

VIS for VAST 2010

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Overview

- The 2010 VAST Challenge
 - IEE
 - The Mini Challenges
 - Noblis team members
- FPS role on the challenge team
 - Data types
 - Output generation
 - Technical and analytic collaboration
- Results



The VAST Challenge

The Visual Analytics Science and Technology (VAST) Challenge
Sponsored by the Institute of Electrical and Electronics Engineers (IEEE)

The 2010 challenge consisted of:

Mini Challenge 1: Text Records – Investigations into Arms Dealing

Mini Challenge 2: Hospitalization Records – Characterization of Pandemic Spread

Mini Challenge 3: Genetic Sequences – Tracing the Mutations of a Disease

Grand Challenge: Integration of Mini Challenges (the Grand Challenge combines all data sets, identifying any possible linkage between the illegal arms dealing and the pandemic outbreak.)

VAST 2010 Partners



Mini Challenge 1: Text Records

5 original Word files:

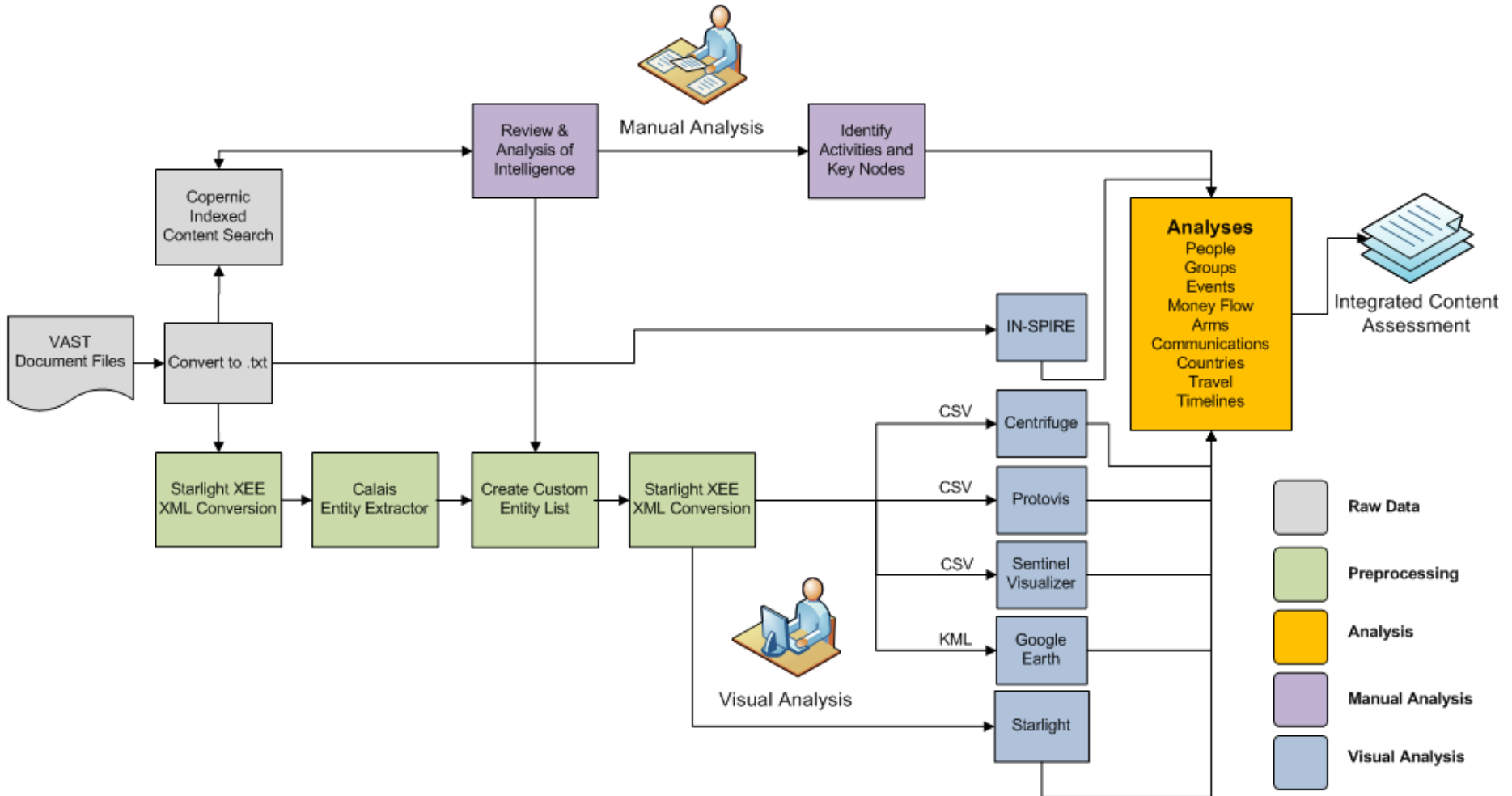
- Phone and wire intercepts
- Email and message board intercepts
- News reports
- US Government intelligence reports
- Blog postings

