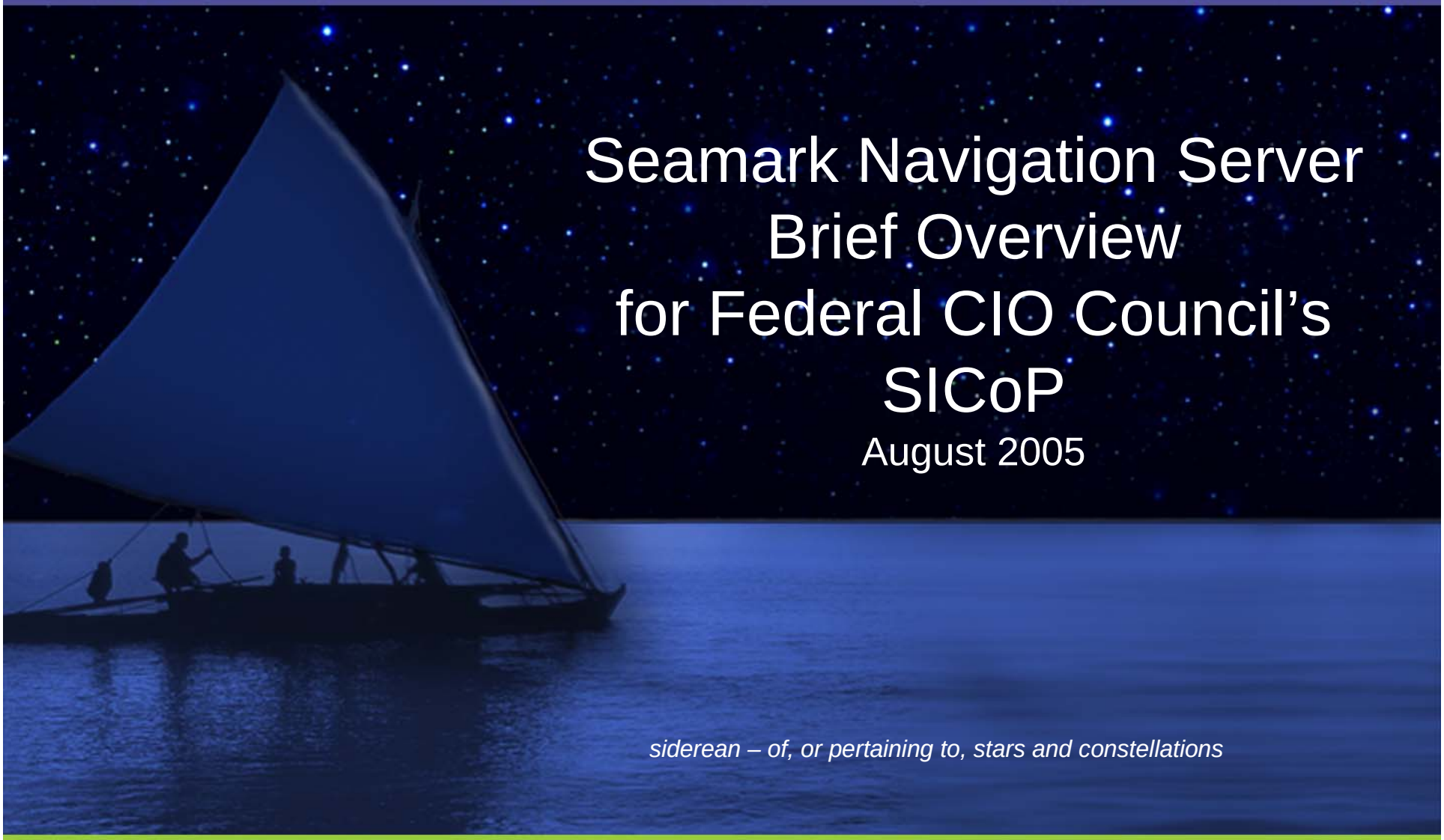
Siderean™ SOFTWARE

Search the way you think



# Seamark Navigation Server Brief Overview for Federal CIO Council's SICoP

August 2005

*siderean – of, or pertaining to, stars and constellations*

# Seamark by Sidereon

***Unify, organize and navigate information - the way users think - to improve analysis and decision making.***

". . .unfortunately, we suffered from a persistent problem of not communicating the intelligence we had or being able to analyze the intelligence based on conventional models . . ."

***9/11 Commission Report***

*(July 2004)*

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# About Siderean Software

- Founded in 2001 and based in El Segundo, CA
- Ventured backed in 2004
- Delivering RDF-centric navigation and analysis capabilities for end users (a.k.a. - “the last mile”)
- Established customers & system integration partners
- Active W3C member leveraging Semantic Web standards
- Oracle Partner and Oracle 10g beta tester (RDF Data Model)
- Strong focus on Federal market (DOD/Intel/DHS/Civilian)

