



Analytic Engines, Inc.
Mathematics@Work[®]

PSN *SMART*[®]

Web User Interface

Help Documentation

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1. About PSN SMART®

SMART®, developed by Analytic Engines Inc., is the most comprehensive and in-depth returns-based manager research tool. The Web-based user interface is designed to satisfy your demands for quick identification of managers with desired characteristics. You now have access to a powerful analytical system covering nearly 18,000 investment products.

SMART® is a powerful engine for analyzing a variety of managed assets such as mutual funds, exchange-traded funds, and separately-managed accounts in a standardized fashion. The approach is to identify and evaluate manager skill and reduce reliance on nominal returns as a means for manager selection. SMART® provides a comprehensive suite of 23 quantitative indicators that fall into one of 6 categories. The categories are *Portfolio Management, Return Characteristics, Risk Measures, Portfolio Characteristics, Performance Attribution, and Performance Evaluation*. Most measures are calculated over 3 and 5 years and are converted into scores across *All Members*, within *Types*, and within *Peer Groups*. There are a total of 72 scores. Through representation of the output in the form of scores instead of raw numbers, the emphasis is directed towards *analysis* rather than *measurement*.

SMART® offers the following unique differentiating advantages:

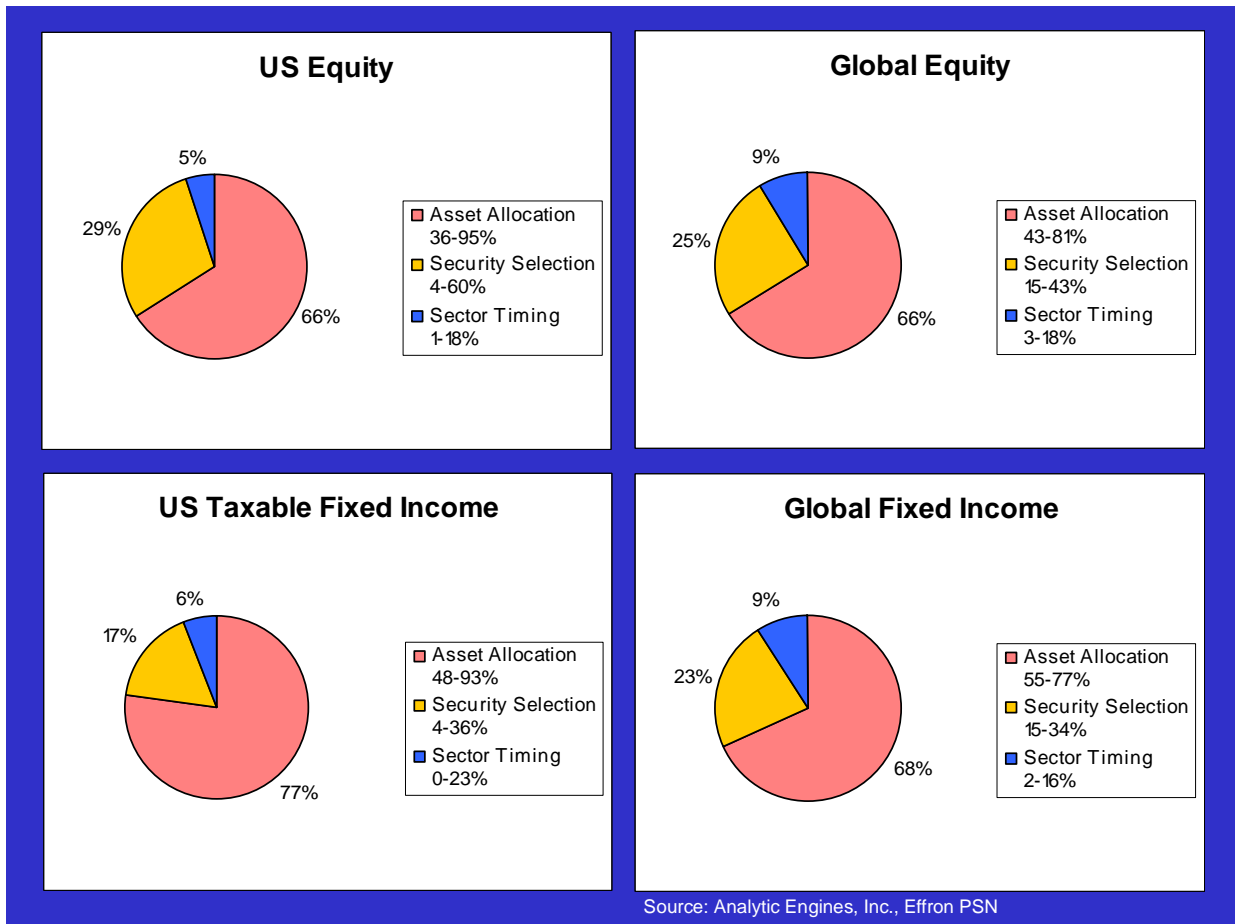
- ❖ A powerful engine for analyzing a variety of managed assets in an identical framework
- ❖ Capability to quickly customize a concise narrative for a particular client making the analytical complexity as evident/inconspicuous as desired
- ❖ Analysis considerably beyond the basic buy/sell/hold recommendation
- ❖ Identification of primary sources of return putting the advisor/analyst in a stronger position to distinguish skill from luck and judge whether good performance is repeatable

