GIS software

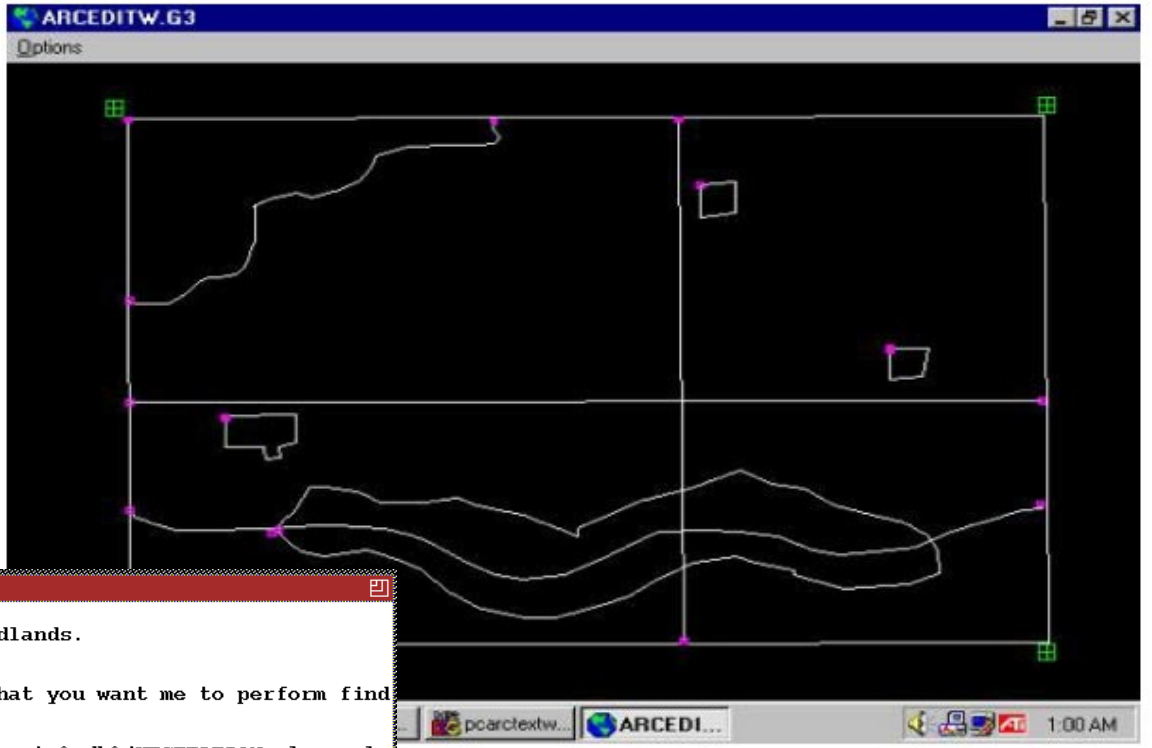
- Datový model
- Databázový stroj
- Funkcionalita
  - Analýza
  - Kartografické funkce
- Rozšiřitelnost
- Platforma
- Výkon

Typy software

- GDBMS
- Produkční systém
- Desktop GIS
- Web GIS server
- Viewer

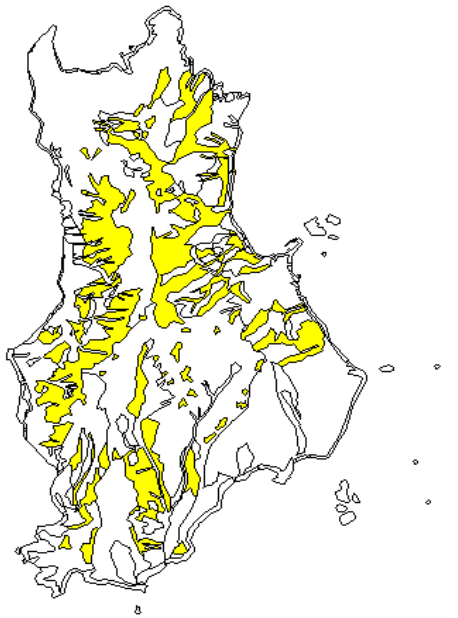
ESRI

- 1969
- POIS
- Do 90-tych UNIX
- ARC/INFO – ArcVIew- ArcGIS
- TVM + GRID
- AML – AVENUE – COM(VBA)
- Dynamická vizualizace, Mapová a Overlay algebra, CGM podobná metagrafika



