



# (GIS)

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(GIS) Geographic Information System

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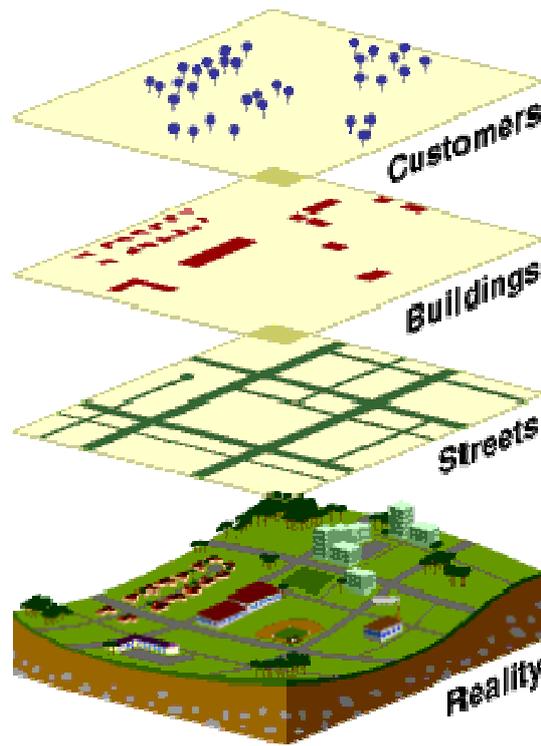
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( ..... ) (1)

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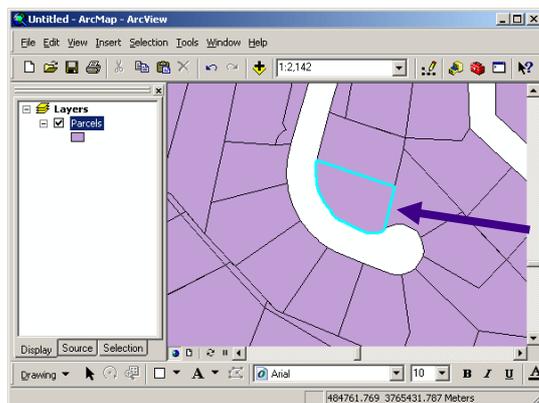
(1)

Spatial Data

Feature

Attribute Data

(2)

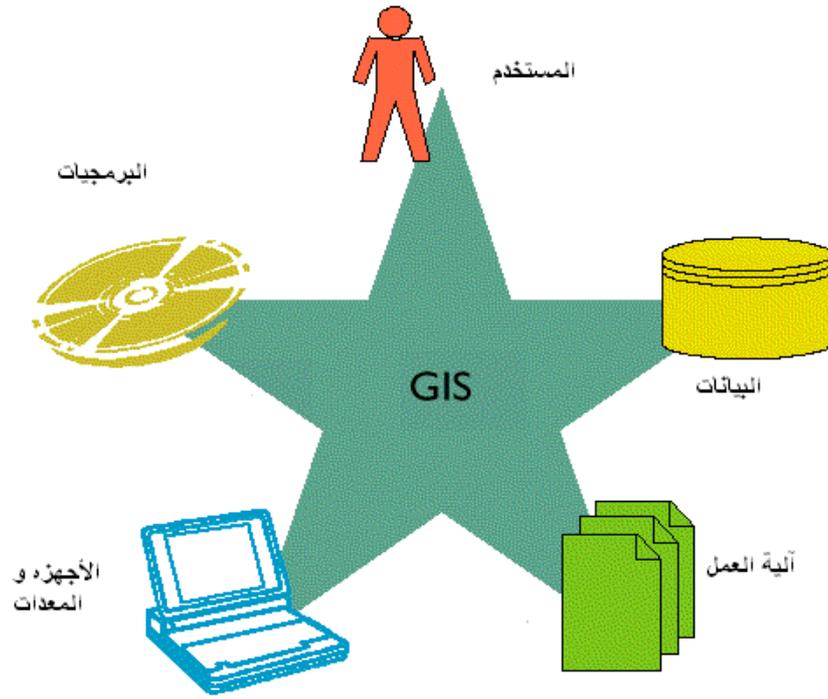


FID *	Shape *	LU_CODE	ZONE_CODE	Shape_Length	Shape_Area
18697	Polygon	RES	LDR	191.612664	2182.090238
48698	Polygon	RES	RL	173.108377	1825.906087
18699	Polygon	RES	LDR	154.20101	1453.066587
18700	Polygon	RES	LDR	277.688271	5005.679891
18701	Polygon	RES	LDR	170.414438	1820.324019

