

# PENGENALAN KEPADA SISTEM MAKLUMAT GEOGRAFI (GIS)

*Introduction to Geographical Information  
Systems (GIS)*

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# OBJEKTIF KURSUS

- Mengenal pasti komponen-komponen dalam GIS
- Mengenalpasti data GIS
- Mengenalpasti perisian GIS di pasaran
- Mengenalpasti isu-isu dalam pembangunan GIS dan kebaikan GIS





- Apakah Peta?
- Media Peta,
- Jenis Peta
- Konsep Peta,
- Unsur-unsur Peta

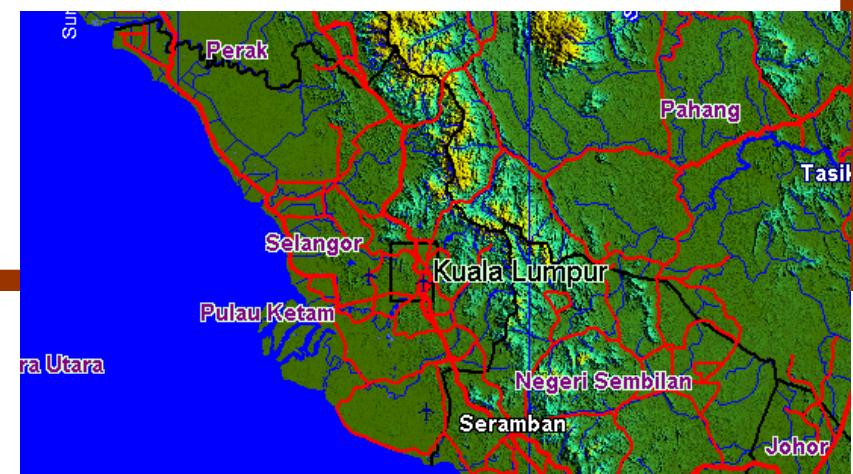




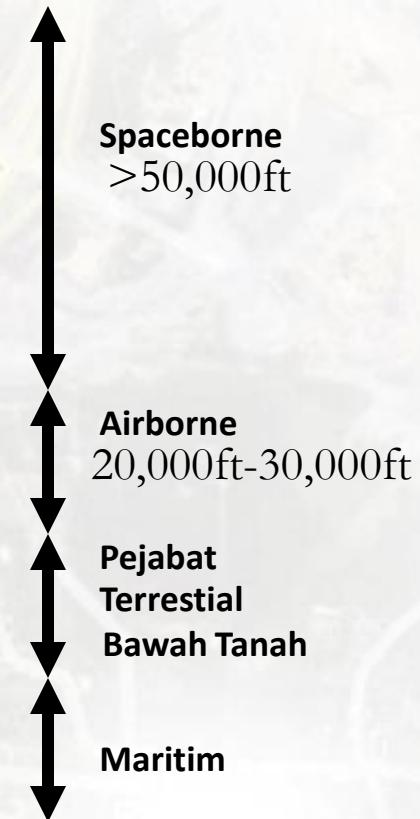
# Apakah peta?

Model yang mewakili taburan benua dan lautan diatas Bumi ini.

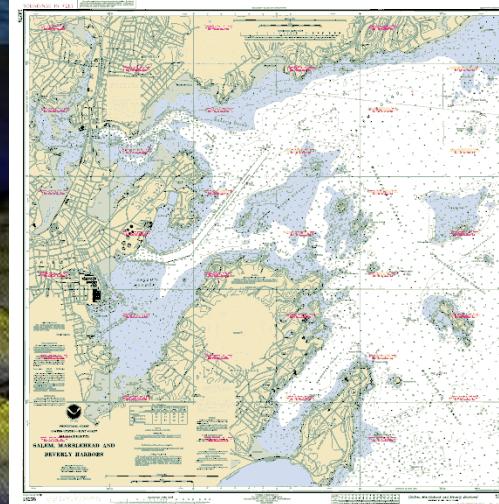
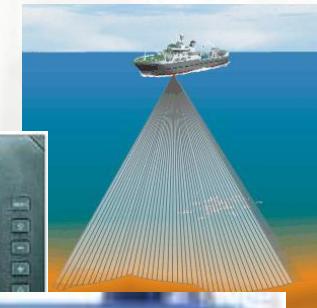
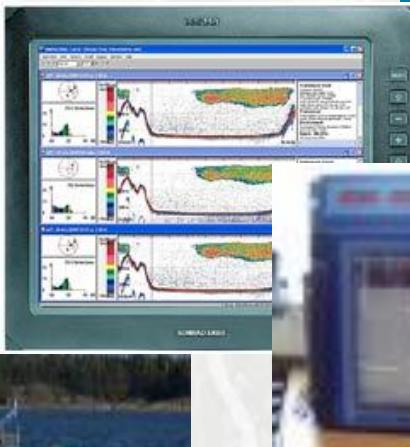
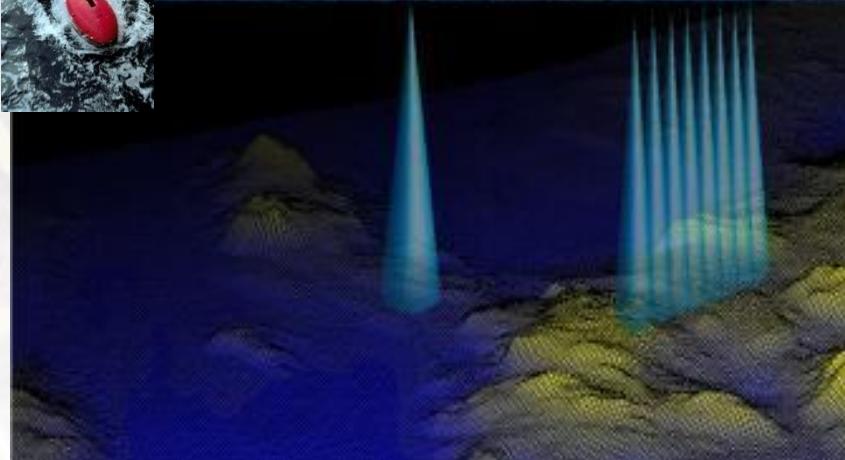
- Suatu unjuran grafik permukaan Bumi ini yang menunjukkan taburan semua unsur-unsur yang terdapat di muka bumi, termasuk unsur semula jadi dan binaan manusia.



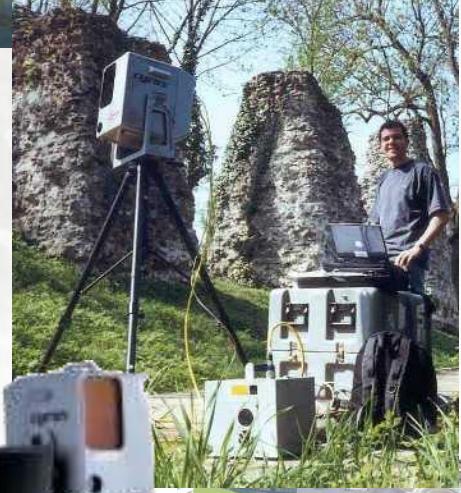
# TEKNOLOGI PENAWANAN DATA



# MARITIM



# TERRESTRIAL



# PEJABAT



X	Y	Z
12345.1	32456.8	109
12360.8	32459.1	103
12376.5	32461.4	97
12392.2	32463.7	91
12407.9	32466	85
12423.6	32468.3	79
12439.3	32470.6	73
12455	32472.9	67
12470.7	32475.2	61
12486.4	32477.5	55
12502.1	32479.8	49
12517.8	32482.1	43
12533.5	32484.4	37
12549.2	32486.7	31
12564.9	32489	25
12580.6	32491.3	19
12596.3	32493.6	13
12612	32495.9	7
12627.7	32498.2	1
12643.4	32500.5	-5
12659.1	32502.8	-11
12674.8	32505.1	-17
12690.5	32507.4	-23
12706.2	32509.7	-29

Microsoft Access

Semburan : Database (Access 2000 File Format)

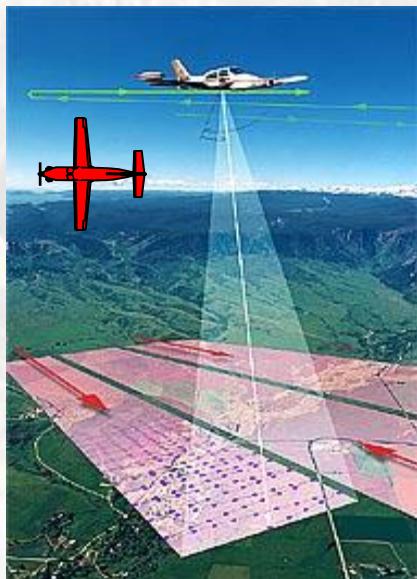
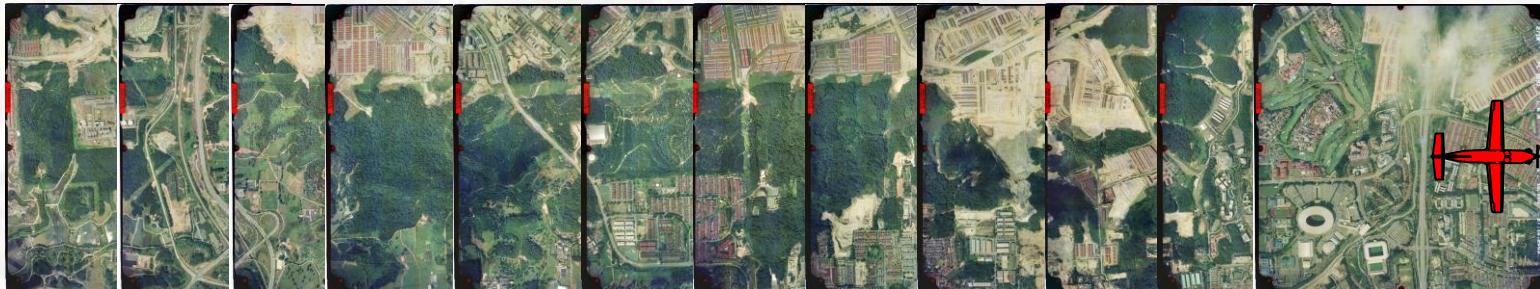
Mukim/Semuanjung : Table

ID	DISTRICT	STATE	MUKIM	Geometry
1	HULU LANGAT	Selangor	Chears	ang binary data
2	HULU SELANGOR	Selangor	Anlong	ang binary data
3	HULU LANGAT	Selangor	Hulu Langat	ang binary data
4	HULU SELANGOR	Selangor	Sungai Gunut	ang binary data
5	KUALA LANGA	Selangor	Tanjong Dua Belah	ang binary data
6	HULU LANGAT	Selangor	Pentah	ang binary data
7	HULU SELANGOR	Selangor	Aming Pingkor	ang binary data
8	HULU SELANGOR	Selangor	Rasa	ang binary data
9	HULU SELANGOR	Selangor	Kuala Kalumpar	ang binary data
10	HULU SELANGOR	Selangor	Kalumpong	ang binary data
11	SABAK BERENI	Selangor	Bagan Nakoda	ang binary data
12	SABAK BERENI	Selangor	Saleh	ang binary data
13	KUALA SELAN	Selangor	Hujong Pemasi	ang binary data
14	HULU SELANGOR	Selangor	Kerling	ang binary data
15	KUALA SELAN	Selangor	Kuala Selengor	ang binary data
16	KUALA SELAN	Selangor	Kepala Batang	ang binary data
17	KUALA SELAN	Selangor	Pulau Anggela	ang binary data
18	GOMBAK	Selangor	Setapak	ang binary data
19	PETALING	Selangor	Sungai Buloh	ang binary data
20	KUALA LANGA	Selangor	Medan	ang binary data
21	KUALA SELAN	Selangor	Pulau Selatan	ang binary data
22	KUALA SELAN	Selangor	P Telukor	ang binary data
23	HULU LANGAT	Selangor	Beranang	ang binary data
24	KUALA LANGA	Selangor	Kelanang	ang binary data
25	KUALA LANGA	Selangor	Bander	ang binary data
26	PETALING	Selangor	Batu Agi	ang binary data
27	SABAK BERENI	Selangor	Panchang Bede	ang binary data
28	PETALING	Selangor	Shah Alam	ang binary data
29	KUALA SELAN	Selangor	Ilok	ang binary data
30	KUALA SELAN	Selangor	Agi Api	ang binary data

DataSheet View CAPS Record: 1 of 919



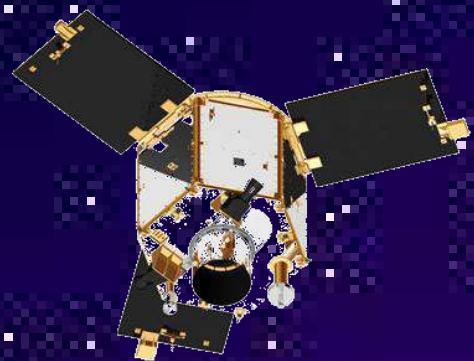
# AIRBORNE



Camera type : RC30	Area : Sungai Besi
Lens type : wide angle	Date : OCt 2003
Cycle rate : 2 sec./image	Flying height : 20 000 ft
Photo scale : 1: 10 000	Scan resolution : 25 µm



# SPACEBORNE



RazakSat



Ikonos



QuickBird



WorldView-1



WorldView-2



back

# Kegunaan peta

Mencari tempat

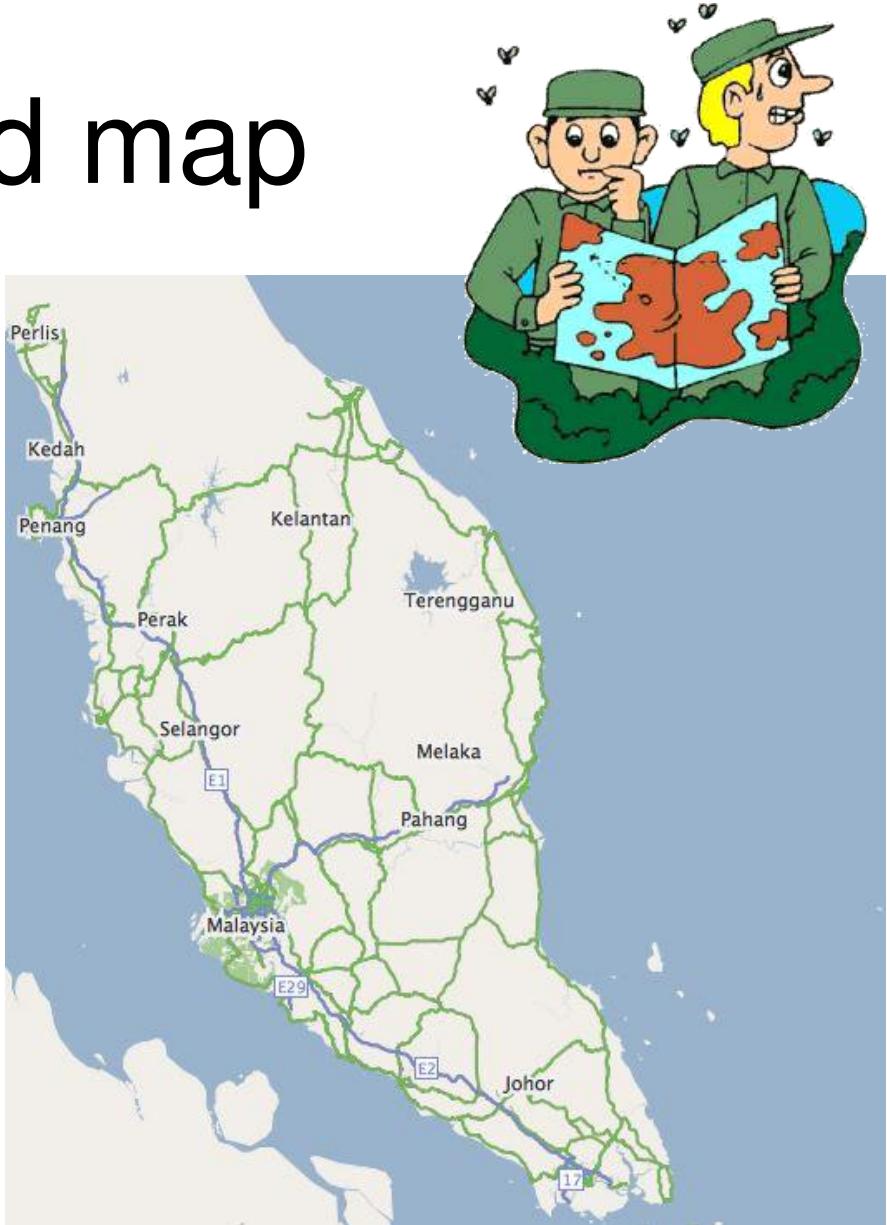


# Jenis-jenis peta

- **Road maps**
  - show major—some minor highways—and roads, airports, railroad tracks, cities and other points of interest in an area. People use road maps to plan trips and for driving directions.
- **Topographic maps**
  - include contour lines to show the shape and elevation of an area. Lines that are close together indicate steep terrain, and lines that are far apart indicate flat terrain.
  - Illustrate the physical features of an area, such as the mountains, rivers and lakes. The water is usually shown in blue. Colors are used to show relief—differences in land elevations. Green is typically used at lower elevations, and orange or brown indicate higher elevations.

- **Climate maps**
  - Give general information about the climate and precipitation (rain and snow) of a region. Cartographers, or mapmakers, use colors to show different climate or precipitation zones.
- **Economic or resource maps**
  - Feature the type of natural resources or economic activity that dominates an area. Cartographers use symbols to show the locations of natural resources or economic activities.
- **Political maps**
  - Do not show physical features. Instead, they indicate state and national boundaries and capital and major cities. A capital city is usually marked with a star within a circle.

