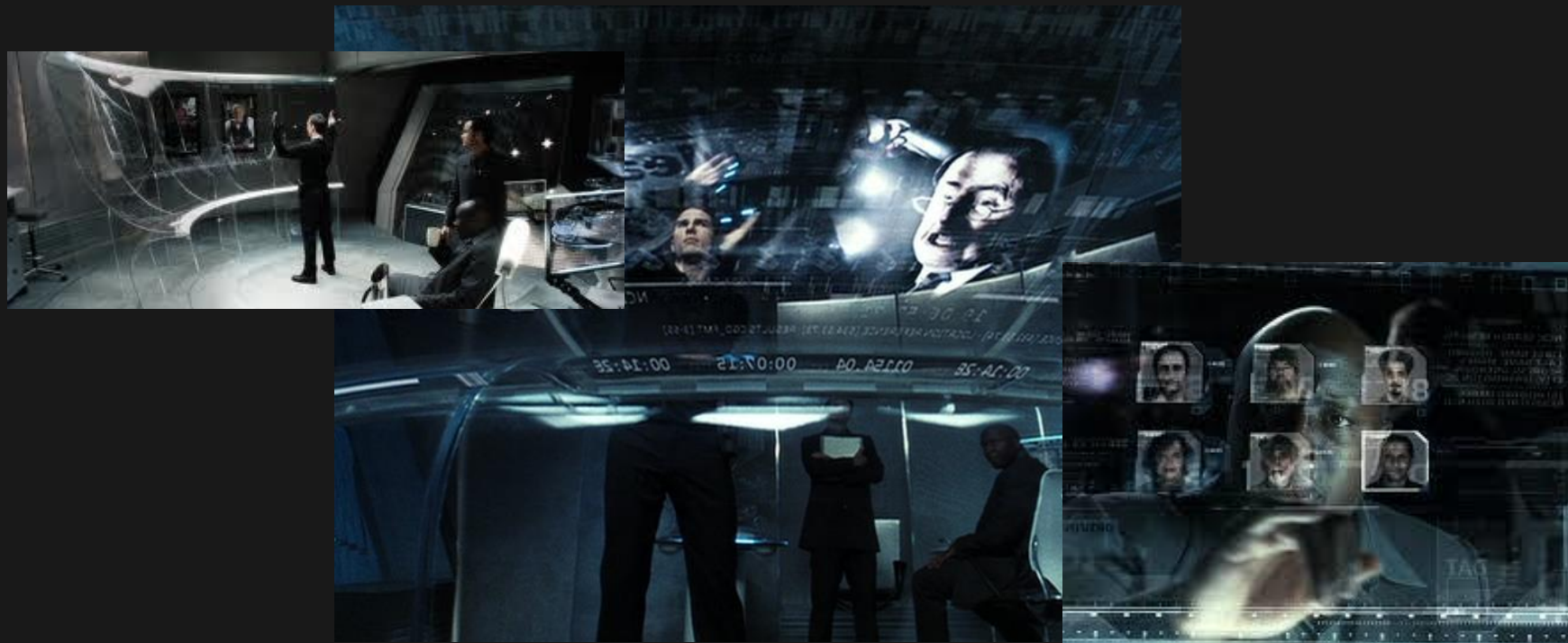# The Modern Intelligence Platform

What would you expect?

IBM

Lots of arm waving?

Three dimensional holographic models?

Errr?

Flux Capacitor?
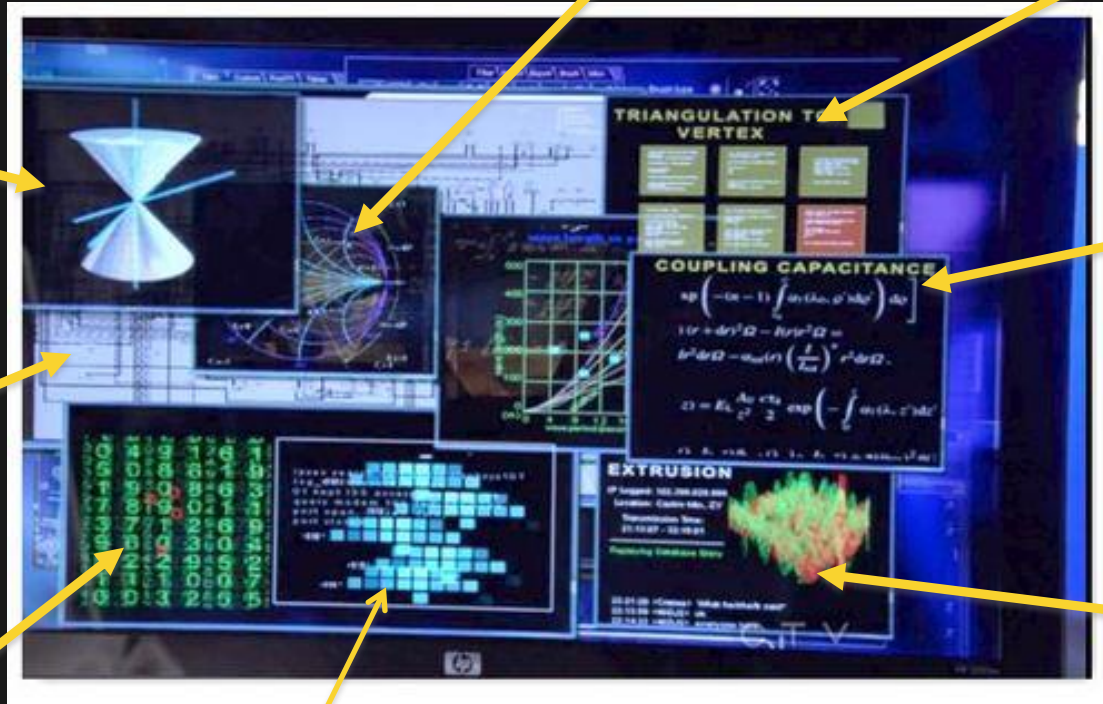
I didn't realise I needed my Vertex triagulated?

