



## Automated Options Trading: Big Data for Big Hedges



### Problem

A new Wall Street hedge fund organization wanted to develop a consistently profitable trading strategy that leveraged large amounts of data

### Solution

Alacer used Design of Experiments (DOE) techniques that could provide real-time predictions based on statistical modeling

### Results

Machine-based yields at 30% on managed funds

### Overview

“Big Data” is a hot industry buzzword, used to describe datasets so large and complex that they are difficult to navigate or effectively use. However, if it can be harnessed, big data presents exciting new avenues of predictability for financial market trends and can serve as the base for new investment strategies. A new hedge fund team consisting of Wall Street veterans wanted to leverage today’s data explosion to more aggressively optimize profits from trading of index options, and asked the Alacer team for assistance.

### Challenges

In order to best utilize big data to increase hedge fund yields, the Alacer team first had to determine the best methodologies for acquiring, formatting and scrubbing massive amounts of information. New standards for data quality were introduced, along with an algorithm for ensuring these standards were met for historical and real-time statistical purposes. Through modeling, automated strategies were developed that could be consistently used to manage large amounts of data for better regulatory compliance or for advanced predictive analytics.

### Results

With Alacer’s solution for managing big data, the financial organization could now draw insights from huge streams of information to develop models for how markets might react to various events and to make better financial choices. The automated machine-directed yield on its hedge fund was 30% (54% when combined with human-based decisions), a phenomenal return on funds under management.

