

Online Analytics Solution for Efficient and Profitable Trading

Finance

Data processing

Data science

Data visualization

Customer

A global provider of financial technology solutions.

Industry

Finance

Identified Problem

Rapidly increasing number of transactions and volume of data generated led to decrease in performance and quality of existing trading analytics solution. As a result, a Client faced an increasing number of dissatisfied customers, including some of them switching to alternative providers.



Business Challenge

Create an online application to analyze stockbroker performance in NYSE and NASDAQ markets that could handle increasing volume and speed of data generation.

Provide high quality research, development and support services to enhance data management, investment accounting, performance measurement, and attribution solutions.

```
STACK 100h
DATASEG
    HW DB "Danger", 13, 10, '$'
CODESEG
Begin:
    MOV AX, @data
    MOV DS, AX
    MOV DX, OFFSET HW
    MOV AH, 09H
    INT 21H
    MOV AX, 4C00H
    INT 21H
END Begin

MOV AX, 56h
XOR SI, DI
MOV AX, 0F79
MOV DS, AX
MOV AH, 09

MOV AX, 1234H
PUSH AX
MOV AH, 09
INT 21H
POP AX

inline int call_host1(int sys, int parm)
{
    asm ("int $0x80\n"
        : "=a" (sys)
        : "0" (sys), "b" (parm) );
    return sys;
}

.model small
.stack
.data
```

| |
|-------------|
| 01001010101 |
| 1110010010 |
| 00100010101 |
| 00010111010 |
| 0101 |
| 00010101010 |
| 01010101 |
| 01110101110 |
| 10010 |
| 10010110101 |

| |
|------------------|
| 1 1 11 B 30 1E |
| 2 2 12 C 40 28 |
| 3 3 13 D 50 32 |
| 4 4 14 E 60 3C |
| 5 5 15 F 70 46 |
| 6 6 16 10 80 50 |
| 7 7 17 11 90 5A |
| 8 8 18 12 100 64 |
| 9 9 19 13 500 1F |
| 10 A 20 14 1000 |

| |
|---------|
| 1101010 |
| 1011100 |
| 0101 |
| 110 |
| 1010101 |
| 1010101 |
| 1010010 |
| 1001010 |
| 111010 |

Solution

An online application to analyze stockbroker performance in NYSE and NASDAQ markets.

The core system module, [Trade Analysis](#), consists of a Brokerage Data Processing Engine, Studies Processing, and Data Visualization modules.



Trade Analysis



Brokerage Data Processing Engine



Studies Processing



Data Visualization modules

Solution

Brokerage Data Processing Engine

Calculates trading performance based on transactions and market data submitted to the system by brokerages such as SLK (Spear, Leads & Kellog), OST (OnSite Trading), ETG (Electronic Trading Group)



