

Real Life Applications of GIS

Mark Corbin – ESRI (UK)

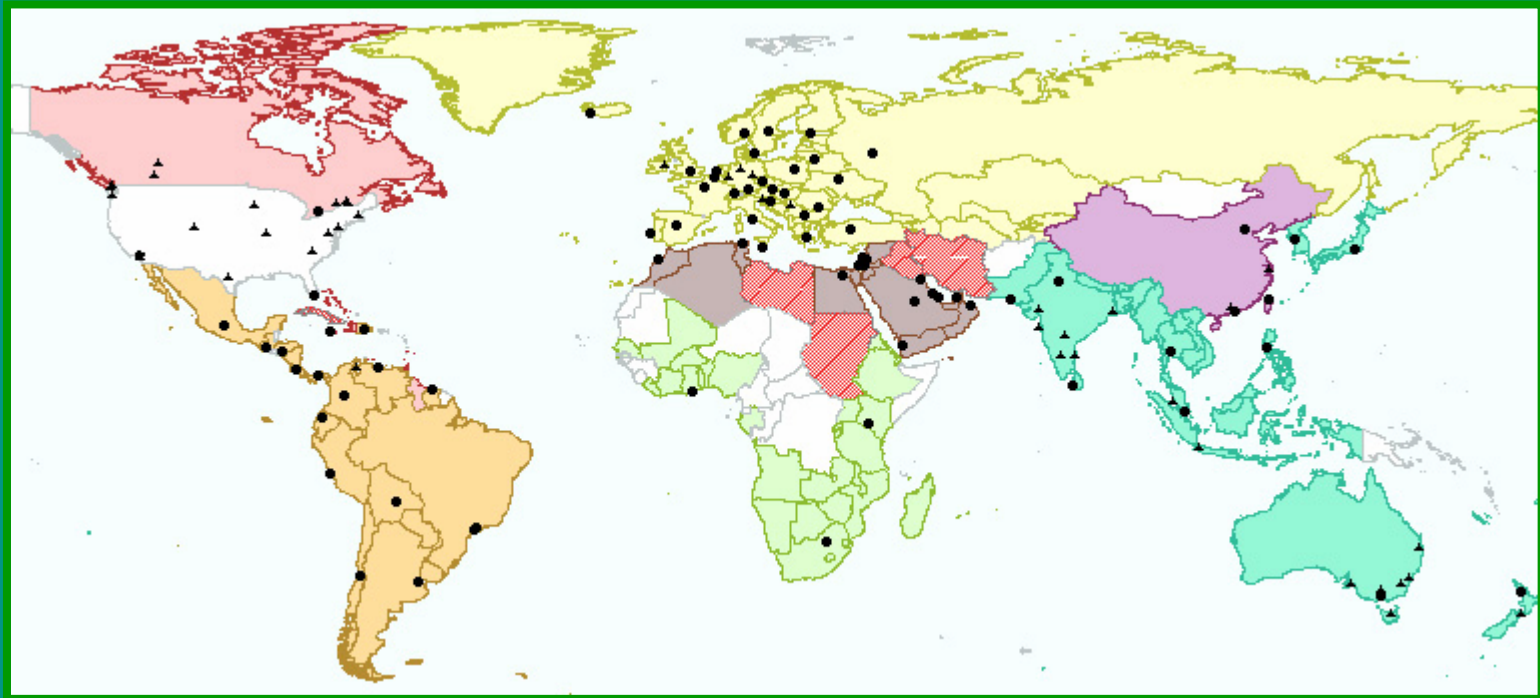
ESRI - Truly International

- Founded in 1969
- Operates in 220 countries
- More than 1,500,000 licences in use within 350,000+ client sites
- More than 3,000 staff
- Privately owned
- Profitable and sustainable
- \$100 million annual R & D spend
- Headquartered in Redlands, California

