



# **From GIS to Spatial Database and to Spatial Data GRID**

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**BY**

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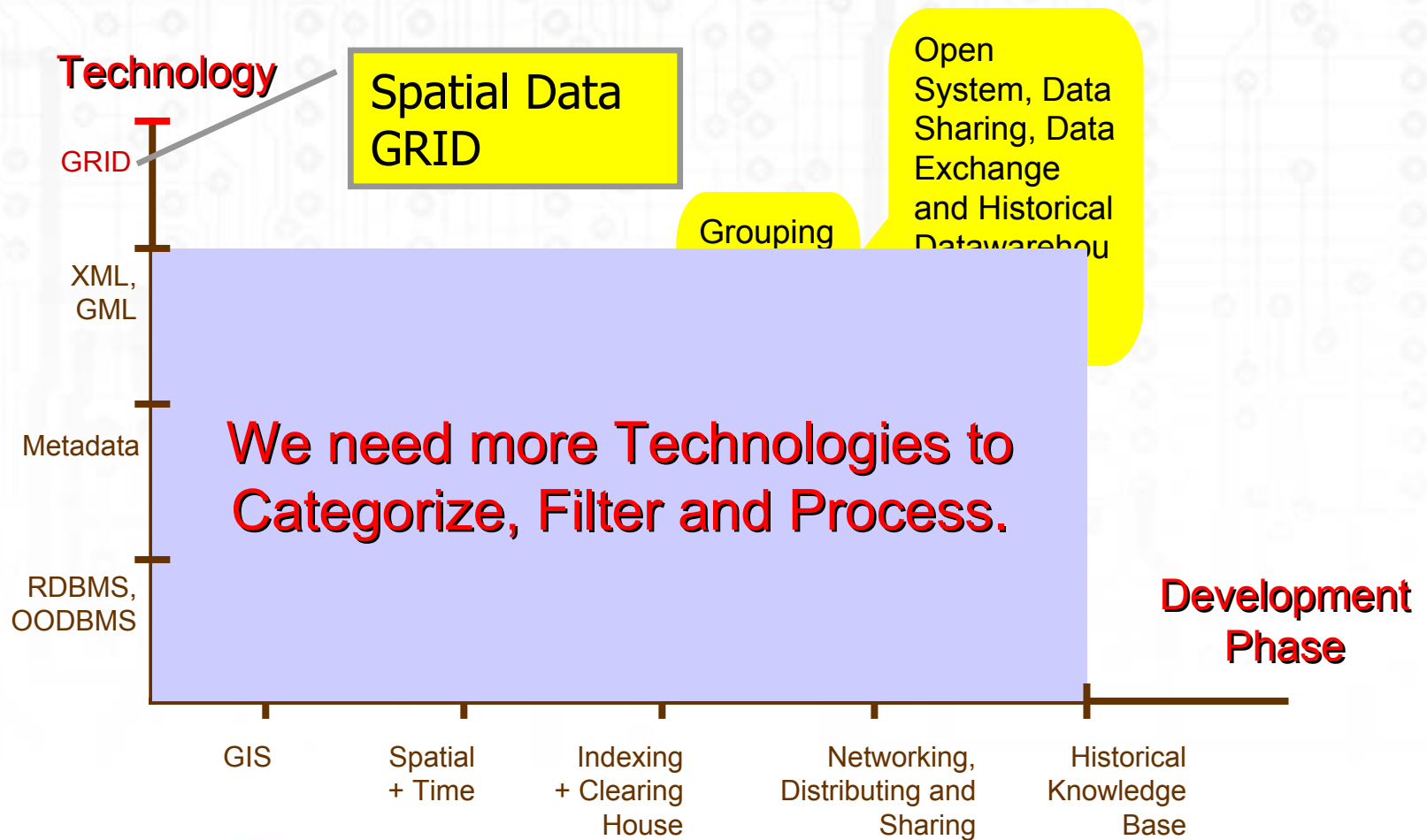
**National Electronics and Computer Technology Center**

