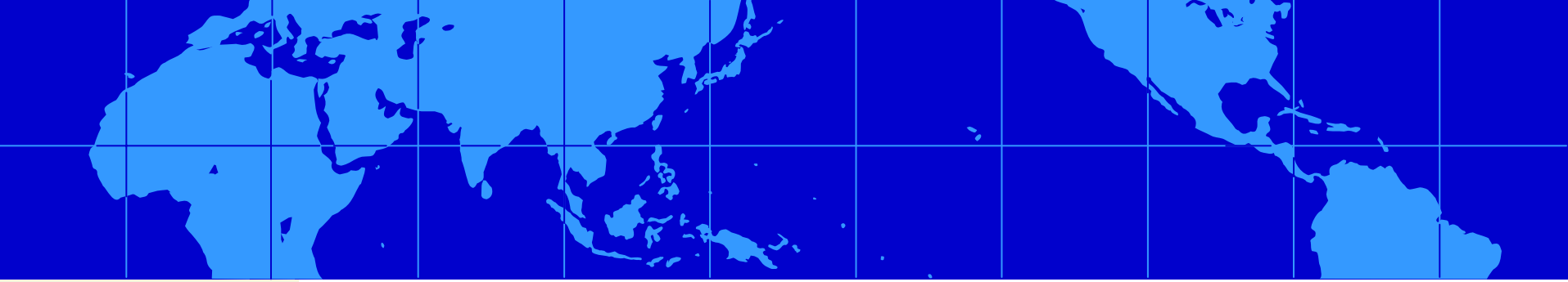
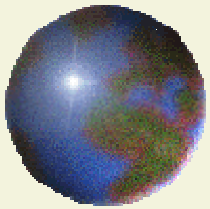


STUDY ON ESSENTIAL FACTORS ON GEO-DATA QUALITY



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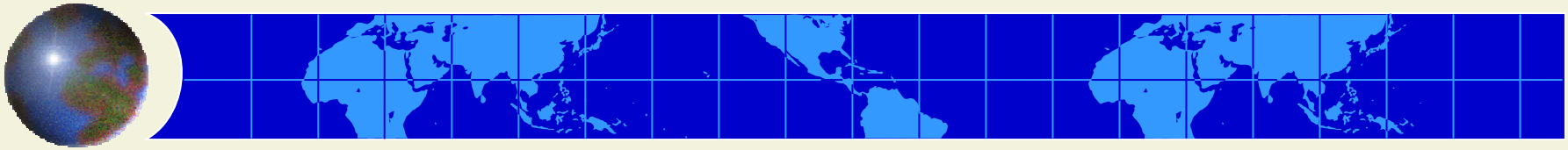
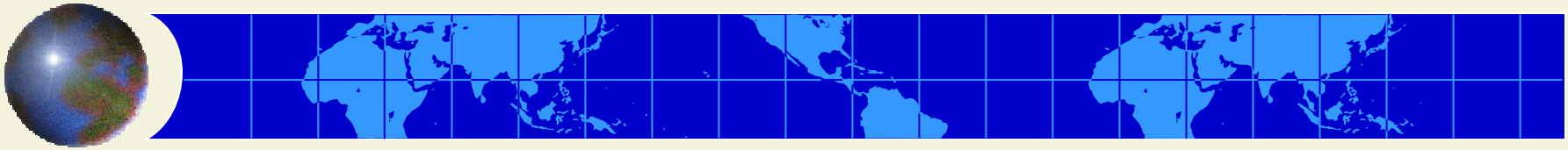


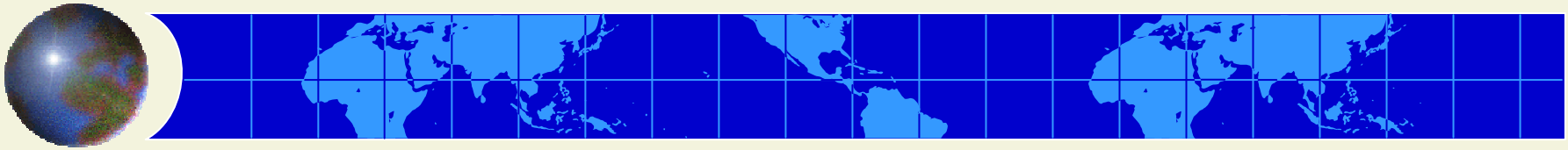
TOPICS

- What is Geo-data?
- How about the importance about the quality of Geo-data?
- Essential factors about Geo-data quality?
- Discussions and Conclusions



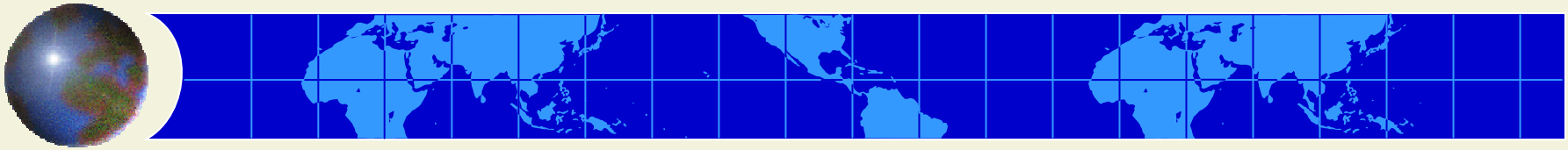
What is Geo-data?

