



ESRI

TM

Enterprise Technology And Solutions by ESRI

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ESRI, Inc.



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April 18 - 19, 2005 • Chicago

What is “Enterprise”?

- An *enterprise* consists of all functional departments, people, and systems within an organization.
- Successful *enterprises* have a “free flow” of information between the systems that support their missions and functions
- It is not a proxy for size.



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Geographic Information Systems (GIS)

- GIS is like other Enterprise Information Technology Systems...
 - Architecture
 - Interfaces
 - Development tools
 - Deployment strategies
 - Standards



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Standards for GIS

- **Information Technology Standards**
 - DBMS: RDBMS & SQL
 - Web Services: J2EE, .NET, XML/SOAP
 - Computing Platforms: Windows, Unix
 - Development Languages: C++, Java, Visual Basic, .NET (C#, etc.)
- **Domain Standards**
 - Industry, ISO, Military, OGC standards, FEA
 - Data and Metadata formats
 - Web Service APIs
- **User Community/Organizational Standards**
 - Your organization's :“IT System and Architectural Design Guidelines”

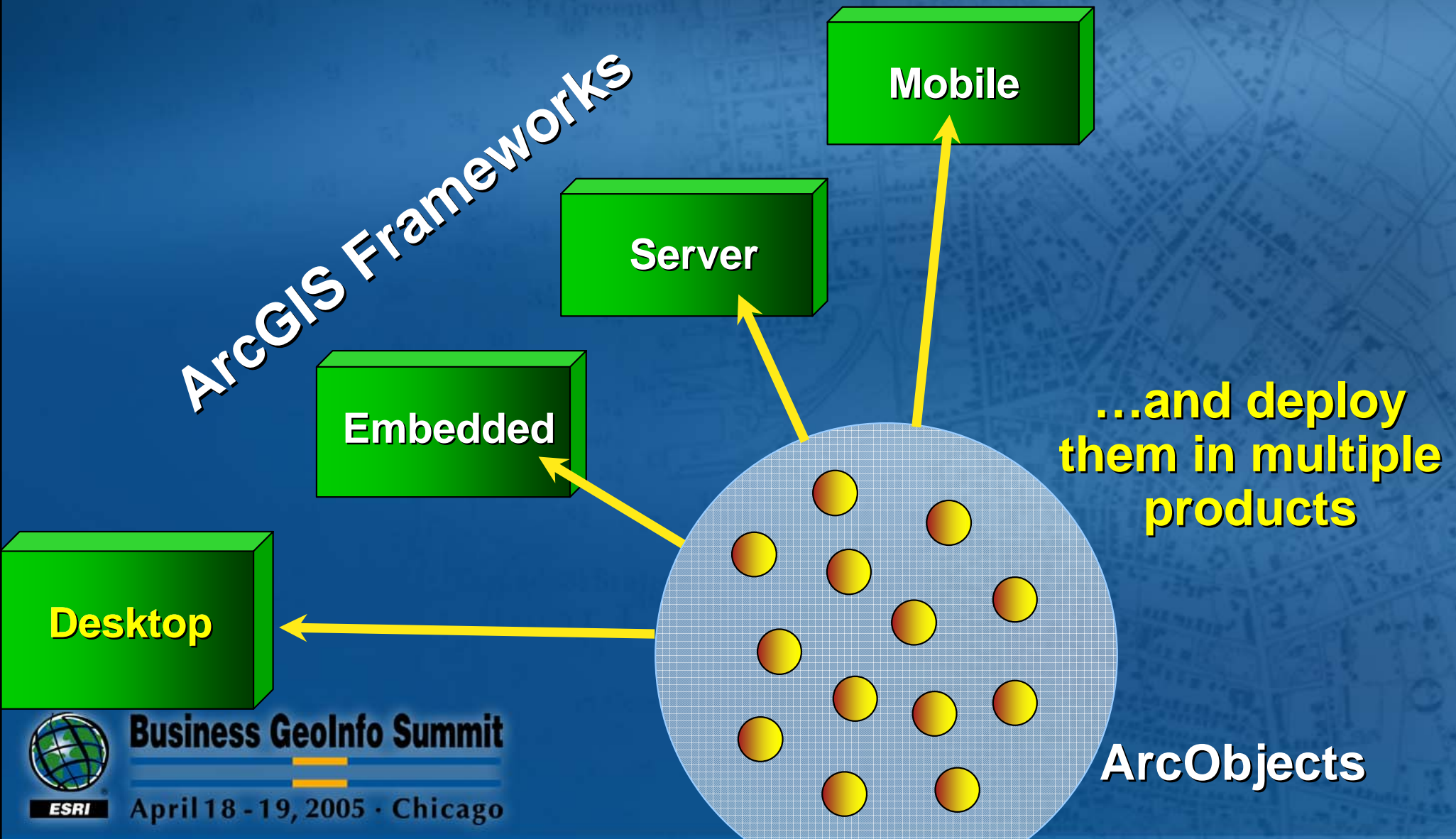


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ESRI Product Strategy

Develop Generic GIS Components . . .

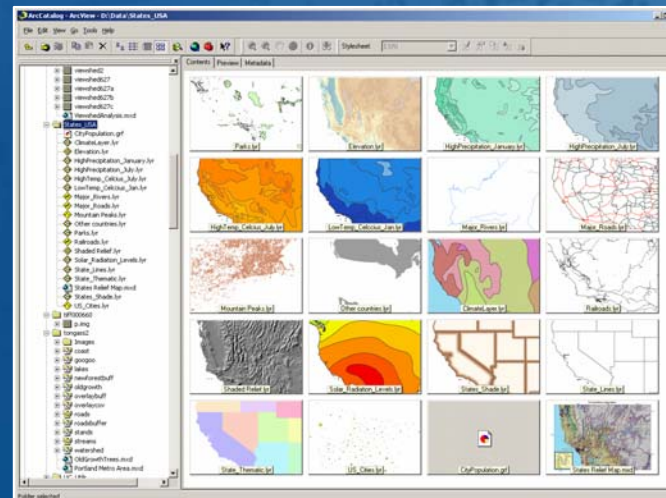
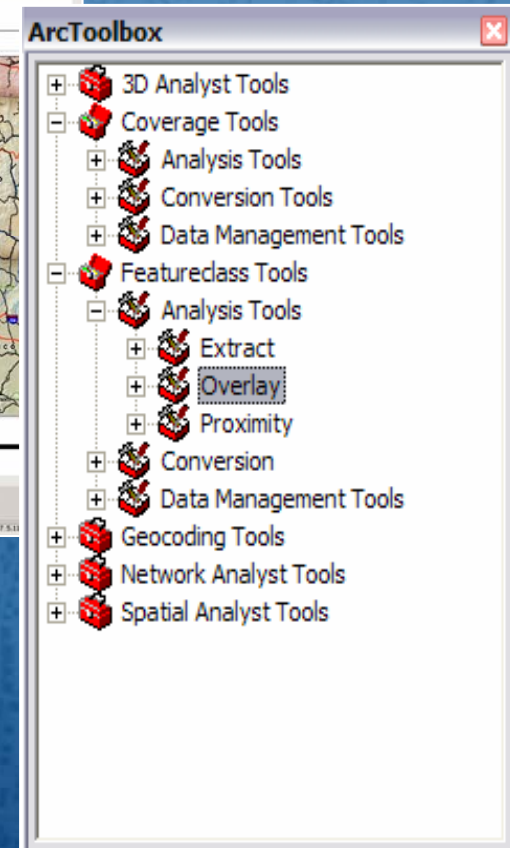
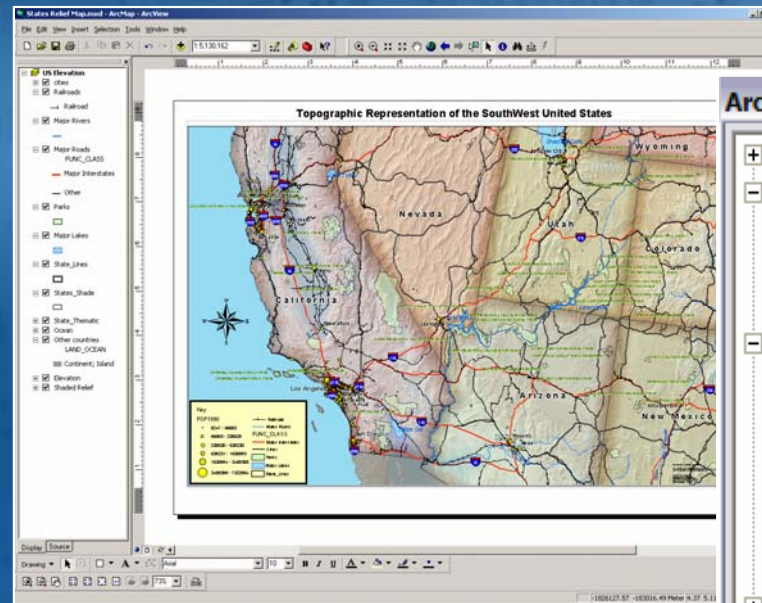