ARCPLOT

Pan/Zoom x,y: 1.77165,0.93504
dx,dy: 1.77165,0.93504 dist: 2.

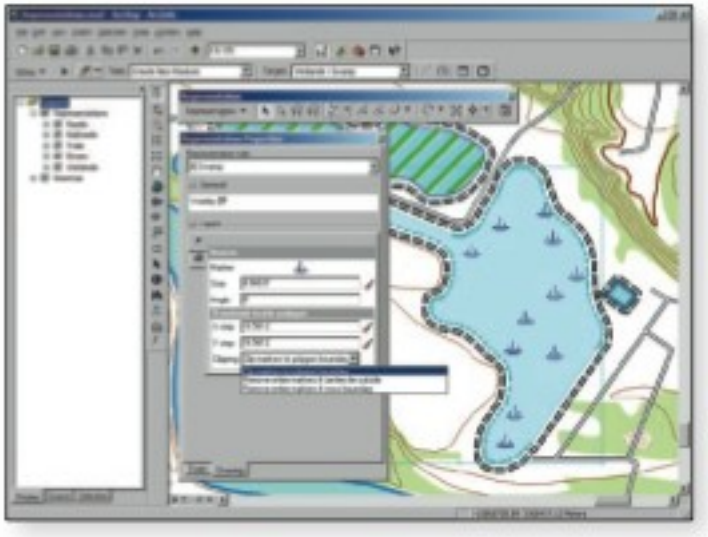


gort

```
 : find all woodlands.


 I understand that you want me to perform find
 on woodlands.

 Now  doing: mapext %.db%/VEGETATION;clearsele
ct;reselect %.db%/VEGETATION POLYGON LEGEND//V
EGTYPE = 'woodlands'; &s .shadecolor = %.shade
color% + 1;polygonshades %.db%/VEGETATION %.sh
adecolor%;clearselect;linecolor black;arcs %.d
b%/VEGETATION
RESULT
Resulting parse:

Time (sec.): 117.84
```