More detail can be obtained in the Documents section of our Website:

www.AnalyticEngines.com.

a. Performance Attribution

An active manager can outperform the selection universe through three primary mechanisms: asset allocation, security selection, and sector timing. SMART® attributes the performance to each source and determines the areas in which the manager has added value. The following exhibit shows typical attributions for four product Types. Regardless of Type, asset allocation is the most important source of performance followed by security selection. Timing generally plays a small part. The pie charts display the average attribution. There is a wide range at the product level, which is summarized in the legend section. For example, typically 66% of performance can be attributed to asset allocation for US Equity products. However, specific products within this Type could have derived anywhere from 36 to 95% of their returns from this source.

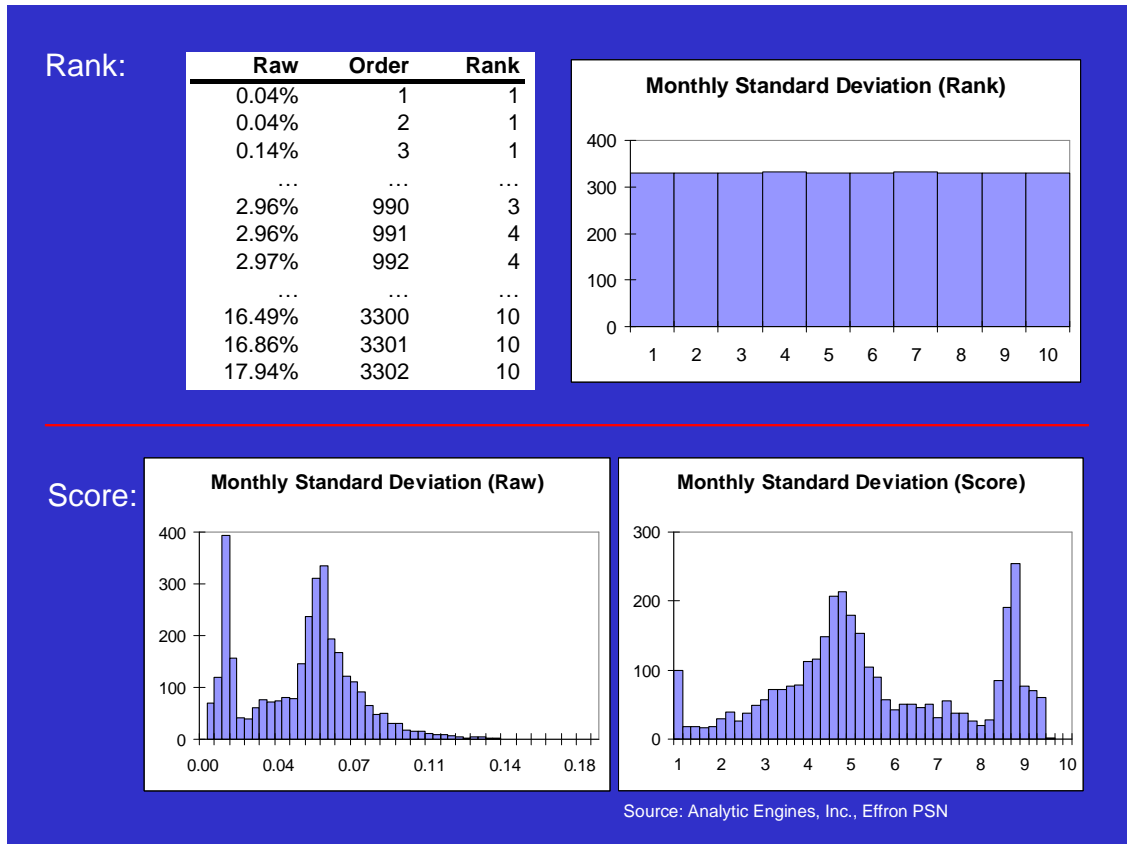


b. Rank vs. Score

Most individuals prefer not to deal with raw numbers. A standard deviation of 5% may not be that meaningful to most investors, however, a score of 7 on a scale of 1 to 10 is clear to everyone. The methodology for converting from raw data into scores is rather important. The most common industry practice is to *rank* peer group members into equally-populated buckets. Another approach is to assign an arbitrary percentage of the population to each group to mimic a bell shaped distribution. Two problems are generally introduced with these methodologies:

- The relative position of the data is ignored. For example, when manager performance is mapped into quartiles it only matters that manager A has outperformed manager B, but not by how much.
- The actual distribution of the data is altered. In most populations, not necessarily in money management alone, a large number of members are close to average while a few distinguish themselves in a positive or negative way. It is important not to distort this tendency since the objective in a screening exercise is to identify the handful of top performers.

The example given below should clarify these issues. Monthly standard deviations for a representative universe of separately managed accounts is ranked in the typical fashion and shown in the upper half of the exhibit. The actual distribution appears on the lower left. This data is converted into scores on a scale of 1 to 10 and provided by the plot on the lower right. In sharp contrast to the ranked results, our scoring algorithm largely preserves the raw data distribution and relative proximity. With certain indicators, such as standard deviation, order is reversed to assign higher scores to preferred values.



We map raw numbers into scores on a scale of 1 to 3 (*Performance Evaluation* indicators) or 1 to 10 (all other measures) with one decimal. **With two exceptions (ACT, AAV), higher scores should be preferred for all Indicators.**

c. Types and Peer Groups

Scores are computed across *All Members*, within *Types*, and within *Peer Groups*.

All Members: A limited number of indicators pertaining to return, risk, and risk-adjusted performance are calculated across the entire universe. These measures facilitate a comparison of products belonging to different *Types* or *Peer Groups*. Scores calculated across *All Members* are designated with the letter “a” as a suffix.

Types: The entire universe is divided into one of eight Types. Types are defined based on the nature of assets (equity/fixed income) or geographic location (US/international/global). The hybrid Type includes portfolios investing in both equity and debt instruments in significant quantities. The term international designates portfolios investing in non-US assets. Scores calculated within Type allow a comparison of products belonging to different Peer Groups. These Scores are designated with the letter “t” as a suffix.

Peer Groups: Each Type is divided into a number of Peer Groups, which are used to form fair and uniform clusters. We provide 86 Peer Groups for mutual funds and 76 the separate accounts. Scores calculated within Peer Group are designated with the letter “p” as a suffix.

Our mutual fund Peer Groups are based on Lipper classifications. Lipper classifies US Equity funds utilizing portfolio holdings. All other fund Types are classified based on investment objective and policies set forth in the fund’s prospectus. We condense Lipper’s 128 classifications into our 88 Peer Groups through a number of combinations. On rare occasions, we may override Lipper’s classification.

Types & Fund Peer Groups			
(1) US Equity (USEQ)	(2) US Hybrid (USHB)	(4) Muni (MUNI)	(5) Global Equity (GLEQ)
Small-Cap Blend	Balanced	Arizona	Global Small/Mid-Cap
Small-Cap Growth	Balanced Target	California	Global Large-Cap
Small-Cap Value	Income	Colorado	Global Multi-Cap
Mid-Cap Blend	Convertible	Connecticut	Global Flexible
Mid-Cap Growth	Domestic Flexible	Florida	
Mid-Cap Value	(3) US Fixed Income (USFI)	Georgia	(6) International Equity (INEQ)
Large-Cap Blend	Ultra Short Investment Grade	Massachusetts	Europe
Large-Cap Growth	Short Government	Maryland	Japan
Large-Cap Value	Short/Intermediate Government	Michigan	Pacific Ex-Japan
Multi-Cap Blend	Intermediate/Long Government	Minnesota	Pacific
Multi-Cap Growth	General Government	Missouri	China
Multi-Cap Value	A-Rated or Better Gov. & Corp.	North Carolina	Latin America
Equity Income	BBB-Rated or Better Gov. & Corp.	New Jersey	Emerging Markets
Specialty	General Gov. & Corp.	New York	International Small/Mid-Cap
Gold	Short Corporate	Ohio	International Large-Cap
Financial Services	Short/Intermediate Corporate	Oregon	International Multi-Cap
Health/Biotech	Intermediate/Long Corporate	Pennsylvania	(7) Global Fixed Income (GLFI)
Natural Resources	Mortgage	Virginia	Global Fixed Income
Real Estate	Adjustable Rate Mortgage	Other States	Multi-sector Fixed Income
Science & Technology	High Yield	Short Muni	Short Global Fixed Income
Telecommunications	Bond Flexible	Short/Intermediate Muni	(8) International Fixed Income (INFI)
Utility	Target Maturity	Intermediate Muni	International Fixed Income
Miscellaneous	Loan Participation	General Muni	Emerging Markets Fixed Income
		High Yield Muni	

Source: Analytic Engines, Inc., Lipper Inc.