Manually parsed into individual files

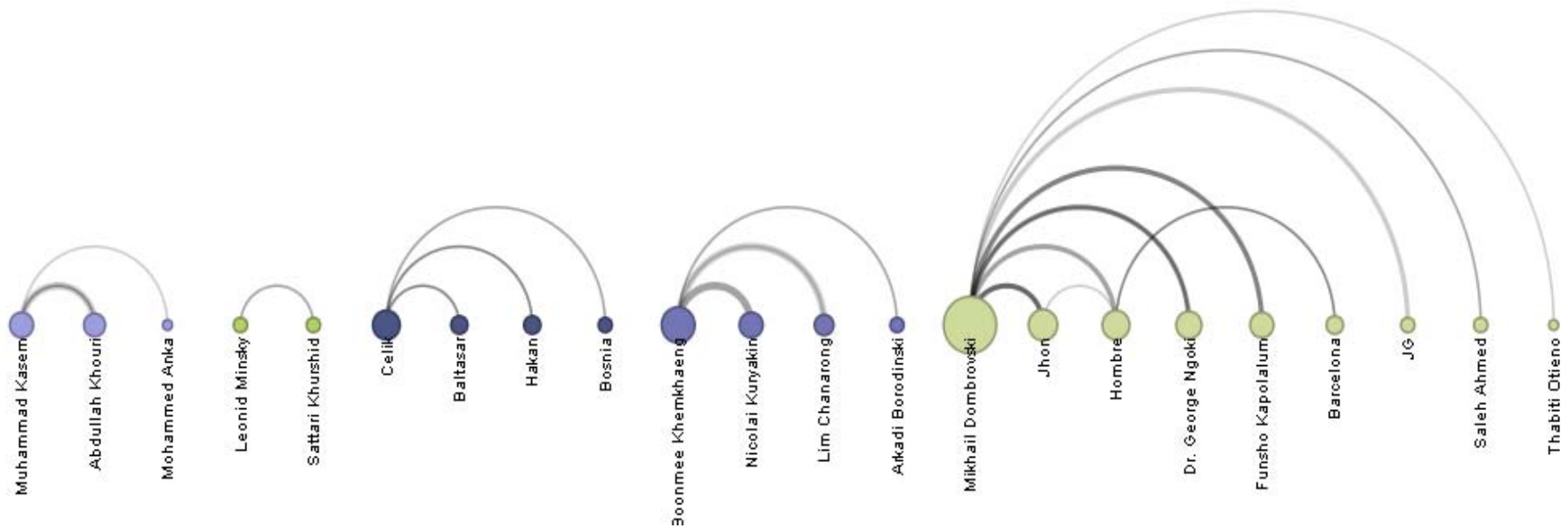
