



ANZLIC Metadata Profile V1.1

e-GIF Standard Proposal

Request for Comment Document

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Executive Summary

This document gives the background and business need for a proposal to replace the existing e-Government Interoperability Framework (e-GIF) geospatial metadata standard.

Government has made it clear that it wants easier discovery of, and access to, government data and information. This reason for this is not only to capture significant efficiencies for the way government works but also so business and individuals can re-use and value-add with respect to government data and information. The provision of geospatial metadata has a key part to play in making that happen for government's geospatial datasets.

The existing e-GIF geospatial metadata standard is called the New Zealand Geospatial Metadata Standard. It has not been implemented widely and is out of date with more recent International Standards Organisation geospatial metadata developments. The Australia New Zealand Land Information Council (ANZLIC) Metadata Profile V1.1 is in alignment with more recent ISO geospatial metadata developments and is beginning to be used by agencies in both New Zealand and Australia.

Both ANZLIC and Land Information New Zealand are committed to providing ongoing user support for the ANZLIC Metadata Profile. A number of metadata entry tools using the ANZLIC profile are either now available or likely to become available in the near future.

Land Information New Zealand, seeks approval from the State Services Commission, proposing a recommendation that the existing e-GIF geospatial metadata standard (Recommended Status) be deprecated and replaced with the ANZLIC Metadata Profile V1.1 (Recommended Status).

The proposal will be subject to consultation feedback from interested parties based on this Request for Comment document.

1. Background

This section outlines what geospatial metadata is and its connections to the International Organisation for Standardisation, the Australia New Zealand Land Information Council and to New Zealand's e-Government Interoperability Framework. Information is presented about the existing and proposed e-GIF geospatial metadata standards.

1.1 Geospatial metadata, ISO and e-GIF

Geospatial metadata

Metadata are structured facts that describe information, or information services. Metadata facilitates many things beyond enabling cataloguing; it also informs appropriate use of products and services.

Metadata for geospatial information is required for a range of purposes including:

- discovery
- assessment to determine fitness for use
- access
- use
- transfer
- management.

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

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

Among other things, metadata may be used to provide:

- information about the accuracy of source datasets, processing history, and archival procedures that is required to effectively manage and utilise data within custodian organisations
- information about data/map projection specifications, scale, exchange format, compression and file system
- format that should accompany data transfers to other organisations
- adequate descriptions of the content, quality and geographic extent of datasets that are required so potential users of existing data can assess its suitability for their own purposes
- summary descriptions of content and quality, as well as contact information, that are required for inclusion in directory systems

- detailed information about data collection methods, integration and analysis techniques applied to source data that is required to support the preparation of scientific reports
- information about access software for datasets as well as software parameters that are needed for direct online display and query of data.

Metadata records are typically provided in an online catalogue for internal or public use (as a component of a spatial data infrastructure) or accompany data files for customer delivery.

ISO

The International Organisation for Standardisation (ISO) includes ISO/TC 211, which is an international, technical committee for geographic information. The work of ISO/TC 211 focuses on the development of a structured range of standards (ISO 191xx Standards) for information about phenomena that are directly or indirectly related to the earth.

These standards specify the methods, tools and services for geospatial information, to be used for data management (including definitions and description), acquiring, processing, analysing, accessing, portrayal and transition in digital/electronic format between various users, systems and locations. Where possible, the work is linked to general ICT standards and gives a framework for the development of sector specific applications for the use of geospatial information.

Norway holds the secretariat of ISO/TC 211 - 32 countries are participating members, including New Zealand (through Standards NZ) while 31 members receive proceedings and documentation. There are many external linkages for example, with the Open Geospatial Consortium (OGC). OGC is an international industry consortium of 386 companies, government agencies and universities participating in a consensus process to develop publicly available interface standards. These support interoperable solutions that "geo-enable" the Web, wireless and location-based services, and mainstream information technology (IT). The standards empower technology developers to make complex spatial information and services accessible and useful with all kinds of applications.