- Geo-data is a kind of science data which associated with geographical position on the globe or others.
- Synonyms: spatial data, space data
- Connected science: geography, surveying and mapping,GPS,GIS,RS, geomatics,et al.



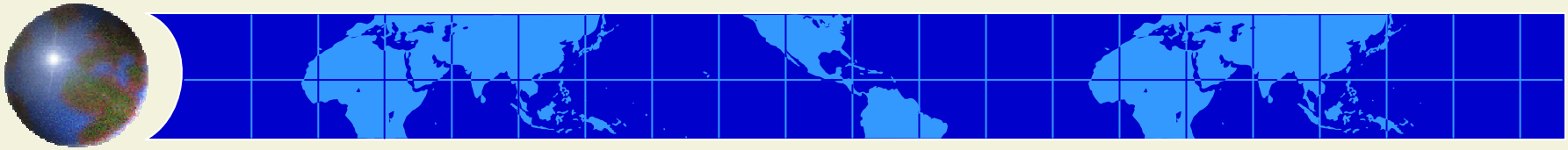
Some examples

- Something in a certain place
- Where is/are something in?
- What property/attribute are the certain things?



How about the importance about the quality of Geo-data?

- Geographic information plays an increasingly important role in our modern society. In many situations reliable and up-to-date spatial information is crucial, e.g. in disaster response systems. In other cases geographic information is an important input for decision-making processes of governments (urban planning, nature conservation), businesses (market exploration, location analysis) or individuals (tourist information, real estate prices).
- So geo_data must present a true situation about a spatial object's attributes. Its quality can be expressed as follows,



How about the importance about the quality of Geo-data?(continued)

- location data
- attribute data
- data management
- data reproducing
- uncertainties
- effectiveness for real time
- data output
- sharing exchange
- legal dispute

Essential factors about Geo-data quality?
1.location data

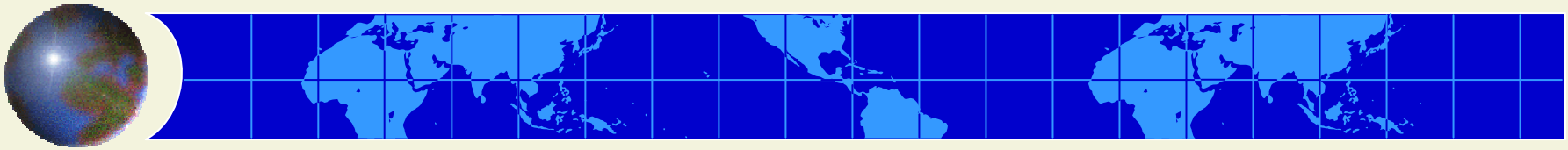
- A group of data,such as (longitude,latitude,elevation) and (x,y,z) and so on!
- Relationship between/among Spatial objects,such as joint, orientation et al.
- directions,such as azimuth,lower/higher

2.attribute data

- Owner of a certain area or cadastral unit
- Area and perimeter of a certain spatial object
- Color, vegetation type

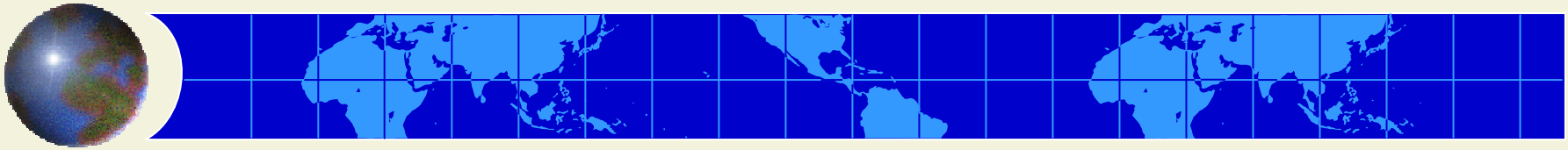
3.data management

- Structure of spatial database
- Data input,edit and so so
- Queries according to objects/attributes