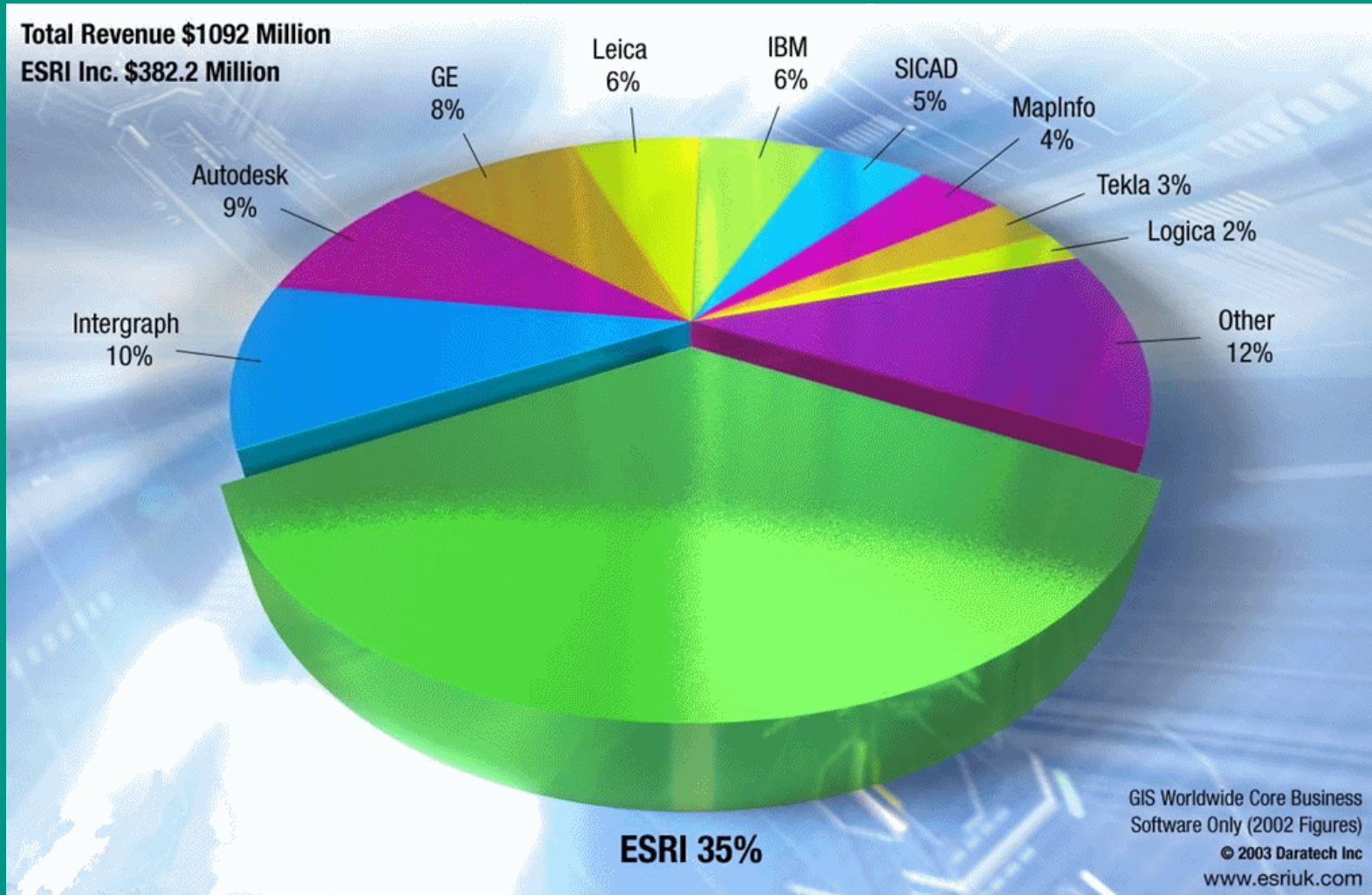


ESRI Regional Offices and International Distributors

- 11 Domestic Regional Offices
- 77 International Distributors
- Users in more than 220 countries



Market Share by Revenue



ESRI (UK)

- **Mission**

- To help our customers and partners to improve their businesses by implementing the worlds best GIS technology

- **Size**

- Group revenues > £50m
- More than 450 staff
- 8 offices
- Largest pool of GIS skills in the UK

- **Sustainable growth**

- ESRI Holdings Ltd has been ranked 37th in the Sunday Times PricewaterhouseCoopers Profit 100 league table of Britain's private companies for the fastest growing profits

- **Credentials**

- Supporting more than 3,000 customers
- 14 years experience in delivering enterprise-wide GIS solutions
- Developers of core technology for ESRI Inc



www.esriuk.com

Industries using GIS today

- Electric/Gas Utilities
- Business/Marketing
- Telecommunications
- Transportation Logistics
- Petroleum & Mining
- Pipeline
- Water & Wastewater
- Health Care
- Government
- National Agencies
- Environmental Management
- Local Government
- Public Sector
- Retail
- Military/Intelligence
- Mapping/Cartography
- Land Use Planning
- Real Estate & Cadastral
- Site Location
- Agriculture
- Forestry
- Land Use Planning
- Insurance Risk Management

Private Sector Customers

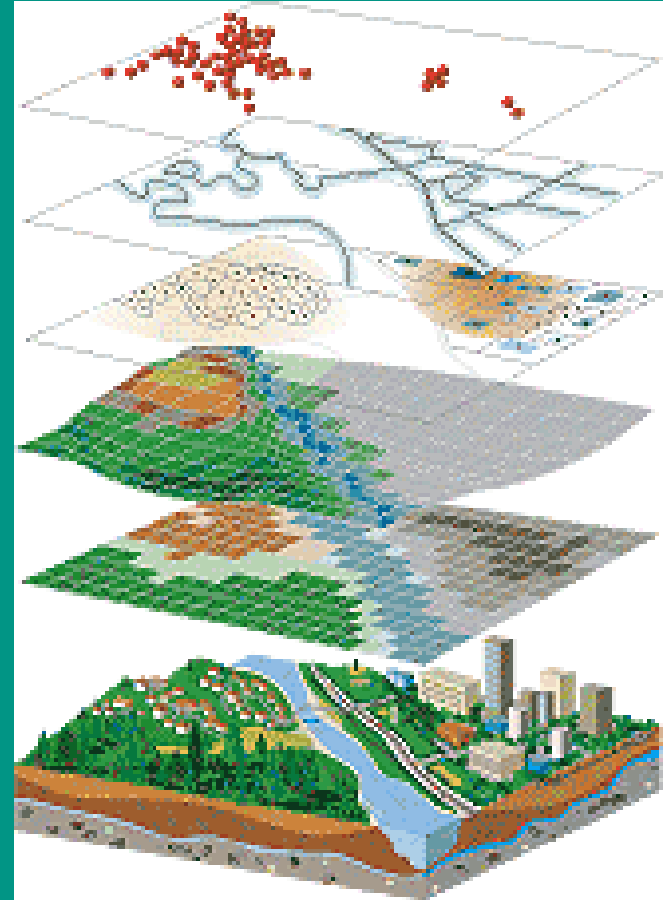


Public Sector Customers

- Environment Agency
- Ordnance Survey
- Forestry Commission
- Defence Estates
- Crown Estates
- English Heritage
- Met Office
- Dept of Communities and Local Government
- Scottish Executive
- Kent County Council
- Glasgow City Council
- Bracknell Forest District
- Bristol City Council
- Norfolk County Council
- Cambridge City Council
- Newcastle City Council
- Aylesbury Vale District Council
- Wiltshire County Council

What is GIS?

- Abstracting and modelling our world
- Layers of data representing real world features
- Discrete features e.g. roads
- Surfaces e.g. elevation



The Combination of Maps and Databases

Staplehurst.mxd - ArcMap - ArcView

File Edit View Insert Selection Tools Window Productivity Help

1:1,677

Labeling

Fast

Layers

- ☒ Address Point
- ☐ Postcodes
- ☒ Properties
- ☒ Parish Boundary
- ☒ M1Centralgov
 - ☐ Local Authorities
- ☐ 1:250 000 maps
- ☐ 1:1 million maps
- ☐ 1 to 50000 maps
- ☒ OS MasterMap text (0-5k)
- ☐ BOUNDARY
- ☒ OS MasterMap Polygons (0-5k)
- ☒ OS MasterMap general Polygons (0-5k)
- ☒ M1s_test1
- ☒ mapbrowser

