C3 AI Intelligence Analysis

Explore Data and Insights with Time-Varying Graph Analysis

C3 AI® Intelligence Analysis enables analysts to efficiently aggregate, explore, annotate, and manage structured and unstructured datasets to derive intelligence insights in near real-time. The application:

- Ingests data from multiple feeds, including sources of unstructured data such as social media, academic reports, patent databases, and video feeds, as well as sources of structured data such as enterprise and operational databases
- Provides encrypted, obfuscated, federated search for fast and secure access across multiple databases without potentially harmful artifacts
- Parses data feeds in near real-time using configurable NLP (natural language processing) pipelines to extract entities from data – including people, places, activities, and relationships
- Constructs and manages entities in a time varying, in-memory graph with configurable graph component using the C3 AI UI Designer. Temporal and spatial relationships of entities are captured and maintained. Raw files supporting the graph representation are also stored and linked to entities within the graph, enabling fast and scalable search on all datasets
- Enables analysts or knowledge managers to edit entities, identify duplicates, or merge entities. C3 AI Intelligence Analysis supports this capability by representing entities as data objects (while minimizing changes to metadata)
- Applies AI to provide insights to analysts – such as potential threats, anomalies, entity relationships that should be explored, patterns, and more

Through comprehensive data integration and AI capabilities, C3 AI Intelligence Analysis arms analysts to run deep investigative analysis securely, efficiently, and accurately.

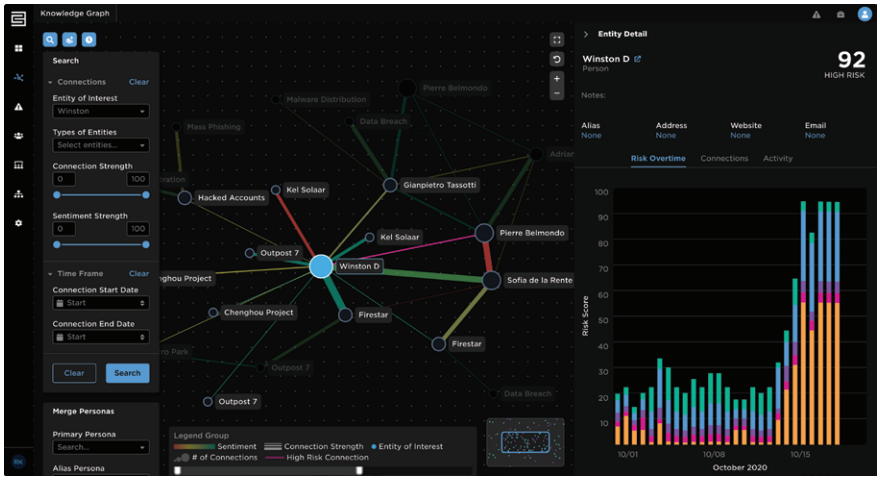

Figure 1. *C3 AI Intelligence Analysis – Time-Varying Graph*

Feature Summary

- **Ingest and manage all relevant data sources** – C3 AI Intelligence Analysis enables the ingestion and aggregation of relevant unstructured and structured data feeds in near-real time.
- **Access fast, obfuscated, federated search across data sets** – Search queries can be configured for specific windows of time and entities; searches return the most relevant objects across all datasets.
- **Identify, extract, and manage entities and contextual data** – Natural Language Processing (NLP) pipelines extract entities and their interrelationships from data - including people, places, activities and relationships.
- **Express all identified entities and their relationships in a time-varying graph** – C3 AI Intelligence Analysis constructs and manages entities in a time varying, in-memory graph. Analysts filter graphs, access different graph visualizations (e.g., geospatial vs. hierarchical), and generate insight.
- **Annotate the graph with AI-driven entity management** – Analysts can edit entities, identify duplicates, or merge entities using object representation of entities (while minimizing changes to metadata).
- **Apply configurable AI algorithms** – Analysts can respond to AI alerts that detect anomalous behavior, key relationships, and patterns of interest.
- **Collaborate on analyses to share insights** – C3 AI Intelligence Analysis allows analysts to collaborate and share investigations and hypotheses, as well as export evidence packages into storyboards and user-defined templates.

