

SAS® GLOBAL FORUM 2017

April 2 - 5 | Orlando, FL

Paper SAS672-2017
Shipping Container Roulette [...]

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USERS PROGRAM



Introduction

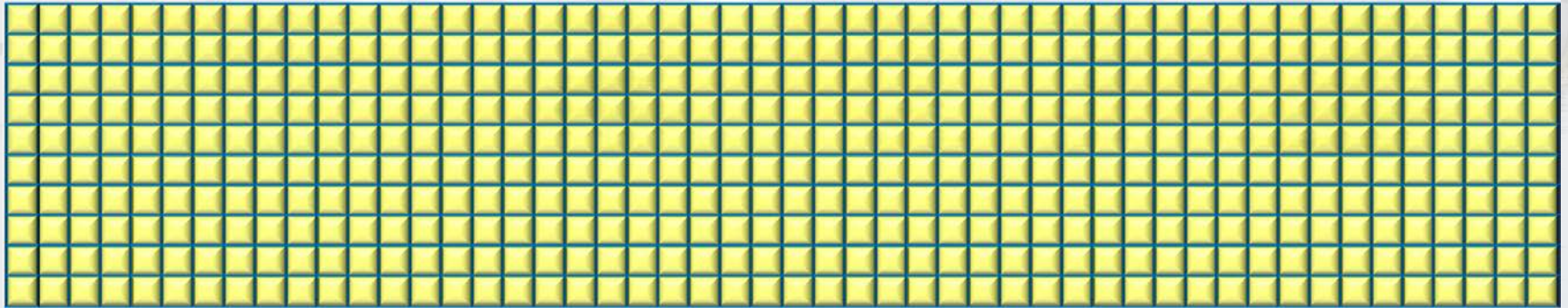
Trade-based money laundering

Introduction

Trade-based money laundering

2012 U.S. Customs and Border Protection

- ❑ 11.5 million containers through U.S. ports
- ❑ Approximately 4% scanned
- ✅ Fewer than 1% physically inspected



Introduction

Trade-based money laundering

Three popular means for moving illicit funds ...



1 – Cash couriers



2 – Financial institutions



3 – Trade

Presenter

Dan Tamburro, Director, Fraud & Financial Crimes R&D, SAS



Dan Tamburro directs SAS' Fraud & Financial Crimes R&D division, part of SAS' Security Intelligence Practice. Dan has been with SAS since 1995. He was the initial software manager for SAS Anti-Money Laundering in 2002, currently in use at 173 institutions in 57 countries.

John A. Cassara – the world's leading authority on trade-based money laundering – shares a wealth of knowledge regarding counter-terrorism financing in his book, *Trade-Based Money Laundering: The Next Frontier in International Money Laundering* (Wiley, 2015). John's book was the primary motivation for this paper.



Introduction

Trade-based money laundering

- In general,
 - a) applying detection methods
 - b) against relevant data
 - c) can result in meaningful insights
- John A Cassara's 44 Red Flag Indicators effectively provide a TBML “detection playbook”



What is it?

Trade-based money laundering

Trade-Based Money Laundering

What is it?

trade-based money laundering

noun \trād bāst mə-nē lòn-d(ə-)rɪŋ\

Disguising proceeds from criminal activity by moving value using trade transactions to legitimize their illicit origins

(FATF/GAFI, June 2006b)

Trade-Based Money Laundering

Invoice manipulation: moving money IN by importing undervalued goods

Pay for a container supposedly half-filled with sticky notes,
but receive one full of high-end laptops.



A half-filled container with
1,500 cases of 18 dozen sticky notes
Approximate weight 30,000 lbs.
Valued at \$7,500 USD

"45 Footer High Cube"
Shipping Container



Holds ~3,000 ft³



A filled container with (boxed)
6,000 (boxed) Top-line laptops
Approximate weight 30,000 lbs.
Valued at \$15,000,000 USD

Invoice Manipulation

Moving money IN or OUT through invoice manipulation

Direction	Import/Export	Pricing	
Move money OUT	Import goods	Overvalued pricing	
	Export goods	Undervalued pricing	
Move money IN	Import goods	Undervalued pricing	
	Export goods	Overvalued pricing	

Trade-Based Money Laundering

Cassara's 44 Possible Red-Flag Indicators of TBML

- These indicators generally involve inconsistencies or irregularities in one of the following categories:
 - documentation (for example, bills of lading, manifests, invoices)
 - geopolitical (for example, involvement with a country on a watch list)
 - goods: their respective amount, type, units, value, or weight
 - party (for example, account, customer, carrier)
 - payment medium and source
 - shipping (for example, shipping container, firm, route)



Why SAS Visual Investigator?

