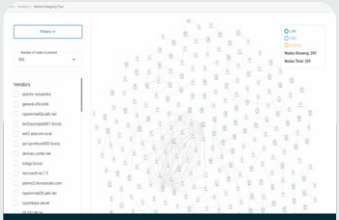
1touch.io
Data Aware Security

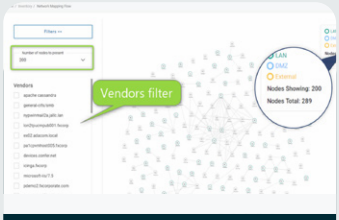
Kontxtual™ for Mainframe

Searching mainframes for Personally Identifiable Information (PII) data presents challenges due to complex data structures, legacy systems with limited search capabilities, vast data volumes, data silos, regulatory compliance requirements, and security concerns.

Additionally the challenges are exacerbated by the intricate data structures commonly found in mainframes, such as VSAM files and proprietary database systems like IMS and DB2. The diverse formats and lack of documentation can make identifying and extracting PII data a cumbersome process. Addressing these challenges requires specialized tools, technical expertise, and careful planning to ensure compliance and data protection.



Network Mapping & Discovery for All Tyoes of Data Sources



Network Vendor Mapping

Relationships with Unstructured Data: Mainframes store data about legal persons that needs to be correlated with unstructured data in the enterprise. Due to the large amounts and complexity of the mainframe data, this is a near impossible task.

Legacy Systems: Legacy hardware and software in mainframes may lack modern search capabilities, complicating the process of scanning for PII data.

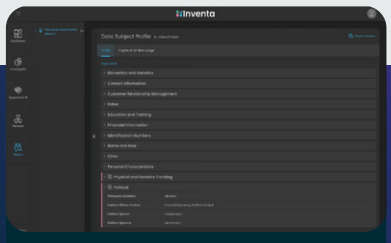
Data Volume: Mainframes store vast amounts of historical data, making it time-consuming to sift through and identify PII data.

Data Silos: PII data on mainframes may be spread across multiple databases and applications, creating data silos that hinder comprehensive searches.

Regulatory Compliance: Ensuring compliance with regulations such as GDPR or HIPAA while searching for PII data adds complexity to the process.

Security Concerns: Accessing and handling sensitive PII data on mainframes raises security concerns, requiring robust security measures to protect the information.

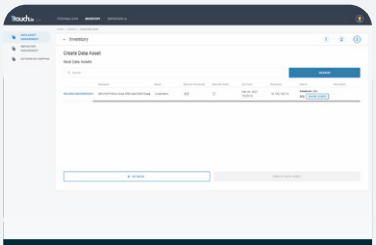
Kontxtual provides one pane of glass for all the enterprises sensitive data including structured, unstructured, on prem, mainframe, cloud and hybrid cloud. One system means best-in-class accuracy, support and data freshness.



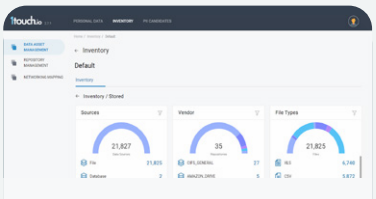
Data Classification – any type of data

VSAM Management

Despite the complex data structure of VSAM, the mainframe instance is onboarded like any other data source to provide unified visibility into enterprise wide sensitive data. This is a major step in understanding an enterprises true attack surface area.



Data Asset Policies



Data Asset Management

The CopyBook Challenge

While Copybooks are a valuable tool for defining data structures in mainframe environments like VSAM (Virtual Storage Access Method) files, there can be some challenges associated with their use when it comes to Discovery and Classification:

Dependency: Programs and files that rely on Copybooks are dependent on the structure defined in the Copybook. Any changes to the Copybook can impact multiple programs and files, requiring careful coordination and testing to ensure compatibility.

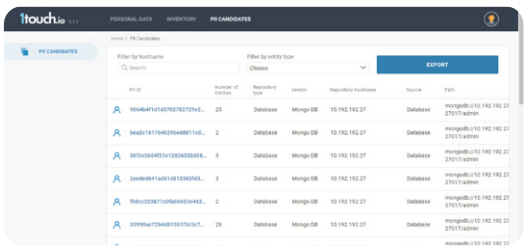
Version Control: Managing versions of Copybooks can be challenging, especially in larger projects with multiple developers. Ensuring that all programs and files use the correct version of the Copybook is essential to prevent data inconsistencies and errors.