Attributes of Address Point

FID	Shape	OH	DL	CH	PC	SF	BN	TH
638	Point		STAPLEHURST	KENT	TN1 20AZ	400	0	HIGH STREET
639	Point		STAPLEHURST	KENT	TN1 20AZ	0354	0	HIGH STREET
640	Point		STAPLEHURST	KENT	TN1 20AZ	0354	0	HIGH STREET
641	Point	IDEN PARK GARAGE	STAPLEHURST	KENT	TN1 20EJ	0354	0	CRANBROOK ROAD
642	Point	PARISH ROOM	STAPLEHURST	KENT	TN1 20AZ	0354	0	HIGH STREET
643	Point	CHRIS PAGE CAR SALES	STAPLEHURST	KENT	TN1 20EJ	0354	0	CRANBROOK ROAD
644	Point		STAPLEHURST	KENT	TN1 20DH	400	0	FRITTENDEN ROAD
645	Point		STAPLEHURST	KENT	TN1 20DH	400	0	FRITTENDEN ROAD
646	Point		STAPLEHURST	KENT	TN1 20AZ	0354	0	HIGH STREET
647	Point	LLOYDS CHEMIST	STAPLEHURST	KENT	TN1 20AA	0354	0	HIGH STREET
648	Point	WEALD INSURANCE BROKERS	STAPLEHURST	KENT	TN1 20AG	0254	0	HIGH STREET
649	Point	DOCTORS SURGERY	STAPLEHURST	KENT	TN1 20BS	0354	0	HEADCORN ROAD
650	Point	NATIONAL WESTMINSTER BANK PL	STAPLEHURST	KENT	TN1 20JY	0354	5	THE PARADE
651	Point	CALDO LTD		KENT	TN1 20XZ	500	0	
652	Point	DIAMANT BOART (UK) LTD		KENT	TN1 20YD	500	0	
653	Point	SOUTHERN CARE MAINTENANCE	STAPLEHURST	KENT	TN1 20YA	500	0	
654	Point	ENVIRO AESTHETIC ENGINEERING C	STAPLEHURST	KENT	TN1 20FL	500	0	
655	Point	NATIONAL WESTMINSTER BANK PL	STAPLEHURST	KENT	TN1 20NV	500	0	
656	Point	A SPILLETT	STAPLEHURST	KENT	TN1 20ZY	500	0	
657	Point	VOGUE	STAPLEHURST	KENT	TN1 20ZX	500	0	
658	Point		STAPLEHURST	KENT	TN1 20ZR	500	0	
659	Point	MAURICE COWLING	STAPLEHURST	KENT	TN1 20ZP	500	0	
660	Point	WRIGHT IT LTD	STAPLEHURST	KENT	TN1 20ZW	500	0	
661	Point		STAPLEHURST	KENT	TN1 20AT	0354	1	FIRTREE CLOSE
662	Point		STAPLEHURST	KENT	TN1 20AT	0354	2	FIRTREE CLOSE
663	Point		STAPLEHURST	KENT	TN1 20AT	0354	3	FIRTREE CLOSE
664	Point		STAPLEHURST	KENT	TN1 20AT	0354	4	FIRTREE CLOSE
665	Point		STAPLEHURST	KENT	TN1 20AT	0354	5	FIRTREE CLOSE
666	Point		STAPLEHURST	KENT	TN1 20AT	0354	6	FIRTREE CLOSE
667	Point		STAPLEHURST	KENT	TN1 20BA	0354	11	BELL LANE

Record: 1 Show: All Selected Records (0 out of 2527 Selected.) Options

Display Source Selection

Drawing

Arial

10

578465.37 143187.56 Meters

Demo 1: Displaying and Presenting GIS Data

- Add Layers
- Set Symbology
- Set Scales
- Finding Information
- Define Map for Printing



Examples of GIS Applications

Local Government

- Planning Applications
- Parking Suspension
- Highways Maintenance
- Street Furniture
- Emergency Planning
- Transport
- Environmental

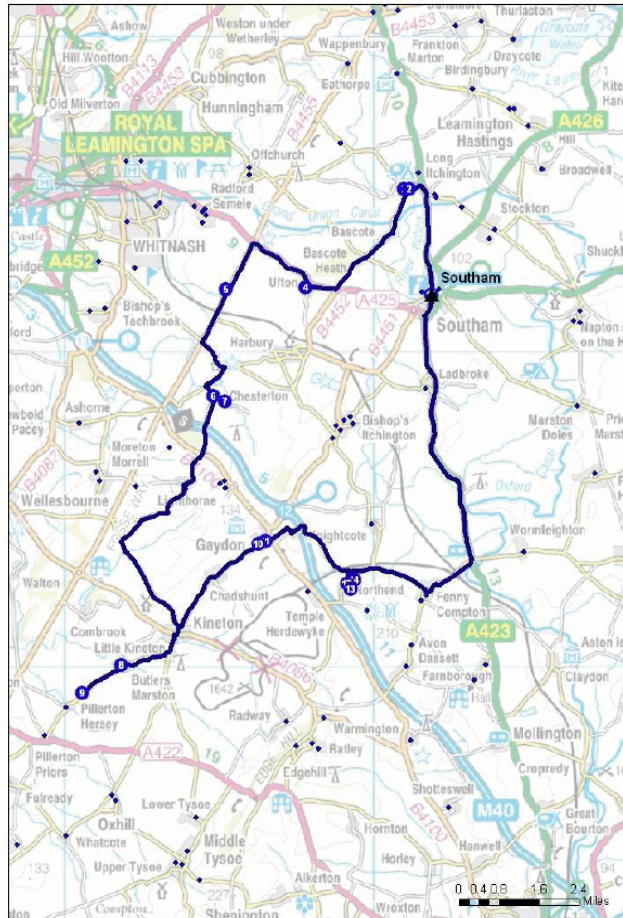
Mobile Library Service

- Library Depots
- Stop Locations
- Hours on the road
- Route Optimisation
- How many vehicles?



