

## **Spatiotemporal Tile Indexing Scheme System**

### I. Introduction

- a. What is the objective of this system?
  1. Scope of the system
  2. Reason why we need a system like this one
  3. Applications that can be use for
- b. What are spatial and spatiotemporal databases
  1. Remote Sensing image data
  2. Image characteristics and metadata

### II. Research

- a. System architecture
  1. Meta-data harvesting module
  2. Spatiotemporal tile indexing scheme
  3. Web-page
- b. Meta-data harvesting
  1. Key-meta data elements
  2. Mapping between meta-data and database schema
  3. Automation of database updates as new images are acquired
- c. Spatiotemporal indexing scheme
  1. Key design consideration
  2. Design and implementation
- d. Web-page

1. Need for web-page
2. Design and implementation of web-services

e. Querying database

1. Spatiotemporal query templates
2. Searching image database by:
  - Key words
  - Spatial, temporal and spatiotemporal extents
3. Summarization of results/visualization

III. Conclusion and future directions

- a. Application prototype and demonstration
- b. Lessons learned
- c. What's next – new applications, integration with other knowledge  
discovery systems and image retrieval by content systems