Advanced Capture Management Solutions
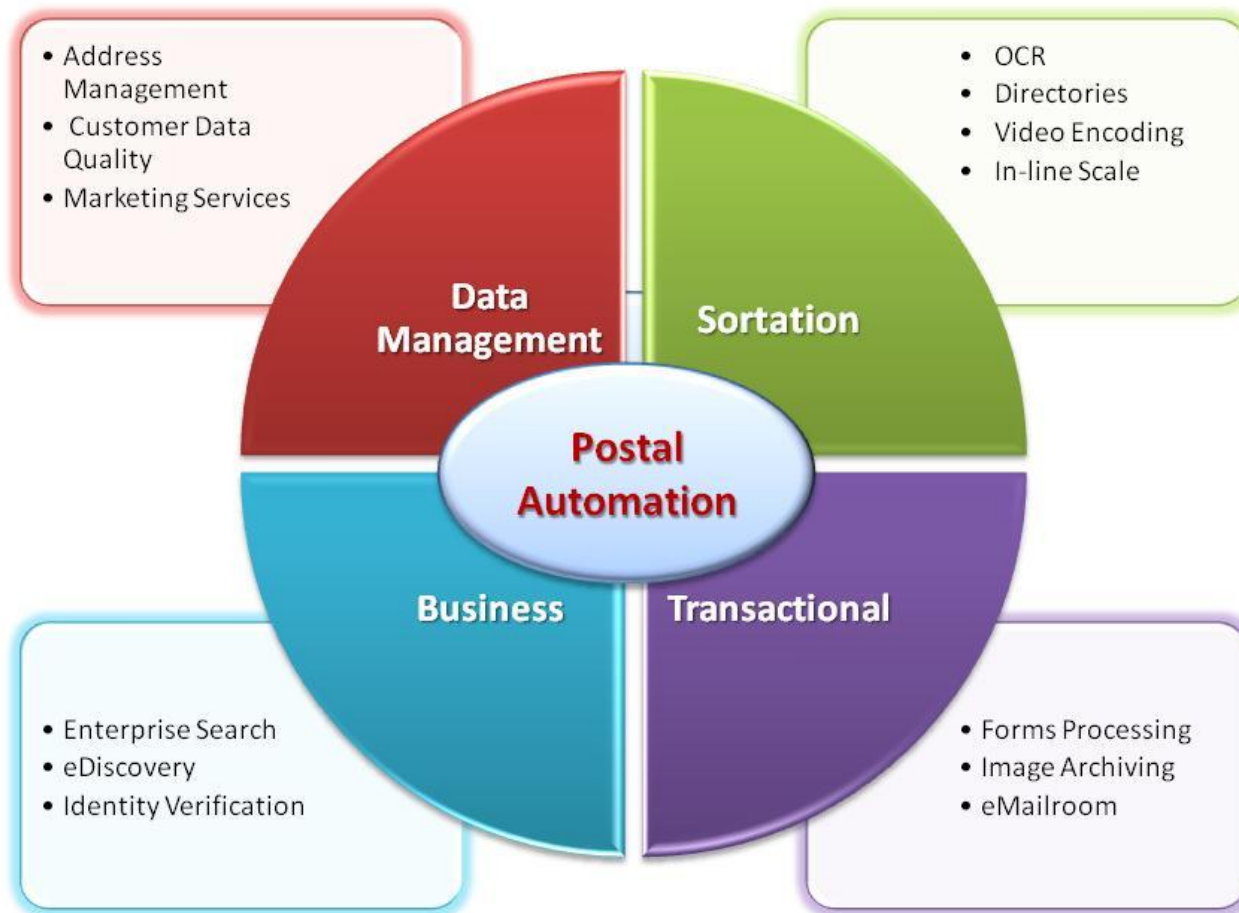
POWERED BY **RAF** TECHNOLOGY

Your OCR and Pattern Recognition Partner

worldwide leader in advanced image recognition

and extraction solutions

Postal Automation Perspective

- Address Management
- Customer Data Quality
- Marketing Services

Data Management

- OCR
- Directories
- Video Encoding
- In-line Scale

Sortation

Postal Automation

- Enterprise Search
- eDiscovery
- Identity Verification

Business

Transactional

- Forms Processing
- Image Archiving
- eMailroom

Recognition Value Propositions (ROI 12 Months)

- Document Preparation
  - Paper to electronic conversion
  - Automate Indexing (OCR), meta tagging
  - Archiving and traceability
- Automation of Document Validation
  - Reduce manual process and department cost (40%)
  - Improve distribution efficiency by proper routing (20%)
  - Expedite delivery and minimize undeliverable as addressed
- Enable Creative Revenue Opportunities and Protection
  - Reduction in lost revenue($ thousands +)
  - Systematic analysis and processing of documents ($ thousands+)
 - Expand direct marketing opportunities by leveraging customer data