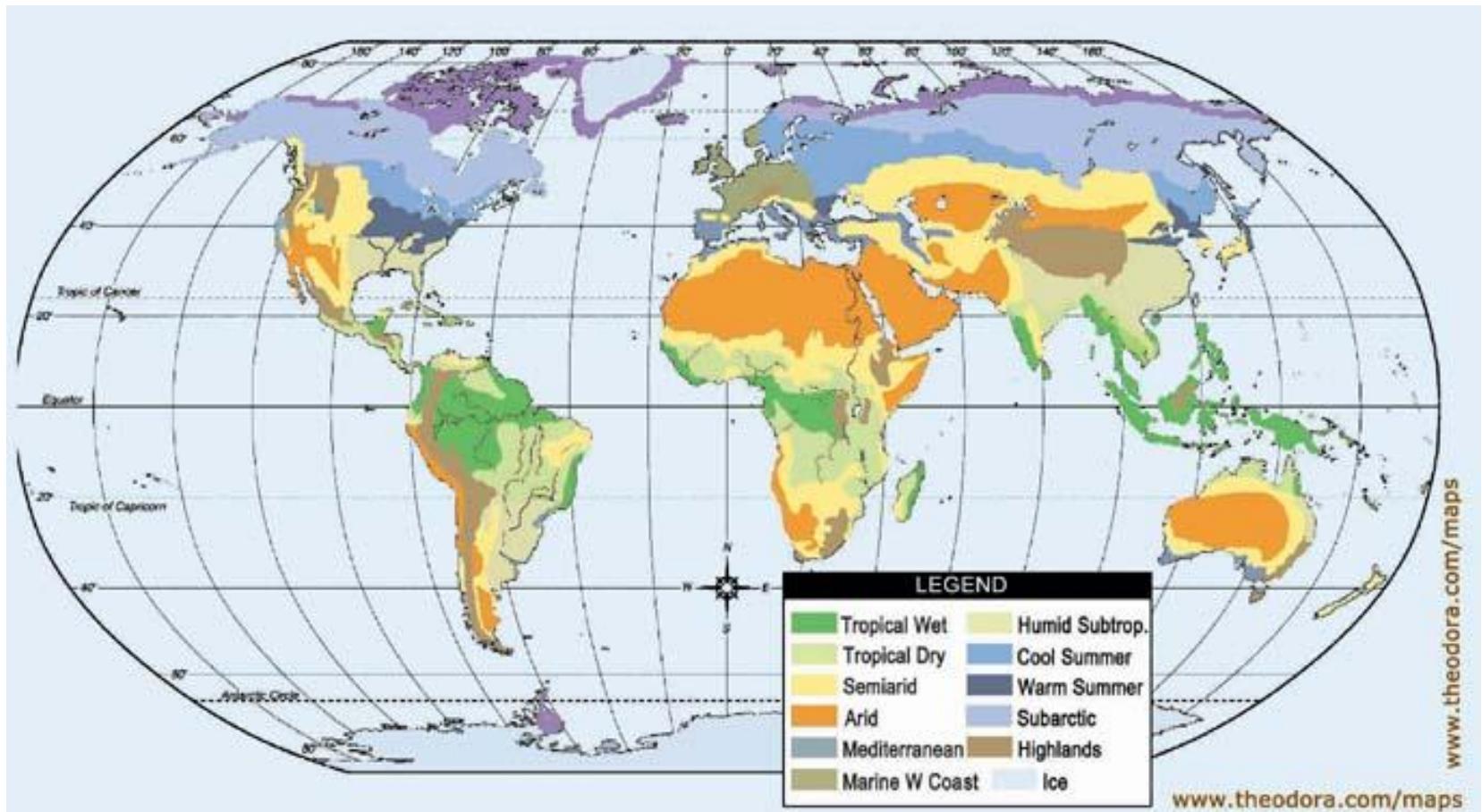
# Road map



# Topographic map



# Climate map



# Meteorological map



# Media Peta

1) Kertas

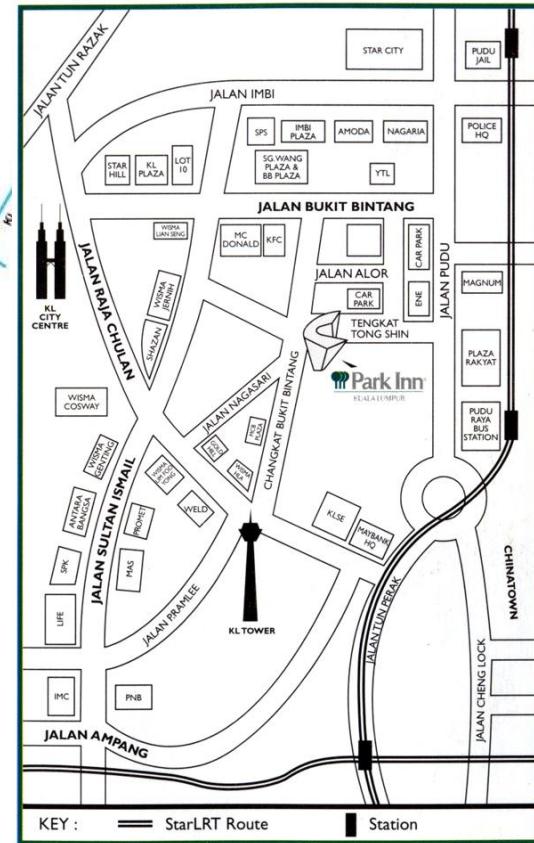
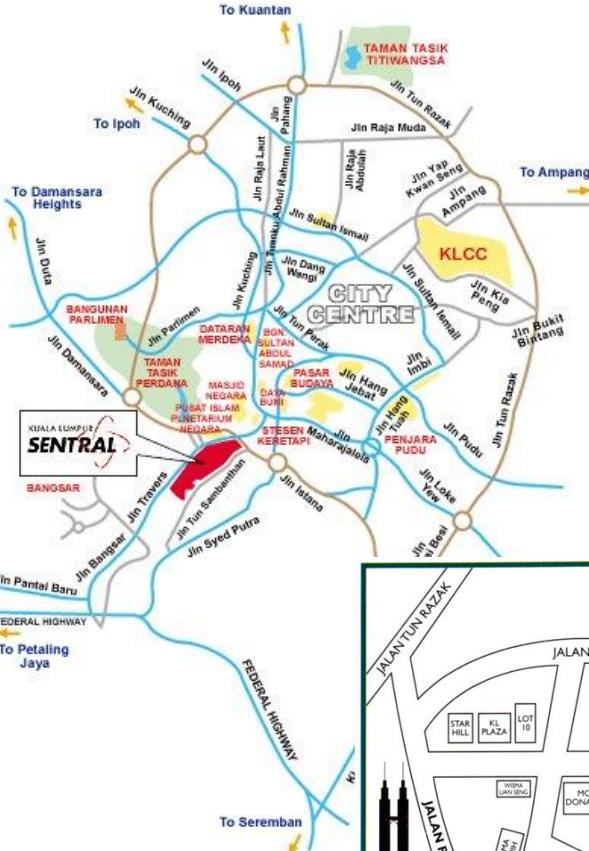
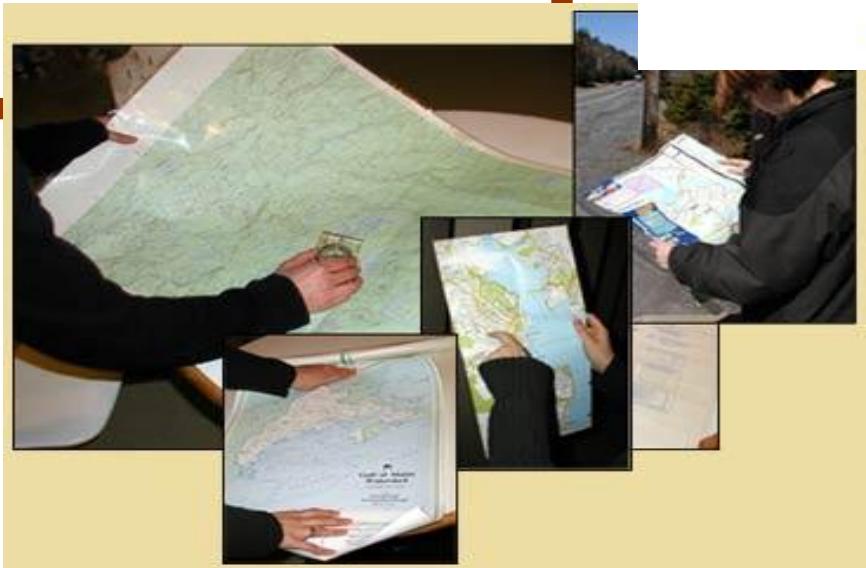


2) Komputer



# Media Peta : Kertas

*Topographic maps,  
nautical charts, tourist  
maps, and bus route  
maps.*

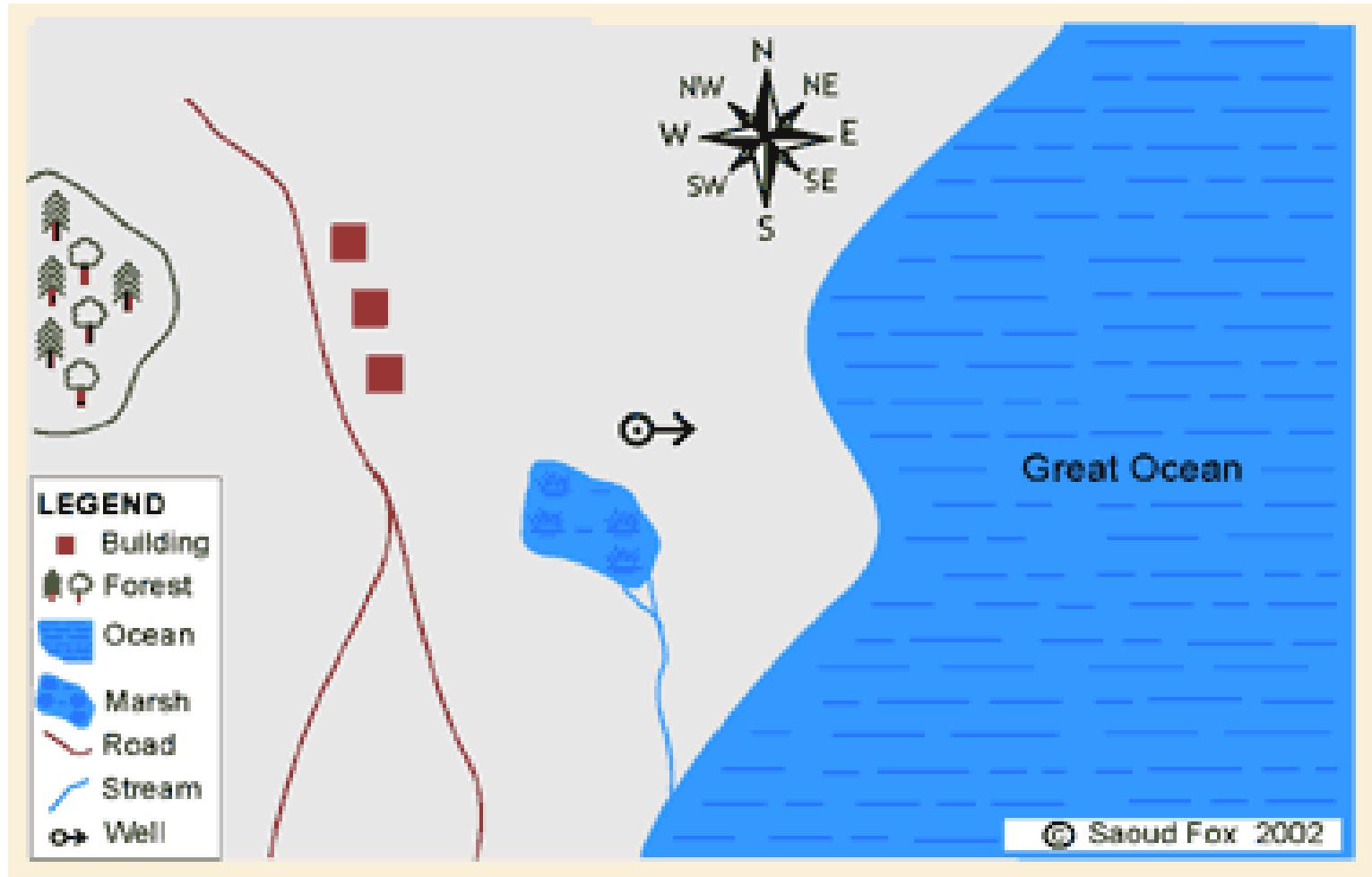


# Media Peta : Kertas

- Paper maps have been used for centuries.- **SUDAH LAMA DI GUNAKAN**
- Paper maps are relatively inexpensive - **MURAH**
- and so are available to most people. – **SEMUA ORANG BOLEH GUNA**
- They are portable and compact, they just fold up and go in your pack. – **MUDAH DIBAWA**

# Unsur-unsur Peta

- *Elements of a map*



# Legends & Symbols

- A legend is a part of a map that interprets the meaning of point, line, and area symbols on a map.

Symbols represent real world land features on a map. Symbols can be divided into three groups: point, line, and polygon (or area) symbols.



# Colour

- Using colours on maps provides very helpful visual cues to the map user who is interpreting the map. There are general cartographic, or map-making, rules which cartographers, or map-makers have to use. On most modern topographic maps, the eight basic colours are:

- White
- Green
- Blue
- Red
- Black
- Pink
- Brown
- Purple



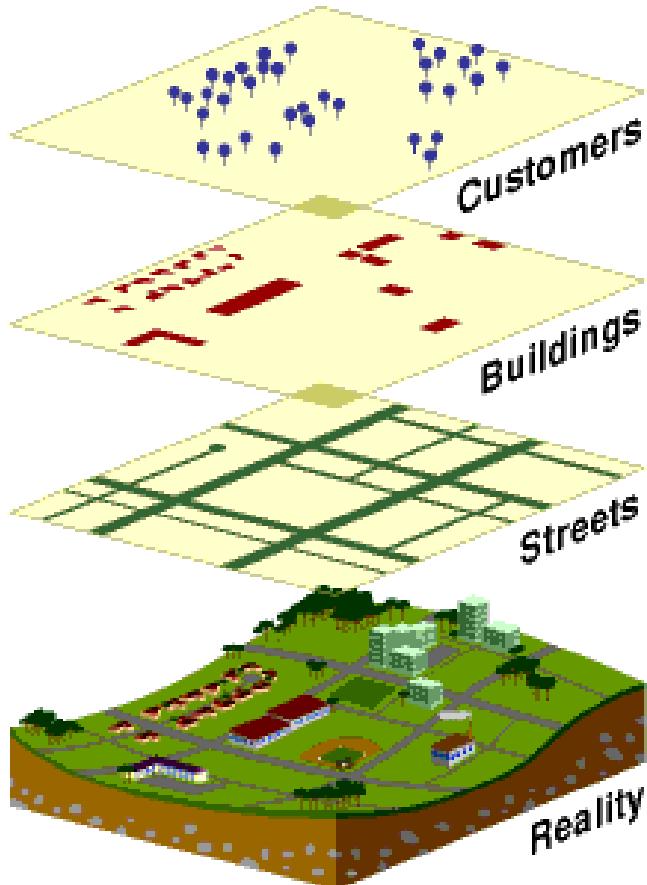
# DATA CUSTODIAN

- Maps should also credit the source of the data that the map was produced from. This should name the source and date the year of the data.
- **Why would telling people the source of the data be important?**
  - It is important because it gives the map and the data it was made from, credibility or trustworthiness that the map was based on correct information. Map-user's will know, or at least be able to check, that the data that the cartographer, or mapmaker, used was gathered and reported correctly.

# Keburukan Peta : Kertas

- **Tidak boleh dikemaskini dengan senang.** Because of their permanent format; when new updated information such as newly built roads becomes available to cartographers, whole new maps must be drawn instead of just updating one part of the map, in this case the roads.
- **Mudah rosak.** If you take your map on a camping trip for instance, it could get wet or torn unless you have protected it with some form of lamination.
- **Melibatkan satu tema sahaja,** paper maps are usually based on only one theme, such as road maps, land use maps, or geological maps.

# Media Peta Digital



- Digital maps are a product of the last century's massive increase in technology development.
- **Mudah dikemaskini, diubah dan dimanupulasikan.**
- With a click of a mouse button, you can add layers to your land use map to find
  - a) major highways,
  - b) streams and rivers,
  - c) to find power lines.

# PERISIAN GIS



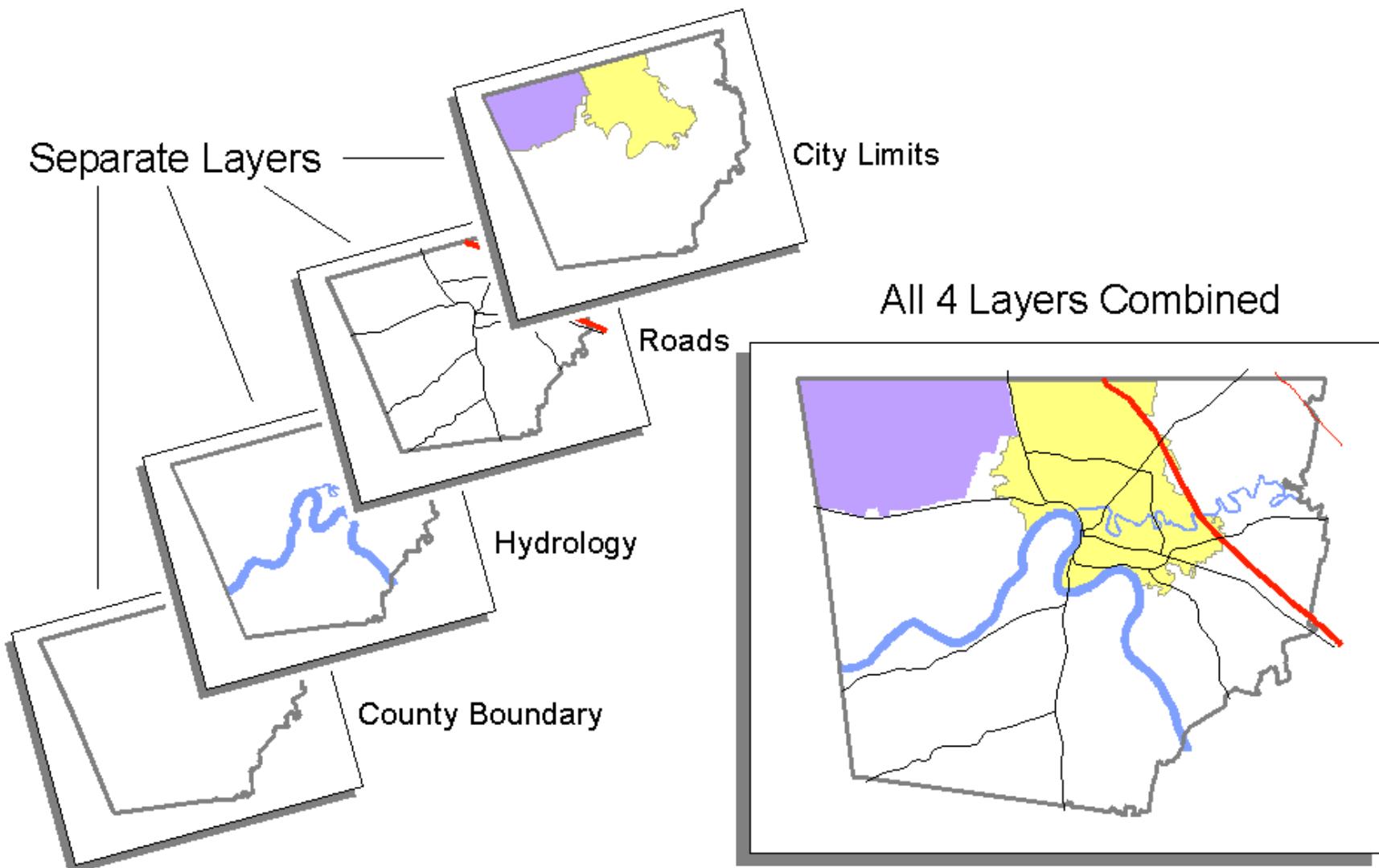
# SMALLWORLD



# Autodesk World®

# IDRISI

# Example of Geographic Information System Layers



## Point symbols are:

- buildings
- wells
- radio towers



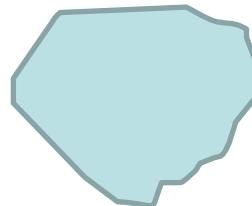
## Line symbols are:

- roads
- rivers
- railroad tracks
- power lines



## Polygon or area symbols are:

- water bodies
- swamps
- deserts
- forested area



## LEGEND



Building



School



Forest



Lake



Marsh



Road



Secondary  
Road

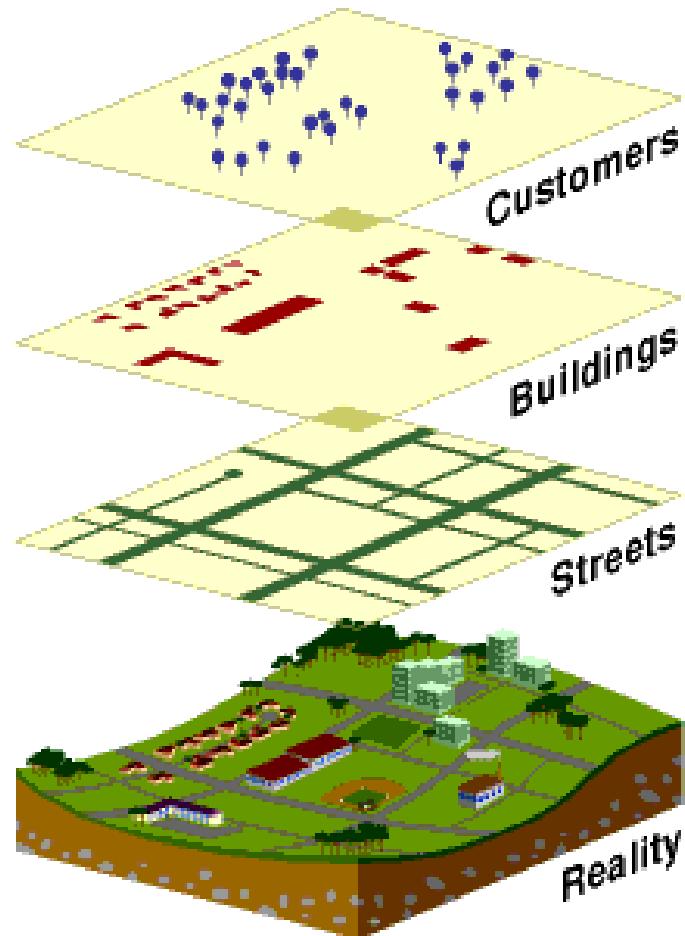


Stream



Well

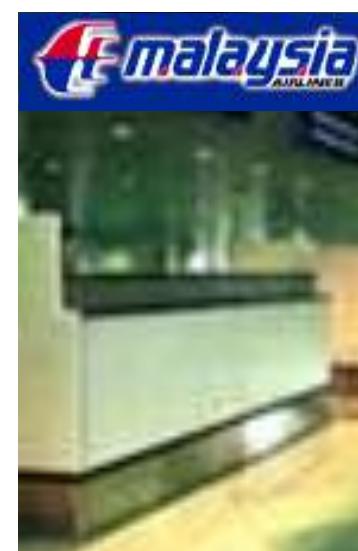
- With a digital map, a user can find the area of a particular feature like a lake or a forest, the length of a road or water course, or find out how many schools are within a school board district.
- Digital maps can easily be personalized to a specific user's needs and purpose.
- Digital maps can also be easily kept up-to-date.