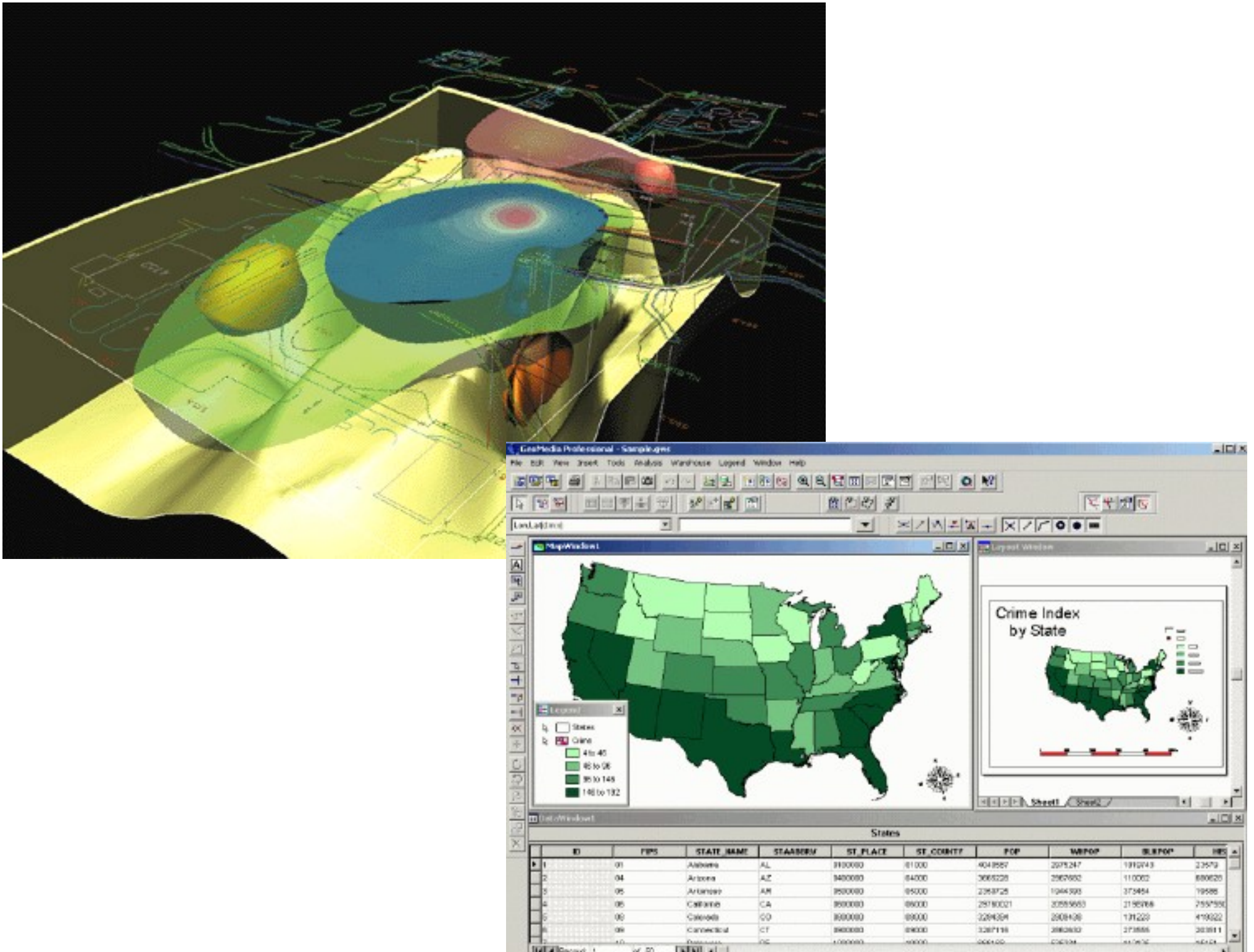
navi.cs.Buffalo.EDU

```
   1: mapext /ncgia/naumov/public_html/project
/database/VEGETATION
   1: clearselect
   1: reselect /ncgia/naumov/public_html/proje
ct/database/VEGETATION POLYGON LEGEND//VEGTYPE
 = 'woodlands'
/NCGIA/NAUMOV/PUBLIC_HTML/PROJECT/DATABASE/VEG
ETATION polys : 63 of 238 selected
   1:  &s .shadecolor = 6 + 1
   1: polygonshades /ncgia/naumov/public_html/
project/database/VEGETATION 7
   1: clearselect
   1: linecolor black
   1: arcs /ncgia/naumov/public_html/project/d
atabase/VEGETATION
```