- 103 .txt files

FAKE DATA

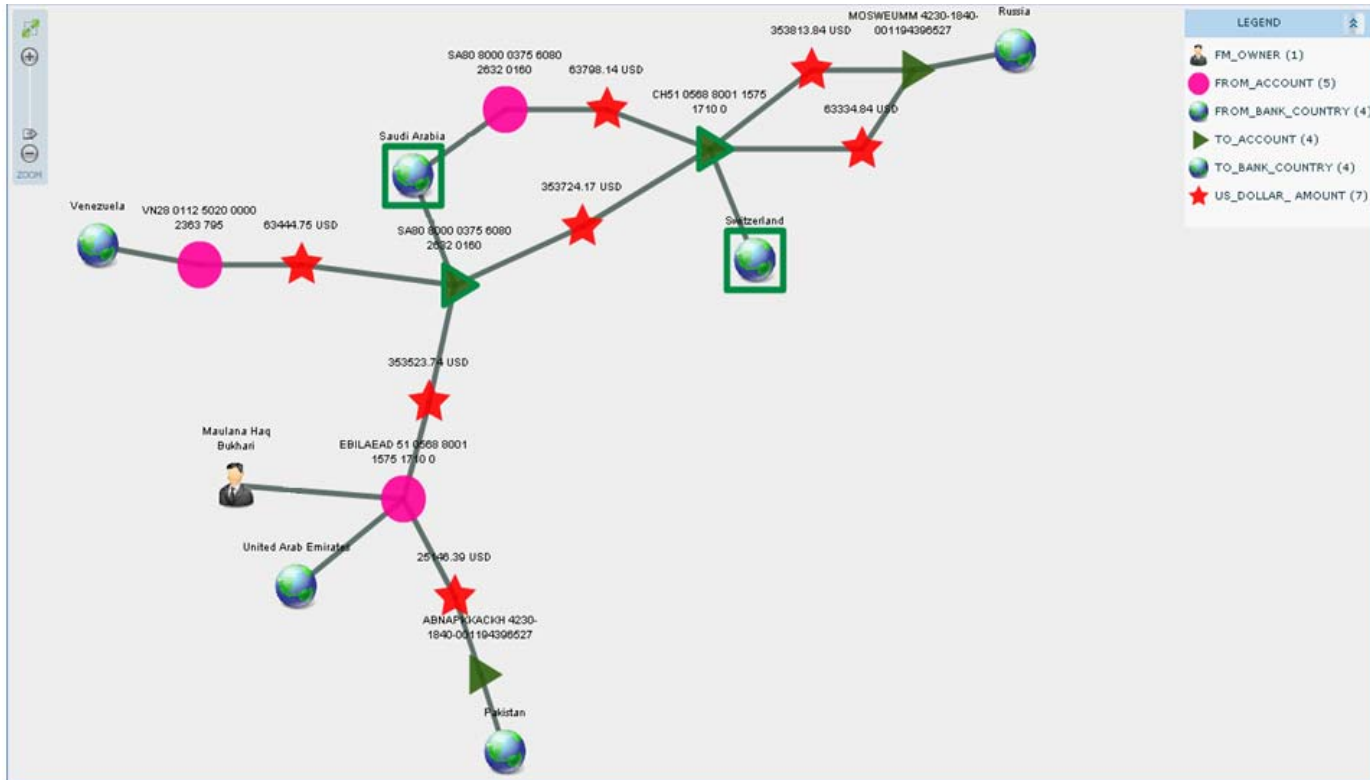