# Sistem Maklumat

“satu proses yang dilakukan terhadap data mentah bagi menghasilkan maklumat yang berguna dalam membantu membuat sesuatu keputusan”



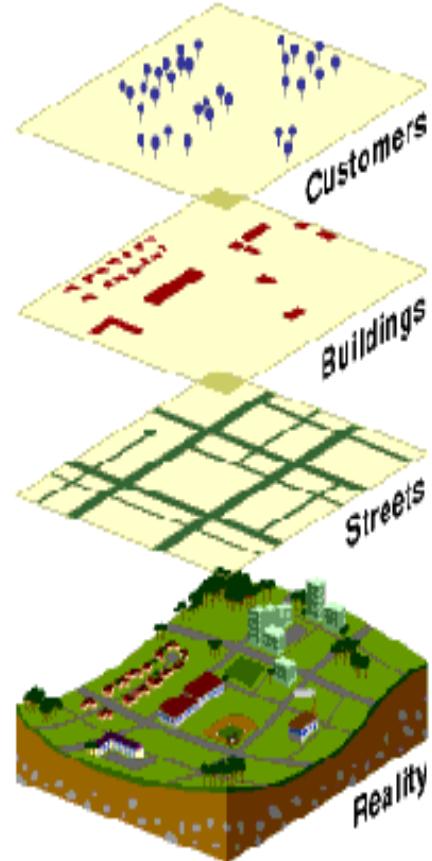
## Sistem maklumat akaun penyimpan

- no akaun
- nama pemegang akaun
- alamat
- jenis simpanan
- dll

## Sistem maklumat penumpang

- nama penumpang
- nombor tiket
- nombor penerbangan
- tarikh penerbangan
- dll

# What is a Geographic Information System?



The program you used at the museum is an example of a geographic information system, or GIS. A **GIS is a type of computer software**. The basis for this software is a computerized map.

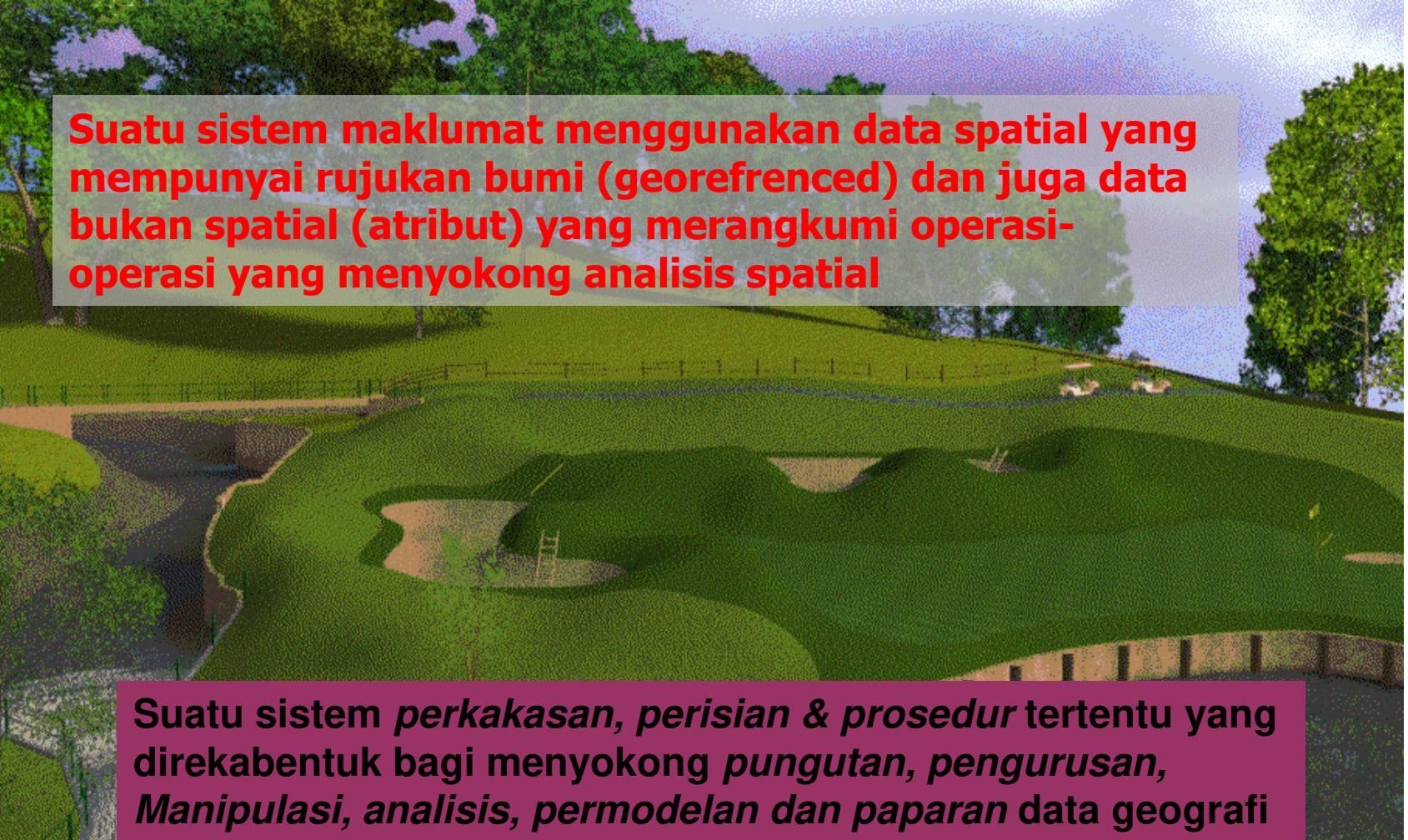
Like a regular paper map, a GIS map shows where things are located. A GIS, however, is much more than a map. **It also contains a database of information about the things on the map**, such as what was displayed in each room of the museum. In addition, the GIS contains software that **analyzes the database and map information to find connections between them**.

Searching for gemstone displays in the museum is an example of a GIS analysis. To answer your question, the software examined the database and map, and gave you the location of the gemstone exhibit. There is no fixed information to go with the map in a GIS. Some GIS show where power lines run, others show the roads, while others show schools.

# WHY GIS IMPORTANT?

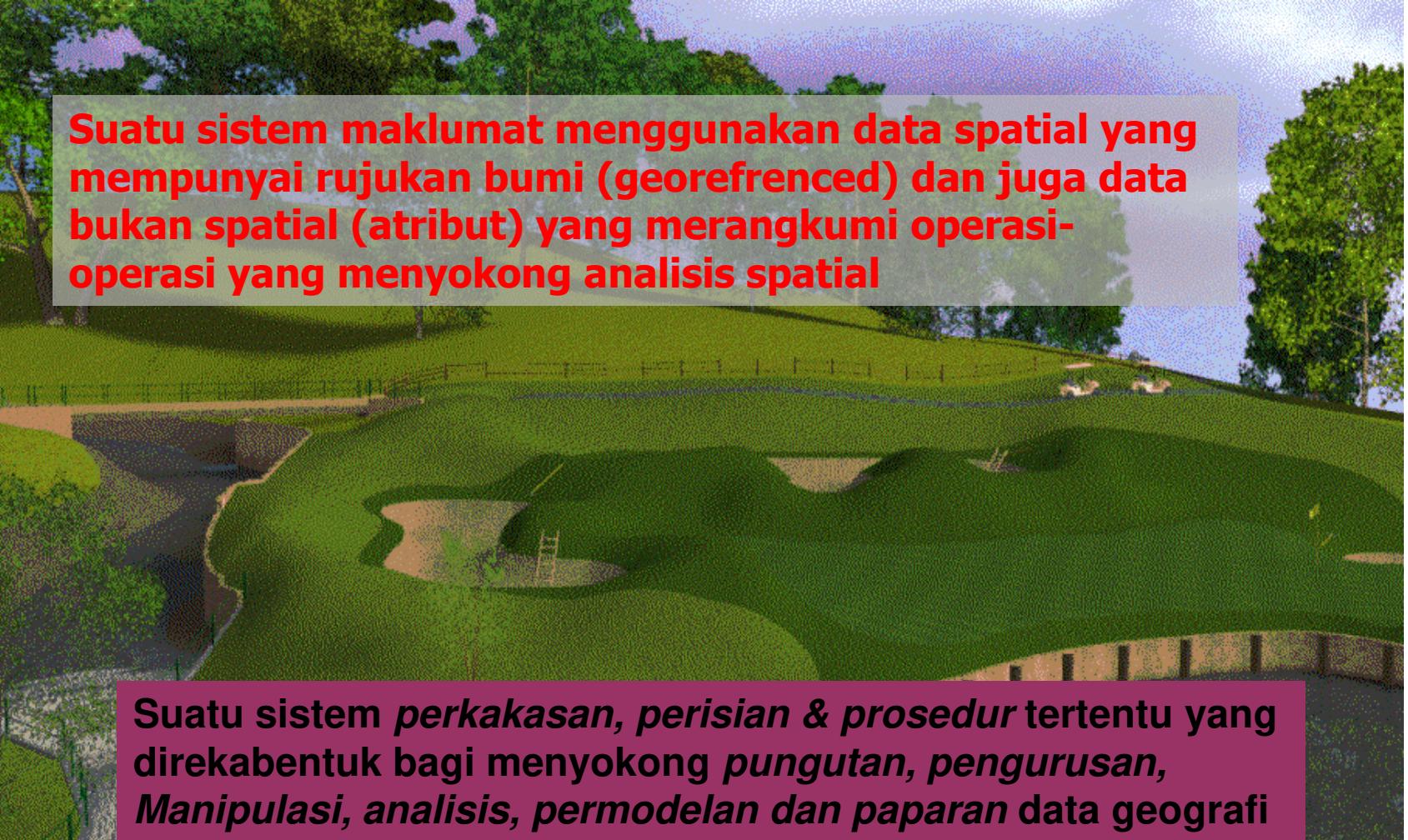
- GIS is important because of its ability to **analyze information**. Any information which is related to maps can be analyzed with a GIS. The types of maps and data in a GIS are also very flexible. A GIS map can cover very small to very large areas. A small GIS map might just show a few blocks in a city. It might show details of where utilities such as telephones lines, sewers, and cables are located. A large GIS map could cover the entire Earth. It might show seasonal changes in plant growth. The information that a GIS map shows can be about anything.
- A geographic information system (or GIS) is **a way of representing information about the world in a computer** in the same way a map shows the world on paper.

# Sistem Maklumat Geografi (GIS)



A 3D rendering of a green hillside with a winding path, trees, and a small building, set against a blue sky. A vertical coordinate system with an upward-pointing arrow is positioned on the left side of the image.

**Suatu sistem maklumat menggunakan data spatial yang mempunyai rujukan bumi (georeferenced) dan juga data bukan spatial (atribut) yang merangkumi operasi-operasi yang menyokong analisis spatial**



A 3D rendering of a green hillside with a winding path, trees, and a small building, set against a blue sky. A horizontal coordinate system with a rightward-pointing arrow is positioned at the bottom right of the image.

**Suatu sistem perkakasan, perisian & prosedur tertentu yang direkabentuk bagi menyokong pungutan, pengurusan, Manipulasi, analisis, permodelan dan paparan data geografi**

# KOMPONEN GIS



**People**



**Hardware**



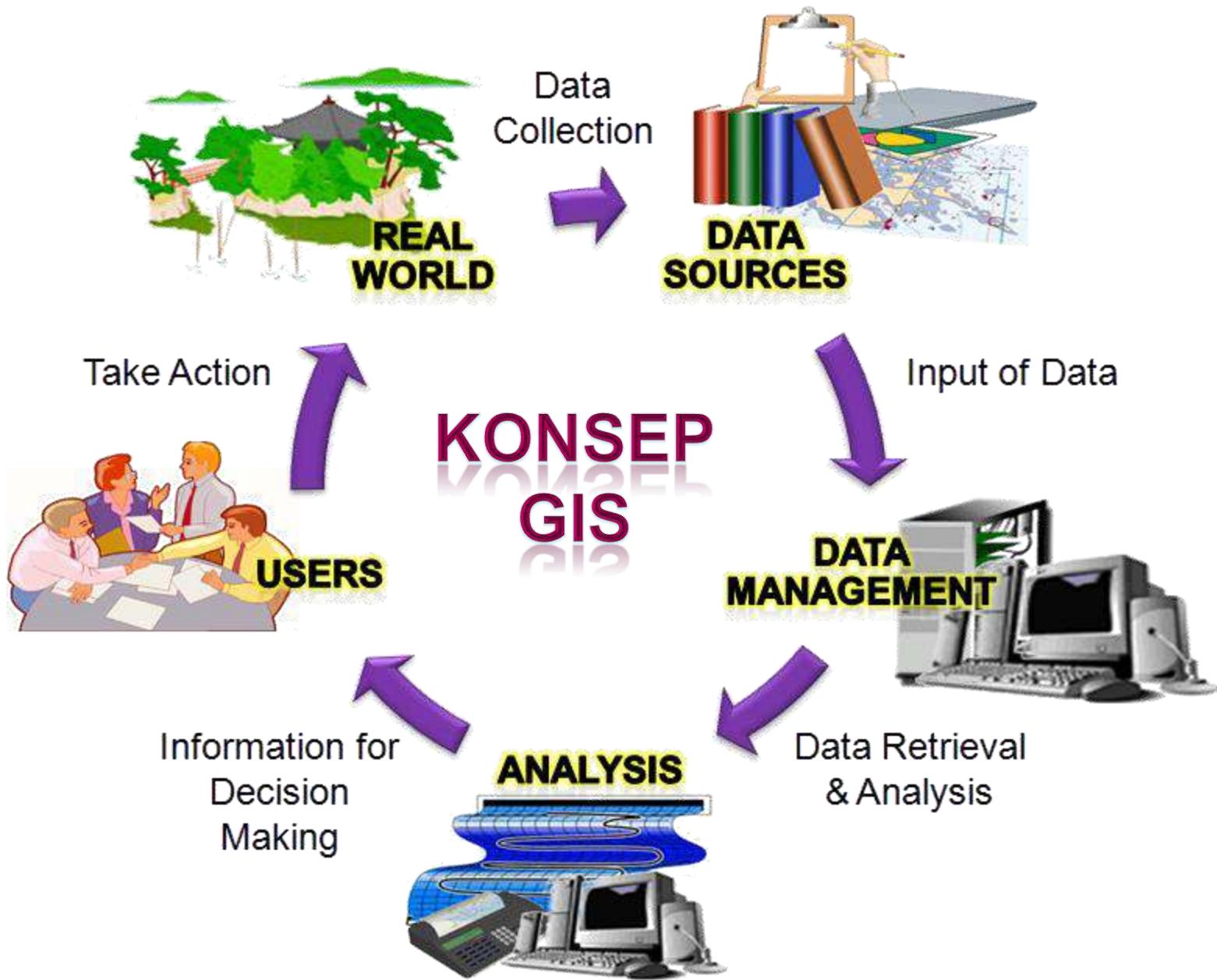
**Software**



**Methods**



**Data**



# KOMPONEN PENGGERAK



- perisian
- perkakasan
  - komputer
  - peralatan sokongan
  - konfigurasi
- model
- prosedur

## TEKNOLOGI

## DATA

## PENGGUNA

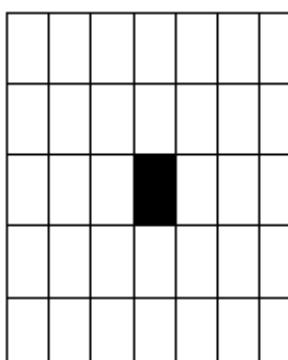
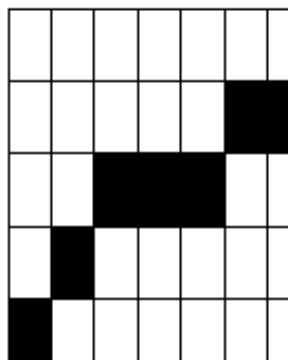
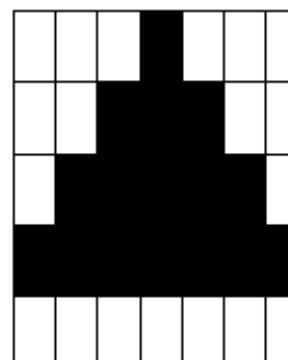


- kedapatan/ sumber
- ketepatan
- kekinian
- kesempurnaan
- konvensyenal vs digital
- spatial vs tekstual

- pangkalan data
  - reka bentuk
  - pembangunan
- operasi
  - perolehan maklumat
  - analisis spatial
- penyenggaran



# MODEL DATA

	Point	Line	Polygon	Cth format
Vector				<ul style="list-style-type: none"><li><b>.shp</b></li><li><b>.tab</b></li><li><b>.sdf</b></li></ul>
Raster				<ul style="list-style-type: none"><li><b>.img</b></li><li><b>.Jpeg</b></li><li><b>.Tiff</b></li><li><b>.ecw</b></li><li><b>.bmp</b></li></ul>

## CARIAN PERSENDIRIAN

Agensi : Pejabat Tanah dan Galian Kuala Lumpur

Daerah : TIADA DAERAH

Mukim : MUKIM AMPANG

Seksyen : TIADA

Jenis Carian  
mengikut :  Hakmilik  Lot/PT

Nombor Lot/PT : 262

Submit

Peta



Map created with ArcGIS server. Copyright 2009

## Catatan Persendirian

Jenis dan No Hakmilik	GRN 71669
Bandar/Pekan/Mukim	Mukim Ampang
Keluasan	11381.522 Meter Persegi
Nombor Syit Piawai	86-A
Taraf Pegangan	Selama-lamanya
Tarikh Daftar	23 Julai 2009
Nombor Lot	262
Tempat	-
Daerah	KUALA LUMPUR
Nombor Pelan Akui	3422
Tarikh Luput Pajakan	-
Cukai Tanah	RM3757.00
Butir-butir Tanah	
Kategori Tanah	Bangunan
Syarat Nyata	The land herein described shall be used for building Developments.
Sekatan Kepentingan	-
Pemilikan dan Alamat	GCB COURT MANAGEMENT CORPORATION, Warganegara Malaysia, 1/1 bahagian GCB COURT JALAN AMPANG 50450 WILAYAH PERSEKUTUAN KUALA LUMPUR
Tangungan Dan Endosan-Endosan Lain	

Zoom

Cetak Catatan

Cetak Resit

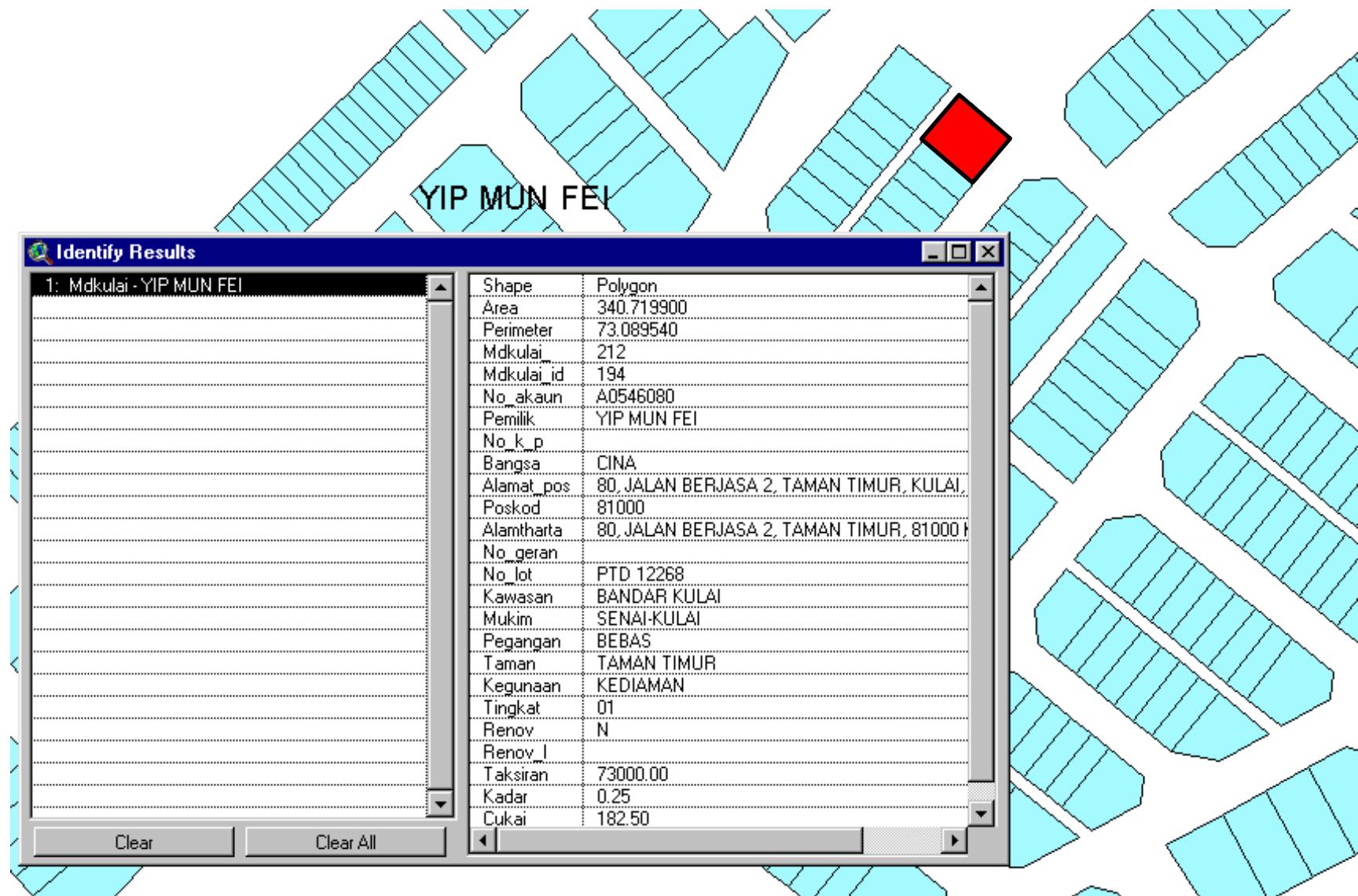
Selesai

Kembali

# **SOALAN-SOALAN YANG SEPATUTNYA BOLEH DIJAWAB OLEH GIS**

- ✓ **Apa terdapat di...? (soalan berbentuk lokasi - apa terdapat di sesuatu lokasi)**
- ✓ **Di mana letaknya sesuatu objek? (soalan bersyarat – memenuhi (kriteria tertentu)**
- ✓ **Bagaimana suatu fenomena berubah (soalan berbentuk trend)**
- ✓ **Maklumat manakah yang berkaitan (hubungan spatial) - di manakah kedudukan tarikan pelancong dalam lingkungan 1 km dari pusat bandar JB?**
- ✓ **Apa akan jadi jika (soalan berdasarkan model) - tumpahan minyak, ke manakah arah pergerakan minyak?**