Trade-based money laundering

SAS Visual Investigator

Problem Solving Capabilities

Surveillance

Rule Authoring + Models
Batch Monitoring
Deployment Mgmt.
Simulation

Alert Management

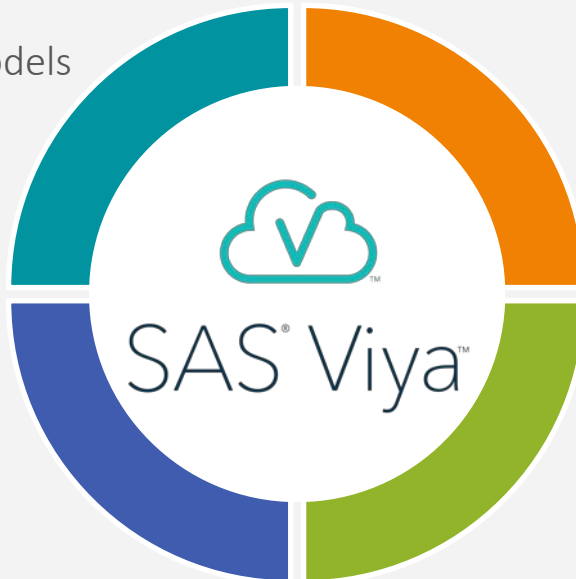
Operational Productivity
Governance and
Workflow
Investigation Enrichment

Search & Investigate

Interactive Workspaces
Ad hoc Insights
Data Visualizations

Entity Analytics

Entity Resolution
Network Visualizations
Multi-Source Integration



SAS Visual Investigator

Suitable for solving problems across industries

Banking

State/local government

Federal government

Energy

Manufacturing



Health care

Life Sciences

Communications

Retail

Commercial



SAS Visual Investigator

Empowering the Intelligence Analyst



- **Surveillance** – rule authoring, model deployment, and simulation to detect anomalies, suspicious behavior, and circumstances worthy of further analysis and investigation.
- **Entity analytics** – applying network and entity generation processes to automatically build networks, resolve real-world entities and identify communities based on the latest data.
- **Alerting and investigating** – prioritizing alerts and events, routing alerts for prompt triage, investigating, and dispositioning; “Workspaces” providing interactive work areas for exploring and analyzing data; “Insights” provide a means to collect and document a wide array of internal and external investigation artifacts.
- **Search and discovery** – providing powerful search capabilities, including free text and geospatial search, filters and facets, and multiple “workspace” visualization options.

SAS Visual Investigator

SAS Visual Investigator > Trade-based money laundering



- **Data** – connect existing external data sources to the application, including entity, reference, and transaction tables
 - Allow SAS Visual Investigator to manage alerted information



SAS Visual Investigator

Common import/export documents (Hong Kong)

Commercial Documents

Quotation
Sales Contract
Pro Forma Invoice
Commercial Invoice
Packing List
Inspection Certificate
Insurance Policy
Insurance Certificate
Product Testing Certificate
Health Certificate
Phytosanitary Certificate
Fumigation Certificate
ATA Carnet
Consular Invoice

Financial Documents

Documentary Credit D/C
Standby Credit
Collection Instruction
Bill of Exchange (B/E) or Draft
Trust Receipt (T/R)
Promissory Note

Transport Documents

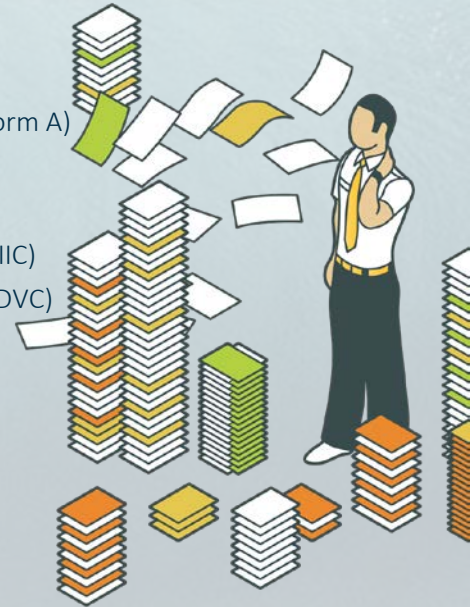
Shipping Order S/O
Dock Receipt D/R or Mate's Receipt
Bill of Lading (B/L)
House Bill of Lading (Groupage)
Sea Waybill
Air Waybill (AWB)
House Air Waybill (HAWB)