Outputs

Southam Route 2



[-] Route: Southam - Southam					37.1 mi	5 hr 11 min
1:	0 mi	09:45	Start at Southam			
2:	0 mi	09:45	Go East on Park Lane toward Market Hill/High Street		< 0.1 mi	< 1 min
3:	0 mi	09:45	Turn left on High Street		< 0.1 mi	< 1 min
4:	0.1 mi	09:45	Continue on Coventry Street		0.2 mi	< 1 min
5:	0.3 mi	09:46	Continue on Coventry Road		0.3 mi	< 1 min
6:	0.6 mi	09:47	Bear left		< 0.1 mi	< 1 min
7:	0.6 mi	09:47	Go on A423 (Coventry Road)		1.6 mi	4 min
8:	2.2 mi	09:51	Bear left on Green		< 0.1 mi	< 1 min
9:	2.3 mi	09:51	Bear left on Church Road		0.2 mi	< 1 min
10:	2.5 mi	09:51	Arrive at Long Itchington (5) (Stop ID 306), on the right <small>Service Time: 30 min</small>		30 min	
11:	2.5 mi	10:21	Depart Long Itchington (5) (Stop ID 306)			
12:	2.5 mi	10:21	Continue West on Church Road		0.1 mi	< 1 min
13:	2.6 mi	10:22	Arrive at Long Itchington (1) (Stop ID 304), on the right <small>Service Time: 15 min</small>		15 min	
14:	2.6 mi	10:37	Depart Long Itchington (1) (Stop ID 304)			
15:	2.6 mi	10:37	Go back East on Church Road		< 0.1 mi	< 1 min
16:	2.7 mi	10:37	Turn right on Bascote Road		0.9 mi	2 min
17:	3.6 mi	10:39	Bear right		1.6 mi	3 min
18:	5.2 mi	10:42	Turn right on A425		0.6 mi	1 min
19:	5.8 mi	10:43	Make sharp left		< 0.1 mi	< 1 min
20:	5.8 mi	10:43	Turn left on Harbury Lane		< 0.1 mi	< 1 min
21:	5.8 mi	10:44	Arrive at Ufton (Stop ID 343), on the right <small>Service Time: 25 min</small>		25 min	
22:	5.8 mi	11:09	Depart Ufton (Stop ID 343)			
23:	5.8 mi	11:09	Go back North East on Harbury Lane		< 0.1 mi	< 1 min
24:	5.9 mi	11:09	Turn left		< 0.1 mi	< 1 min
25:	5.9 mi	11:09	Bear left on A425 (Ufton Hill)		1.4 mi	3 min
26:	7.4 mi	11:12	Bear left		< 0.1 mi	< 1 min
27:	7.4 mi	11:12	Continue on B4455 (Fosse Way)		1.1 mi	2 min
28:	8.4 mi	11:14	Arrive at Harbury (Stop ID 344), on the right <small>Service Time: 15 min</small>		15 min	
29:	8.4 mi	11:29	Depart Harbury (Stop ID 344)			
30:	8.4 mi	11:29	Continue South West on B4455 (Fosse		1.1 mi	2 min

Demo 2: Routing Functions



Citizen Focus

LocationDetails - Microsoft Internet Explorer provided by ESRI Holdings

http://map.winchester.gov.uk/localview/LocationDetails.aspx

LocationDetails

Winchester City Council LocalView

Location Details Find The Nearest In The Area On The Map Report A Fault

Help Selected Location : 23 St Johns North, High Street, Winchester, Hampshire, SO23 9BD

Selected Address
23 St Johns North, High Street,
Winchester, Hampshire, SO23 9BD

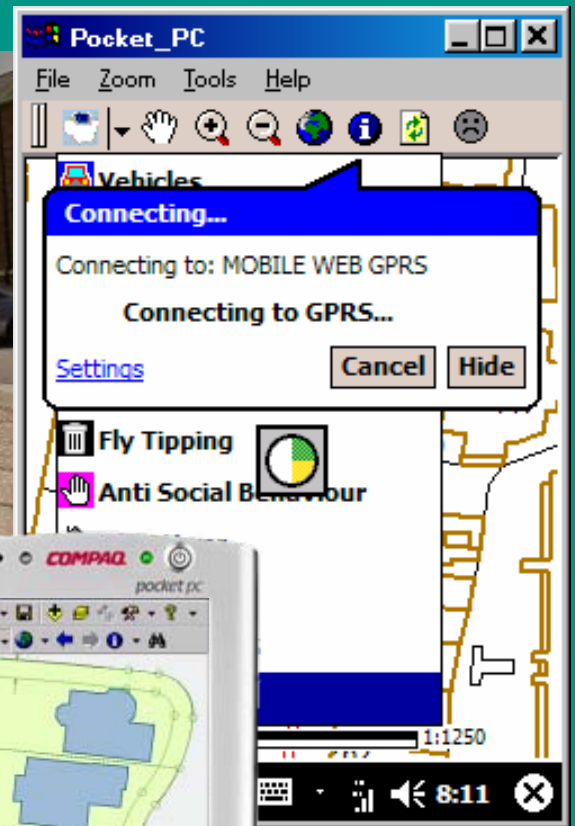
Search again

Boundaries	
Wards :	St. Bartholomew Ward
Parishes :	None
Electoral divisions :	EASTGATE
South East Region MEP :	MEP's for the South East
Your Local Council :	Winchester City Council
Council Tax	
Council Tax Band :	B
Environment	
Refuse Collection :	Monday-ABC
Conservation Area :	Winchester
Flood Risk Area :	None
Education: School Catchment Areas	
Schools for Ages 11 to 16 :	THE WESTGATE SCHOOL
Schools for Ages 7 to 11 :	ST BEDE CE PRIMARY SCHOOL
Schools for Ages 4 to 6 :	ST BEDE CE PRIMARY SCHOOL

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Internet 100%

Knowing where to clean - quickly



Fly Tipping OK X

Fly tipping Details Co

Report type: White Goods
Garden Waste
Priority: Trade or Commercial
Black Sacks
Tyres
Street: all Builders Rubble
Furniture
ALLAN BARCL
ALLISON ROA Other
Mixed
Description: Trade or Commercial

Grab Jerry Yes No

123 1 2 3 4 5 6 7 8 9 0 - = < >
Tab q w e r t y u i o p []
CAP a s d f g h j k l ; '
Shift z x c v b n m , . / < >
Ctl áü ' \ < > < >

ArcPad 14:03



Private Sector

- Transport
- Civil Engineering
- Environmental Management
- Petroleum
- Telecommunications
- Water
- Gas & Electric
- Insurance