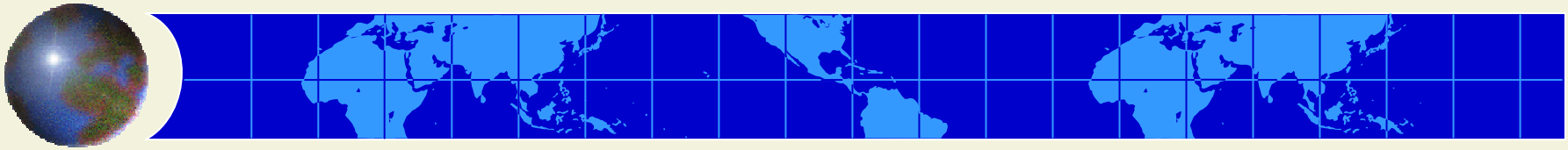
4.data reproducing

- Density of population/pollutions
- Add up/average of some attributes of a certain spatial object
- the processing model



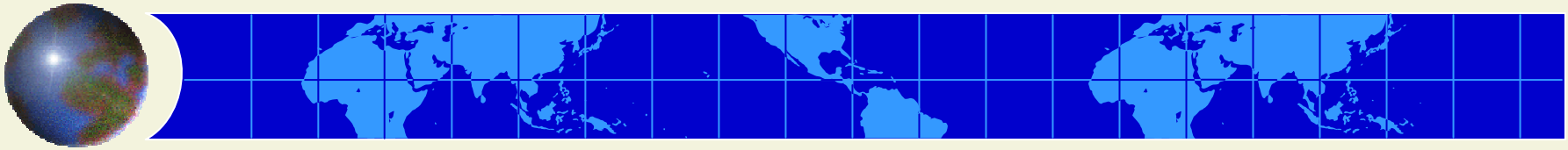
5.uncertainties

- Fuzzy boundary
- gradual changing boundary
- Determinant attribute according to different criteria,such as amount,area or others
- Round numbers



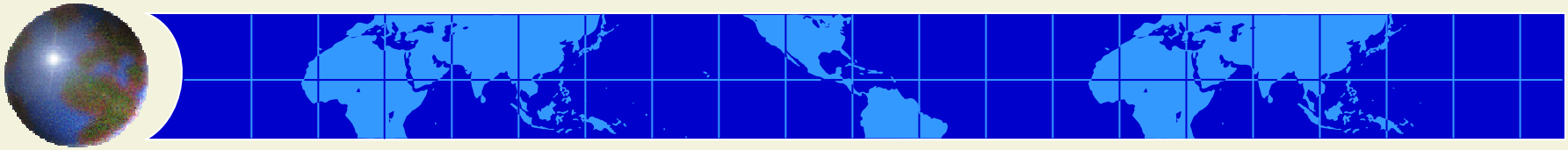
6.effectiveness for real time

- A spatial object has spatial-temporal attribute,so the existence of a certain object must be existed in a certain place (spatial attribute) and during a period of certain time (temporal attribute)



7.data output

- Figure
- Table
- 2D or 3D
- Visualization

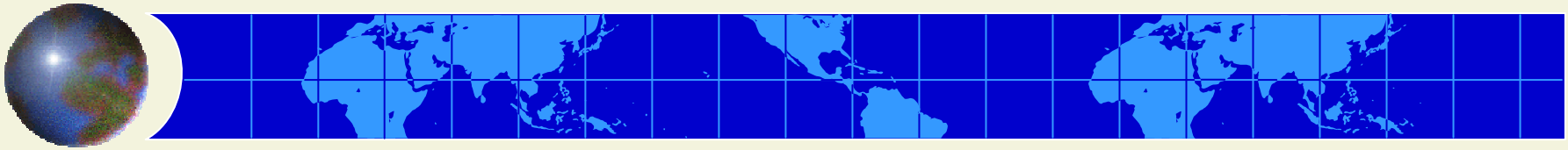


8.sharing exchange

- Share
- Exchange
- Check

9.legal dispute

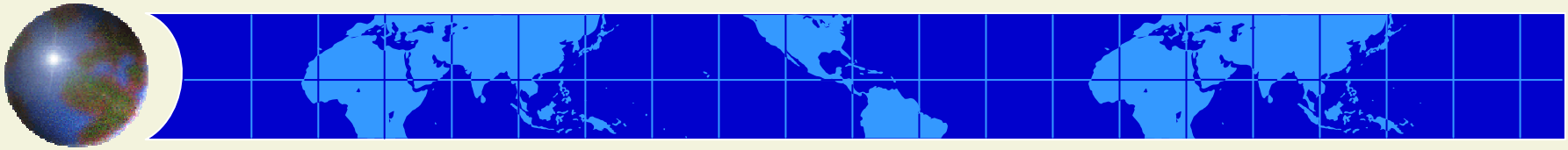
- Loss/lack aroused by using spatial data
- Legal and illegal
-



Discussions and Conclusions

- the location accuracy
- the effectiveness for real time
- the processing model

Are taking as the primary factors for appraisal geography data reliability.



many thanks!