Spin shape spin, as fast as you can….

Coupling Capacitance?

Circuit diagram for a microwave oven?

Exactly what are we Extruding?

The Matrix

Tetris?

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

IBM

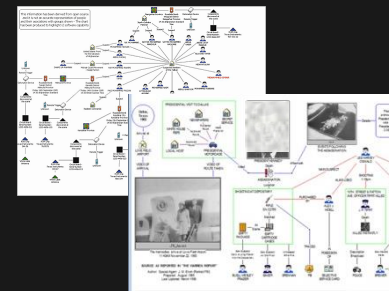# Imagine the Challenges

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
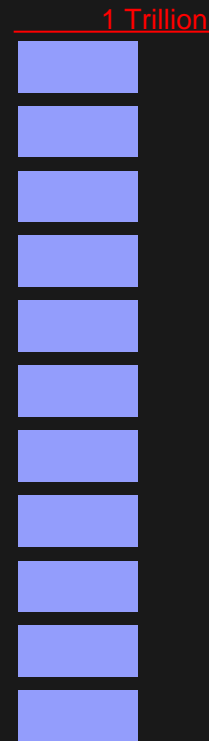- Data Duplication

Intelligence Asset Creation

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

How big is 1 Trillion records

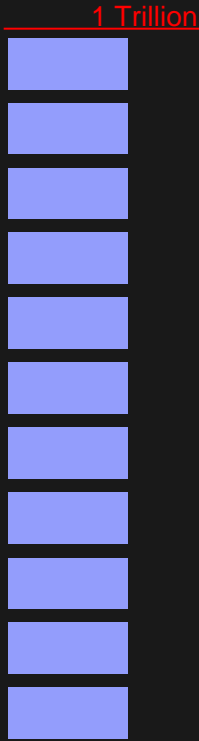Imagine the population of the world: 7.2 Billion People

1 Trillion

Running Total: 7.2 Billion Entities
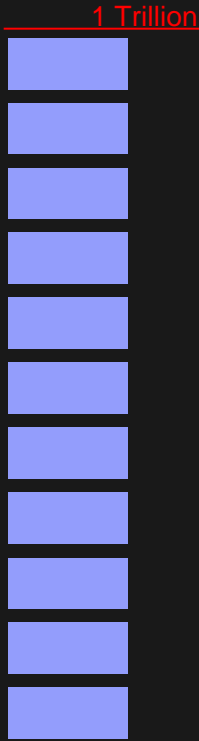
How big is 1 Trillion records

Imagine if everyone had a
facebook, twitter and Linked in
account

1 Trillion

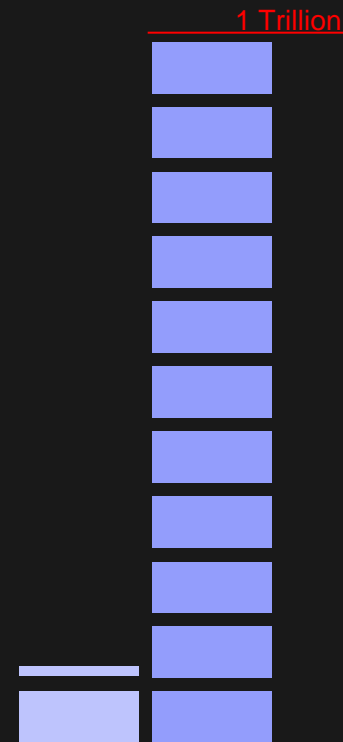Running Total: 28.8 Billion Entities 21.6 Billion Links