Investigative analysis often requires the discovery of structure and patterns that are hidden in large datasets. Information relevant to investigations is usually contained in unstructured datasets –including websites, academic publications, social media feeds, and more. AI algorithms are effective at parsing unstructured data at scale, extracting relevant entities (e.g., people, places, activities, dates and times), and representing those entities and their relationships as connected, time-varying graphs. AI algorithms are also effective at highlighting relevant "nodes", graph traversal pathways, or subsets of the graph that may be relevant for analysts to review.

However, humans play a pivotal role in the investigative process. They analyze all relevant information and apply advanced reasoning, logic, and intuition to uncover and confirm underlying patterns of relevance. Human analysts need an effective and customizable user interface to interact with AI systems and large datasets in the context of investigative work.

C3 AI Intelligence Analysis presents these comprehensive set of capabilities in a user-friendly interface to intelligence analysts and managers. C3 AI Intelligence Analysis enables analysts to efficiently aggregate, explore, annotate, and analyze structured and unstructured datasets to derive insights. Analysts access different graph visualizations depending on the investigative context (e.g., geospatial, hierarchical, and / or force-directed). Analysts interact with the graph (e.g., filter, explore individual nodes or relationships) to investigate and explore data.

C3 AI Intelligence Analysis reduces the amount of time required for analysts to uncover insights. Rather than having to scour every node of a graph, analysts respond to C3 AI Intelligence Analysis recommendations that highlight the most important nodes of the graph (e.g., anomalous connections, known bad actors, pattern matching, and more). Analysts leverage C3 AI Intelligence Analysis' intuitive user interface to take the appropriate action – e.g., adding an entity to a watch list or saving and sharing an analysis. The result is an end-to-end investigative workflow that is more efficient and effective.

Perform Deep Investigative Analysis Efficiently and Effectively

C3 AI Intelligence Analysis benefits

C3 AI Intelligence Analysis addresses the investigation needs of analysts and managers. Benefits of C3 AI Intelligence Analysis accrue through multiple levers:

- **Faster Investigative Timelines** through AI-enabled insights that highlight relevant entities and relationships
- **Real-time Insights** through scalable data ingest pipelines that parse all data in near-real time and expose the most recent data to analysts at the right time
- **More Effective Investigations** as AI algorithms learn over time from massive datasets as well as human analyst actions and decisions
- **New Insights** via access to all relevant data sources in a unified, federated data image
- **Enhanced collaboration** through an intuitive, workflow-enabled application that allows analysts to share insights in real-time

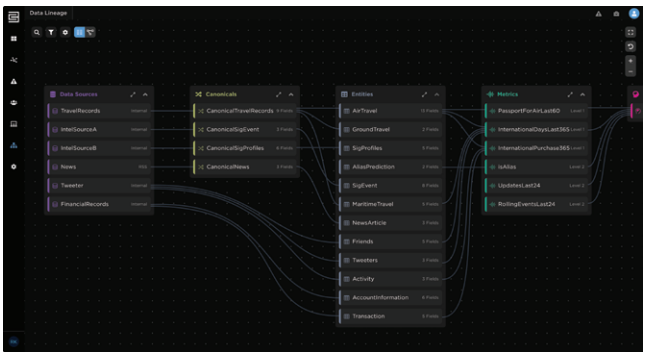

Figure 2. *C3 AI Intelligence Analysis – Data Lineage and Management*

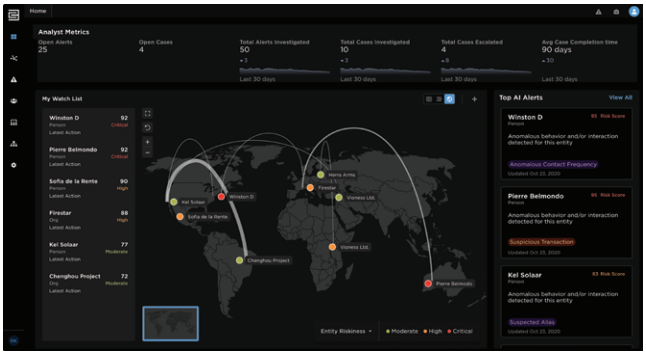

Figure 3. *AI models monitor network and provide alerts in a customizable dashboard for each user*

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