

# “Galleon” Alpha Analysis

The aim of this document is to show the real life application of the ‘Style Analysis’ feature applied to a hedge fund claiming delivering alphas. We will show how to analyze a fund in terms of its alpha and sector selection skills. Galleon has been selected as fund in order to show how the ‘Style Analysis’ can be used as part of the due diligence process by highlighted anomalous monthly alphas. In the next 4 pages, several steps and results are presented.

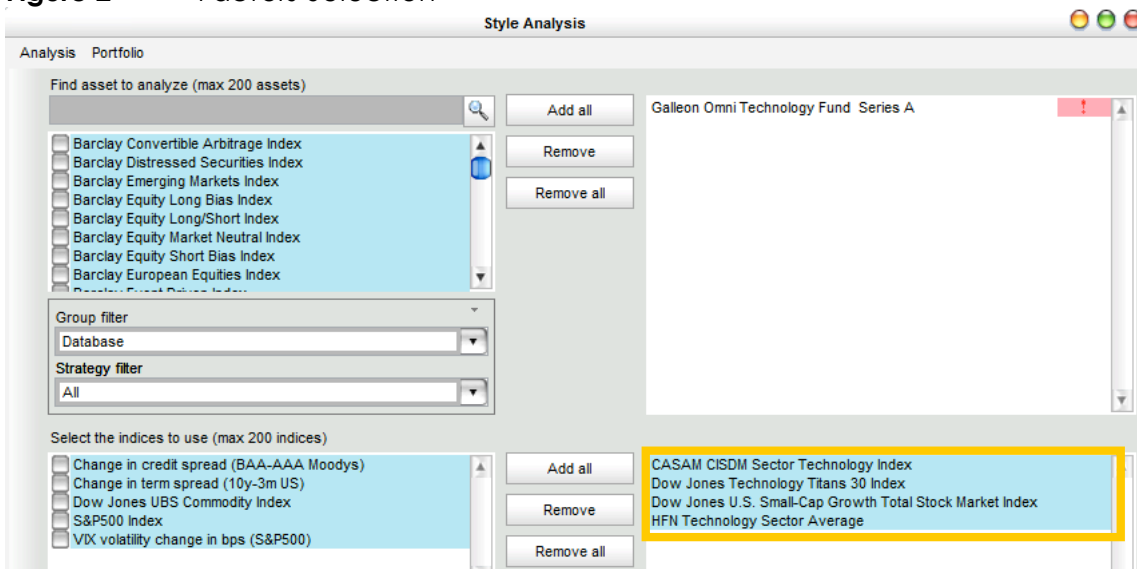
Step 1: Select the fund to analyze and look at the monthly returns. In our case, we show the ‘Galleon Omni Technology’.

**Figure 1** Galleon Monthly Returns

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
1996			6.03%	29.43%	11.29%	3.18%	2.21%	2.65%	10.51%	6.13%	4.23%	1.31%	104.77%
1997	10.89%	-4.69%	-6.31%	0.94%	4.67%	3.73%	8.54%	0.77%	4.57%	-12.62%	-3.49%	-5.06%	-0.63%
1998	0.20%	0.83%	10.93%	0.13%	-4.18%	6.25%	3.29%	-5.18%	2.29%	2.82%	3.14%	9.27%	32.62%
1999	15.76%	-2.27%	10.33%	14.21%	1.80%	4.21%	1.86%	3.32%	0.33%	7.28%	5.21%	8.57%	95.69%
2000	2.35%	19.78%	0.23%	-8.88%	-6.28%	9.71%	5.82%	4.77%	-6.75%	-1.29%	-2.14%	-3.40%	11.06%
2001	2.96%	-1.55%	-1.11%	3.45%	-0.69%	-1.42%	-1.25%	-4.95%	-6.93%	-2.35%	3.68%	0.99%	-9.33%
2002	-0.56%	-7.37%	2.04%	-3.65%	-0.20%	-6.67%	1.44%	-0.78%	-4.82%	1.50%	3.83%	-5.20%	-19.27%
2003	6.20%	0.59%	0.44%	3.51%	6.09%	2.44%	0.47%	1.13%	0.14%	8.75%	1.23%	-2.71%	31.54%
2004	2.17%	-1.48%	-2.76%	-3.81%	2.45%	1.85%	-2.25%	-0.15%	0.25%	2.93%	5.08%	2.04%	6.07%
2005	-0.30%	-0.33%	-1.23%	-2.26%	3.32%	1.41%	2.38%	0.40%	2.45%	-3.23%	4.97%	3.10%	10.85%
2006	6.69%	-0.73%	2.55%	0.62%	-2.52%	-0.76%	6.57%	5.60%	2.08%	0.48%	2.12%	2.26%	27.43%
2007	1.72%	0.23%	1.58%	0.01%	3.51%	3.79%	4.77%	0.53%	3.06%	2.84%	-3.28%	0.87%	21.19%
2008	-5.22%	2.24%	-0.62%	0.28%	0.26%	-4.28%	2.47%	-2.13%	-7.80%	-6.11%	-4.89%	-0.78%	-24.08%
2009	2.93%	1.16%	0.40%	-6.52%	3.58%	0.65%	6.19%	2.75%					11.15%

