



Australian Government

Department of the Environment and Water Resources

A DEW ISO Metadata Example

DEW spatial metadata now conforms to a profile based on ISO19115. There is a separate document describing the XML that makes up that profile, and explaining the use of the individual elements (DEW ISO Metadata Profile.doc).

This document contains an example of the information in a DEW metadata statement, presented as a table with two columns. Rows in the table contain pieces of information which logically belong together (such as the point of contact, abstract): I am calling it a group (which IS NOT an ISO term). The table contains two columns: the left-hand column shows the contents of a group of metadata elements; the right-hand column explains details about the group and the elements in it. Elements are what ISO calls the individual pieces of information.

The convention used in the main table is simple: black text is just description or explanation; **bold blue** text is information which you can change; **bold red** text will almost certainly need to be changed for a particular data set.

ISO uses a lot of pick-lists to set element values (rather than free text). In most cases, the pick-list options are included at the relevant spot in the left-hand column. However, ANZLIC keywords and qualifiers are in Tables 1 and 2, because the list is very long. Table 3 shows the current set of metadata contact positions and emails in ERIN. Table 4 contains the ISO categories, with explanation of the category meanings so that you can select the appropriate category.

Example	Explanation
<p>Point of Contact information Organisation: Australian Government Department of the Environment and Water Resources Position: Parks Data Manager Phone number: (02) 6274 1111 Fax number: (02) 6274 1333 Address: GPO Box 787 CANBERRA ACT 2601 Australia</p> <p>Email: parks.metadata@environment.gov.au</p> <p>URL: http://www.environment.gov.au</p>	<p><u>Data and metadata point of contact</u> No individual's name or contact information appears We have nominated DEW as contact organization name</p> <p>This is a data custodian position in DEW (see Table 3) Phone number is DEW switch Fax is ERIN fax Address delivery point is PO Box 787 Address city is Canberra Address state is ACT Address postcode is 2601 Address country is Australia</p> <p>Address email is data/metadata custodian in DEW (Table 3)</p> <p>URL is DEW</p>
<p>Abstract: Abstract text which describes the content of the data set</p>	<p><u>Summary of the data content (abstract)</u> This is free text</p>
<p>Pick one of the following:</p> <p>completed historicalArchive obsolete ongoing planned required underDevelopment</p>	<p><u>Status of the data</u></p>

Example	Explanation
Pick one of the following: continual daily weekly fortnightly monthly quarterly biannually annually asNeeded irregular notPlanned unknown	<u>Data maintenance frequency</u>
For example: Data are available for use within the Australian Government - Department of the Environment and Water Resources. Must not distribute data to a third party. Data are not be sold or commercialised.	<u>Access Restrictions</u>
For example: Not suitable for use below scales of 1:100,000	<u>Data set limitations</u>
Pick one of: vector (points, lines or regions) raster (images or photographs) table (text)	<u>Data representation</u>
For example Western longitude: 107 Eastern longitude: 160 Southern latitude: -45 Northern latitude: -8	<u>Bounding box of data in decimal degrees</u> (Minimum longitude, Maximum longitude, Minimum latitude, Maximum latitude) For tabular (non-spatial) data, provide a bounding box that encompasses the whole of Australia, or the region within Australia that the data describes.

EXAMPLE	EXPLANATION
<p>One of:</p> <ul style="list-style-type: none"> ArcInfo Coverage AutoCAD Drawing Exchange Format AutoCAD Drawing File Book dBASE Table Excel spreadsheet Info Table Layer Map Oracle database Personal GeoDatabase Feature Class Personal GeoDatabase Feature Dataset Personal GeoDatabase Raster Catalog Personal Geodatabase Survey Dataset Personal Geodatabase Table Postscript file Raster Dataset SDE Feature Class SDE Raster Catalog SDE Raster Dataset SDE Table Shapefile Text File Tin 	<p><u>Dataset stored format.</u></p>
<p>Title: Data set title</p>	<p><u>Descriptive title of data set (free text)</u></p>