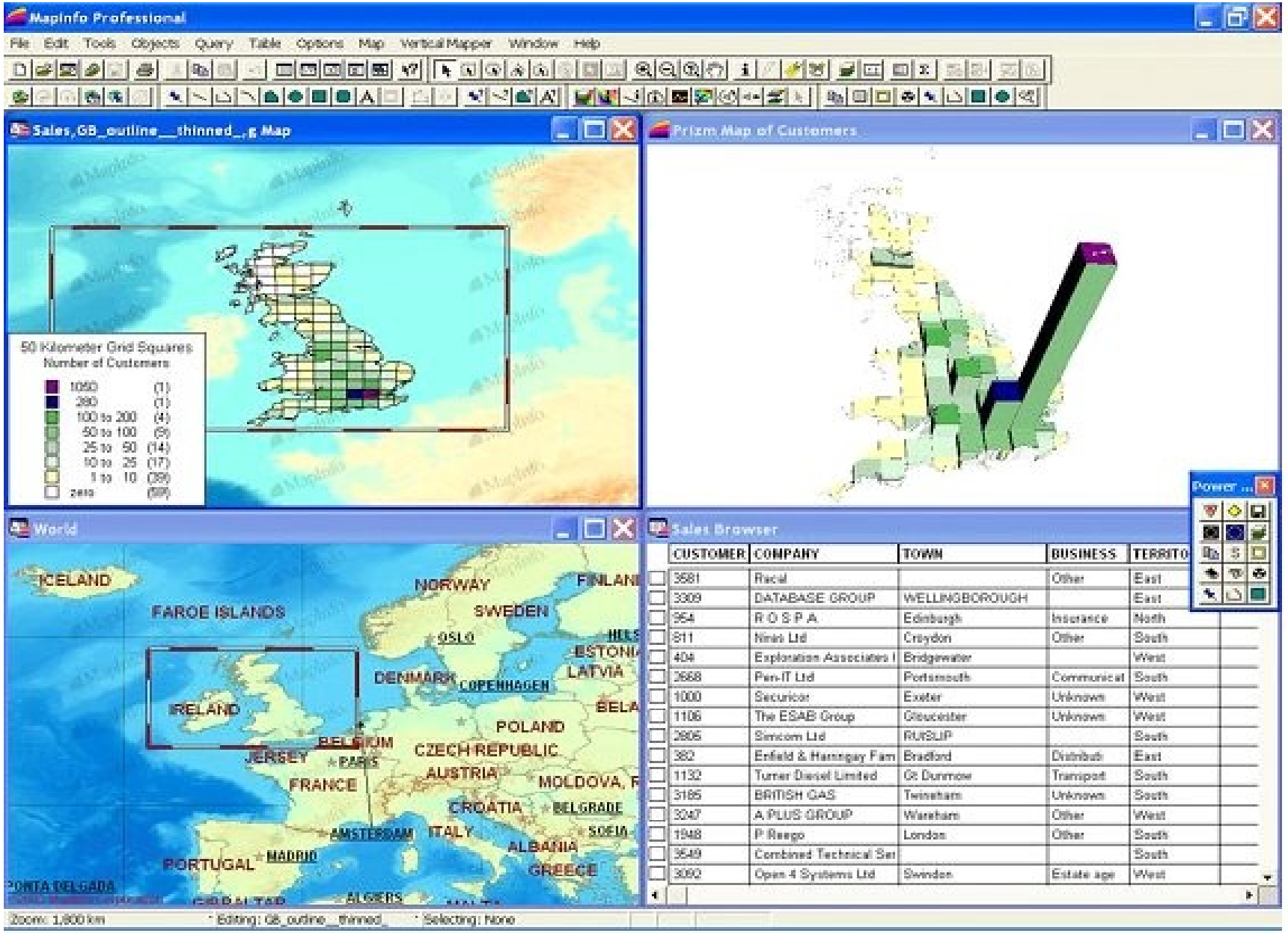
INTERGRAPH

- 1969
- IGDS
- MGE
- Spaghetti + TVM (Topofile)
- Dynamo
- Voxely
- Geomedia (


Crime Index
by State
States

MapINFO

- 1986
- MS Win desktop GIS
- Kartodiagramy
- Spaghetti + SQL
- Bez gridu, OLE ...