Step 2: Select the factors to which the fund should be exposed. In our case, we selected Technology and US Growth indices.

**Figure 2** Factors Selection

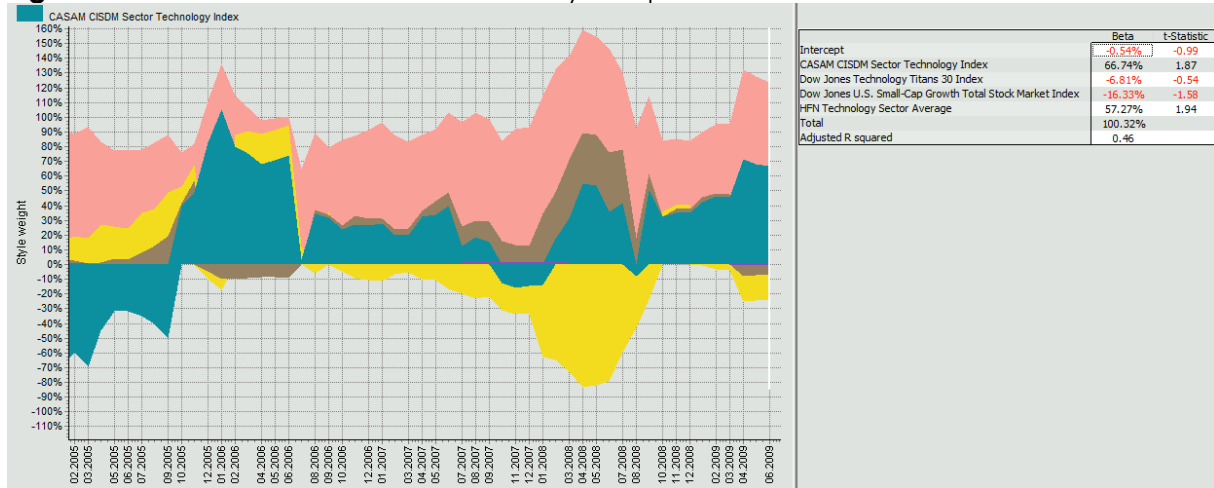


The screenshot shows the 'Style Analysis' software interface. The main window is titled 'Galleon Omni Technology Fund Series A'. On the left, there is a search bar and a list of assets to analyze, including various Barclays indices. Below this is a 'Group filter' set to 'Database' and a 'Strategy filter' set to 'All'. At the bottom left, there is a section for 'Select the indices to use (max 200 indices)' with several checkboxes. On the right side, there is a list of selected factors, including 'CASAM CISDM Sector Technology Index', 'Dow Jones Technology Titans 30 Index', 'Dow Jones U.S. Small-Cap Growth Total Stock Market Index', and 'HFN Technology Sector Average'. The selected factors are highlighted with a yellow border.