# Apa yang maklumat terdapat di...



# Di mana letaknya sesuatu objek (soalan bersyarat - memenuhi kriteria tertentu)

Fields

[Perimeter]	▲
[Mdkulai_]	▼
[Mdkulai_id]	▼
[No_akaun]	▼
[Pemilik]	▼
[No_k_p]	▼
<b>[Bangsa]</b>	▼

Values

"CINA"	▲
"INDIA"	▼
"MELAYU"	▼
"SYARIKAT"	▼
"TIADA"	▼
...	▼

= <> and  
> >= or  
< <= not  
( )

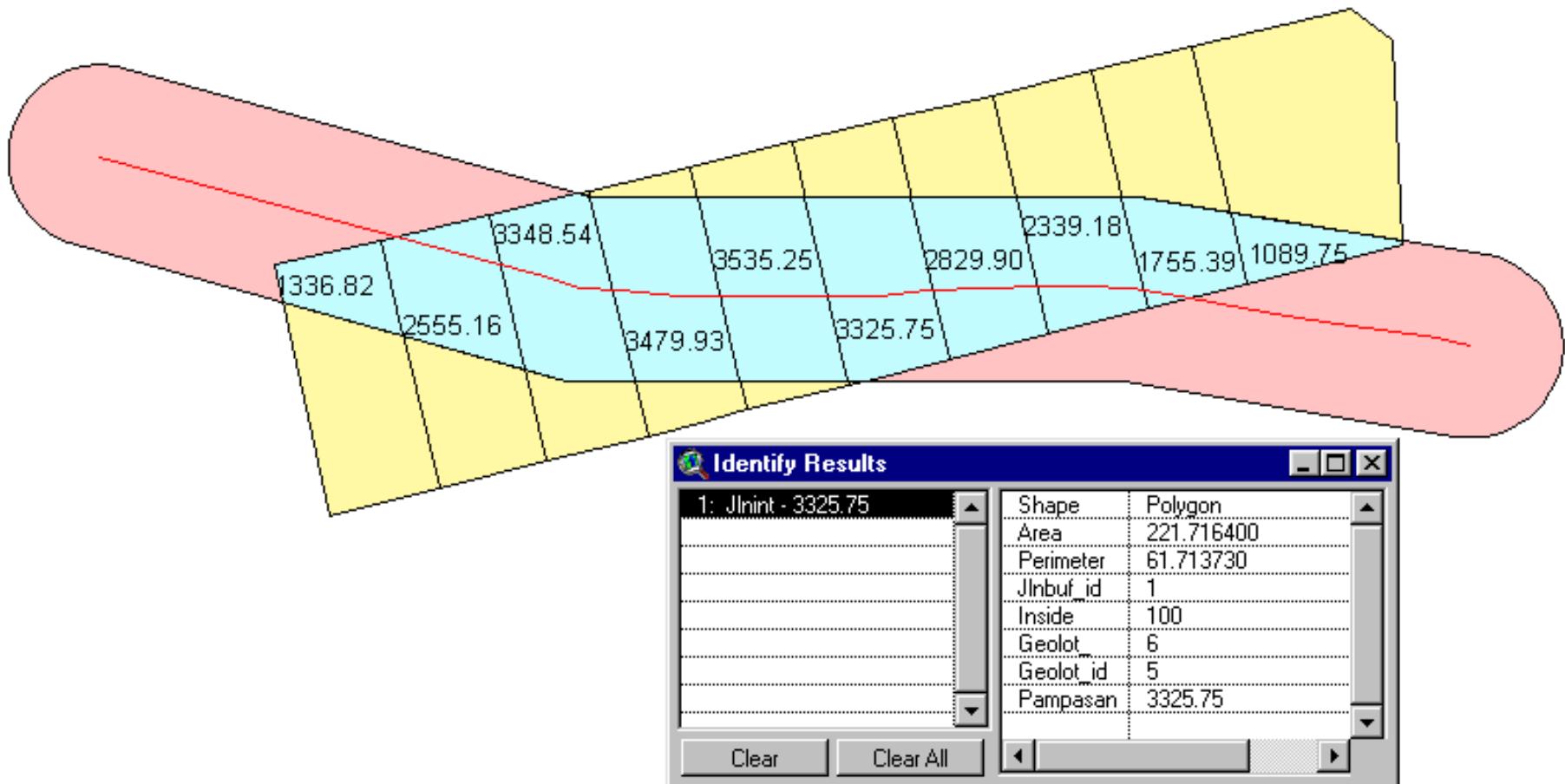
Update Values

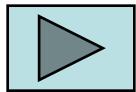
( [Bangsa] = "CINA" )

New Set  
Add To Set  
Select From Set



# Contoh analisis spatial - pengambilan jalan; kiraan pampasan





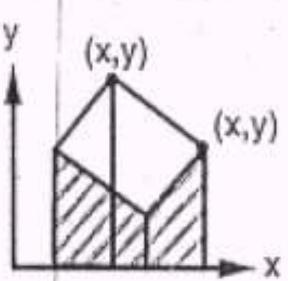
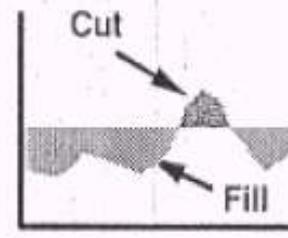
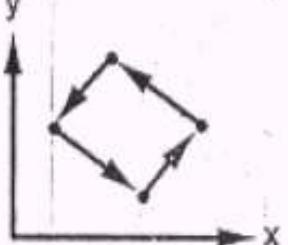
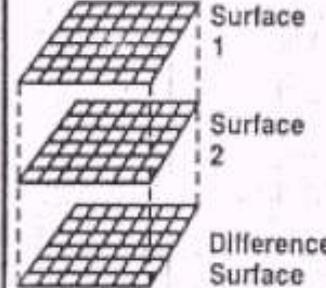
# SUBSISTEM MANIPULASI & ANALISIS DATA

## Fungsi bagi analisis spatial

Terdapat beberapa fungsi bagi analisis di dalam GIS;

- Pengukuran
- Pertanyaan
- Buffering (Penimbang)
- Tindihan (Overlay)
- Analisis Permukaan

**GIS mempunyai fungsi pengukuran dan pengiraan terhadap data titik, garisan, keluasan, jarak dan isipadu.**

Total Number	Straight	Area	Cross Section
 Point-in-Polygon	 Curved	 Perimeter	 Area
 Point-in-Polygon	 Curved	 Area	 Volumes
Points	Distance	Areas	Volumes

# Analisis GIS - Pertanyaan

Kebiasaannya, analisis pertanyaan adalah seperti:

- Memeriksa kualiti dan keputusan analisis
- Mencari hasil yang berkenaan berdasarkan kepada kriteria yang dikenalpasti

Dua jenis pertanyaan –Spatial dan Non-Spatial

- Spatial –Lokasi/kedudukan objek
- Non Spatial –Attribut sesuatu objek

Analisis pertanyaan biasanya adalah proses terakhir setelah pelbagai analisis spatial dilakukan

# Pilih (Select)

- Operasi Pilih (Select)
  - Mengenalpasti sesuatu feature berdasarkan kriteria tertentu.
  - Feature yang telah dipilih boleh dikeluarkan sebagai lapisan data yang baru.
  - Hasil Output boleh diguna untuk analisis yang lain.

## Contoh :

- **Select:**
  1. **State = Arkansas**
  2. **States = entirely north of Arkansas**
  3. **States\_area>84,000 sq. mi.**
  4. **States both entirely north of Arkansas and larger than 84,000 sq. mi.**



Arkansas



States entirely  
north of Arkansas



States larger  
than 84,000 sq. km.



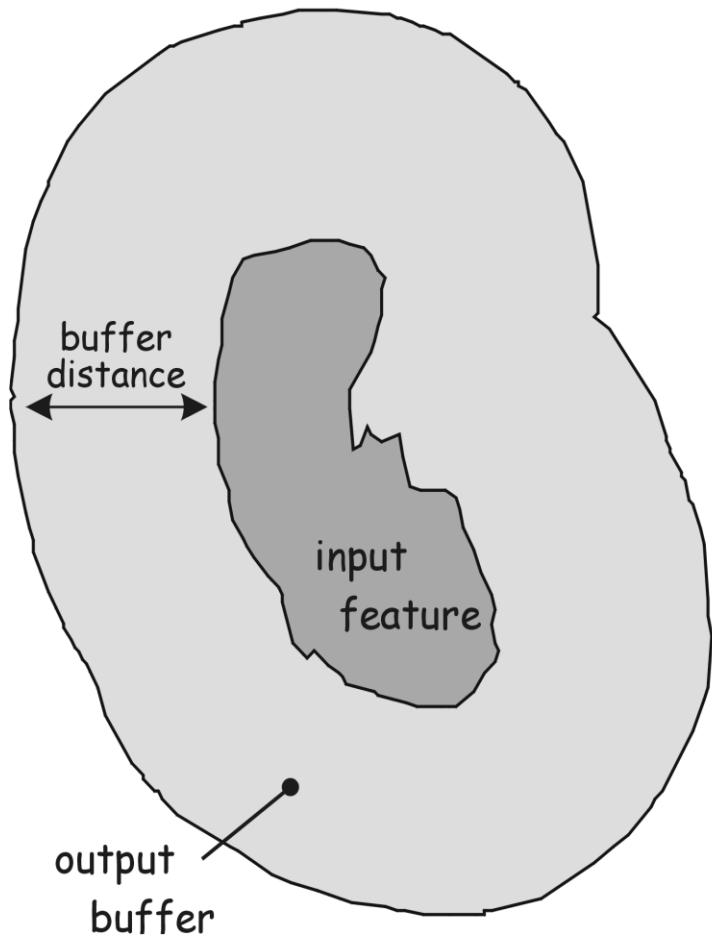
States both  
entirely north of  
Arkansas  
and  
larger than 84,000 sq. km.

# Buffer (Penimbal)

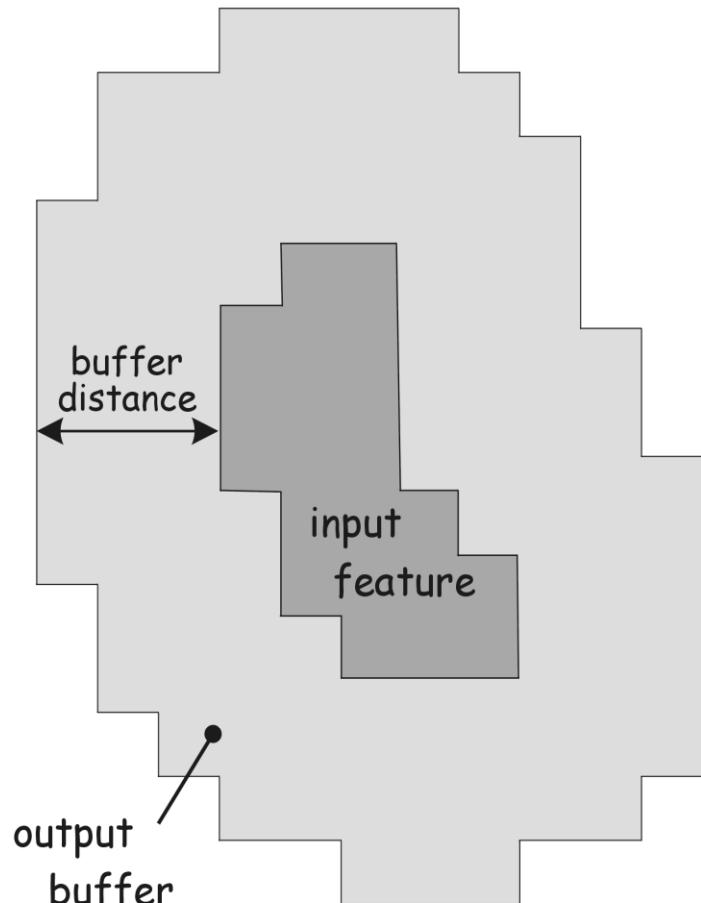
- Operasi ‘Buffer’ merupakan operasi yang biasa digunakan dalam analisis spatial.
  - Ianya digunakan untuk menghasilkan suatu kekangan kawasan baru yang merangkumi objek-objek seperti titik, garisan, kawasan dan lain-lain.
  - Ianya juga akan menghasilkan kawasan tindihan hasil dari rebakan titik, garisan, kawasan dan sebagainya yang akan memberikan suatu identiti baru bagi tindihan tersebut.

# Buffer samb.

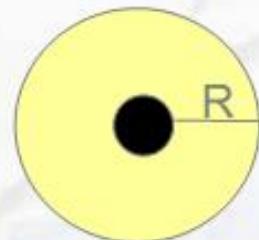
Vector buffer



Raster buffer

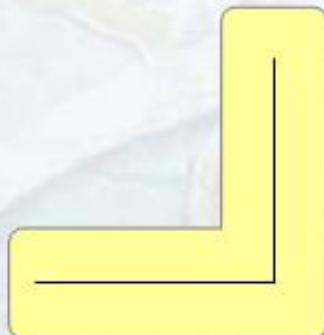


# Buffer samb.



## Buffering Titik

Contoh: Kawasan dalam lingkungan 1 batu daripada kota



## Buffering Garisan

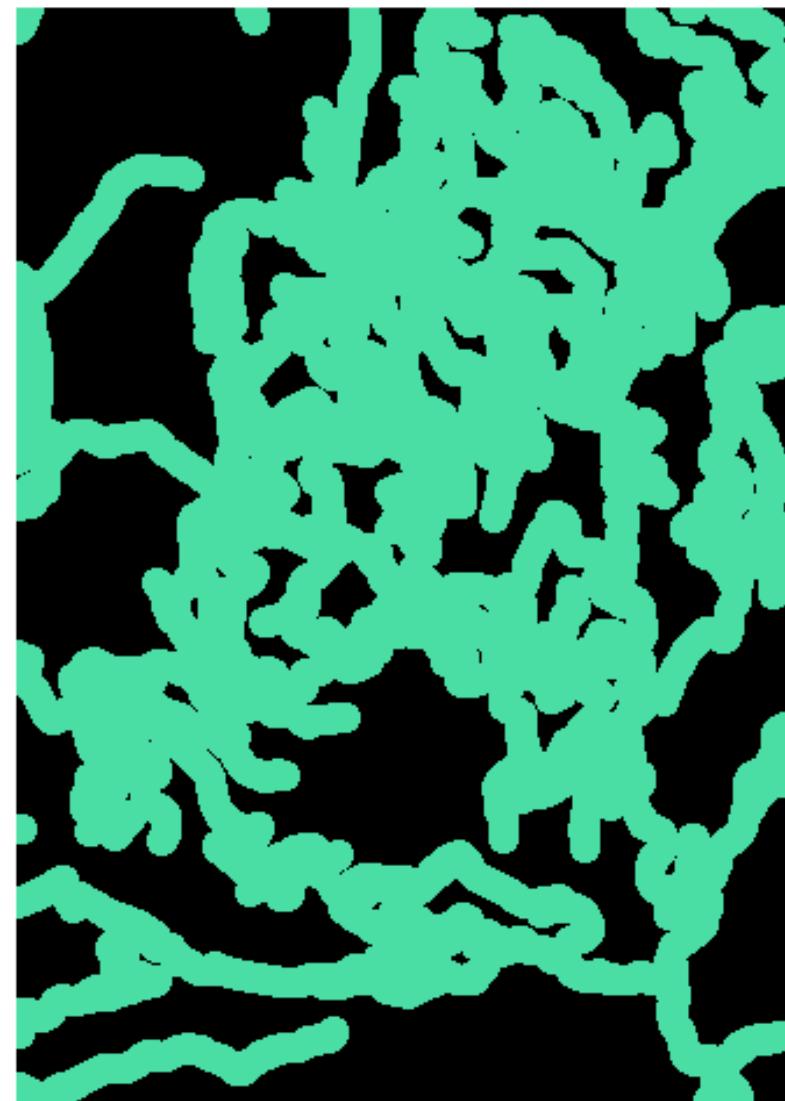
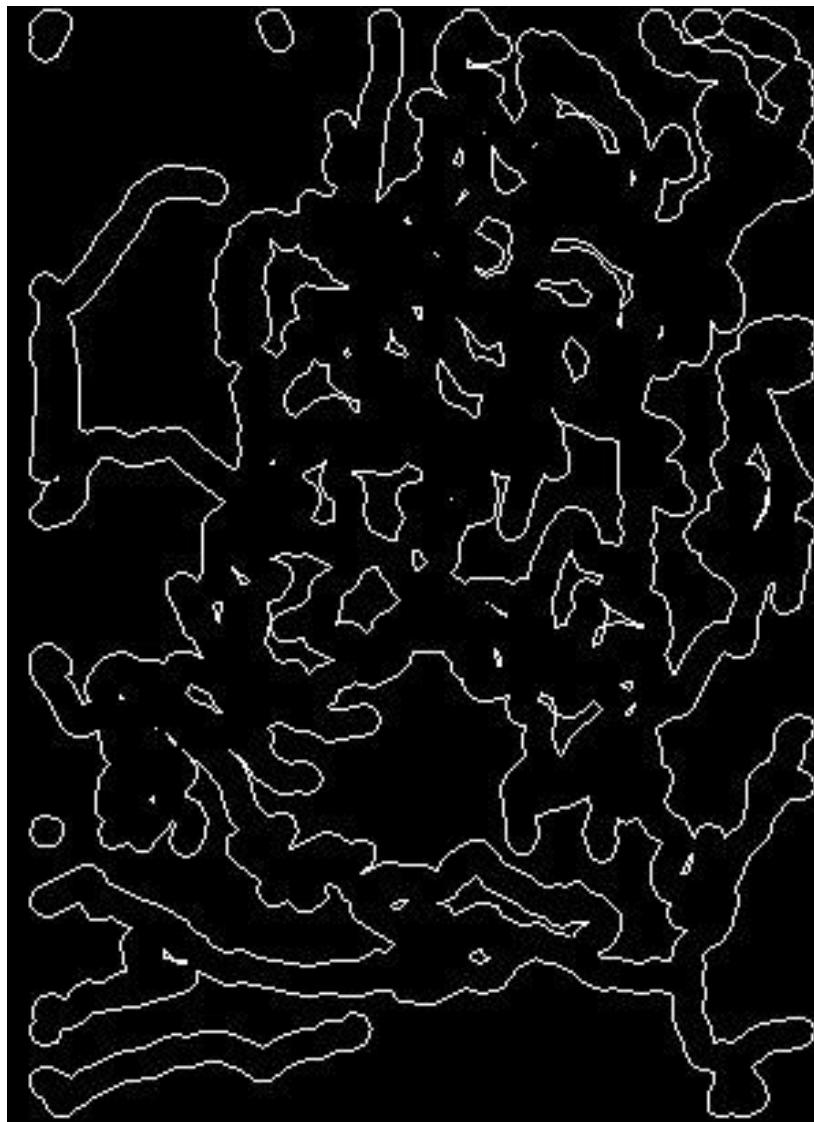
Contoh: Kawasan dalam had 100 meter daripada jalan



