, the following example has been provided using straight XML.

In XML, case is significant, so 'dc' means something different to 'DC'. The Dublin Core Data Model working group has recommended that Dublin Core be described using lower-case, i.e. 'dc' (this only affects the way metadata is written in RDF, not in HTML). In addition, the names of DC (and hence NZGLS) metadata elements are also in lower case.

Please note that further work needs to be done to develop an XML schema. The following XML example is intended solely as a starting point for agencies to begin describing resources using NZGLS. It is not definitive and is meant to be an example of how the XML might be structured. It has been simplified as much as possible to enable mapping to any future NZGLS XML

schema that might be developed. Consequently the XML-namespace concept has not been used in the example.

V.6.1 Example: NZGLS metadata record in XML

```
<?xml version="1.0" encoding="UTF-8" ?>
   <Resource>
      <NZGLSMetadata>

        <Titles>
           <Title>Welcome to the E-government Programme</Title>
              <Title refinement="Alternative">government.nz@your.service</Title>
        </Titles>
         <Identifier scheme="URI">http://www.e-government.govt.nz/index.html</Identifier>
         <Description>This page provides access to information about the New Zealand
           government's electronic government program</Description>
         <Creator>
              <CorporateName>State Services Commission</CorporateName>
              <CorporateName lang="mi">Te Komihana O Ngä Tari
              Käwanatanga</CorporateName>
         </Creator>
         <Publisher>
              <CorporateName>State Services Commission</CorporateName>
         </Publisher>
         <Types>
              <Type refinement="Category.Document.Text">Homepage</Type>
              <Type refinement="AggregationLevel">Collection</Type>
         </Types>
         <Subject scheme="SONZ">Public Administration</Subject>
         <Coverages>
              <Coverage refinement="jurisdiction">New Zealand</Coverage>
              <Coverage refinement="spatial.geographicDescription" scheme="The New
              Zealand Geographic Place Names Database">Wellington</Coverage>
         </Coverages>
         <Function scheme="FONZ">Policy Development; Informing</Function>
         <Dates scheme="ISO 8601">
              <Date refinement="Created">2001-4-20</Date>
              <Date refinement="Modified">2001-5-20</Date>
         </Dates>
         <Rights scheme="URI">http://www.ssc.govt.nz/documents/copyright.htm</Rights>
         <Formats>
              <Format scheme="IMT">text/html</Format>
         </Formats>
      </NZGLSMetadata>
   </Resource>
```


V.7 NZGLS Metadata Tools

The use of a suitable automated metadata authoring tool not only helps to ensure consistency and speeds up metadata creation.

Tools generally take the form of a template into which data values can be either automatically or manually entered, or 'dragged and dropped' from a linked scheme. Once all the required data values are entered into the template, a metadata record with suitable syntax is automatically generated.

A number of software tools are available that can help create NZGLS metadata that can be embedded in HTML/XML documents. The Portal implementation project is investigating these tools and will be able to provide advice and expertise on them to agencies.

It is also likely that one or more NZGLS sanctioned tools will be made available to those agencies that prefer to avoid the issues associated with procuring their own systems.

V.7.1 Resource management systems

Many agencies will already have some form of resource management system in place. These systems provide significant amounts of metadata describing resources and services. The metadata managed by resource management systems is often sophisticated and may support record keeping activities, resource management and resource archiving as well as resource discovery.

However, such metadata can often be translated to the standards required by a resource discovery system.

Examples of resource management systems include recordkeeping systems, document management systems, web management systems, records management systems and collection management systems.

Some resource management systems can provide automatic facilities to support:

- export of selected metadata records into either of the mechanisms above

- public access to selected records within the resource management system, via the Z39.50 or X.500/LDAP protocols

If an agency has a resource management system this may avoid the need for new investment, and help consolidate metadata management. The key factor will be the degree of compatibility between the system and the NZGLS standard.

SECTION W - MAINTENANCE OF METADATA

Target audience

NZGLS metadata managers inside agencies.

Purpose of this section

This section contains information and suggestions.

W.1 When Metadata Needs Maintaining

W.1.1 Why maintenance matters

Providing out-of-date metadata is worse than providing no metadata.