Step 3: In the tab 'Style analysis', we see the following:

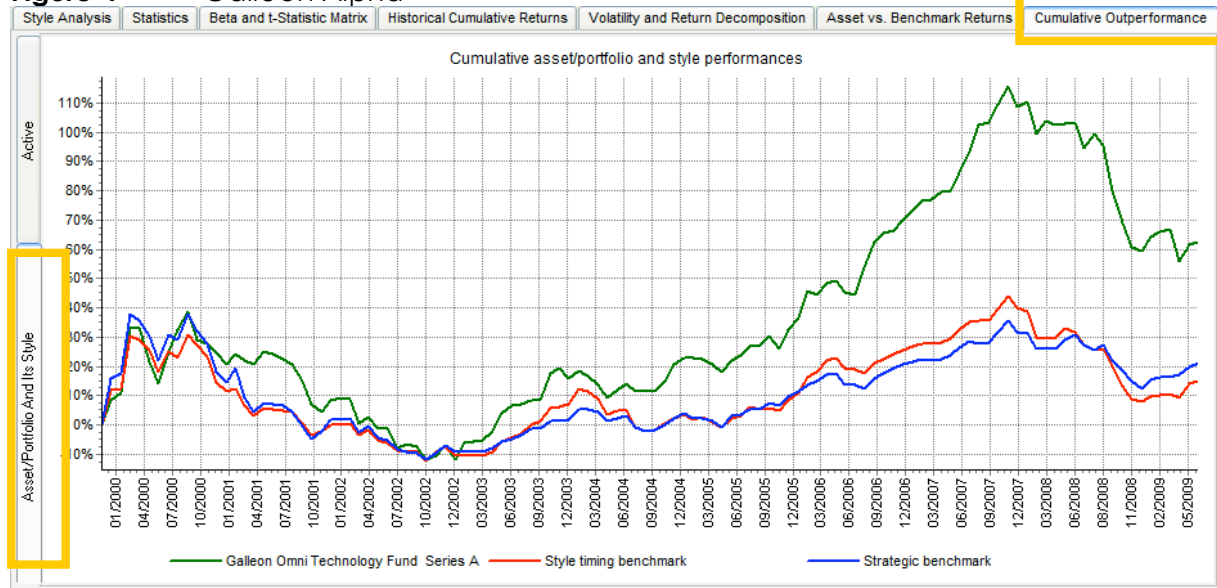
- In the last 24 months, the 4 indices explained 46% of Galleons returns changes.
- Galleon was short US Small Caps (yellow) and long HFN Technology (pink), since inception.

**Figure 3** Galleon Last 24 Months Style Exposure



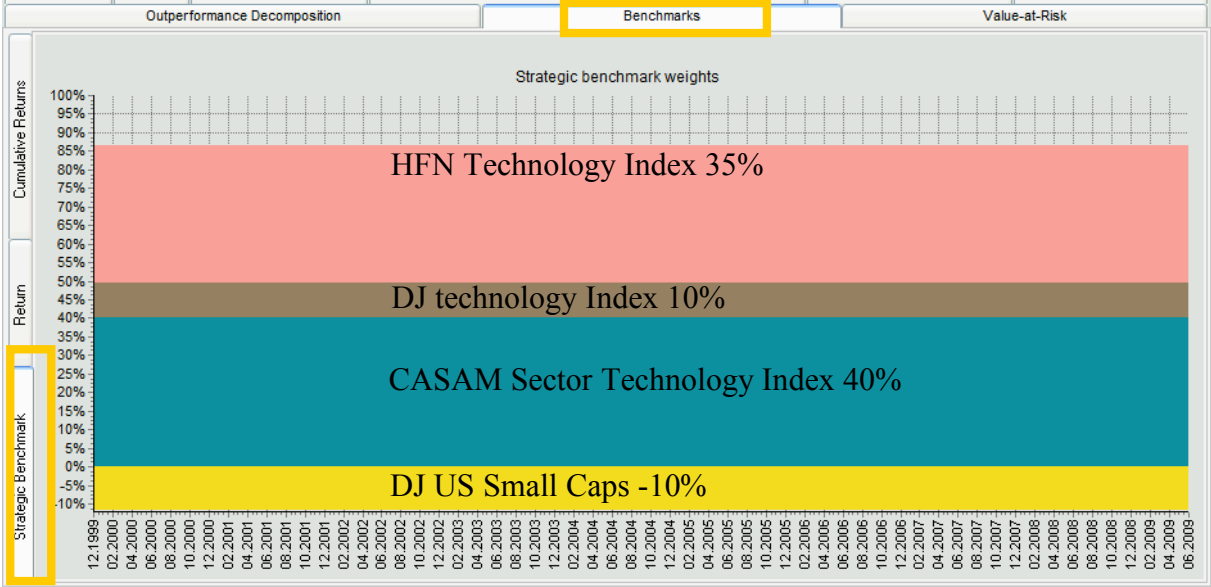
Step 4: In the tab 'Cumulative outperformance', a large part of Galleons returns (green) was 'alpha' (i.e. difference between the green line and the blue line) and a small part was due to sectors exposure (blue line). Galleon generated no alpha in the sectors selection (i.e. blue and red lines are together).