## Buffering Poligon

Contoh: Kawasan dalam lingkungan 500 meter dari kawasan paya

# Contoh Buffer:



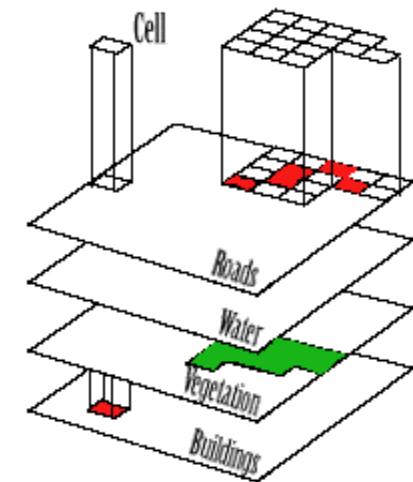
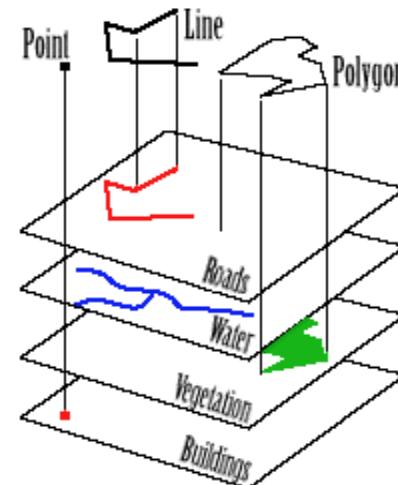
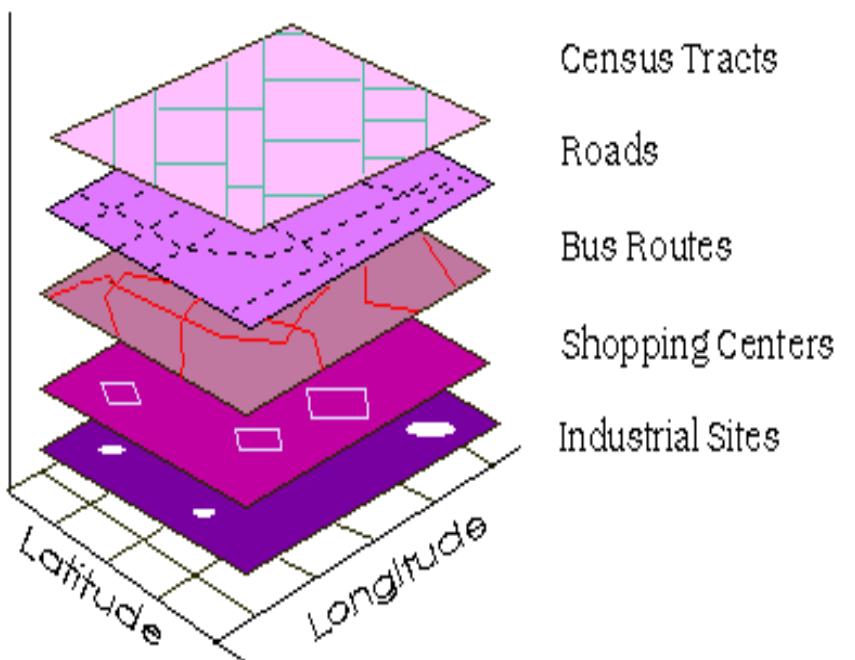
# **Analisis GIS - Tindihan**

- Analisis tindihan adalah analisis yang melibatkan multi-lapisan atau multi objek.
- Operasi analisis dilakukan ke atas multi-lapisan secara serentak.
- Boleh dilakukan terhadap data raster dan vektor
- membolehkan kita membuat manipulasi data yang disusun dalam lapisan berbeza dan melihat hubungannya di antara satu sama lain.

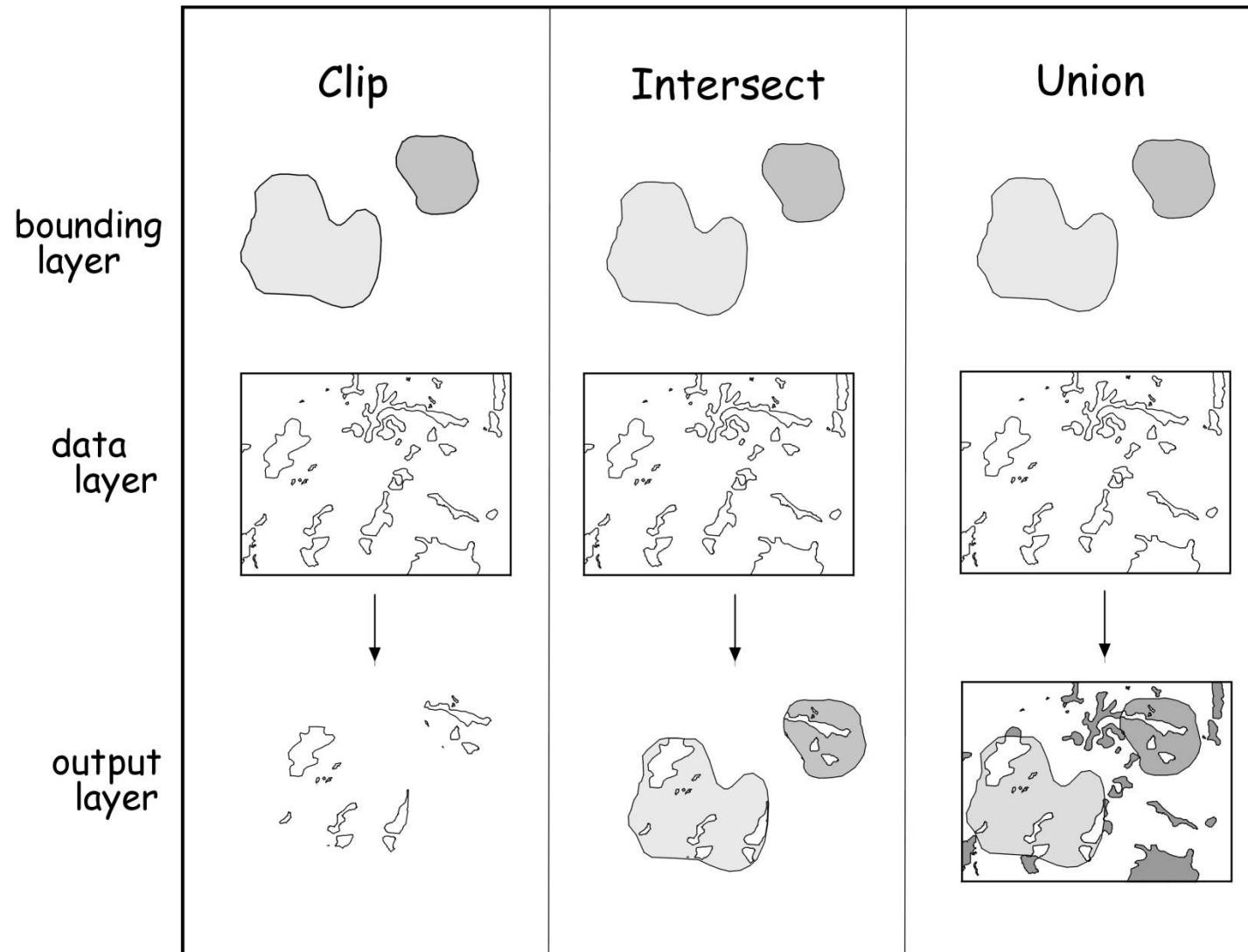
# Tindihan (Overlay)

## Operasi tindihan:

- data vektor -sangat kompleks dan memakan masa
- data raster-mudah dan cepat



# Contoh..



# Analisis GIS – Analisis Permukaan

## Operasi yang melibatkan data-data 3D

- Kontur
- Slope
- Aspect
- Viewshed

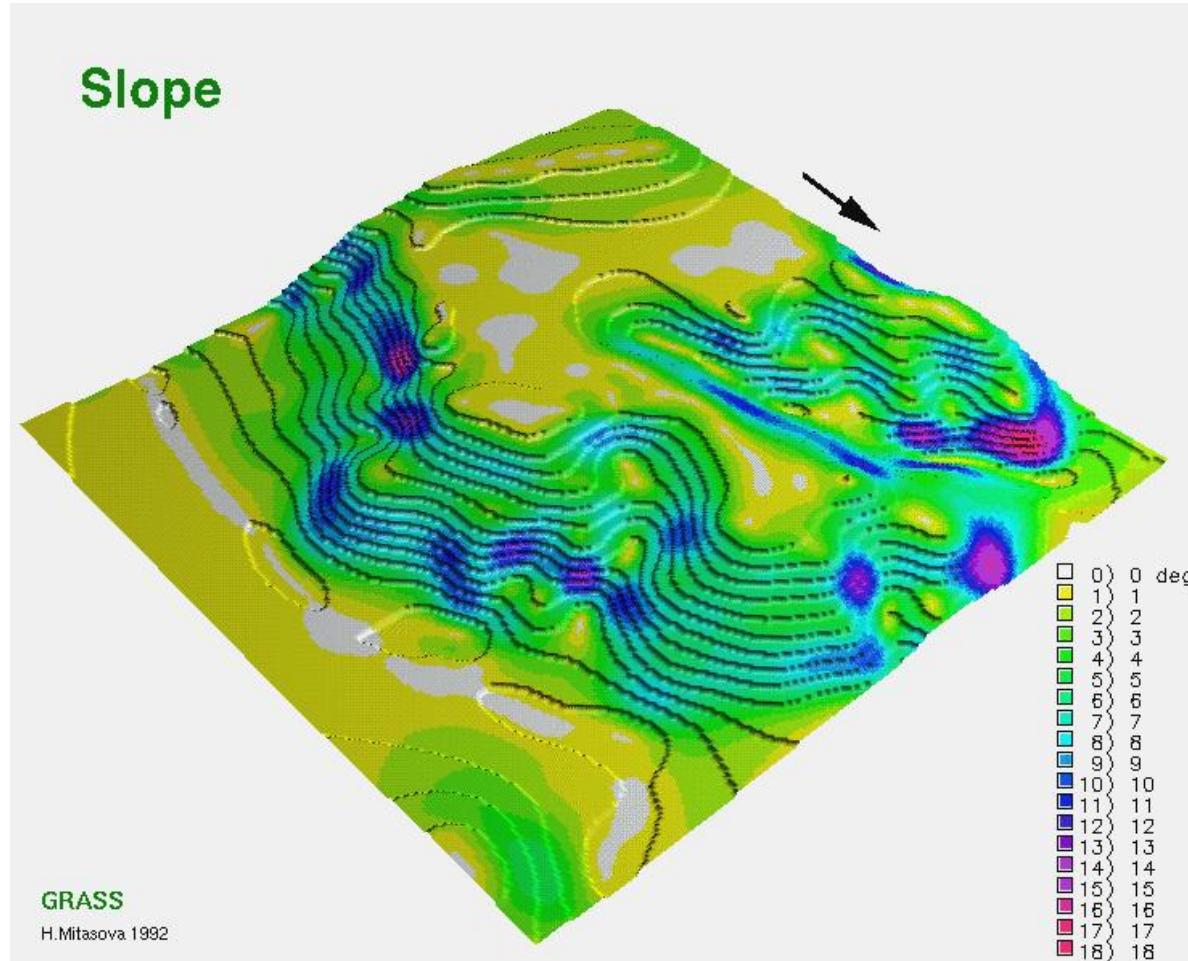
Ia adalah analisis ke atas taburan data 3-dimensi

Di samping data koordinat x,y, analisis permukaan melibatkan nilai Z.

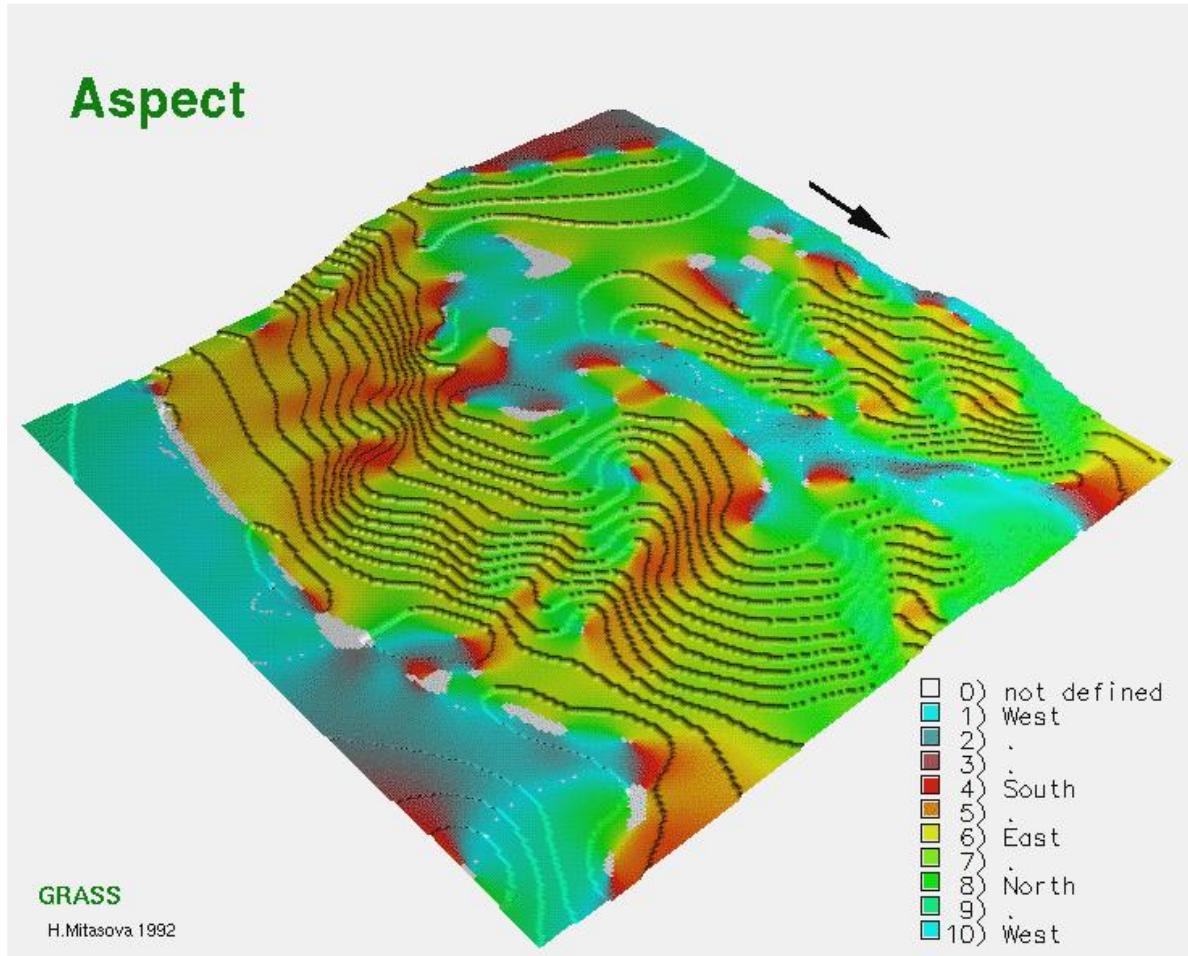
Contoh nilai Z ialah :

- ketinggian, kedalaman, suhu, taburan hujan dll.

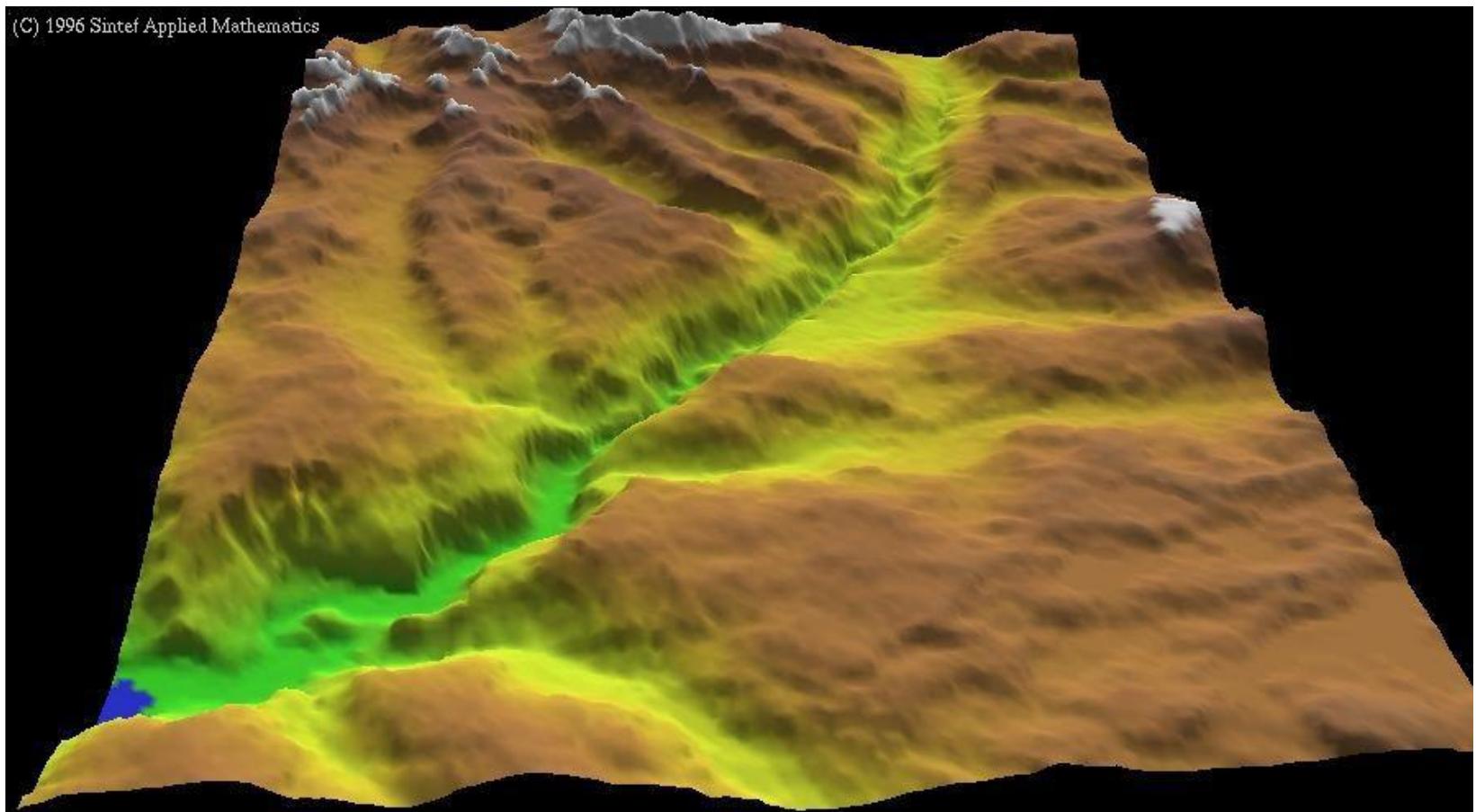
# Analisis GIS – (Analisis Slope)