ORACLE

RDF

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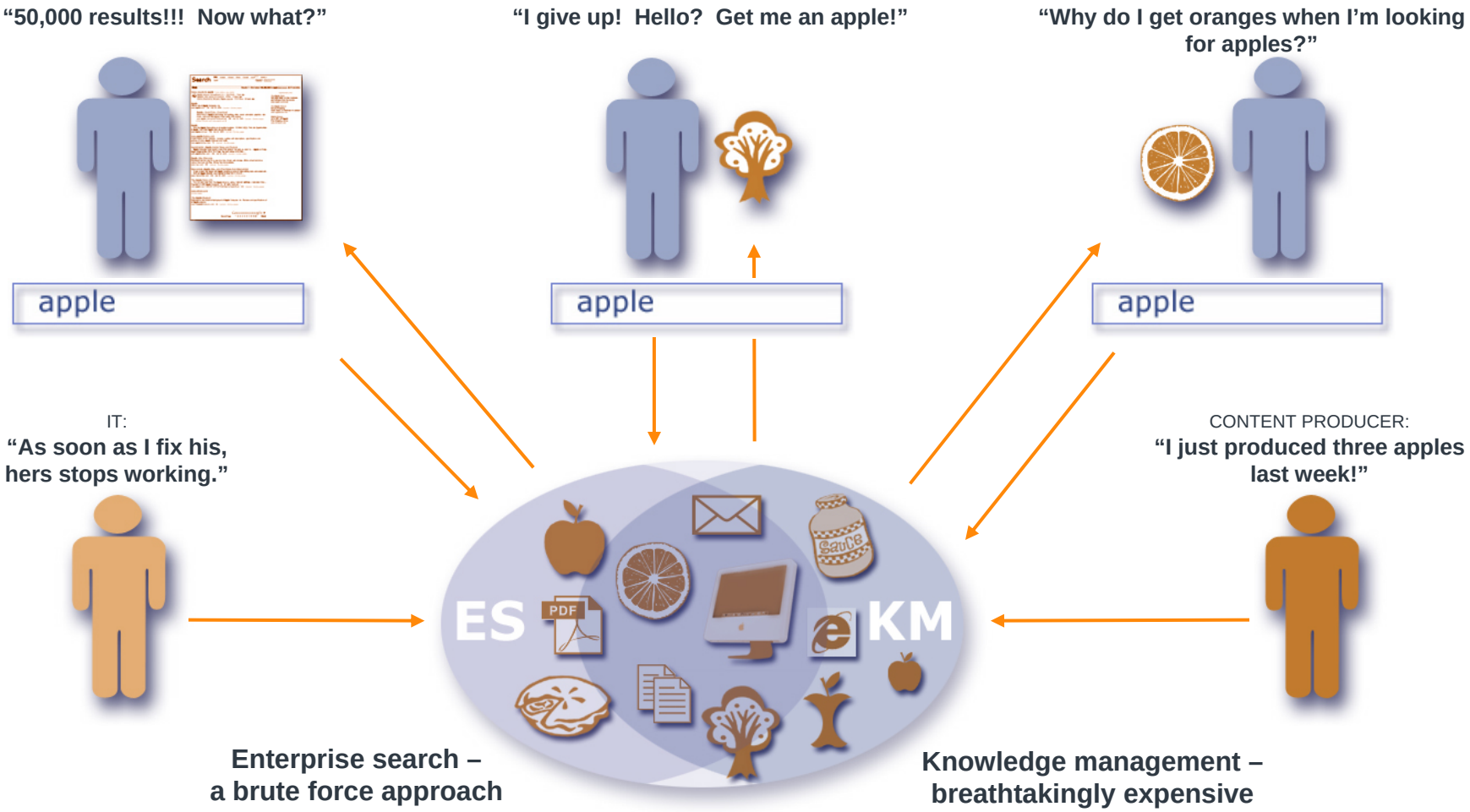
# Current solutions

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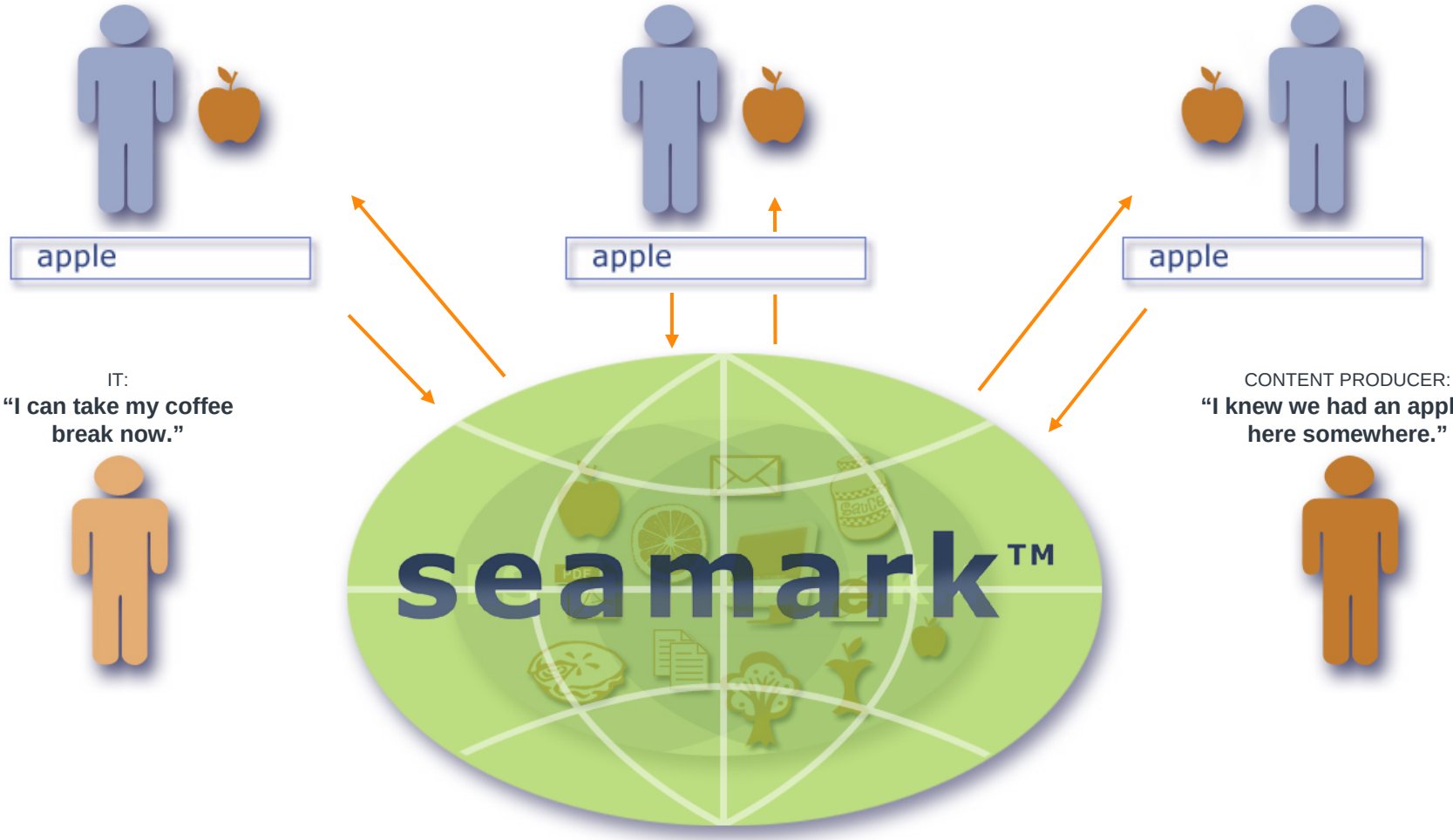
# Introducing Seamark Navigation Server