The metadata standards that ISO/TC 211 has developed for geographic information are ISO 19115:2005, its corrigendum (ISO 19115:2003/Cor.1:2006 Technical Corrigendum 1), and ISO 19139:2007 for implementation.

e-GIF

The e-Government Interoperability Framework (e-GIF) is a collection of policies and standards (including geospatial standards) endorsed for New Zealand government IT systems. The e-GIF is administered by the State Services Commission (SSC) and has the following benefits:

- Helps government agencies more easily work together electronically
- Makes systems, knowledge and experience reusable from one agency to another
- Reduces the effort required to deal with government online by encouraging consistency of approach.

The e-GIF applies to State Sector agencies but local government and Crown Research Institutes are encouraged to use the standards and private industry is free to use them as well.

The status of e-GIF standards can be Under Development, Recommended (generally more recent, founded on newer technologies or standards) or Adopted (mandatory as well established in public sector ICT systems).

1.2 Existing e-GIF geospatial metadata standard

The New Zealand Geospatial Metadata Standard (NZGMS) was developed in 2004 and overseen by a cross-agency New Zealand Government project team. The standard aimed to define the metadata elements required to support enhanced geospatial data discovery and access. It was also accepted as an e-GIF Recommended standard in 2004.

NZGMS is based on the version of standard ISO 19115, Geographic Information – Metadata available at the time. This standard has since been enhanced and subsequently used as the basis for the ANZLIC Metadata Profile.

Concerns with NZGMS are that it:

- Has not been maintained with more recent ISO enhancements
- has not been implemented widely over the last 5 years
- has not been supported with any open tool to support the creation or editing of metadata
- has not been supported with an encoding schema to validate for conformance.

1.3 ANZLIC and the proposed e-GIF geospatial metadata standard

The Australia New Zealand Land Information Council comprises ten senior officials from the Australian and New Zealand Governments, and the governments of the States and Territories of Australia. They are generally responsible within their jurisdiction for coordinating spatial information policy and operational matters. New South Wales currently chairs ANZLIC. The Council meets three times per year.

The Australia New Zealand Land Information Council develops consistent policies and guidelines (using technical working groups and committees) to minimise barriers to spatial data and services wherever possible. These policies and guidelines adopt international best practice in spatial data and metadata management and are relevant to conditions found by practitioners and users of spatial information in both Australia and New Zealand.

The ANZLIC Metadata Profile was developed as a single Geographic Metadata Profile for Australia and New Zealand by a technical working group comprising representatives from Australian and New Zealand jurisdictions. The ANZLIC Metadata Profile is based on ISO 19115:2005, its corrigendum (ISO 19115:2003/Cor.1:2006 Technical Corrigendum 1), and ISO 19139:2007 for implementation. As mentioned previously these standards have been developed by the ISO/TC211 geographic information committee.

The international standard ISO 19115:2005 has also been reviewed by Standards Australia and Standards New Zealand and adopted as AS/NZS ISO 19115:2005 Geographic information—Metadata.

Other geospatial communities have developed their own profiles based on ISO 19115, for example:

- INSPIRE Metadata Profile (**IN**frastructure for **SP**atial **I**nformation in **E**urope)
- North American Metadata Profile (Canada and USA)
- Latin American Metadata Profile (Latin American countries).

The ANZLIC Metadata Profile is basically the same as the parent standards above except that it changes the requirement for a fileIdentifier to be mandatory (it is optional in the national/international standard). This important change addresses the following implementation issues:

- to uniquely identify the metadata record (if there are many copies of this record then these copies can be identified using the fileIdentifier)
- to identify a child-parent relationship between metadata records using the parentIdentifier and fileIdentifier.