# Out Line of Talk

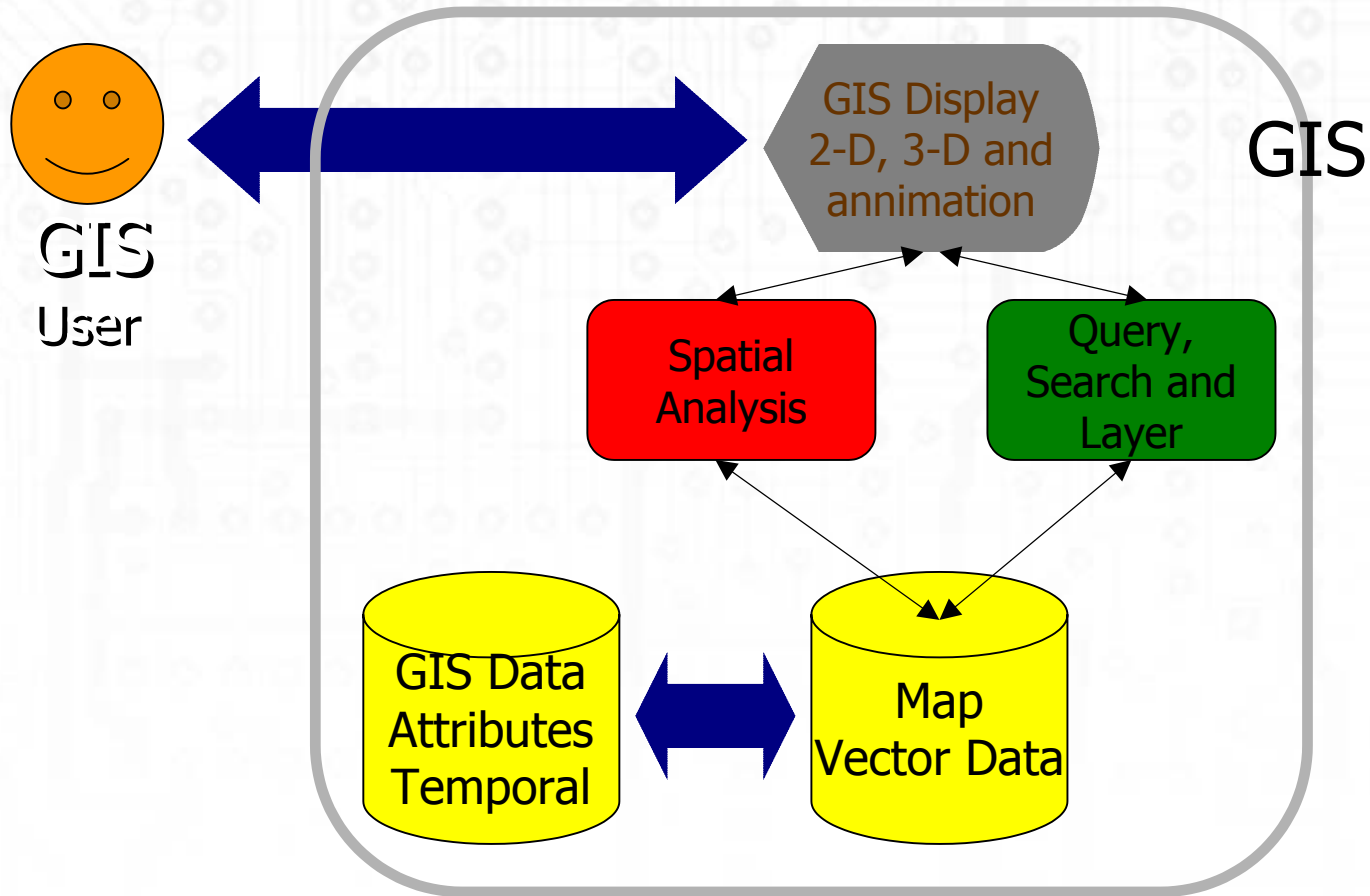
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- **GIS and Spatial Development - PNC 2001**
- **GIS in Traditional Way**
- **Spatial Database**
- **Spatial Data GRID System**
- **Something which is under developing:**
  - ISO/TC211
  - XGML