Shipping Guarantee

Packing List (aka packing note)

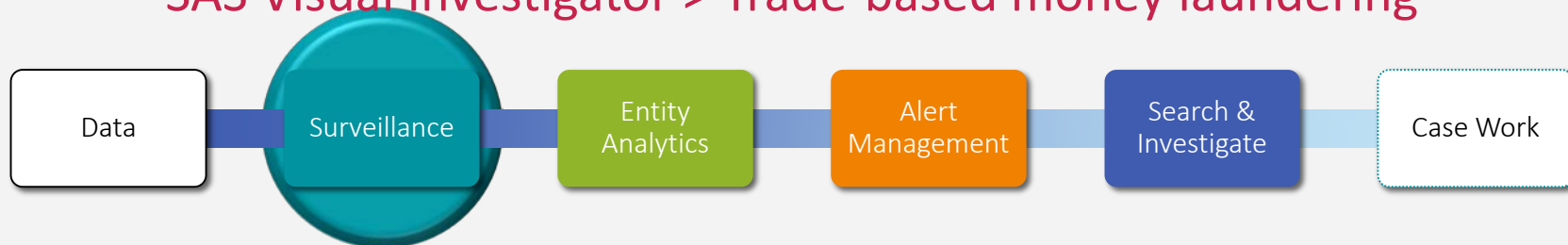
Government Documents

Certificate of Origin (CO)
Certificate of Origin (GSP) (aka Form A)
Import / Export Declaration
Import / Export License
International Import Certificate (IIC)
Delivery Verification Certificate (DVC)
Landing Certificate
Customs Invoice

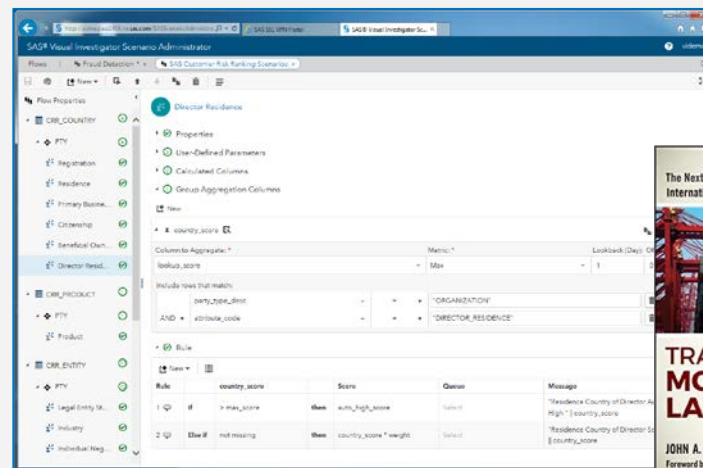


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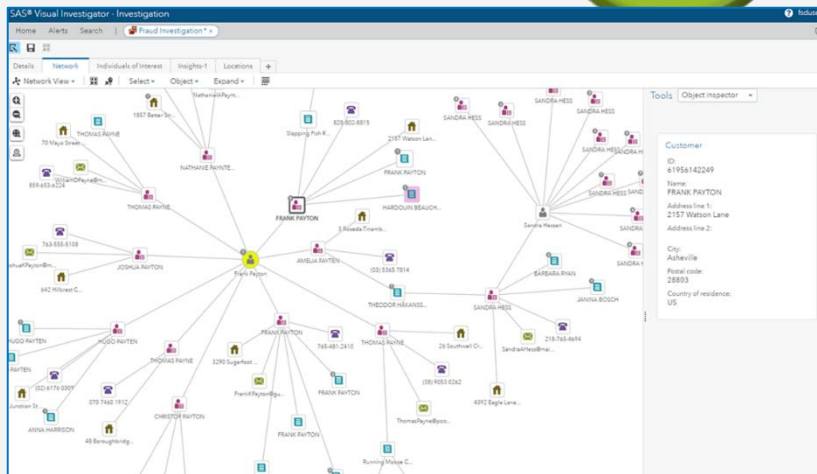