FID = 18699

Feature Identifier





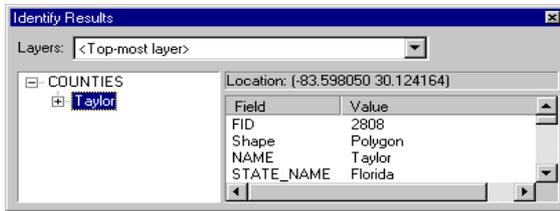
(3)

(3)

1. People
2. Data
3. Hardware
4. Software
5. Procedures

- :
1. ( ) .(attribute data)
  2. Data Linkage
  3. Query ( ) : (4)

التعرف على معلم محدد

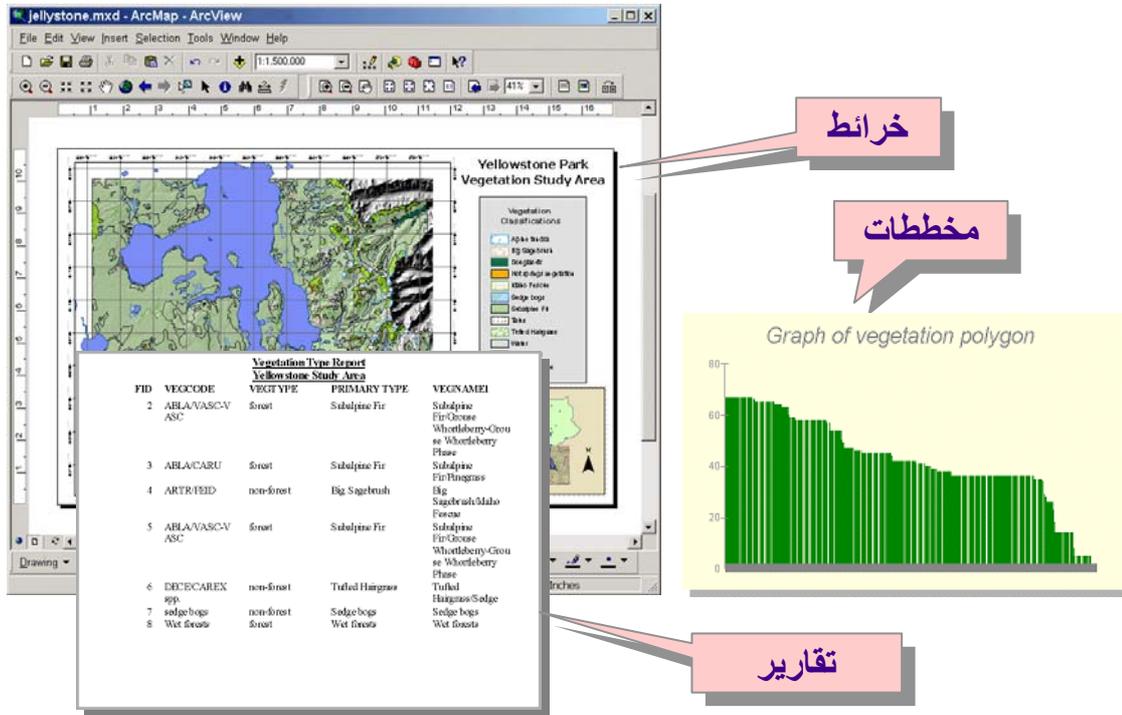


التعرف على المعالم بناء على شروط محددة

قرى مدينه الرياض التي يزيد عدد سكانها عن 50000 شخص

(4)