How big is 1 Trillion records

Now imagine we all have three phones (Work, Home, Mobile)

1 Trillion

Running Total: 50.4 Billion 43.2 Billion Links

How big is 1 Trillion records

Assume there were 500 Million companies employing us all

1 Trillion

Running Total: 50.4 Billion Entities 64.8 Billion Links

How big is 1 Trillion records

We all lived in a house with 1 other person

1 Trillion

Running Total: 54 Billion Entities 72 Billion Links

How big is 1 Trillion records

We all had three bank accounts

1 Trillion

Running Total: 75.6 Billion Entities 93.6 Billion Links

How big is 1 Trillion records

Now imagine we each have 200
followers on Social Media

1 Trillion

Running Total: 75.6 Billion Entities 1.53 Trillion Links

From Data & Information to Intelligence to Action
Smarter Decisions Faster

Tenants of the modern Intelligence Platform

Scalable
Supports a wide range of missions as well as operational and user environments

Interoperable
Integrates with existing environments and eases information sharing
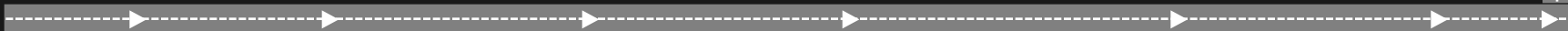
Modular
Modular architecture can deliver maximum mission flexibility with ability to add complimentary analytics

Cost Effective
•Reduces training, maintenance and deployment costs
•Modular design
•Role based packaging

IBM

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	Defense	Law Enforcement	**Private Sector**	Government
Counter Terrorism	Establishing Civilian Structures	Tactical Lead Generation	Security Investigations	Industry Oversight & Compliance
Counter Intelligence	Counter Intelligence	Counter Terrorism	Industry Oversight & Compliance	Cybercrime
Intelligence Analysis	Intelligence Analysis	Major Investigations	Cybercrime	Securities Investigations
Border Security	Target Analysis and Defense	Organized Crime	Risk Management	Anti-Money Laundering
Cyber Risk	Peacekeeping	Neighborhood/ Community Policing	Anti-Money Laundering	Fraud
	Force Protection	Public Order/Major Event Management	Fraud	
	Pattern of Life Analysis	Volume Crime		
	Human Terrain Mapping	Fusion Centers		
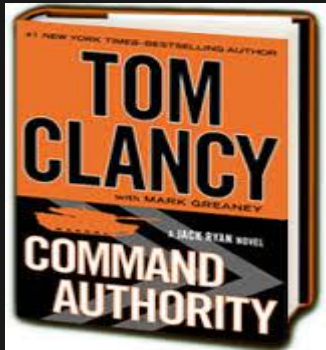
He (Jack) soldiered on, and through his work on the theft of Galbraith's company he discovered that Gazprom had purchased the pieces of the Scottish-owned gas firm from a series of small foreign companies that sprang up out of nowhere to bid in the auction...To unravel it all, Ryan had a few weapons 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.
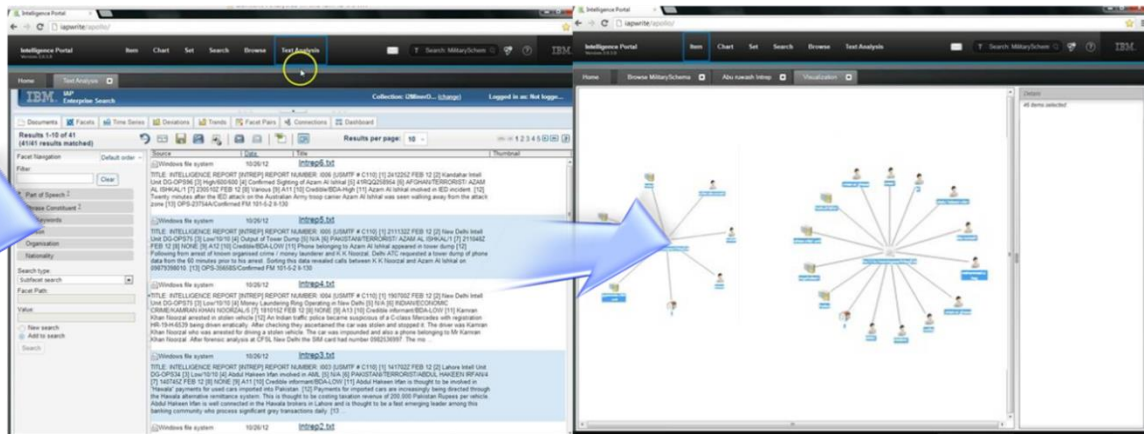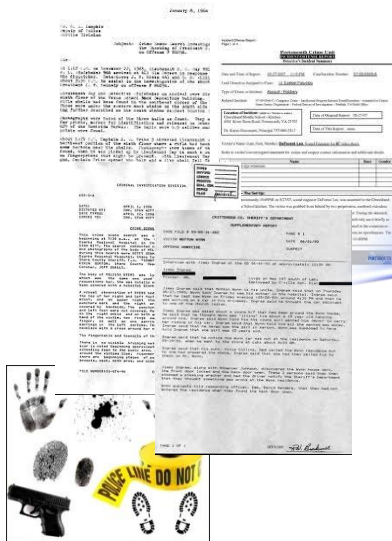
Example Scenario

