

BusinessConnect

A New Era of Smart

5/28/2014

The Modern Intelligence Platform

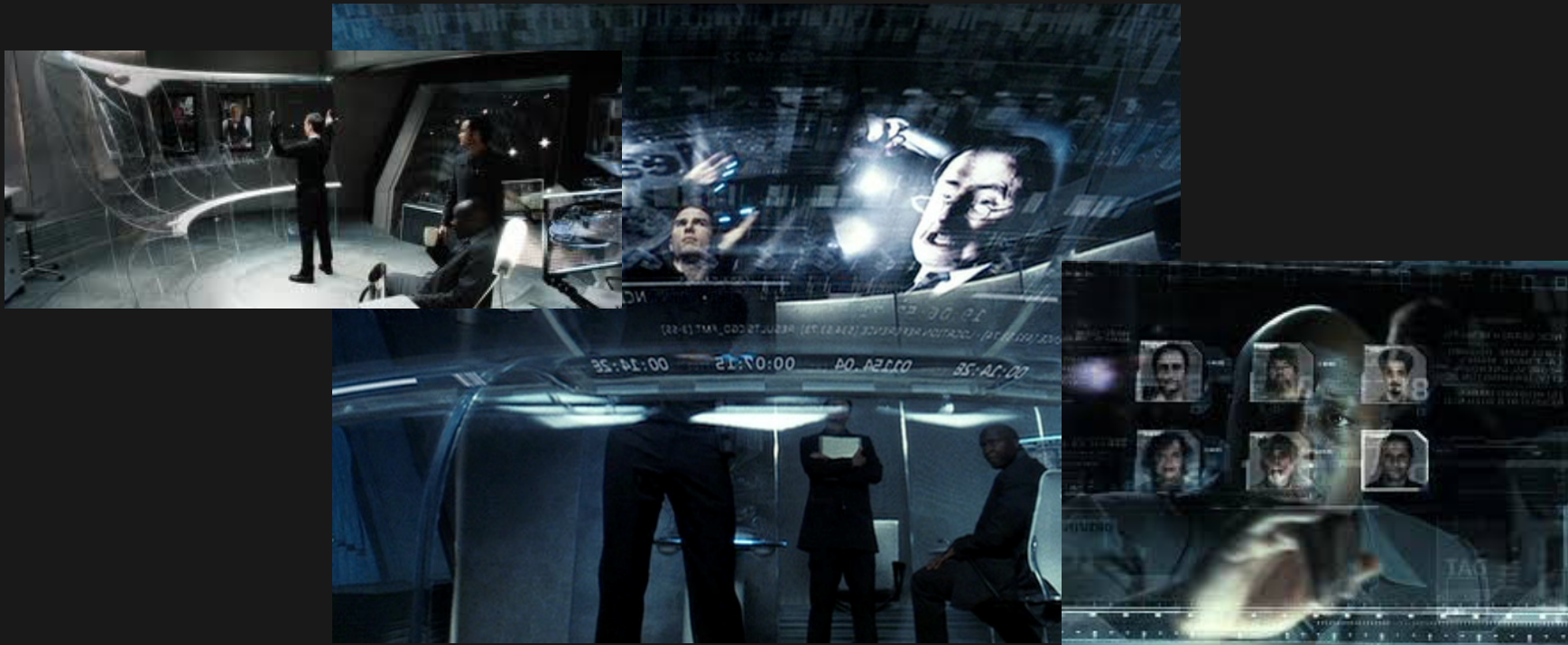


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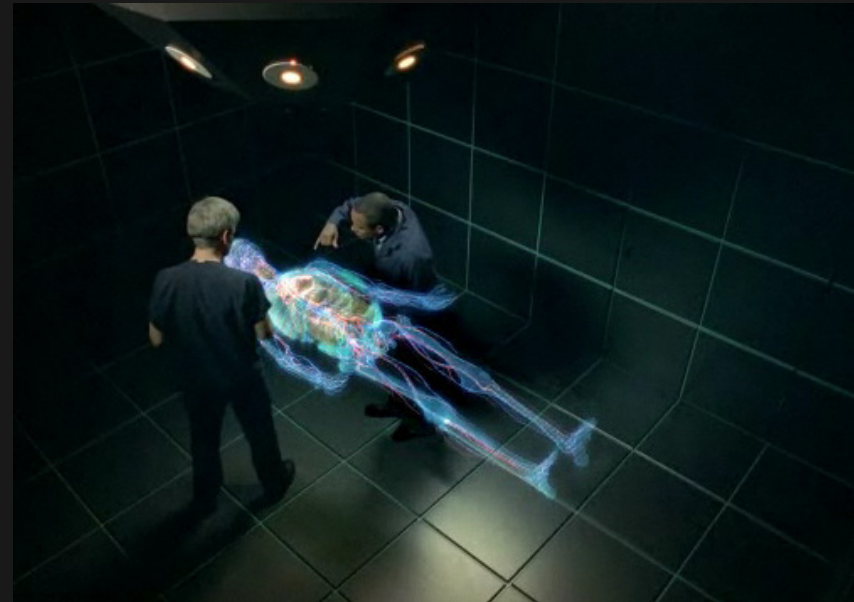


What would you expect?

Lots of arm waving?



Three dimensional holographic models?

