



SPOC Modernized: Future-Proofing Alberta's Survey Plan Submission Platform

Survey Plan Online Checker (SPOC) is a geospatial web application that automates the validation of digital survey plans submitted for registration at Alberta's Land Titles Office (LTO). SPOC plays a critical role in ensuring submission accuracy through CAD file validation and geo-referencing checks.

SPOC performs three key quality assurance functions:

- **Layer Content Check:** Confirms the CAD file meets required layer and element structure
- **Geo-Referencing Quality Check:** Verifies CAD file alignment with legal land description, projection, and datum specified in the metadata
- **Dimension Check:** Compares CAD line lengths against annotated dimension text

Once a file passes these validations:

- It is uploaded to a map viewer
- The user can verify alignment with Alberta's cadastral fabric
- The system returns an automated email containing the finalized digital package for LTO submission

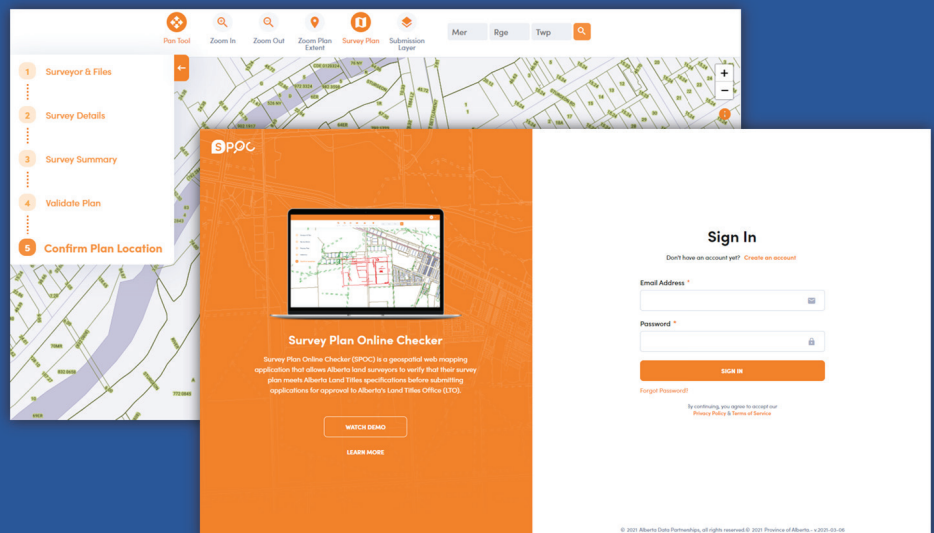
Since January 2010, it has been a **mandatory government requirement** that all digital survey plans registered at Alberta Land Titles be processed through the SPOC system. All files are verified for proper geo-referencing in accordance with LTO standards.

CHALLENGE

The SPOC platform's browser-based technology was scheduled to reach **end-of-support on December 31, 2020.**

KEY CHALLENGES WITHOUT MODERNIZATION:

- Users would no longer be able to access the SPOC application
- Digital plan submissions would be halted
- Alberta Land Titles Office and over 400 Alberta land surveyors and their clients would be directly impacted
- The province's digital registration process would be significantly disrupted



SOLUTION

To prevent service disruption, MNC (Martin Newby Consulting Ltd.) re-engineered the SPOC platform using modern technologies:

- **Safe Software's FME:** For spatial processing
- **Amazon Web Services (AWS):** For secure and scalable hosting

- **Freshdesk (Freshworks):** For support ticketing and help desk services
- **Reconfigurable Survey Plan Checker (SPC) API:** For modular, adaptable plan validation workflows

This modernization project was completed in **six months**, with **no disruption** to the registration process.

RESULTS

The modernization of SPOC secured the future of Alberta's digital survey plan submission process while preserving its core functionality and ease of use.

KEY OUTCOMES INCLUDE:

- **Risk Mitigation:** Modernizing SPOC eliminated the risk of running an unsupported platform.
- **Sustained Longevity:** The upgrade extended the system's lifespan and operational continuity.
- **Improved User Experience:** The new application mirrors previous functionality while offering a smoother interface, limiting retraining needs.
- **Preserved Workflows:** Modern SPOC replicates all plan checks, workflows, and package creation processes from the original system.
- **Modern Infrastructure:** Cloud hosting, API-based configuration, and integration with Alberta's cadastral web map align the system with current geospatial technology standards.



Survey Plan
Online Checker



MNC's modernization of the SPOC platform reinforces its position as a trusted partner in digital transformation, delivering sustainable, future-ready solutions that ensure continuity, scalability, and confidence in land administration systems.

MNC SERVICES & TECHNOLOGY USED

SERVICE CATEGORIES:

- Training and Support Services
- Digital Plan Submission

TECHNOLOGY PLATFORM & TOOLS:

- FME (Safe Software)
- AutoCAD (Autodesk)
- ArcGIS (Esri)
- Freshdesk by Freshworks
- Amazon Web Services



CONTACT US TODAY to discuss your geospatial needs.

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ABOUT MNC

The Cadastral and Parcel Mapping Experts



MNC is a trusted leader in cadastral and parcel management with 25+ years of experience delivering GeoAI-ready datasets, modernizing parcel fabrics, and automating GIS workflows. As an Esri Gold and Cornerstone Partner with a Parcel Management Specialty and State and Local Government Specialty, MNC provides scalable advanced GIS, ArcGIS Pro, FME automation, MicroStation, AutoCAD and cloud-ready geospatial systems that improve data quality and support government land administration modernization across Canada, the USA, and the Caribbean.