**"I can see the big picture!"**

**"No more staring at a blank text box."**

**"I can drill down quickly to what I want."**




**Seamark – layering organization for discovery and pinpoint results**

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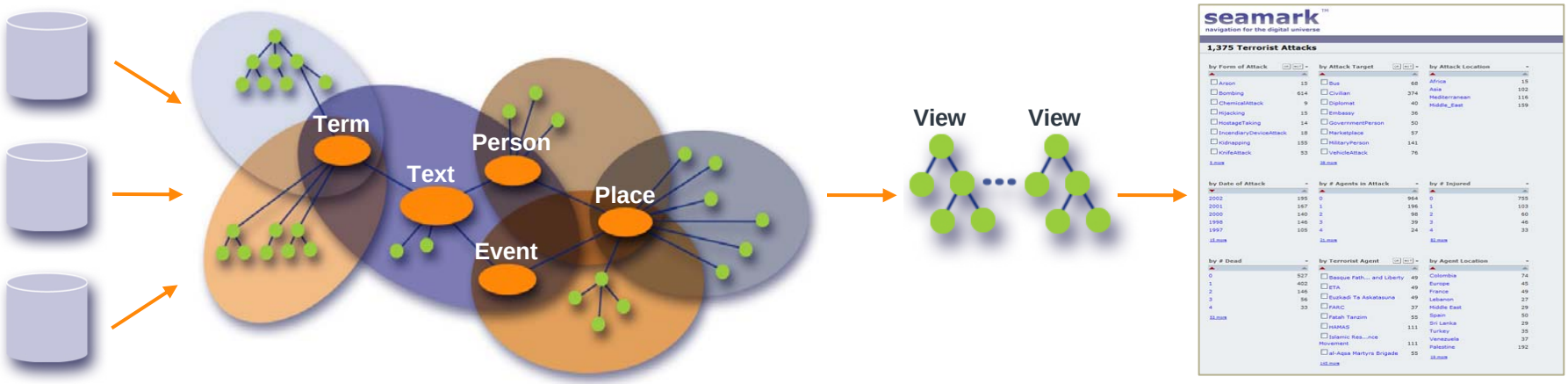
# How it works: process




**Metadata about data and content is aggregated…**

**Organized into a unified information architecture…**

**Analyzed to generate on-demand views…**

**Providing pinpoint navigation across the data and content**

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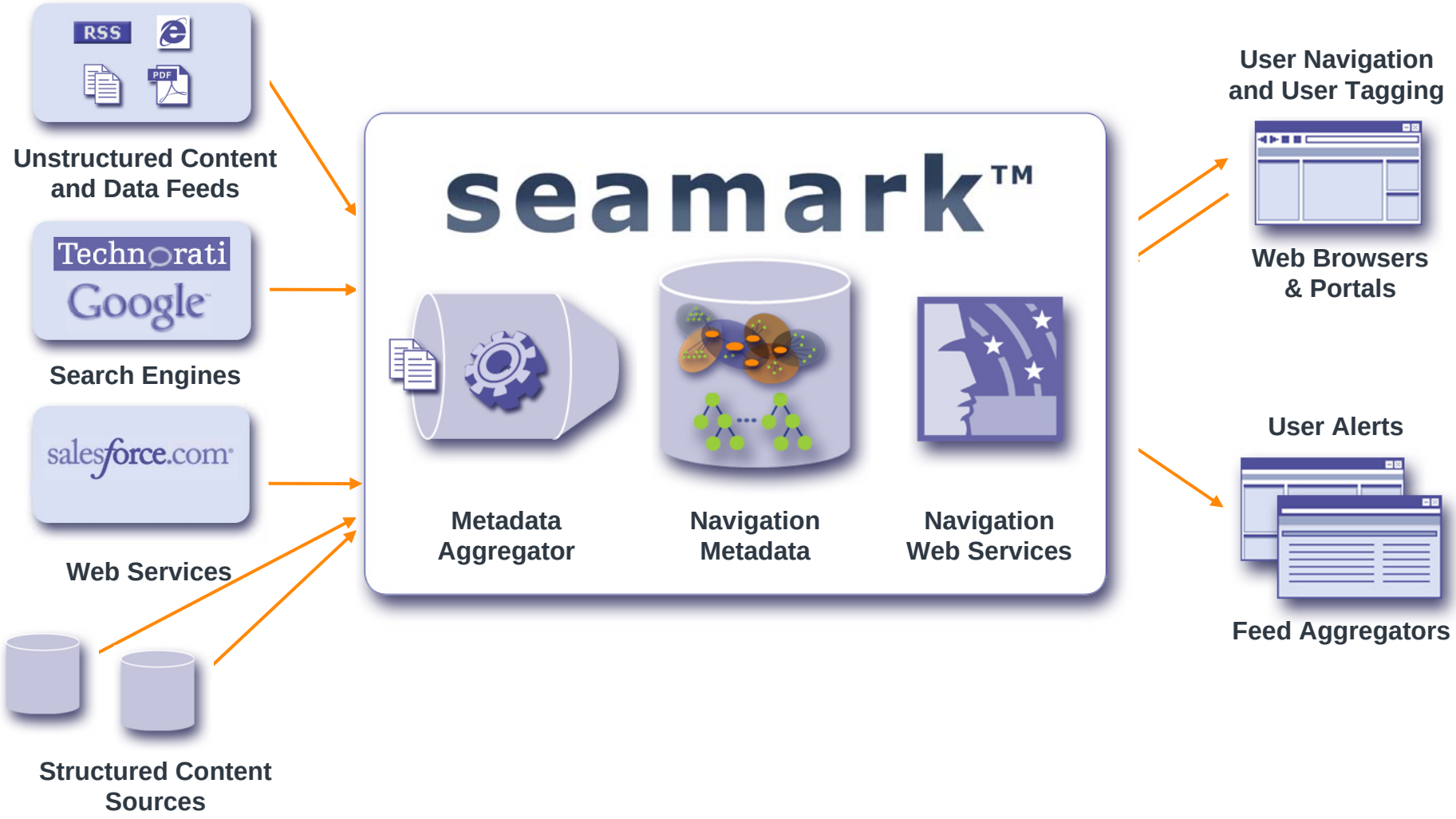
# How it works: architecture