NZGLS metadata is dynamic. Metadata for any given resource can be created, revised, added to and improved as often as required.

NZGLS metadata cannot just be created once and then forgotten about. It needs to be actively managed for as long as the resource described is available to the public. As the resource is evolved or changed, the metadata should reflect these changes.

W.1.2 Role of the NZGLS metadata manager

One of the most important aspects of the metadata manager's quality control role is making sure there are processes and procedures in place for keeping metadata up-to-date.

This could involve updating metadata centrally, including the use of automated tools for electronic resources, or reminding staff and document authors to keep their own metadata up-to-date.

W.2 Administrative Metadata

W.2.1 What is administrative metadata?

Administrative metadata is information which shows when NZGLS metadata was created or updated and who was responsible for doing so.

Administrative metadata is not covered in this manual, but using it might make life easier.

Work is underway to develop an administrative metadata set for the NZGLS Portal. Further information will be available later.

W.3 Future Versions of the NZGLS Standard

W.3.1 Backward compatibility

Any future revisions to the NZGLS standard will be backwardly compatible with earlier versions of the standard. This means that NZGLS metadata created under a previous version of the standard should remain valid.

NZGLS is an evolving standard, but it is likely that changes to the standard will take the form of minor refinements and additions, rather than major alterations, to preserve stability.

NZGLS is an evolving standard, so it makes sense for agencies to record which version of the standard their metadata complies with.

W.4 Using Other Agency Systems which Already Capture Metadata

W.4.1 What's there already?

All electronic record keeping systems generate, capture and manage metadata. Many agencies will already have systems for:

- Document management
- Content management
- Record keeping

There would be no point doubling up this effort by creating totally different metadata using unrelated business processes.

W.4.2 Benefits of a unified metadata regime

Record keeping metadata standards can be designed which are based on the NZGLS standard, and dovetailed with it. The intention is to have a unified regime for metadata across government departments.

Under a regime like this, metadata would be created once but used many times for different purposes.

W.4.3 Practical implications

Agencies will need to re-design work practices and carry out some technological process changes so that all their automatic metadata creation is compatible with NZGLS metadata.

W.5 Quality Assurance on Updates

(Content to be developed)

W.6 Suggestions for Archiving Decisions

(Content to be developed – hints for a plan or strategy for each agency)

SECTION X - GLOSSARY

AGENCY – an organisation … (to be completed)

AGLS - the Australian Government Locator Service, a discovery level metadata set for government resources. NZGLS is heavily based on AGLS. More information is available at: http://www.naa.gov.au/recordkeeping/gov_online/agls/summary.html

ANZSIC – Australian and New Zealand Standard Industrial Classification. More information is available at: http://www.detya.gov.au/

ADMINISTRATIVE METADATA – Metadata about NZGLS metadata, which tracks versions of the NZGLS standard being employed, and tracks changes and updates to an agency's own records

AUTHOR – The person inside an agency that creates a metadata record.

BEP (**Business Entry Point**) – an Australian Internet entry point for those wishing to find government business information or do online transactions with government. BEP uses a metadata standard based on AGLS. More information is available at: http://www.business.gov.au/

COLLECTION-LEVEL RECORD – A record describing a whole collection rather than each individual item in the collection, where the collection itself is treated as a resource – for example a photographic collection of images, or the home page made for an on-line service.

CONTENT – What's actually in a resource, or what the resource is about.

CREATOR – The creator of the content of a resource.

DOCUMENT - For all resources which are not services or agencies, even if they are not traditional "documents" – for example, a sculpture.

DUBLIN CORE (DC) – An internationally recognised core set of metadata elements on which AGLS and NZGLS are based. More information at: http://purl.org/dc/

DCMIPeriod – a standard for expressing validity dates and date ranges using ISO 8601 for encoding the actual dates

DUMB-DOWN RULE – An element value must be meaningful when no qualifiers are present. More information about how to apply the dumb-down rule can be found on the DCMI Website at http://dublincore.org/documents/2001/04/12/usageguide/#dumbdown

ELEMENT – One of 19 types of information that it is possible to combine to create a complete metadata set or metadata record.