Example: Insurance

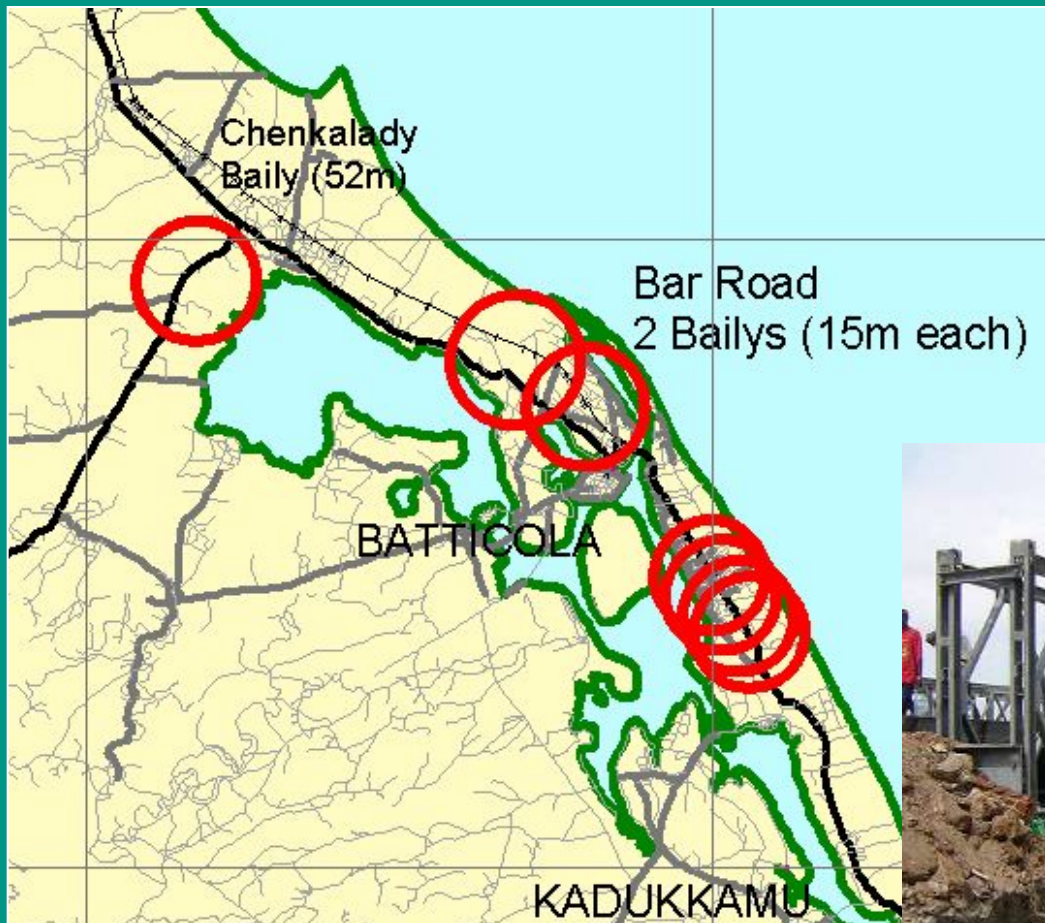
- Importance of Postcodes & Addresses
- Accurate Risk Assessment
- GIS Underpinning Underwriting
- Fraud
- Customer Support
- 1000% ROI
- Example Customers: R&SA, Norwich Union

- Mapping Expertise in Disaster Situations
- Common Operational Picture
- Emergency Supply Access
- Latest news: Pakistan floods



BBC July 2007

Humanitarian Applications

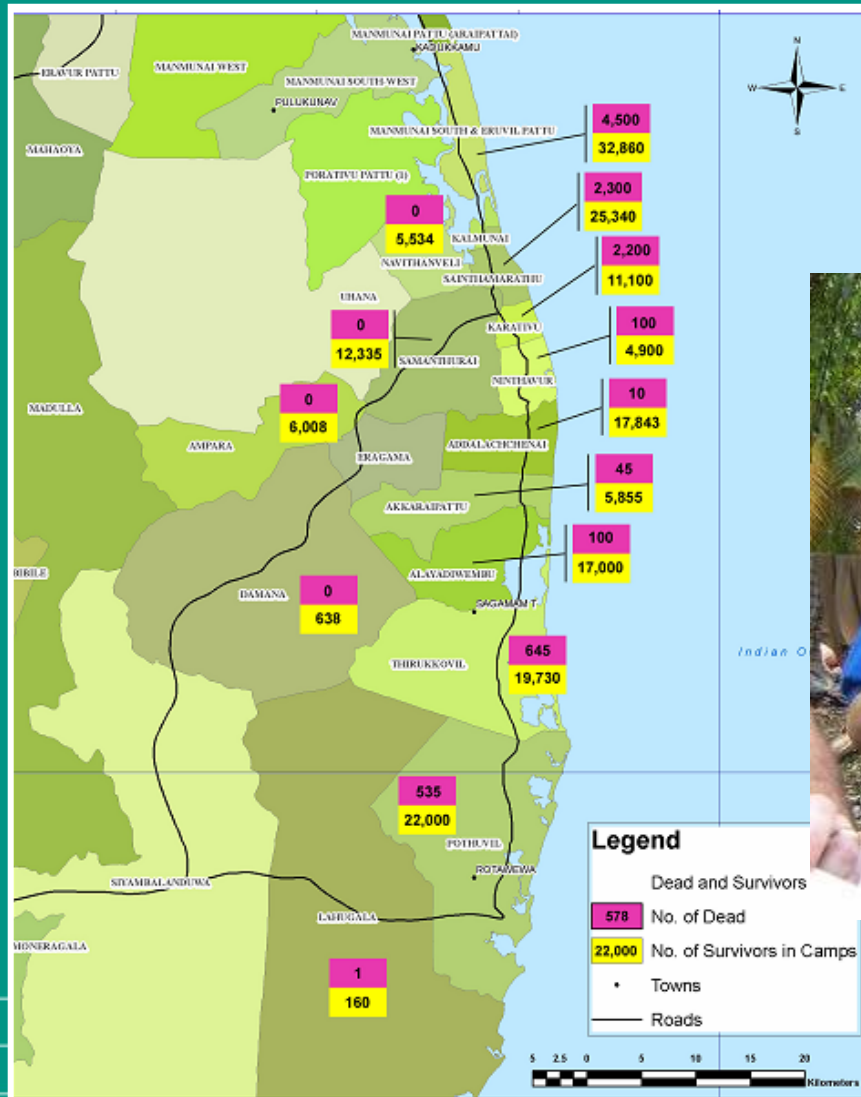


Sri Lanka



Map of damaged bridges and
impassable roads

Humanitarian Applications



Sri Lanka



Education

- ESRI software used in >65 Universities
- Schools: Digital Worlds

The screenshot shows the Digital Worlds website with a teal header. The navigation bar includes 'Company', 'Products', 'Teacher's Corner', and 'Tech. Support'. The 'Products' section is active, displaying 'DIGITAL WORLDS GIS' with the tagline 'Embedding ICT in the curriculum'. A sidebar on the left contains links to 'order a free demo cd', 'using GIS @ school' (with a teachers' tv icon), 'get your customised GIS package' (with a shopping cart icon), and 'newsletter' (with a download icon). The main content area describes the GIS package as an engaging educational tool with up-to-date local area data. It lists included data: high quality aerial photographs, historic maps, height data, current Ordnance Survey maps (1:25000 and 1:50000), the 2001 Census for the county, and a satellite image of the region. The package is available in two sets: 'PRIMARY SET' and 'SECONDARY SET', each shown with a CD icon. The background of the page features a map of a city area.