Organisation: **Geoscience Australia (GA)**
Position: **Leader Sales and Distribution CIMA**
Phone number: **(02) 6249 9966**
Fax number: **(02) 6249 9960**

Address: **GPO Box 378**
Symonston
ACT
2609
Australia

Email: sales@ga.gov.au

URL: <http://www.ga.gov.au>

Organisation: **Australian Government Department of the Environment and Water Resources**

Position: **Parks Data Manager**

Phone number: **(02) 6274 1111**

Fax number: **(02) 6274 1333**

Address: **GPO Box 787**

CANBERRA

ACT

2601

Australia

Email: parks.metadata@environment.gov.au

URL: <http://www.environment.gov.au>

Custodian No individual's name or contact information appears

This is an external custodian, for data we purchase

Name of custodian organization

Contact position in custodian organization

Phone number in custodian organization

Fax number in custodian organization

Address delivery point for custodian organization

Address city for custodian organization

Address state for custodian organization

Address postcode for custodian organization

Address country for custodian organization

Address email in custodian organization

URL for custodian organization

OR

This is an internal custodian, for data created by the department

We have nominated DEW as custodian organization name

This is a data custodian position in DEW (See Table 3)

Phone number is DEW switch

Fax is ERIN fax

Address delivery point is PO Box 787

Address city is Canberra

Address state is ACT

Address postcode is 2601

Address country is Australia

Address email is data/metadata custodian in DEW (Table 3)

URL is DEW

EXAMPLE	EXPLANATION
<p>Organisation: Australian Government Department of the Environment and Water Resources</p> <p>Position: Metadata Publisher</p> <p>Phone no: (02) 6274 1111 Fax no: (02) 6274 1333</p> <p>Address: GPO Box 787 CANBERRA ACT 2601 Australia</p> <p>Email: metadata@environment.gov.au</p> <p>URL: http://www.environment.gov.au/</p>	<p><u>Metadata Publisher</u> We have nominated DEW as publisher organization name You only need a publisher if you intend to publish the metadata to a metadata server</p> <p>Position is the ERIN data/ metadata manager</p> <p>Phone number is DEW switch Fax is ERIN fax</p> <p>Address delivery point is PO Box 787 Address city is CANBERRA Address state is ACT Address postcode is 2601 Address country is Australia</p> <p>Address email is ERIN data/metadata manager</p> <p>DEW URL</p>
<p>Any keyword and (optionally) any qualifier from Tables 1 and 2</p>	<p><u>ANZLIC keywords</u></p> <p>You may have as many as you like</p>
<p>Data scale: 1:1,000,000</p> <p>Resolution: 300 metres</p>	<p>Dataset scale</p> <p>Or resolution</p> <p>If the data is vector, use scale. If the scale of the data is variable, cannot be determined or does not apply (in the case of non-spatial data), enter 0 for the denominator.</p> <p>If the data is raster use resolution, and supply the pixel or cell size in metres. If your data's cell size is specified in units other than metres, eg degrees convert to a nominal equivalent in metres.</p>

<p>One of:</p> <p>farming biota boundaries climatologyMeteorologyAtmosphere economy elevation environment geoscientificInformation health imageryBaseMapsEarthCover intelligenceMilitary inlandWaters location oceans planningCadastre society structure transportation utilitiesCommunication</p>	<p><u>ISO topic category</u>. See Table 4 for explanation</p>
<p>One of:</p> <p>not to be published to be published internally to be published externally</p>	<p><u>Metadata publication status</u></p> <p>Metadata describing data can only be seen by people who can see the data Metadata can be seen inside DEW Metadata can be seen inside DEW, via the internet and from Green Pages</p>
<p>For example: WGS 84 or AGD66</p>	<p><u>Spatial Reference System</u> of the data DEW corporate data is generally WGS 84 or GDA 94 Consult with ERIN if you don't understand this Not required for non-spatial data</p>
<p>Lineage statement: Dataset history statement</p>	<p><u>Lineage statement</u>. Free text describing how the dataset was constructed</p>