(5) Data display .4

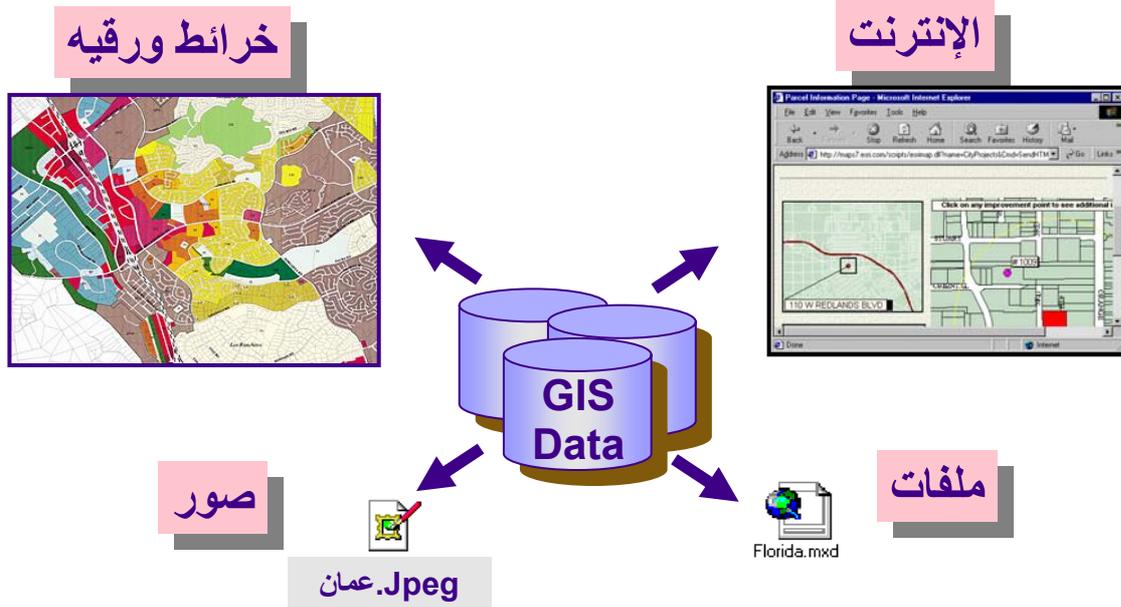


(5)

. Maps - : .5

Reports. -

.(6) Graphs -



(6)

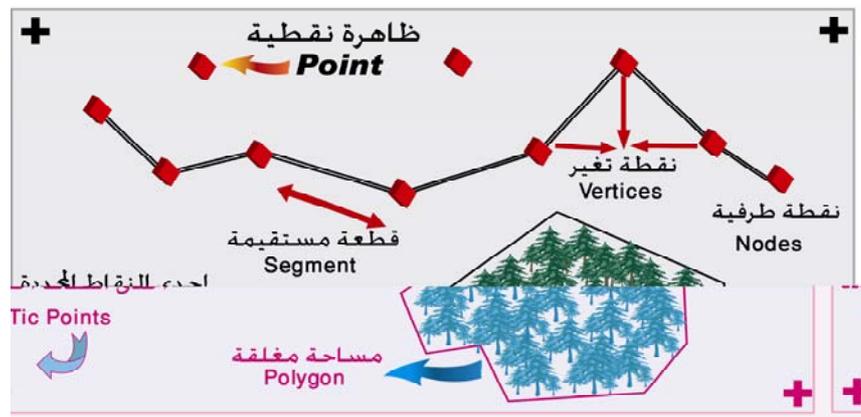
(7) Data Analyses .6



(7)

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( ) Data Structure : **Vector Data** : .1

(2005 ) (Polygon) (Poly line) (Point)  
. (8)



(2005 ) :  
( 8 )

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- .5
- .6

: **Raster Data** .2

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(9)

(1)

(2000 )

0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	1	0	0	0	0
0	0	0	0	0	0	1	0	0	0	0	0
1	1	0	0	0	1	0	0	0	0	0	0
0	0	1	0	1	0	0	0	0	0	0	0
0	0	0	1	0	1	0	0	0	0	0	0
0	0	0	0	0	0	1	0	1	1	0	0
0	0	0	0	0	0	0	1	0	0	1	0
0	0	0	0	0	0	0	0	0	0	0	0

(9)

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(1992 )

Lillesand and Kiefer, )

(1979)

(Curran, 1985)

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:Field Survey

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GPS

Global Positioning GPS

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:System

-	-		
		Georeferencing	
			( ) (2005).
		(X, Y, Z)	
GPS			
		Scanning	.1
		( )	
		Scanning	
		TIFF JPEG	
		Setting	
		Jordan Transform Mercator JTM	.2
		Registration	.3
		Tic Point	
			.4
		Polygon	
		Scale	( ) .5

.6 :

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Zooming  
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(2003).

