How people use Parallel Visual Explorer

Here are some applications where using Parallel Visual Explorer will be highly effective. In many cases, beta testing of the software in these specialty areas is already underway.

- Medical and pharmaceutical research
- Financial services
- Manufacturing
- Aerospace
- Insurance
- Agriculture
- Oil exploration
- Market data mining
- Data processing

Medical and pharmaceutical research

Parallel Visual Explorer can help medical and pharmaceutical researchers analyze the reasons for the effectiveness or ineffectiveness of specific drugs, and help them identify new uses for existing drugs.

Dr. Joseph Hassett of Mount Sinai Medical Center in New York recently used Parallel Visual Explorer to analyze the effects of various treatments on the immune systems of people with AIDS and other diseases. "I believe it is a very valuable tool," he says.

"It let me explore the many interactions contributing to a complicated overall immune response. I could view results for hundreds of patients at one time, and find observations that weren't otherwise apparent.

"I was quite impressed with Parallel Visual Explorer's sophisticated data analysis capabilities. It offers strong query support and is incredibly easy to use. Even investigators who are not trained in statistics should be able to sit down and begin analyzing data with almost no training."

Financial services

Analysts using Parallel Visual Explorer will be able to spot trends and key predictors in industries, money markets and customer transaction data. For example, Parallel Visual Explorer can make it dramatically easier to analyze complex markets like

stocks, bonds, options and currency markets −− allowing for more educated, and potentially more profitable, trading.

In addition, a major stock exchange is evaluating IBM's Parallel Visual Explorer for use in identifying irregular (and possibly illegal) trading activities.

For traditional business and financial research, Parallel Visual Explorer will allow analysts to better compare companies with one another; it allows in−depth evaluation of corporate financial data taken from public documents such as annual reports, balance sheets and 10K reports. It will also help analyze an individual investment portfolio to determine how well it meets a specific client's goals.

According to Leon Kaliski, an independent commodity trading advisor and publisher of "Kaliski Speaks," a newsletter on interest rates, "This software has the potential to offer a real competitive advantage to traders in certain markets, particularly in commodities and interest rate futures. It's a breakthrough because it makes it easy for researchers to look at large amounts of data and recognize relationships that simply don't stand out as numbers on a spreadsheet.

"For example, Parallel Visual Explorer can help researchers analyze almost any weather−related commodity, like sugar, cocoa or soybeans, and find insightful correlations between weather, crop yields and other factors."

Manufacturing

IBM's Toronto manufacturing plant used Parallel Visual Explorer to analyze process parameters; the goal was to improve production processes in its circuit board fabrication operation. Results included a 25 percent reduction in the need for testing and inspection.

IBM's Burlington, VT manufacturing plant has also used the software to analyze and optimize complex parameters in its memory chip manufacturing process. Analysis of large numbers of semiconductor manufacturing process parameters, for example, enabled the parameters to be adjusted to provide the desired balance between yield and speed of performance.

In manufacturing, Parallel Visual Explorer can also be used to analyze supply and demand for various raw materials and determine how to ensure availability. It can also help manufacturers do manpower resource planning, by making it easier to track and analyze the experience, skills, attitudes and availability of their employees.

Aerospace

A national air force has tested Parallel Visual Explorer against combat simulation data to determine which flight school candidates are most likely to become successful fighter pilots. The purpose of this test was to disqualify unlikely candidates before they are put through multi−million dollar training programs. The software was easily

able to distinguish the skill level of pilots, based on an analysis of simulation data.

The U.S. Federal Aviation Administration (FAA) is considering using Parallel Visual Explorer to improve the collision avoidance capability of the Air Traffic Control System. The software helps flight controllers determine the least possible course correction required to avoid collisions of multiple aircraft. A worldwide patent has been granted for this application.

In the aerospace industries, Parallel Visual Explorer can also be used to set rules and determine schedules for airplane routing and crews; determine the optimum schedules and locations for fueling aircraft, taking into account flight schedules, airport activity, local variations in oil pricing and other factors; and optimize the performance of scheduled and unscheduled aircraft maintenance.

Other industry applications

Insurance

Parallel Visual Explorer can be used to assist in the evaluation of actuarial data used to calculate life expectancy, insurance and annuity premiums, reserves and dividends. It can also assist in insurance underwriting, by helping to determine the potential risk for each individual insurance policy.

Agriculture

Parallel Visual Explorer can help determine which seeds to plant and when, based on an analysis of soil characteristics, growing season, climate and other factors. Parallel Visual Explorer will also potentially be used to evaluate commodity markets.

Oil exploration

Seismic data can be analyzed and correlated with Parallel Visual Explorer to determine the best opportunities for exploration. Lower quality seismic data also can be improved.

Market data mining

Consumer buying trends, advertising recognition and other factors can be analyzed using Parallel Visual Explorer, helping marketing professionals, buyers and others make more informed business decisions.

Data processing

Parallel Visual Explorer can help corporate MIS staffs make optimal use of their computing resources by evaluating and analyzing the hardware, software and network resources available as well as the transactions that must be executed. Parallel Visual Explorer can also help MIS determine the appropriate billing structure for their

services.