FONZ – The "Functions of New Zealand" thesaurus. It includes both functions of government (not of agencies), and the activities on a smaller scale which fit beneath each function.

HTML – HyperText Markup Language. More information at: http://www.w3.org/MarkUp/

HTML META Tag – An approach to encoding metadata in HTML documents. More information at: http://purl.oclc.org/docs/metadata/dublin_core/approach.html

IMT – Internet Media Types

ISBN – International Standard Book Number

ISO – International Standards Organisation. More information at: http://www.iso.ch/

ISSN – International Standard Serial Number

ISO 8601 - Date and Time Formats

ITEM-LEVEL RECORD – Where each individual entity is treated as a resource in its own right, so it gets its own metadata record – in a collection of photos, each photograph would get its own metadata record – used where searchers are more likely to want to locate an individual item inside a collection and there is no index or other means of doing so.

METADATA – Data about data, or information about other information sources. Used by search engines to find records of resources which match the search terms a searcher has entered into the search engine.

NEW ZEALAND GOVERNMENT PORTAL – The website at http://www.govt.nz which provides a search interface to New Zealand Government resources.

NZGLS - New Zealand Government Locator Service, a discovery level metadata standard developed by the GUIDE Framework Project.

NZSC [number] Statistics New Zealand Standard Classification

OBLIGATION – A set of rules outlining whether a certain element in the NZGLS element set is compulsory and must be used for all records, is conditional and must be used for certain types of records, is recommended because it helps searchers locate a resource, or is optional and only used in some situations where it will benefit searchers.

PORTAL – See New Zealand Government Portal.

QUALIFIER – Information about an element which refines its meaning or defines a subset of that element.

RECORD - A metadata record made up of some or all of the 19 metadata elements which can be used by search engines to locate the record. The record describes a resource available to the public, which could be an agency, a service, on-line information, published information, or an object.

REFINEMENT – A type of element qualifier giving detail about an element.

RESOURCE – The thing being described – which could be a service, an object, any form of published document on-line or off-line, a government agency etc. There is no limit to what could be a resource. It's anything made available to the public by any government agency.

RFC 3066 - Language Codes. "Tags for the Identification of Languages." Internet Engineering Task Force (http://www.rfc-editor.org/rfc/rfc3066.txt)

SCHEME – A structured way of doing things where values for elements are created following certain rules

SERVICE – A service delivered to the public via government agencies.

SONZ – The "Subjects of New Zealand" thesaurus. It provides a hierarchical list of topics which are subject to New Zealand government activity or information provision.

THESAURUS – A controlled list of vocabulary terms which an author selects from to create a value within an element record

URI – Uniform Resource Identifier – used as addresses for web documents

URL – Uniform Resource Locator – a generalised way of locating online resources

VALUE – Information a metadata author enters into a field to describe an element in detail.

X.500 – An ISO standard for distributed directories of objects

XML – Extensible Markup Language. More information at: http://www.w3.org/XML/

Z39.50 – An ISO standard (23950) for common access to repositories for metadata. More information at: http://lcweb.loc.gov/z3950/agency/

SECTION Y - CHANGE HISTORY

To allow for accurate use and understanding of NZGLS metadata over time, it is important that all changes to the standard are recorded. This allows future users to know the rules which applied at the time the metadata was created.

This appendix records the substantive changes between versions of the standard. Each release will also continue to be available.

Changes are categorised as those relating to the definitions of particular elements, and other changes. As NZGLS is heavily based on AGLS, these tables also summarise the changes made in adapting AGLS for New Zealand government purposes.

