

Implementation of ISO 19115 in Australia

Craig Macauley

ANZLIC, Australia

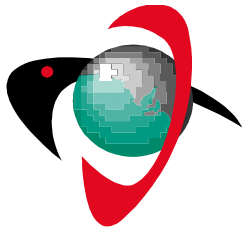
www.anzlic.org.au

Program

- South Australia's Spatial Information Integration Services (SIIS) Project
- Northern Territory's Distributed Environment for Metadata Management;
- ANZLIC Profile of ISO 19115.

Overview

- Two jurisdictions in Australia commenced design/development of SDI systems in 1998/99 - metadata used for discovery and access in both architectures.
- ISO/CD 19115.1, 19115.2 & 19115.3 used;
- Balance: benefit of adopting an international standard versus change management issues associated with using a standard that is still evolving.



1. Spatial Information Integration Services (SIIS)

Project Definition:

- *"To develop and implement a spatial information infrastructure for the South Australian Government and the broader community ... that will enable spatial information from any number of disparate data sets from State organisations to be integrated and delivered to users and business systems anywhere across the State."*



SIIS Key Components

1. Client Services

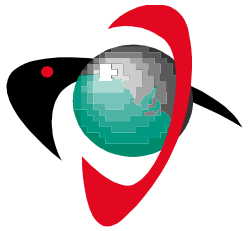
- Web Interface and Application Interfaces

2. Delivery Infrastructure Services

- Data Directory (ISO 19115)
- Data Access; Data Integration (ISO 19115)
- Security
- Accounting and e-Commerce

3. Data Set Services

- Format & Projection Conversion
- Data Set Interfaces

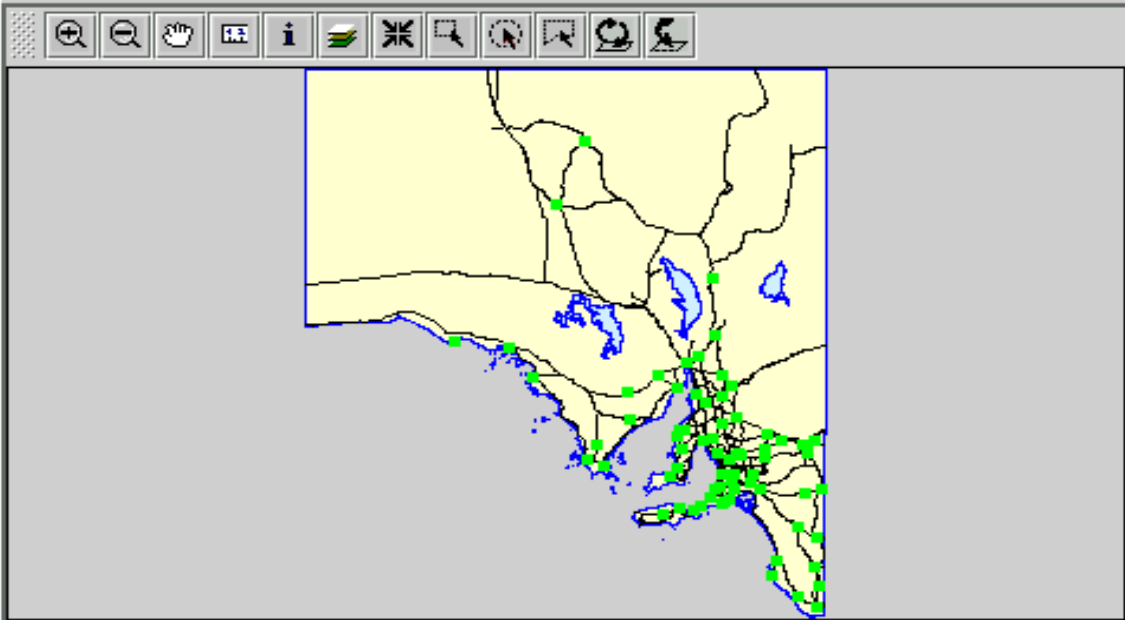


Use of ISO 19115 in SIIS

- SIIS - Discovery and Access to data
- ISO/CD 19115.2 (Nov'99) is basis of Directory Service which provides data discovery, access and integration;
- Upgrade to ISO/DIS 19115 is pending;
- ISO 19115 metadata elements chosen:
 - mandatory elements plus optional elements (total 40) based on mapping between ISO and ANZLIC.

Spatial Information Integration Services - Spatial Discovery

Execute Query Clear All Home Help



Field Search Keyword Search

Options Gazetteer Theme Search

Field Search Constraints

In this field	Find this text	Operators
Title	water	and
		and

Clear

X, Y: Scale: 2500000.0

Metadata List (30 records found)

- Water Catchment Boundaries
- Water Monitoring Stations
- Water Quality

> <

View Full Record

>> <<

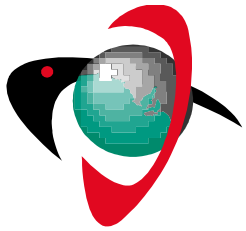
Query Basket

Save

Data Access

Water catchments are defined within this dataset as the geographical delineation of catchment areas. The linework within this layer defines the line separating the drainage patterns of adjacent rivers and stream networks.