# Analisis GIS – Analisis Permukaan ( Aspect)

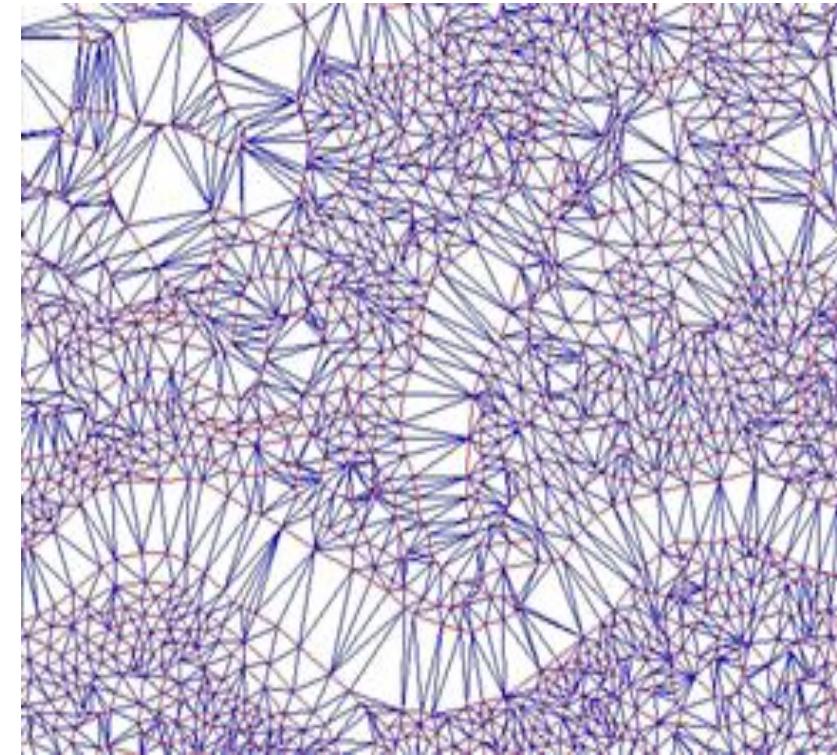


# Analisis GIS – Analisis Permukaan (Analisis kontur)

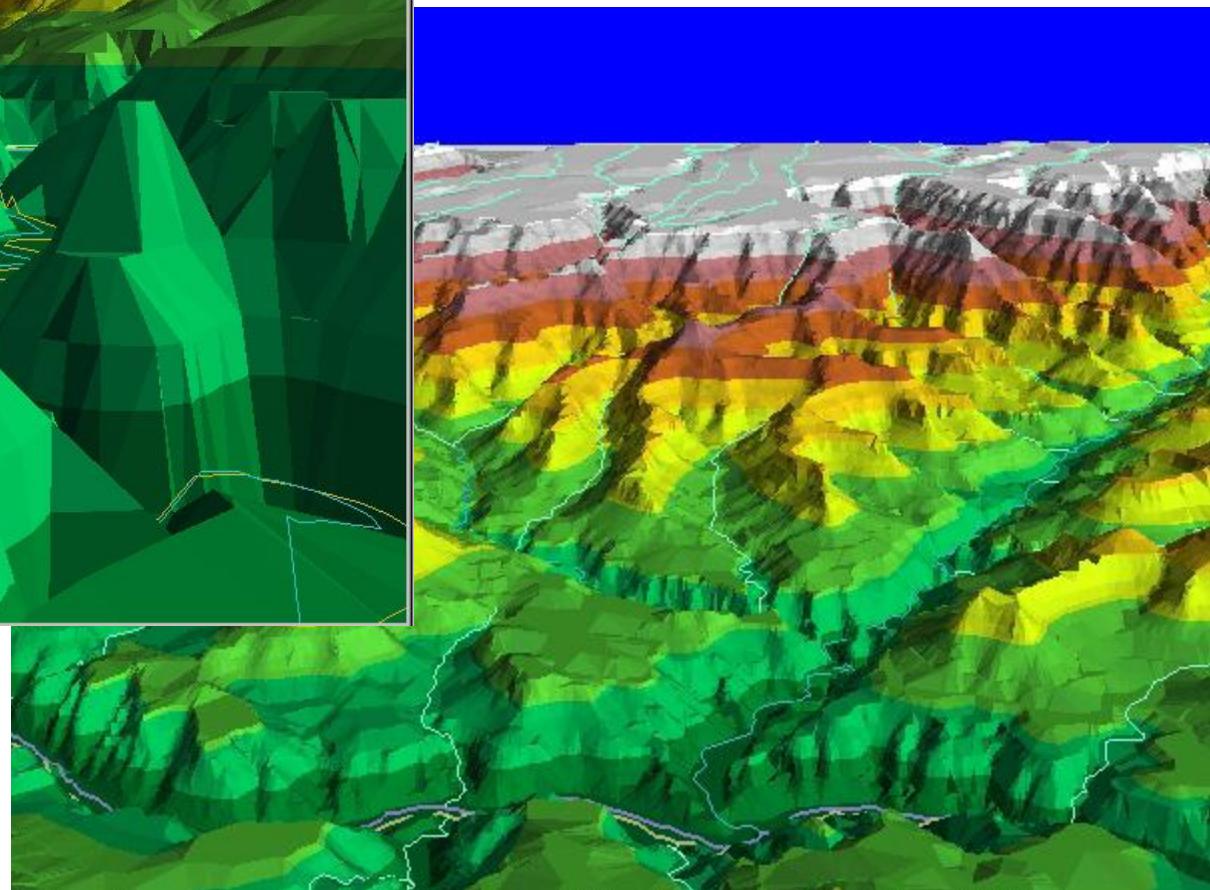
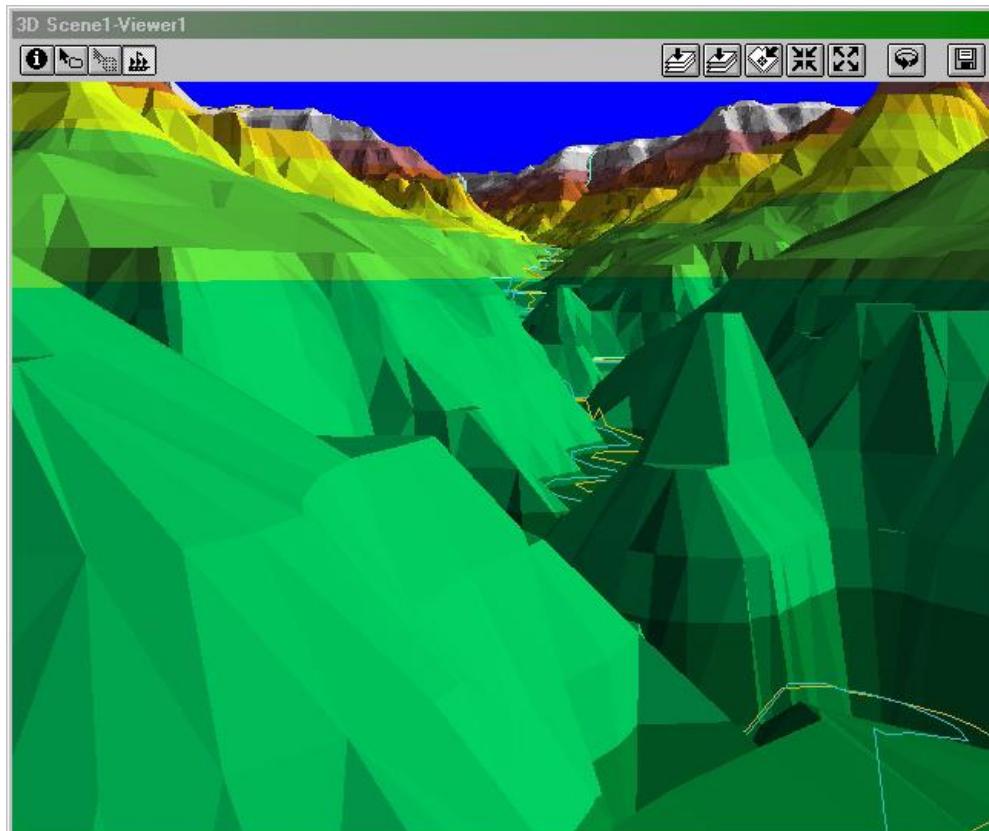


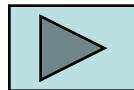
# Analisis GIS – Analisis Permukaan

Model Topologi3-D menghasilkan triangulasi jaringan permukaan

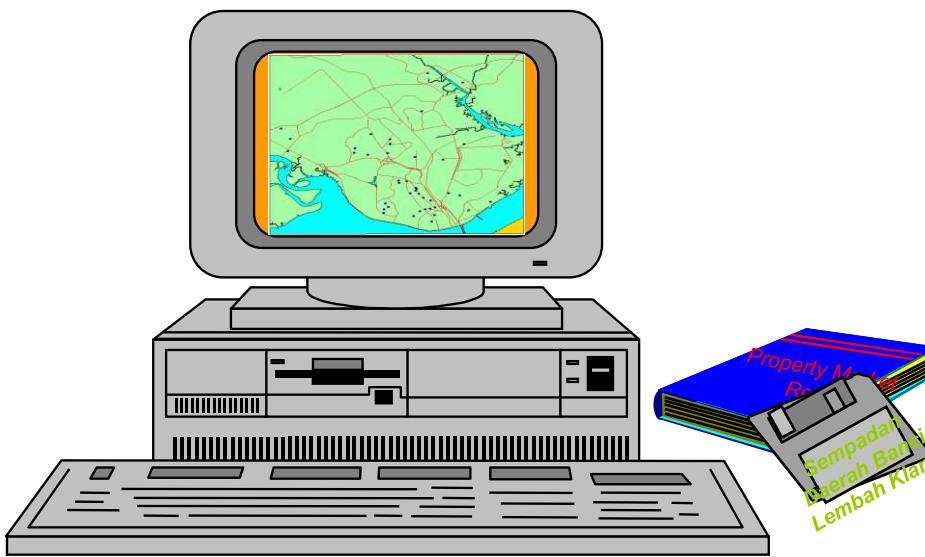


# Analisis GIS – Analisis Permukaan

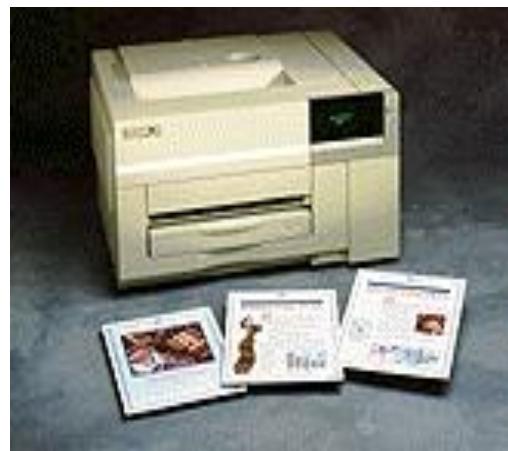
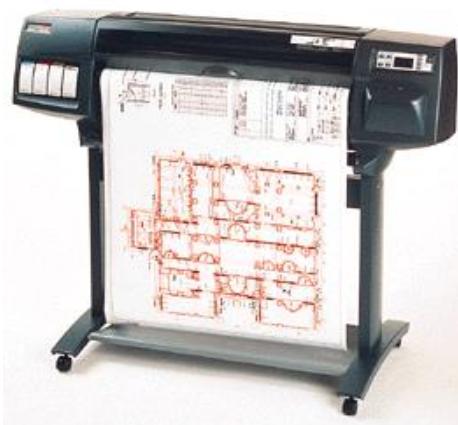




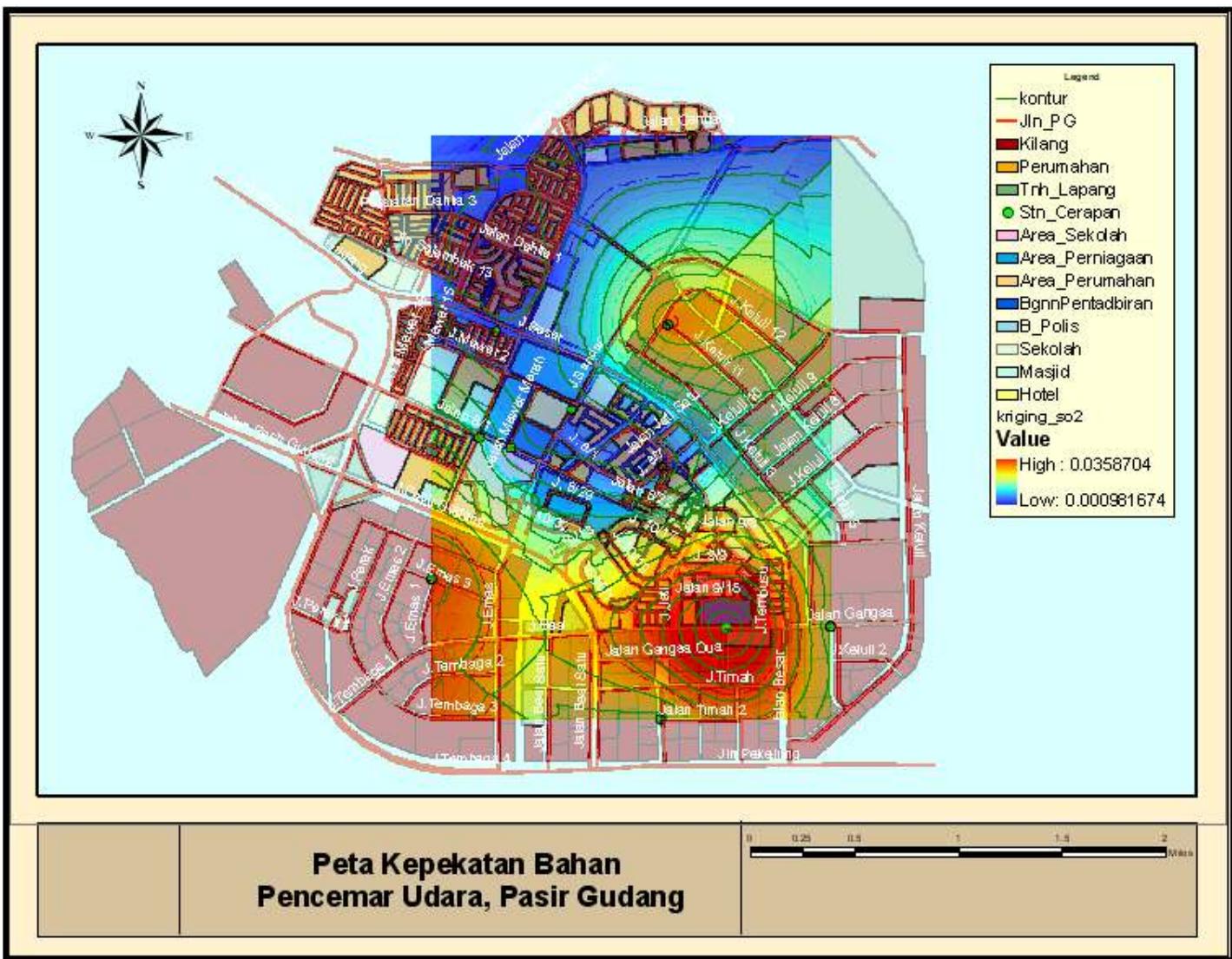
# SUBSISTEM KELUARAN (OUTPUT) DATA



- memaparkan
  - hasil pertanyaan (query)
  - hasil analisis
- elok jika:
  - berupaya membuat paparan pada pelbagai peranti paparan
  - penjanaan secara interaktif & mod berkelompok
  - menyimpan makro
  - pelotan berbilang lapisan peta
  - menyediakan pelbagai kemudahan bagi rekabentuk kartografi



Print... Close Zoom In Zoom Out First Previous Next Last



-0.87 6.62 Inches



proposal\_lates1t [Co...

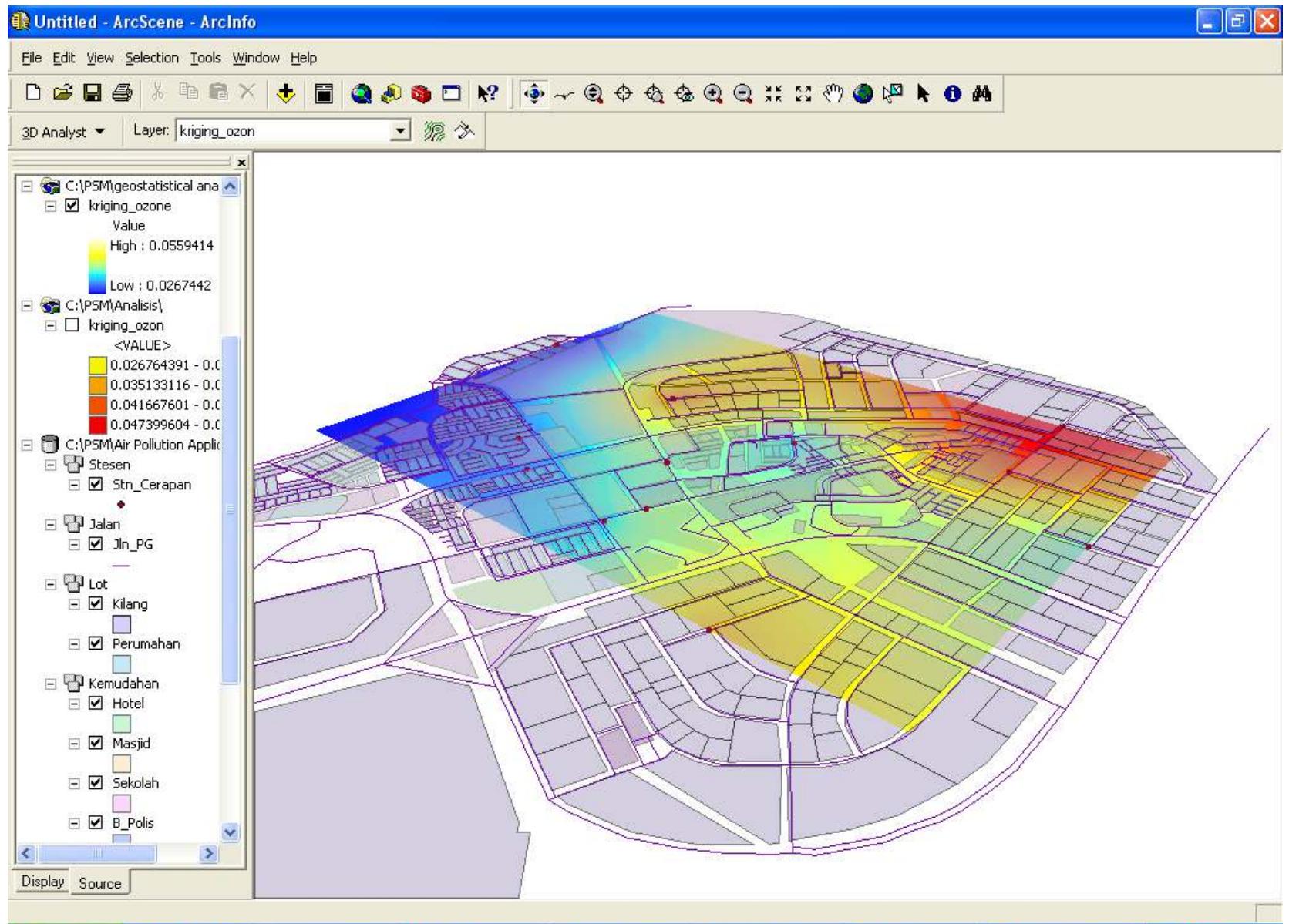
AIR POLLUTION MOD...

MODEL PENCEMARA...

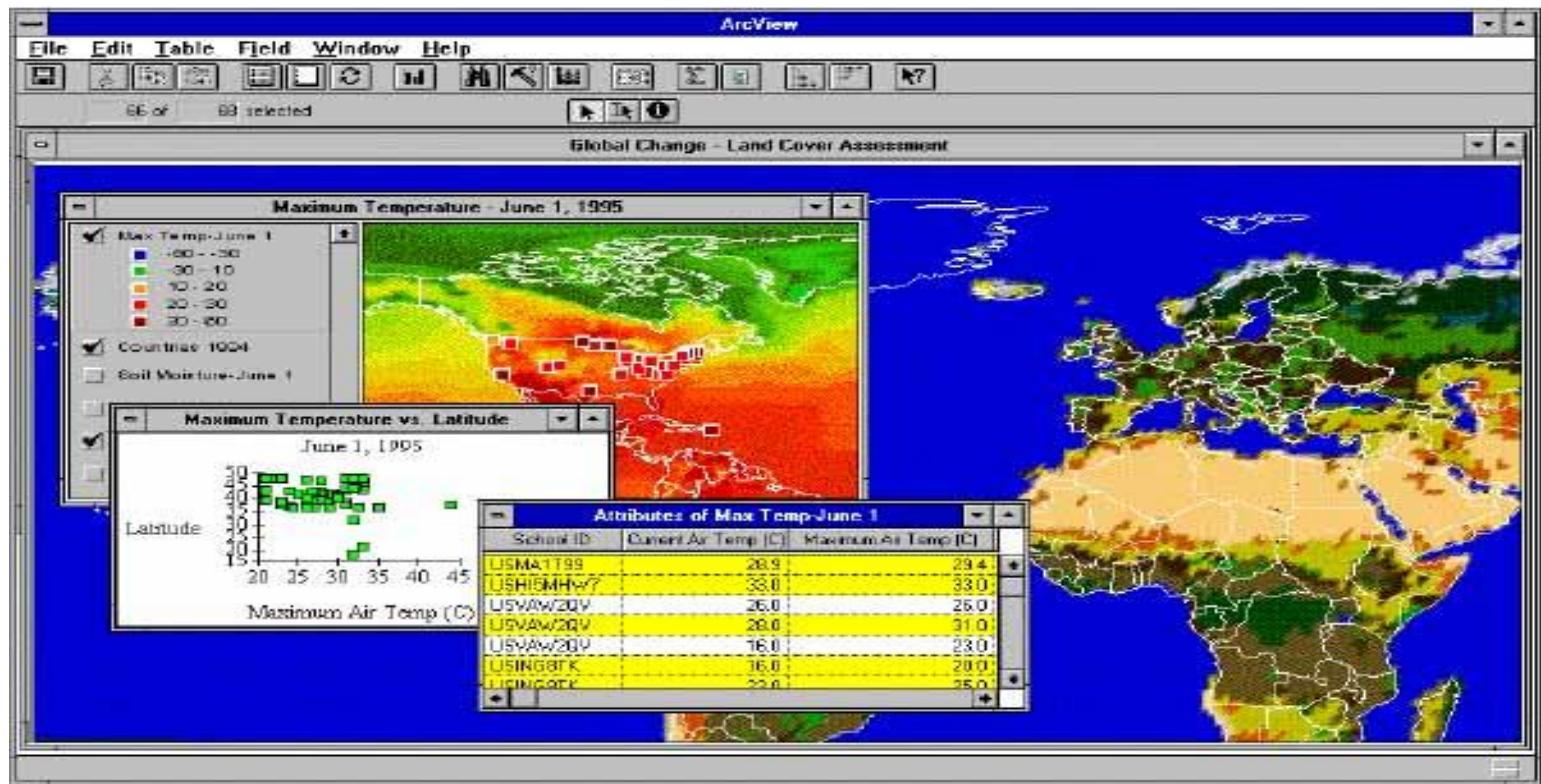
Microsoft PowerPoint ...