EXAMPLE	EXPLANATION
<p>For example: CSIRO Division of Wildlife and Ecology</p>	<p><u>Data source acknowledgements.</u> These are NOT mandatory. You may have any number of acknowledgements.</p>
<p>Statement Example: The polygon data around the coastal strip are spatially correct and consistent at 1:1 million scale.</p>	<p><u>Positional accuracy</u> Should contain a brief assessment of the positional accuracy of your data, ie. an assessment of how close the spatial coordinates of the data are to the coordinates of what they are representing on the ground. Not required for non-spatial data.</p>
<p>Statement Example: Attributes are assumed to be correct, and attributes in each of the coverages are: Record, Area (for polygon coverage), Perimeter, ID.</p>	<p><u>Attribute accuracy.</u> Should contain a brief assessment of the attribute accuracy of your data, ie. how reliable the attribute values of the data are compared to what they represent in the real world. This could mean an estimate of the number of attribute values that are correct, or if the values have been simplified by classification, what methodology was used.</p> <p>If possible, you should list the data's attributes and give a brief accuracy description of each.</p>
<p>Statement Example: One attribute is mapped per coverage. Coverages are topologically consistent. No particular tests conducted by ERIN.</p>	<p><u>Logical consistency.</u> Should contain a brief assessment of the internal consistency of the data. This includes issues such as whether the data has been topologically structured or not, and whether internal checks have been made on the data and its attributes during development. It may be necessary to make an intuitive assessment of the logical consistency of your data. If so, you should note this in the documentation.</p>
<p>Statement Example: Complete for the Australian continent.</p>	<p><u>Completeness.</u> Should contain a brief assessment of the completeness of the data. This should cover completeness in terms of the data's coverage, classification and verification. For example: the data in its current form may only cover three-quarters of its intended spatial coverage, of which only one half has full attribution, and that the dataset overall still requires further testing to be considered complete.</p>

EXAMPLE	EXPLANATION
<p>One or more of:</p> <ul style="list-style-type: none"> ArcInfo export file ArcView shapefile ArcGIS personal geodatabase ArcInfo ASCII grid ArcSDE export file ERDAS Imagine ERS Excel spreadsheet JPEG Text file TIFF Book 	<p>Data distribution format(s). You may have multiple formats. This is the format that you would supply to people if you gave them copies of your data.</p> <p>If you use other formats, contact ERIN.</p>
<p>Example locations of data:</p> <ul style="list-style-type: none"> Q:\bio_port\nvis\data\nvis_act.shp BIO.NVIS_EXTANT Q:\bio_port\nvis\export\nvis_act.zip 	<p>Is the data on the file system? If so, where is the file?</p> <p>Is the data in SDE? If so, what is it called?</p> <p>Do you supply zip files for people to download? If so, where is the zip file(s)?</p>