The ANZLIC Profile defines:

- mandatory and conditional metadata sections, metadata entities, and metadata elements (see the Appendix for a summary of metadata elements in the profile)
- the minimum set of metadata elements for any resource in order to conform to the Profile
- the core metadata for geographic datasets
- optional metadata elements that allow for a more extensive standard description of resources
- the option to extend the Profile to cater for specialised needs
- a data mapping to New Zealand Government Locator Service (NZGLS) metadata.

The ANZLIC Metadata Profile V1.1 was published in August 2007¹. It is based on more recent ISO geospatial metadata standards than is the existing e-GIF geospatial metadata standard – NZGMS.

In contrast with the status of NZGMS, the ANZLIC Metadata Profile is accompanied by an XML encoding schema that is based on national / international standards. This can be used to validate metadata records to test for conformance.

A suite of products, including Guidelines and a freely available Metadata Entry Tool (ANZMet Lite), have also been developed to complement the ANZLIC Metadata Profile and enable the creation and maintenance of metadata records consistent with the Profile. These products are available for download and more details are provided in Section 4 on implementation.

¹ A copy of the ANZLIC Metadata Profile V1.1 and Guidelines can be downloaded from the following link <http://www.osdm.gov.au/Metadata/ANZLIC+metadata+resources/default.aspx> (Guidelines includes metadata examples in Section 7 and data mapping to NZGLS in Section 10)

2. The business need

Adoption of the ANZLIC metadata profile will help promote interoperability between users of geospatial information in New Zealand. Implementation of the profile will give business benefits that will:

- Provide data producers with appropriate information to consistently record the characteristics of their resources
- Enable the organisation and management of metadata
- Enable users to apply geospatial data in the most effective way by knowing their basic characteristics and assessing whether a resource is suitable for their intended purpose
- Enable and encourage data discovery, retrieval and re-use and thereby improve the return on investment in geospatial information resources (the report *Spatial Information in the New Zealand economy: Realising Productivity Gains* identified metadata as a necessary component to facilitate such productivity gains)
- Provide a best practice e-GIF metadata standard for geospatial information.

More widespread creation of standardised geospatial metadata using the ANZLIC profile will also align well with:

- The New Zealand Geospatial strategy which has identified standardised metadata as a requirement to help achieve the strategy goals of improved access and interoperability (in the context of spatial data infrastructure and data catalogue initiatives endorsed by the Geospatial Executives' Group)
- Recent ICT Ministerial Group directives regarding Open Government Information and Data Re-use
- The Digital New Zealand strategy goal to increase access to, and use of, the country's digital assets.

Widespread use of the profile will not only facilitate interoperability within and between New Zealand agencies and jurisdictions, but also within the region and internationally, by providing a consistent basis for communicating information about resources. It is important to note that, while primarily used to describe digital geographic data, the profile is not restricted to only describing such resources. Other resources that can be described include maps charts, textual documents and non-geographic resources.

3. Experience to date with the ANZLIC Metadata Profile

This section gives information about experience to date in New Zealand and Australia regarding use of the ANZLIC Metadata Profile.

3.1 New Zealand

Implementation to date among government agencies has been minimal which can be largely attributed to a lack of:

- commonly available and appropriate metadata entry tools
- guidance resources
- clear direction regarding a metadata profile aligned with recent international geospatial metadata developments.

Work has and is being done to deal with the three concerns above. Firstly a number of metadata entry tools which use the ANZLIC metadata profile are now available or becoming available:

- in mid 2009, the ANZLIC Spatial Resource Discovery & Access Program launched a free and simple standalone metadata entry tool – ANZMet Lite for specific use with the ANZLIC profile
- in December 2009, the latest version of the BlueNet Metadata Entry and Search Tool (MEST) became available based on GeoNetwork 2.4 with an implementation of the ANZLIC profile
- Eagle Technology, the New Zealand Distributor for ESRI GIS software which is widely used in New Zealand, is at present implementing the ANZLIC profile within the GeoPortal extension of ArcGIS Server Version 9.4 beta which is due to be released as Version 10 in the coming months.