Desktop GIS

- A suite of Windows desktop applications for the Professional GIS User.
- ArcObjects on the desktop.
- Available in Products
 - ArcView
 - ArcEditor
 - ArcInfo

ArcMap

ArcToolbox



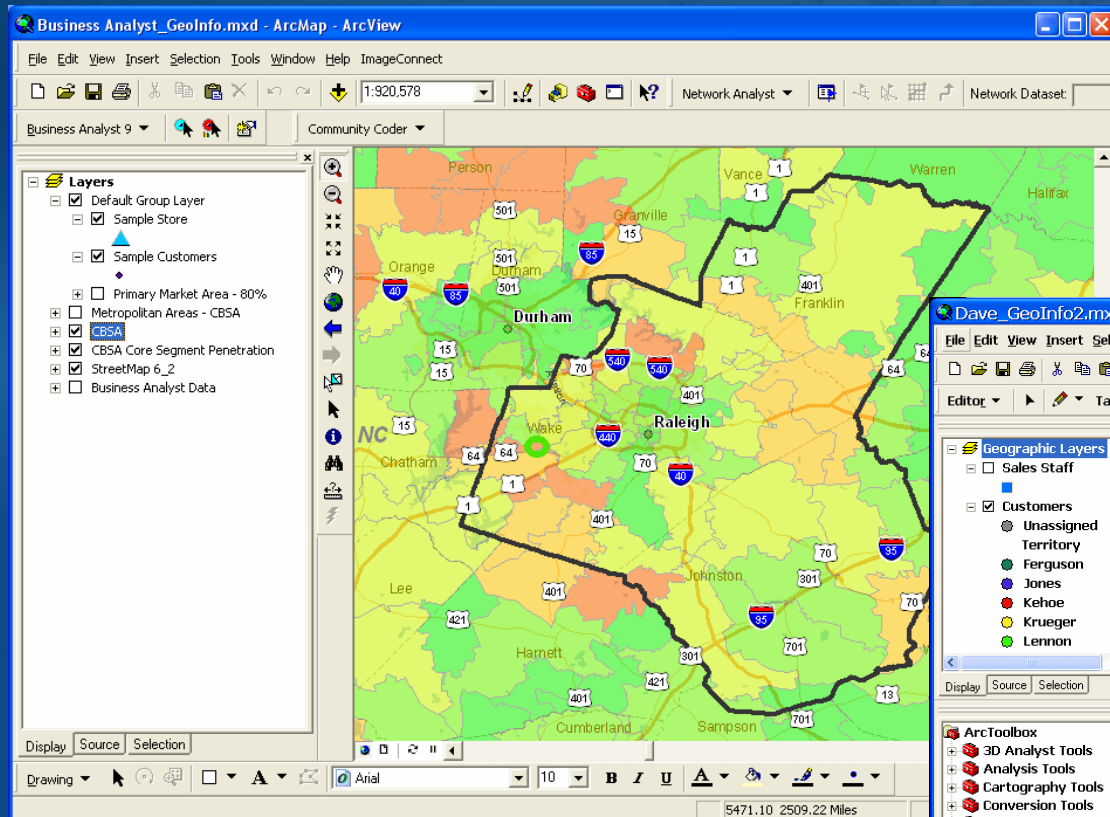
ArcCatalog



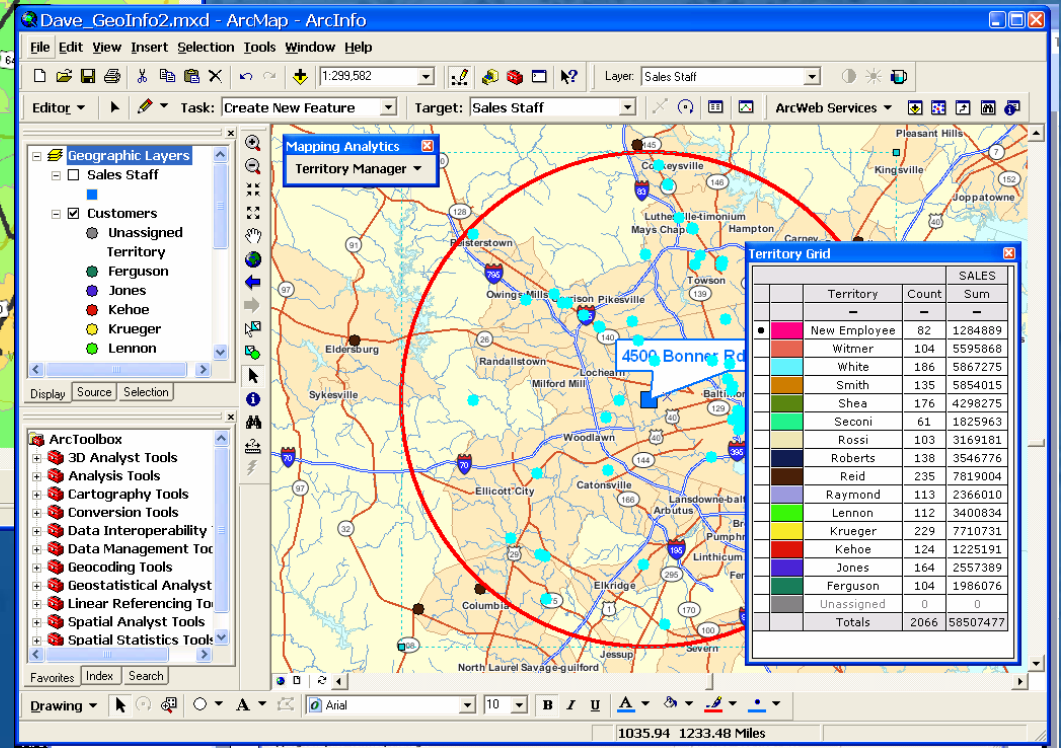
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ArcGIS Desktop: ArcView