- Bomb detonated damaging a main rail network
- Need to identify and capture individuals responsible
- A group has claimed responsibility
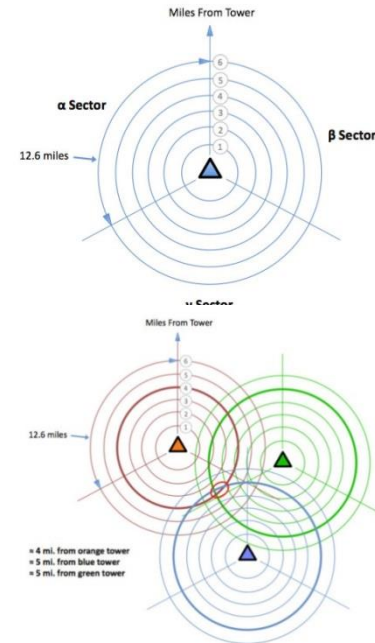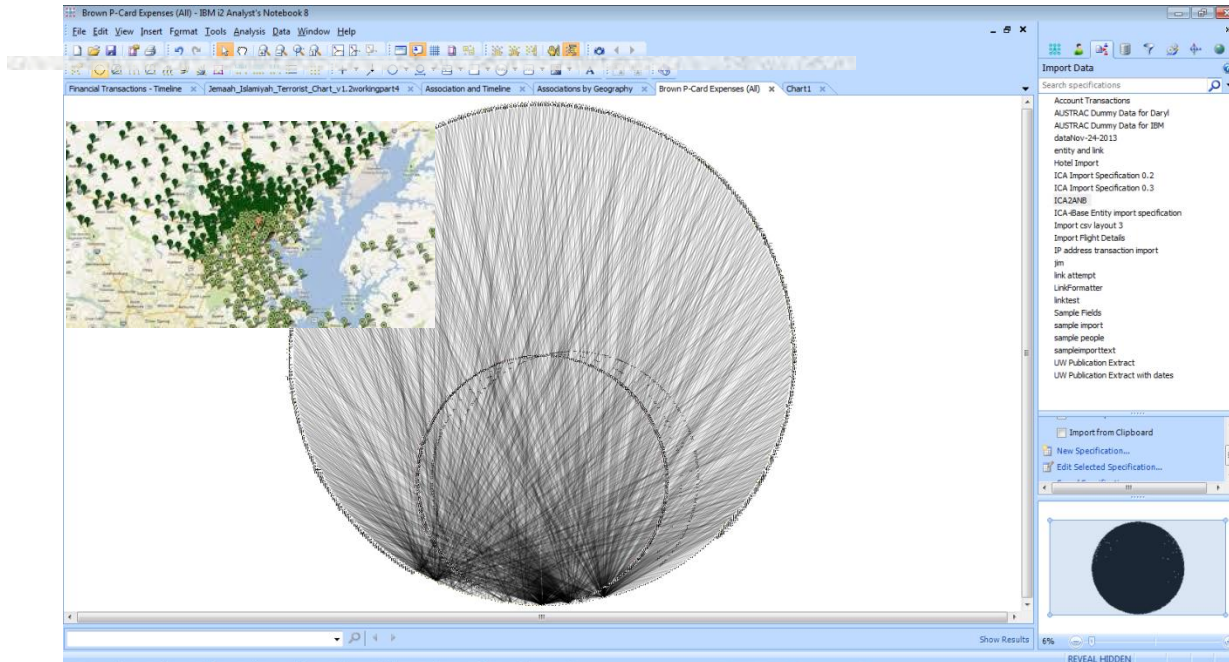
What do we know about the group network