Complexity: Complex data structures defined in Copybooks can make it challenging to interpret the data layout defined in the Copybook, leading to errors or inefficiencies in classification logic.

Data Redundancy and Consistency Copybooks may lead to data redundancy if the same data structure is defined in multiple Copybooks across different programs. This redundancy can make it harder to maintain consistency and synchronization of data structures.

Documentation: Proper documentation of Copybooks and their usage is essential for maintaining clarity and facilitating collaboration among developers. Inadequate or outdated documentation can lead to misunderstandings and errors in data management

Meeting The ‘CopyBook Challenge



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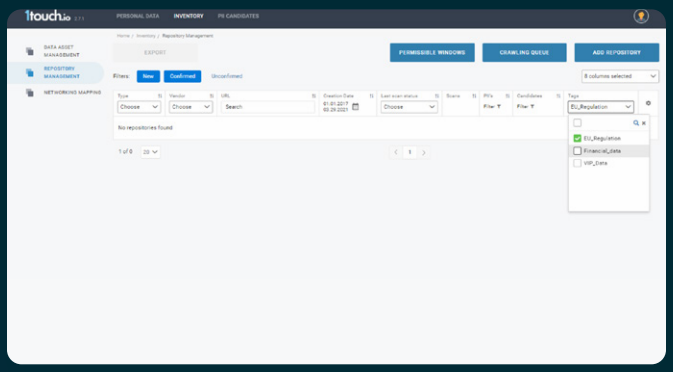
HIgh level Qualifier (HLQ):1touch.io can offer a service to review all copybooks from some exact HLQ and match them to respective VSAMs

Supervised AI (SAI) and Root Data Asset (RDA): A matching copybook can be found by using exact pattern matching. Once the copybooks are found they can then be used to find data in the complex data structure of VSAM, akin to the way Kontxtual searches for sensitive data in unstructured data.

Complex Data Structures, Contextualisation and Supervised AI (SAI)

Supervised AI refers to a type of machine learning approach where the algorithm is trained on a labeled dataset. In supervised learning, the algorithm learns to map input data to the correct output by being provided with labeled examples during the training process.

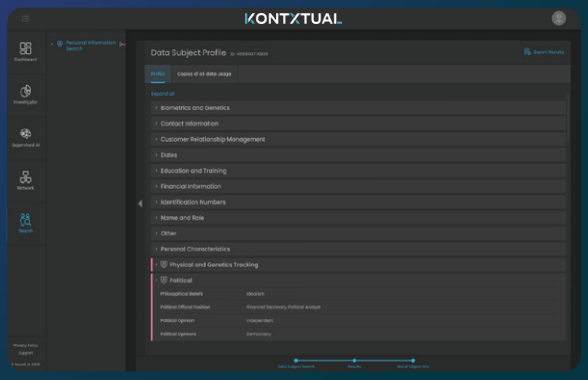
SAI is essential for making sense of disparate data, thereby creating the flexibility of analysis of the data every enterprise needs for it's own requirements.



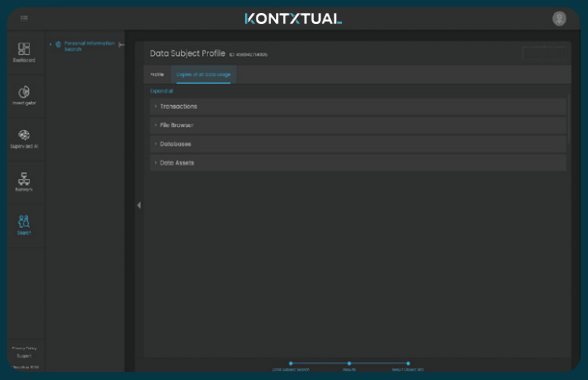
Asset Tagging for 3rd Party Integration

Leveraging SAI Kontxtual performs a Business Contextual Analysis across the entire data set of an organisation by creating relationships between different pieces of information whether it be in the mainframe or other. Ensure all copies have been removed is gone once deletion has been implemented.

Exposed Data Subject Analysis



Exposed Data Usage Analysis



Classification Outputs for VSAM

File Attributes

I. File Name
II. File Type
III. File Source
IV. File Protocol
V. Analytic Engine Information
VI. Last Analysis Time
VII. File Created
VIII. File Modified
IX. Owner

Data Attributes

I. Data Source URL
II. Data Source Type
III. Cluster Information
IV. HLQ
V. Historical Data

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