contact | homepage

DIGITAL WORLDS
Mapping the future

T: 0845 467 1234
F: 0870 751 7746
E: info@digitalworlds.co.uk

Company Products Teacher's Corner Tech. Support

products

DIGITAL WORLDS GIS
Embedding ICT in the curriculum

Digital Worlds GIS

Digital Worlds GIS is an engaging new educational package that combines simple yet powerful geographic tools with up-to-date local area data. It includes supporting teaching materials which can be applied in Geography, Citizenship, ICT, Mathematics and History, as well as many other subject areas.

Each purchasing institution is provided with **personalised digital data**, predominantly focusing on an area of 10km x 10km, centred on your school.

Data includes:

- high quality aerial photographs,
- historic maps,
- height data,
- the current Ordnance Survey maps (1:25000 and 1:50000),
- the Census 2001 of your county
- a Satellite image of your region.

The package comes in 2 defined data sets:

PRIMARY SET **SECONDARY SET**

order a free demo cd

using GIS @ school
watch an online video on teachers' tv

get your customised GIS package
buy now

newsletter
download the pdf file to see our latest news

Analyzing Oil Industry Assets

Home - Microsoft Internet Explorer provided by ESRI Holdings

File Edit View Favorites Tools Help

Back Forward Stop Home Search Favorites Reload Print Mail Print Preview

Address http://www.ukdeal.co.uk/portal/page?_pageid=456,1&_dad=portal&_schema=PORTAL Go Links

Google deal BGS Search Check AutoLink AutoFill Options deal BGS

UK Offshore Oil and Gas Information Site Search Go

Map My Basket My Details Login Contact Us Site A-Z Help -Select a Page-

Home Page

DEAL is a web-based service which provides free information about UK offshore oil and gas, and shows the catalogues of data available from release agents, spec companies and operators. [About DEAL Data](#) describes the types of data available and [About DEAL](#) provides general information about this site.

News

24th Licensing Round 16-Mar-2006 Offered blocks are shown on the DEAL map and can be downloaded from the Licence Data page.

New geology and bathymetry map layers Geology and bathymetry have been added to the DEAL maps.

New Shapefile downloads available Quad and Block data is now available to download in ESRI Shapefile format from the Cultural Data page. Subsurface Infrastructure and Safety Zone data is now available to download in ESRI Shapefile format from the Infrastructure Data page.

News Archive
[View archive](#)

Done

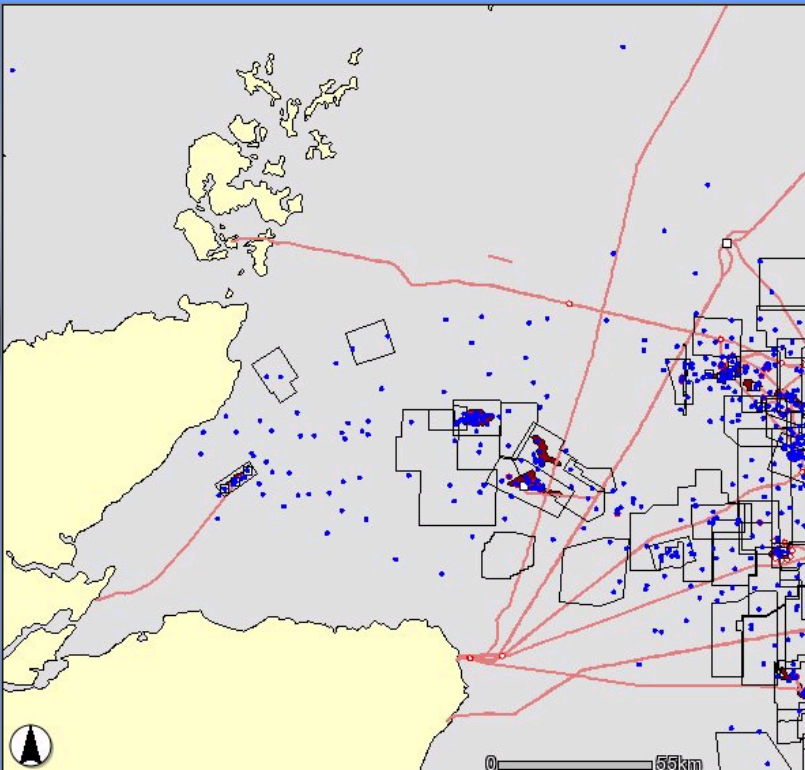
Start your search

[Well Data](#)
[Seismic Data](#)
[Infrastructure Data](#)
[Licences](#)
[Regional Re](#)
[Fields](#)
[Cultural Data](#)

More ...
[Data Submiss](#)
[Links to other](#)

Tools

Map Navigation Tools: Home, Previous, Next, First, Last, Previous View, Next View, Previous Layer, Next Layer, Previous Map, Next Map, Previous Data, Next Data, Previous License, Next License, Previous Block, Next Block, Previous Quad, Next Quad, Previous Well, Next Well, Previous Seismic, Next Seismic, Previous Infrastructure, Next Infrastructure, Previous Safety Zone, Next Safety Zone, Previous Field, Next Field, Previous Median Line, Next Median Line, Previous Coast, Next Coast, Previous Licence, Next Licence, Previous Block, Next Block, Previous Quad, Next Quad.