Cartouche
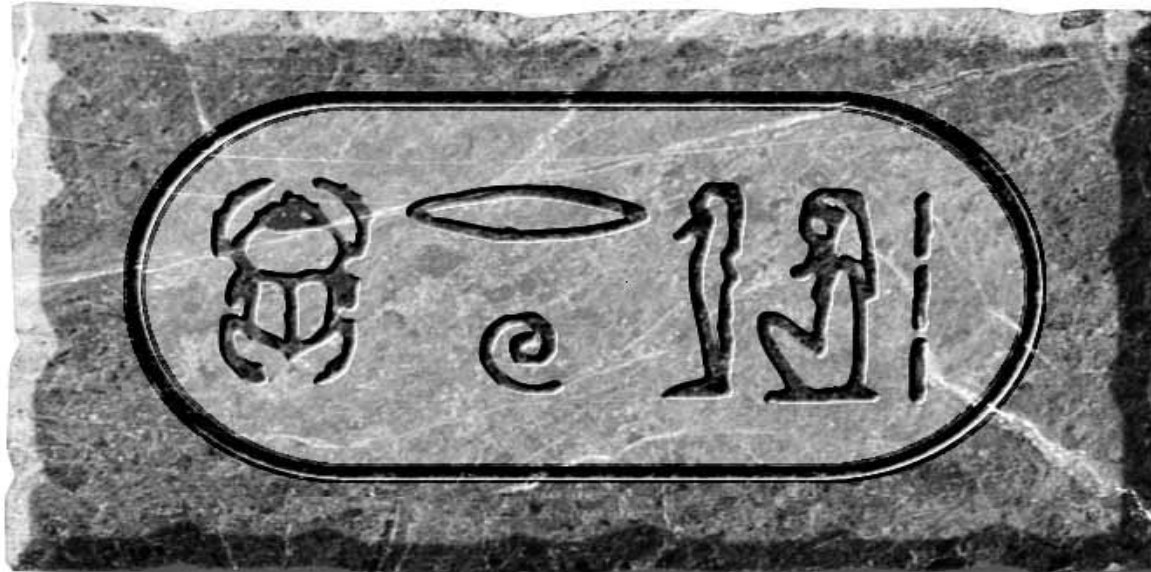
Is the Ultimate Data Engine to Capture, Retain, Process and Validate Data
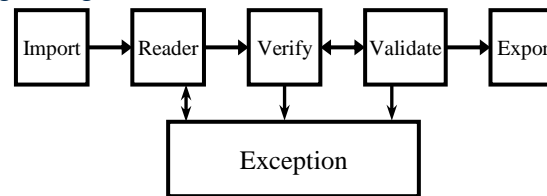
Cartouche Overview

Cartouche is a fully integrated system for reading, extracting, and validating all forms of data from a digitized page. These data forms include:

- Form Identification
- Text and numeric characters
- Bar codes
- Mark sense fields (OMR)
- Special Fonts & Symbols
- Data Validation
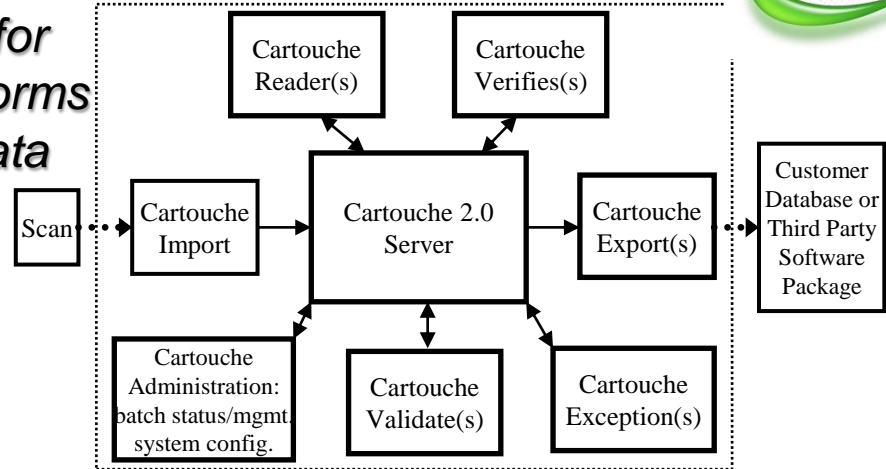
Single Page Flow

Cartouche performs all the steps required to convert a scanned image into an exportable format suitable for inclusion to a database.
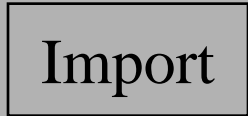
The product integrates workflow management to control and schedule batches of tasks to be processed, have errors manually corrected, validation performed and export completed.