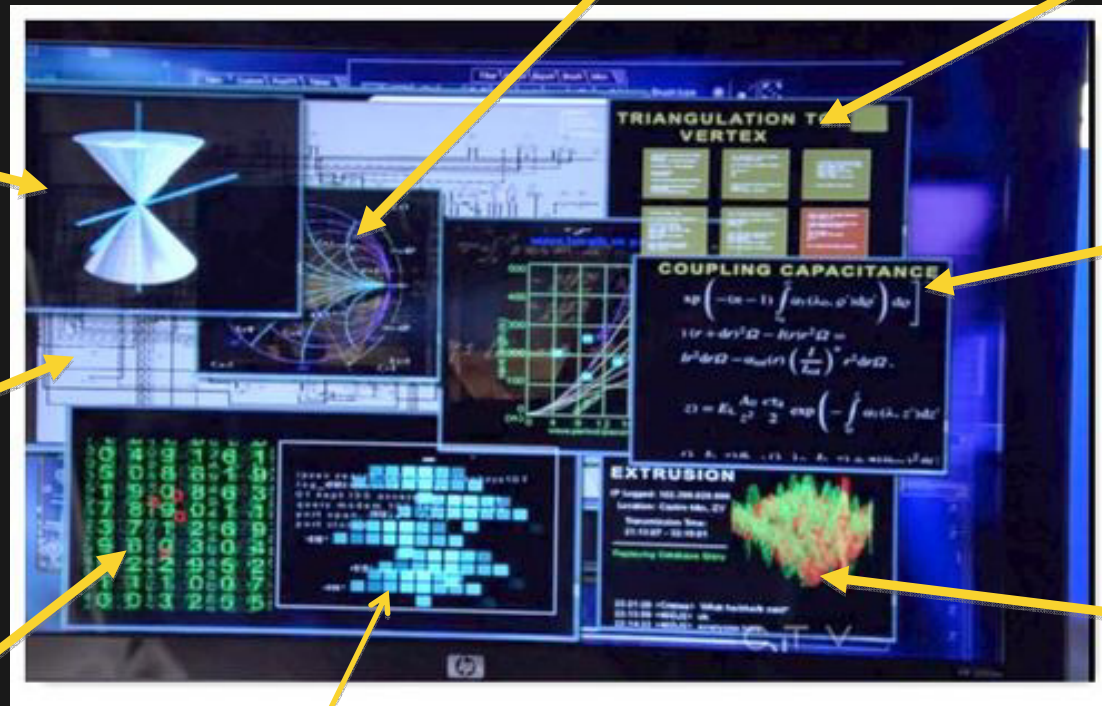


Errr?

Spin shape
spin, as fast as
you can....

Flux Capacitor?

I didn't realise I
needed my Vertex
triagulated?



Circuit diagram for
a microwave
oven?

Coupling
Capacitance?

The Matrix

Exactly what
are we
Extruding?

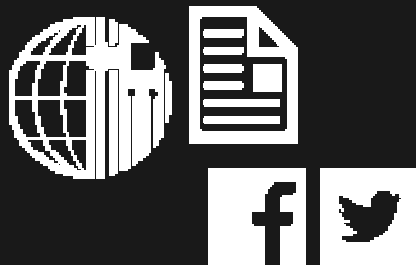
Tetris?

And then back to pen, paper and a whiteboard to understand it all.....



Imagine the Challenges

Vast Amounts of Information



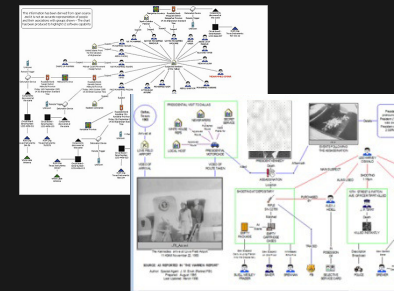
- Siloed Repositories
- Structured and Unstructured Data
- Security Restrictions
- Social Media
- Biometric
- Big Data

Multiple Applications



- Web Based
- Thick Clients
- Multiple Searches
- Manual Data Entry
- Data Duplication

Intelligence Asset Creation



- Entities and Relationships
- Provenance
- Temporal Analysis
- Social Network Analysis
- Geospatial
- Relationship Detection

Now Imagine the solution

Federated Search



- Single search
- Specify Source(s)
- Analyse Results

Geospatial



- Plot items
- Query based on region or path
- Additional data sets

Relationship Detection



- Non obvious relationship Detection
- 32 degrees of separation

Unstructured



- Natural Language Processing
- Entity and Relationship extraction

Social Media



- Relationship identification

Facial Recognition



- Recognition from photos on social, phones, cameras, hard disks, etc.

Single User Interface

Intelligence Repository

Capabilities Are Used by Clients In Multiple Sectors



National Security

- Counter Terrorism
- Counter Intelligence
- Intelligence Analysis
- Border Security
- Cyber Risk

Defense

- Establishing Civilian Structures
- Counter Intelligence
- Intelligence Analysis
- Target Analysis and Defense
- Peacekeeping
- Force Protection
- Pattern of Life Analysis
- Human Terrain Mapping

Law Enforcement

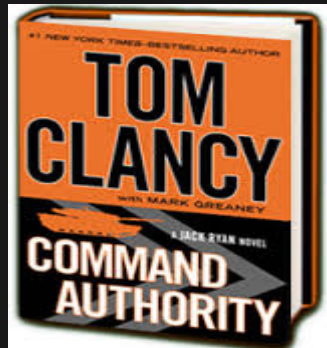
- Tactical Lead Generation
- Counter Terrorism
- Major Investigations
- Organized Crime
- Neighborhood/Community Policing
- Public Order/Major Event Management
- Volume Crime
- Fusion Centers

Private Sector

- Security Investigations
- Industry Oversight & Compliance
- Cybercrime
- Risk Management
- Anti-Money Laundering
- Fraud

Government

- Industry Oversight & Compliance
- Cybercrime
- Securities Investigations
- Anti-Money Laundering
- Fraud