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.Misallocation

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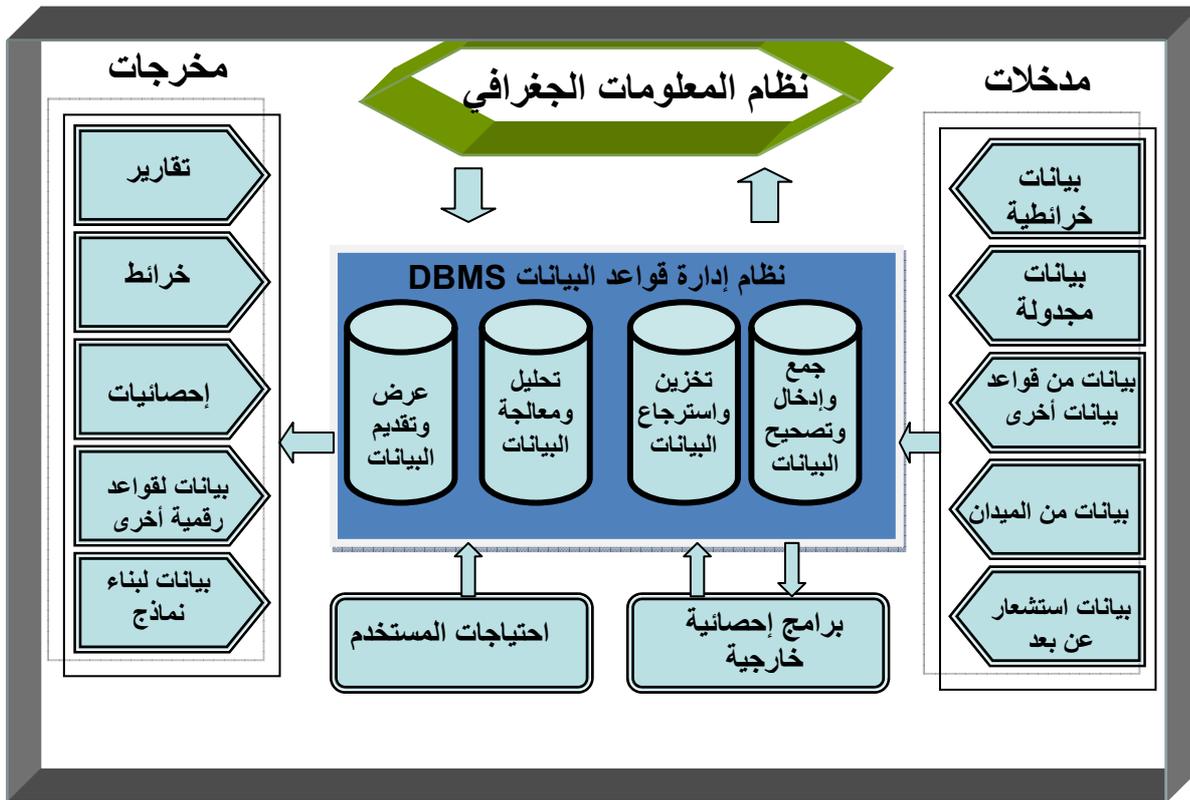
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1990

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(10) :



(2006 )

( 10 )

(GPS)

(GIS)

(RS)

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## GLOSSARY

<b>Base Maps</b>	<b>Aerial Photography</b>	
<b>(Spatial) ArcView</b>	<b>Arc View GIS</b>	<b>Arc View</b>
<b>( )</b>	<b>Attribute Data</b>	

<b>.Encoding</b>		
	<b>Base Map</b>	
	<b>Data</b>	
	<b>Database</b>	
<b>DBMS</b>	<b>Database Management System (DBMS)</b>	
	<b>ESRI</b>	"
<b>(Digitizer)</b>	<b>Digitizing</b>	( )
	<b>Field</b>	
<b>.( ) .</b>	<b>Geographic Data</b>	

	<b>Geographic Feature</b>	
	<b>Geographic Information System</b>	
	<b>Georeferencing</b>	) (
.GPS	<b>Global Positioning System (GPS)</b>	
(Scanned) (Binary) (Raster)	<b>Image</b>	
(thematic)	<b>Layer</b>	
	<b>Legend</b>	

	<b>Linear Feature</b>	
(Meridian Prime)	<b>Longitude</b>	
	<b>Map</b>	
	<b>Map Projection</b>	
<p>1:24,000 )                  .( 24,000                  .( 1 = 1)</p>	<b>Map Scale</b>	
	<b>Point feature</b>	
...	<b>Poly line feature</b>	
	<b>Polygon feature</b>	( )
: )	<b>Query</b>	) (

300 500 (" "		
	<b>Raster Data</b>	
	<b>Registration</b>	
<b>.Tic Point</b>		
	<b>Remote Sensing</b>	
(2) . (1)	<b>Row</b>	
	<b>Spatial Analysis</b>	
	<b>Spatial Data</b>	
<b>.Legend :</b>	<b>Symbols</b>	
( ) ( )	<b>Table</b>	
	<b>Vector Data</b>	



- داود، جمعة، (2006) دليل تدريبي لاستخدام برنامج Arc Map من برنامج Arc GIS 9.1، جامعة أم القرى، مكة المكرمة.
- دويكات، قاسم، (2003). نظم المعلومات الجغرافية النظرية والتطبيق، (ط 1)، عمان.
- دويكات، قاسم، (2000). أنظمة المعلومات الجغرافية، الطبعة الأولى، عمان.
- (2005).
- (1).
- (2009).

([www.arabgeographers.com](http://www.arabgeographers.com))

- ESRI, (1996) **Using Arc View GIS**, New York.
- Keith, Clark, (1999). **Getting Started With Geographic Information Systems, Second Edition**, Prentice-Hall, Simon and Schuster/ Viacom Company
- Gurrion, Paul. J (1985), **Principles of Remote Sensing**, Longman Technical, and Scientific, England

- Lillesand, Thomas M. and Kiefer, Ralph W. (1979).  
**Remote Sensing and Image Interpretation**, John Wiley and Sons, New York, USA
- Hall-Wallace K. M., (2003) **Exploring water Resources, GIS Investigations for the Earth Sciences**, Brooks/Cole, Canada.