- **Surveillance** – set up Red Flag Indicators using SAS Visual Investigator's Scenario Administrator
- Note: most of Cassara's 44 Red Flag indicators lend themselves to straightforward scenario authoring



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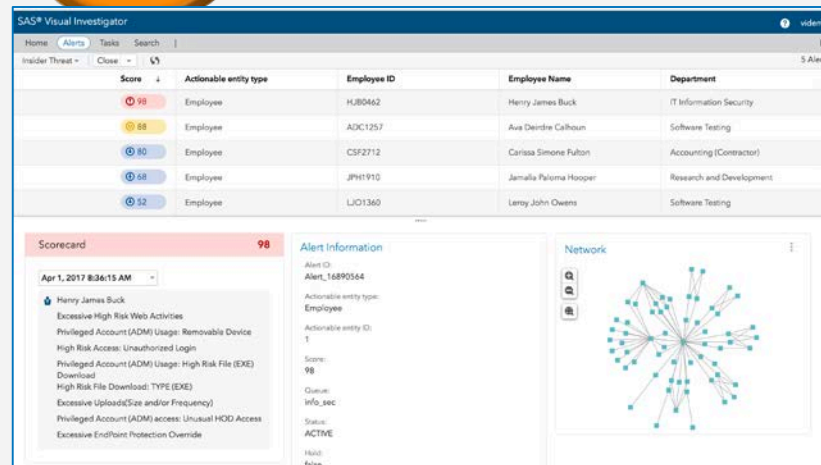
- **Entity analytics** – resolve entities such as people, corporations, and vessels to determine which are the same and which are different
- Prepare data for network visualization

SAS Visual Investigator

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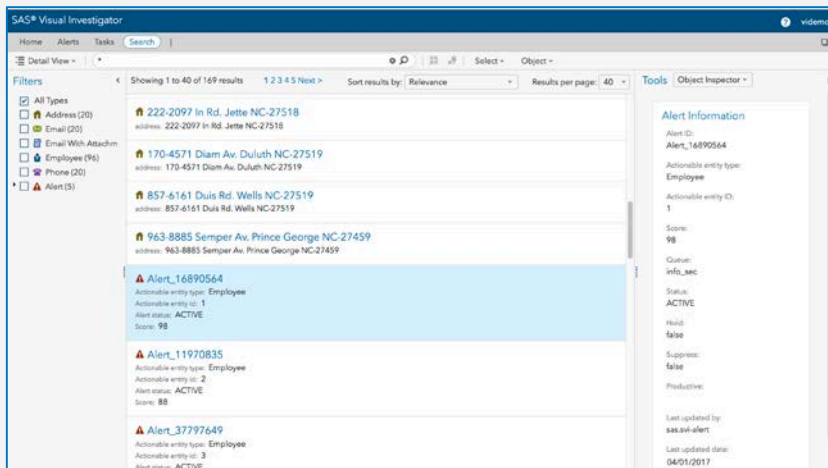


- **Alert management** – define strategies and queues for directing suspicious entities to specific analysts or groups
- triage and disposition trade-based alerts; explore and analyze suspicious alerts