The MC1 Analytic Process



Protoviz View



Centrifuge View



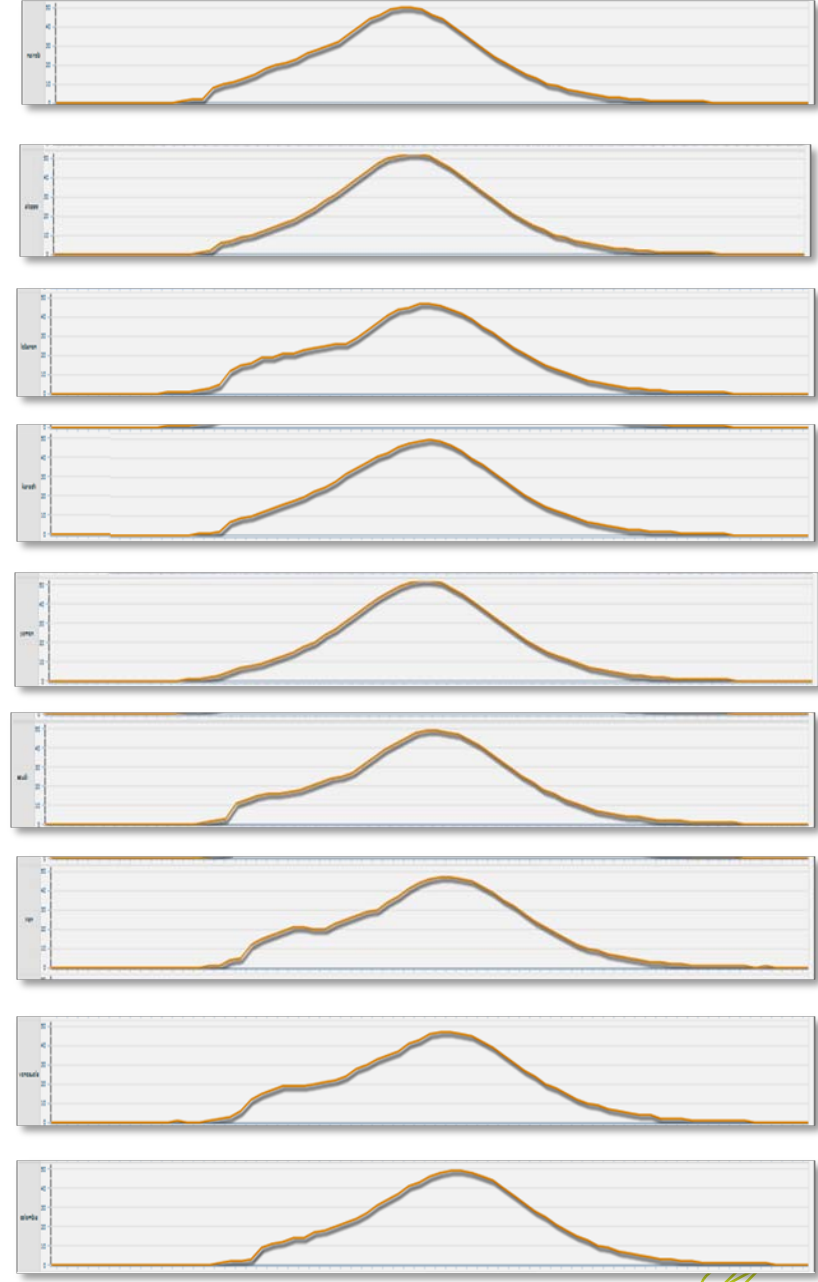