Separate account Peer Groups are determined based on the data entered into the PSN database by manager firms. Specifically, four fields: *Equity Style*, *Equity Market Capitalization*, *Fixed Style*, and *Fixed Maturity* are utilized. Products that cannot be classified into one of the Peer Groups listed below are excluded from the PSN SMART® universe. Peer Groups are mutually exclusive. For example, US equity products with an All Capitalization designation in their *Equity Market Capitalization* field are classified into one of the following Peer Groups: All-Cap, All-CAP Blend, All-Cap GARP, All-Cap Growth, or All-Cap Value depending on the entry in their *Equity Style* field.

Types & Separate Account Peer Groups			
(1) US Equity (USEQ)	(2) US Hybrid (USHB)	(5) Global Equity (GLEQ)	(7) Global Fixed Income (GLFI)
All-Cap All-Cap Blend All-Cap GARP All-Cap Growth All-Cap Value Large-Cap Large-Cap Blend Large-Cap GARP Large-Cap Growth Large-Cap Value Micro-Cap Mid-Cap Mid-Cap Blend Mid-Cap GARP Mid-Cap Growth Mid-Cap Value REIT Small-Cap Small-Cap Blend Small-Cap GARP Small-Cap Growth Small-Cap Value	All-Cap Convertible Large-Cap Mid-Cap Small-Cap (3) US Fixed Income (USFI) All Maturity Corporate Government/Agency High Yield Intermediate Maturity Long Maturity Money Market Mortgage Short Maturity Ultra Short Maturity (4) Muni (MUNI) All Maturity Intermediate Maturity Long Maturity Short Maturity	All-Cap Global Hybrid Large-Cap Large-Cap Blend Large-Cap GARP Large-Cap Growth Large-Cap Value Mid-Cap Small-Cap (6) International Equity (INEQ) All-Cap All-Cap Blend All-Cap GARP All-Cap Growth All-Cap Value Convertible International Hybrid Large-Cap Large-Cap Blend Large-Cap GARP Large-Cap Growth Large-Cap Value Micro-Cap Mid-Cap Small-Cap	All Maturity Government/Agency High Yield Intermediate Maturity Long Maturity Short Maturity (8) International Fixed Income (INFI) All Maturity Government/Agency High Yield Intermediate Maturity Long Maturity Short Maturity

Source: Analytic Engines, Inc., Informa Investment Solutions Inc.

d. Minimum System Requirements

PSN SMART® System has the following requirements:

- ❖ IBM Compatible Pentium PC (Laptop/Desktop)
- ❖ Resolution 1024x768 or Higher
- ❖ Memory (RAM) 128 MBS or Higher
- ❖ Internet Connection 56K or Higher
- ❖ Microsoft Explorer 4.0 or Higher, Netscape Explorer 4.5 or Higher
- ❖ Adobe Acrobat Reader 4.0 or Higher
- ❖ IBM Compatible Printer Connection

e. User Access Rights

Effron PSN has granted the user access to PSN SMART® based on one user connected to a functional email address. This is a web-based application not contingent on user location. The user can gain access using the same user name (email address) and password from any Internet connection.

At login, the user is authenticated based on the information provided by the user's organization. **ONLY AUTHORIZED USERS WILL BE ALLOWED ACCESS.**



Others may not access PSN SMART® unless they are valid subscribers with their own user name (email address) and password. To add new users, please contact the Client Service Department at PSNClientService@effron-psn.com.

2. About PSN SMART® Data

PSN SMART® can be delivered in ASCII files or through the Web. Data update frequency is monthly for mutual funds and quarterly utilizing monthly and quarterly returns for separate accounts. The output includes over 90 fields. Scores tabulated below constitute the largest portion. There are some additional data fields (R^2 , attribution percentages, ...) with the remainder being basic descriptive information (Product Name, Peer Group, ...).