Secondly – a number of guidance resources for the ANZLIC metadata profile have been developed for the ANZLIC Spatial Resource Discovery & Access Program and are available online (see section 4 on implementation).

Thirdly, the Geospatial Executives' Group has signalled a clear direction by endorsing the work associated with processing the ANZLIC metadata profile proposal through e-GIF - this Request for Comment document is a part of that process.

Given the above work (and recent work on spatial data infrastructure and data catalogue initiatives) a number of agencies have indicated that they will start using the ANZLIC profile in the near future. Some agencies are reluctant to start using the ANZLIC profile until it is endorsed as an e-GIF standard. Agencies with existing metadata can adopt the ANZLIC profile as they update their metadata records under regular maintenance processes.

Given that the use of the ANZLIC metadata profile is not yet well established in public sector ICT systems (which is a condition for an e-GIF standard to have 'Adopted' or mandatory status), the proposal is that the profile have 'Recommended' e-GIF status. There are yearly reviews of e-GIF standards which provide an opportunity to move from Recommended to Adopted status.

3.2 Australia

The use of the ANZLIC Metadata Profile V1.1 is more widespread in Australia than in New Zealand. A major reason is likely to be that the Spatial Data Management Group endorsed the adoption of the profile for use by Australian Government agencies in November 2007. It replaced the previous Australian Government Metadata Profile (December 2004).

The ANZLIC Metadata Profile has been endorsed subsequently by the Western Australian Land Information System (WALIS) and by New South Wales for its Common Spatial Information Initiative (CS2i).

Australian agencies which use the profile include:

- Geoscience Australia
- Bureau of Meteorology
- Bureau of Rural Sciences
- Department of Sustainability & Environment, Victoria
- Australian Institute of Marine Science
- Commonwealth Scientific & Industrial Research Organisation
- Department of the Environment, Water, Heritage and the Arts
- Royal Australia Navy – Meteorological & Oceanographic Force Element Group
- Department of Environment and Resource Management, Queensland.

4. Resources and support to help implement the ANZLIC Metadata Profile

Both ANZLIC and Land Information New Zealand are committed to providing guidance resources and ongoing support for the ANZLIC Metadata Profile.

The ANZLIC Spatial Resources Discovery and Access Toolkit ('ANZMet Toolkit') has been developed to support the implementation of the ANZLIC Metadata Profile.² The ANZMet Toolkit comprises a suite of resources that support the creation and publication of ANZLIC-compliant metadata, including:

- ANZLIC Metadata Profile Short User Guide
- ANZMet Lite Tool (including Quickstart & Short User Manual)
- Instructions on how to publish metadata (work is underway related to a New Zealand geospatial data catalogue)
- Educational Resources Library.

In August 2009, three metadata workshops were held in Wellington, Christchurch and Auckland under the auspices of ANZLIC and coordinated by LINZ. The workshops introduced the guidance resources above including the ANZMet Lite Tool. The Wellington workshop was oversubscribed and requests have been received to run similar workshops in other regions.

Subsequent to the August 2009 workshops, LINZ has been providing ongoing support through its 0800 number (0800 665 463) for the ANZMet Lite Tool and for the ANZLIC Metadata Profile. LINZ also spoke on geospatial metadata at the 2009 ESRI Users Group and MapInfo Users Group conferences in Wellington in November 2009.

Land Information New Zealand has a representative on ANZLIC's Spatial Resources Discovery and Access Program Steering Committee, which oversaw the development of the resources above. The Steering Committee will continue to monitor ISO geospatial metadata standards developments and update the ANZLIC Metadata profile where appropriate.

In addition, LINZ has committed to establish a new staff resource in the NZ Geospatial Office dedicated to the coordination of activities related to geospatial standards. Taken together, the above ongoing resourcing and support commitments from ANZLIC and LINZ and the positive cross-sector feedback from the August 2009 workshops should provide assurance that the ANZLIC metadata profile will be implemented widely.