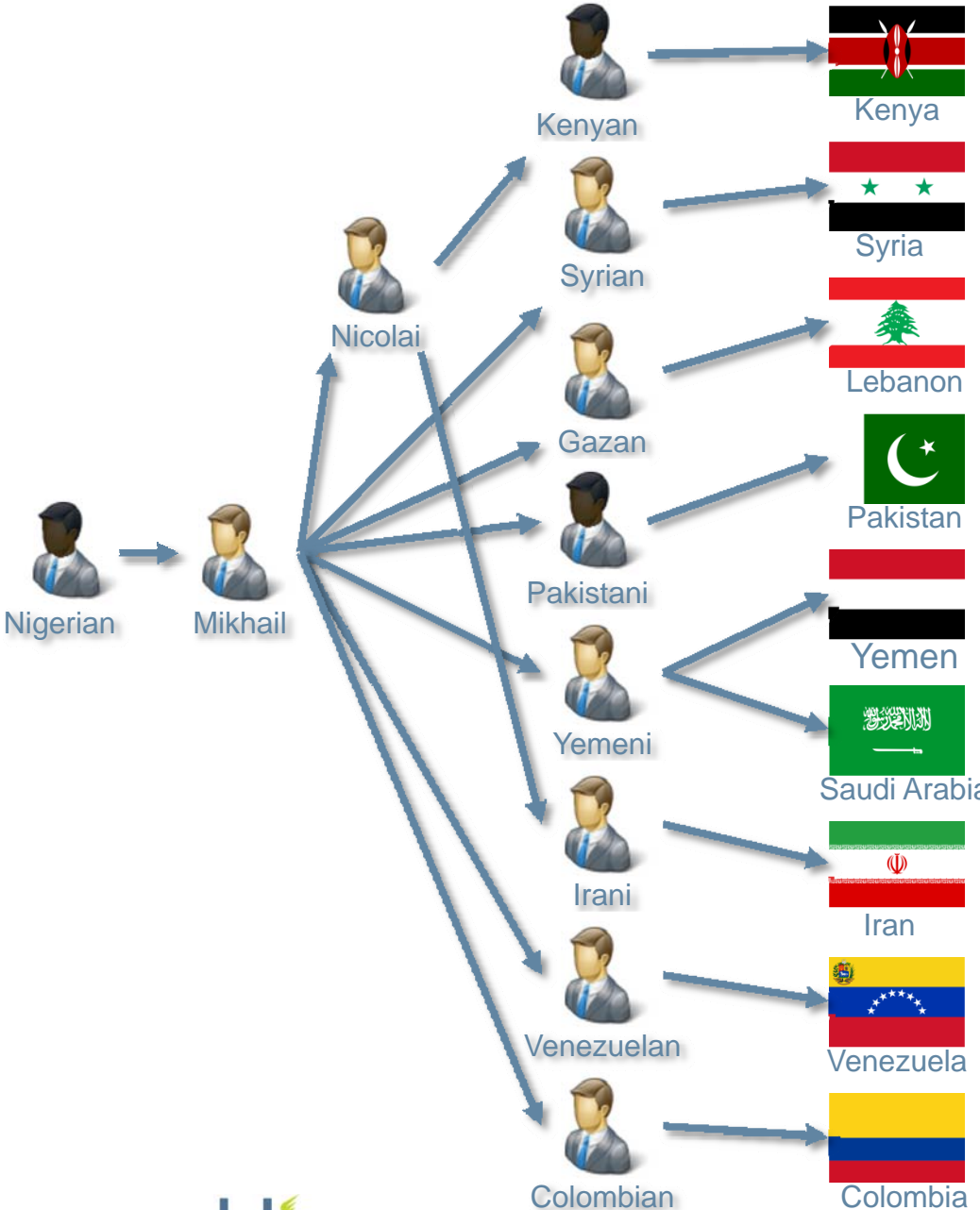
Starlight Geographic View