Indicators	Scores						Scale*
	Across All Products		Within Type		Within Peer		
Portfolio Management							
Total Expense Ratio (TER)**	√		√		√		1-10L
Portfolio Turnover (TRN)	√		√		√		1-10L
Return Characteristics	3 Year	5 Year	3 Year	5 Year	3 Year	5 Year	
Average Monthly Return (AVR)	√	√	√	√	√	√	1-10H
Minimum Monthly Return (MNR)	√	√	√	√	√	√	1-10H
Maximum Monthly Return (MXR)	√	√	√	√	√	√	1-10H
Skewness (SKW)	√	√	√	√	√	√	1-10H
Risk Measures	3 Year	5 Year	3 Year	5 Year	3 Year	5 Year	
Standard Deviation (STD)	√	√	√	√	√	√	1-10L
Downside Volatility (DSV)	√	√	√	√	√	√	1-10L
Interest Rate Sensitivity (IRS), fixed income products only			√				1-10L
Portfolio Characteristics			3 Year	5 Year	3 Year	5 Year	
Diversification (DIV)			√				1-10H
Active Management (ACT)			√	√	√	√	1-10H
Asset Allocation Volatility (AAV)			√	√	√	√	1-10L
Capitalization (CAP), Small (1)-Large (10), US Equity and Hybrid							1-10
Style (STY), Growth (1)-Value (10), US Equity products only							1-10
Performance Attribution					3 Year	5 Year	
Asset Allocation Attribution (aALatt3,5)							0-100%
Security Selection Attribution (sSLatt3,5)							0-100%
Sector Timing Attribution (sTMatt3,5)							0-100%
Asset Allocation Value Added (aAL)					√	√	1-10H
Security Selection Value Added (sSL)					√	√	1-10H
Sector Timing Value Added (sTM)					√	√	1-10H
Performance Evaluation	3 Year	5 Year	3 Year	5 Year	3 Year	5 Year	
Track Record Rating (TRR)					√	√	1-3H
Downside Volatility Adjusted Performance (DVP)	√	√	√	√	√	√	1-3H
Return Stability Adjusted Performance (RSP)	√	√	√	√	√	√	1-3H

*H: Higher values get higher scores, L: Lower values get higher scores

**Not available for separately-managed accounts.

a. Data Release Schedule

Mutual Funds: Analytic Engines, Inc. receives a monthly feed from Lipper Inc. on the 4th business day of the month and submits the PSN SMART® feed after up to 5 days of processing time.

Separate Accounts: Analytic Engines, Inc. receives the *Second Release* PSN feed 45 days after quarter end and submits the PSN SMART® feed after up to 5 days of processing time.



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These estimated schedules are not guaranteed. Effron PSN and Analytic Engines, Inc. will make every effort to issue the release on this schedule.

b. Questions about the Data and User Feedback

Effron PSN clients are accustomed to a high level of service and support. If you need training, have questions, comments or suggestions concerning our software, please contact:

Ms. Trang Decker-Powell
Client Service Manager
Tel: 914-509-1555
Fax: 914-509-1655
E-mail: trangd@effron-psn.com

Mr. Jason Mock Yen
Client Service Specialist
Tel: 914-509-1523
Fax: 914-509-1623
E-mail: jmyen@effron-psn.com

Ms. Marion Sexton
Client Service Specialist
Tel. 914-509-1583
Fax: 914-509-1683
Email: marion.sexton@effron-psn.com