**Figure 4** Galleon Alpha



In order to replicate the Galleon BUY and HOLD exposure, one should have had the following weights in the provided factors, since inception:

**Figure 5** Galleon Buy and Hold Strategy



Step 5: We computed the return differential between Galleon monthly returns and its BUY and HOLD weights (Figure 5). These returns are shown in Figure 6 and are alphas which could be attributed to non-systematic factors such as stock selection, sector selection (but we saw that Galleon had no sector selection skills in Figure 4), skill, luck or... insider trading.

Figure 6 shows that July 2006, July 2007, July 2008 (cells in red) are three months with huge positive alphas. We remind you that Galleon is prosecuted to have done insider trading during July 2007 and July 2008 (see appendix).

**Figure 6** Galleon Alpha

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
1999												-7.24%	-7.24%
2000	0.64%	2.68%	1.95%	-5.18%	0.33%	2.67%	7.24%	-2.49%	-2.39%	1.81%	5.38%	-0.38%	12.01%
2001	-1.00%	6.83%	3.17%	0.60%	-0.47%	-0.73%	0.61%	-0.43%	-2.54%	-5.05%	-0.29%	0.88%	1.69%
2002	-0.65%	-2.81%	-0.09%	0.18%	0.73%	-3.26%	2.45%	-0.53%	-2.10%	-1.07%	0.61%	-2.57%	-8.18%
2003	6.02%	0.87%	0.41%	1.87%	3.62%	1.64%	-1.08%	-0.99%	0.20%	6.03%	1.08%	-3.02%	19.32%
2004	-1.43%	-1.33%	-1.82%	-1.08%	1.65%	0.95%	1.55%	1.17%	-0.24%	1.29%	3.00%	0.32%	4.04%
2005	1.31%	-0.45%	-0.36%	-0.23%	-0.56%	1.14%	0.59%	0.33%	0.63%	-2.67%	2.28%	1.36%	3.47%
2006	4.63%	-1.85%	0.66%	0.51%	0.48%	-0.73%	7.71%	2.53%	0.67%	-0.95%	0.89%	1.46%	18.23%
2007	1.09%	0.34%	1.33%	-0.98%	1.38%	2.11%	5.21%	0.18%	0.54%	-0.35%	-0.29%	1.08%	13.06%
2008	-1.16%	2.22%	-0.58%	-2.30%	-0.91%	-1.86%	3.87%	-3.44%	-3.56%	-3.25%	-1.84%	1.47%	-9.59%
2009	0.10%	0.50%	0.21%	-7.33%	1.44%	-0.57%							-6.20%

# Appendix

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Source: United States Magistrate Judge, Southern District of New York, 15.10.09, related to **July 2007 tip**. Google lost 36USD on Friday 20.07.07 and Monday 23.07.07, 3 days after the short selling.

c. On or about July 3, 2007, in New York, New York, RAJARATNAM caused the Galleon Technology Funds to purchase approximately 400,000 shares of Hilton Hotels Corp., which traded under the symbol "HLT."

d. On or about July 17, 2007, in New York, New York, RAJARATNAM caused the Galleon Technology Funds to purchase approximately 1,000 put options in Google, Inc., which traded under the symbol "GOOG," and to short approximately 25,000 shares of Google stock.

(Title 18, United States Code, Section 371.)



Source: United States Magistrate Judge, Southern District of New York, 15.10.09, related to **July 2008 tip**. Akamai Technologies lost 8USD the 31.07.08, 5 days after the short selling.

a. On or about July 24, 2008, a co-conspirator not named as a defendant herein ("CC-1") called RAJ RAJARATNAM, the defendant, from New York, New York.

b. On or about July 25, 2008, in New York, New York, RAJARATNAM caused the Galleon Technology Funds to sell short approximately 138,550 shares of Akamai Technologies, Inc. stock, which traded under the symbol "AKAM."

(Title 18, United States Code, Section 371.)

Jul 31, 2008 : ■ AKAM 23.34



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