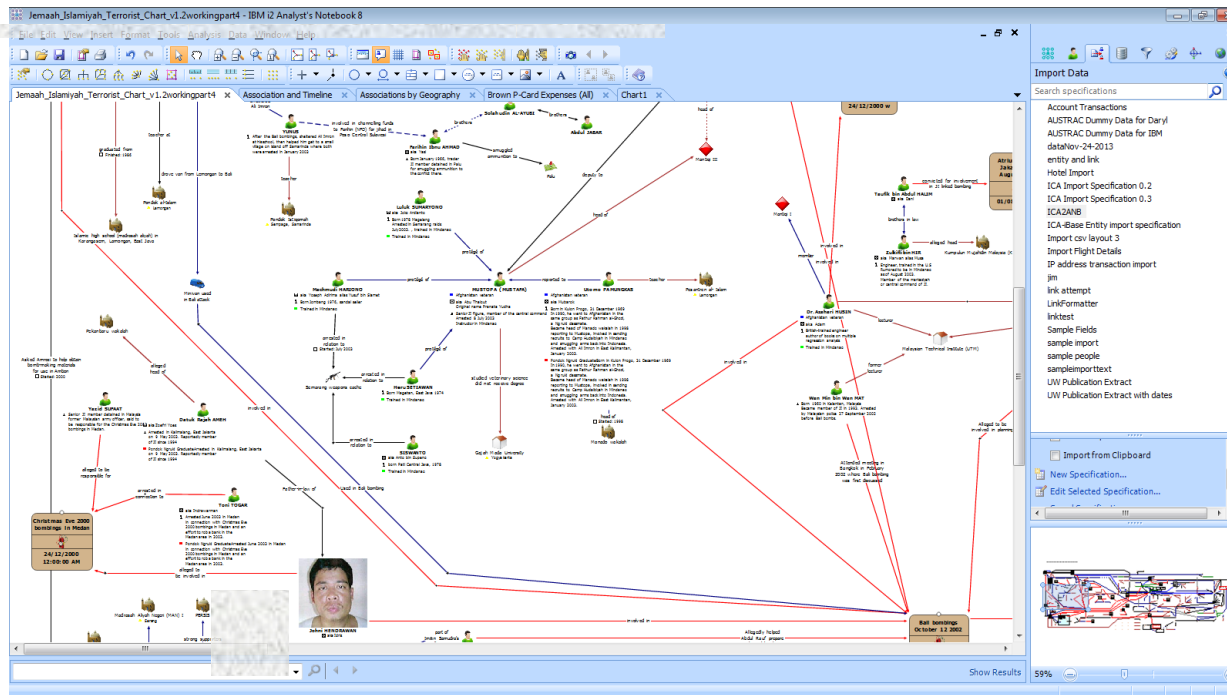
What do we know about the scene – Read through the location reports – other reports
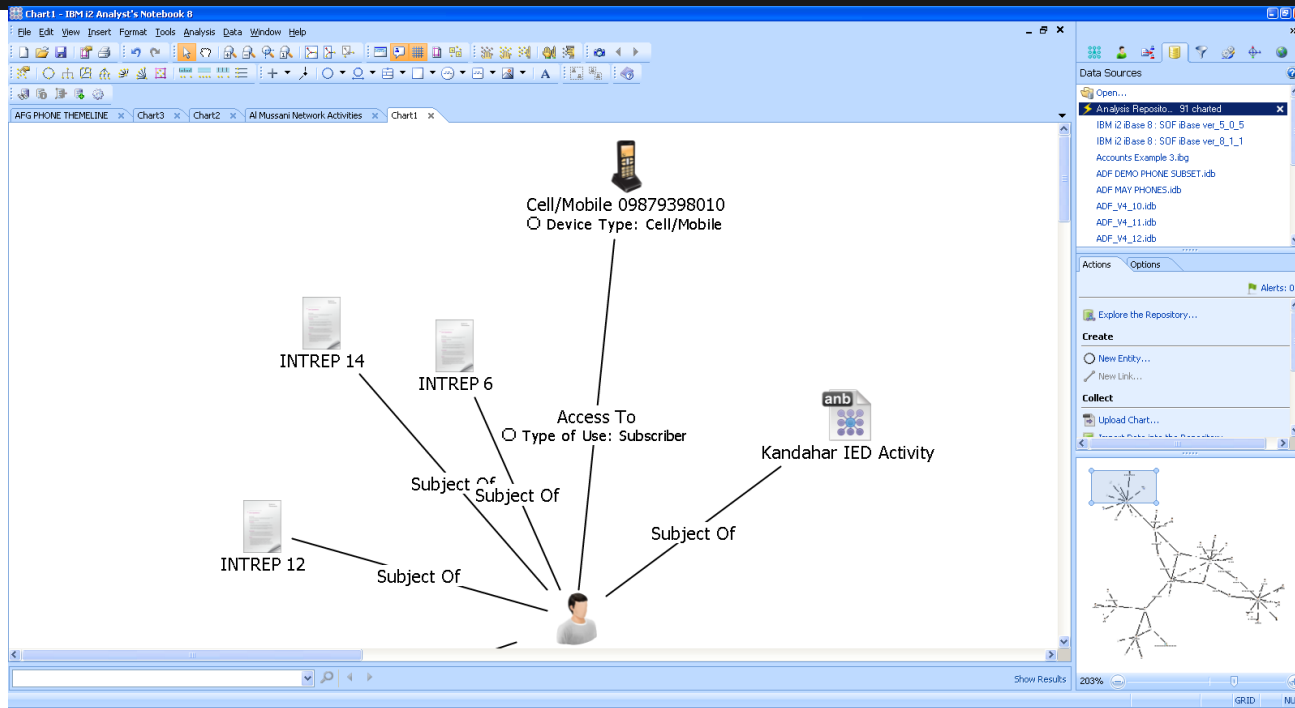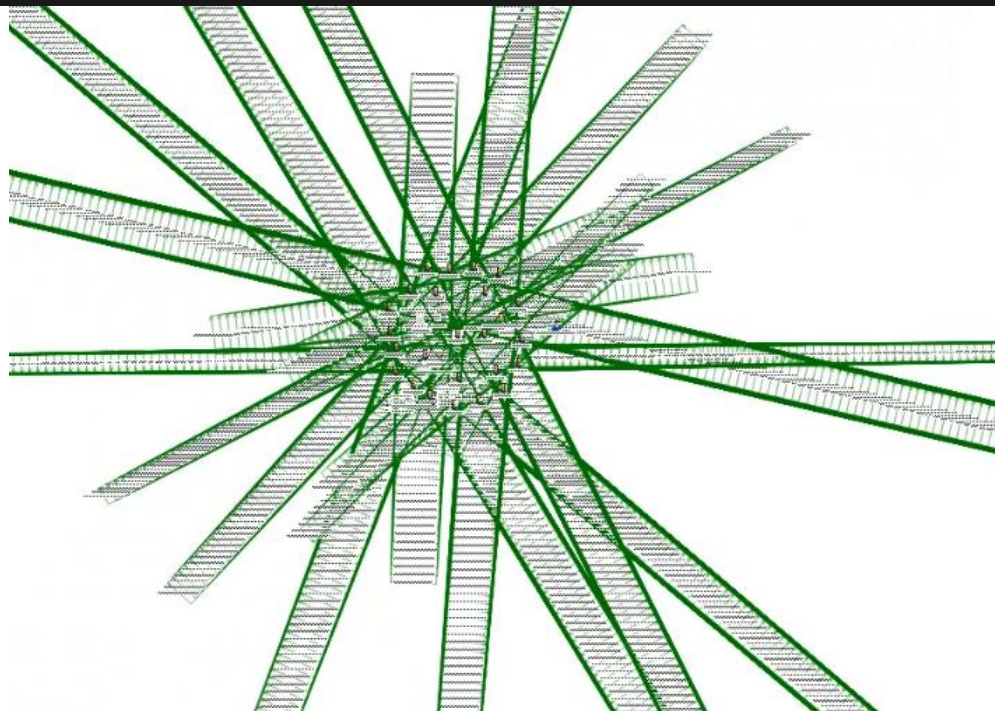
Gain information from local cell towers