Y.1   Changes to Elements

1 Creator		
Version 1.0	2001-04-30	Adaption from AGLS - remove GOLD as an encoding scheme; changes to language and examples
Version 2.0	2001-09-05	Use of AGLS Agent encoding scheme; removal of value components
2 Publisher		
Version 1.0	2001-04-30	Adaption from AGLS - remove GOLD as an encoding scheme; changes to language and examples
Version 2.0	2001-09-05	Use of AGLS Agent encoding scheme; removal of value components
3 Contributor		
Version 1.0	2001-04-30	Adaption from AGLS - remove GOLD as an encoding scheme; changes to language and examples
Version 2.0	2001-09-05	Use of AGLS Agent encoding scheme; removal of value components; remove concept of 'secondary' from definition
4 Rights		
Version 1.0	2001-04-30	Adaption from AGLS - new default value; changes to language and examples
Version 2.0	2001-09-05	Inclusion of 'access terms and conditions' in definition

5 Title		
Version 1.0	2001-04-30	Adaption from AGLS - changes to language and examples
Version 2.0	2001-09-05	Minor language changes only
6 Subject		
Version 1.0	2001-04-30	Adaption from AGLS - changes to language and examples
Version 2.0	2001-09-05	Now mandatory; use of Subjects of NZ (SONZ) thesaurus for at least one value mandatory; reference to other thesauri removed
7 Description		
Version 1.0	2001-04-30	Adaption from AGLS - changes to language and examples
Version 2.0	2001-09-05	URI removed as a suggested encoding scheme
8 Source		
Version 1.0	2001-04-30	Adaption from AGLS - changes to language and examples
Version 2.0	2001-09-05	Additional guidance on when to use
9 Language		
Version 1.0	2001-04-30	Adaption from AGLS - obligation changed to 'Recommended'; RFC 1766 superceded by RFC3066
Version 2.0	2001-09-05	Minor wording changes only
10 Relation		
Version 1.0	2001-04-30	Adaption from AGLS - changes to language and examples
Version 2.0	2001-09-05	Additional guidance on using *Relation* to relate services and documents
11 Coverage		
Version 1.0	2001-04-30	Adaption from AGLS - definition aligned with Dublin Core to allow other types of coverage apart from temporal and spatial
Version 2.0	2001-09-05	Change of refinement names to 'jurisdiction', 'spatial' and 'temporal'; three sub-refinements for 'spatial' – 'geographicDescription', 'geographicBox' and 'geographicElement'; inclusion of NZ encoding schemes

12 Function		
Version 1.0	2001-04-30	Adaption from AGLS - changes to encoding schemes to refer to New Zealand Government Functions Thesaurus (under development)
Version 2.0	2001-09-05	Now mandatory; use of Functions of New Zealand (FONZ) thesaurus mandatory
13 Date		
Version 1.0	2001-04-30	Adaption from AGLS - changes to language and examples
Version 2.0	2001-09-05	Definition widened to include any significant date
14 Type		
Version 1.0	2001-04-30	Adaption from AGLS - Type.Category made mandatory
Version 2.0	2001-09-05	List of possible values for documents provided, based on DCMI and AGLS encoding schemes
15 Format		
Version 1.0	2001-04-30	Adaption from AGLS - changes to language and examples
Version 2.0	2001-09-05	Removed 'Physical' encoding scheme because of imprecise structure
16 Identifier		
Version 1.0	2001-04-30	Adaption from AGLS - changes to language and examples
Version 2.0	2001-09-05	Minor wording changes only
17 Availability		
Version 1.0	2001-04-30	Adaption from AGLS - Value Component 'Post Code' deleted; remove GOLD as an encoding scheme
Version 2.0	2001-09-05	Use of AGLS Availability encoding scheme; removal of value components; further guidance on use
18 Audience		
Version 1.0	2001-04-30	Adaption from AGLS - obligation changed to 'Recommended'
Version 2.0	2001-09-05	Inclusion of NZGLS Audience encoding scheme
19 Mandate		
Version 1.0	2001-04-30	Adaption from AGLS - obligation changed to 'Recommended'
Version 2.0	2001-09-05	Minor wording changes only

Y.2   General Changes

Version 1.0	2001-04-30	Adaption from AGLS - language and examples changed to fit New Zealand; changes to Obligation to introduce Recommended (for elements agencies are strongly encouraged to use) and Conditional (for elements which are Mandatory in some circumstances); integration of service guidelines within the standard; definition of service limited to exclude web pages describing the service; implementation guidance left open pending GUIDE Delivery Project work.
Version 2.0	2001-09-05	Restructure of manual; removal of value components; inclusion of advice on how elements will be used by the Portal; clarification of distinction between various elements