Cartouche Workflow
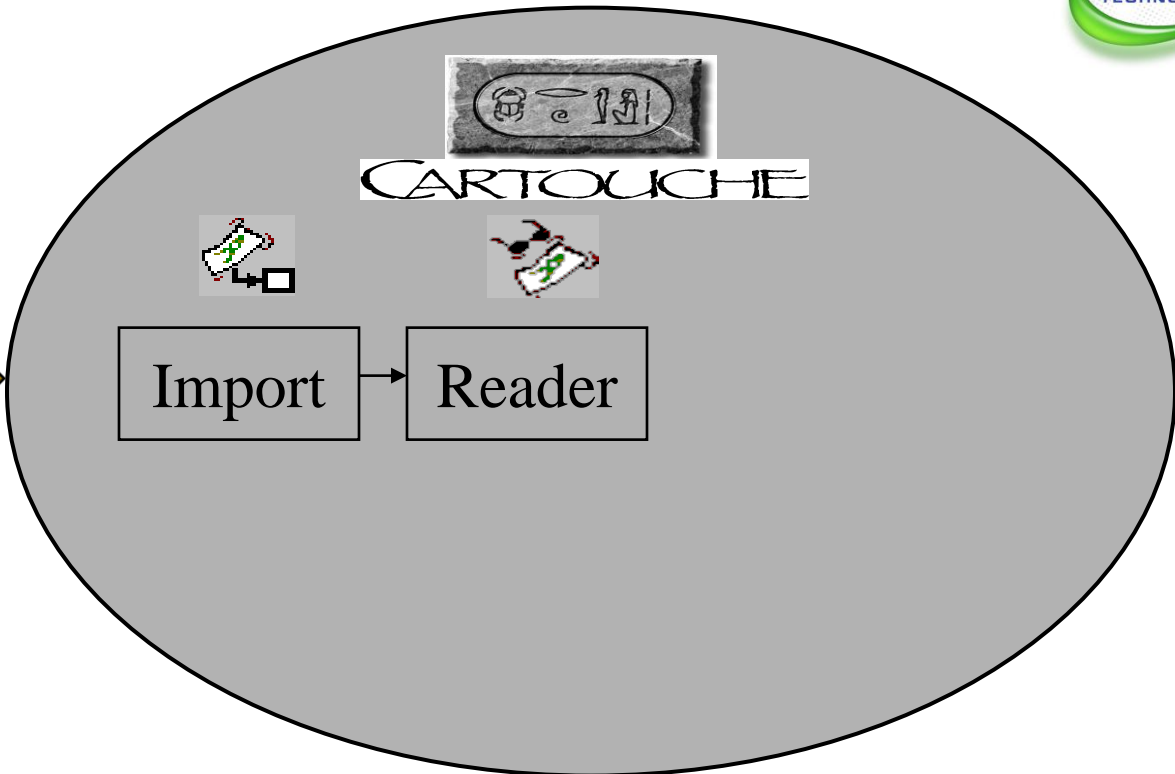
Scanner and Software
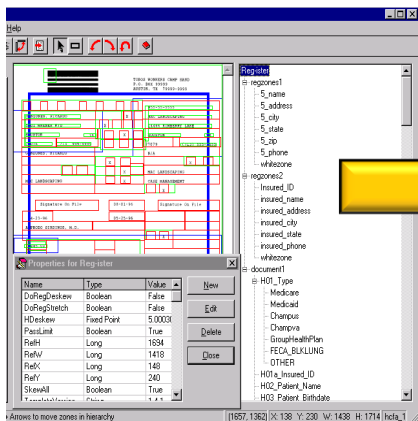
Critical to the OCR Process!!!!!!!!!
1) 200 or **300** dpi.
2) Tiffs - Group 4 compression.
3) If you can't read it we can't read it.
4) Noise (extra pixels).
