GIS and Korean Monasteries
Pilot Project for ECAI-Korea

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Korean ECAI Project

• Creation of a database combining maps, cultural features and text
• Overlay maps dealing with collective cultural features through component GIS and Internet GIS
• Co-work with many different disciplines
Pilot Project for ECAI-Korea

• Pilot Project
  - Seoul Cultural Information System (SCIS)
  - Seoul Regional Information System (SRIS)

• Seoul
  - Capital and Central City of Korea
  over 600 years
Data Sources for SCIS

• Spatial Data
  - Digital Data (DXF)
    (120 map sheets of 1:5,000)
  - Road Map
  - Map of Traditional Temples

• Attribute Data
  - Label Layers for Digital Data
  - List of Korean Buddhist Temples
  - History and Culture of Han River
## Spatial and Attribute Data For Seoul Cultural Information System

<table>
<thead>
<tr>
<th>Layer Name</th>
<th>Attribute</th>
</tr>
</thead>
<tbody>
<tr>
<td>Temple</td>
<td>Elevation, name, address, distance from river, religion sector, foundation period, national treasure, telephone number, year of foundation, temple image, treasure image</td>
</tr>
<tr>
<td>Royal tomb</td>
<td>Elevation, name, address, distance from river, foundation period, image</td>
</tr>
<tr>
<td>Royal Palace</td>
<td>Elevation, name, address, distance from river, foundation period, image</td>
</tr>
<tr>
<td>Port</td>
<td>Elevation, name, address, distance from river, foundation period</td>
</tr>
<tr>
<td>Pavilion</td>
<td>Elevation, name, address, distance from river, foundation period</td>
</tr>
<tr>
<td>Administration</td>
<td>Area, Gu-name</td>
</tr>
<tr>
<td>Boundary</td>
<td></td>
</tr>
<tr>
<td>River</td>
<td>Name</td>
</tr>
<tr>
<td>Contour</td>
<td>Elevation</td>
</tr>
</tbody>
</table>
Flow Chart for Developing Seoul Cultural Information System

- Digital Map (*.dxf)
  - ArcView (CADReader)
    - ArcView (*.shp)
      - ArcInfo (Convert)
        - ArcInfo (Coverage)
          - Merge (Edge matching)
            - ArcView (Convert to shape)
              - ArcView (*.shp)
                - Editing

- Visual Basic
  - MapObject
    - Application Programming
      - Editing
Process of Developing Program

Arcview Shp → Map Object → Application Programming
Home Page of SCIS

ECAI Korea

(Electronic Culture Atlas Initiative of Korea)
Main View of SCIS

- Tool Bar
- Layer List
- Legend
- Index Map
- MAIN Map
- Status Bar
Result of Query in SCIS
Image Window in SCIS

Built by Nokhoi national priest in the tenth year under the rule of Shilla king Wonsung in A.D. 794
Seoul Regional Information System through Internet Environment

Seoul Regional Information System by Internet GIS provides geographic information services of Seoul region through Internet environment by integrating GIS and Internet technology.
## Data for Seoul Regional Information System (1)

<table>
<thead>
<tr>
<th>1st Category</th>
<th>2nd Category</th>
<th>Variables</th>
<th>Attribute Data</th>
</tr>
</thead>
<tbody>
<tr>
<td>General</td>
<td>Seoul city Boundary</td>
<td>City boundary, 1914 - 1997</td>
<td>ID</td>
</tr>
<tr>
<td>Regional Information</td>
<td>Administration Units and Off</td>
<td>Administration Units and Offices</td>
<td>Names</td>
</tr>
<tr>
<td>Education, Culture &amp; Social Characteristics</td>
<td>Market</td>
<td>Department store, Shopping center, Traditional market</td>
<td>Names</td>
</tr>
<tr>
<td>Finance</td>
<td>Bank, Stock exchange, Stock brokerage firm</td>
<td></td>
<td>Names</td>
</tr>
<tr>
<td>Education</td>
<td>Elementary, Secondary Schools, University, Office of education</td>
<td>Names, addresses, telephones, # of classes</td>
<td></td>
</tr>
<tr>
<td>1st Category</td>
<td>2nd Category</td>
<td>Variables</td>
<td>Spatial Data</td>
</tr>
<tr>
<td>-------------------------------------------</td>
<td>--------------------</td>
<td>-----------</td>
<td>---------------------------------------</td>
</tr>
<tr>
<td>Education, Culture &amp; Social Characteristics</td>
<td>Medical Service</td>
<td>Hospital, Health Center</td>
<td>Names</td>
</tr>
<tr>
<td></td>
<td>Population</td>
<td>Seoul dong</td>
<td></td>
</tr>
<tr>
<td>Public Service</td>
<td>Foreign missions, Police station, Post office, Fire station, Social welfare Facilities, Library</td>
<td>Names</td>
<td></td>
</tr>
<tr>
<td>Cultural Properties</td>
<td>Cultural treasure, National treasure, Treasure</td>
<td>Names</td>
<td></td>
</tr>
<tr>
<td>Cultural Space</td>
<td>Museum, Theater, Performance</td>
<td>Names</td>
<td></td>
</tr>
</tbody>
</table>
Flow Chart for Developing Seoul Regional Information System

1. MapInfo(*.tab)
2. ArcView(*.shp) to MapInfo(*.tab) (Universal Translator in MapInfo)
3. Sorting the MapInfo files by SQL
4. MapXtream (Creating Geoset)
5. InterDev (Coding aspfile)
6. Creating Html file

Administration Boundary (Gu, Dong name)
Road (name)
Structure of SRIS

- Main Window
  - Search Page
  - Map Pages
ECAI Korea

Electronic Culture Atlas
Initiative of Korea
Search Page of SRIS

Choose a name of Royal Palace:
Changdokgung

Find

MapInfo
MapXtreme™

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Map Pages
(Royal Palaces)
Map Page (Identity)
Map Page (Zoom Out)
Suggestions for ECAI-Korea

• Extension to the whole country
• Add spatial and attribute data
• Organize Korean ECAI team
• Apply possible funds