MapInfo Professional
File Edit Tools Objects Query Table Options Map Vertical Mapper Window Help
Sales_GB_outline__thinned_.g Map
50 Kilometer Grid Squares
Number of Customers
1050 (1)
390 (1)
100 to 200 (4)
50 to 100 (9)
25 to 50 (14)
10 to 25 (17)
1 to 10 (39)
zero (89)
Prizm Map of Customers
World
ICELAND
FAROE ISLANDS
NORWAY
SWEDEN
OSLO
DENMARK
COPENHAGEN
IRELAND
POLAND
CZECH REPUBLIC
JERSEY
PARIS
FRANCE
AUSTRIA
CROATIA
BELGRADE
AMSTERDAM
ITALY
SOFIA
ALBANIA
PORTUGAL
MADRID
GREECE
Sales Browser
CUSTOMER COMPANY TOWN BUSINESS TERRITO
3581 Racal Other East
3309 DATABASE GROUP WELLINGBOROUGH East
954 R O S P A Edinburgh Insurance North
811 Ninni Ltd Croydon Other South
404 Exploration Associates l Bridgewater West
3668 Pen-IT Ltd Portsmouth Communicat South
1000 Securicor Exeter Unknown West
1106 The ESAB Group Gloucester Unknown West
2805 Simcom Ltd RUISLIP South
382 Enfield & Haringay Fam Bradford Distributi East
1132 Turner Diesel Limited Gt Dunmow Transport South
3185 BRITISH GAS Twineham Unknown South
3247 A PLUS GROUP Wareham Other West
1948 P Rego London Other South
3549 Combined Technical Ser South
3092 Open 4 Systems Ltd Swindon Estate age West
Power ...
Zoom: 1,800 km
Editing: GB_outline__thinned_
Selecting: None