Business Analyst



Territory Manager

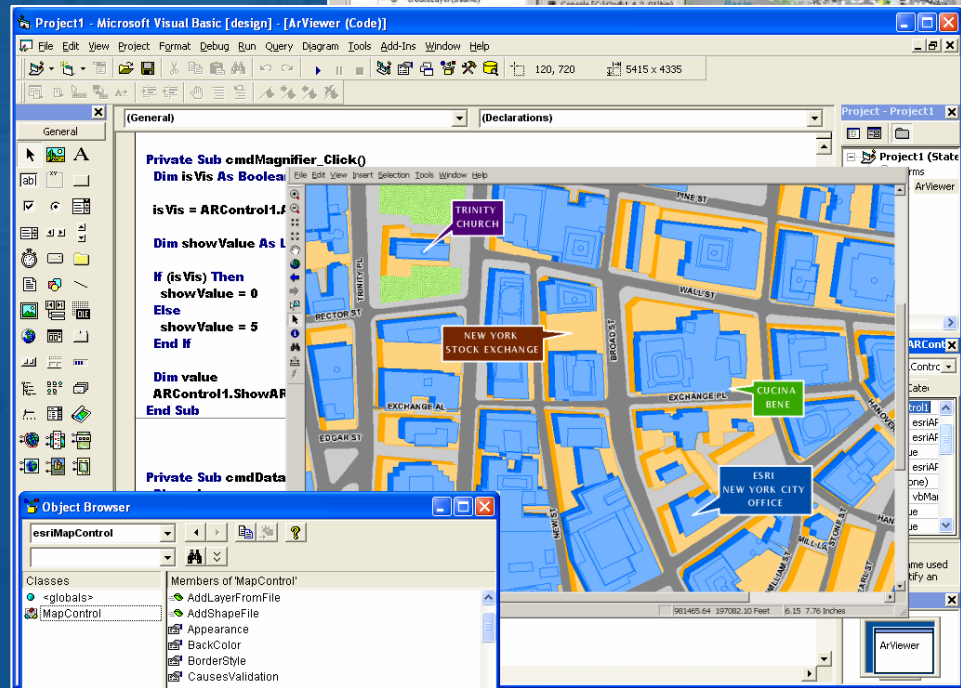
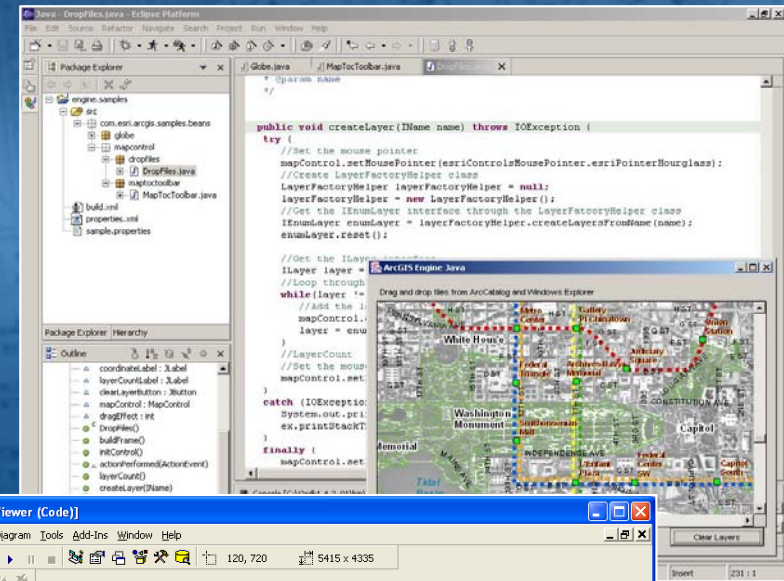