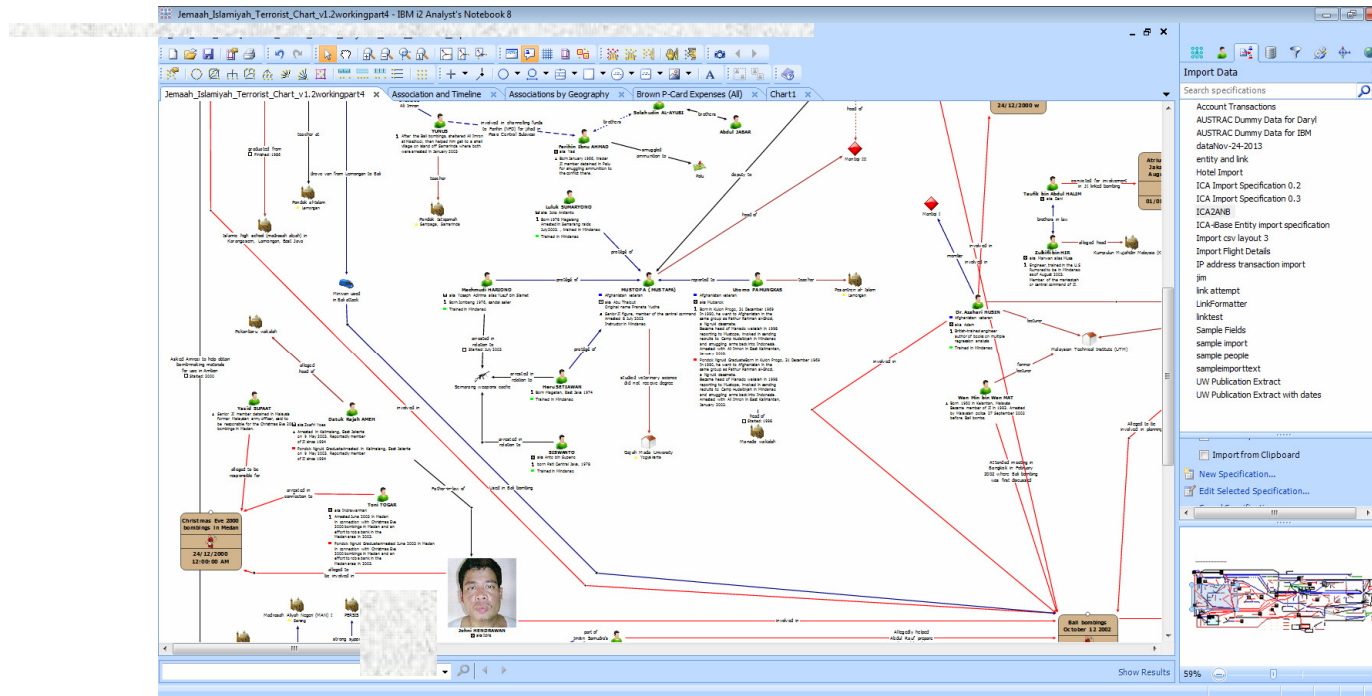
He (Jack) soldiered on, and through his work on the theft of Galbraith's company he discovered that Gazprom had purchased the pieces of the Scottish-owned gas firm from a series of small foreign companies that sprang up out of nowhere to bid in the auction...To unravel it all, Ryan had a few weapons he could call on...Another tool Jack made use of was **IBM i2 Analyst's Notebook**. It was a data analysis tool that allowed him to put in all manner of different data sets, and then generate quick visual representations via graphs and charts that he could manipulate to track trends, see relationships between people in a target network, and allow himself a more dynamic way of interpreting whichever environment he was studying...Jack knew good data organized effectively was the most important commodity for any analyst.

Example Scenario

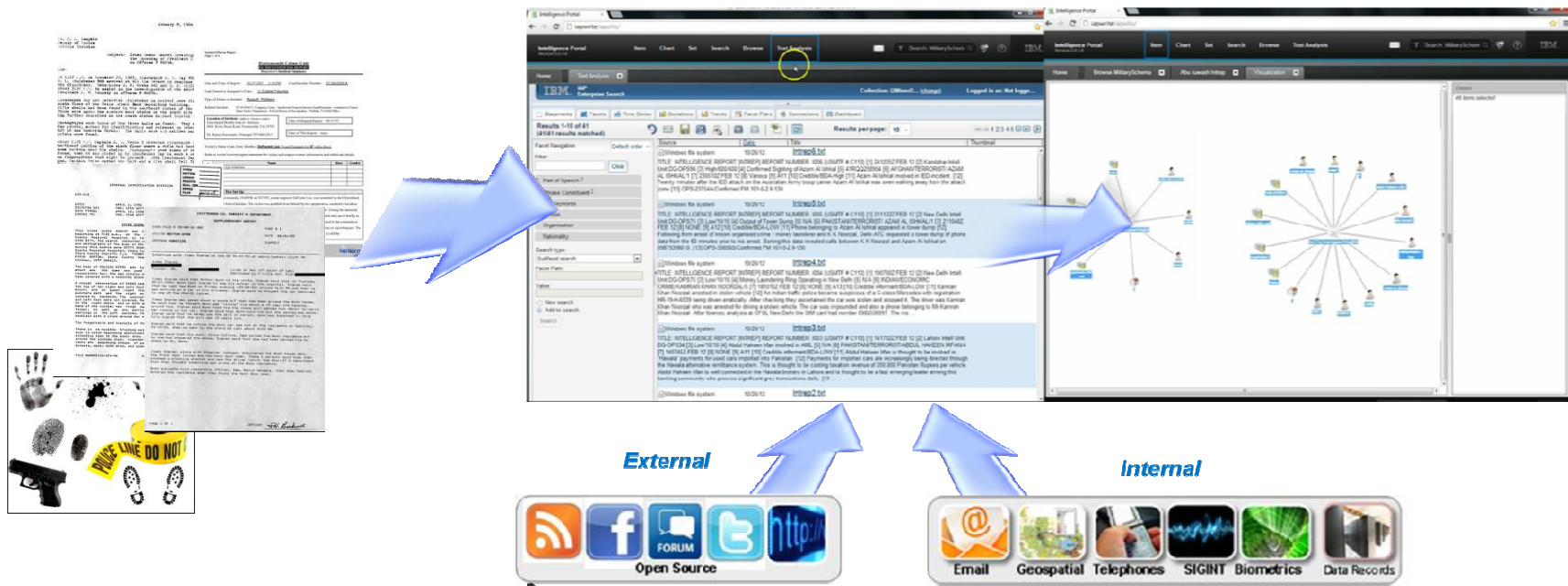
- Bomb detonated damaging a main rail network
- Need to identify and capture individuals responsible
- A group has claimed responsibility



