Recent developments in TimeMap

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ECAI Structure

- Data Server
- ECAI Metadata Clearinghouse
- TimeMap Application Server
- Web Resources
- Computed Links
- Constructed Interactive Maps

- Upload Data
- Register Dataset with Clearinghouse
- Metadata & Documentation
- Download Data
- Search

- ECAI Associate: Data Creation (database, GIS, TimeMap tools)
- Users: Web Browser & TimeMap Viewers
TimeMap Tools

- Clearinghouse management
- TimeMap publishing tools (TMView/TMEdit)
- TimeMap Java mapping applet for interactive maps on the web (TMJava)

- Datasets
- MapSpaces
Why Interactive (Time)Maps?

- Unlimited map variants
- Spatial detail
- Pull together data sources
  - Distributed data
  - Overlaying information
- Time
  - Dynamic queries
  - Animation
- Contextualisation
  - Hot-link objects on map to URLs
ECAI Clearinghouse Search
Data Publishing
Data publishing (step 1 of 3)

Place data on server

- Web server
- MrSID server
- SQL server

1. Shapefile, DBF, CSV, JPG, GIF
2. SID file (MrSID compression e.g. in ArcGIS)
3. MySQL, MSSQL, Interbase, Sybase, Oracle, Informix, others ...

DataPump tool
Data publishing (step 2 of 3)

Create metadata

TMEdit Metadata wizard
Data publishing (step 3 of 3)

Register dataset with clearinghouse

TMEdit
Map Publishing
Map publishing

- Windows TimeMap (TMView)
  1. Create MapSpace
  2. Download data, symbolise
  3. Register MapSpace

- View MapSpaces in TMJava
- Embed MapSpaces in web pages
Map publishing (step 1 of 3)

Create MapSpace
Map publishing (step 2 of 3)

Download data, symbolise
Map publishing (step 3 of 3)

Upload MapSpace to clearinghouse

TMView
TMJava (un-customised)

- View mapspace in TMJava applet
  - Through clearinghouse search:

- Or URL: [http://www.timemap.net/clearinghouse/html/alov.cgi?id=568](http://www.timemap.net/clearinghouse/html/alov.cgi?id=568)
TMJava (customised)

- XML layout file
- Size, layout
- Components
- Images/logos
- Behaviours
- Colours
- JavaScript

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- From CH search
  - http://www.timemap.net/clearinghouse/html/alov.cgi?id=643
- Customised
Standalone TMJava

- XML clearinghouse
  - File generated from main clearinghouse
  - Allows selection of specific datasets
  - XML file + servlets + applet → new server
- XML layout file
- JavaScript

→ MacquarieNet
Web Map Server

- OGC standard
- Map image generated on server
  - Server sends JPG
  - Return to server for new map
  - Only needs plain browser
  - Low bandwidth
  - Many street directory services

- TimeMap WMS
Animation

- Using (desktop) time to represent real time
- TMView generates AVI or SWF
  - SWF advantages
    - Scalability – vectors, static bitmaps
    - Small size, streaming
  - Korea TimeMap
    - Generated from TMView
    - Polished in Flash
- Directions
  - Choice of components
  - Interactivity – layers, hot links
http://www.timemap.net

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