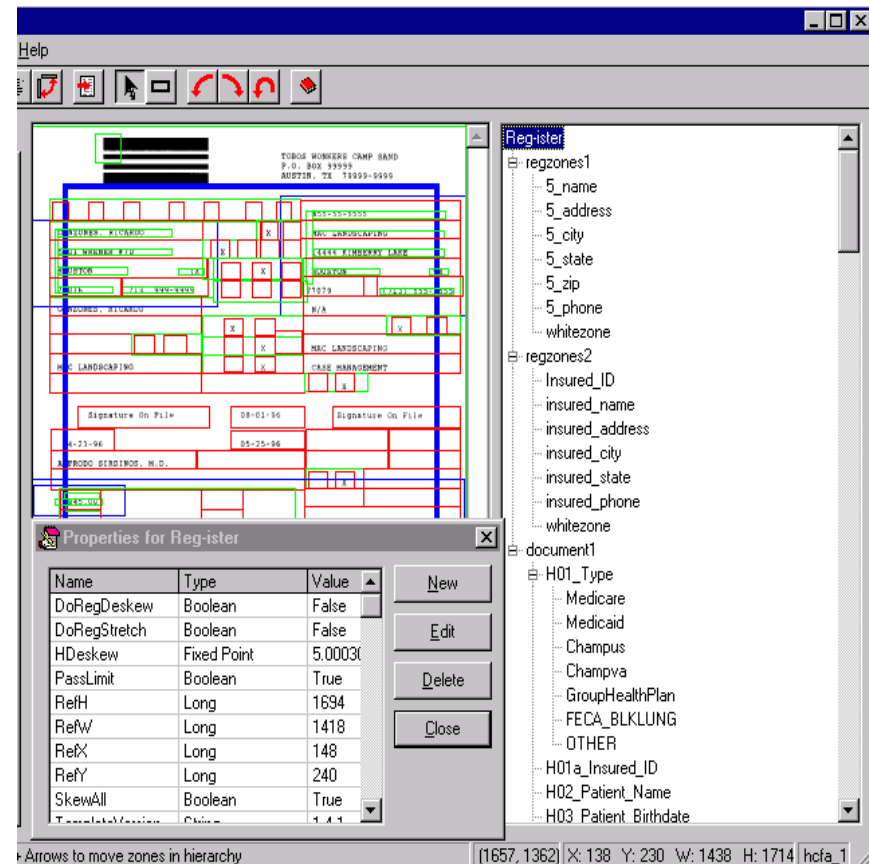
Import Module
1) Create a batch from the published blueprints.
2) Import the tiffs for the batch.
3) Close the batch when all tiffs are imported .
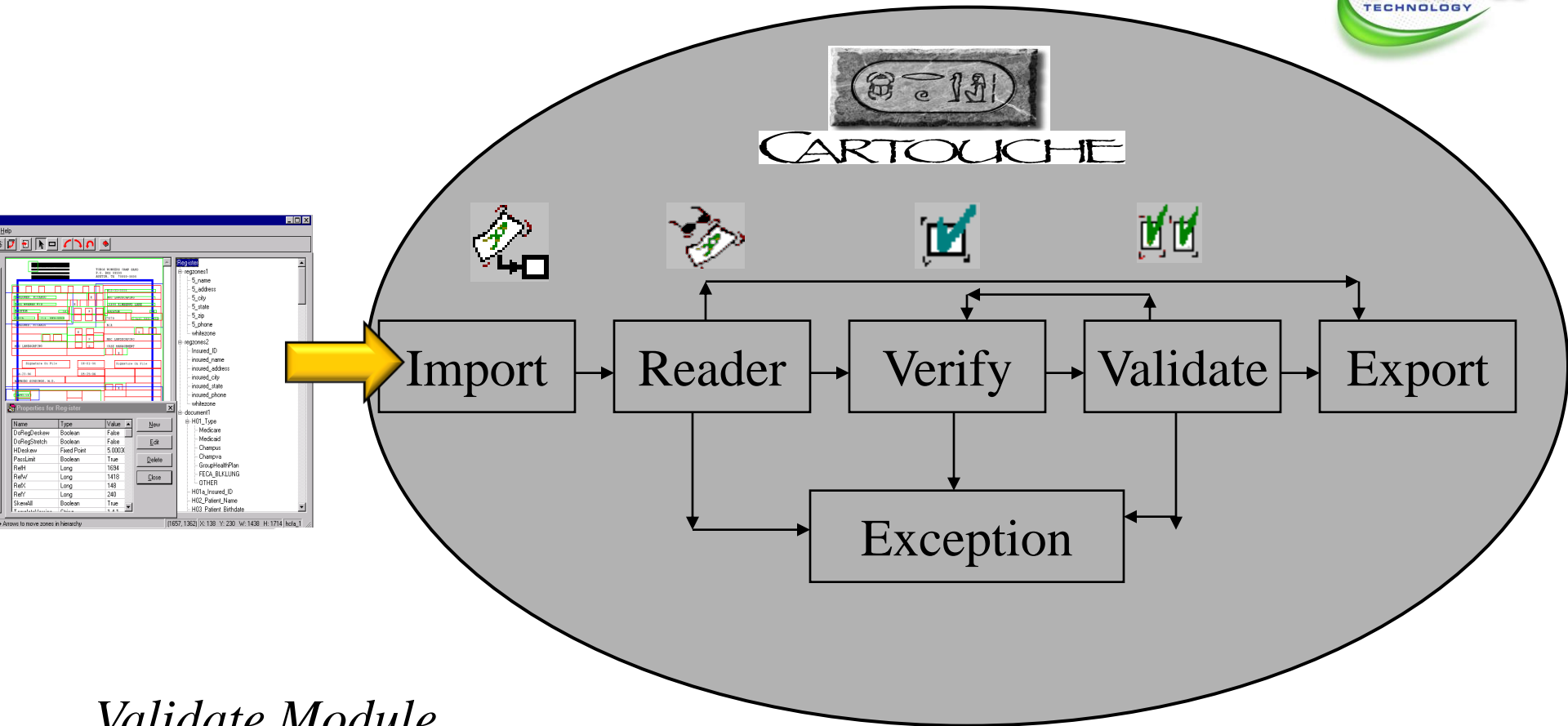(export will not export if the batch is open for import)

