Attrasoft Performance Data

Both of the following image matching examples are based on real image recognition projects completed by Attrasoft. The verification rates are based on a project for a Biometrics company. The identification rates are based on a project for an S&P 500 Company.

Identification Problem

Double Image Identification Rates (If one of the two images is identified, then the images are identified):

- **Identification rate = 99.92%**
- **Error rate = 0.08%**

Verification Problem

Double Image Recognition:

- **Positive Recognition = 99.97%**
- **Negative Recognition = 99.9%** (percentage of time software recognizes you as using the wrong ID)
- **False Rejection = 0.03%** (percentage of time software will reject the right person)
- **False Acceptance = 0.1%** (percentage of time software will identify the wrong person as being the right person
- **Enrollment Rate = 100%** (every time)

Products

STAND ALONE SOFTWARE:

- ImageFinder $499
- DecisionMaker.................... $99
- Predictor $499
- PredictorPro $499
- ChartFinder $499
- ABM $99.99
- PolyNet $119.99
- MidiFinder..................... $99.99

PROGRAMMING TOOLS:

- ImageFinder for DOS $1500
- PolyApplet $5000
- TransApplet $10,000

Attrasoft DecisionMaker

Use the data in your database to help you make your business decisions!

- Do you have **20 – 30 years of collected data?**
- Would you like to see the **patterns contained in the data?**
- Do you have a lot of data that seems to have **too many factors** or **conflicting data?**
- Do you wish an analysis could be done to **tell you what it means**?
- Would you like to have a software program that can analyze an overwhelming amount of information so **your critical decisions are based on** the **facts** and **patterns?**

A few examples (*=in the software):

- **Identify** an item in Forensic Science*
- **Decide** the classification of a virus / bacteria
- **Decide** whether a patient has cancer*, heart disease*, thyroid disease*, or not, or how likely a patient is going to get cancer, heart disease*
- **Decide** how much a house*, a car* is worth

INTEGRATED SYSTEM:

- AttraID $100

COMING SOON:

- VideoFinder

OTHER PRODUCTS AVAILABLE:

- Licensing Fees
- System Integration
- Proof-of-Concept Projects ($10,000+ depending on specification requirements)
- Customized Software Solutions
- Developer API Kit

Attrasoft Predictor

Use your historical data to predict the future trends, thereby allowing you to make intelligent decisions!

IT DOES NOT MATTER WHAT YOU WANT TO PREDICT.

Examples:

- **Predict** various indicators / indexes of the economy for strategic thinking & policy issues
- **Predict** short & long term interest rates
- **Predict** earnings & revenue of company
- **Predict** regional-worldwide price for a fluctuations particular merchandise item
- **Predict** commodity prices… oil…corn
- **Predict** the Stock Market… **(Attrasoft Dow 5 beats Dow Jones)**

About Attrasoft

Attrasoft provides accurate image matching libraries for System Integrators. Attrasoft's sustainable competitive advantage is AME (Attrasoft Matching Engine), an internally developed algorithm. All Attrasoft products are based on exactly the same technology, the Attrasoft Matching Engine (AME), which was developed in 1994 and implemented in 1995. Each time Attrasoft serves a customer, whether it is facial recognition, fingerprint, chart, sound, database pattern, or a stock trend, it improves and strengthens the core technology. This core technology has been polished repeatedly since 1995 and has 100% customer satisfaction.

Web page:

ImageFinder:
http://www.attrasoft.com/imagefinder42/

ImageFinder User's Guide:
http://www.attrasoft.com/imagefinder42/Help.html

Attrasoft, Inc.

http://attrasoft.com

IMAGE & PATTERN RECOGNITION EXPERTS

Field Tested … Field Proven … Over and over again since 1995

Attrasoft ImageFinder
identifies these three men as being the same person. These three images are of the same person, according to the FBI.