GDBMS

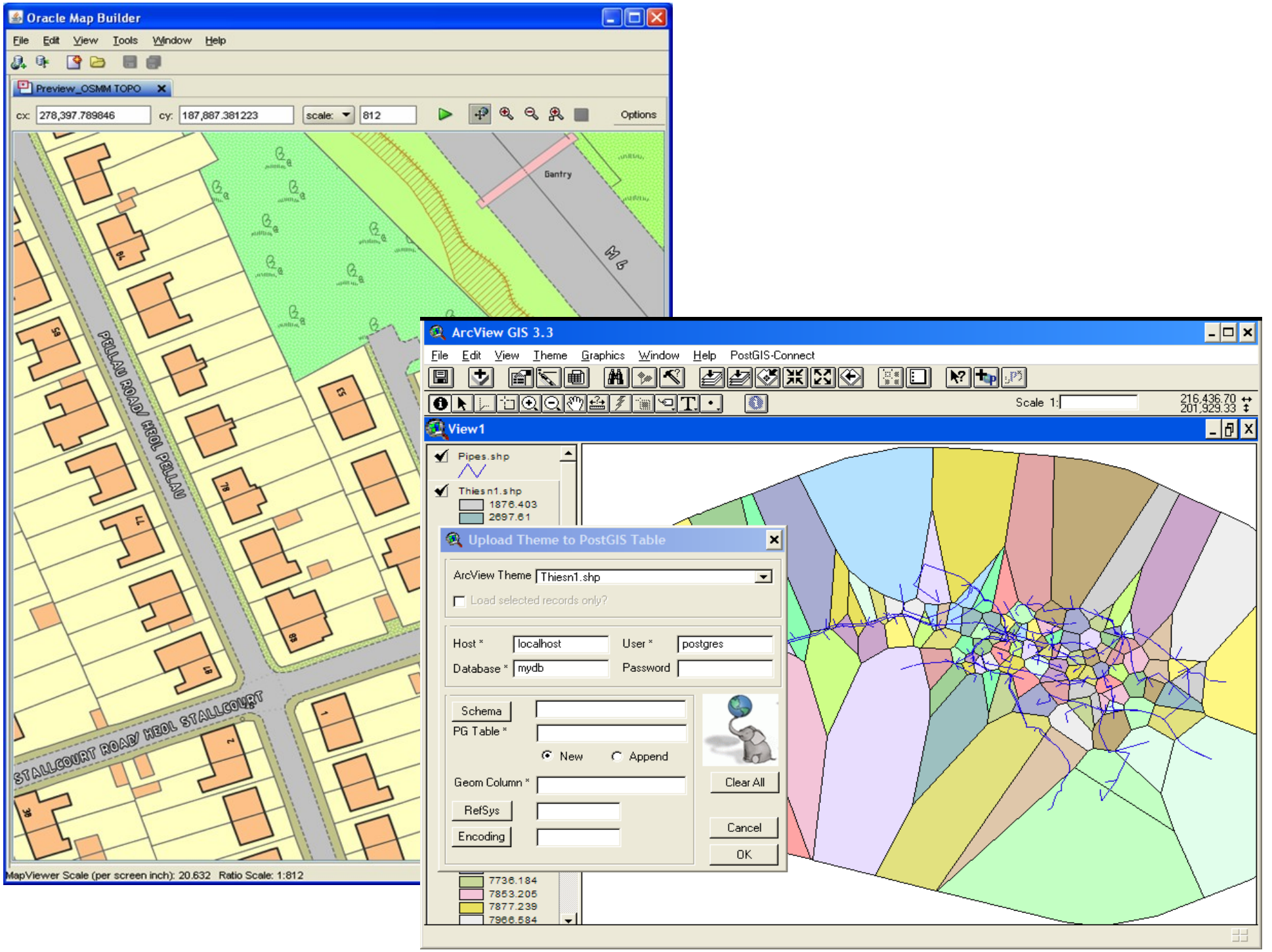
ORACLE SDO

ESRI SDE

SF for SQL

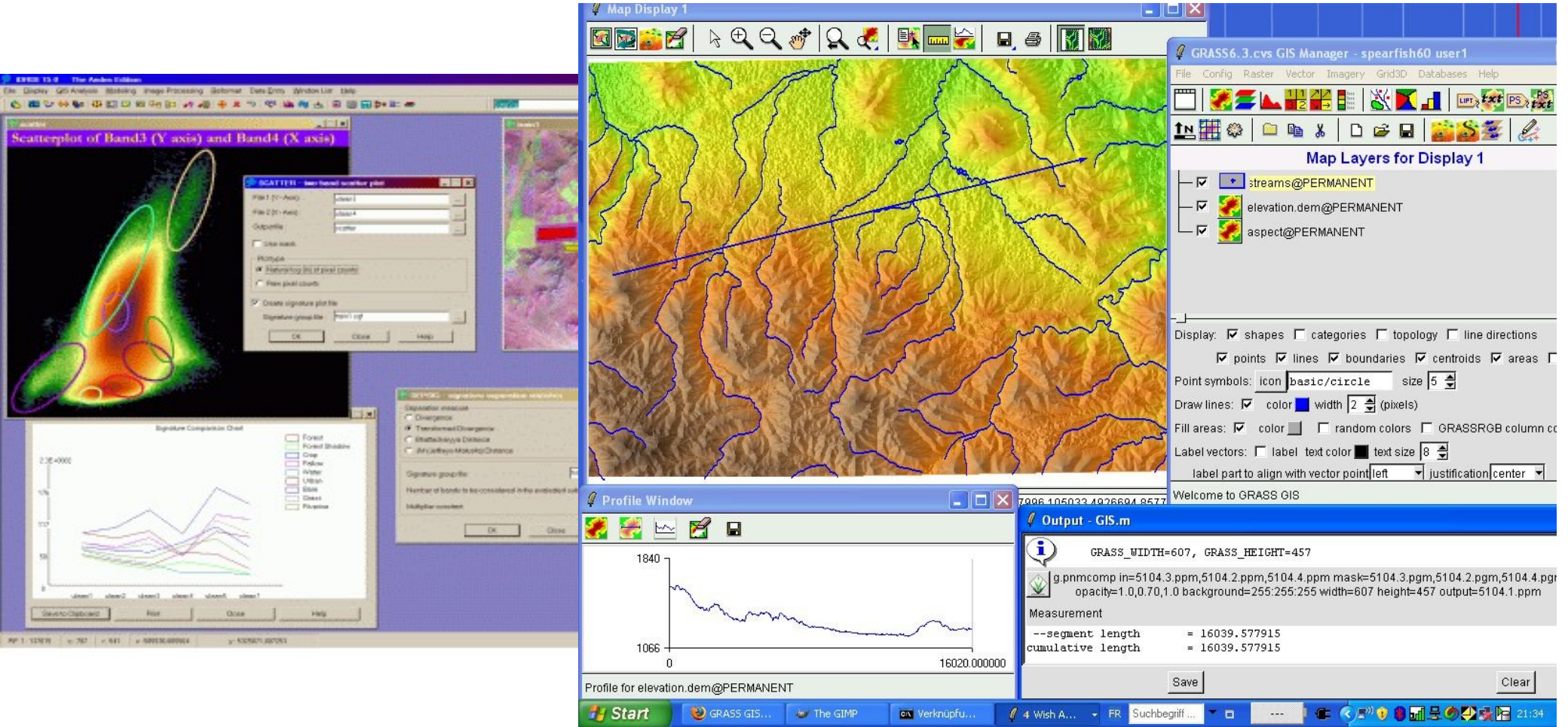
PostGIS

MySQL spatial extension


Oracle Map Builder
File Edit View Tools Window Help
Preview_OSMM TOPO
cx: 278,397.789846
cy: 187,887.381223
scale: 812
Options
Gantry
PELLAU ROAD/ HEOL PELLAU
STALLCOURT ROAD/ HEOL STALLCOURT
MapViewer Scale (per screen inch): 20.632 Ratio Scale: 1:812
ArcView GIS 3.3
File Edit View Theme Graphics Window Help PostGIS-Connect
Scale 1:
216,436.70
201,929.33
View1
Pipes.shp
Thiesn1.shp
1876.403
2897.61
Upload Theme to PostGIS Table
ArcView Theme Thiesn1.shp
Load selected records only?
Host * localhost
User * postgres
Database * mydb
Password
Schema
PG Table *
New
Append
Geom Column *
RefSys
Encoding
Clear All
Cancel
OK
7736.184
7853.205
7877.239
7966.584