Reader Module

1) Identification (which form is it ?).

2) Registration a) deskew b) stretch c) offset (translation).
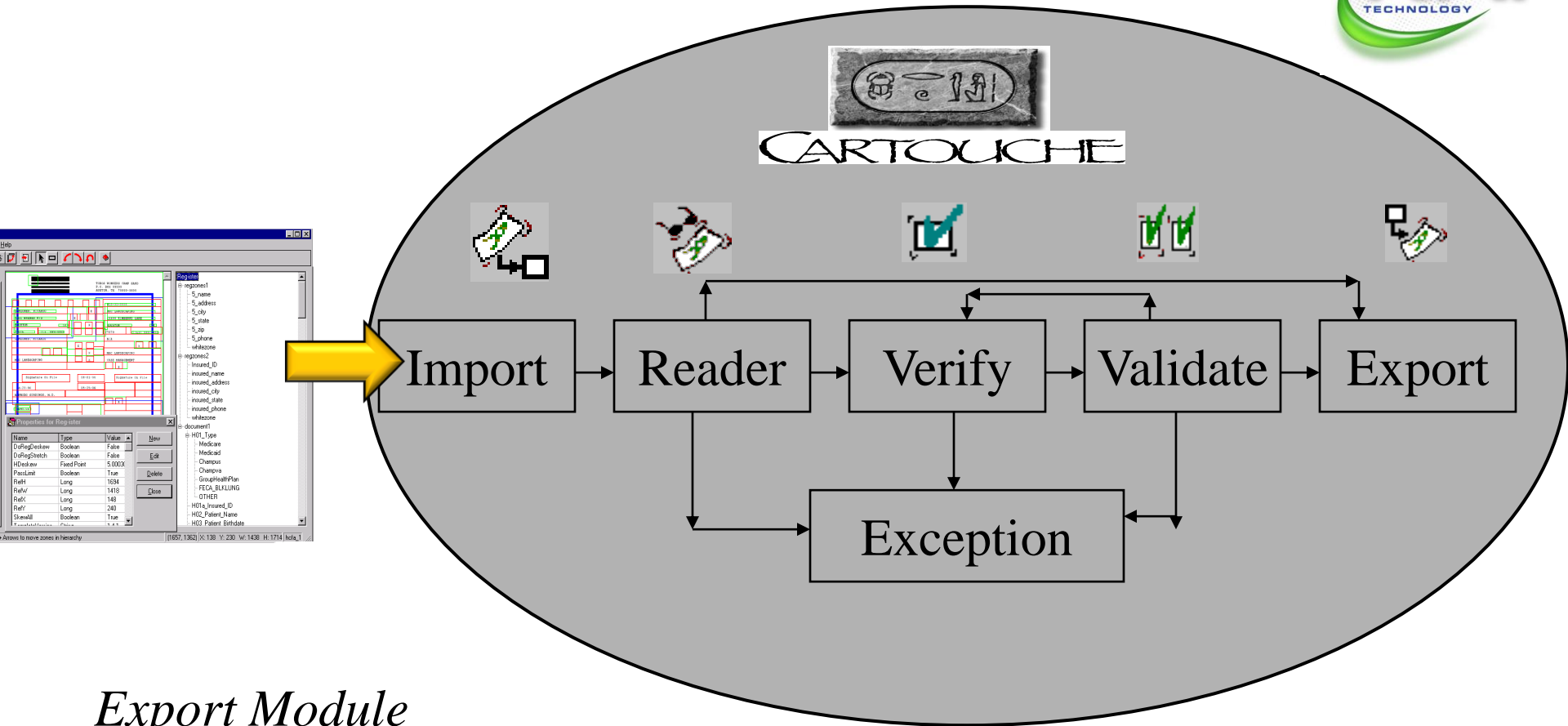
3) Recognition. a) Data Extraction b) Contextual Arguments