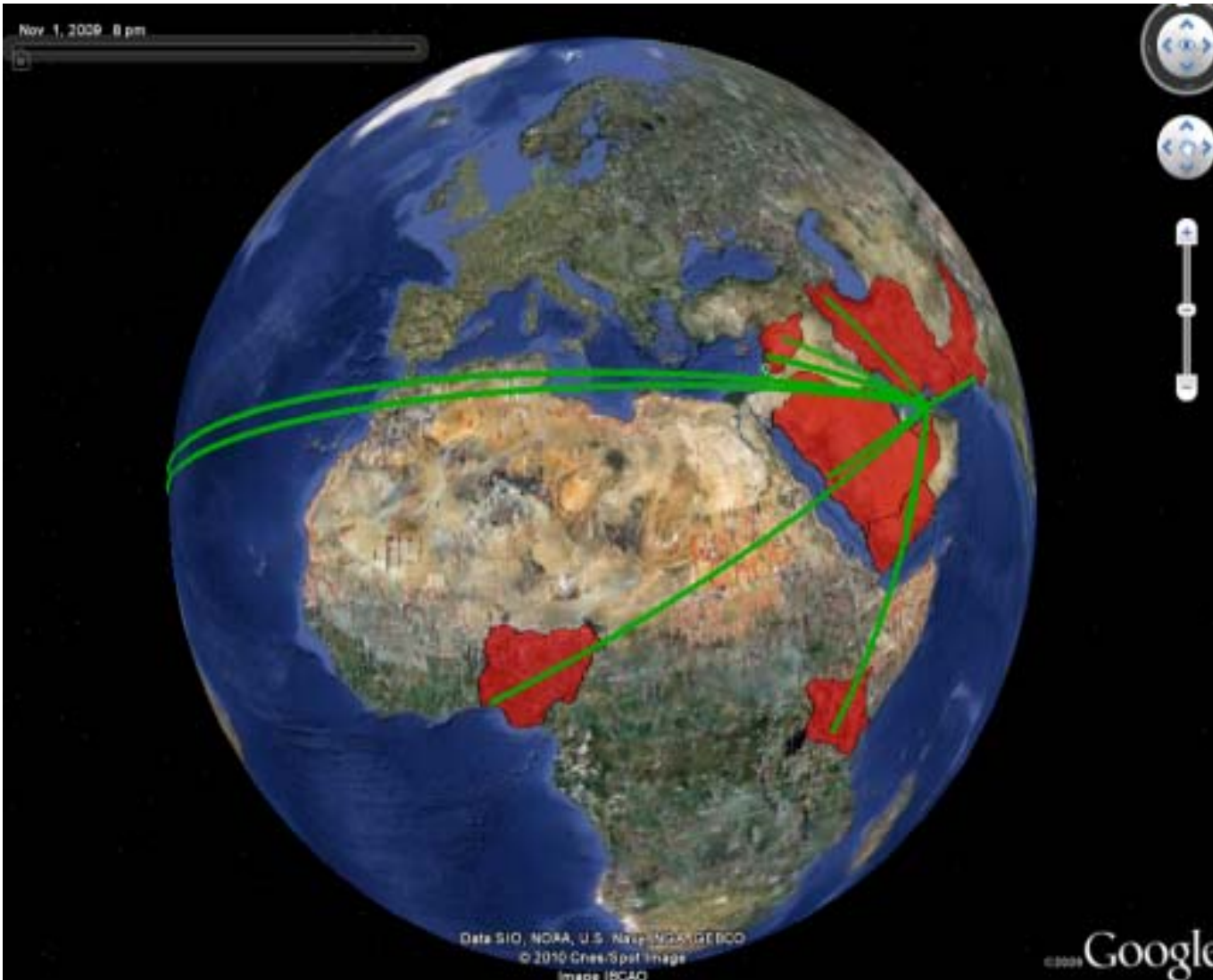


Integrated Tool Usage

The screenshot illustrates the integrated use of three applications: Starlight, Copernic Desktop Search, and Notepad.

- Starlight - mapv2**: A map application showing a search for records. The search criteria include: date: 2009-04-17T00:00:00, from: Bangkok, Thailand, to: United Arab Emirates, geocoordinate: 2, geolines: 13.75, 100.1, and type: Person Movement. The search results show a record with the title "The caller says, 'No to meeting my friend'" and a meta field.
- Copernic Desktop Search - Home**: A search engine interface showing 9 matching documents. The search criteria are: File Name: Saleh Ahmed, File Type: Any, Size: Any, Date: Any. The search results are organized into folders, including "My Documents\AST\Intel Challenge txt files\TEXT FILES\All VAST txt files\" and "My Documents\AST\Intel Challenge txt files\TEXT FILES\NEWS_1st REVIEW\".
- NEWS_8.txt - Notepad**: A text editor displaying the content of a document. The document is titled "NEWS_8.txt" and contains a report dated 4 July 2008 from The National, Abu Dhabi Media. The report discusses the situation in Yemen, mentioning the flagstones worker, SANA'A // al-Hamdi Amant, and the notorious gun dealer Saleh Ahmed. The report also mentions the government's efforts to criminalize unlicensed weapons and carrying arms in public, and the current security situation in parts of the country.





VAST 2010 Grand Challenge Award for Outstanding Debrief:

“Multi-Viz Data Fusion!!”