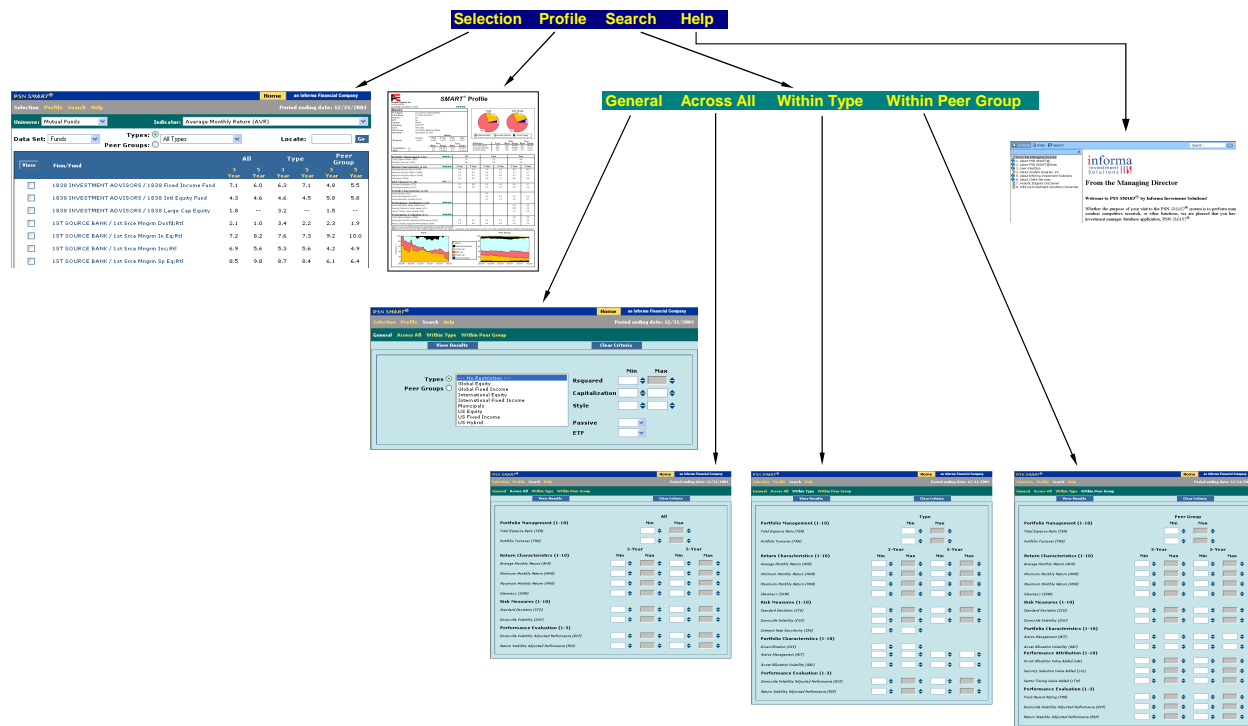
For general questions and comments, please e-mail us at:

PSNClientService@effron-psn.com

Via Mail:
Effron PSN
Client Service Department
4 Gannett Drive, White Plains, NY 10604
Phone: 914-640-0200
Fax: 914-694-6745

3. User Interface

This section is intended to provide you with a quick guide to the features and functionality of the Web-based User Interface. The exhibit below shows the menu structure and includes the corresponding screen shots.



a. Selection

Here are the functions that can be performed in this section:

1. Select the universe using the drop down list box.
2. Identify the Data Set to be viewed (all products or a subset).
3. Specify the Type or Peer Group if desired.
4. Choose the indicator to be viewed. AVR is the default indicator.
5. View list of products. Click on the product name to view Profile.
6. Highlight the box next to the name to select the product. Click on the View button to:
 - a. Sort your list before going to Profile.
 - b. Delete one or more of your current selections.
7. Use the Locate window to search for a specific product by typing one or more of the starting letters of the Firm name.
8. Indicate the number of products to be displayed per page using the lower left window.
9. Pick a page number or click on the Next Page on the lower right to see the next batch of products.

b. Profile

SMART® Profile is a compact and convenient tool for displaying the relevant analytics for a given product. Once the user specifies the product, the Profile is generated automatically and displayed in PDF format. It includes 121 data items and four graphs on the first page. The following three pages provide indicator definitions for ease of reference. There are subtle variations depending on the product Type. These differences center around three indicators, Capitalization, Style, and Interest Rate Sensitivity. Capitalization is available for US Equity and US Hybrid, Style for US Equity only, and Interest Rate Sensitivity for the four Fixed Income Types.

If more than one product is selected, the user can scroll through their Profiles utilizing the arrow icons. The Compile button creates a single PDF document that includes Profiles of all specified products followed by the Definitions section.

c. Search

This tool is designed to return a list of products satisfying desired characteristics as defined by the user. For majority of indicators a higher score is desirable. In those cases, the maximum window will rarely be utilized and is designated with grey shading. With the exception of Rsquared, Min and Max windows scroll in the 1-3 or 1-10 range in 0.1 increments. All windows are blank initially. Those left blank will have no impact on the returned results.

Type, Peer Group, Rsquared, Capitalization, and Style can be specified under the General tab. Indicators available under the remaining three tabs are listed below.

Indicators	Tab		
	Across All	Within Type	Within Peer Group
Portfolio Management			
Total Expense Ratio (TER)*	√	√	√
Portfolio Turnover (TRN)	√	√	√
Return Characteristics			
Average Monthly Return (AVR)	√	√	√
Minimum Monthly Return (MNR)	√	√	√
Maximum Monthly Return (MXR)	√	√	√
Skewness (SKW)	√	√	√
Risk Measures			
Standard Deviation (STD)	√	√	√
Downside Volatility (DSV)	√	√	√
Interest Rate Sensitivity (IRS)		√	
Portfolio Characteristics			
Diversification (DIV)		√	
Active Management (ACT)		√	√
Asset Allocation Volatility (AAV)		√	√
Performance Attribution			
Asset Allocation Value Added (aAL)			√
Security Selection Value Added (sSL)			√
Sector Timing Value Added (sTM)			√
Performance Evaluation			
Track Record Rating (TRR)			√
Downside Volatility Adjusted Performance (DVP)	√	√	√
Return Stability Adjusted Performance (RSP)	√	√	√

*Not available for separately-managed accounts.