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Embedded GIS

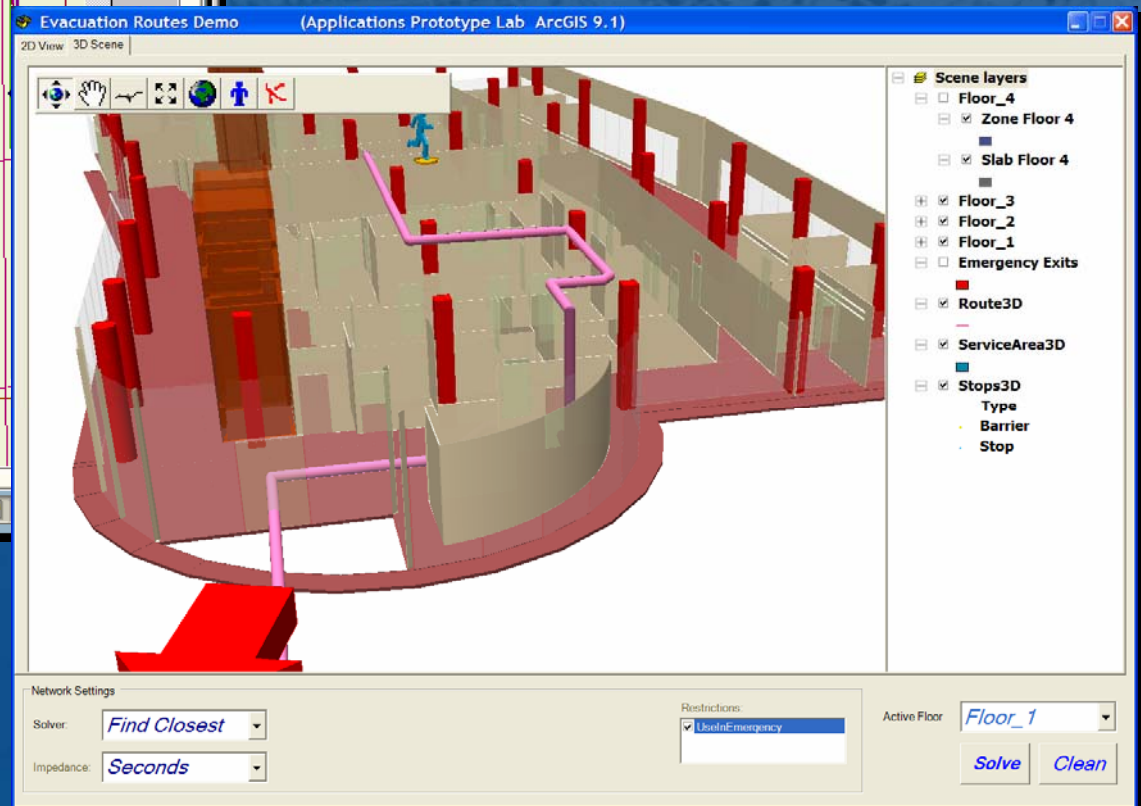
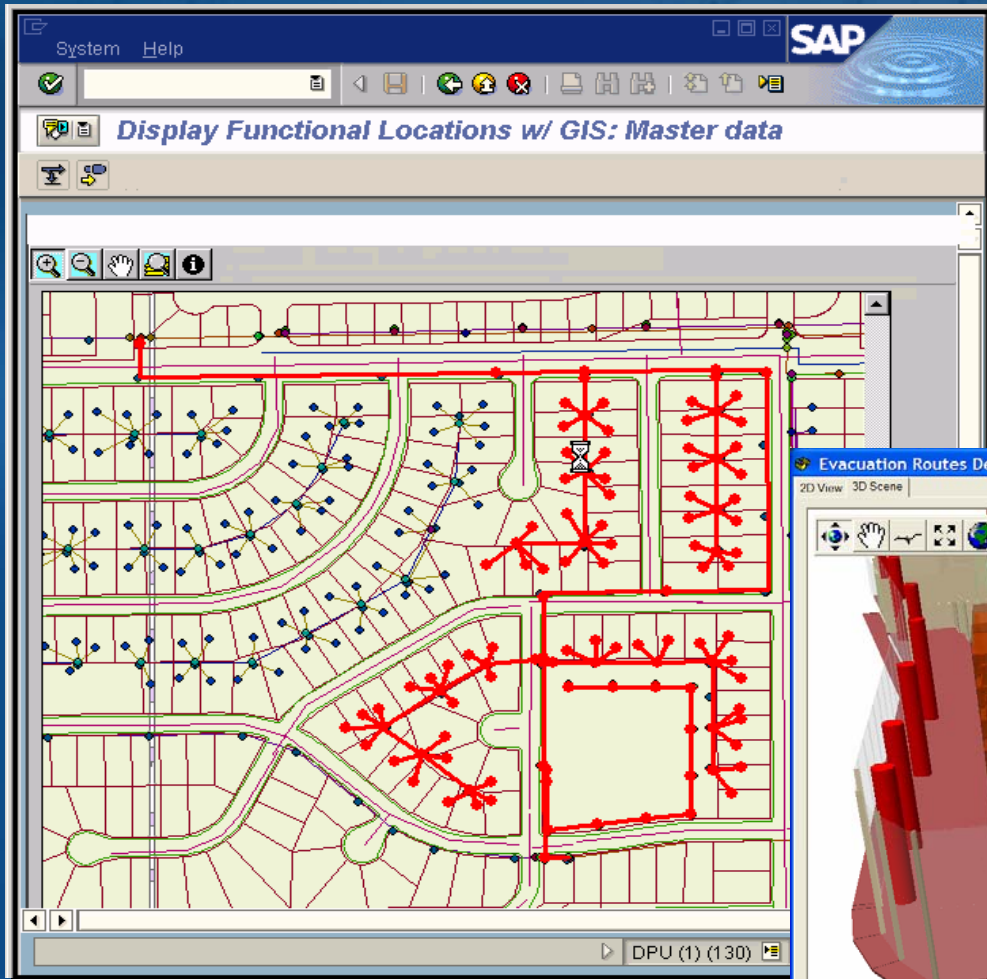
- Embeddable ArcObjects components (fine and coarse grain objects, controls & tools) for the **GIS Application Developer**.
- Cross-platform (Windows, UNIX, and Linux).
- Programmers interact with component object API.
- Product:
 - **ArcGIS Engine**