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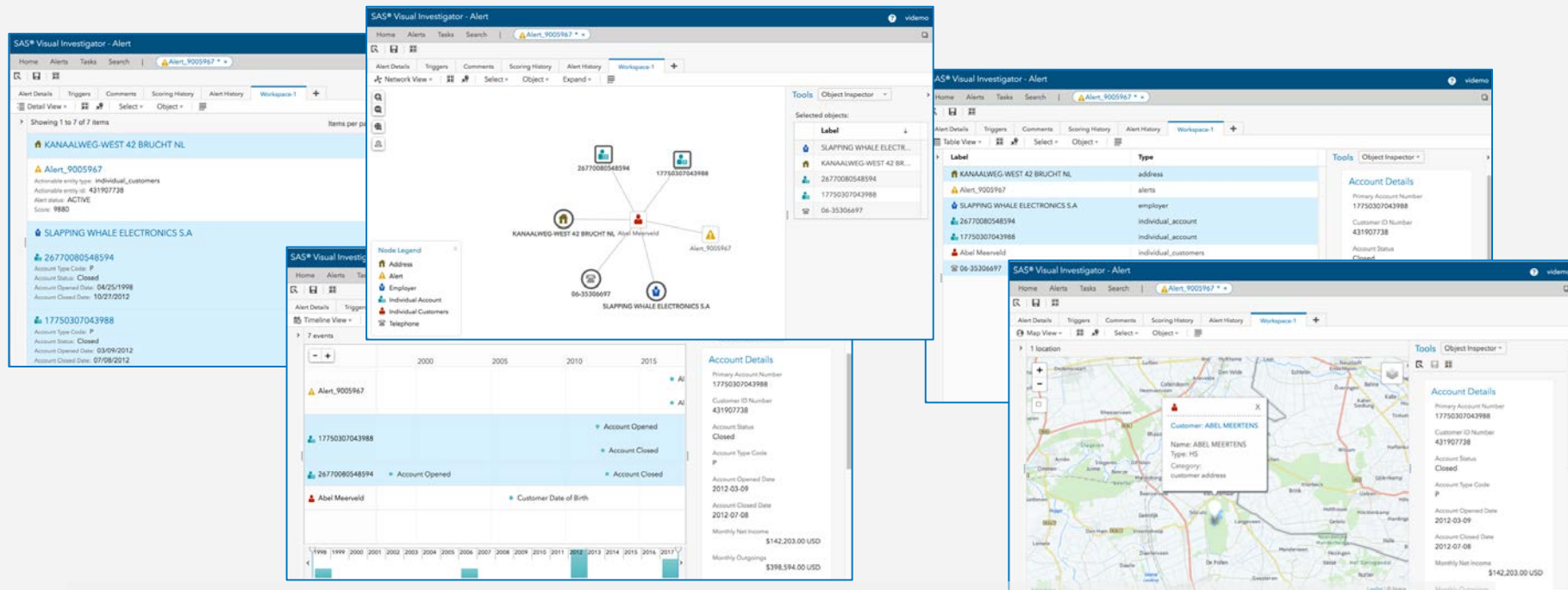


- **Search and discovery** – conduct searches and use networks, maps, timelines, and supporting detailed trade data to build insights and collect and document investigation artifacts

SAS Visual Investigator



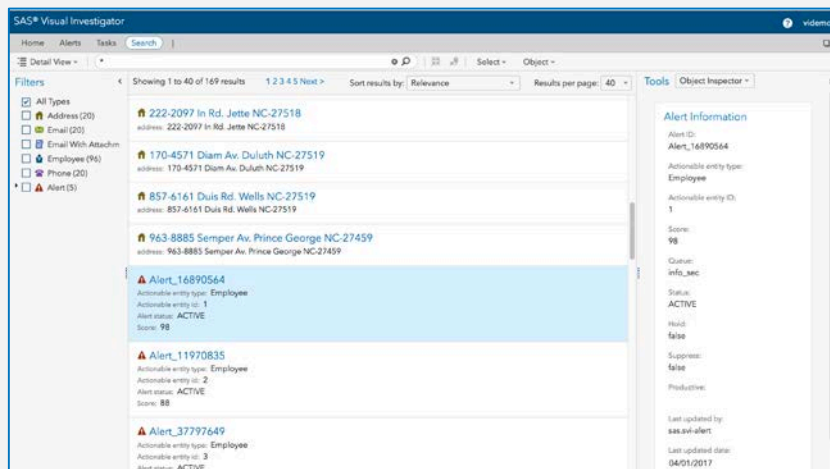
View switching: same information, many visualizations