2:39 PM



# FAEDAH PENGGUNAAN GIS DALAM PELBAGAI SEKTOR



# 1. Membuat Keputusan

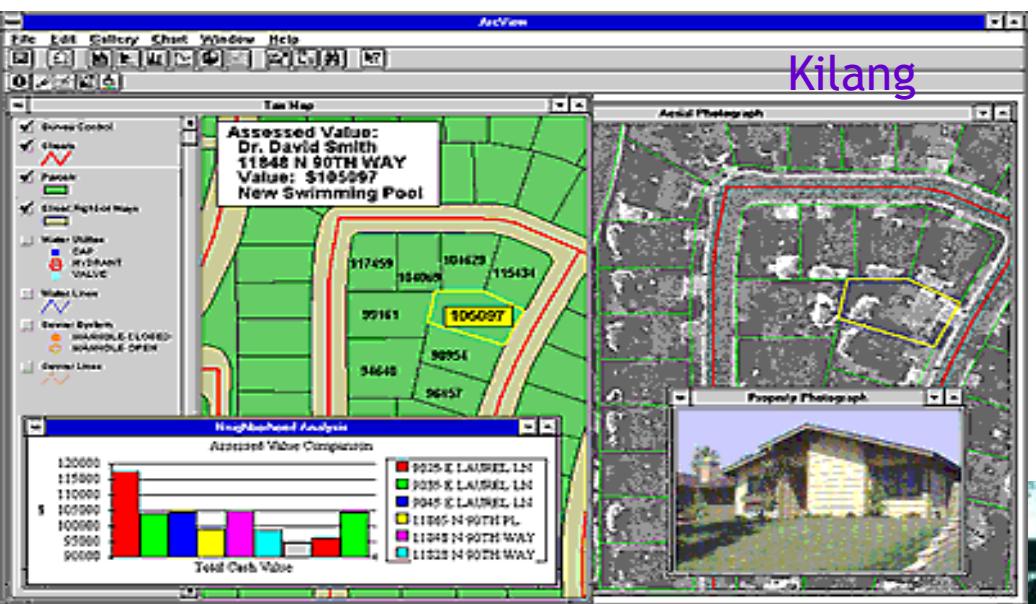
Kelulusan tukar syarat tanah,  
pembangunan (perumahan, kilang,  
hypermarket...) oleh MMK, PBT,  
Pej. Tanah / Daerah



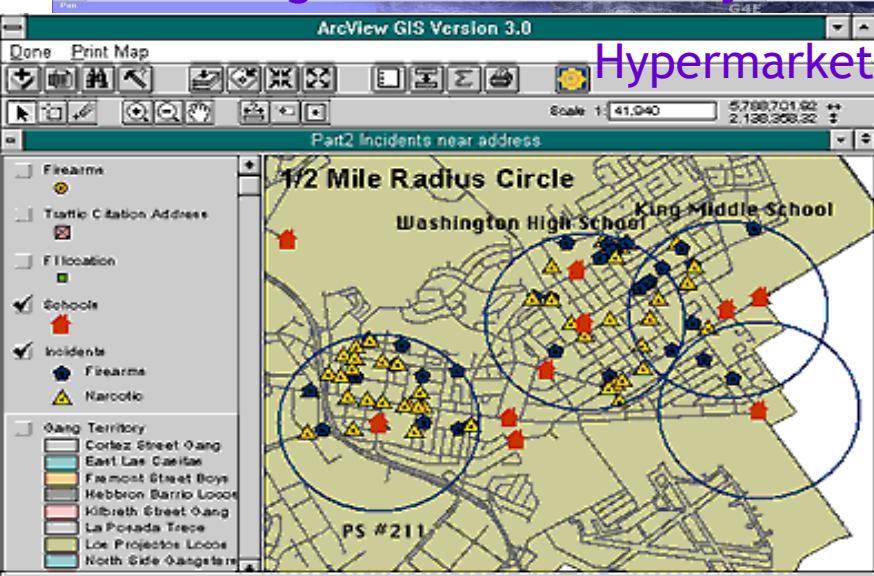
Guna tanah pertanian Melaka



Rancangan Struktur Alor Gajah



Kilang



Hypermarket

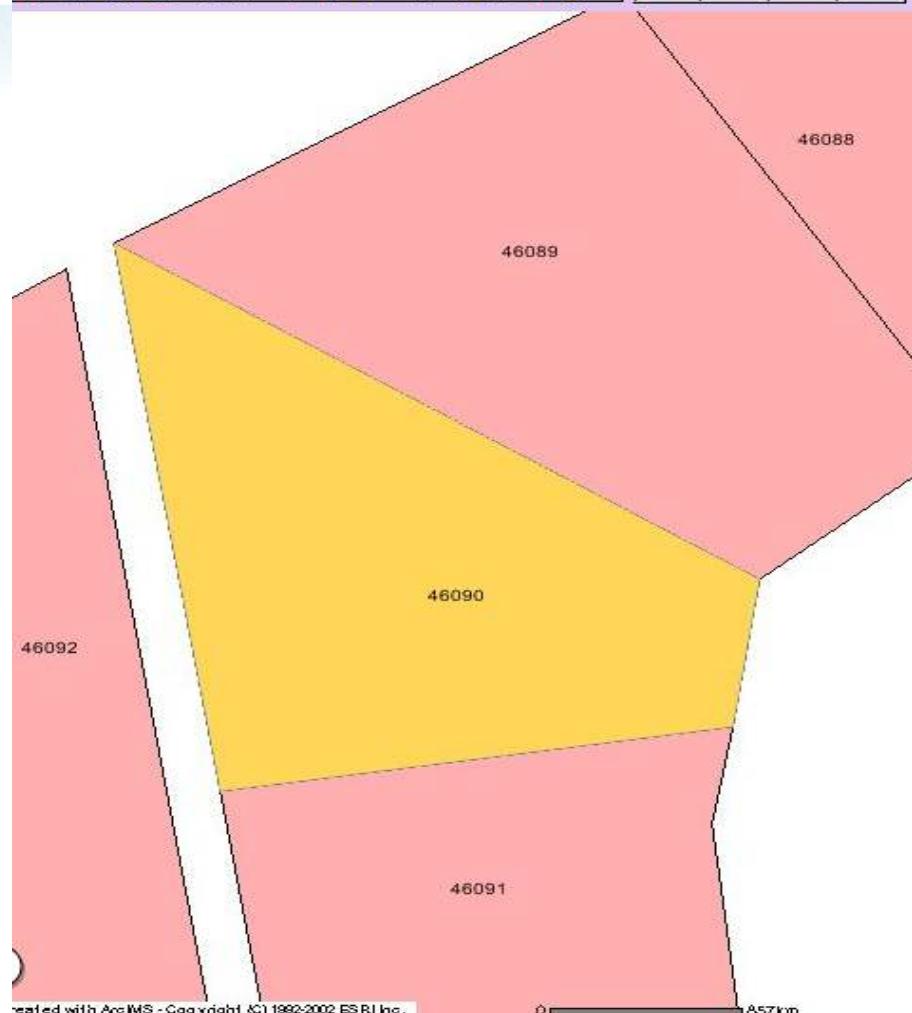


# MAKLUMAT TANAH DARI PELBAGAI AGENSI DALAM SATU PAPARAN UNTUK MEMBUAT KEPUTUSAN/KELULUSAN



MGDI E-Commerce - Microsoft Internet Explorer

PTG DBKL JPPH JPKB



[Intro](#) | [Search](#) | [Active Layer](#) | [Legend](#) | [My Status](#)

Registration Date	:	
Status	:	Daftar
Tenure of Title	:	Selama-lamanya
Term of Lease	:	
Expiring of The Term	:	
Land Status	:	No Description
Category of Landuse	:	Bangunan
Express Condition	:	View
Restriction In Interest	:	View
Annual Rent	:	RM 245.00
Area	:	815.00 Meter Persegi
First Title	:	No Record Found
Previous Title	:	No Record Found
Next Title	Daerah	: 000
	Mukim	: Mukim Kuala Lumpur
	Seksyen	: Tiada Seksyen
	Kodlot	: Lot
	Nombor Lot	: 0046090
	Hakmilik Berikut	: 140005GRN00021019
	Kodlot	: No Description Found
	Nombor Lot	:

Nature of Interest	
State	: Wilayah Persekutuan Kuala Lumpur
District	: KUALA LUMPUR
Mukim/Town/Village	: Mukim Kuala Lumpur
Section	: Tiada Seksyen
Nature of Title	: Geran
Lotcode	: Lot
Lot Number	: 0046090
Title No	: 00021019
Name	: MOHAMMED YUNUS BIN TAMIN
Nature of Interest No.	: 1154452
NPB_JNSPB	: Pajakan Mukim
Address	: NO.18,PERSIARAN BERINGIN,BUKTI DAMANSARA, 14

[Zoom In](#) [Print Map](#)

[Back](#) [Done](#)



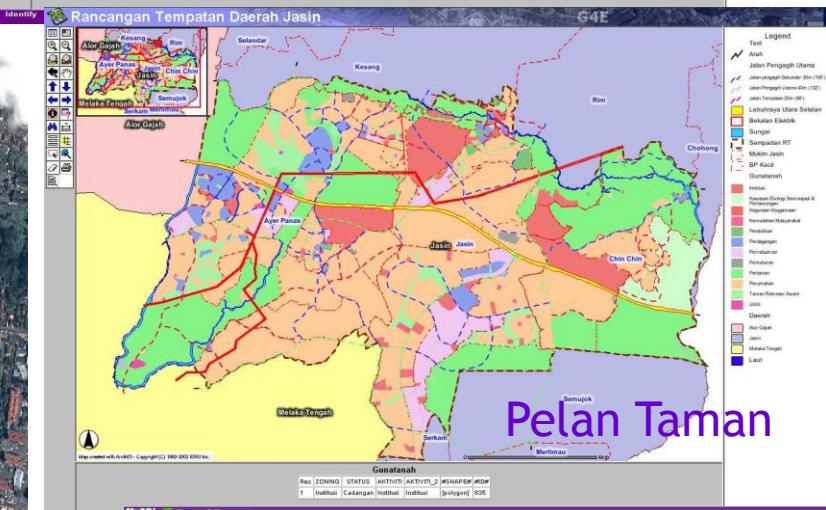
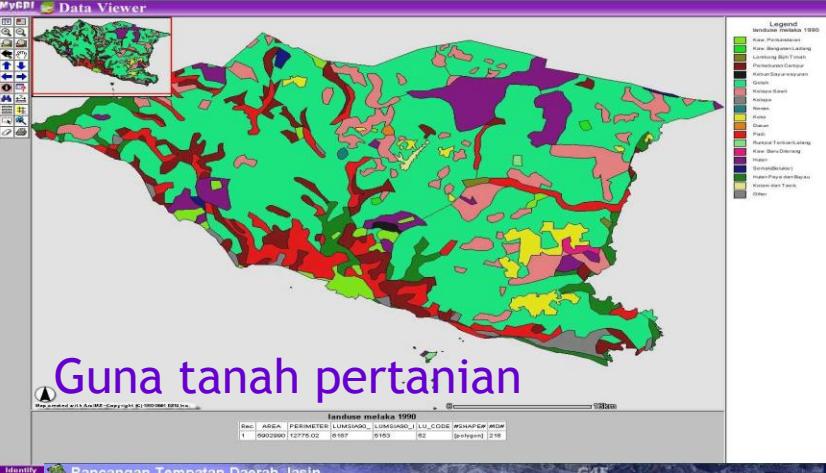
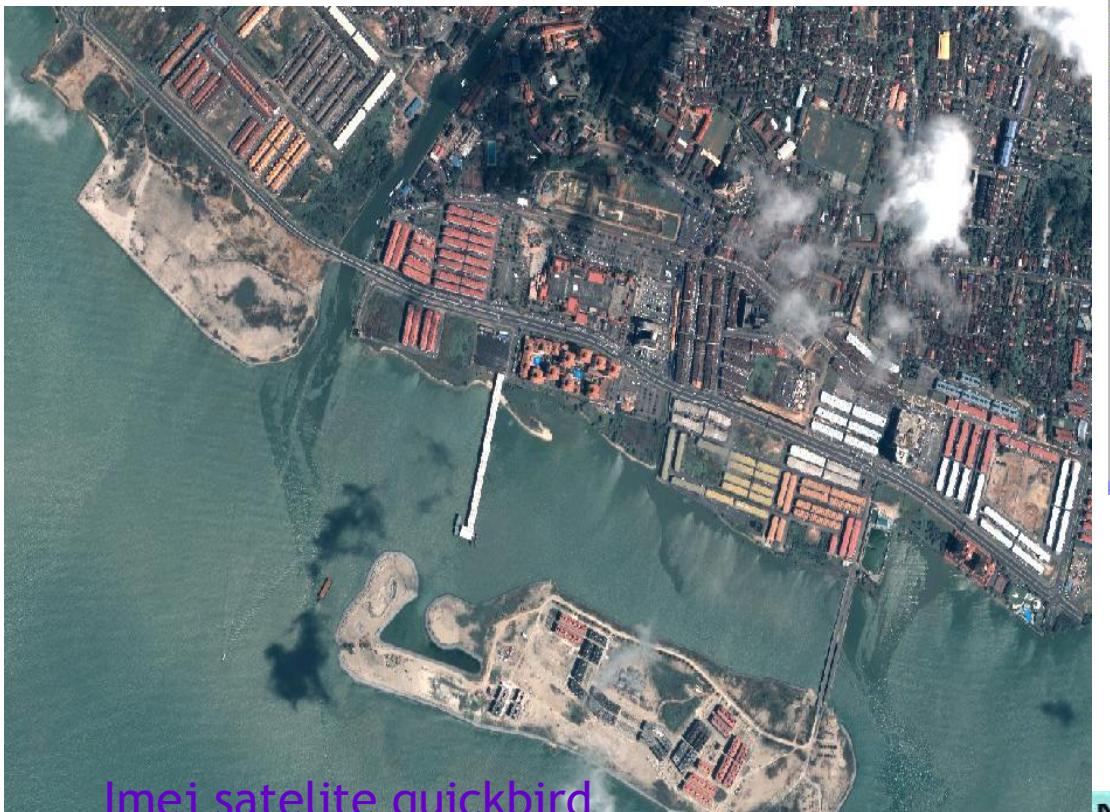
MYMGDI Metadata Catalogue



## 2. Penguatkuasaan

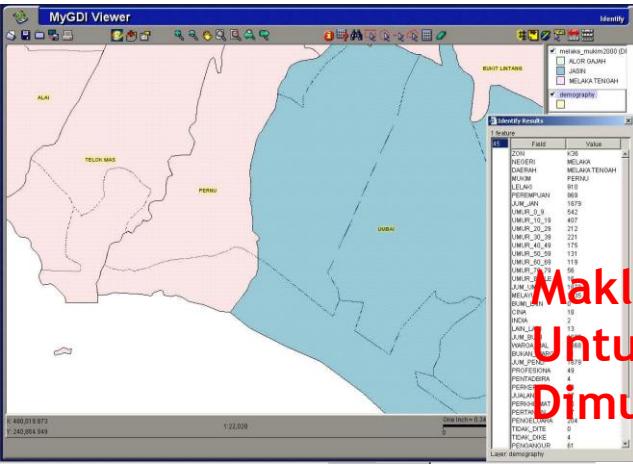
### Syarat guna tanah

- Kebenaran ubahsuai bangunan
- Setinggan
- Pencemaran pantai



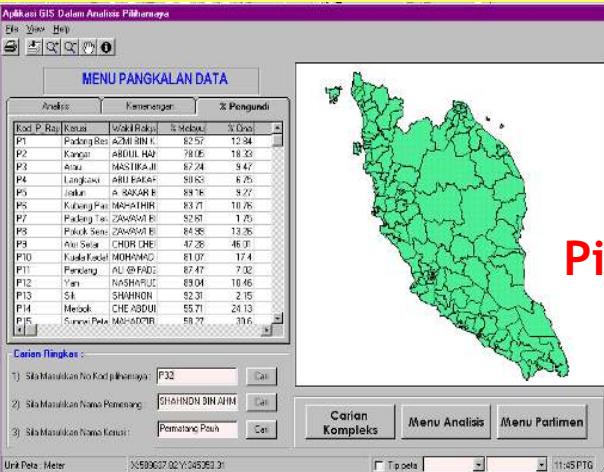
# 3. Membuat Perancangan

- Merancang mendirikan kemudahan awam, laluan pengangkutan baru...
  - Pilihanraya

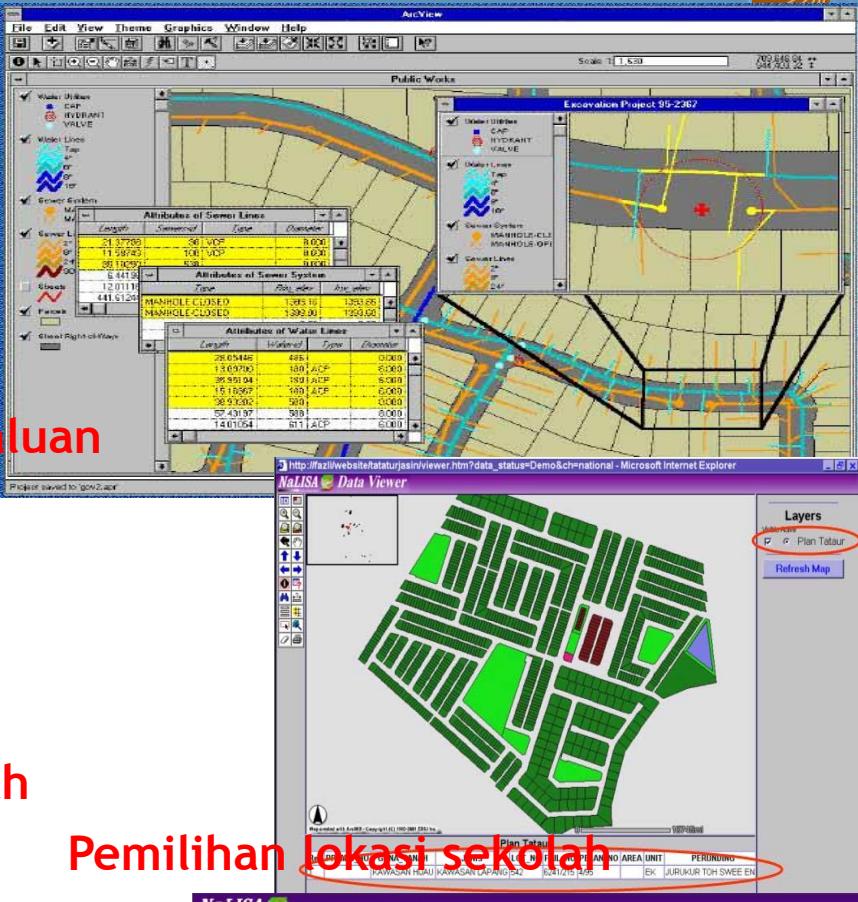


# Jajaran baru laluan

# Maklumat penduduk Untuk pemilihan sekolah Dimukim Penuh



# Pilihanraya



# Pemilihan lokasi sekolah



## Nilai tanah untuk pengambilan balik



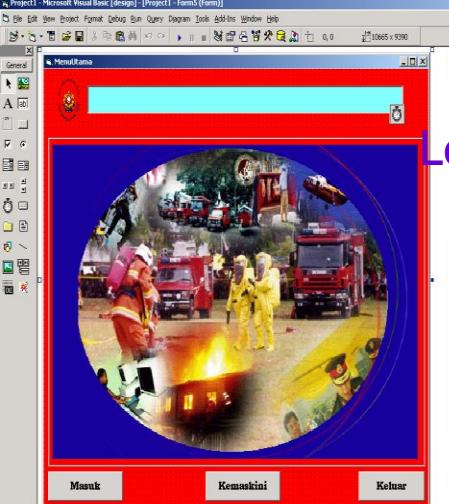
## 4. Bantuan Kecemasan/Menyelamat

### Mengenalpasti

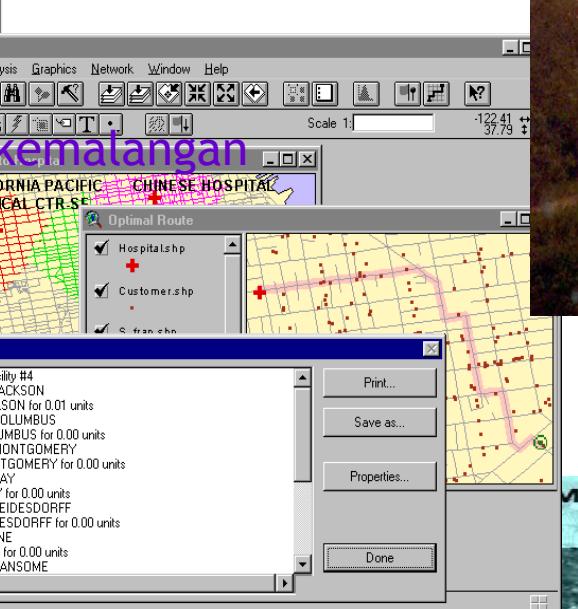
- lokasi kebakaran
- Banjir
- Kemalangan