Cartouche Workflow…(continued)
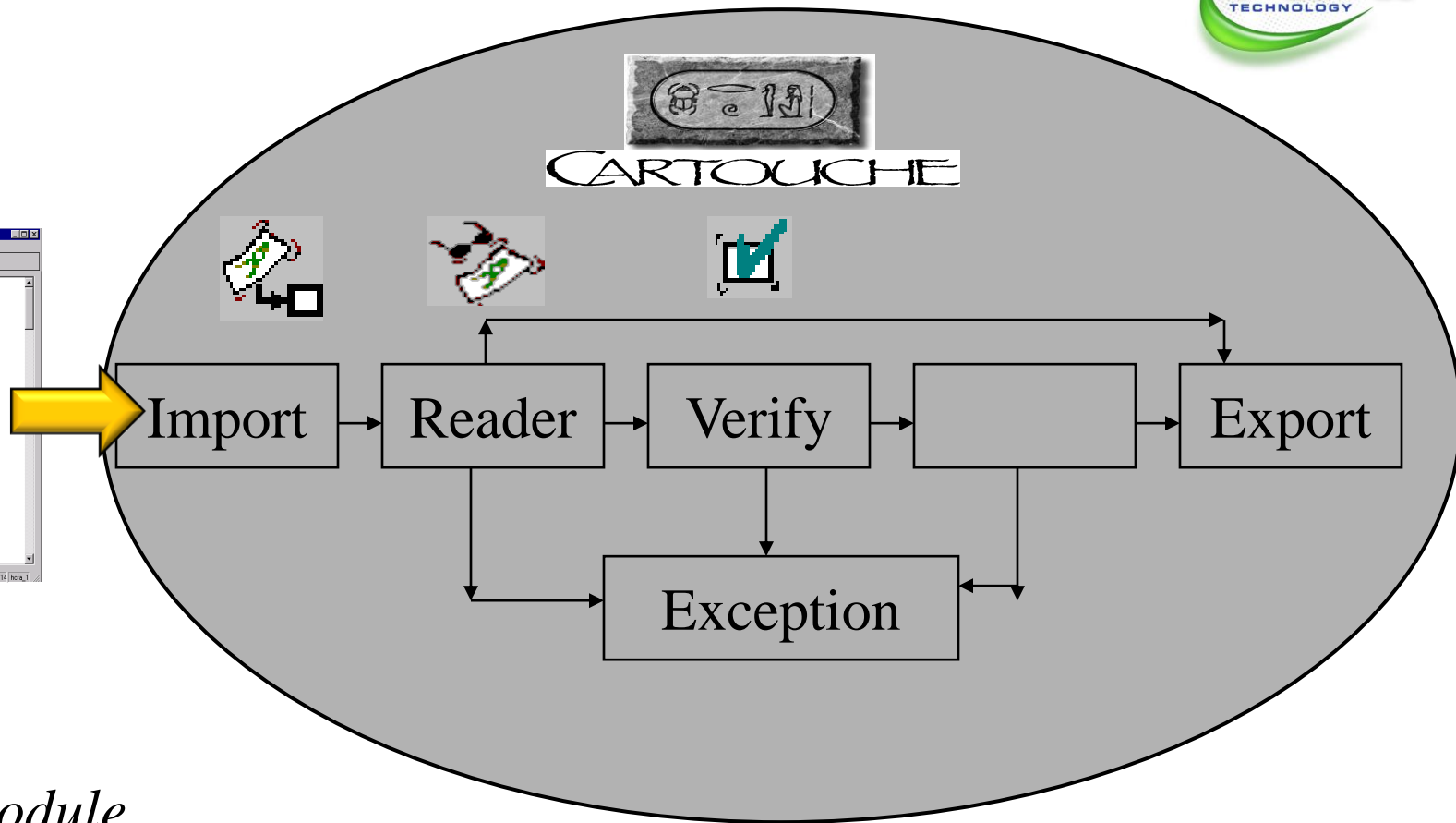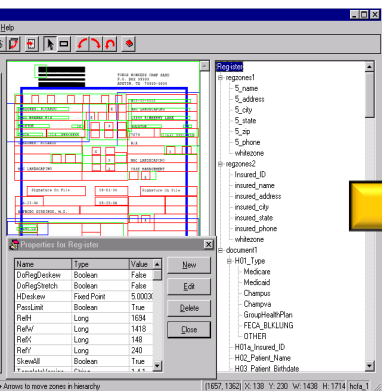
Verify Module
1) Appropriately named.
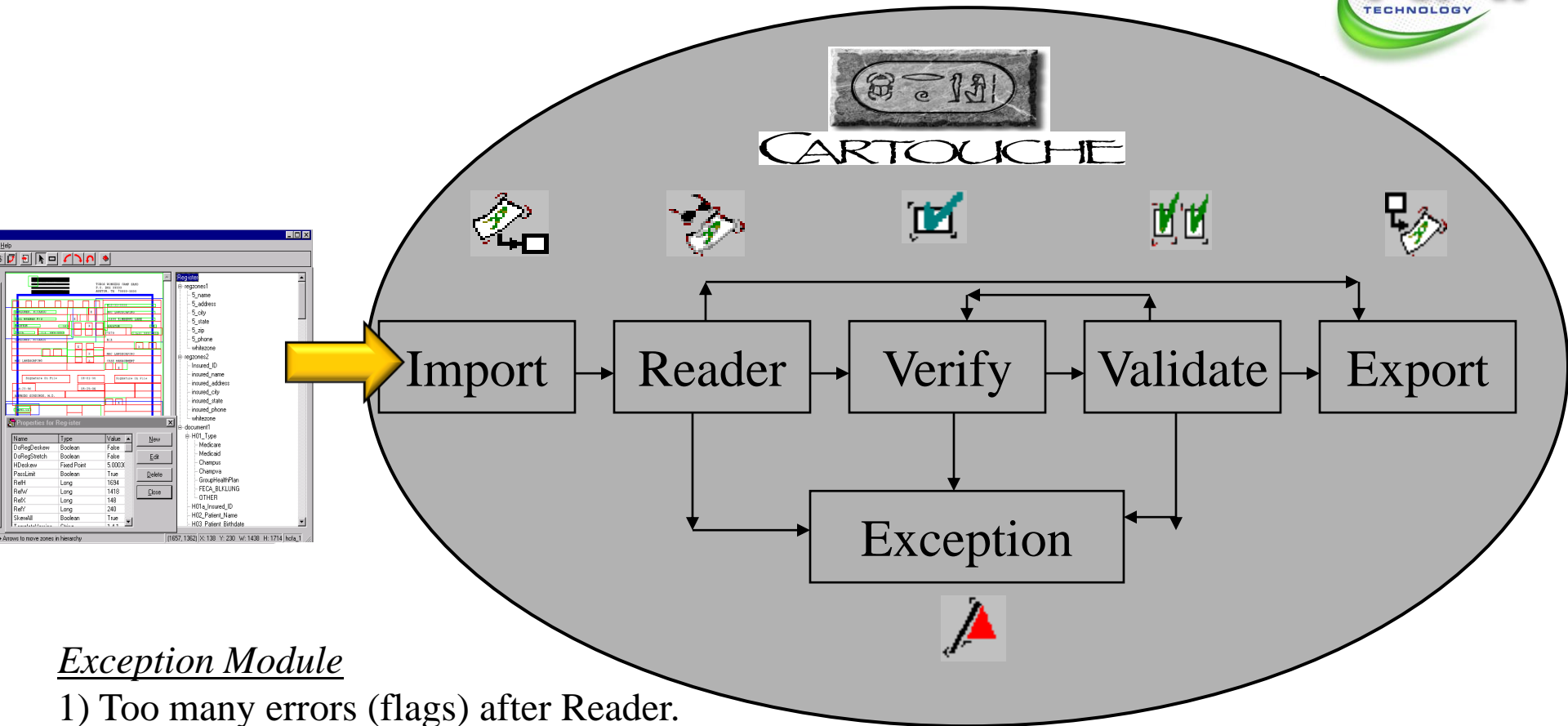2) Clean-up.

