CARIS LIN
The Software behind Cadastral/Land Registration Solution Successes in the Maritime Provinces of Canada

Greg Mulholland
CARIS
About CARIS . . .

26 Years in Business
Successful CARIS Installations in over 50 Countries
150+ professional/multilingual Employees
Subsidiary Offices in The Netherlands and United States

What We Do …

Develop, integrate and implement Spatial Information Management Software Solutions
Consulting
Professional Development Services
Training
Customer Services and Support
CARIS Global Implementations
CARIS LIN – An Evolving System

- Digital Topo Maps
- Orthophoto Generation
- Digital Property Mapping
- Registration Index
- Land Titles
- Land Gazette Electronic Submission Documents
- Electronic Registration Plans
- LSA Electronic Registration Documents
- Assessment
- Guaranteed Boundaries
- General Register
- All Parcels under Land Titles


CARIS GIS  CARIS LIN  LIN Evolution / Responding and Adapting to Client Needs
• a complete software solution for managing information related to formalized property rights and for automating the business processes involved in the transfer of those rights

• a means for the collection, storage, and retrieval of a variety of other land information associated with the same units of land affected by those formalized rights
Indexing

Incoming Documents and Plans

Scanning

QC # 1

QC # 2

PLANET Image Storage

Package Plans

Ship Plans

Receive Plan Images

Processing

Maintaining

Accounting

Registered Copies and Cheques

Return Registered Copies and Receipts

Documents and Plans to be scanned

Return Land Titles Originals to Registrant

OK

Rejected

Rejected

OK

Rejected

Rejected

OK

OK

Semi-Automated Business Processes

Centralized Database

Intranet

Internet

External Access

• Lawyers

• Surveyors

• Real Estate Brokers

Internal Access

• Administration Access Control

• Front Office/Back Office

• Operational Staff

• Quality Control

Revolutionizing Geomatics
Business Processes
Full Document Process

Lawyer goes to the Registry office with his document.

Document moves to the scanning station, where it is scanned and then moved through the Quality Control process.

Document moves to the back counter, where the data is completed/verified.

Once the necessary edits are completed, the document is registered (and requested for scanning).

Registry front counter staff index the document, accept payment and generate the receipt.

Document moves to the Property Mapper, where the parcel register/attribute data are maintained as required.
Updating Cadastre

Graphical Change Order
- Mapper receives GCO and begins update process
- Affected PID(s) have their Map Revision flag set to ‘Yes’

Check Out Management Unit for Update
- The user retrieves the file from the repository.
- Locks selected MU to prevent another user from making changes.

Cadastre Maintenance Tool
- Graphics are updated to reflect necessary changes
- Picks up checked in files and integrates them back into the map fabric.

Scheduled Job
- Check Into Fabric
- Parcels have their Map Revision flag set back to ‘No’
- User checks the MU back in, and places the file back in the repository.

External Portal
- Changes to map data are now viewable to the external users

Registered Plan
- Triggers a need to update the property graphics

PLN
BEFORE
A
AFTER
A B C
CARIS- Cadastre Production Database (CPD)

Customized business application: to construct land objects based on a series of coordinated points that have been surveyed and adjusted.

- Database Driven
- Quality Control Mechanisms
- Retain Parcel History
- Distributed Multi-user Access
- Centralized Database
Electronic Document Submission

Authorized Submitter

Internet

Bank

FTE

SNB Financial System (JDE)

CRO

Imaging

E-Doc. Registered

E-Doc. Submitted

Deputy Registrar

Transaction

Firewall

PLANET

Registered Transaction

Submitter

Bank

E-Doc.

FTE

SNB Financial System (JDE)

CRO

Imaging

E-Doc. Registered

E-Doc. Submitted

Deputy Registrar

Transaction
Imaging Process

**CARIS LIN**

**INPROCESS.Images**
- ID
- IMAGE_VENDOR_ID (FK)
- STATUS_ID (FK)
- INST_TYPE_ID (FK)
- INSTRUMENT_ID
- PROCESSED_BY
- PROCESSED_DATETIME
- COMMENTS
- SHIPPED_BY
- SHIPPED_DATETIME
- WAYBILL_NUMBER

**Outside of LIN**

- If the image is not acceptable, then the instrument is re-scanned
- The image is scanned
- If the image is found to be acceptable, the file is moved to the file server

**Inside LIN Infrastructure**

- Rejection causes the document to return to the scanning queue
- Image is REJECTED

**QC Level One**
- Image is ACCEPTED

**QC Level Two**
- Image is REJECTED
- Image is ACCEPTED

- Image is now available online

- .TIF is converted to a .PDF
External Access – Internet Browser

- Internet Browser based on CARIS ICIS technology has been designed and built specifically to address the deployment of land information in an internet environment.

**Administration**

- Spatial Information
  - CARIS, ESRI, MapInfo, Intergraph, CAD, Autodesk, Raster formats, Oracle, SQL, etc.
- CARIS or 3rd Party Database / Business Application
- Transaction Management (Billing)

**Access**

- Dial-up access
- Broadband Access
  - Web Mapping (Spatial Fusion)
Real Time Land Information

Information Portal

Standardized Reports

Land Title

Land Gazette

Survey Plan

Land Gazette Notice
Multipurpose Cadastre: System Integration

New Brunswick

Prince Edward Island

Registry Index
Archiving
Land Management
Parcel Description
Internet Browser
E-Submission Plans
E-Submission Documents
Imaging
User Admin.
Land Gazette

3rd Party Software

Taxation System

Cadastral System
Multipurpose Cadastre: Land Gazette

Contact Information

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<tr>
<th>PID</th>
<th>Contact</th>
<th>Notice</th>
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Hot Link
Multipurpose Cadastre: Department of Supply and Services

- Taxation System
- Soap/XML Web Service
- Supply and Services
- CARIS iCIS

[Diagram showing connections between the components]
e-Government Solutions

Land Information Experience

Authentication
Imaging
Registry Structure
On-Line Invoicing
On-Line Payment

CARIS LIN

CGI GBiz

Motor Vehicle Renewal
Employee Directory
Payment Taking Municipalities
Companies Database On-Line
Annual Returns On-Line

1996

2004
CARIS

and

Service New Brunswick

Government Services

on time, every time, everywhere

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