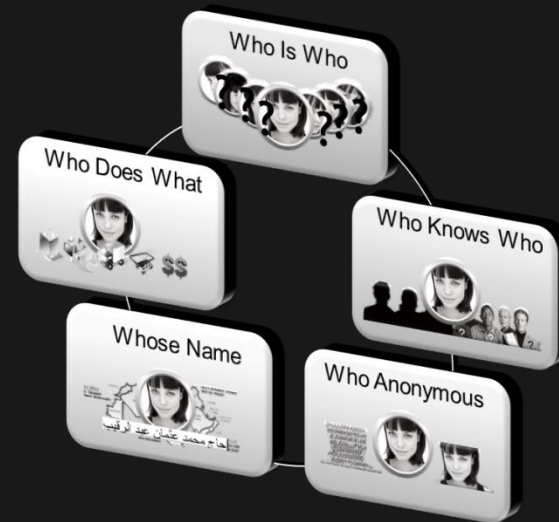# Narrow down phones in the area around the time of the explosion – Geospatial Analysis

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
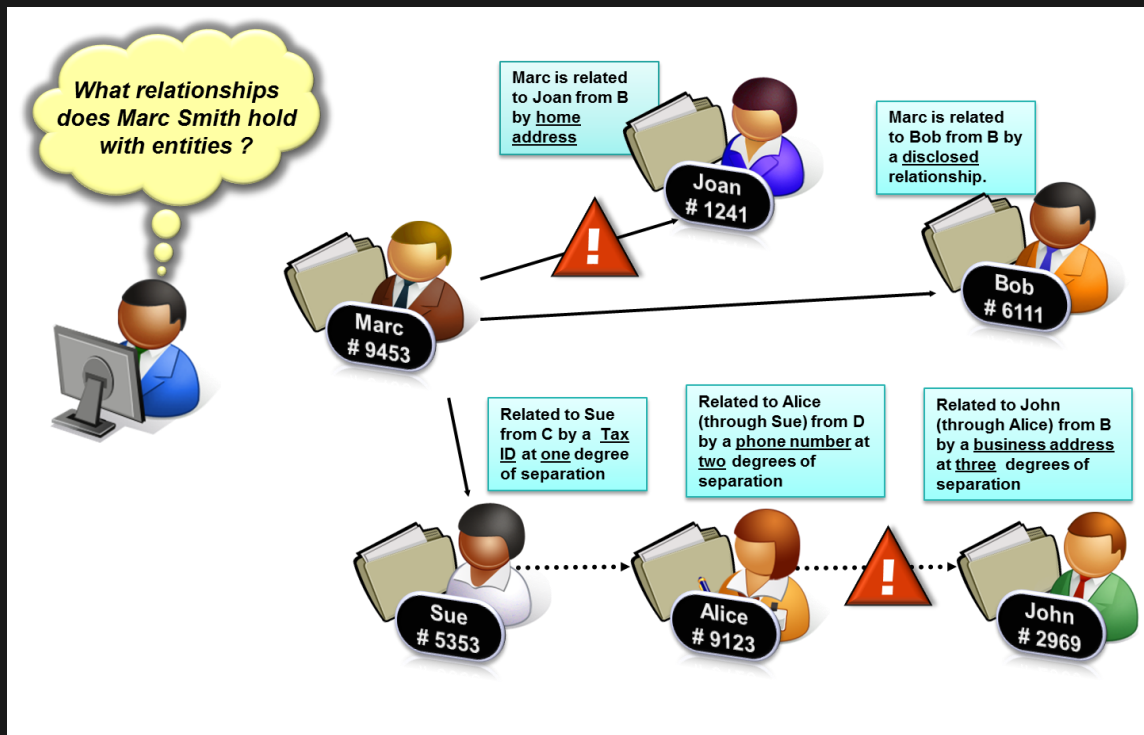
Non-obvious relationship detection