What do we know about the group network



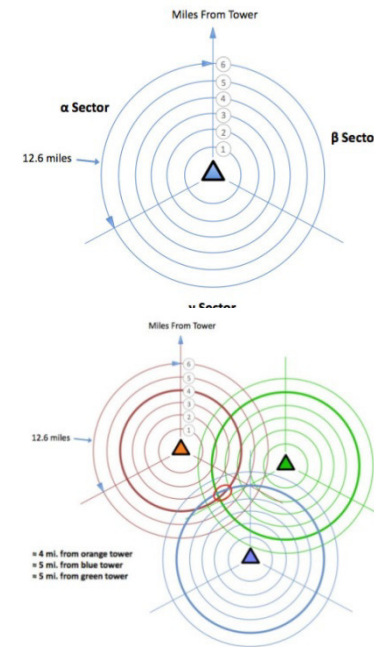
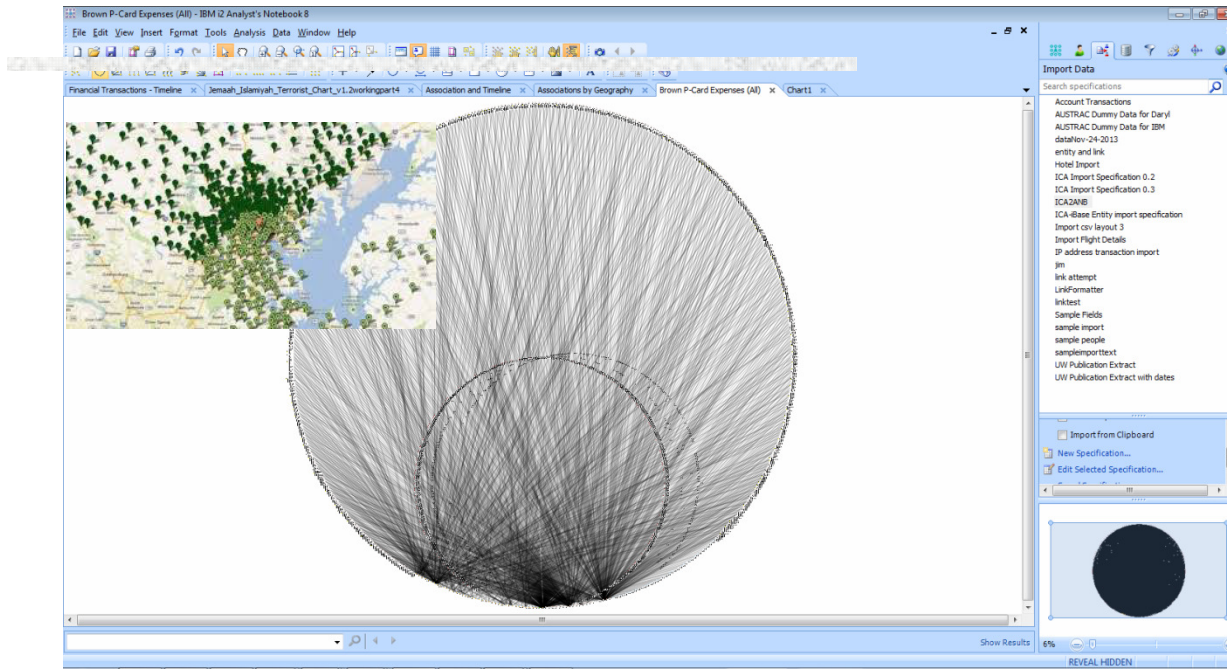
What do we know about the scene – Read through the location reports – other reports



The Modern Intelligence Platform



Gain information from local cell towers



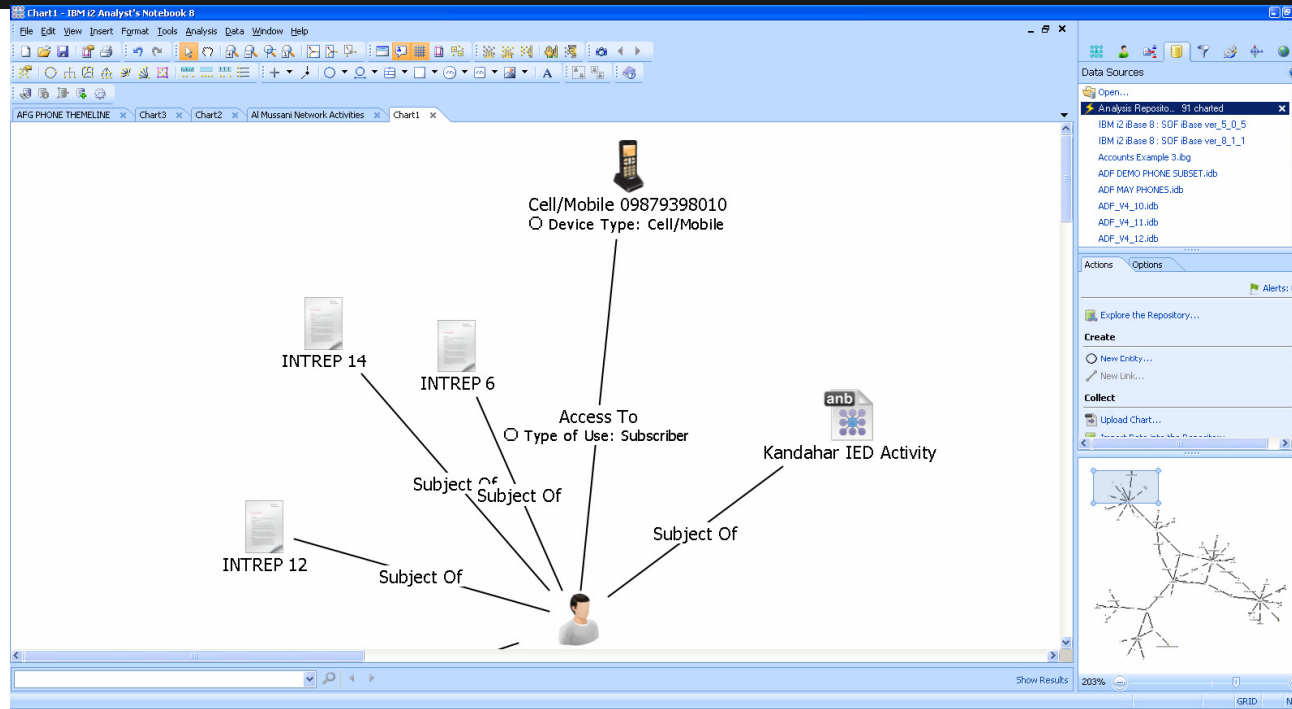


Narrow down phones in the area around the time of the explosion – Geospatial Analysis

