

Modus Operandi Wave® Technology Components

Event-Driven Unstructured Information Processing

Wave Technology Components accelerate discovery of relevant intelligence data

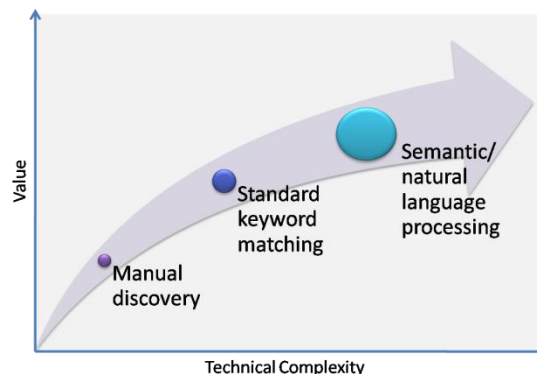
Overview

Modus Operandi adapts and extends semantic technologies for use within intelligence solutions. MO's Wave Technology Components accelerate the tagging and discovery of relevant multi-source, unstructured intelligence data, enabling fusion of knowledge across the enterprise and powering a superior common operational picture.

Multi-Source Intelligence Discovery

As modern intelligence systems continue to grow and evolve, the volume of data produced by those systems has skyrocketed. Unfortunately, the ability to collect intelligence data has outpaced the capacity to discover and leverage it using traditional approaches. Timely and effective discovery of relevant unstructured data presents a significant challenge for intelligence analysts. Commanders need intelligence within the enemy's decision cycle to gain an operational advantage, and analysts can ill afford time-consuming and needless keystrokes to glean intelligence. Typical keyword search tools and techniques for unstructured data are helpful, but the results usually include a large number of false positives while the truly relevant data is obscured. In many cases, the keywords of interest are indistinct, and must be combined with many other keywords in an attempt to improve the quality of the search results. Analysts need systems that aid in rapid collection and understanding to provide commanders intelligence and improved situational awareness.

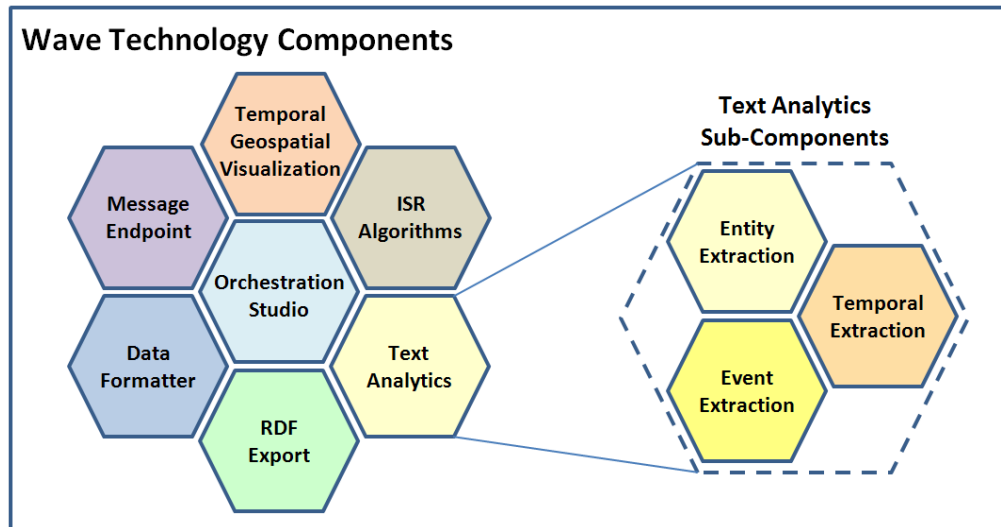
The graph to the right represents increasingly better approaches to finding relevant unstructured information ranging from a human-in-the-loop reading data and manually adding tags, to using a standard keyword search, to more valuable semantic enrichment performed by Wave Technology Components.



Wave Technology Components

Wave Technology Components were developed to accelerate the discovery of truly relevant multi-source intelligence data by automatically identifying and tagging concepts, relationships, locations, and dates of interest. As part of an intelligence solution, Wave enables improved situational awareness through correlation, fusion, meta-data generation, alerting, and mediation. Wave provides intelligence analysts with more timely and pertinent data, helping overcome the limitations of typical keyword search and query tools, freeing them to focus on actual analysis.

Wave Technology Components are deployable individually or a part of an extensible framework for data exploitation and fusion solutions. Through Wave components, event-driven, multi-source unstructured intelligence data is received, analyzed for relevant facts and relationships, and semantically tagged. Results can be persisted as Resource Description Framework (RDF) or routed to applications and services throughout the enterprise. Wave is typically integrated via Data Distribution Service (DDS) endpoints or Java Message Service (JMS).



Wave Technology Components	Key Features and Benefits
Data Formatting and Normalization	Raw data ingestion, transformation, and formatting for USMTF, NITF, DGCS-TED, and other message formats
Text Analytics	Automated recognition of relevant entities, events, and dates within raw data and semantic metadata tagging
Temporal & Geospatial Visualization	Projection of semantically enriched information onto maps and time-related displays
ISR Algorithms	Service-enabled enhanced accuracy algorithms for C4ISR data processing
RDF Export	Semantic persistence of extracted knowledge, enabling subsequent queries, reasoning, and fusion
Message Endpoints	Enables rapid integration of components within a Service-Oriented Architecture (SOA)
Orchestration Studio	Declarative interface for creating and managing pipelines composed of Wave Technology Components

About Modus Operandi

Modus Operandi is a software technology company focused on accelerating information discovery, fusion, integration and understanding. Since 1984, the company has been on the forefront of information technology advancement. As a result of continuous innovation and multi-million dollar investment, our solutions are now at work in many mission critical operations.



Modus Operandi, Inc.
709 S. Harbor City Blvd, Ste. 400
Melbourne, FL 32901-1936
(321) 473-1400
www.modusoperandi.com