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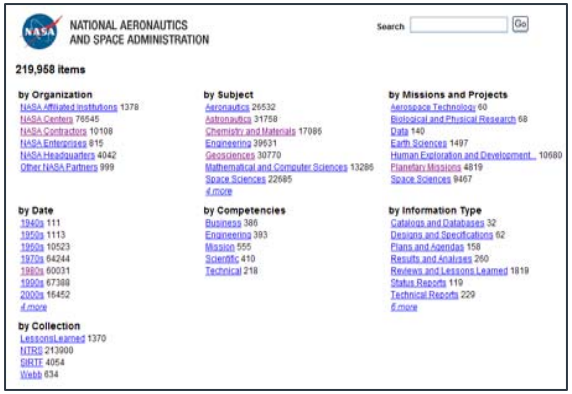
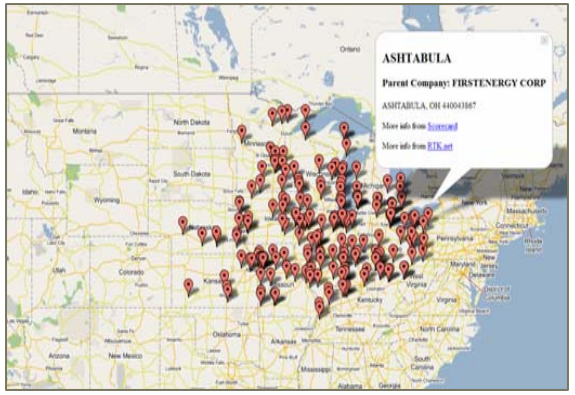
# Seamark applications

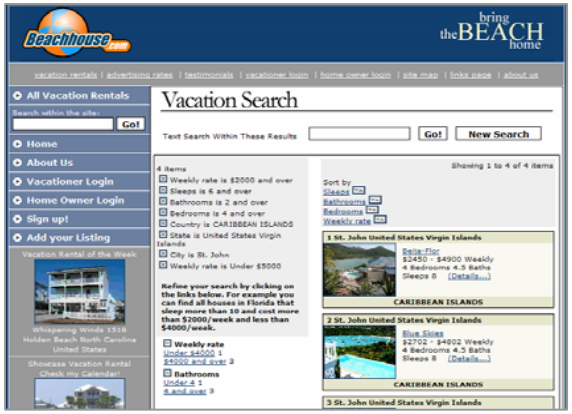



**Information Integration**

**Publishing**




**Intelligence Analysis**




**E-commerce**

**Education**

**Life Sciences**

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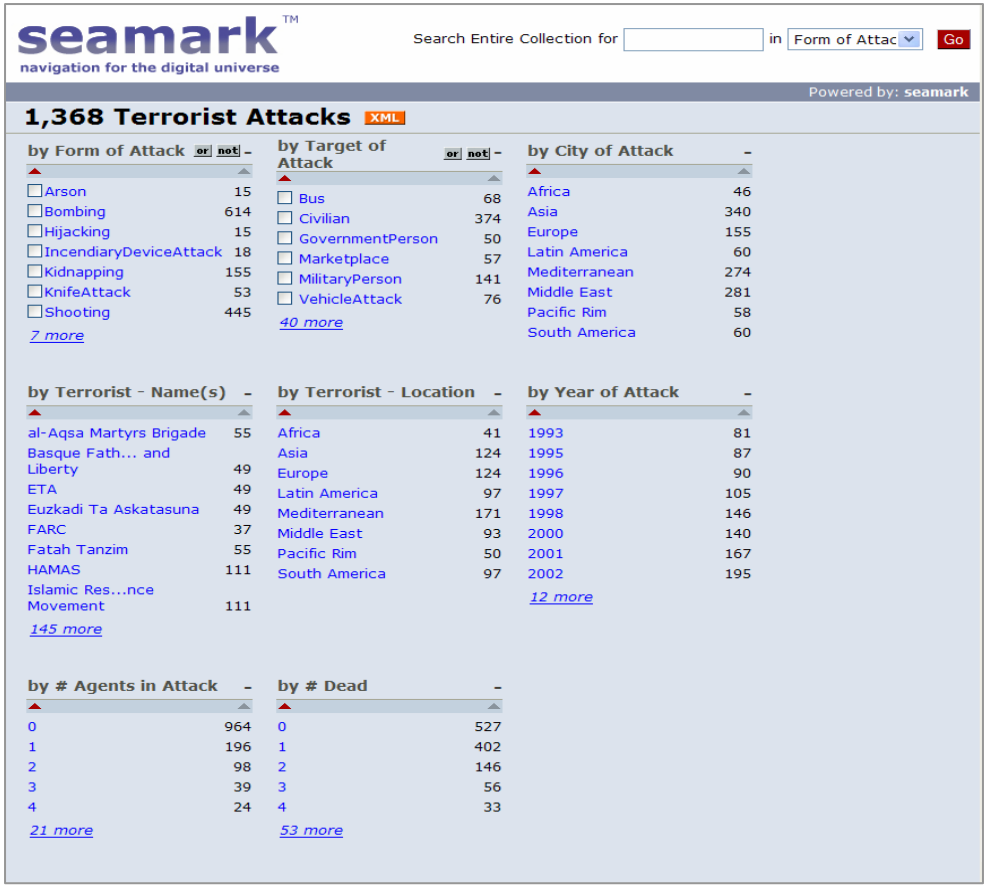
# What's unique about Seamark

