NOTICE OF UNIVERSITY ORAL

GEODESY AND GEOMATICS ENGINEERING

Master of Science in Engineering

Xiaolun Yi

April 18, 2006
@ 11:00 am
Room E-11 - Head Hall

Board of Examiners:	**Co-Supervisors:**	**Dr. David Coleman, GGE**
		Dr. Yvan Bedard, Laval University
	Examining Board:	**Dr. Darka Mioc, GGE**
		Dr. Brad Nickerson, Computer Science
		Dr. Lloyd Waugh, Civil Engineering
	Chair:	**Dr. Marcelo Santos, GGE**

Multiple Representation Data Capture

ABSTRACT

Normally, spatial databases were built by digitizing existing different scale maps. When there was a requirement for capturing new datasets in order to update databases or build new databases, the process usually follows a similar methodology, whereby different spatial databases were created with representations of each object captured separately.

This thesis formally describes a Multiple Representations Data Capture workflow in which all representations of an object are captured at same time and result in a multiple representation database or a multiple scale database. The workflow is described using Unified Modeling Language.

A prototype has been developed as the approval of the multiple representation data capture concept. Using the prototype, a database with multiple representation of each object has been built within an area with two object classes -Building and Road Network. The result shows that a multiple representation database can be built with the designed multiple representation data capture procedure. Additionally, it is approved that building a multiple representation database with multiple representation data capture is less expensive than with the procedure of capturing each representation separately.

Faculty Members and Graduate Students are invited to attend this presentation.