

Trimble Business Centre

Introduction to Surfaces and Point Cloud Processing



Training Details

Format: In-person or virtual

Duration:

1 day (7 hours) or two half-days

Additional information:

For more information about our training sessions, contact us in one of the following ways:

Website: <https://www.cansel.ca/store/cansel/fr/training>

Email: info@cansel.ca

Toll-free line: 1-888-222-6735

Training outline:

This one-day training course is designed for organizations looking to increase their teams' proficiency in using **Trimble Business Center (TBC)** for surface modeling, volumetric analysis, and point cloud processing. It is suitable for both new users and professionals seeking to enhance their understanding of core geospatial data processing and analysis workflows.

Focused on current best practices and recommended workflows, the course introduces TBC's essential tools for integrating and working with data collected from laser scanners, drones, and other geospatial sources. Participants will learn how to process and optimize point clouds, create surface models, and perform volumetric analyses to calculate cut-and-fill quantities and generate detailed reports.

Hands-on exercises based on real-world scenarios are incorporated throughout the course to provide practical, immediately applicable experience. By the end of the day, participants will be able to efficiently prepare projects, create accurate surface models, perform reliable volumetric calculations, and independently generate the deliverables required for surveying, construction, and geomatics projects.

Learning Objectives:

- **Review of the different visualization tools available**
- **Project preparation and data integration**
- **Introduction to Point Cloud Processing**
 - Point cloud classification*
 - Cleaning*
 - Sampling*
 - Data management*
 - Georeferencing*
- **Explore surface modeling tools**
 - Elevation grids*
 - Contour lines*
 - Draping objects*
- **Creating deliverables**
 - Volumetric analysis, earthworks reports and Cut-Fill maps*
- **Export data in different formats**
 - Point cloud data and surface models*