# GIS and Spatial Data Development



# GIS as a stand alone system



# Spatial Database



GIS User

Web Browser: GIS Display  
2-D, 3-D and animation

ANSI Z39.50 ~ ISO 10163

Clearing House  
or Data Warehouse

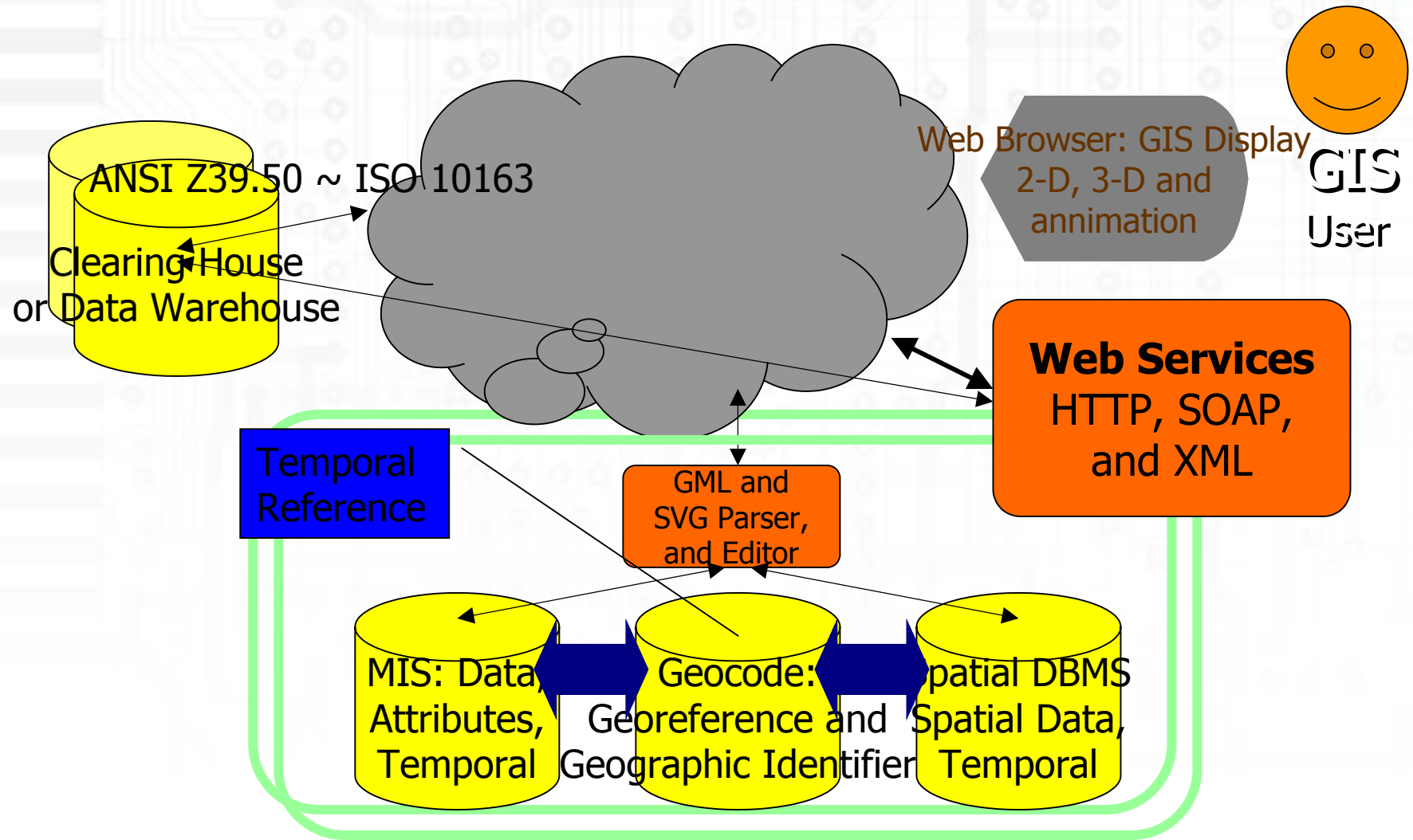
GML and  
SVG Parser,  
and Editor

MIS: Data,  
Attributes,  
Temporal

Geocode:  
Georeference and  
Geographic Identifier

Spatial DBMS  
Spatial Data,  
Temporal






# Spatial Data GRID System





**GISX Service** [ - ] [ □ ] [ X ]

<< GISX Client >>

**Tree View**

- Province: bma
  - Khets
    - Kwangs
      - Kwang: kwang1 (Kw0)
      - Kwang: kwang2 (Kw1)**
      - Kwang: kwang3 (Kw2)
      - Kwang: kwang4 (Kw3)
    - Schools
    - Streams
    - Transports

**Features**

- Kwang**
  - fid: Kw1
  - sysCreateTime: 1023776286747
  - gml:name: kwang2
  - locateln
    - xlink:href: #Kh1
    - xlink:type: simple
  - numberOfMale: 5472
  - numberOfFemale: 8046
  - totalPeople: 11518
  - numberOfHouses: 6458

