

# **e-Cadastre – Automation of the New Zealand Survey System**

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## **ABSTRACT**

Land Information New Zealand is in the midst of automating the nation's survey system. Features of the automated system include:

- Establishment of a new geocentric datum;
- Digital integration of the cadastre with the new geodetic network;
- Integration with the title system;
- Conversion of existing survey data to establish a Survey-accurate Digital Cadastre;
- Digital submission of new surveys by private surveyors;
- Automated validation and processing of surveys.

A key to the integration of the geodetic, survey, and title data is the data model and its implementation through mainstream information technology.

Survey data is observation based and is adjusted through least squares to produce accurate coordinates as required. The survey data for approximately 70% of the parcels in the country is being captured to improve the quality of the existing Digital Cadastral Database (DCDB) derived data. Where the data meets the accuracy standards required in the regulations, the nodes are assigned Survey-accurate Digital Cadastre (SDC) status.

Surveyors will be able to undertake virtually all aspects of their surveys electronically. They can extract digital survey data from the system while a new survey will be able to be submitted on-line from a surveyor's office. The survey dataset is subject to a high degree of automated validation and processing against the existing record.

The format for the transfer of the submitted data sets (LandXML) is being developed in conjunction with international organisations and survey software vendors.

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