The screenshot displays the IBM Business Analytics interface, divided into several key components:

- Timeline View (Left):** A detailed timeline titled "AFG PHONE THEMELINE" showing activity from 9:00 PM on Tuesday, January 3rd, 2012, to 10:30 AM on Wednesday, January 4th, 2012. The timeline features vertical bars representing phone activity, with specific phone numbers and times listed on the left side.
- Data Sources (Middle-Right):** A panel listing various data sources, including "IBM i2 Base 8: SOF Base ver_5_0_5" and "Accounts Example 3.bg". It also shows a list of files such as "ADF DEMO PHONE SUBSET.lib" and "ADF_V4_10.lib".
- Geospatial Analysis (Right):** A map interface showing a circular area divided into segments, likely representing different geographic regions or phone activity clusters. A legend and various controls are visible on the right side of the map.
- Table View (Bottom-Right):** A table listing data entries with columns for "Entity", "Category", "Representation", "Date", "Label Value", "Location City", and "New Attributes". The table contains numerous rows of data, including phone numbers and associated metadata.

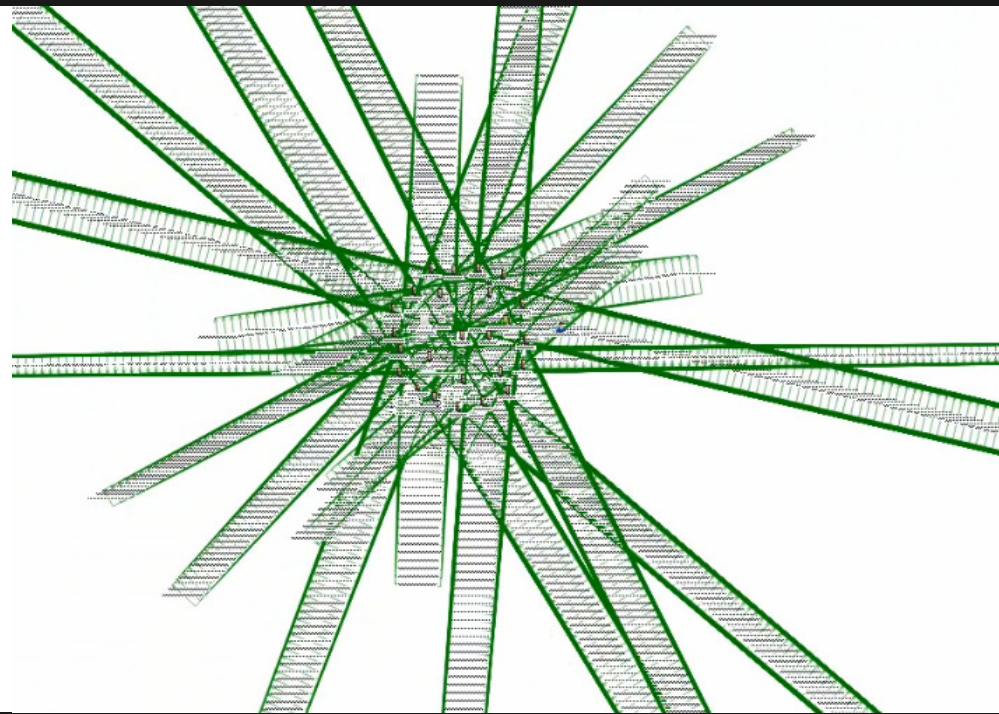
Do we recognise any of the numbers



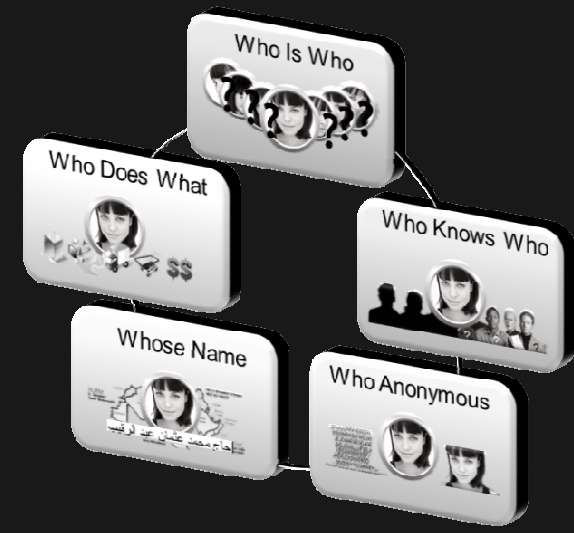
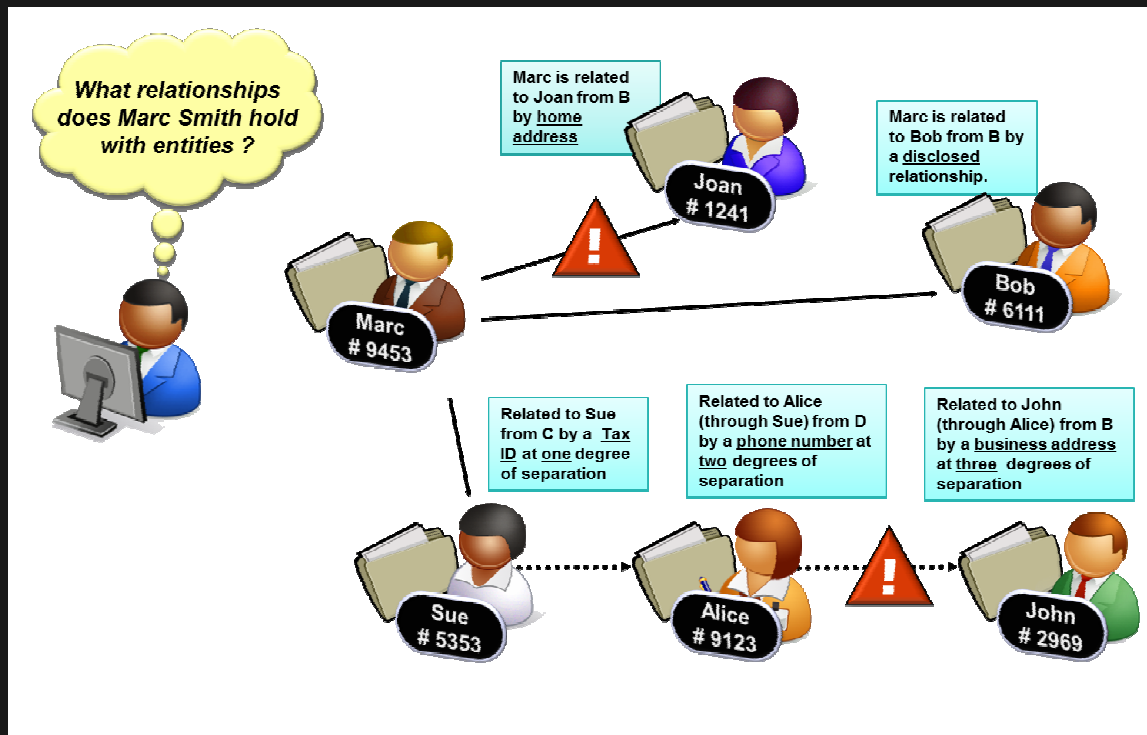
Request call logs for relevant numbers and owners from cell companies



