



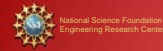
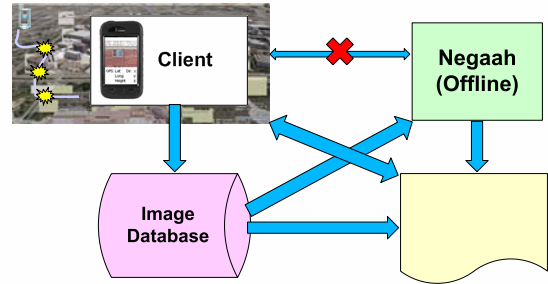
Geospatial Information Management  
Project Proposal

# Arc-GeoSIM

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- Building 3D environment



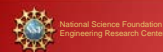
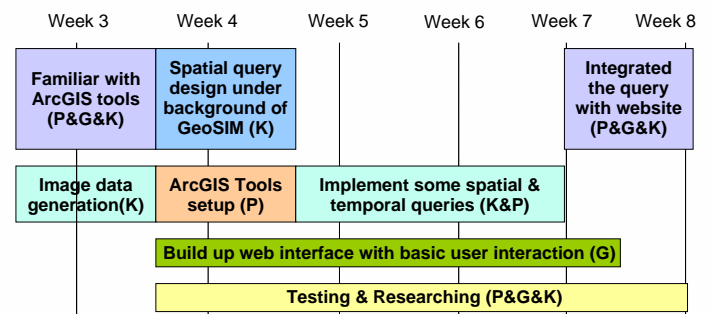
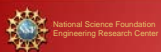
- Setting up the development environment **[DONE]**
  - Tomcat, Eclipse, JS Library
  - Get the Negaah code
- User interface design
  - Porting Negaah client-side to web-app
- Integrate the query with the web-app (P&G&K)
- Using ArcScene to visualize 3D model & embedded into web (P&G)
- Add more user interact tools & Show statistic information of GeoSIM (P&G)
- Research & Testing



- Setting up the required software's
  - Oracle, ArcTools
- Image Data Generation
  - Using Nokia N80 Cell phone
- Background query support
  - Spatial Query design under background of GeoSIM
  - Implement Spatial and Temporal queries (K & P)
  - Implement complicated queries such as such as trajectory query, CkNN
- Integrate queries with web-application (P & G & K)
- Embed queries to web-application (P & K)
- Testing and Researching (P & G & K)



- In charge of ArcGIS Tools setting
- Coordinate website and ArcGIS tools
- Implement some queries with Karan
- 3D modeling with ArcScene
  - Construct building model with DEM data
  - Show paths or images in the 3D environment
- In charge of the whole project
- Final demo:
  - Demo video
  - Cell phone online testing





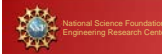
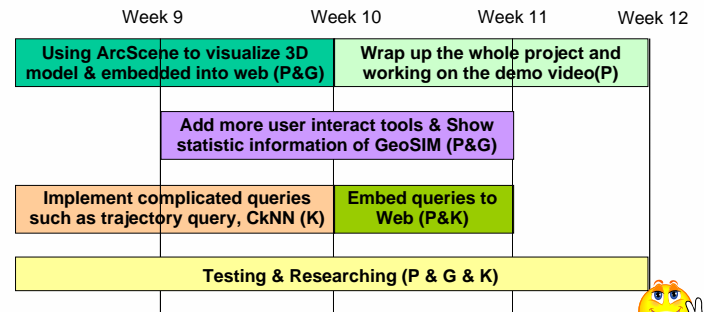
## Milestone



- **Interface:**
  - 2D visualization of USC area
- **Supported Function:**
  - Real-time user picture taking trajectory (We have real time GPS data in database)
  - Texture Browsing on the 2D map
  - Some spatial & temporal queries



## TimeLine – cont.



## Final Report (include the milestone)



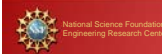
- **Interface:**
  - 3D visualization of USC area
- **Supported Function:**
  - Spatial & Temporal (Text) Queries on texture
  - User could tag and browsing the texture (Tagging, browsing, and rating images)
  - User could see the route on 3D model as a guide while taking pictures
  - Present some statistics information for GeoSim (who is the best texture captured user, which building is fully covered, needs oracle access)



## Resources



- **Data**
  - Image data: Collected by user (Karan)
  - Geometry data: USC dem data (from GeoDec)
- **Software**
  - ArcGIS: free license for course usage
  - Oracle client software: free
  - Eclipse for java development: free
  - VB developer: Visual Studio 2005
- **Hardware:**
  - Database: Geodb (oracle database server, Infolab)
  - Server machine (Infolab)
  - Cell phone: Nokia N80 (only for picture taking)



## Reference



# Thanks!