Capitalization (US Equity, US Hybrid), Style (US EQUITY) and Interest Rate Sensitivity (US Fixed Income, Municipal, Global Fixed Income, International Fixed Income) should only be specified for relevant Types.

Once you have completed your entries, click on the View Results button to see the list that matches your criteria. Click on any of the products to view its Profile. Click on Clear Criteria button when you want to delete all of your current criteria and start fresh. If the constraints are so restrictive that no products are returned, the following message is displayed:

There are no Products Satisfying All Constraints. Please Re-Run Search with Less Restrictive Inputs.

Please note that the selected search criteria are not preserved and will have to be reentered if you choose to switch the universe.

4. About Analytic Engines, Inc.

Analytic Engines, Inc. develops and supports sophisticated investment-related analytical tools. Our core expertise includes all aspects of security selection and portfolio construction. To complement our services, we partner with organizations that specialize in creating customized web-enabled software. Our objective investment philosophy results in products and services that facilitate better investment decisions. Our products are designed for the financial advisors and professional investors. Major brokers, mutual fund and other asset management companies, plan sponsors, and consultants are the primary target audience. Analytic Engines, Inc. is headquartered in White Plains, NY.

5. Indicators

PSN SMART[®] provides a comprehensive suite of 23 quantitative indicators that fall into one of 6 categories. The categories are:

- A. Portfolio Management
- B. Return Characteristics
- C. Risk Measures
- D. Portfolio Characteristics
- E. Performance Attribution
- F. Performance Evaluation.

A. Portfolio Management (Scale: 1-10)

Total Expense Ratio (TER): Percentage of assets spent to cover management and marketing expenses for funds. It includes the 12b-1 fee, but excludes sales commissions and trading costs. Low expense funds are assigned a higher score. TER is updated once a year and is as of the fund's fiscal year end. Consequently, it can be a year or more old. When TER is older than 18 months, it is excluded.

Portfolio Turnover (TRN): Products with high turnover have higher trading costs. *TRN* is distinct from Active Management (*ACT*). A manager can take large bets against passive benchmarks with very little turnover. Low turnover products are assigned a higher score. In the case of funds, *TRN* is updated once a year and is as of the fiscal year end. Consequently it can be a year or more old. When *TRN* is older than 18 months, it is excluded.

B. Return Characteristics (Scale: 1-10)

Four measures are provided under this category. All four are available as scores across All Members, within Type, and within Peer Group. Average (*AVR*), Minimum (*MNR*), and Maximum (*MXR*) monthly/quarterly returns are the first three measures.

Skewness (SKW): Returns are generally distributed in some bell-shaped fashion, which is not necessarily symmetric. A distribution that is skewed to the right should be preferred. This implies that extreme returns have occurred on the positive (or at least less negative) side. Positively-skewed return distributions are indicated by higher Skewness scores.

C. Risk Measures (Scale: 1-10)

Standard Deviation (STD): The most commonly used measure to quantify risk. It uses volatility as a proxy for uncertainty. Low volatility portfolios are assigned a high score.

Downside Volatility (DSV): Standard Deviation considers volatility on either side of the return distribution to be equally undesirable. Downside Volatility corrects for this shortcoming by incorporating an asymmetry that is only sensitive to volatility on the left side of the distribution. Low volatility portfolios are assigned a high score.

Interest Rate Sensitivity (IRS): This measure is based on an estimate of the average duration of the portfolio. Duration is a gauge of the sensitivity of a bond to changes in interest rates. *IRS* is only available for the four fixed income Types. Products with low interest rate risk are assigned a high score.