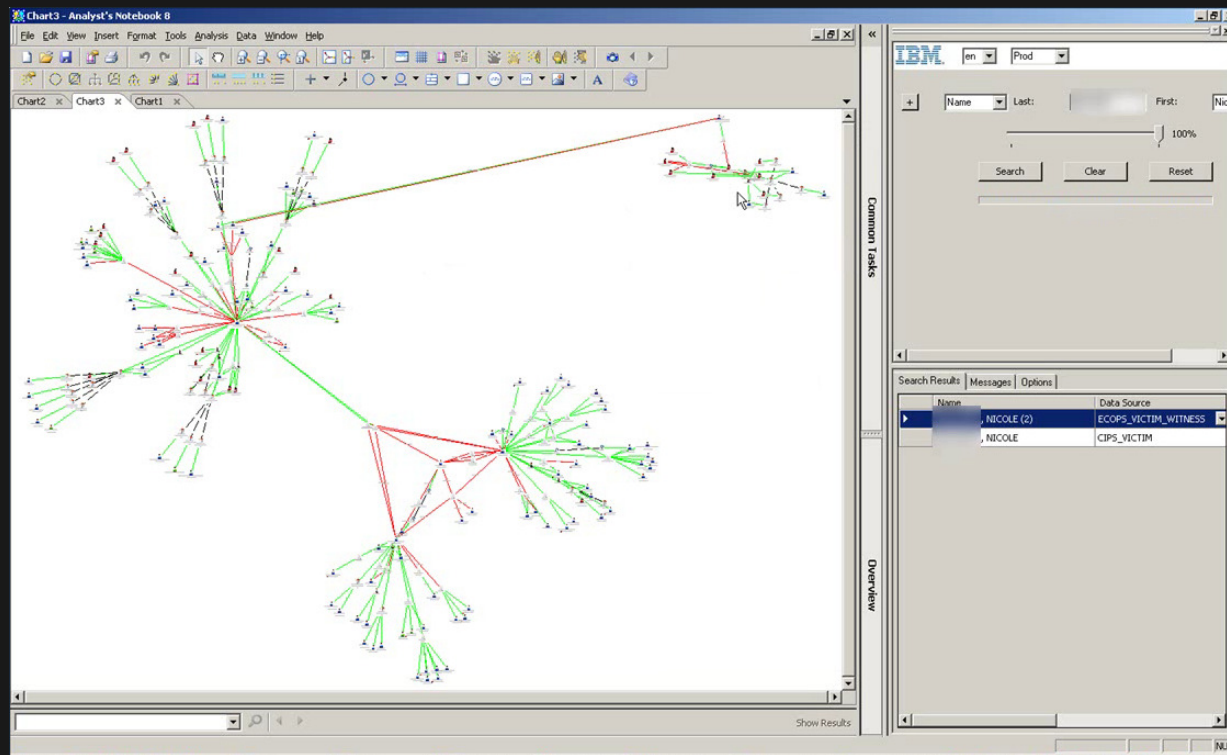
Any calls between these numbers, or known numbers



Non-obvious relationship detection

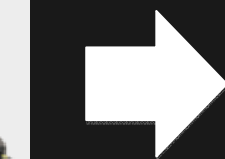
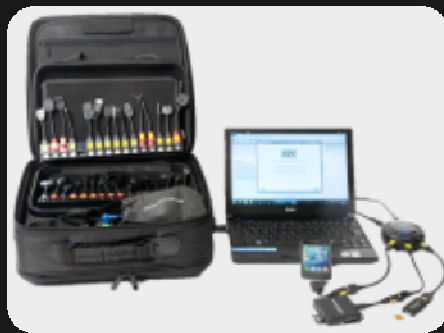


Non-obvious relationship detection



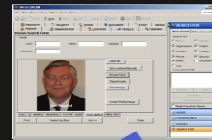
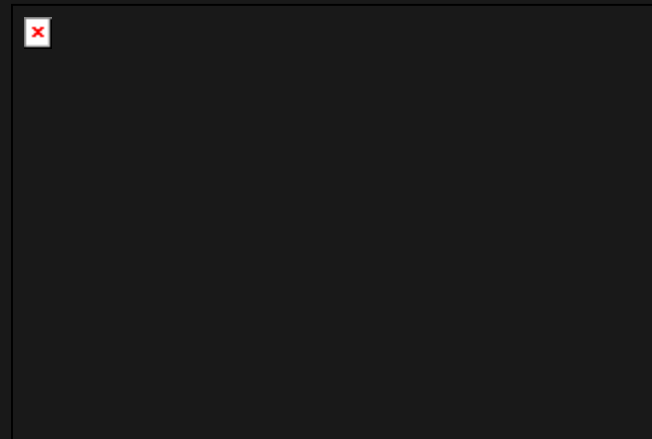
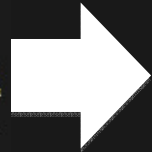