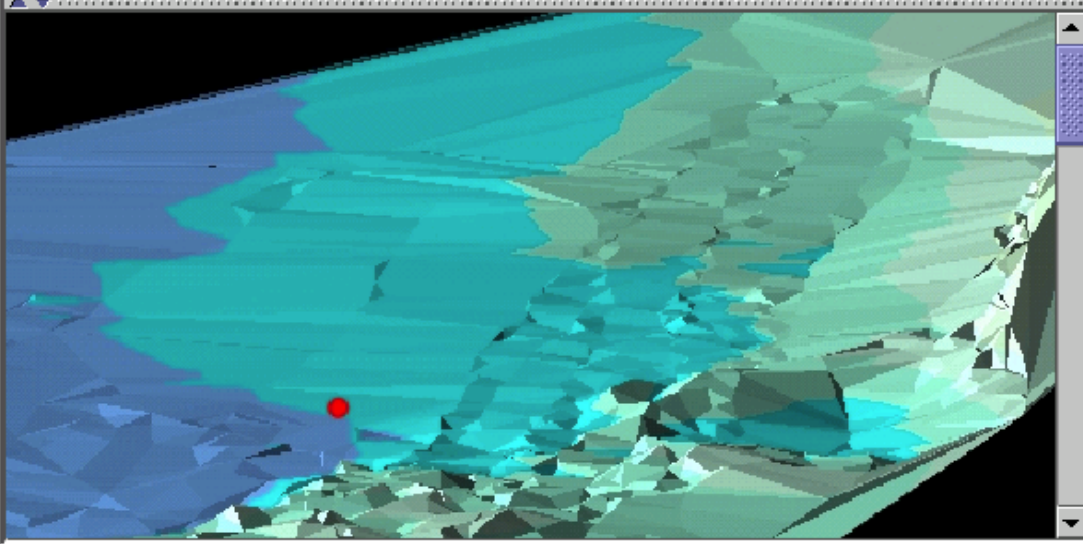


### Tree View

- Province: bma
  - Khets
    - Kwangs
      - Kwang: kwang1 (Kw0)
      - Kwang: kwang2 (Kw1)**
      - Kwang: kwang3 (Kw2)
      - Kwang: kwang4 (Kw3)
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Changed geometry map mode.



# References

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- **Open GIS Consortium -**  
[www.opengis.org/info/techno/GML2.htm](http://www.opengis.org/info/techno/GML2.htm)
- **ISO/TC211 -** [www.isotc211.org](http://www.isotc211.org)
- **FGDC -** [www.fgdc.gov/clearinghouse/clearinghouse.html](http://www.fgdc.gov/clearinghouse/clearinghouse.html)



# Update Projects in Thailand

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- **Ayutthaya GIS Project: Department of Fine Art and Dr. Danai at Chulalongkorn University, under UNESCO support,**
- **Ayutthaya 3-D Model: NECTEC and University of Sydney, and**
- **Remote Sensing to discover Historical Site: Dr. Surat at AIT.**

