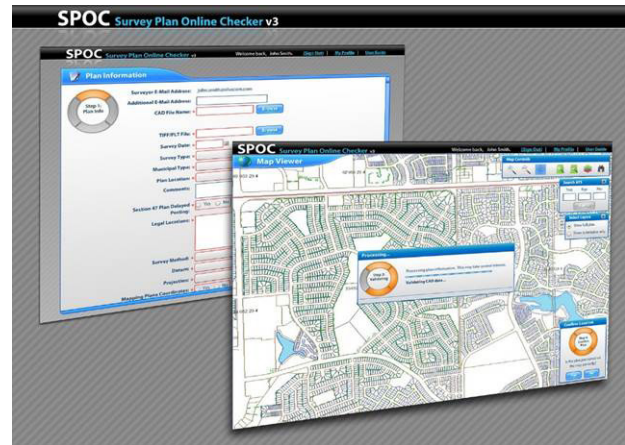




The Cadastral and Parcel Mapping Experts

2010: Survey Plan Online Checker (SPOC) for Alberta



Overview

Survey Plan Online Checker (SPOC) is a geospatial web MAP application that allows Alberta land surveyors to verify that their survey plan meets Alberta Land Title specifications before submitting applications for approval to Alberta's Land Titles Office (LTO).

SPOC imports a survey plan CAD file and performs various business rule checks to validate contents, spatial integrity, and formatting. Once the CAD data meets or exceeds quality parameters, SPOC packages validated data, the corresponding survey plan image, and relevant metadata into a digital submission package. The package is then submitted to LTO by surveyors in conjunction with their survey plan registration request.

Challenge

- Due to reduced budgets at Service Alberta in 2009, Alberta Land Titles Office (LTO) resources were drastically reduced, strengthening the desire for efficiencies from a digital workflow. LTO wanted a system to assist them in checking digital CAD files submitted for plan registration, performing a series of automated checks to verify a CAD file complies with submission specifications, including having appropriate CAD layers, geo-referencing, and dimension annotation. Since the CAD file is the source for the survey plan to be registered, checking the CAD file results in higher quality survey plans.
- MNC was engaged by the Government of Alberta to build a geospatial web map application that would allow Alberta land surveyors to verify that their survey plan meets Alberta Land Title specifications before submitting applications for approval to LTO. An online application would ease their resource constraints.

Solution

MNC developed Survey Plan On-Line Checker (SPOC); a custom geoprocessing service that imports a CAD file and performs various business rule checks to validate its contents and formatting and then provides a package that is ready for submission to the LTO. The solution involved working with software from Bentley, Autodesk (AutoCAD), Esri (ArcGIS), and Safe Software (FME).

Result

- **Improved Quality:** All files processed through SPOC are verified that the digital CAD file is georeferenced according to Director of Surveys requirements.
- **Visual Checks For Users:** A surveyor can view their plan relative to the complete and current cadastral fabric for Alberta which enables them to identify plan anomalies or conflicts prior to submission.
- **Faster Approvals:** The digital workflow helps streamline the approval process and improves the overall quality of the registration documents.
- **Reduced Effort:** LTO staff can focus their efforts on registering documents instead of verify files match submission requirements.
- **More Secure:** The system compresses and encrypts the surveyors digital plan package making it secure; only LTO staff can extract the information in this package for plan registration purposes.
- **More Information:** Metadata fields regarding the CAD file, such as the survey method and datum to assist in the registration and mapping process, are also captured by the system.
- **Reduced Errors and Costs:** By identifying survey plan errors prior to plan registration, there is the potential cost savings of more than \$2,000 per plan and helps improve the reliability and confidence in the land registration process.

2020:Modernization of Survey Plan Online Checker (SPOC) for Alberta

Challenge

The SPOC browser technology used in the platform will no longer be supported on December 31, 2020; meaning that users will no longer be able to use SPOC and plans will not be able to be submitted to the Alberta Land Titles Office. This will bring a halt to the current process of registering plans at the Alberta Land Titles Office.

Alberta Land Titles Office and over 400 Alberta Land Surveyors and their clients would be impacted.

Solution

The original SPOC application was translated into modern technologies including Safe Software's FME, Amazon Web Services (AWS), Freshdesk (by Freshworks), and a reconfigurable survey plan checker (SPC) API. The project was completed in 6 months.

Result

Modernizing the SPOC platform directly addressed the risk of operating on an unsupported platform. The modernization provided a path forward to increase the longevity of the system.

In addition, the modern application mirrors the functionality of the previous application yet provides a better user experience; both of which limit the need for user training.

Modernized SPOC can perform plan checks, workflows, and create plan packages that mirror current SPOC functionality.

The solution aligns with modern technology, API configuration, and AWS integration supports plan checking. Cadastral web map integration supports improved currency.

Get all the details from White paper:

<https://mncl.ca/wp-content/uploads/2021/05/SPOC-Modernization-Project-White-Paper.pdf>

Sign in or watch the demo video at:

<https://spoc.silvacom.com/auth/login>