² The ANZMet Toolkit guidance resources as well as the ANZMet Lite Tool can be downloaded from [http://www.osdm.gov.au/Metadata/ANZLIC+metadata+resources/ANZMet+Toolkit+\(final+draft+-+07.2009\)/default.aspx](http://www.osdm.gov.au/Metadata/ANZLIC+metadata+resources/ANZMet+Toolkit+(final+draft+-+07.2009)/default.aspx)

5. Risks and Issues

The following are seen as risks, although low, to acceptance of the proposal to replace the existing e-GIF geospatial metadata standard (NZGMS) with the ANZLIC Metadata Profile V1.1:

- Lack of support from users and potential users for the proposal – low risk as feedback from the August 2009 metadata workshop attendees (cross-section of central and local government, CRI and private sector) and ongoing liaison with government agencies is very positive in terms of widespread acceptance and use of the ANZLIC metadata profile.
- Lack of user support from LINZ – low risk as there is already a high level of LINZ commitment to provide user support for the ANZLIC profile as well as to provide ongoing representation on the ANZLIC Spatial Resource Discovery & Access Steering Committee and to provide a dedicated staff resource to coordinate geospatial standards activities more generally.

6. Recommendations

LINZ will be recommending that the State Services Commission:

1. **note** that the existing e-GIF geospatial metadata standard (NZ Geospatial Metadata Standard) which has Recommended Status has not been implemented widely and is out of date with more recent ISO geospatial metadata developments
2. **note** that a number of agencies have indicated that they will start using the ANZLIC Metadata Profile V1.1 in the near future
3. **note** that the ANZLIC Metadata Profile is in alignment with more recent ISO geospatial metadata developments
4. **note** that LINZ and ANZLIC are committed to providing ongoing user support for the ANZLIC Metadata Profile
5. **approve** the deprecation status for the existing e-GIF geospatial metadata standard
6. **approve** the inclusion into the e-GIF; the ANZLIC Metadata Profile V1.1 with Recommended Status.

7. References

ANZLIC Metadata Profile V1.1 and Guidance Resources

<http://www.osdm.gov.au/Metadata/default.aspx>

BlueNET Metadata Entry and Search Tool (MEST) software: a branch of GeoNetwork

<http://anzlicmet.bluenet.utas.edu.au/>

E-Government Interoperability Framework

<http://www.e.govt.nz/standards/e-gif>

E-GIF Geospatial Information Standards

<http://www.e.govt.nz/standards/e-gif/geospatial-information>

Existing e-GIF NZ Geospatial Metadata Standard

<http://www.linz.govt.nz/about-linz/news-publications-and-consultations/consultation-projects-and-reviews/nzgms/index.aspx>

New Zealand Geospatial Strategy

<http://www.geospatial.govt.nz/geospatial-strategy/>

Spatial Information in the New Zealand economy: Realising Productivity Gains

<http://www.geospatial.govt.nz/productivityreport/>

Standards Guide ISO/TC 211 Geographic Information/Geomatics, June 2009

http://www.isotc211.org/Outreach/ISO_TC%20_211_Standards_Guide.pdf

8. Appendix – ANZLIC metadata elements³

Table 1: List of ANZLIC metadata elements for geographic datasets and other resources: definitions, conditions of use and data collection methods.

