

Prototyping the lodgement of digital cadastral survey datasets

The Intergovernmental Committee on Surveying and Mapping (ICSM) has endorsed a proposed new mechanism for exchanging cadastral survey data between the survey industry and land administration agencies.

The proposed 3D Cadastral Survey Data Model and the JSON encoding format has been endorsed as the standardised way for surveyors across Australia and New Zealand to lodge digital cadastral survey datasets.

The model and recommendations were developed by a consortium led by Surround Ltd under a contract funded by several Australian and New Zealand land administration agencies.

The conceptual and logical data model was developed using the detailed data requirements for each of the jurisdictions. It harmonises the common data elements across all the jurisdictions while also catering for the profiling of jurisdiction-specific elements. The model is based on international standards and vocabularies and caters for 2D and 3D survey data.

The Model and the encoding recommendations are available on the [ICSM website](#).

ICSM has now contracted Surround Ltd for a second phase of work. It aims to show how the proposed mechanism can be made to work for the providers of survey software and for the land administration agencies and operators that will facilitate the exchange of cadastral survey data. This project will develop a reference implementation to test the recommended mechanism for transferring for 2D cadastral survey data. The 3D elements in the model are not being tested in the same way but will be refined as part of this phase or work. The reference implementation will develop sharable code, support for jurisdictional profiles, and producing test data. These resources will be shared with providers of survey software so that they can test the feasibility of the proposed solution at their end. The Model and overall solution will be refined in response to the feedback from the participating providers.

ICSM Chair and Surveyor-General of Victoria Craig Sandy says “developing a consistent model that works across all Australian states, territories and New Zealand is crucial for survey software providers. It will give them the confidence to develop cadastral applications that serve the large surveyor market across both countries – and possibly beyond. With the availability of such products, land administration agencies are aiming to eventually enable surveyors to lodge fully digital cadastral survey datasets for integration into the cadastre.”

ICSM members include the Surveyors-General or delegates from all states, territories and New Zealand. This programme of work has been established by ICSM with support from the ANZLIC – the Spatial Information Council.

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