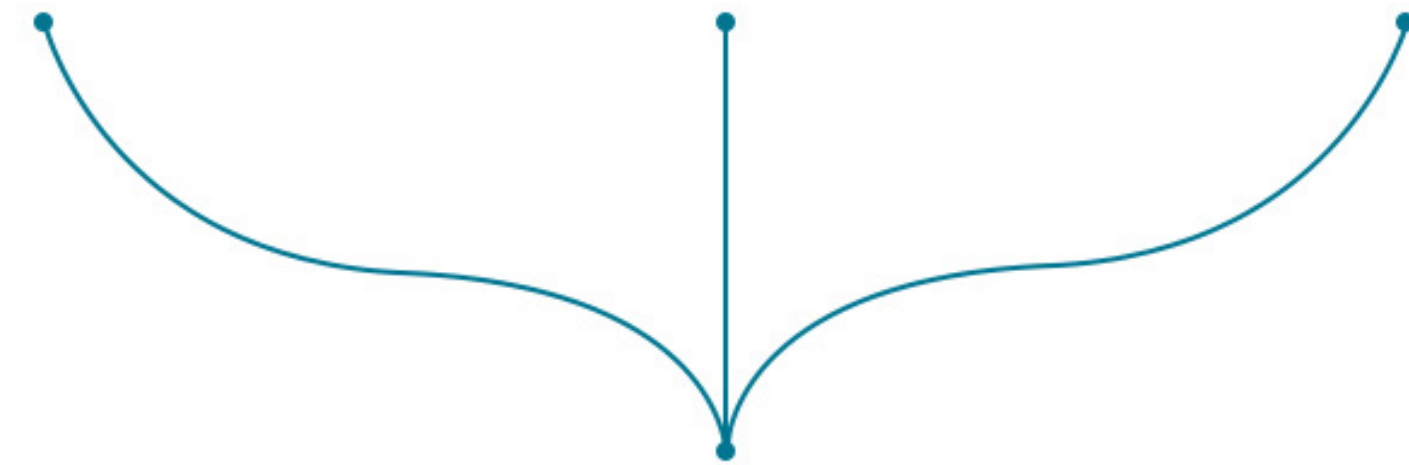
Solution

Studies Processing

Trade profiling helps traders define their top trades based on security analysis of data available in the system, mostly based on overlays (index, moving averages, Bollinger Bands, etc.), price-based indicators (RSI, Stochastic, etc.), and volume indicators.

The concept developed and implemented by ELEKS business analysts, data scientists and developers, by studying trading methodologies, performing trades on NASDAQ, so to verify and validate the system business logic.

Business Analysts + Data Scientists + Developers



Trade profiling concept



Solution

Data Visualization Module

Shows graphical representation of all system processing.

Statistic review of trend analysis and drilling-down to the trade level for each transaction point on the stock chart with overlays and indicators

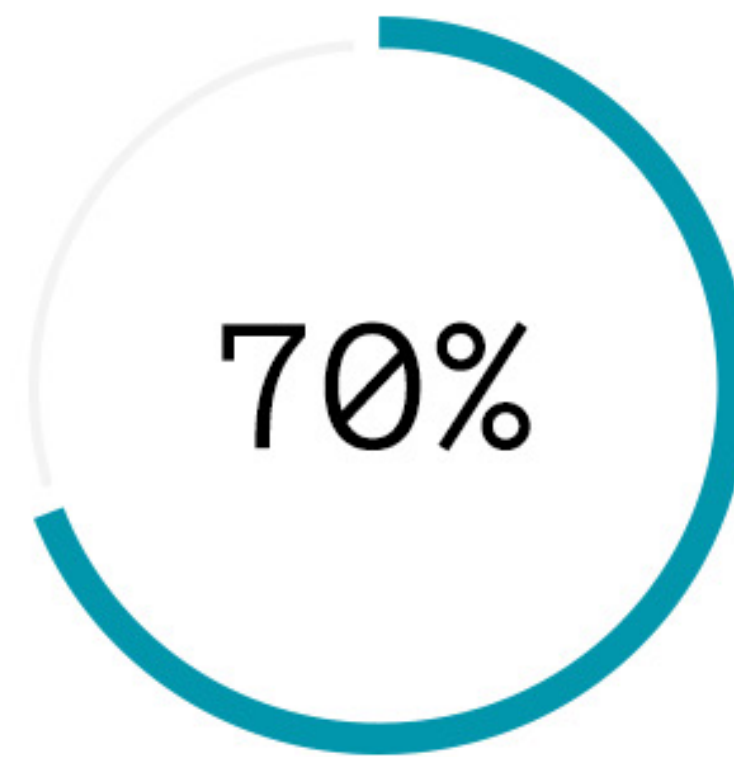
“What-If” analysis

allows traders to develop and tune their trading strategy to current market conditions.



Business Benefits

- Improved trading performance 80 times
- Insured trading opportunities through timely identification and risk tracking
- Up to 70% time saved for market investigations and creating trading strategies



Time saved for market investigations



Improved trading performance

About

Named a Top 100 Global Outsourcing Company, ELEKS is a global organization providing software engineering, technology consulting and quality assurance services.

Since 1991, ELEKS innovative and award-winning solutions have significantly contributed to the customers' unparalleled business growth to include Data Science, Mobility, Digital and Financial solutions.

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