PROVINCIAL GOVERNMENT ORGANIZATIONS

In Canada, provincial governments are responsible for natural resources management and land administration for jurisdictions that are individually larger than many countries. Thus, the 10 provinces and 2 territories have developed advanced resource monitoring and land administration programs suited to their unique combinations of resources and needs.

During the past decade, largely as a result of the huge amount of data now available and the need for computerized methods of handling and analysing it, several provinces have initiated programs to develop land information systems. New technology has greatly improved methods of collecting, processing, storing and distributing land information. New surveying and mapping techniques, such as global positioning and remote sensing, make it possible to quickly collect large amounts of information about land. Furthermore, computers can also process and store large amounts of information and distribute those data by electronic communication.

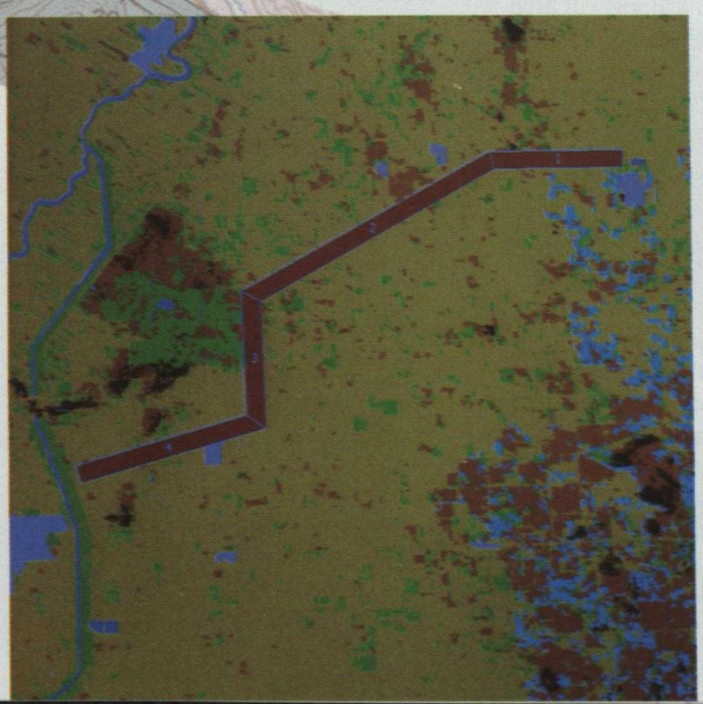
With the development of GIS, all these diverse kinds of land information can be integrated within a land information system. This system is generally perceived as a way of organizing the collection, processing, storage and distribution of land information in order to create applications that serve a variety of users.

Canada took a lead in land information systems with the establishment of the Land Registration and Information Service (LRIS) for Canada's Maritime Provinces. The service, now known as the Maritime Provinces Land Information Corporation (MAPLINC), has provided a learning experience not only for Canada but also for the international land information community.

New Brunswick has become an acknowledged world leader in the application and management of land-related information. The province currently has under way an initiative that uses computers to integrate geographically related information on forestry, transportation, earth sciences, agriculture, the coastal land and sea environment, and municipal services. Nova Scotia is home to the College of Geographic Sciences, an internationally renowned technical college specializing in geomatics. Prince Edward Island, Canada's smallest province, is involved in advanced remote sensing methods as they apply to coastal and agricultural resource management. Newfoundland has been working in geomatics, developing the use of remote sensing and advanced mapping technologies for forest mapping and fisheries management.

Quebec's Ministry of Energy and Resources is concentrating on two major areas: participation in implementing the provincial government's geomatics plan, which proposes a single geographic reference, in this case at a scale of 1:20 000, and reassessment of the cadastral reform program. The proposed program will involve updating and producing digital cadastral and topographic maps and strengthening the basic geodetic network.

The Government of Ontario began designing and implementing improvements to the province's Land Registration System in 1980. The improved system, the Province of Ontario Land Registration Information System (POLARIS), uses digital property mapping files and digital title index files. The survey and property boundary information in the property mapping files is separated into layers and related to the provincial grid, and the property mapping is tied into the Ontario Base Mapping. A unique property identifier (PIN) is created for each property. The PIN is the label under which the property title information is stored, allowing federal, provincial and municipal digital land databases to be referenced to ownership parcels and topographic features.



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Remote route selection using LANDSCAN's Corridor Analysis Module. LANDSCAN is a digital image analysis system designed by Applied Terravision Systems.