Table 1 ANZLIC Keywords

AGRICULTURE	ECOLOGY	FORESTS	HUMAN ENVIRONMENT
AGRICULTURE Crops	ECOLOGY Community	FORESTS Agriforestry	HUMAN ENVIRONMENT Economics
AGRICULTURE Horticulture	ECOLOGY Ecosystem	FORESTS Natural	HUMAN ENVIRONMENT Housing
AGRICULTURE Irrigation	ECOLOGY Habitat	FORESTS Plantation	HUMAN ENVIRONMENT Livability
AGRICULTURE Livestock	ECOLOGY Landscape	GEOSCIENCES	HUMAN ENVIRONMENT Planning
ATMOSPHERE	ENERGY	GEOSCIENCES Geochemistry	HUMAN ENVIRONMENT Structures and Facilities
ATMOSPHERE Air Quality	ENERGY Coal	GEOSCIENCES Geology	HUMAN ENVIRONMENT Urban Design
ATMOSPHERE Greenhouse	ENERGY Electricity	GEOSCIENCES Geomorphology	INDUSTRY
ATMOSPHERE Ozone	ENERGY Petroleum	GEOSCIENCES Geophysics	INDUSTRY Manufacturing
ATMOSPHERE Pressure	ENERGY Renewable	GEOSCIENCES Hydrogeology	INDUSTRY Mining
BOUNDARIES	ENERGY Use	HAZARDS	INDUSTRY Other
BOUNDARIES Administrative	FAUNA	HAZARDS Cyclones	INDUSTRY Primary
BOUNDARIES Biophysical	FAUNA Exotic	HAZARDS Drought	INDUSTRY Service
BOUNDARIES Cultural	FAUNA Insects	HAZARDS Earthquake	LAND
CLIMATE AND WEATHER	FAUNA Invertebrate	HAZARDS Fire	LAND Cadastre
CLIMATE AND WEATHER Climate change	FAUNA Native	HAZARDS Flood	LAND Cover
CLIMATE AND WEATHER Drought	FAUNA Vertebrates	HAZARDS Landslip	LAND Geodesy
CLIMATE AND WEATHER El Nino	FISHERIES	HAZARDS Manmade	LAND Geography
CLIMATE AND WEATHER Extreme weather events	FISHERIES Aquaculture	HAZARDS Pests	LAND Ownership
CLIMATE AND WEATHER Meteorology	FISHERIES Freshwater	HAZARDS Severe local storms	LAND Topography
CLIMATE AND WEATHER Radiation	FISHERIES Marine	HAZARDS Tsunamis	LAND Use
CLIMATE AND WEATHER Rainfall	FISHERIES Recreational	HEALTH	LAND Valuation
CLIMATE AND WEATHER Temperature	FLORA	HERITAGE	MARINE
DEMOGRAPHY	FLORA Exotic	HERITAGE Aboriginal	MARINE Biology
DISEASE	FLORA Native	HERITAGE Architectural	MARINE Coasts
		HERITAGE Natural	MARINE Estuaries
		HERITAGE World	MARINE Geology and Geophysics

MARINE Human Impacts	POLLUTION	UTILITIES	WATER Hydrology
MARINE Meteorology	POLLUTION Air	VEGETATION	WATER Lakes
MARINE Reefs	POLLUTION Noise	VEGETATION Floristic	WATER Quality
MINERALS	POLLUTION Soil	VEGETATION Structural	WATER Rivers
MOLECULAR BIOLOGY	POLLUTION Water	WASTE	WATER Salinity
MOLECULAR BIOLOGY Genetics	SOIL	WASTE Greenhouse gas	WATER Supply
OCEANOGRAPHY	SOIL Biology	WASTE Heat	WATER Surface
OCEANOGRAPHY Chemical	SOIL Chemistry	WASTE Liquid	WATER Wetlands
OCEANOGRAPHY Physical	SOIL Erosion	WASTE Sewage	
PHOTOGRAPHY AND IMAGERY	SOIL Physics	WASTE Solid	
PHOTOGRAPHY AND IMAGERY Aerial	TRANSPORTATION	WASTE Toxic	
PHOTOGRAPHY AND IMAGERY Remote Sensing	TRANSPORTATION Air	WATER	
PHOTOGRAPHY AND IMAGERY Satellite	TRANSPORTATION Land	WATER Groundwater	
	TRANSPORTATION Marine	WATER Hydrochemistry	

Table 2 ANZLIC Qualifiers

Biodiversity	Production
Classification	Reference
Conservation	Reports
Distribution	Research
Exploration	Reserve
Indicators	Resources
Inventory	Statistics
Management	Surveys
Mapping	Sustainability
Maps	
Models	
Monitoring	
Networks	
Planning	

