



GEOMATICA

Education Programme



Introduction

Welcome to the “Lake Area Calculation in Nova Scotia” introductory term project. This project was designed to review the theory and remote sensing concepts learned in the first Beginner level. Geomatica Focus, an advanced graphical environment image processing software is expected to be used with the data provided to complete this term project. It is expected that students review the first 6 labs and 2 assignments, as well as investigate and explore the functionality of the various menu options and toolbars independently. Students should also note that PCI has a rich on-line help system that will provide assistance in working through the questions in this term project.

Objectives

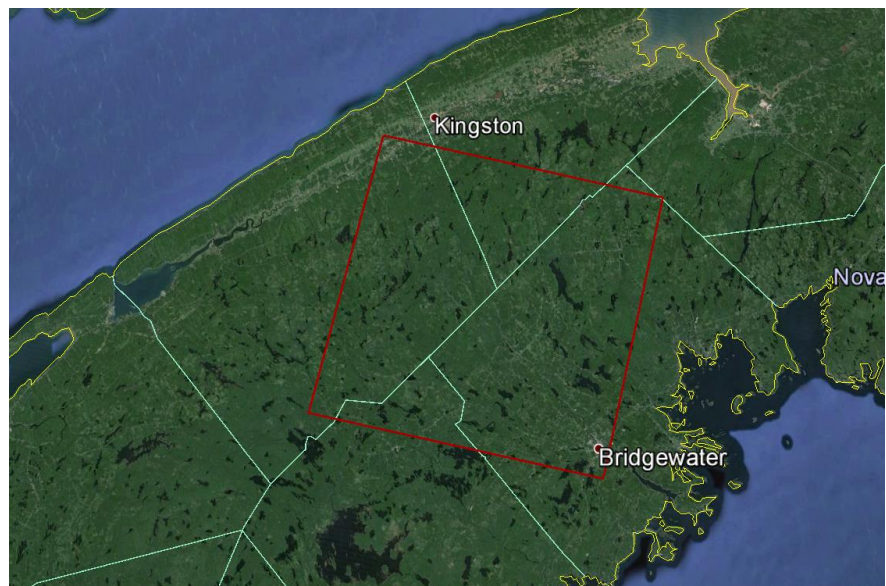
- Review the Beginner Level 6 labs
- Review the Beginner Level 2 assignments
- Familiarize with Geomatica Focus Interface
- Understand band combination and image channels
- Understand the different types of enhancements and spatial filters
- Gain knowledge of image cartography map projects, and data types
- Master the digitizing and statistics tools

References

- Visualizing Image Data Lab
- Working with Image Data Lab
- Vector Processing Lab
- Image Enhancements and Spatial Filters Data Lab
- Image Processing Data Lab
- Publishing Map Projects Lab
- Exploring Band Combinations and Digitizing Assignment 1
- Enhancing, Spatial Filtering and Pansharpening Assignment 2
- [Geomatica Tutorials](#)
- Geomatica Online Help
- [Tutorial: Fundamentals of Remote Sensing](#)

Term Project Overview

Nova Scotia, one of Canada's three Maritime provinces has an area of 55.284 square kilometres. The Regional Authorities of Nova Scotia are interested in finding out the area of water bodies in a specific region between Kingston and Bridgewater, Nova Scotia. This is important for the monitoring of water bodies in the Region. They have asked to create a high resolution map using their existing imagery delineating the water bodies in a shapefile along with documentation reporting the total area of water bodies in the region.



Deliverables

1. 1-Page report on Geography and Climate in Nova Scotia
2. 1 map with a proper color band combination showing water bodies
3. 1 map with high resolution imagery with digitized water bodies
4. Statistical report showing area of each water bodies and total area
5. 1 .shp vector file with the digitized water bodies