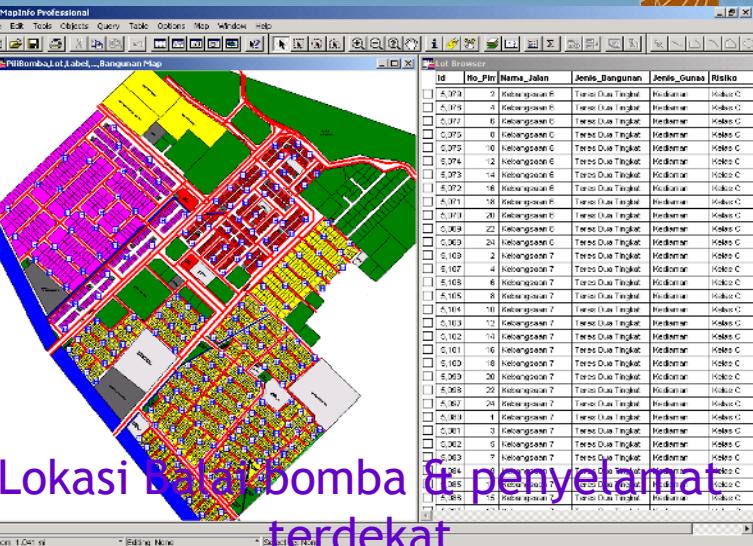
Project1 - Microsoft Visual Basic [design] [Project1 - Form5 (Form)]



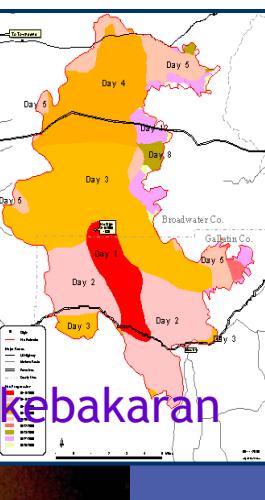
Lokasi kemalangan



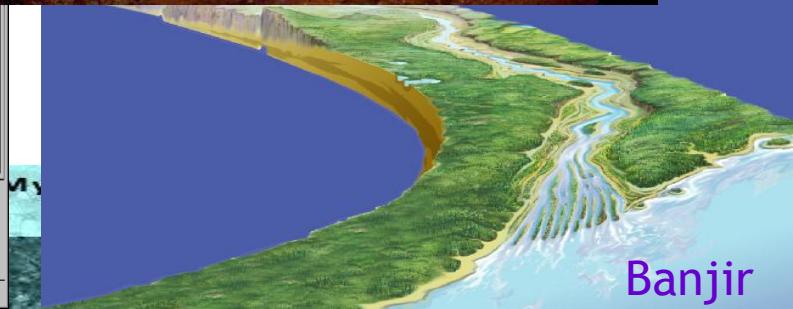
Rangkaian jalanraya  
Persekutuan, Negeri & PBT



Lokasi Balai bomba & penyelamat terdekat



Banjir

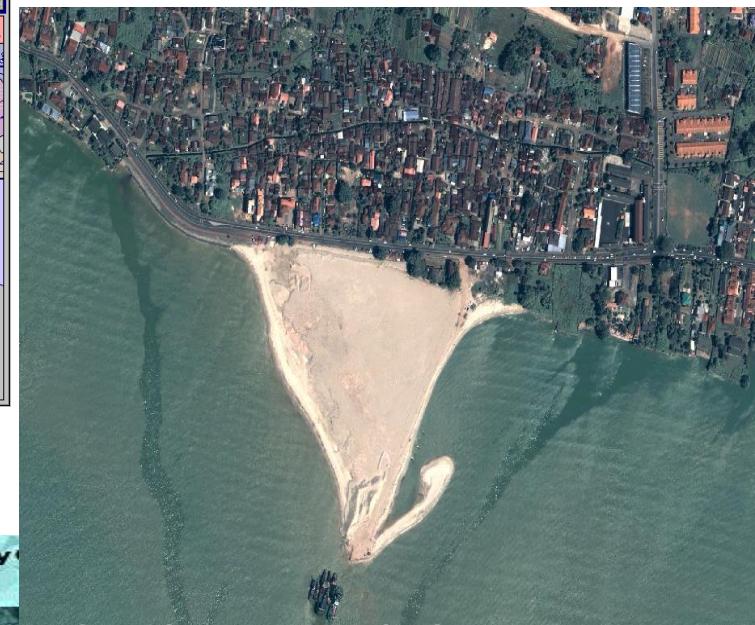
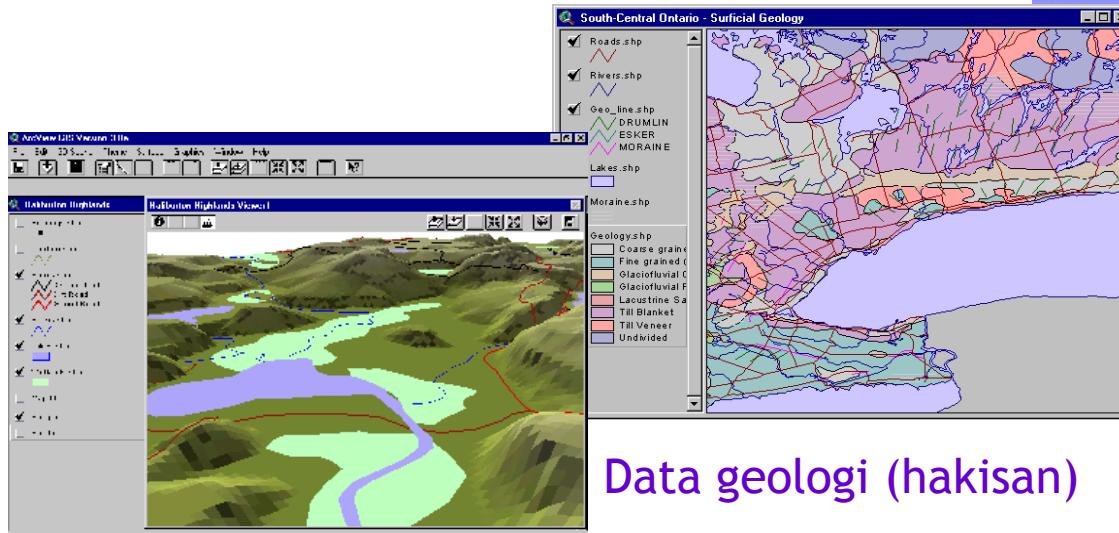


# PETA KAWASAN RISIKO BANJIR KLUANG



## 5. Pemantauan

- Pencemaran (udara & air)
- Cuaca (suhu, hujan)
- Guna tanah
- Setinggan
- Hakisan
- Pencemaran



# KELEBIHAN GIS



**MyGDI Metadata Catalogue**



# ISU-ISU & CABARAN



Masalah Institusi



Tiada unit GIS

Kekurangan data yang berkualiti



Kurang kemahiran dan *Braindrain*



Kurang peruntukan kewangan

- GIS memberi impak yang tinggi nilai kepada maklumat geografinya
  - GIS merupakan satu aset/perkakasan penting untuk kita mentadbir, memahami, dan mengenali planet bumi
  - Permintaan yang tinggi bagi sistem GIS dan pendidikan GIS



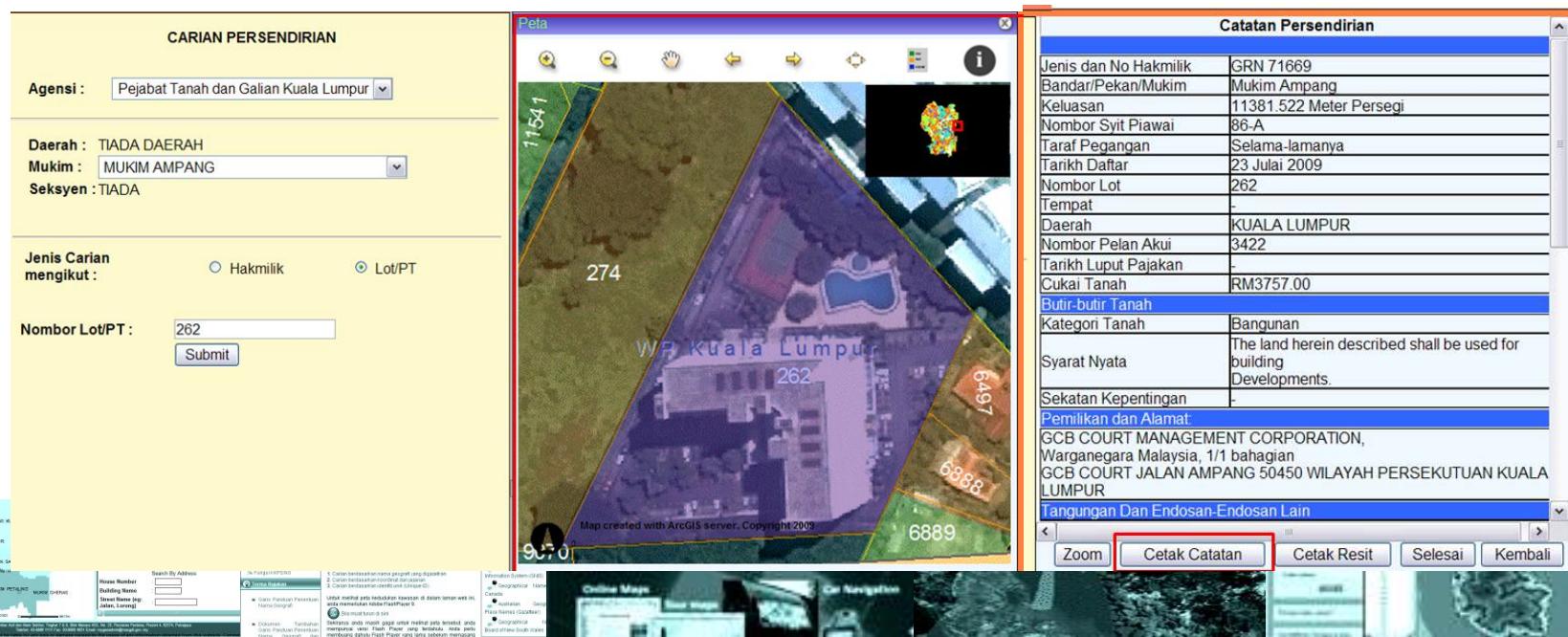
# Kelebihan GIS

- Membantu pihak Pengurusan Tertinggi menyelesaikan masalah berkaitan geografi
- GIS boleh integrasi dgn lain-lain maklumat dlm satu kerangka/sistem & membuat analisis & statistik
- Dapat memaparkan maklumat geografi secara digital, pantas, up to date serta bermaklumat
- Boleh berkongsi data & sistem maklumat dari jabatan/agensi lain



# Kelebihan GIS

- Salah satu kelebihan sistem GIS berbanding dengan sistem berkomputer yang lain adalah keupayaannya dalam menghasilkan paparan maklumat dengan **menghubungkan antara grafik(spatial) dengan pangkalan data teks/atribut.**



The screenshot displays a GIS application interface. On the left, there is a search form titled "CARIAN PERSENDIRIAN" with fields for "Agensi" (selected: Pejabat Tanah dan Galian Kuala Lumpur), "Daerah" (selected: TIADA DAERAH), "Mukim" (selected: MUKIM AMPANG), and "Seksyen" (TIADA). Below these, there are buttons for "Jenis Carian mengikut:" (selected: Hakmilik) and "Lot/PT" (selected). A "Nombor Lot/PT:" field contains "262" with a "Submit" button. In the center, a map shows a plot of land labeled "274" and "WP Kuala Lumpur 262". The map is overlaid with a grid and has numbers 6497, 6888, and 6889. A legend at the bottom left indicates "Map created with ArcGIS server. Copyright 2009". On the right, a panel titled "Catatan Persendirian" lists property details:

Jenis dan No Hakmilik	GRN 71669
Bandar/Pekan/Mukim	Mukim Ampang
Keluasan	11381.522 Meter Persegi
Nombor Syit Piawai	86-A
Taraf Pegangan	Selama-lamanya
Tarikh Daftar	23 Julai 2009
Nombor Lot	262
Tempat	-
Daerah	KUALA LUMPUR
Nombor Pelan Akui	3422
Tarikh Luput Pajakan	-
Cukai Tanah	RM3757.00
Butir-butir Tanah	Bangunan
Kategori Tanah	The land herein described shall be used for building Developments.
Syarat Nyata	-
Sekatan Kepentingan	-
Pemilikan dan Alamat	GCB COURT MANAGEMENT CORPORATION, Marganegara Malaysia, 1/1 bahagian GCB COURT JALAN AMPANG 50450 WILAYAH PERSEKUTUAN KUALA LUMPUR
Tanggungan Dan Endosan-Endosan Lain	-

At the bottom right, there are buttons for "Zoom", "Cetak Catatan" (highlighted in red), "Cetak Resit", "Selesai", and "Kembali".

# Kelebihan GIS

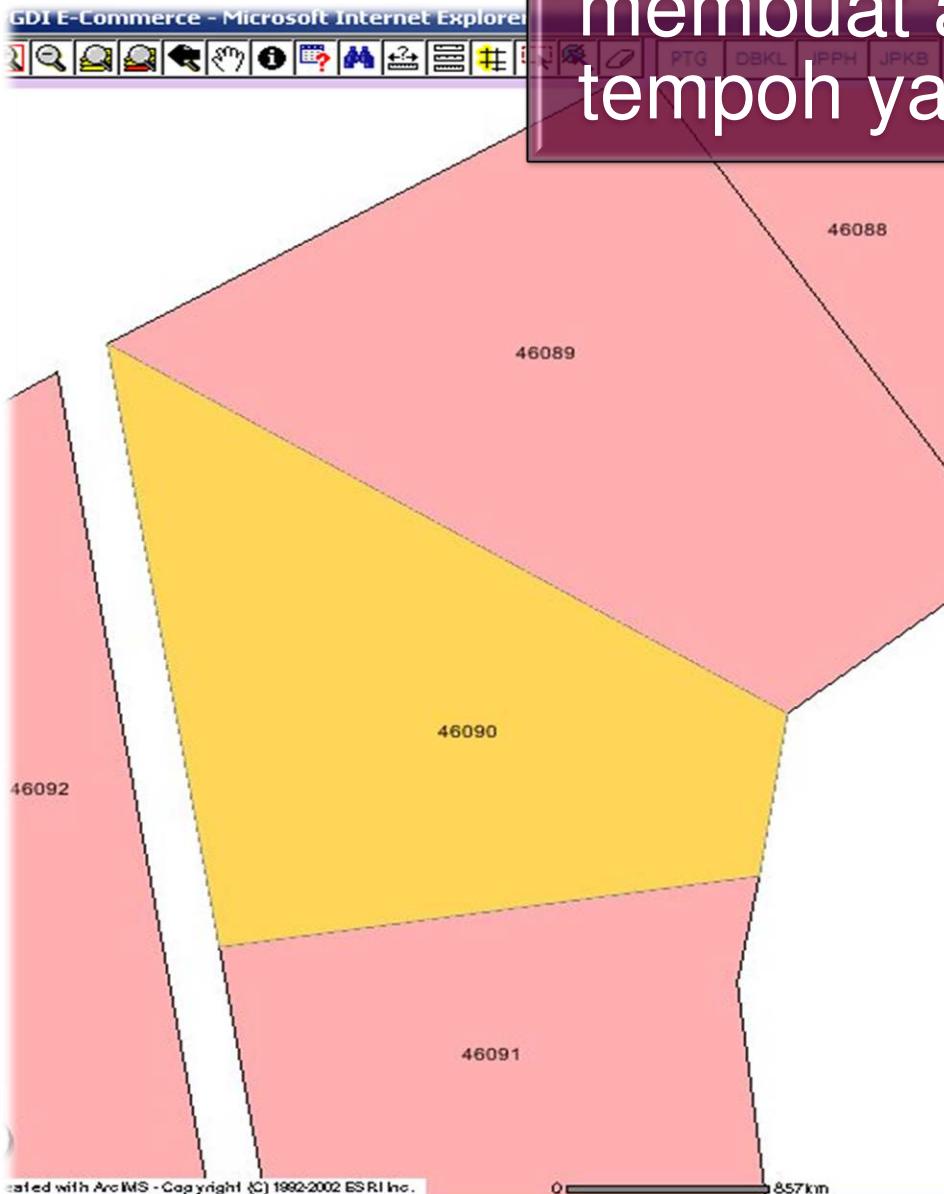
Keuntungan lainnya dari GIS adalah mampu :-

- ✓ Menampilkan peta lebih murah,
- ✓ Waktu yang cepat, Mudah diperbaiki untuk data terbaru
- ✓ Membuat peta yang spesifik menurut keperluan tertentu
- ✓ Memberikan kemampuan dalam memanipulasi data grafik
- ✓ Berkemampuan dalam memproses data spatial serta data berjadual dalam jumlah yang banyak.



# RUMUSAN

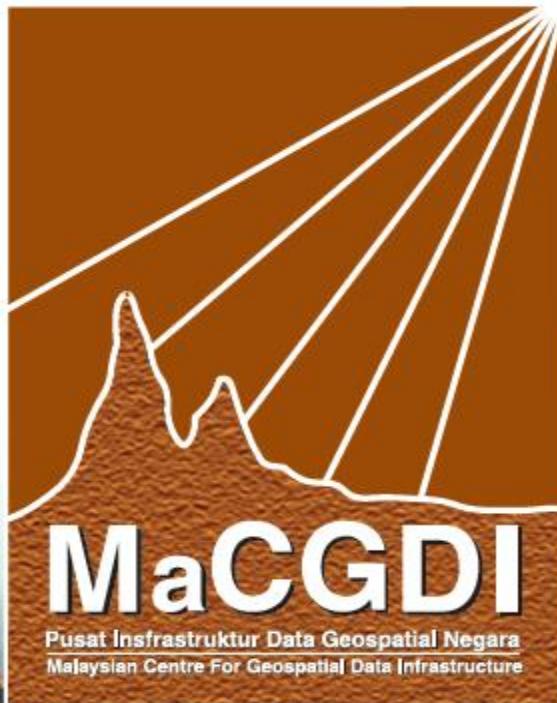
Teknologi GIS akan memudahkan perancangan, pemantauan dan membuat analisis spatial dalam tempoh yang singkat & tepat.



Status : Daftar	
Tenure of Title	: Selama-Iamanya
Term of Lease	:
Expiring of The Term	:
Land Status	: No Description
Category of Landuse	: Bangunan
Express Condition	: View
Restriction In Interest	: View
Annual Rent	: RM 245.00
Area	: 815.00 Meter Persegi
First Title	: No Record Found
Previous Title	: No Record Found
Next Title	Daerah : 000
	Mukim : Mukim Kuala Lumpur
	Seksyen : Tiada Seksyen
	Kodlot : Lot
	Nombor Lot : 0046090
	Hakmilik Berikut : 140005GRH00021019
	Kodlot : No Description Found
	Nombor Lot :

Nature of Interest	
State	: Wilayah Persekutuan Kuala Lumpur
District	: KUALA LUMPUR
Mukim/Town/Village	: Mukim Kuala Lumpur
Section	: Tiada Seksyen
Nature of Title	: Geran
Lotcode	: Lot
Lot Number	: 0046090
Title No	: 00021019
Name	: MOHAMMED YUNUS BIN TAMIN
Nature of Interest No.	: 1154452
NPB_JNSPB	: Pajakan Mukim
Address	: NO.18,PERSIARAN BERINGIN,BUKTI DAMANSARA, 14

Zoom In Print Map  
Back Done



**Sekian  
Terima Kasih**



? end ?