Table 3 Current Data/Metadata Points of Contact

Position	email
Data Manager	metadata@environment.gov.au
AWD Data Manager	awd.metadata@environment.gov.au
Heritage Data Manager	heritage.metadata@environment.gov.au
Industry Data Manager	industry.metadata@environment.gov.au
LandWater Data Manager	landwater.metadata@environment.gov.au
Marine Data Manager	marine.metadata@environment.gov.au
NPI Data Manager	npi.metadata@environment.gov.au
NRM Programs Data Manager	nrmprograms.metadata@environment.gov.au
Parks Data Manager	parks.metadata@environment.gov.au
Satellite Imagery Data Manager	satellite.metadata@environment.gov.au
Species Data Manager	species.metadata@environment.gov.au
Vegetation Data Manager	vegetation.metadata@environment.gov.au

Table 4 Explanation of ISO Data Categories

ISO CATEGORY	EXPLANATION
farming	<p>Rearing of animals and/or cultivation of plants.</p> <p>Examples: agriculture, irrigation, aquaculture, plantations, herding, pests & diseases affecting crops or livestock</p>
biota	<p>Flora and/or fauna in natural environment.</p> <p>Examples: wildlife, vegetation, biological sciences, ecology, wilderness, sealife, wetlands, habitat</p>
boundaries	<p>Legal land descriptions.</p> <p>Examples: political and administrative boundaries</p>
climatologyMeteorologyAtmosphere	<p>Processes and phenomena of the atmosphere.</p> <p>Examples: cloud cover, weather, climate, atmospheric conditions, climate change, precipitation</p>
economy	<p>Economic activities, conditions and employment.</p> <p>Examples: production, labour, revenue, commerce, industry, forestry, fisheries, commercial hunting</p>
elevation	<p>Height above or below sea level.</p> <p>Examples: altitude, bathymetry, digital elevation models, slope, derived products</p>
environment	<p>Environmental resources, protection and conservation.</p> <p>Examples: env pollution, waste storage and treatment, env impact assessment, monitoring env risk, nature reserves</p>

geoscientificInformation	<p>Information pertaining to earth sciences.</p> <p>Examples: geophysics, geology, minerals, rocks, earthquakes, volcanic activity, landslides, gravity, soils, permafrost, hydrogeology, erosion</p>
health	<p>Health, health services, human ecology, and safety.</p> <p>Examples: disease & illness, factors affecting health, hygiene, substance abuse, mental & physical health, services</p>
imageryBaseMapsEarthCover	<p>Base maps.</p> <p>Examples: land cover, topographic maps, imagery, unclassified images, annotations</p>
intelligenceMilitary	<p>Military bases, structure, activities.</p> <p>Examples: barracks, training grounds, military transportation, information collection</p>
inlandWaters	<p>Inland water features, drainage systems and their characteristics.</p> <p>Examples: rivers & glaciers, salt lakes, water utilisation plans, dams, currents, floods, water quality, hydrographic charts</p>
location	<p>Positional information and services.</p> <p>Examples: addresses, geodetic networks, control points, postal zones, and services, place names</p>
oceans	<p>Features and characteristics of salt water bodies (excluding inland waters).</p> <p>Examples: tides, tidal waves, coastal information, reefs</p>
planningCadastre	<p>Information used for appropriate action for future use of land.</p> <p>Examples: land use maps, zoning maps, cadastral surveys, land ownership</p>

society	<p>Characteristics of society and cultures.</p> <p>Examples: settlements, anthropology, archaeology, education, traditional beliefs, manners & customs, demography, recreation, social impact assessments, crime & justice, census</p>
structure	<p>Man-made construction.</p> <p>Examples: buildings, museums, churches, factories, housing, monuments, shops, towers</p>
transportation	<p>Means and aids for conveying persons and/or goods.</p> <p>Examples: roads, airports/airstrips, shipping routes, tunnels, nautical charts, vehicle or vessel location, aeronautical charts, railways</p>
utilitiesCommunication	<p>Energy, water and waste systems and communications infrastructure and services.</p> <p>Examples: hydro, geothermal, solar & nuclear sources of energy, water purification & distribution, sewage, electricity & gas distribution, data & telecommunication networks, radio</p>