Layers

Visible	Active	
<input checked="" type="checkbox"/>	<input checked="" type="radio"/>	Well
<input checked="" type="checkbox"/>	<input type="radio"/>	3D Seismic
<input checked="" type="checkbox"/>	<input type="radio"/>	2D Seismic
All Surveys		
<input checked="" type="checkbox"/>	<input type="radio"/>	Surface Infrastructure
<input checked="" type="checkbox"/>	<input type="radio"/>	Subsurface Infrastructure
<input checked="" type="checkbox"/>	<input type="radio"/>	Pipe/Umbilical
<input checked="" type="checkbox"/>	<input type="radio"/>	Safety Zone
<input checked="" type="checkbox"/>	<input type="radio"/>	Field
<input checked="" type="checkbox"/>	<input type="radio"/>	Median Line
<input checked="" type="checkbox"/>	<input type="radio"/>	Coast
<input type="checkbox"/>	<input type="radio"/>	Licence
<input type="checkbox"/>	<input type="radio"/>	Block
<input type="checkbox"/>	<input type="radio"/>	Quad

Refresh Map



MONDAY 13 SEPTEMBER 2004 11:27:22 PM

[Home](#) | [Print](#) | [Site Map](#) | [FAQ](#) | [Help](#) | [Sign In](#) | [Register](#)

Welcome to Active Places

How do you want to search?

1 find nearest

Search for sport facilities near you.

2 facility finder

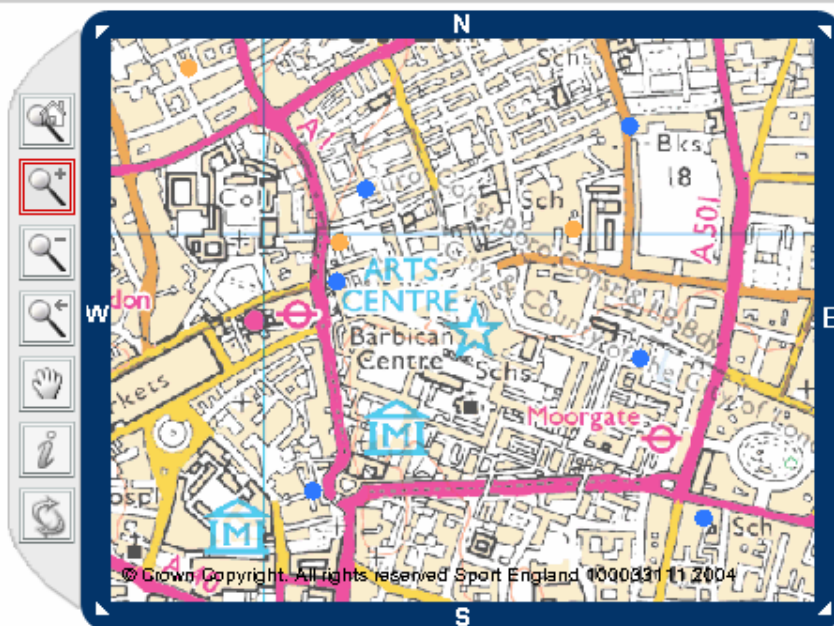
Search for a particular facility based on its name or address.

3 freestyle

Go 'freestyle' and zoom around the map.

quick help

Zoom In lets you see the map in more detail. Click and drag a rectangle around the area your interested in to zoom.

[find nearest](#) >>> [facility finder](#) >>> [freestyle](#) >>> ☒ Map Tips

Get Active

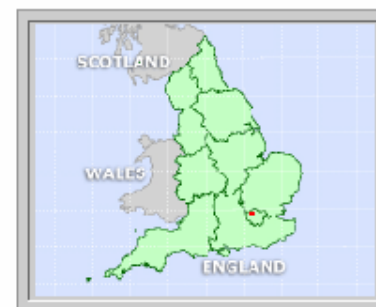
Ideas and inspiration, tips and tricks to help you do your 30 minutes of activity a day.
[More...](#)

Get Funding

Sources of funding, information and advice to help you win the financial backing for your sports project
[More...](#)

interactive legend

- ☒ SITE FACILITY
 - ☐ SEARCH RESULTS
 - ☒ SWIMMING POOLS
 - ☐ MAIN GENERAL
 - ☐ LEISURE POOL
 - ☐ LEARNER POOL
 - ☐ DIVING POOL
 - ☐ LIDO POOL
 - ☒ HEALTH AND FITNESS
 - ☐ HEALTH AND FITNESS ST