- Turn-key
  - Web developers can deliver *pinpoint navigation* in a few clicks of a mouse
- Interoperable
  - Leverages existing infrastructure using *open standards*
- Intelligent
  - Captures the semantics of complex, dynamic information so you can *search the way you think*

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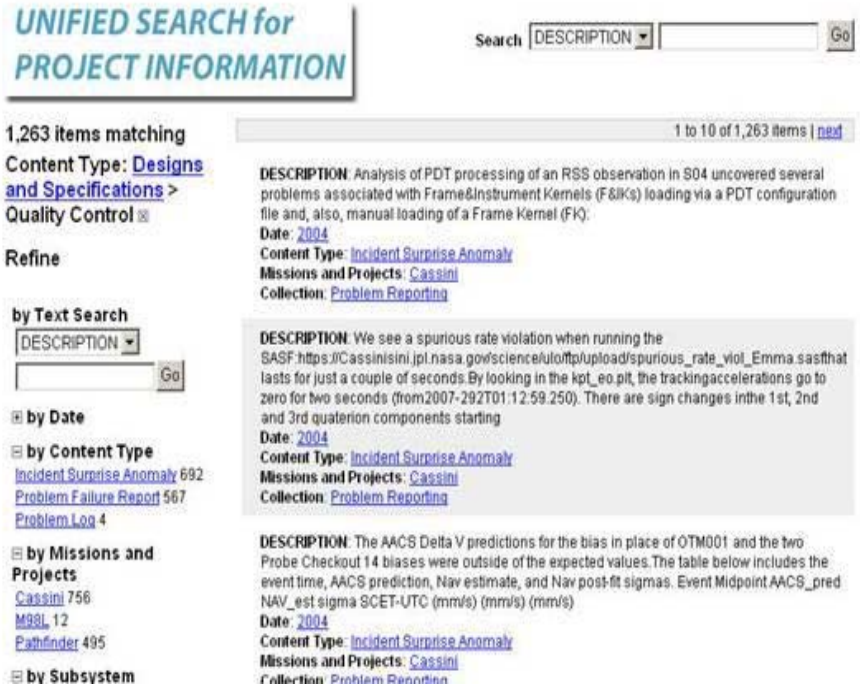
# Case study: NASA JPL

- Project information aggregated from numerous NASA and JPL content and data repositories
- Using and extending existing NASA and JPL taxonomies

**Benefits:** Integration of multiple data silos and taxonomies for precision access across more content




***As presented at the Semantic Technology Conference, March 2005 San Francisco, CA by by Jayne Dutra, JPL, NASA***

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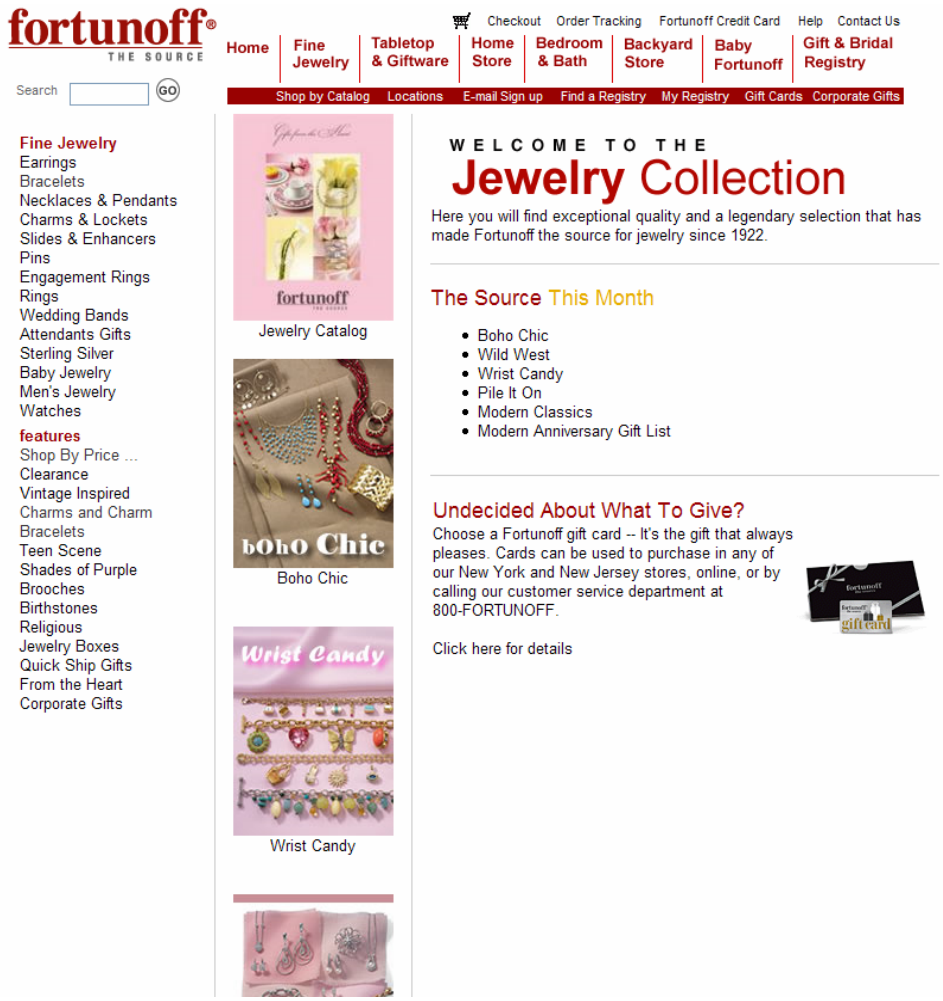
# Case study: Fortuneoff Jewelers

- Simple yet powerful navigation interface
- Supports comparison and selection of jewelry, home-goods and giftware via category and other product facets

**Benefits:** Improved visitor conversion rates, repeat sales and ease of search

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# Case study: Environmental Health News

- Aggregating news stories from the Web
- Semi-automated metadata creation by a team of subject matter experts and editors

**Benefits:** Highly specific content search with easy user-driven creation of news feeds for automated syndication to other websites

Environmental Health News
Compiled by Environmental Health Sciences

Front Page Archives About EHN Subscribe Contact All fields Go

**In the News:** Get quick access to breaking stories around the world.

20 November. Deal Reached on Bush Plan to Thin Forests at Risk of Fire With images of the devastating California fires fresh on their minds, congressional negotiators reached agreement Wednesday on a version of President Bush's plan for thinning the national forests to reduce wildfire risk. Los Angeles Times, California.