GRID GIS

IDRISI, GRASS, ERDAS



WebServer

- OGC WMS, WCS, WFS
- ArcGIS server
  - .NET +JAVA
- Mapserver
- Geoserver

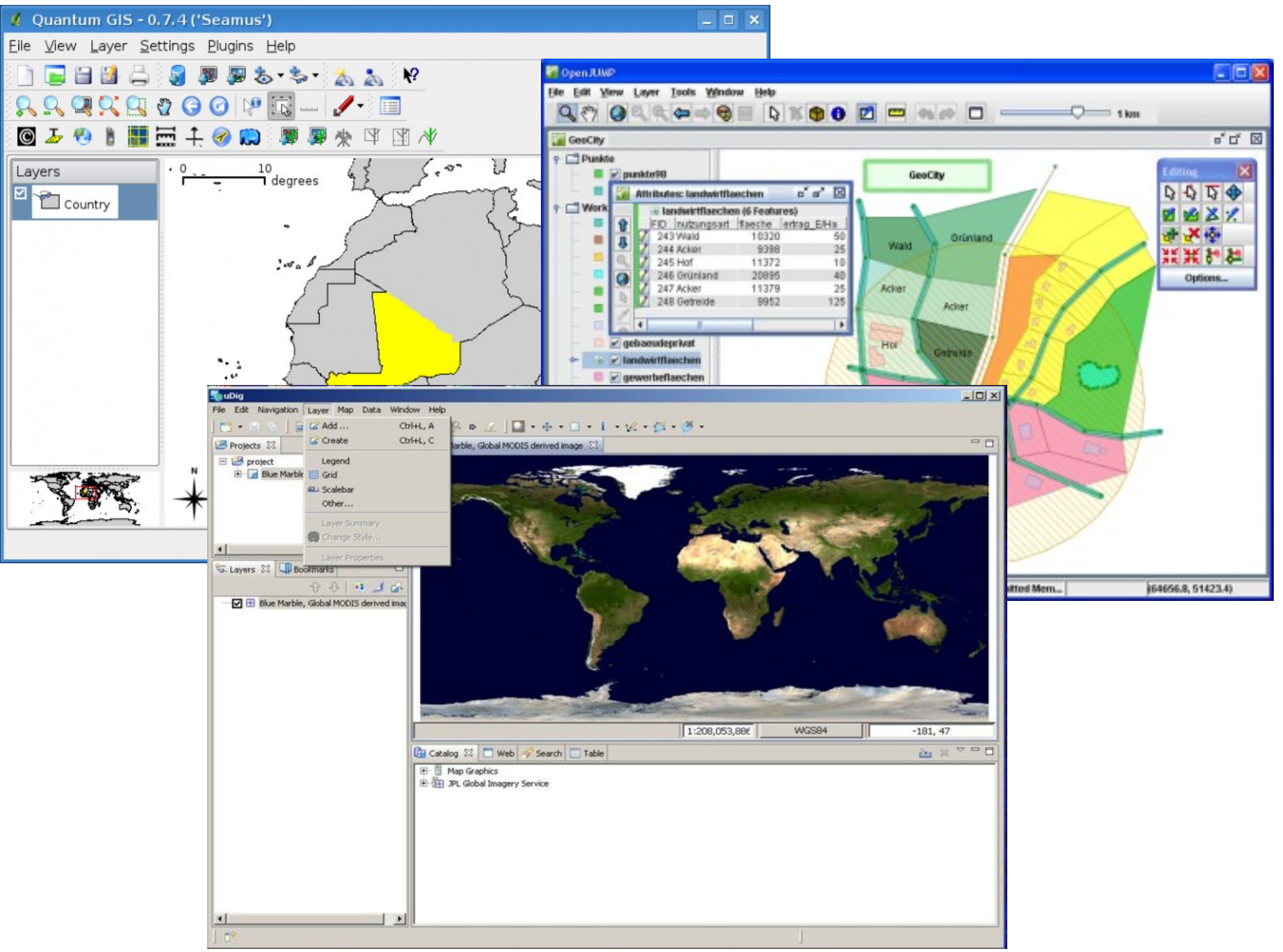
Opensource

JTS - GEOS

JUMP

uDIG

QuantumGIS


Quantum GIS - 0.7.4 ('Seamus')
File View Layer Settings Plugins Help
Layers
Country
0 10 degrees
OpenJUMP
File Edit View Layer Tools Window Help
GeoCity
Punkte
Attributes: landwirtflaechen
landwirtflaechen (6 Features)
FID nutzungsart flaeche ertrag_E/Ha
243 Wald 10320 50
244 Acker 9398 25
245 Hof 11372 10
246 Grünland 20895 40
247 Acker 11379 25
248 Getreide 9952 125
Wald
Grünland
Acker
Acker
Hof
Getreide
Editing
Options...
uDig
File Edit Navigation Layer Map Data Window Help
Add ... Ctrl+L, A
Create Ctrl+L, C
Legend
Grid
Scalebar
Other...
Layer Summary
Change Style...
Layer Properties
Projects
project
Blue Marble, Global MODIS derived image
Layers
Bookmarks
Blue Marble, Global MODIS derived ima
1:208,053,88
WGS84
-181, 47
Catalog
Web
Search
Table
Map Graphics
JPL Global Imagery Service