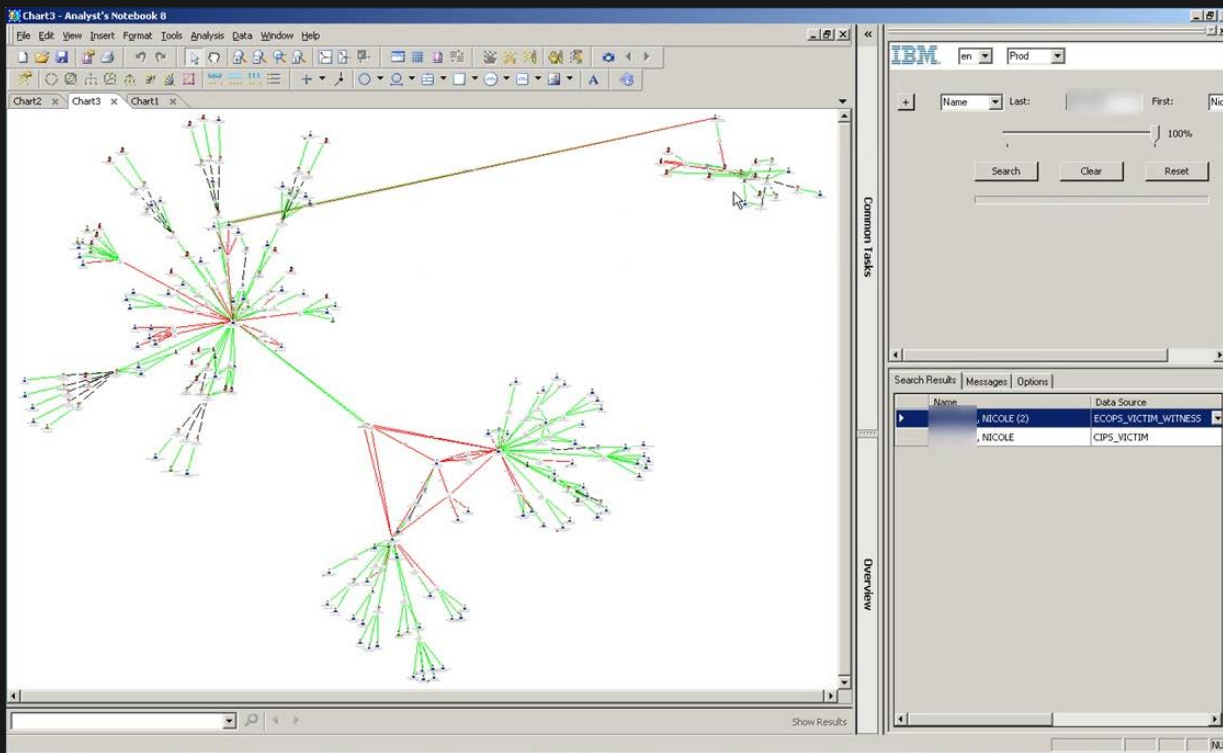
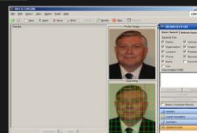# Pull in suspects – seize mobile phone – Rip off information and photographs
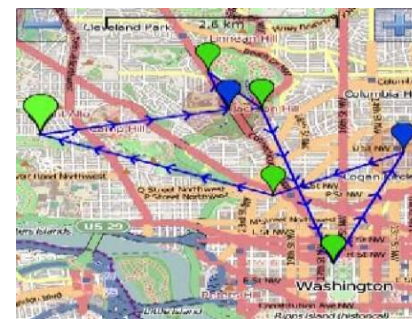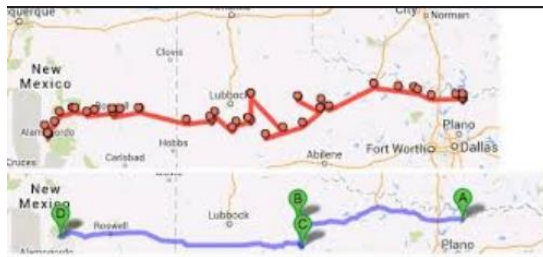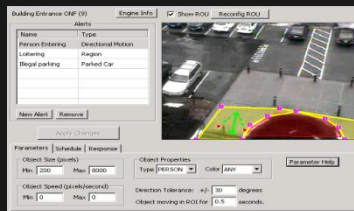
Facial Recognition