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ArcGIS Engine

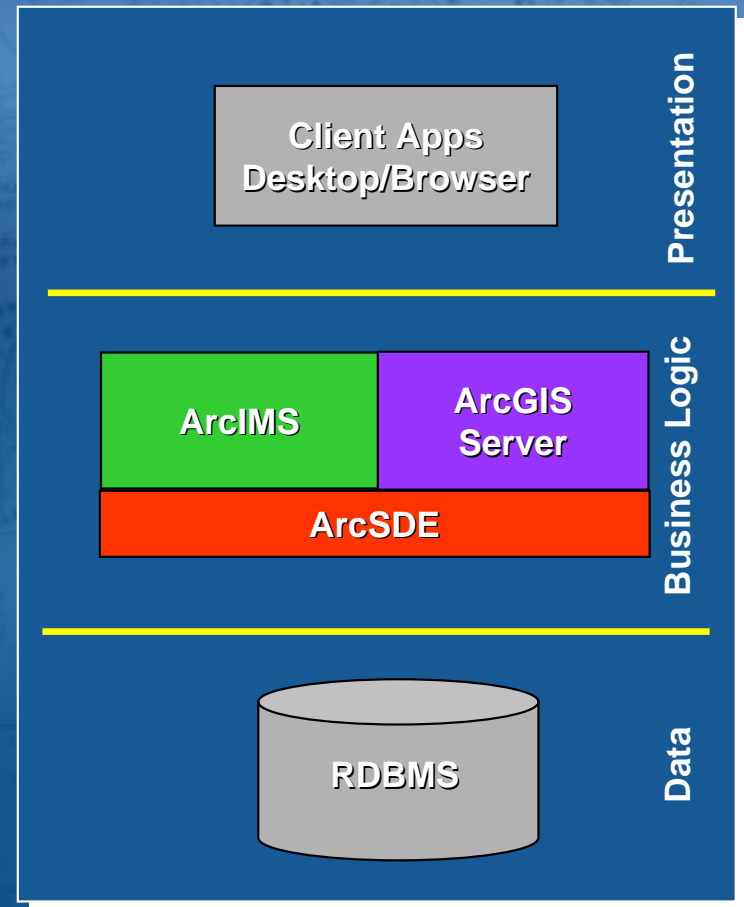


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Server GIS

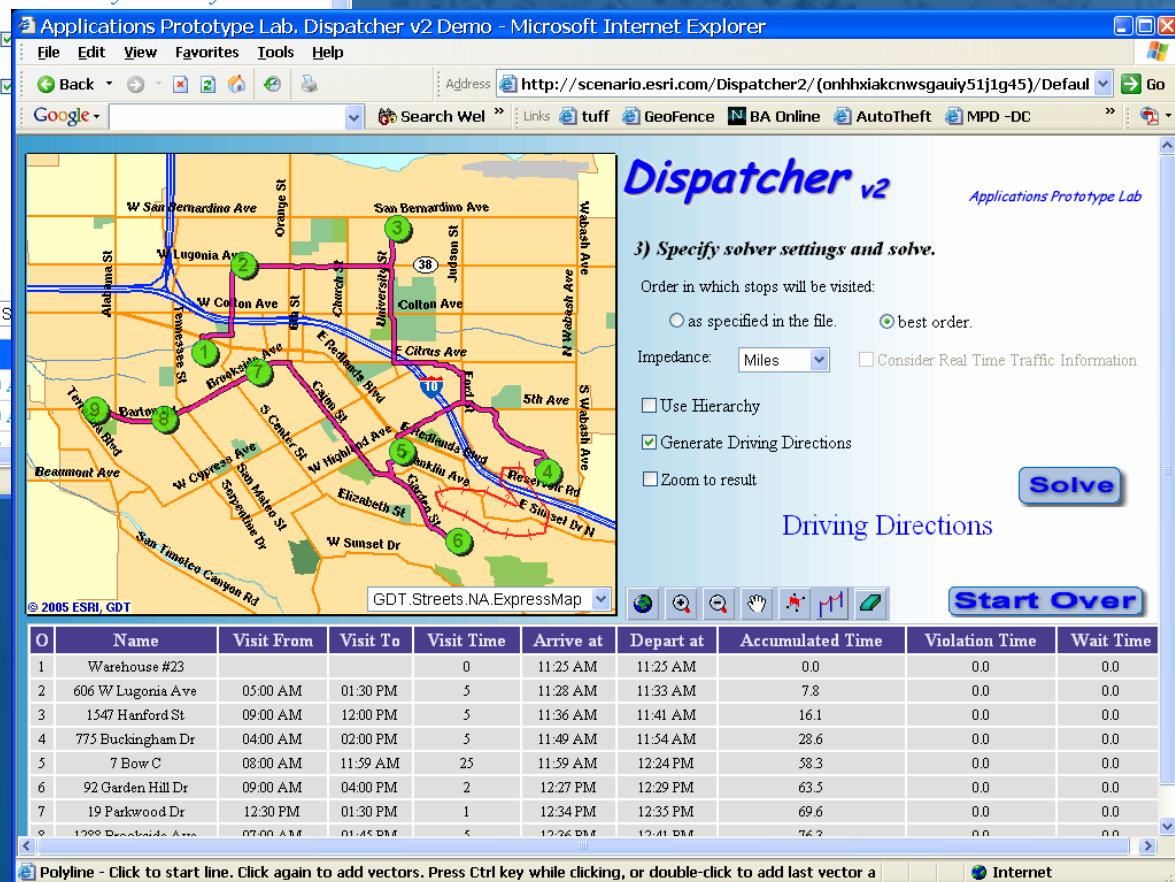
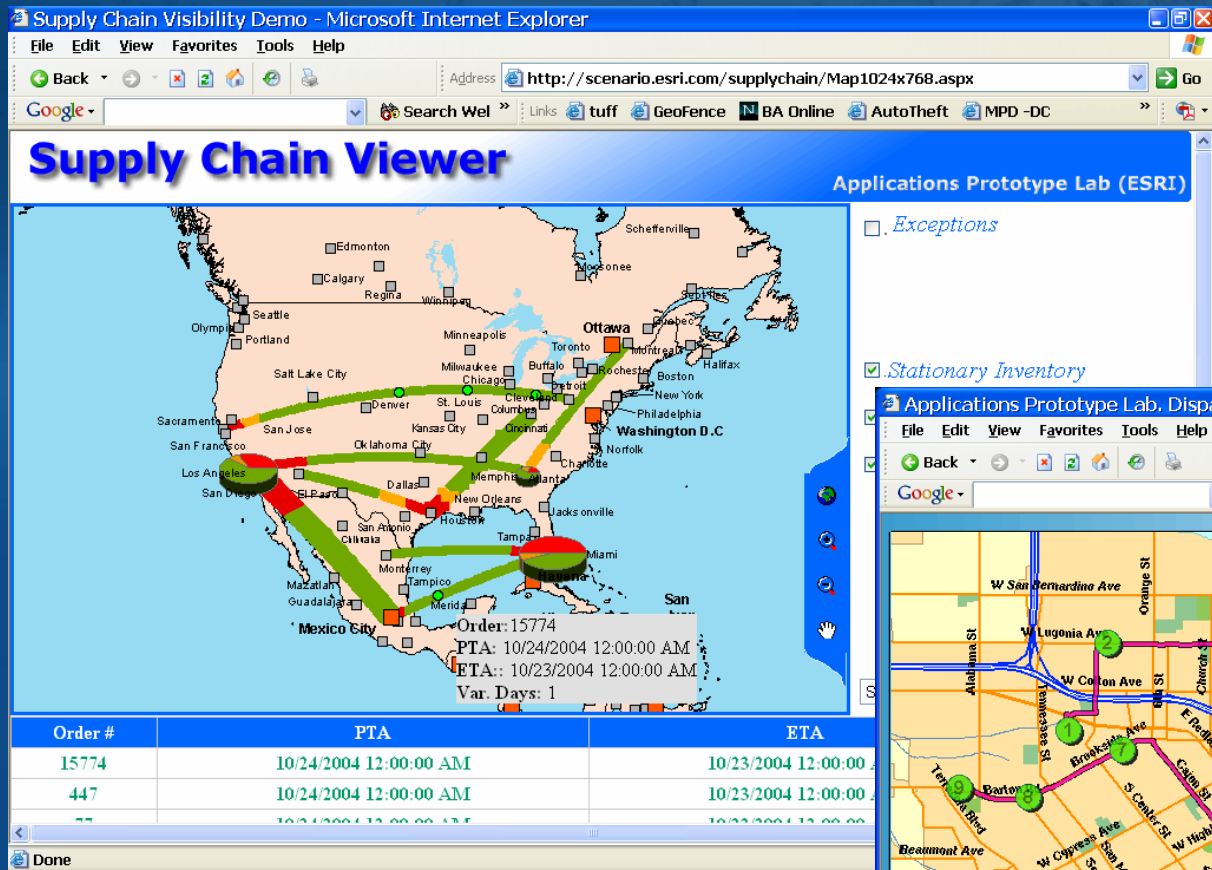
- Centrally managed, server-based ArcObjects primarily for **IT Professionals**.
- Cross-platform (Windows, UNIX, and Linux).
- Strong developer platform (web controls, web application templates, samples and web services.)
- Products:
 - **ArcSDE**
 - **ArcIMS**
 - **ArcGIS Server**



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ArcGIS Server

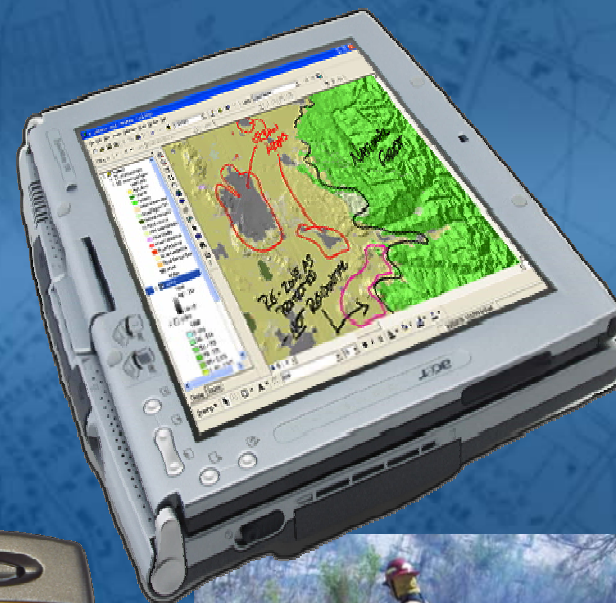


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Mobile GIS

- Technology for remote **GIS Consumers and Professionals.**
- **Full GIS**
 - ArcEditor / ArcView on Laptop / Tablet PC
- **Lightweight GIS**
 - ArcPad on Pocket PC
 - Browser-based apps
- **Phones and other Devices**
 - Server / web service clients