NAME	DEFINITION	ANZLIC OBLIGATION		ANZMet file DATA COLLECTION METHOD
		Dataset	Other resources	
Metadata File Identifier (2)	unique identifier for this metadata file	Mandatory	Mandatory	Automated – automatically generated
Metadata File Parent Identifier (5)	file identifier of the metadata to which this metadata is a subset (child)	Conditional	Conditional	Automated – automatically generated
Metadata Point of Contact (8)	party responsible for the metadata information	Mandatory	Mandatory	N/A
Metadata Contact Role (379)	function performed by the responsible party	Mandatory	Mandatory	Automated – preset value ^A (default value = point of contact)
AND at least one of:				otherwise Manual – select from list
Metadata Contact Individual Name (375)	name of the responsible person, organisation and/or position	Conditional	Conditional	Automated – preset value ^A
Metadata Contact Organisation (376)				
Metadata Contact Position (377)				
Metadata Hierarchy Level (6)	scope to which the metadata applies (options = entities, attributes, collections/baselines, collections/dates, series, nonGeographicBaselines, dimensions/shape, leaves, hierarchical, property/type, leaf/series, software, sensors, model, file, modification, document/metadata, data/proprietary, coded/it, project)	Optional	Mandatory	Automated – preset value (assumed value = dataset)
Metadata Hierarchy Level Name (7)	name of the hierarchy levels for which the metadata is provided	Optional	Mandatory	otherwise Manual – select from list
Metadata Standard Name (10)	name of the metadata standard (including profile name) used	Optional ^B	Optional	Automated – preset value [value = ANZLIC Metadata Profile: An Australian/New Zealand Profile of AS/NZS ISO 19115:2005, Geographic Information - Metadata]
Metadata Standard Version (11)	version of the metadata standard (version of the profile) used	Optional ^B	Optional	Automated – preset value [value = 1.1]
Metadata Date Stamp (9)	date that the metadata was created	Mandatory	Mandatory	Automated – automatically generated
Metadata Language (3)	language used for documenting metadata	Conditional	Conditional	Automated – preset value [*] (default value = English)
Metadata Character Set (4)	full name of the character coding standard used for the metadata set	Conditional	Conditional	otherwise Manual – select from list
Title (360)	name by which the cited resource is known	Mandatory	Mandatory	Automated – preset value [*] (default value = ISO/IEC 10646-1)
Abstract (25)	brief narrative summary of the content of the resource(s)	Mandatory	Mandatory	Manual – keyboard entry
Reference Date (394)	reference date for the cited resource	Mandatory	Mandatory	Manual – keyboard entry Manual – select from list (for month & day)
Reference Date Type (395)	event used for the reference date (options: creation, publication, revision)	Mandatory	Mandatory	Manual – select from list
Language (39)	language(s) used within the resource	Mandatory	Mandatory	Manual – select from list
Topic Category (41)	main theme(s) of the dataset (options: farming, boats, boundaries, climatology / meteorology / atmosphere, economy, elevation, environment, geoscientific information, health, imagery / home maps / north coast, intelligence / military, inland waters, location, oceans, planning / cadastre, society, transportation, utilities / communication)	Mandatory	Mandatory	Automated – preset value [*] (default value = English)
Geographic Location – Coordinates (343)	geographic position of the dataset as defined by the westernmost, easternmost, southernmost and northernmost coordinates (expressed in decimal degrees) of the limit of the dataset extent, i.e. the geographic bounding box NOTE: This is only an approximate reference as specifying the coordinate reference system is unnecessary	Conditional	Optional	Manual – keyboard entry ^{**}
• West Longitude (344)				
• East Longitude (345)				
• South Latitude (346)				
• North Latitude (347)				
AND / OR				
Geographic Location – Description (349)	identifier used to represent a geographic area	Conditional	Optional	Manual – select from list

³ see following link to print ANZLIC metadata elements table at A3 size -

[http://www.osdm.gov.au/Metadata/ANZLIC+metadata+resources/ANZMet+Toolkit+\(final+draft+-+07.2009\)/09_ANZLIC_MetaProfile_Short\[table\].pdf/?id=1003](http://www.osdm.gov.au/Metadata/ANZLIC+metadata+resources/ANZMet+Toolkit+(final+draft+-+07.2009)/09_ANZLIC_MetaProfile_Short[table].pdf/?id=1003)