29 October. CNH reacts promptly to water woes. Amid the swirl of activity to protect the people living in the area a good neighbor has emerged. CNH, the farm equipment manufacturer located at Stolley Park Road and Highway 281, has agreed to pay the cost of hooking homes up to city water and to cap wells in the affected

**New Science:** Understand new scientific results that expand knowledge of environmental links to health.

**Phthalate linked to preterm birth.** A study from Italy finds that not only are DEHP and MEHP detectable in most Italian newborns, but that those with higher levels of MEHP are more likely to be born prematurely. This result suggests that at least some of the scientific effort to understand why the incidence of premature birth in the US has increased 23% since the early 1980's should focus on environmental contaminants in the womb, and specifically on phthalates. More...

**Testicular cancer linked to environmental exposures early in life.** Finnish men who immigrate to Sweden are much less likely to develop testicular cancer than Swedish men, no matter how old they were when they emigrated from Finland nor how long they lived in Sweden. These findings implicate exposures in the womb as important determinants of testicular cancer, and are consistent with an emerging theory about the causes of a pattern

**New Reports:** By organizations working to protect human health from environmental exposures.

**More trouble with MTBE in drinking water** The chemical has been detected in water supplies for at least 15 million people to date. Nonetheless Republican leaders in Congress are moving to protect oil companies from liability for having contaminated drinking water. More trouble with MTBE in drinking water. Published by Environmental Working Group

**EPA's Smoke Screen: How Deception of Congress, Campaign Contributions and Political Connections Gutted a Key Clean Air Rule** Documents and discussions with former U.S. Environmental Protection Agency (EPA) officials reveal that Bush appointees made untrue statements to two Senate committees EPA's Smoke Screen: How Deception of Congress, Campaign Contributions and Political Connections Gutted a Key Clean Air Rule. Published by Public Citizen

**Shopper's Guide to Pesticides in Produce**

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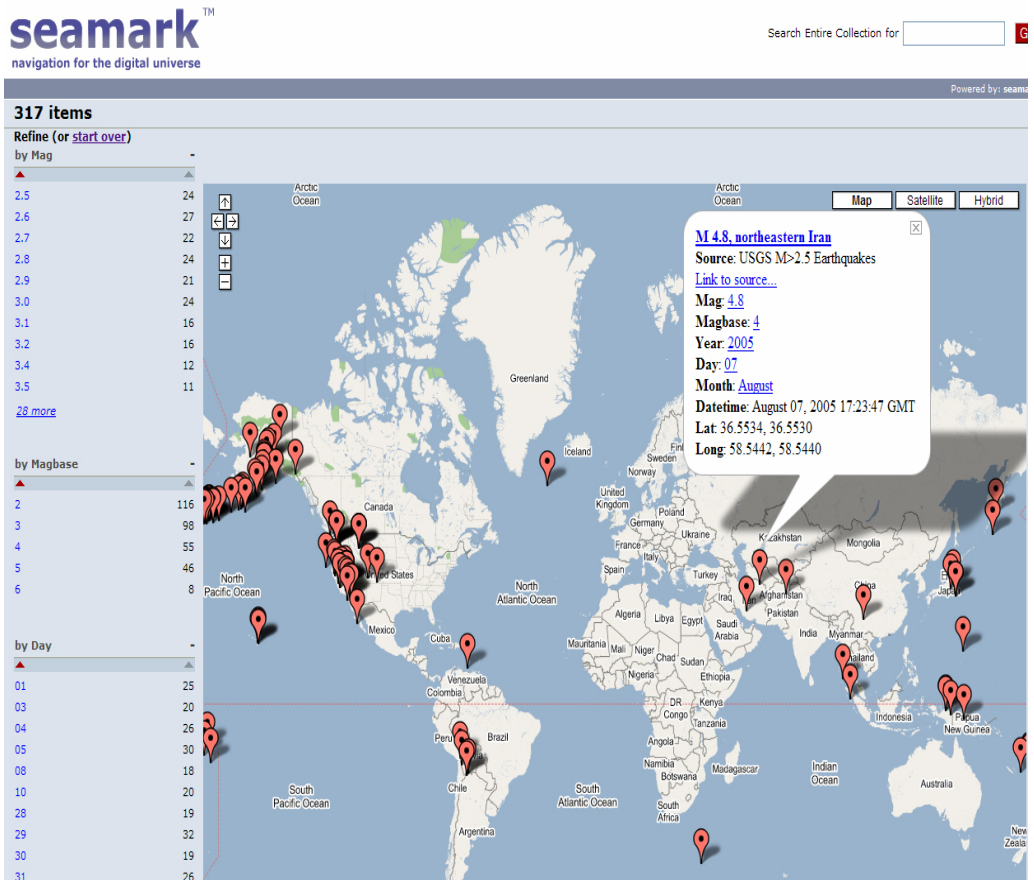
# Seamark / Geospatial Visualization Integration

- Use Seamark's "pinpoint navigation" to quickly narrow search results
- Search selection (e.g. latitude, longitude, and other relevant metadata) is passed via Seamark "syndication" into 3rd party analysis tool (e.g. ArcInfo, GoogleMaps, Oracle Map Viewer, etc.)
- Split screen UI combining faceted navigation and 2-D / 3D visualization.