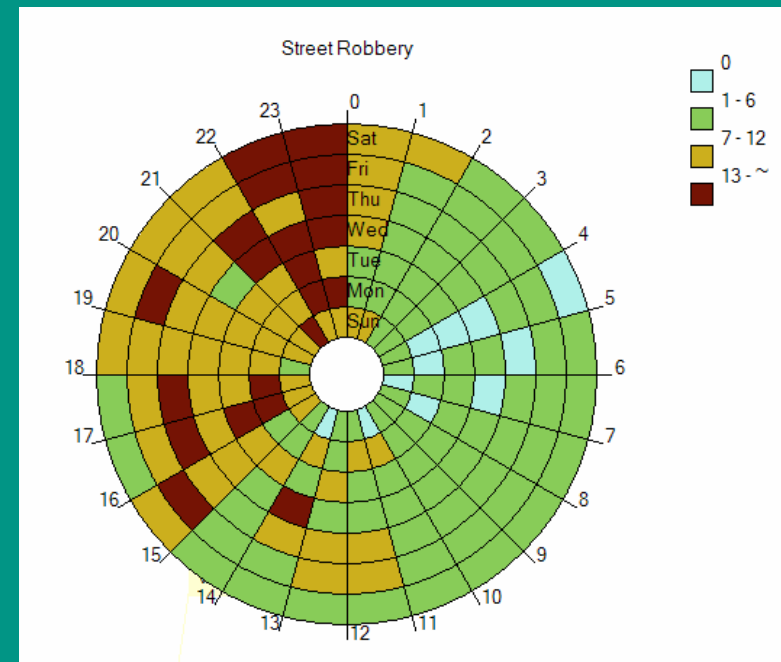
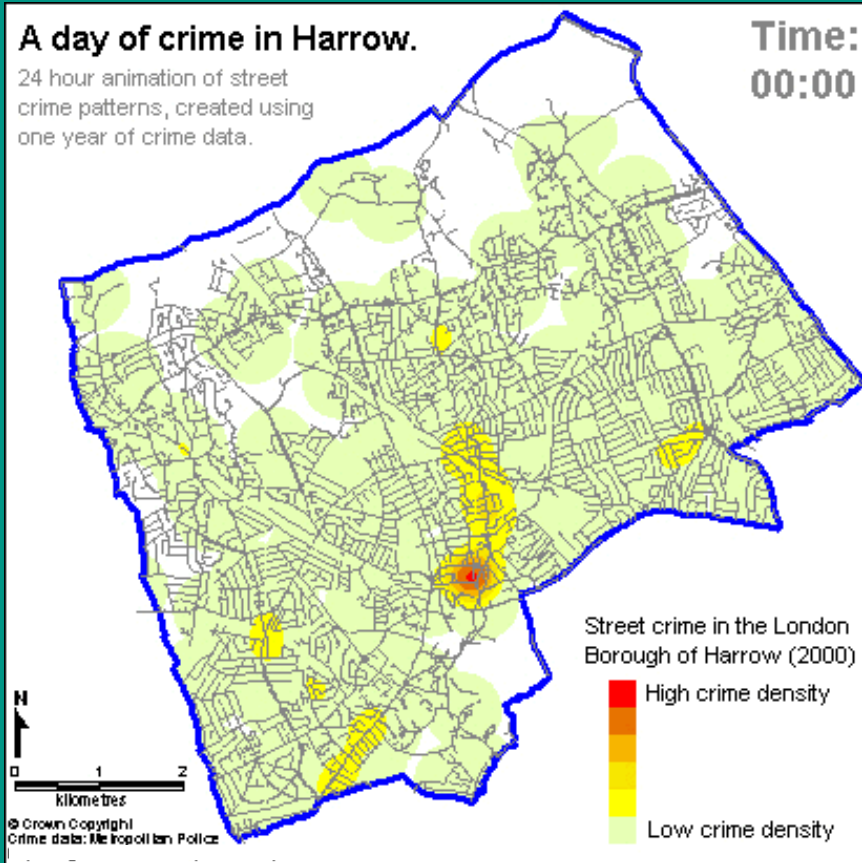
[update map](#)

GIS for Temporal & Spatial Crime Analysis

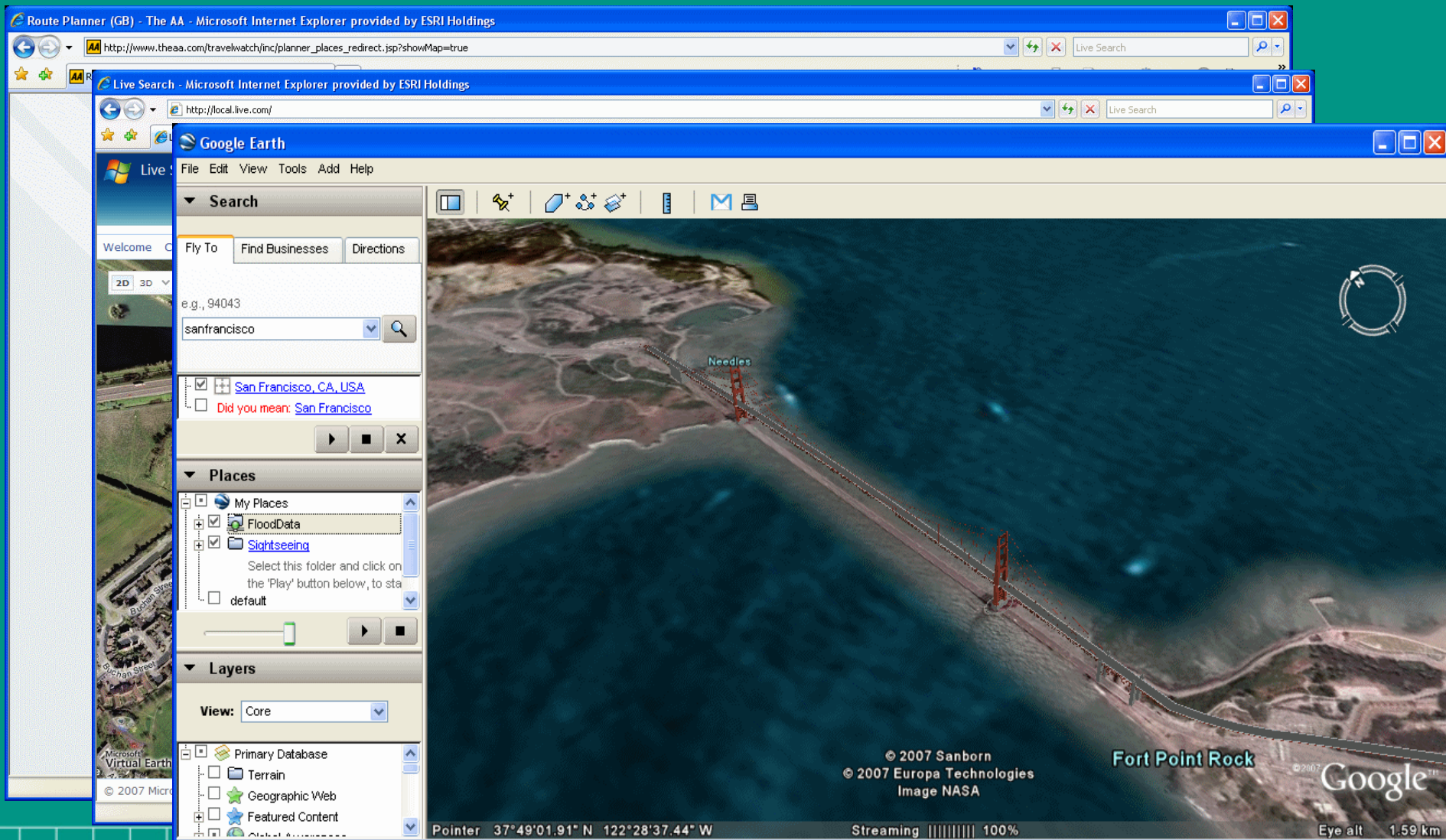
A day of crime in Harrow.

24 hour animation of street crime patterns, created using one year of crime data.

Time:
00:00



Consumer GIS



Advanced GIS

Video Clip

Web sites to look at...

www.gis.com

www.gisday.com

www.esriuk.com/schools

www.digitalworlds.co.uk



Questions?