Validate Module
1) The person working the Verify can make mistakes.
2) The Validate checks the Verify operator with the rules given it.

Export Module
There are two forms of export.
1) Tab delineated.
2) Fixed length

Cartouche Workflow…(continued)

Import → Reader → Verify → Validate → Export

Exception

Exception Module
1) Too many errors (flags) after Reader.
2) Could not identify.
3) Could not register.
4) Rejected by the Verify Operator.
5) Errors occurred.

Case Study – Olympics Ticket Form

93%   Single key entry

95%   ICR without context

98.54%   *RAF's Cartouche* using

           context inside recognition

99.42% *Cartouche* after edit of

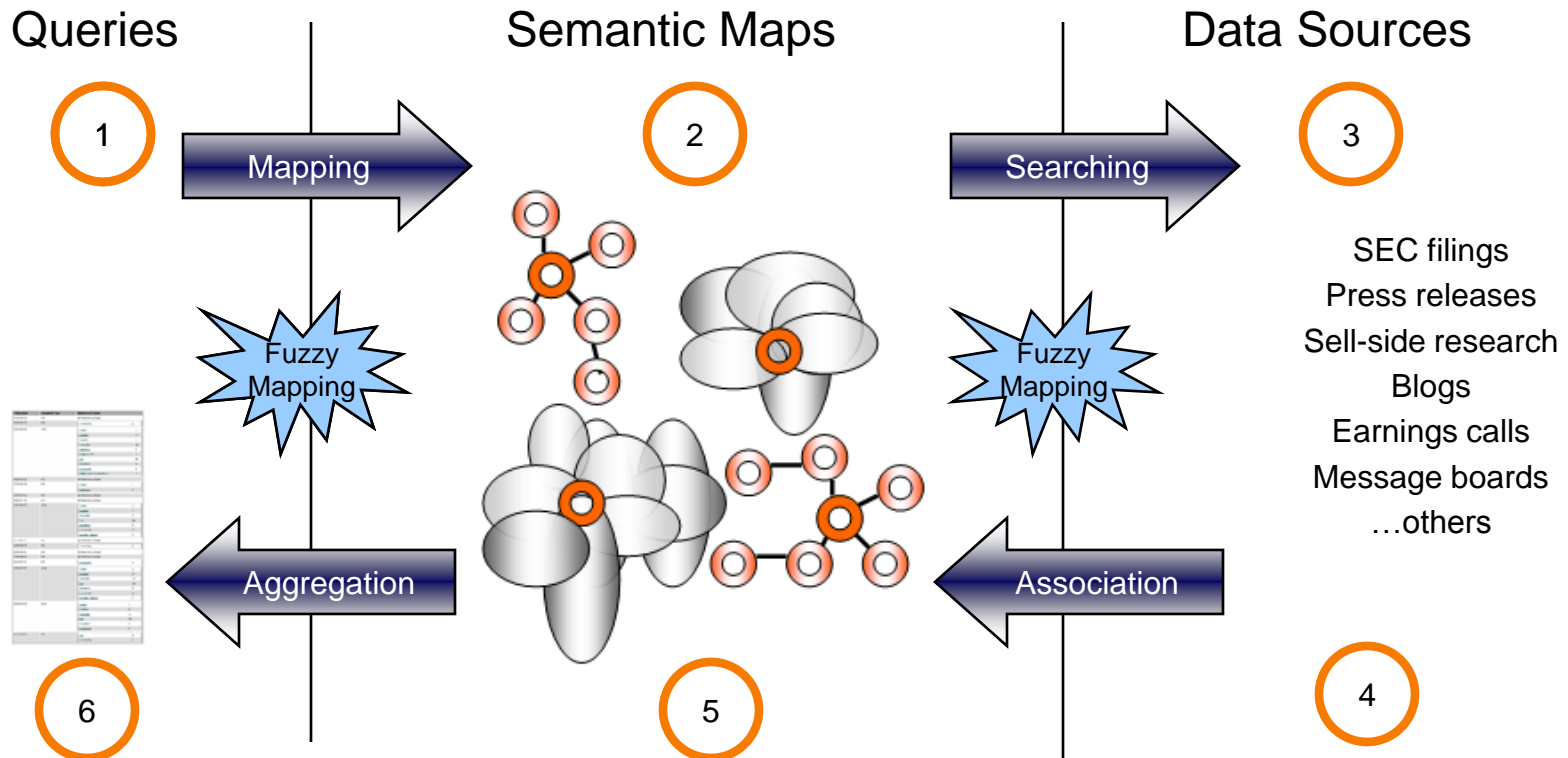   flagged characters

Radiant Asset Management

Semantic Search

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.