**Seamark selection: "earthquakes in August 2005 of any magnitude" and associated textual metadata output to GoogleMaps**

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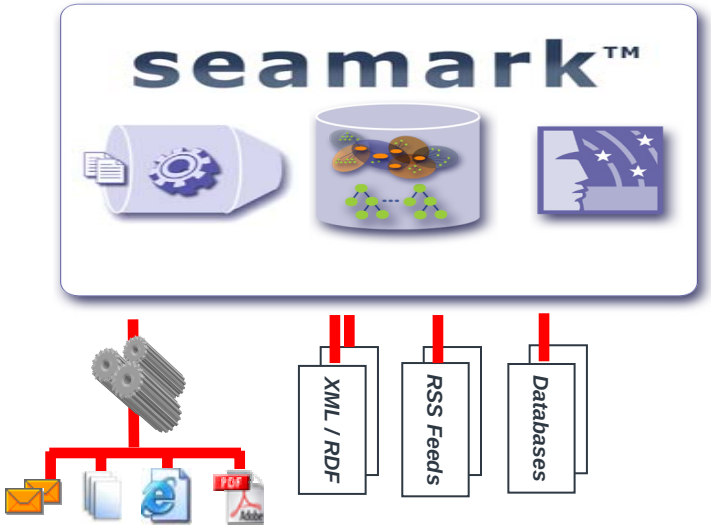
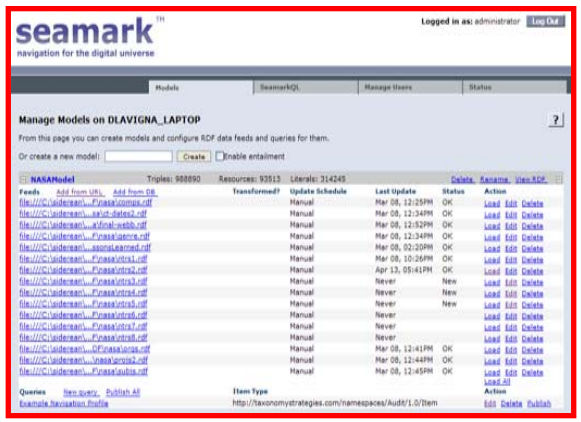
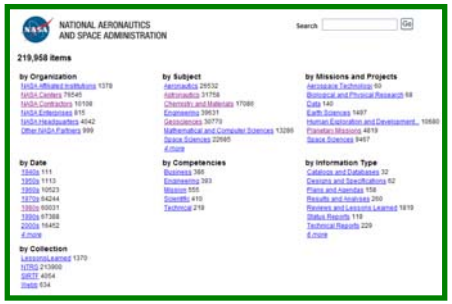
# Three steps to a Seamark application




## STEP 1: Define Metadata Sources

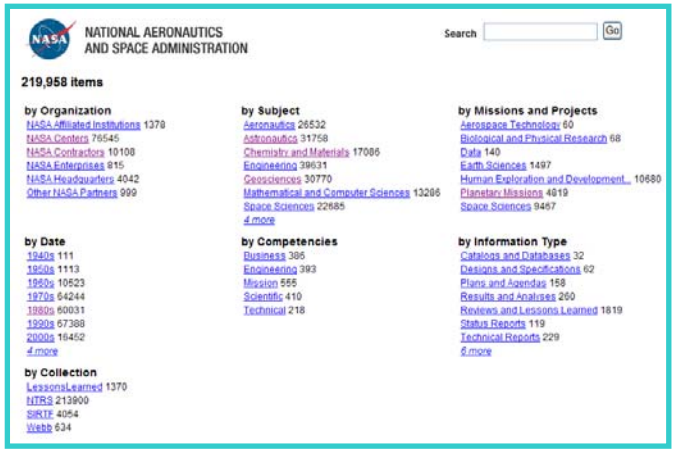



## STEP 2: Review or Refine Auto-Generated Navigation Template




Seamark Automatically Analyzes Your Metadata and Generates a Navigation Template

## STEP 3: Deploy & Discover!

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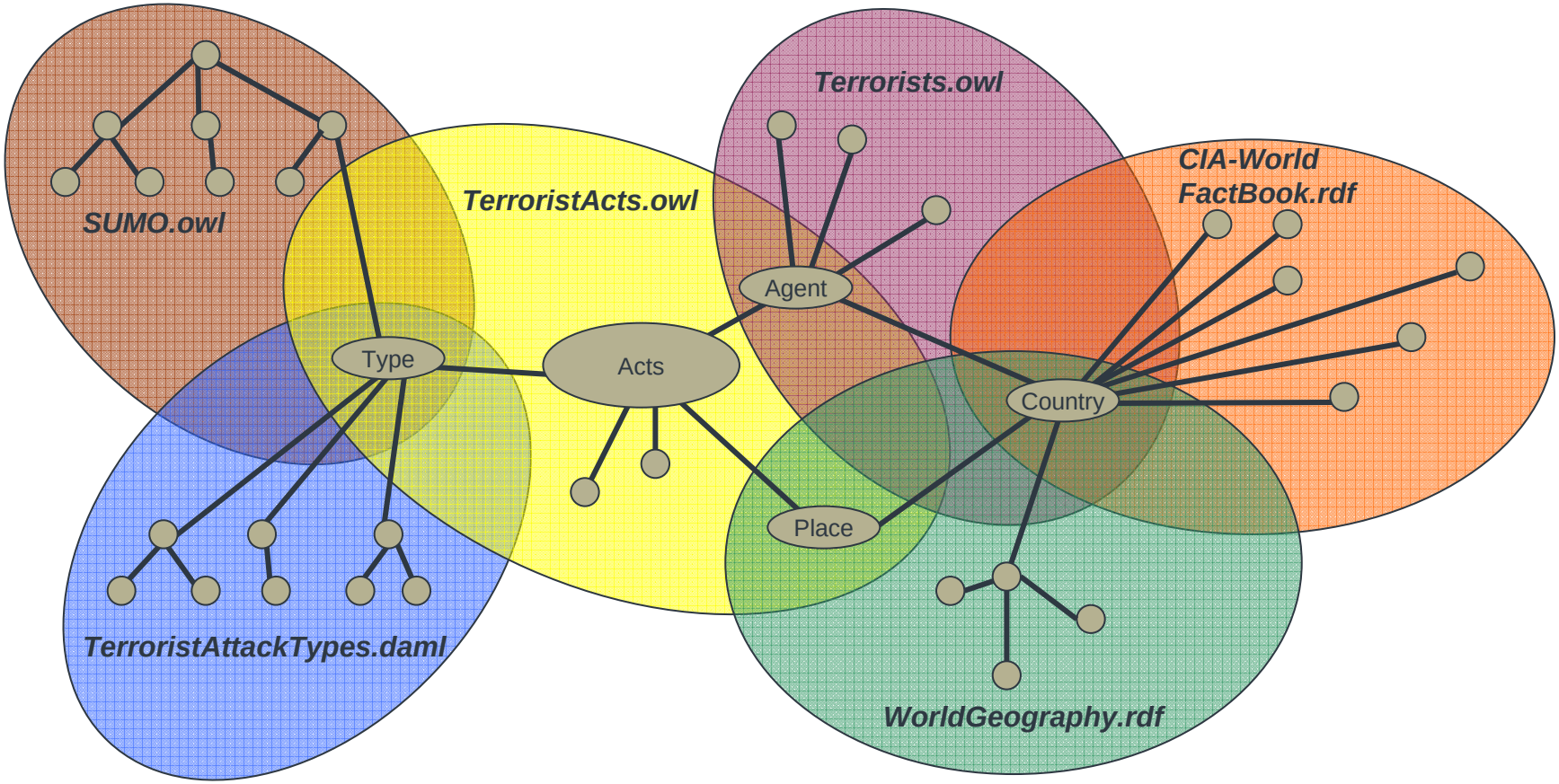
# Seamark aggregates data and content…