Pull in suspects – seize mobile phone – Rip off information and photographs

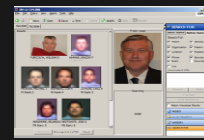


Identity	Semantic Type	Representation	Date	Time	Label Value	Location-City	New Attributes
01195001452301033	Telecom	Theme Line			1.195001452...	Mazar e Sharif	Afghanistan
01195001452386241	Telecom	Theme Line			1.195001452...	Mazar e Sharif	Afghanistan
01195001452413314	Telecom	Theme Line			1.195001452...	Mazar e Sharif	Afghanistan
0119500145251008	Telecom	Theme Line			1.195001452...	Mazar e Sharif	Afghanistan
01195001684823795	Telecom	Theme Line			1.195001684...	Mazar e Sharif	Afghanistan
011929430771692295	Telecom	Theme Line			1.192943077...	Chitral	Pakistan
011929307670917094	Telecom	Theme Line			1.192930767...	Mardan	Pakistan
01193001216330691	Telecom	Theme Line			1.193001216...	Kandahar	Afghanistan
01195001452412225	Telecom	Theme Line			1.195001452...	Mazar e Sharif	Afghanistan
01192920201694377112	Telecom	Theme Line			1.192920201...	Malahand	Pakistan
01195001232367463	Telecom	Theme Line			1.195001232...	Mazar e Sharif	Afghanistan
01195001462411243	Telecom	Theme Line			1.195001462...	Mazar e Sharif	Afghanistan
01195001462382275	Telecom	Theme Line			1.195001462...	Mazar e Sharif	Afghanistan
01195001242224477	Telecom	Theme Line			1.195001242...	Mazar e Sharif	Afghanistan
01195001452381295	Telecom	Theme Line			1.195001452...	Mazar e Sharif	Afghanistan
01195001594812210	Telecom	Theme Line			1.195001594...	Mazar e Sharif	Afghanistan
01195001452309483	Telecom	Theme Line			1.195001452...	Mazar e Sharif	Afghanistan
01195001242253108	Telecom	Theme Line			1.195001242...	Mazar e Sharif	Afghanistan
01195001694299428	Telecom	Theme Line			1.195001694...	Mazar e Sharif	Afghanistan
011950017894819726	Telecom	Theme Line			1.195001789...	Kandahar	Afghanistan
01195001452852753	Telecom	Theme Line			1.195001452...	Mazar e Sharif	Afghanistan
01195001452831201	Telecom	Theme Line			1.195001452...	Mazar e Sharif	Afghanistan
01195001452311700	Telecom	Theme Line			1.195001452...	Mazar e Sharif	Afghanistan
0119500159484880	Telecom	Theme Line			1.195001594...	Mazar e Sharif	Afghanistan
01195001452221193	Telecom	Theme Line			1.195001452...	Mazar e Sharif	Afghanistan
01195001452394323	Telecom	Theme Line			1.195001452...	Mazar e Sharif	Afghanistan
01195001594822324	Telecom	Theme Line			1.195001594...	Mazar e Sharif	Afghanistan
01195001242251185	Telecom	Theme Line			1.195001242...	Mazar e Sharif	Afghanistan
0119500124821131	Telecom	Theme Line			1.195001248...	Mazar e Sharif	Afghanistan
01195001452762004	Telecom	Theme Line			1.195001452...	Mazar e Sharif	Afghanistan
01195001462331181	Telecom	Theme Line			1.195001462...	Mazar e Sharif	Afghanistan
0119500124821185	Telecom	Theme Line			1.195001248...	Mazar e Sharif	Afghanistan
0119240128565495	Telecom	Theme Line			1.192401285...	Lahore	Pakistan
01195001452307547	Telecom	Theme Line			1.195001452...	Mazar e Sharif	Afghanistan
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0119301937410605	Telecom	Theme Line			1.193019374...	Kabul	Afghanistan