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Mobile GIS

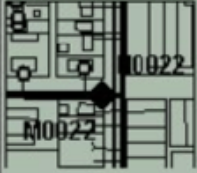


Close valve 1000230
10/20/2003 4:27:18 PM

1 Get Map
2 Get directions
3 Get Facility Map

OK

Close valve: 1000230



Back

Directions by ESRI
ArcWeb Services:
1. Depart Start Go
East on Nebraska Ave
W Drive 0.1 mile(s) ~
1 minute

Back



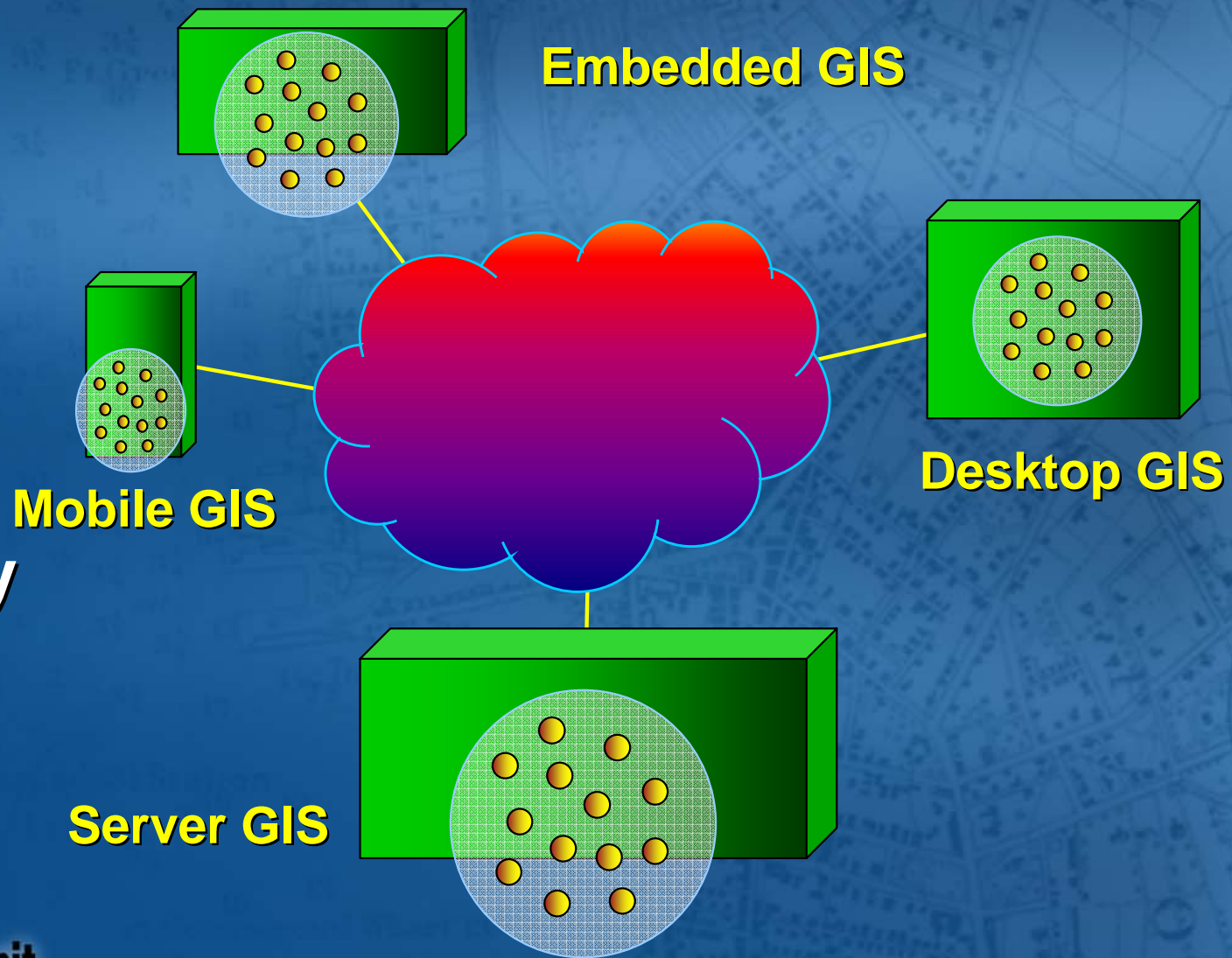
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Deploying ArcGIS

Advantages

- Flexibility
- Consistency
- Integration
- Interoperability
- Efficiency



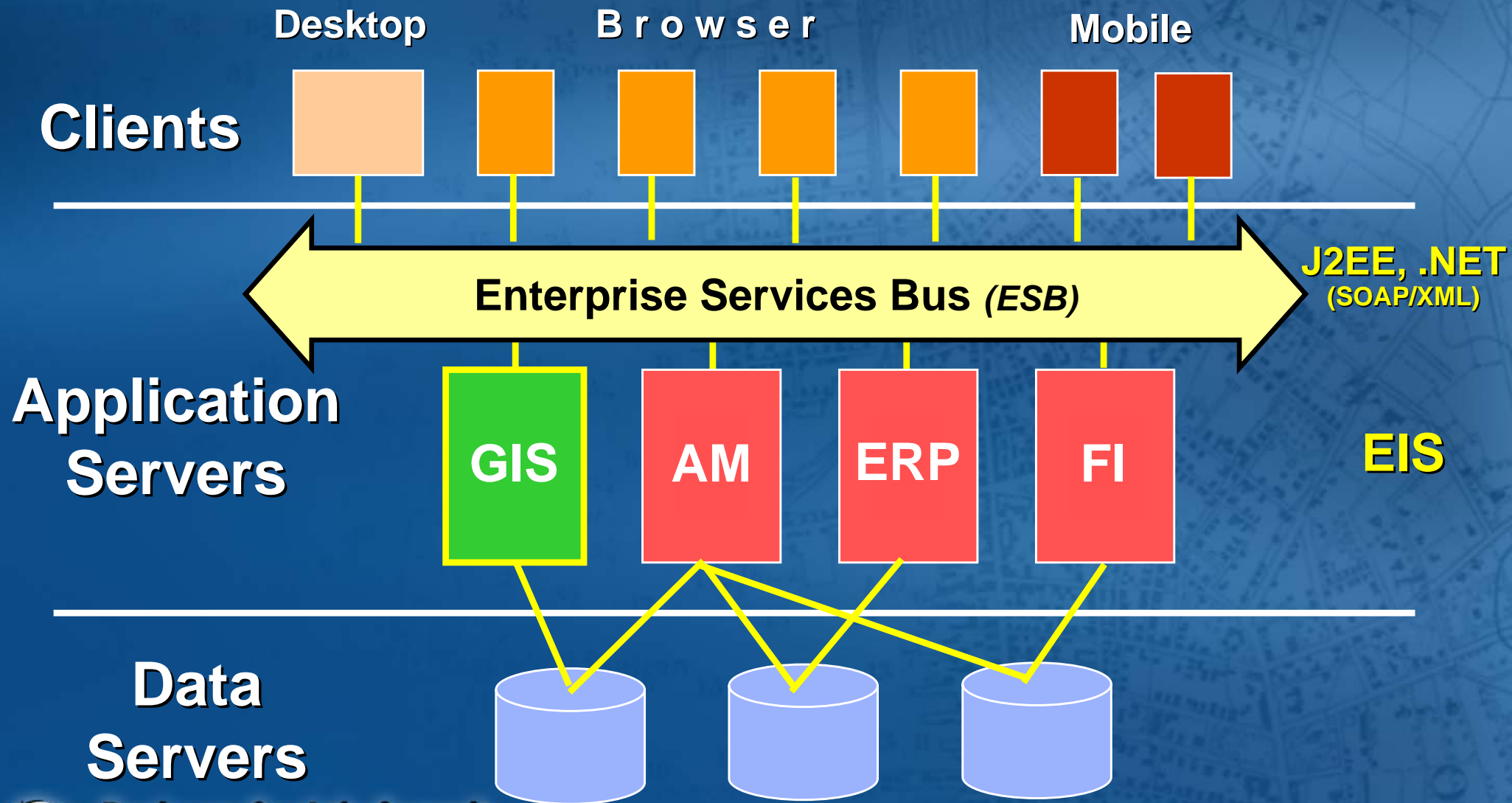
... To best serve the work flows of the organization



