

【GIS Industrialization】

Metadata Strategy, Data Directory System and Emerging National Spatial Data Infrastructure in Australia

Wei Pei

GIS Branch, State Forests of NSW
423 Pennant Hills Road, Pennant Hills, NSW 2120 Australia

I. INTRODUCTION

Increasing public and political concern for proper environmental assessment and management, land-use conflicts, the issues surrounding ecologically sustainable development and biodiversity are resulting in a demand for high quality data on Australia's natural resources.

Due to the diversity of natural resources information, the metadata required to describe these resources are equally diverse. Over time an array of metadata formats have evolved which enable various organisations, agencies, academic, community or private industry to tailor metadata to specific needs. In most cases, the capture of metadata is easily and more readily achieved at the highest level, simply because summaries of datasets require less description and more general, while at lower levels, additional information is recorded. The development of any metadata standards must recognise this complex and multi-layer relationship and provide a facility to permit the capture of metadata at different levels and at different times.

In order to achieve a better understanding towards the complexity and multi-layer relationship associated with the capture of metadata, it's necessary to have a brief description of the spatial data directory systems in Australia. Using this as a starting point, metadata strategy for national, jurisdictional, theme-based and custodian agency data directory can be explored.

II. TERMINOLOGIES OFTEN USED IN AUSTRALIA

Metadata: refers generally to dataset descriptions and is equivalent to 'meta-information' (which is possibly a better term to use because 'metadata' is commonly used in data management to refer to data dictionaries).

The popularly used metadata is normally *feature-based, cover-based, project-based* and *dataset-based*. There are also metadata about hardware and software.

Directory: refers to a collection of descriptions of datasets together with subject and spatial indexing. There are three types of directories most commonly seen in Australia:

National directory: directory managed by Commonwealth government of Australia and functions as the repository of the master keyword thesaurus and gazetteer of spatial objects. An example of national data directory developed at an early stage is: National Directory of Australian Resources (NDAR), and ASDD at a later stage by National Resource Information Centre (NRIC)(1).

Jurisdictional directory: directory managed at State/Territory level. Considerable efforts have been undertaken in Queensland, Western Australia, New South Wales, South Australia,

Declaration: The views expressed in the article are those of the author's. They don't necessarily reflect the views of any Australian government organisation or agency.