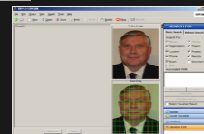
Facial Recognition



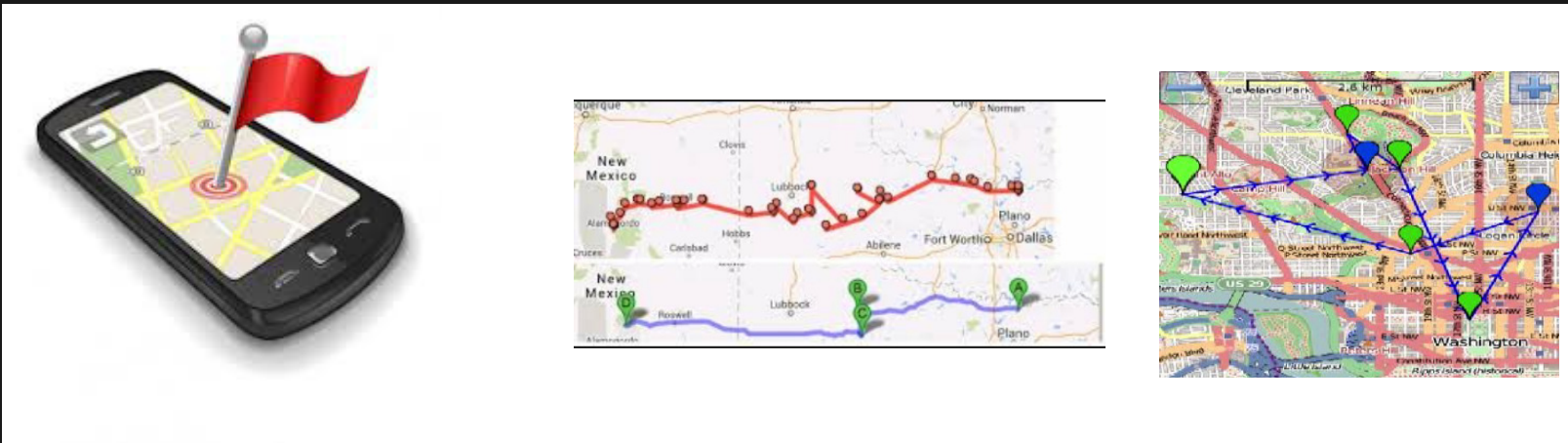
Ingest



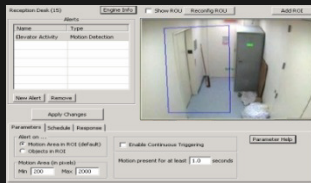
Search



Phone whereabouts – waypoint tracking



Pull in data from CCTV and run analysis



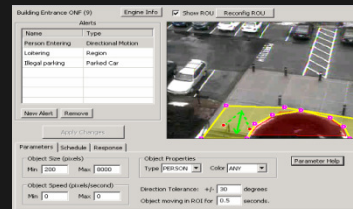
Motion Detection

Triggers on any motion that fits size/duration constraints



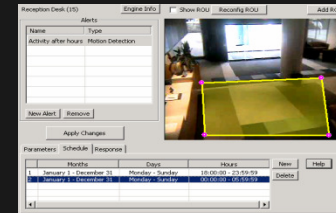
Tripwire

Triggers when object center passes over a virtual line



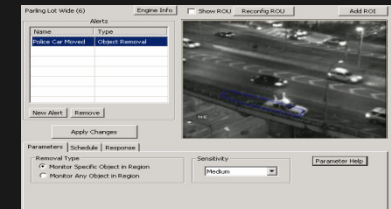
Directional Motion

Triggers when object moves in a certain of directions



Abandoned Object

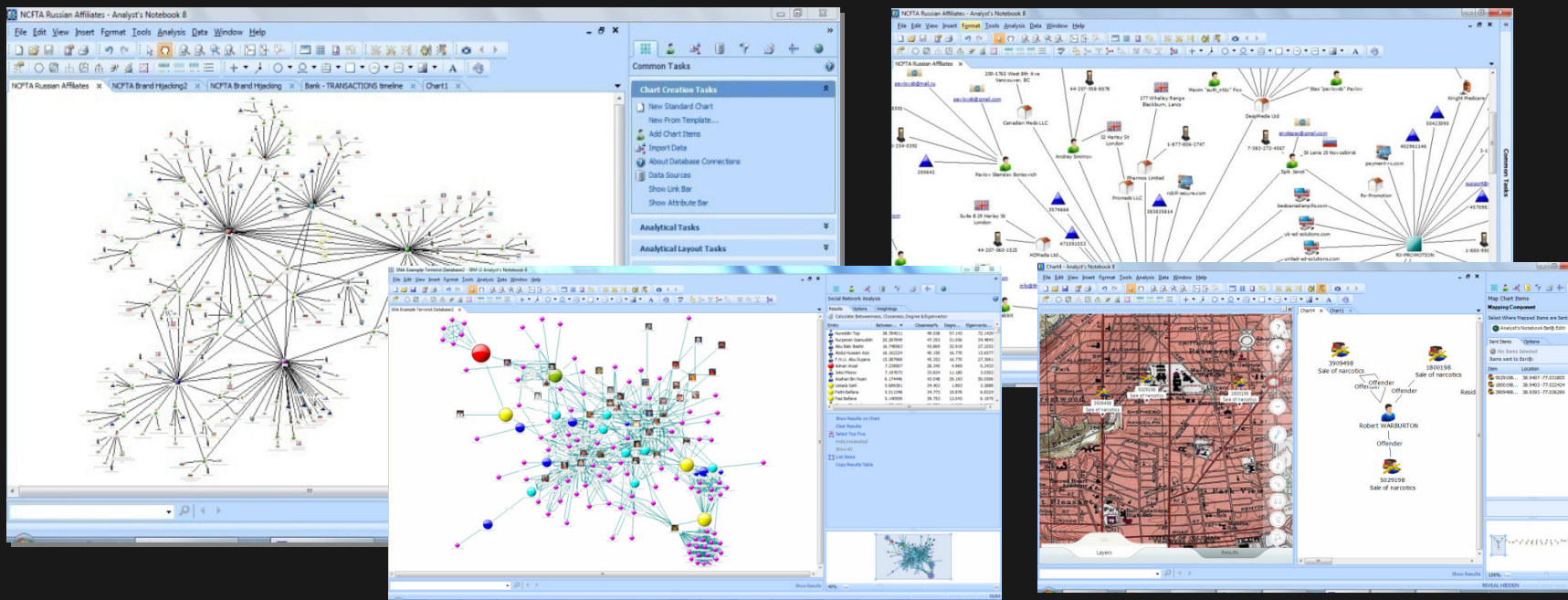
Triggers when object appears in region, stops and remains still for period of time.



Object Removal

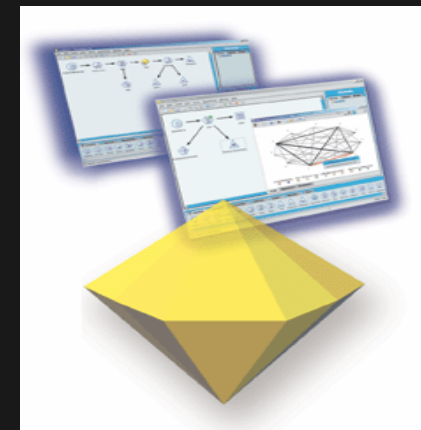
Triggers when object which has been still in image for long time starts to move.

Identifies Individuals, Groups, Events, Locations, Commodities, Communications, etc. and build relationships



In Summary

- Accessing VAST amounts of information
- Improve productivity during investigations
- Quickly identifying non obvious relationships
- Turning Information into Intelligence
- Reduce the Analysis time cycle through to enforceable actions





adrian.barfield@au1.ibm.com