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

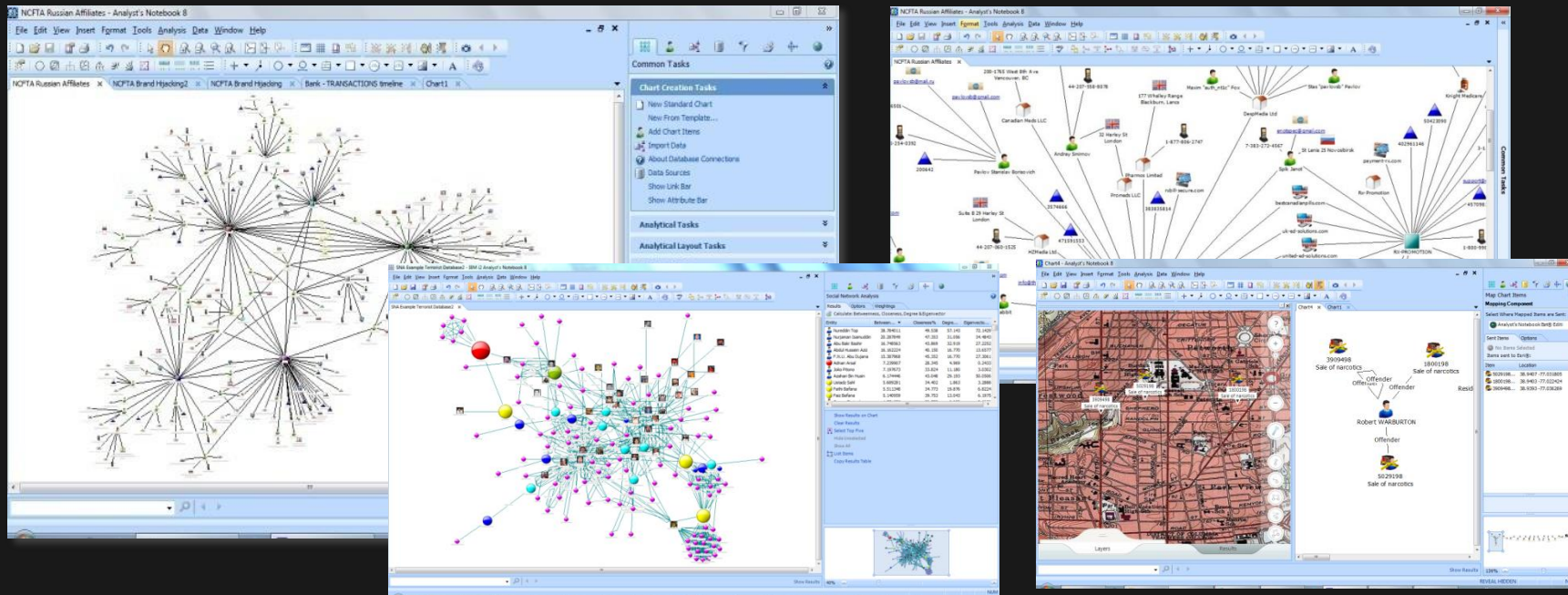Triggers when object moves in a certain of directions

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

IBM

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