

# Advanced Data Capture Solutions



## Concepts of Semantic Search



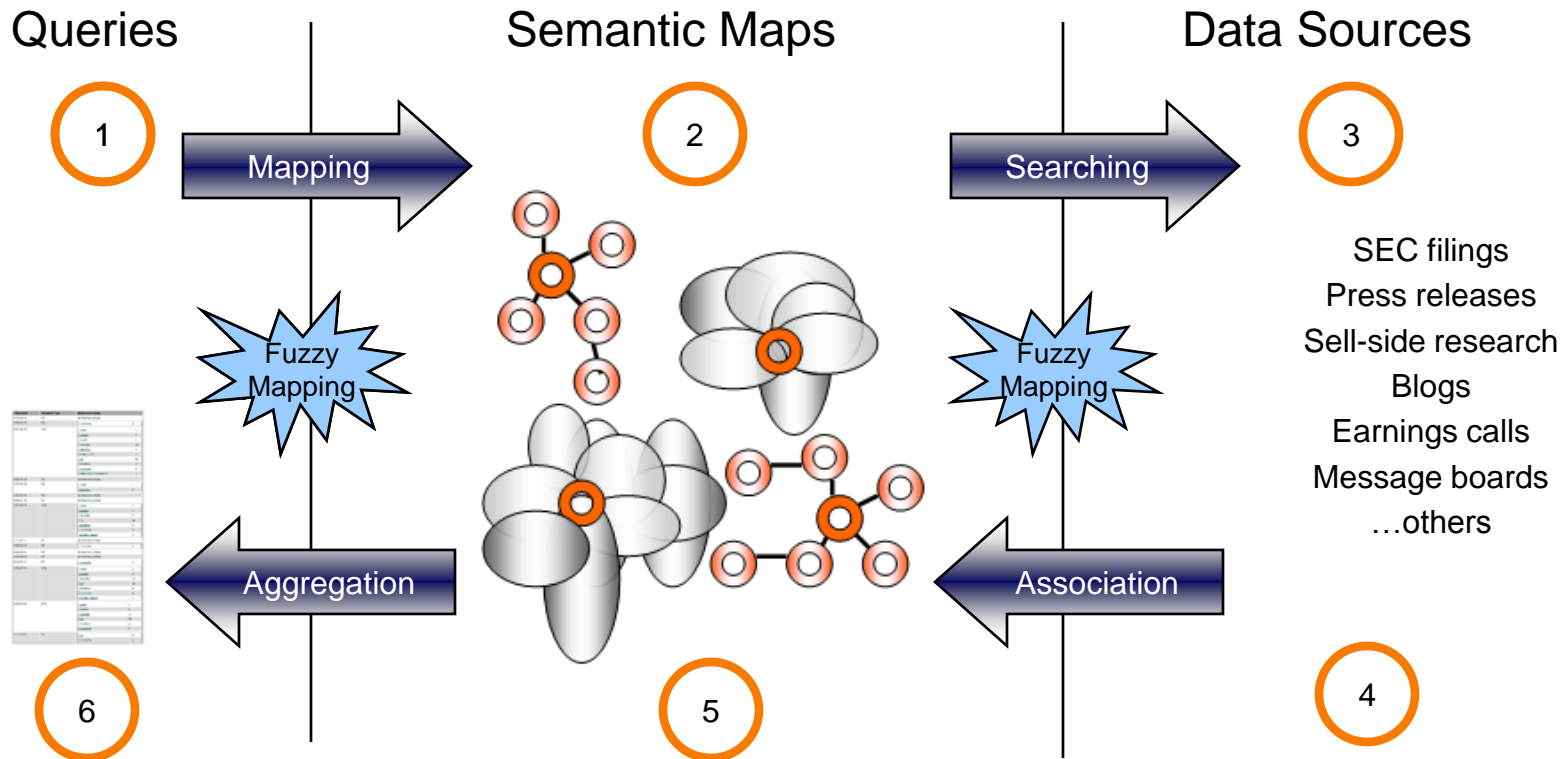
RAF is a Worldwide leader in high speed  
Data Capture and Management Solutions

# Semantic Engine Process



## Innovative Approach: Process for Finding, Scrubbing and Quantifying Relevant Data

***Our semantic search engine finds relevant data in text and quantifies it for later use.***



# Example...finding "Rising Margins"



## Radiant Metrics

Import | Watchlists | Companies | Models | Reports

Sources | Concepts | Logout

### Result 1 of 5 from RJF: 8-K on 01/04/2004

Concept:

Company:

From:

To:

Pinpointing "Rising Margins" concept for Raymond James Financial within SEC filing, 8-k document

Jump To:    Only Examine Unvalidated:

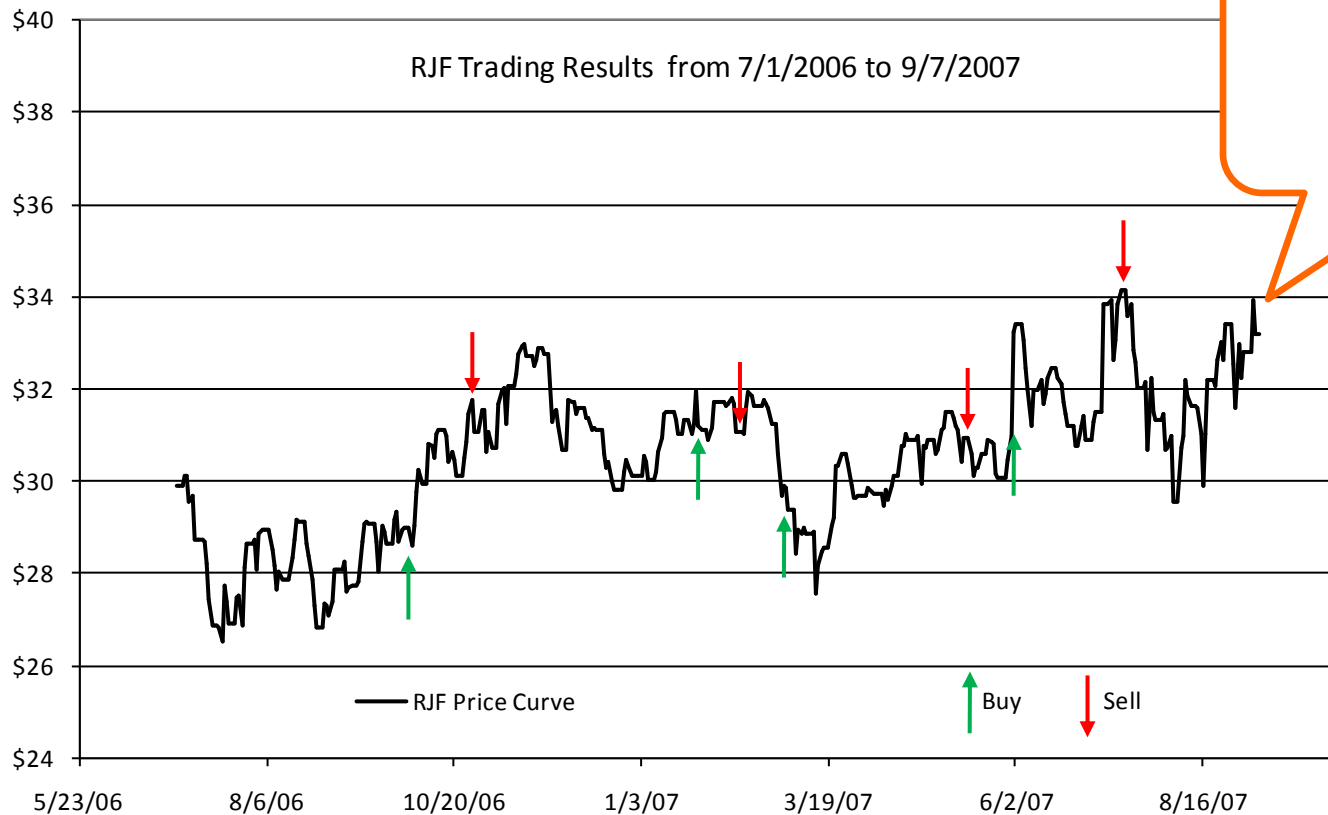
remains strong and corporate earnings are rising rapidly. Later this year, interest rates will probably begin to increase, dampening the robust growth in the economy, but the intermediate-term outlook is still benign as the rate of increase probably will be gradual," he concluded.

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# It Works, Proven Results



## o Trading Example: Raymond James Financial (RJF)



11% Stock Return  
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26% Radiant Return

# Why We're Different



Our unique, systematic process gives us a unique analysis edge



## Keyword Search

- Requires substantial prior knowledge of documents
- Inflexible
- No semantically equivalent expressions
- “False positives”

## Full Natural Language Processing

- Attempts true document understanding
- NLP understanding in its adolescence
- 10+ years out