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Enterprise Architectures



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Advantages to Application Tier Logic

- **Flexibility**
 - Loose Coupling - separate applications from data
 - Utilize multiple RDBMS (SQL Server, Oracle, etc)
- **Reusability**
 - Centralized business logic/processes
- **Agility**
 - Take advantage of new hardware (blade, GRID) and software.
- **Interoperability**
 - Achieve Application Integration with web services



Application Server Architecture Support

Enterprise Vendors:

- **BEA** (Weblogic)
- **SAP** (NetWeaver- Xi)
- **IBI** (iWay)
- **Microsoft** (BizTalk)
- **IBM** (Websphere)

New !
**Spatial Integration Adapter
for WebSphere Studio**



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Enterprise Application Integration (EAI) Examples

Geographically Enable...

- Customer Relationship Management (CRM)
- Customer Information System (CIS) Call Center
- Supply Chain Management (SCM) and Logistics
- Human Resources (HR)
- Enterprise Resource Planning (ERP)
- Asset Lifecycle Management (ALM)
- Many others...



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CRM

Company (Sales) - YORK INTERNATIONAL CORP, PA,YORK

Company

Customer # Primary ☐

Name


Dept/Div1

Dept/Div2

Dept/Div3


Phone


Fax Don't Fax ☐


WWW 

Cust Group






Account Management

Acct. Mgr.  Override ☐

Region 



Territory 

Contacts Opportunities Open Issues Notes Leads Quotes Business

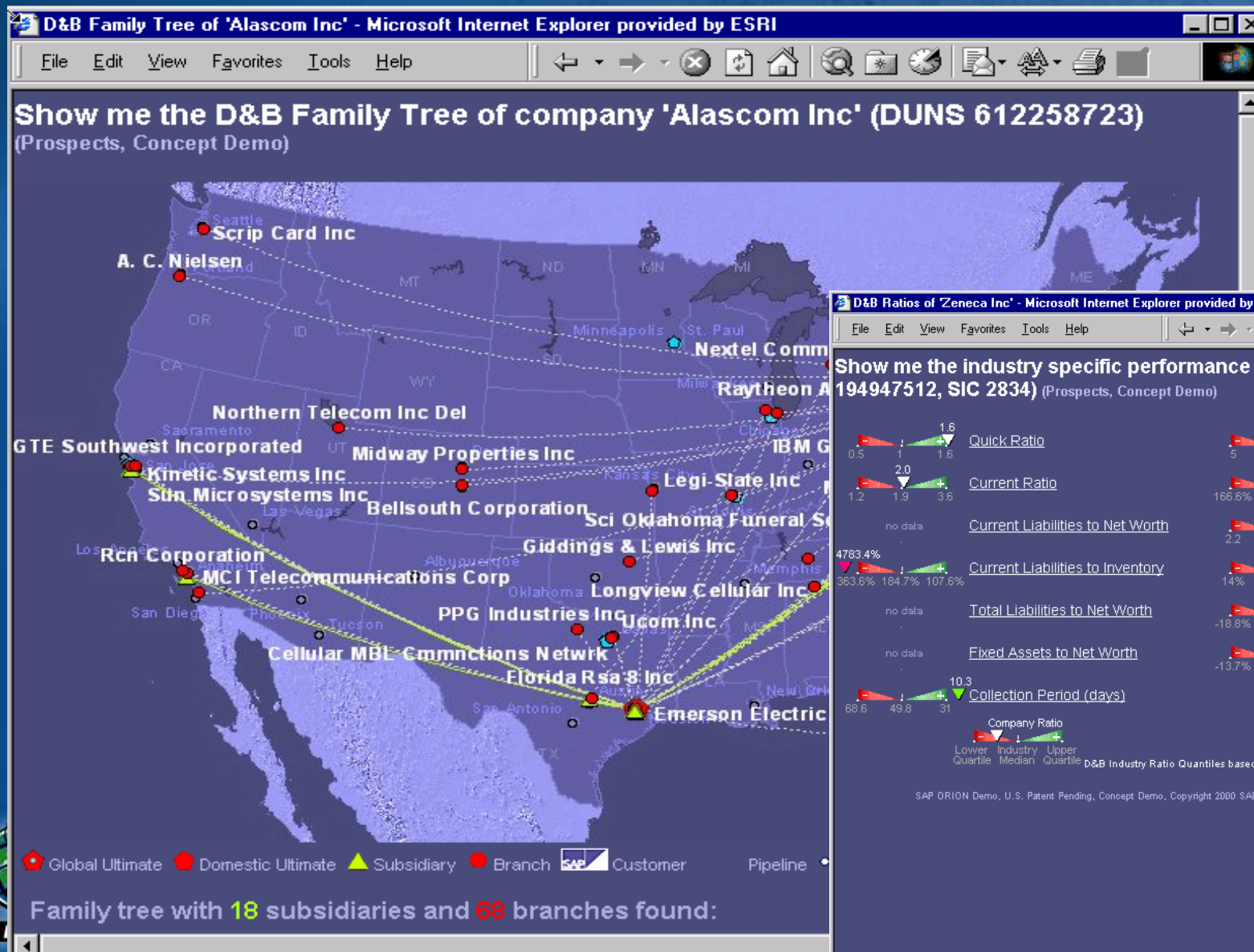
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		Stephanie	Jones	MANAGER ORGANI
	<input checked="" type="checkbox"/>	Robert	Wernly	VICE PRESIDENT
		Don	Willemstien	MANAGER CHANNE
		Debra	Russell	MANAGER BUSINES