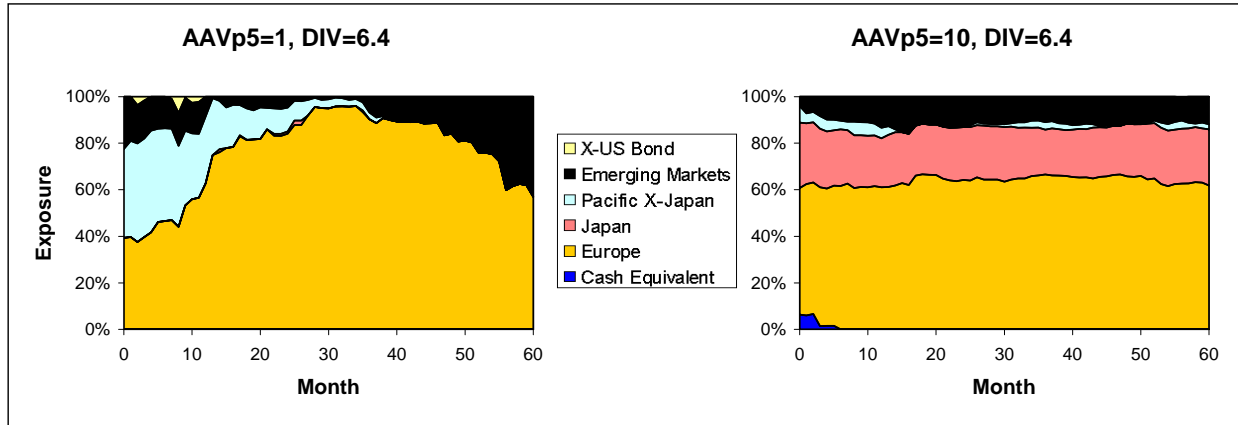
D. Portfolio Characteristics (1-10)

Diversification (DIV): Portfolios with a high score have exhibited a material exposure to a large number of sectors within their universe.

Active Management (ACT): The extent to which the manager has taken bets away from passive benchmarks. Products managed closer to benchmarks get a lower score. A low score is not indicative of poor performance.

Asset Allocation Volatility (AAV): An indication of whether the current allocation is representative of the manager's long-term approach. Portfolios with low allocation volatility get a higher score. The exhibit below is helpful in the interpretation. Two international equity products with similar Diversification scores are represented. The product on the left has a more volatile allocation history with a score of 1 vs. the one on the right, which scores a 10. Both products have a European equity exposure of around 60% at the end of the period. We can expect that to continue with the product on the right, but not with the one on the left. A product

with high allocation volatility should not be viewed in a negative light as long as the added volatility has contributed to better performance. This can be verified with the aid of certain other indicators.



Capitalization (CAP): Market capitalization of companies invested in for US Equity and US Hybrid Types. CAP positions the product on the small (1)-large (10) spectrum. It is only provided if exposure to US equity assets is at least 40%.

Style (STY): Quantifies the portfolio's growth (1)-value (10) bias for the US Equity Type. STY is only provided if exposure to US equity assets is at least 40%.

E. Performance Attribution

An active manager can primarily add value through three mechanisms: asset allocation, security selection, and sector timing. SMART® attributes the returns to these sources and evaluates the manager's ability in each area. These indicators are only available for actively-managed products.

Return Attributable to Asset Allocation (aALatt, 0-100%): On average, over 60% of returns are attributable to asset allocation. However, a wide range is observed and top-down managers usually fall near the top of the range.

Return Attributable to Security Selection (sSLatt, 0-100%): Security selection is the second most important source of returns. Bottom-up managers generally fall near the top of the range.

Return Attributable to Sector Timing (sTMatt, 0-100%): Changes in allocation to various segments of the relevant universe affect this attribution. Examples include a change in allocation between: cash/equity/bond or small/mid/large/ or corporate/government/mortgage, etc. Therefore, the word sector should not necessarily be interpreted as industrial sector. Timing usually plays a small part for majority of managed assets.

Asset Allocation Value Added (aAL, 1-10): An indication of demonstrated skill in asset allocation. This score generally has the highest impact on the overall performance rating.



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Security Selection Value Added (sSL, 1-10): An indication of demonstrated skill in security selection. Skillful bottom-up managers should have a high score.

Sector Timing Value Added (sTM, 1-10): An indication of demonstrated skill in timing. A high timing score justifies a product's high Asset Allocation Volatility (AAV).

F. Performance Evaluation (1-3)

Track Record Rating (TRR): A composite score of overall performance and value added. A high score is indicative of superior historical performance. TRR is an evaluation of an active manager's relative historical performance within the Peer Group. This score should in no way be used as a proxy for a buy/sell/hold rating. It is merely a starting point to highlight products worthy of further analysis.

Downside Volatility Adjusted Performance (DVP): A risk-adjusted measure of performance that defines uncertainty in terms of downside volatility. Unlike the Sharpe ratio, which breaks down with negative returns preferring alternative with higher risk, DVP can handle negative returns.

Return Stability Adjusted Performance (RSP): A risk-adjusted measure of performance that defines risk in terms of low returns rather than volatility.

6. Terms & Disclaimers

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- Does not take into account the particular needs, financial situation, or objectives of any specific investor who may receive it
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