Complete entries for MC1, MC2, MC3 and Grand Challenge available at:
<http://www.noblis.org/MethodsTools/NoblisInnovationandCollaborationCenter/proj/vast/Pages/default.aspx>

Reviews

“A good illustration of how the analyst and the software accomplished the analysis collaboratively.”

“The use of multiple tools and the application of each tool's advantages to different scenerios was an intelligent method of reaching a comprehensive analysis. There was a clear understanding of the relationship between certain tool capabilities and their outcomes which exploited each tool's fundamental purpose.”

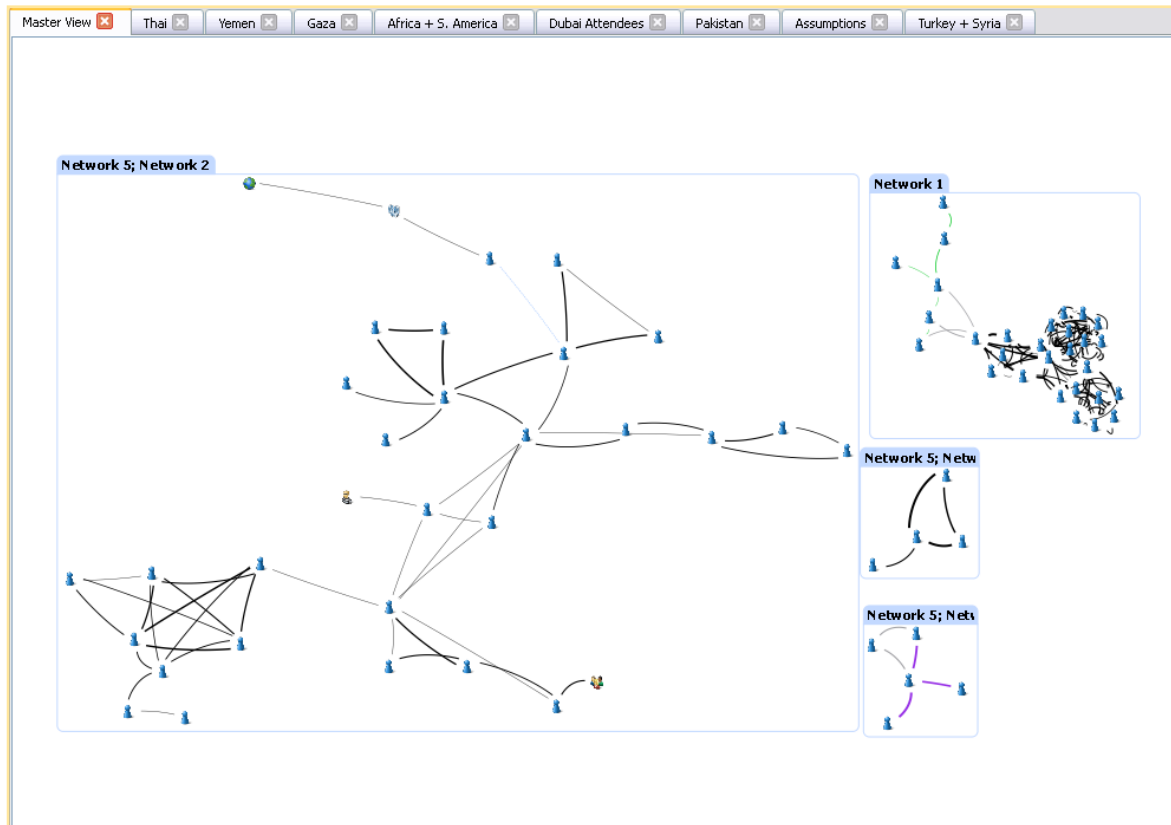
“This is the best video presentation that we’ve had for the Grand Challenges...we truly enjoyed how Noblis fell into character! The visualizations in the background as the team provided the introduction were great!”

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For the best of reasons

CHALLENGE SHOTS



Master View



Sub-Network Analysis

Master View x Thai x Yemen x Gaza x Africa + S. America x Dubai Attendees x Pakistan x Assumptions x Turkey + Syria x