Audit

Created By:

<div>   </div>			
Total Number of Steps:		Estimated Driving Distance:	Estimated Driving Time:
14		87 miles	1 hour(s) : 40 minute(s)
Step	Directions	Distance (mi.)	Time (h:m)
1	Depart from ESRI-Philadelphia Go East on W 9th Ave	0.0	0:00
2	Turn left on Moore Rd	0.0	0:00
3	Turn left on State Hwy 23	0.4	0:01
4	Take ramp and go South East on Us Hwy 422	0.7	0:01
5	Go West on I 76 (Pennsylvania Tpke)	41.1	0:45
6	Go South West on Us Hwy 222	16.8	0:19
7	Go West on Us Hwy 30 (Lincoln Hwy)	1.0	0:01
8	Take ramp and go West on State Hwy 283	0.2	0:00
9	Go West on Us Hwy 30 (Lincoln Hwy)	22.5	0:25
10	Turn left on N Sherman St	1.0	0:02
11	Turn right on State Hwy 462 (E Market St)	1.1	0:02
12	Turn left on S Pershing Ave	0.4	0:01
13	Turn right on Kings Mill Rd	1.0	0:02
	Turn right on S Richland Ave		

Facility Distribution and Performance Metrics



CIS Call Center - GM



from **B St**
to **W Harbor Dr**

	Direction	Road Name	Distance
1.	Go left (W)	B ST	0.1 mi.
2.	Go left (S)	10TH AVE	0.4 mi.
3.	Go right (W)	MARKET ST	0.5 mi.
4.	Continue (W)	W MARKET ST	0.1 mi.
5.	Go left (S)	FRONT ST	0.2 mi.
6.	Go left (SE)	W HARBOR DR	0.1 mi.

Source: Primary

☒ Display Road Labels

Accept

Reject



WHEREVER YOU GO, HERE WE ARE.™

Map Size: 1.37 Miles

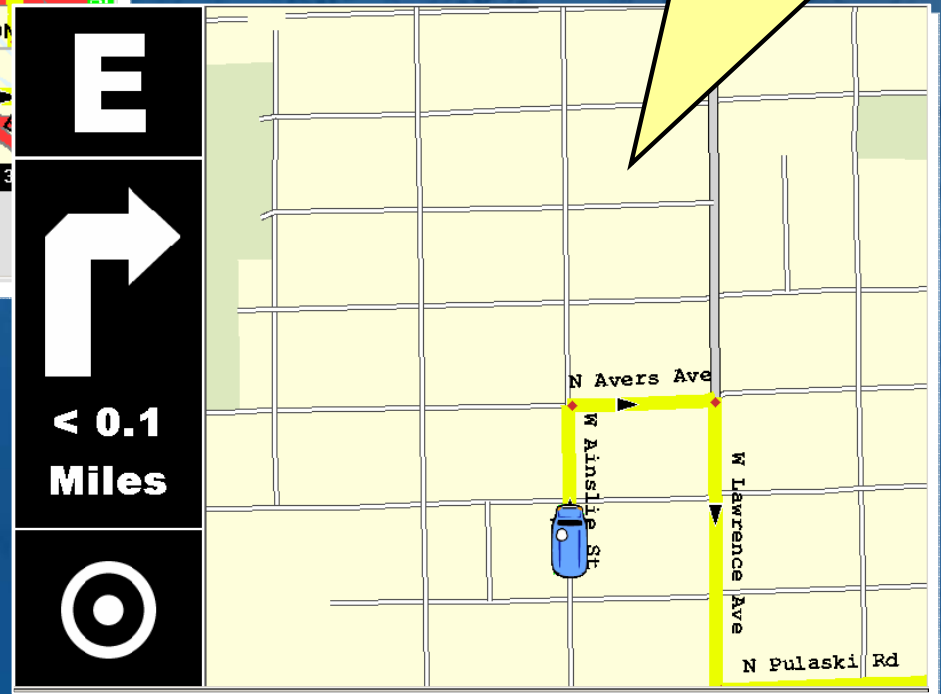
Logistics – Sears



Vehicle in Motion

- Vehicle Tracking
- Audible Navigation Instructions

Turn RIGHT on North Avers Ave...



Vehicle Stationary

- Suite of Mapping Functionality
- Route Managements Tools



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HR Planning – Emergency Response

Resource Planning Tool Edit Gantt Area System Help

Locator Processing Period Assignment Availability

Reference Time Zone: EST / Processing Period

Assignment Detail

Agency A

Bruce Caldwell

Robin Levine

Robert Marcus

Donna Martin

Marie Tobia

Period

Start Date 09/25/2003 Start Time 12:51:11

End Date 09/25/2003 End Time

Service Rep. 43 Robert Marcus

Corresponding Service Task

Parameter	Value
No. of Assignments	1
Priority	5
Priority Text	Medium
Transaction Type	ZEI2
Transaction Number	393
Item	10
Item Category	ZSRP
Item Status	REL
Item Status	Released
Service Task	Inspection
Requested Start, Time	18:00:00
Requested Start, Date	09/25/2003
Requested End, Time	18:00:00
Requested End, Date	09/25/2003

Regional Emergency Personnel

99102	Luke Dwight
99104	Nancy Raines
99105	Frederick Jenkins
99108	Barton Martin
99110	Ann Nelson
99116	Melissa Close
99117	Nancy Smith
99119	James Gonzalez
99122	Dan Levine
99127	Martin Lester
99129	Deborah Levine
99131	Harold Highsmith
99132	Vince Otto
99133	Joseph Foley
99135	Mark Simes
99141	Philip Adams
99143	Emily Kellerman
99146	Ann Martin
99149	Patricia Procter
99150	George Hein
99154	Steven Belinski
99155	Hannah Wilson
99156	Bob Marcus

Display Map

Homeland Security Map

Map Legend Map Layers

- Airports
- Heliports
- Hospitals
- Schools
- HazMat Response Units
- Response Personnel (City)
 - coordinators
 - fire
 - hazmat
 - police
- Response Personnel (Regional)
 - coordinators
 - fire
 - hazmat
 - police
- Incident Location
- ALOHA Model
 - footprint
 - hazard area
- HPAC Model
 - ERPG
 - IPHL
 - STEL
- Evacuation Shelters
- Evacuation Routes
- Distribution Warehouses

Click on Map to: ☐ Zoom In ☐ Zoom Out ☐ Re-center

Select: Response Personnel (Regional)

reset extent

GIS by ESRI

Done

Internet

Summary

- ESRI provides a **generic platform** or information system for dealing with geographical information and processes.
- ESRI offers a single **scalable architecture** with multiple complimentary products based on **industry standards** for both end users and developers.
- ESRI offers a rich suite of **enterprise integration** options, solutions and experience.



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