Queries	Semantic Maps	Data Sources
1 → Mapping	**2**	**3** → Searching
Fuzzy Mapping		Fuzzy Mapping
← Aggregation		← Association
6	**5**	**4**

Data Sources:
- SEC filings
- Press releases
- Sell-side research
- Blogs
- Earnings calls
- Message boards
- …others

Example…finding "Rising Margins"

It Works, Proven Results

o Trading Example: Raymond James Financial (RJF)

RJF Trading Results from 7/1/2006 to 9/7/2007

11% Stock Return

26% Radiant Return
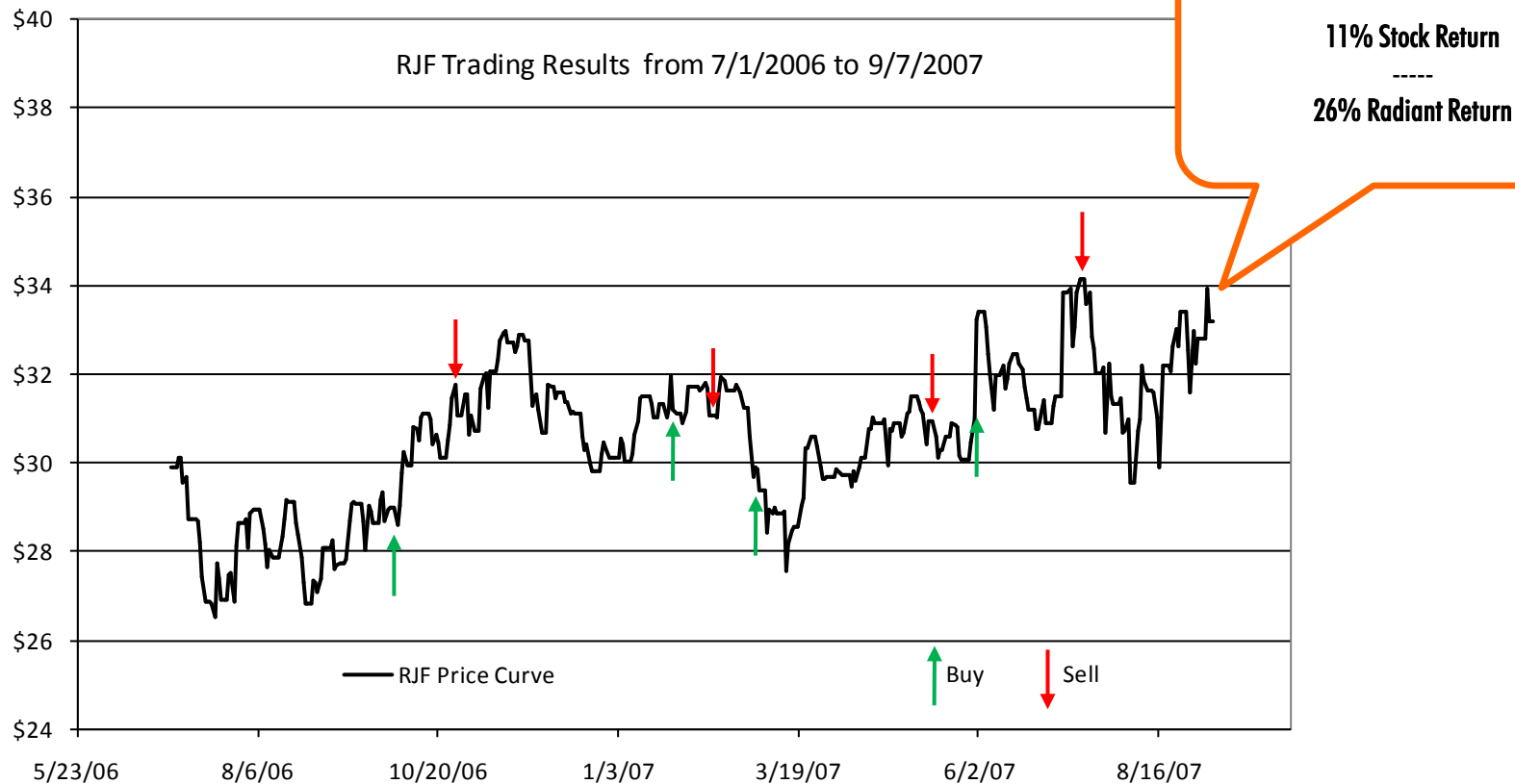
For More Information Please call us at 1 (425) 867-0700