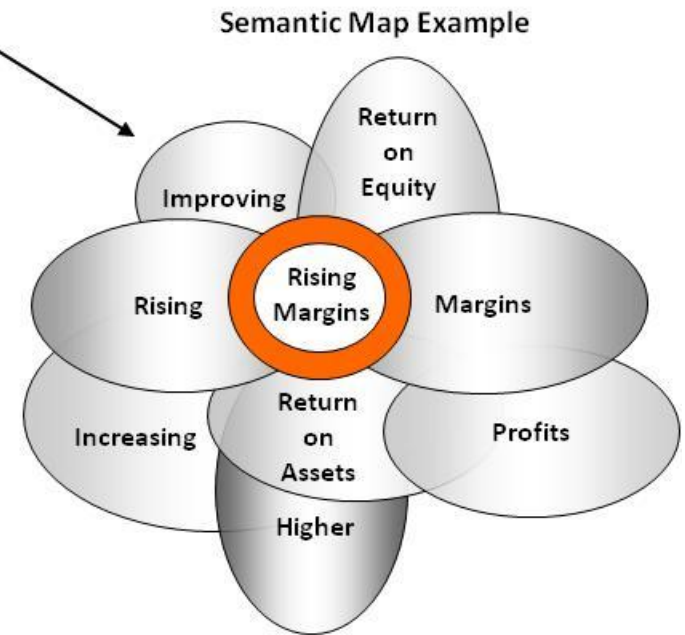
## RAF Semantic Technology

- Statistical Natural Language Processing
- Concept-based
- Semantic mathematics
- Semantic maps
- Highly adaptive

# Relevance Engine – What is it?



- Super fast java-based software that quantifies unstructured textual data
- Uses concepts and semantic maps, not just keywords, to find relevant, embedded data
- Produces proprietary factors by quantifying positive and negative sentiment



# What it's Been Doing Since June 2006



- Identifying new data releases <sup>1</sup>
- Downloading files
- Resolving company identifiers (i.e. ticker, CUSIP, CIK...)
- Identifying relevant concepts <sup>2</sup>
- Indexing concepts by ticker
- Extracting positive and negative sentiment indicators
- Quantifying results
- Producing factors

## Notes:

<sup>1</sup>Universe of the rolling Russell 1000 and most liquid stocks by SEC filings going back to 1993 when available – over 7,400 companies and 680,000 documents processed

<sup>2</sup> 10.6M+ semantic “hits”

# Our Sustainable Edge

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The edge derives from...



- ✓ Faster process
- ✓ Better analysis
- ✓ Original insight
- ✓ Proprietary information

We have a time advantage with our proprietary IP



Faster process

Better analysis

Original insight

Proprietary information

- o In milliseconds we...
  - Detect and acquire new data
  - Extract and index semantics
  - Analyze and quantify
  - Make investment decision
  - Trade

We have better analysis through our research process



o Our conceptual, semantic approach is...

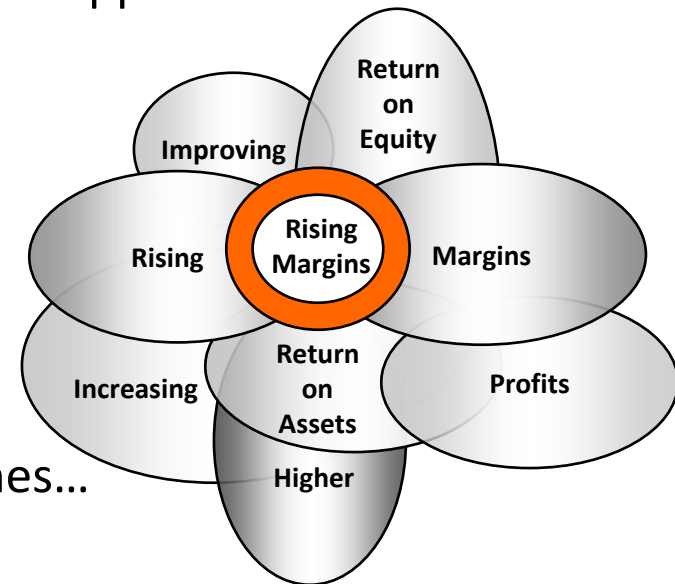
- More comprehensive
- More relevant
- More accurate

Faster process

**Better analysis**

Original insight

Proprietary information



o Our approach determines...

- Data source utility
- Information strength

We have original insight with our non-traditional perspective



- Faster process
- Better analysis
- Original insight
- Proprietary information

- o Novel approach...
  - Automatically read text
  - Interpret meaning
- o Proprietary Market Signals
- o Systematic approach combining...
  - Our fundamental research
  - Quantitative overlay

We create proprietary information



- o Our process and approach are different...
  - Not just “screen scraping”
  - Not just analyzing headlines
  - Not just pre-packaged data
- o We transform data into actionable information
- o We keep the information for our own edge

- Faster process
- Better analysis
- Original insight
- Proprietary information**

Continuous research and innovation: we are not standing still...



- o Technology extension
  - Semantically Improbable Phrases
  - Additional data sources
  - International adaptation

**For More  
Information Please  
call us at  
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