Because of the complexity of the states drainage network it is possible to create an infinite number of catchments for each stream in South



SIIS: Current Status

- SIIS Discovery: now being implemented;
- SIIS Access: now being tested.
- For more information on SIIS, contact:
Ray Furness,
Manager, Major Projects, Spatial Program,
South Australian Department for
Administrative and Information Services
email: furness.ray@saugov.sa.gov.au



2. Distributed Environment for Metadata Management (DEMM)

Project Overview:

- NTSDI: Northern Territory Spatial Data Infrastructure.
- DEMM will become the core of the NTSDI Clearinghouse.
- Clearinghouse will provide discovery and access to data and services.

Key Features of DEMM

- XSL and XSLT to extract different metadata schemas (eg ANZLIC, Dublin Core/AGLS) from ISO 19115 compliant database.
- ISO architecture provides flexible approach to collection, storage and management of metadata.
- See NT Spatial Data Directory at:
<http://www.ntlis.nt.gov.au/servlet/NTSDD>



Use of ISO 19115 in DEMM

- More than 80% of ISO metadata elements used in DEMM;
- ISO/CD 19115.2 (Nov'99) used as basis for development;
- DEMM upgraded to ISO/CD 19115.3 (June'00);
- Soon to upgrade to ISO/DIS 19115.

Filter [] [OK] []

- Directory Items (288)
 - 10 METRE BATHOLITH LINE FOR NT COASTLINE
 - ABORIGINAL COMMUNITIES DATABASE
 - ABORIGINAL COMMUNITY POLICE OFFICERS OF THE N
 - ABORIGINAL CULTURAL SITES OF THE NORTHERN TE
 - ABORIGINAL LAND CLAIMS DATABASE
 - ABOVE AND BELOW GROUND BIOMASS FOR TROPICAL
 - ADELAIDE RIVER FLOOD MAPS
 - ADMINISTRATIVE REGIONS OF THE NORTHERN TERR
 - AERIAL PHOTOGRAPHY ARCHIVE OF THE NORTHERN
 - AERIAL SURVEY OF HORSES AND OTHER LARGE ANIM
 - AERIAL SURVEY OF HORSES AND OTHER LARGE ANIM
 - AERIAL SURVEY OF HORSES AND OTHER LARGE ANIM
 - AGSO - AIRBORNE MAGNETIC AND RADIOMETRIC SUR
 - AGSO - NT GEOLOGY
 - AIRFIELDS OF NT, HEADQUARTERS NORTHERN COMM
 - ALICE SPRINGS WATER CONTROL DISTRICT
 - ALLYOSYNCARPIA RAINFOREST AREAS OF THE NORT
 - AMADEUS BASIN TO DARWIN GAS PIPELINE**
 - AQUACULTURAL ACTIVITIES IN THE NORTHERN TERR
 - AQUACULTURE LICENCE APPROVED LOCATIONS 1998
 - AUGUST GEODATA P...

Directory Items

Reports

Administration

Directory Item Polygon

Tools Info

Navigate [] []

Select [] []

Info [] []

View [] []

Clear [] []

Metadata [] []

Close

Dataset Title

Custodian

Jurisdiction

ANZLIC ID Metadata Date

Quality Contacts Online Linkage

Abstract and Search Words Access Currency and Status Page 1 Details

Abstract

Location of the pipe carrying gas from the gas fields of the Amadeus Basin to the power stations in Darwin, Katherine and Tennant Creek.

Search

Search Words	Qualifier
<input type="checkbox"/> ENERGY	<input type="text" value="Production"/>
<input type="checkbox"/> HUMAN ENVIRONMENT Structures	<input type="text" value="Distribution"/>
<input type="checkbox"/> INDUSTRY	<input type="text"/>
<input type="checkbox"/>	<input type="text"/>

Metadata Polygon Information Ok Close



DEMM: Current Status

- User Requirements survey is underway prior to move to ISO/DIS 19115;
- Collaboration between NT and New Zealand.
- For more information on DEMM, contact:
Ian Johnstone, Spatial Systems Manager,
NT Dept of Lands, Planning & Environment
email: ian.johnstone@nt.gov.au

3. ANZLIC Profile of ISO 19115

- ANZLIC and Standards Australia have supported ANZLIC Metadata Working Group involvement in ISO/TC 211/WI 19115;
- Aim: to harmonise ANZLIC's Core Metadata Elements (1996) with ISO 19115 - successful;
- Participation has provided knowledge of the standard - essential for implementation.

Implementation Plan

- Minor review of ANZLIC Metadata Guidelines recently completed in preparation for major review associated with ISO 19115;
 - ISO 19115 Implementation Plan to address:
 - * draft profile (use ISO/DIS 19115);
 - * community consultation;
 - * change issues (effect on ASDD*, metadata tools).
- (*ASDD: <http://www.environment.gov.au/net/asdd/>)

4. Summary and Next Steps

- ISO 19110 & 19115 first from 19100 series.
- Next six months:
 - ANZLIC commencing an audit of standards required for ASDI (what have we got? what do we need?)
 - => implementation of other standards in the ISO 19100 series.