RESOURCE INFORMATION	NAME	DEFINITION	ANZIC OBLIGATION		ANZMet Lite DATA COLLECTION METHOD
			Datasets	Other resources	
RESOURCE INFORMATION	Resource Point of Contact (B) • Resource Contact Role (379) AND at least one of: • Resource Contact Individual Name (375) • Resource Contact Organisation (376) • Resource Contact Position (377)	identification of, and means of communication with, person(s) and organisations associated with the resource function performed by the responsible party	Mandatory Mandatory	Mandatory Mandatory	N/A Automated – preset value ^A
	Spatial Representation Type (37) Spatial Resolution of Dataset (59) • distance (61) CR • equivalent scale (60)	method used to spatially represent geographic information, e.g. vector level of detail expressed as a ground distance (preferred) or an equivalent scale (if a comparable hardcopy map or chart).	Optional ^B Optional ^B	Optional Optional	Manual – select from list Manual – keyboard entry
	Lineage (83) Reference System (187) Character Set (40)	general explanation of the data producer's knowledge about the lineage for history) of the resource name of reference system full name of the character coding standard used for the resource	Optional ^B Optional ^B Conditional	Optional Optional Conditional	Manual – keyboard entry Manual – select from list Automated – preset value ^A (default value = ISO/IEC 10646-1)
	Temporal Extent (351) Vertical Extent (354) • Minimum Value (355) • Maximum Value (356)	time period covered by the content of the resource vertical domain of resource, expressed as a minimum (or lowest vertical extent) and maximum (or highest vertical extent) value	Optional ^B Optional ^B	Optional Optional	Manual – keyboard entry Manual – keyboard entry
	Distribution Format (284) • Name (285) • Version (286)	provides a description of the format of the resource to be distributed	Optional ^B	Optional	Manual – keyboard entry
	Online Resource (397)	location (address) for online access using a Uniform Resource Locator (URL) or similar addressing scheme	Optional ^B	Optional	Manual – keyboard entry

The basic ANZIC metadata collection tool (ANZMet Lite) also supports some elements additional to those recommended by ANZIC (Refer to Table 2).

Table 2: List of Additional Elements supported by the ANZMet Lite

ADDITIONAL OPTIONS	NAME	DEFINITION	ANZIC OBLIGATION		ANZMet Lite DATA COLLECTION METHOD
			Datasets	Other resources	
ADDITIONAL OPTIONS	Alternate Title (361)	short name or other language name by which the cited information is known	Optional	Optional	Manual – keyboard entry
	Keywords (53)	commonly used word(s) or (sometimes) word(s) used to describe the subject	Optional	Optional	Manual – keyboard entry (or select from list)
	Date of Next Update (144)	scheduled revision date for resource	Optional	Optional	Manual – keyboard entry (or year) Manual – select from list (or month & day)
	Maintenance Frequency (143)	frequency with which changes and additions are made to the resource after the initial resource is completed	Optional	Optional	Manual – select from a list
	Status (28)	status of the resource(s)	Optional	Optional	Manual – select from list
	Use limitation (68)	limitation affecting the fitness for use of the resource e.g. "not to be used for navigation"	Optional	Optional	Manual – keyboard entry
	Classification (74)	name of the handling restrictions on the resource or metadata	Optional	Optional	Manual – select from list
	Legal Restrictions (69) • Access (70) • Use (71)	access and use constraints applied to assure the protection of privacy or intellectual property, and any special restrictions or limitations or warnings on using the resource or metadata e.g. licence	Optional Optional Optional	Optional Optional Optional	Manual – select from list Manual – select from lists

^A Default values are preset in the ANZMet Lite metadata collection tool

^B Values (such as contact information) can be manually documented once and then saved for future retrieval and reuse

^C ANZIC recommends that these optional elements be documented

Errors flagged *** can be set in the configuration file of the metadata collection tool or manually entered once and saved for future retrieval and use.

Errors flagged ** can be derived from a dataset if one is selected when the metadata collection tool is initiated.

These tables were created for use with the ANZMet Lite v1.0 in 2009.
For further information contact info@austrac.gov.au