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# … into a dynamic navigational UI …

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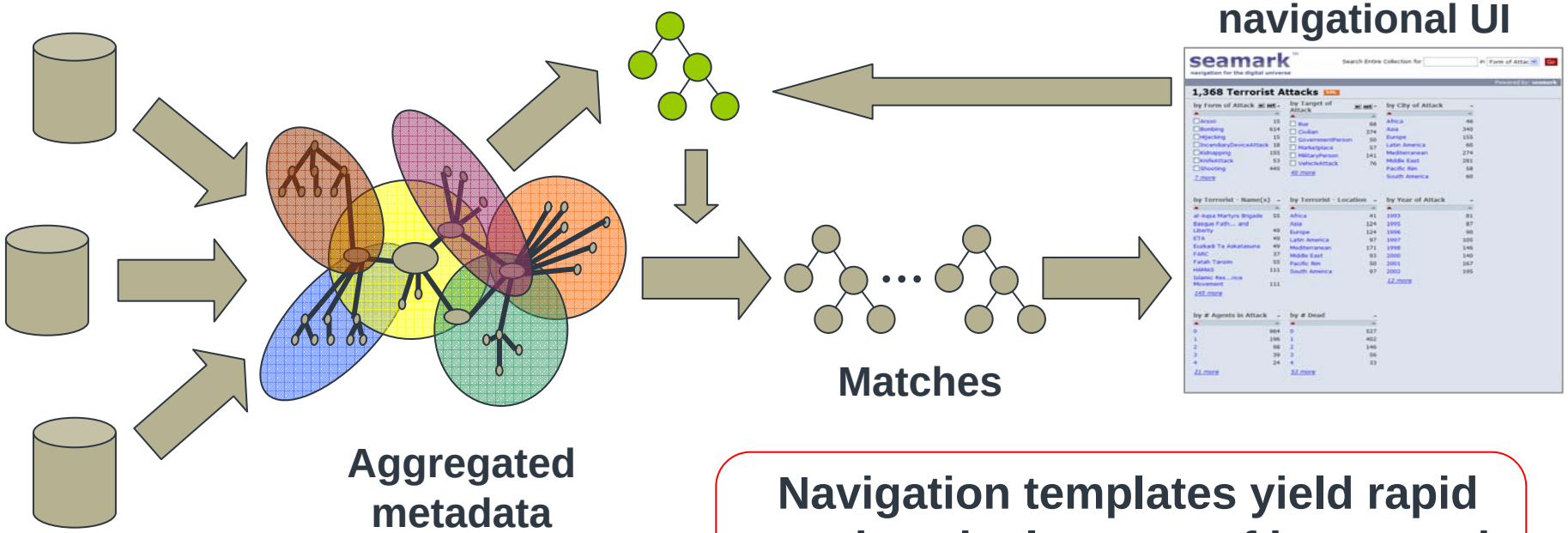
# … automatically, in moments

**Dynamic, context-driven user *navigation template* in XML**

**Dynamic navigational UI**




**Navigation templates yield rapid turnkey deployment of integrated information access and discovery**

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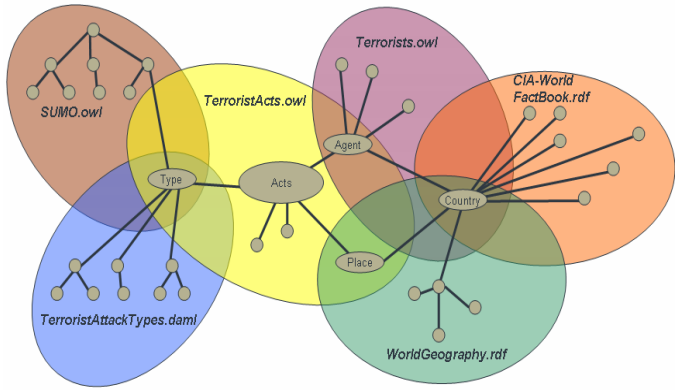
# Conclusion

- Finding ***precisely*** what we need in today's glut of information is still profoundly difficult
- This problem requires a solution that lets you ***search the way you think***
- Siderean is the first to deliver a standards-based turn-key enterprise solution for ***pinpoint navigation***

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# Seamark Navigation Server specifications

- Data Sources
  - JDBC
  - RSS
  - XML
  - RDF
  - File system
- Core Components
  - Application Workbench
  - Seamark Navigation Server
  - Seamark Navigator
  - Web Services
- Platform Support
  - Solaris
  - Windows
  - Linux
- Client Interfaces
  - Web Browsers
  - RSS Aggregators
  - SOAP
- Database Support
  - Oracle
  - Microsoft SQL Server
  - MySQL
  - Hypersonic (included)

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Siderean™ SOFTWARE

Search the way you think

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