Attrasoft provides Universal Image Identification and Retrieval Technology and customizes solutions to user-defined requirements with optimized results demonstrating high accuracy, flexibility, and scalability. Image Recognition technology will increasingly replace human labor, increasing productivity, accuracy and profitability while solving previously unsolved complex problems of safety, security, healthcare…

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Attrasoft ImageFinder

Customized Solutions Available

Attrasoft Differentiators (Competitive Advantages)

- Universal Image Recognition (Flexibility)
- Customizes Solutions to User-Defined Requirements (address solutions that do not yet exist)
- High Accuracy
- Real Time
- Scalability

What For?

- Identify a stamp, a palm print, a face
- Identify an object under a microscope
- Identify a license plate, a car, a truck
- Identify a cup, a fruit juice box label, a piece of jewelry
- Identify a ship, a tank
- Identify a medicine (e.g. Tylenol)
- Identify a shark, a lion, a monkey
- Identify a trademark, an industrial part, an auto part

What is your application?

Extremely Accurate

- 99.9% positive recognition accuracy
- 99.826 % recognizes you as using the wrong ID
- 1.25% will reject the right person
- 0.173% will identify the wrong person as being the right person

Scalable

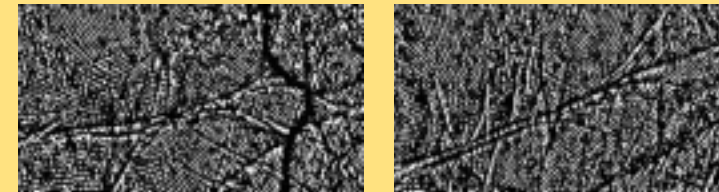- ImageFinder alone handles 3 million images

Flexible

- Face
- X-ray
- Stamps
- Infrared
- Satellite
- Palm Print
- Fingerprint
- Microscopic
- Trademarks
- Security Images
- Medical Imaging
- Chemical Signature (forensics)
- Does not require special computer hardware (using existing equipment reduces implementation costs).

Now …

- Do you need a 99.99% positive identification rate (0.01% false rejection) and 9.9% negative recognition (0.1% false acceptance)?
- Do you need customized image software to identify objects (an industrial part) in a production line?
- Do you need customized image software to identify the different types of organisms on a slide?
- Do you need customized software to recognize / classify chemical signatures?
- Do you need to process automation by image recognition?
- Do you need a system integrator?

REAL-TIME IMAGE RECOGNITION / RETRIEVAL

Palm Prints

License Plates

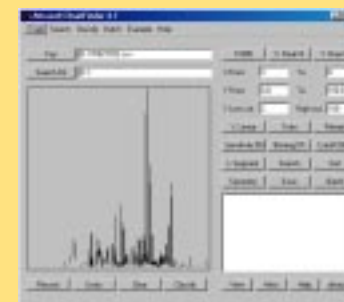### Face

Products

Stamps

Animal, Plant

Microscope

Charts

Satellite Images

Customization

Many parameters and options of the **ImageFinder** are hidden and the users have limited control of the parameters. In general, each image type has some special requirements, which require special fine-tuning. Because many options are not exposed, you might need a customized version for higher recognition rates.

Customized versions of the **ImageFinder** *are available upon request. Customized versions can accommodate:*

- Speed optimization
- Memory optimization (for some problems, the RAM consumption can be reduced by 80%)
- Database interface
- New image preprocessing filters
- Programming library
- Specific symmetries or combination of symmetries
- Digital image database (combine **ImageFinder** with database)
- Image formats other than jpg and gif
- Internet image search engines
- Up to 1,000 classes for classification
- Multi-layers of image matching
- Web interface (solution that will provide users with a searchable database using a web interface)
- Other specific needs

Customization can solve your problem, if you need:

- To search images via URL
- To upload searchable images via website directly into **ImageFinder** database
- A web interface allowing remote users to search **ImageFinder** database using various input search variables.
- An interface, which only requires you to make 1-2 clicks to achieve extremely high accuracy rates
- An interface, which works automatically, without any human intervention