Examples of detail, table, network, map, and timeline views

SAS Visual Investigator

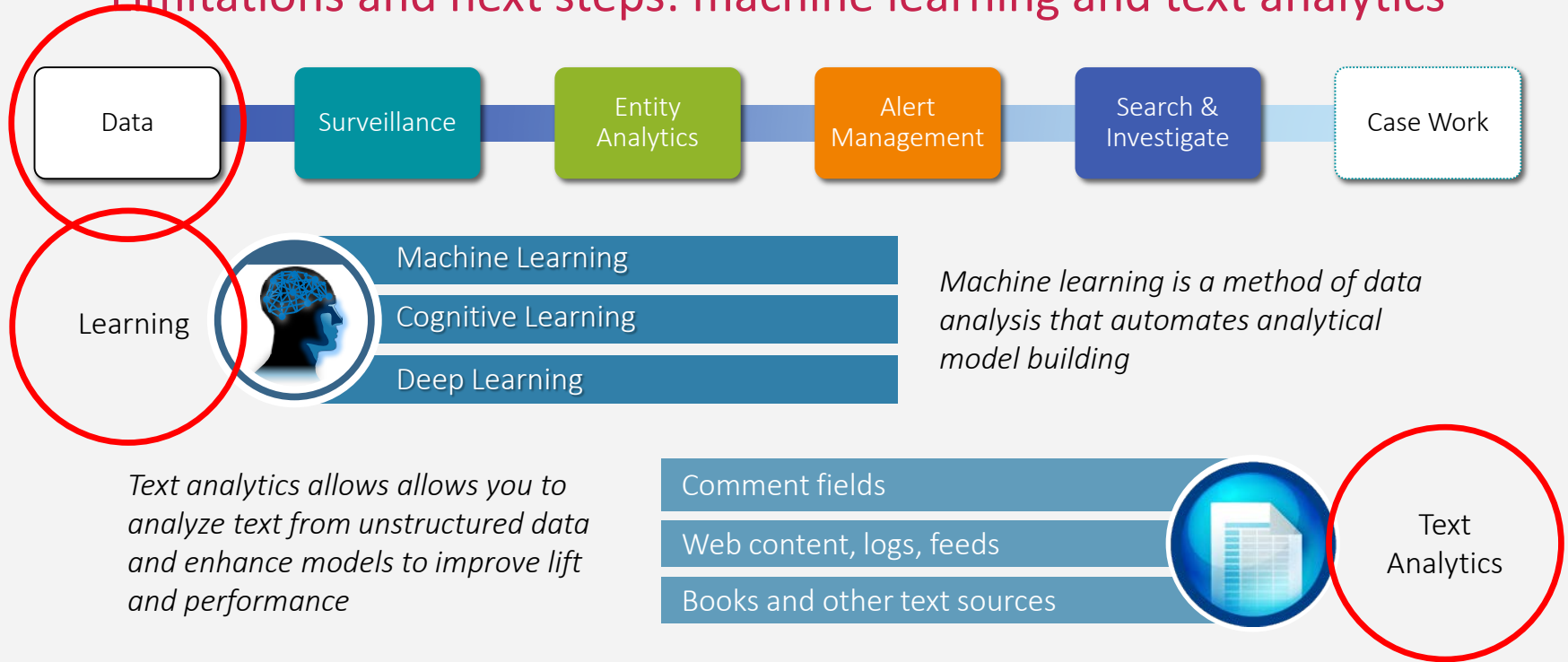
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- Case management – configure SAS Visual Investigator with actions and workflows to allow users to “promote” alerted information and investigations – including insights – into cases

SAS Visual Investigator

Limitations and next steps: machine learning and text analytics

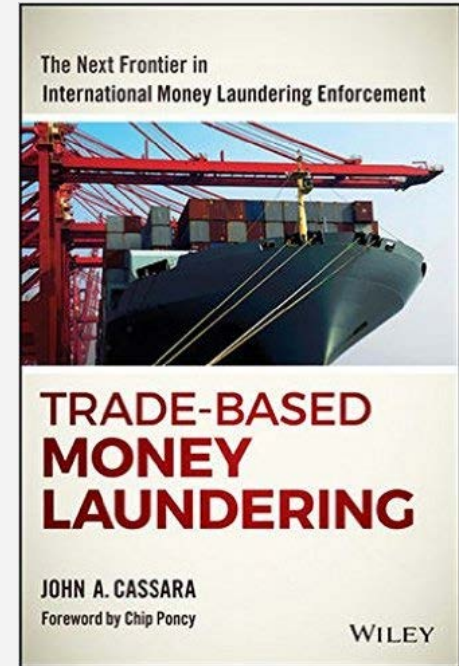


Recommended Reading

Terrorist Financing books from John Cassara

- *Hide and Seek, Intelligence, Law Enforcement and the Stalled War on Terrorist Finance*, John Cassara (2006 Potomac Books)
- *On the Trail of Terror Finance - What Intelligence and Law Enforcement Officers Need to Know*, John Cassara (2010 Red Cell IG)
- *Trade-Based Money Laundering: The Next Frontier in International Money Laundering*, John Cassara (2015, Wiley)

See *Paper SAS672-2017* for additional recommended reading, documentation, and URLs



Thank you

Trade-based money laundering & SAS Visual Investigator

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