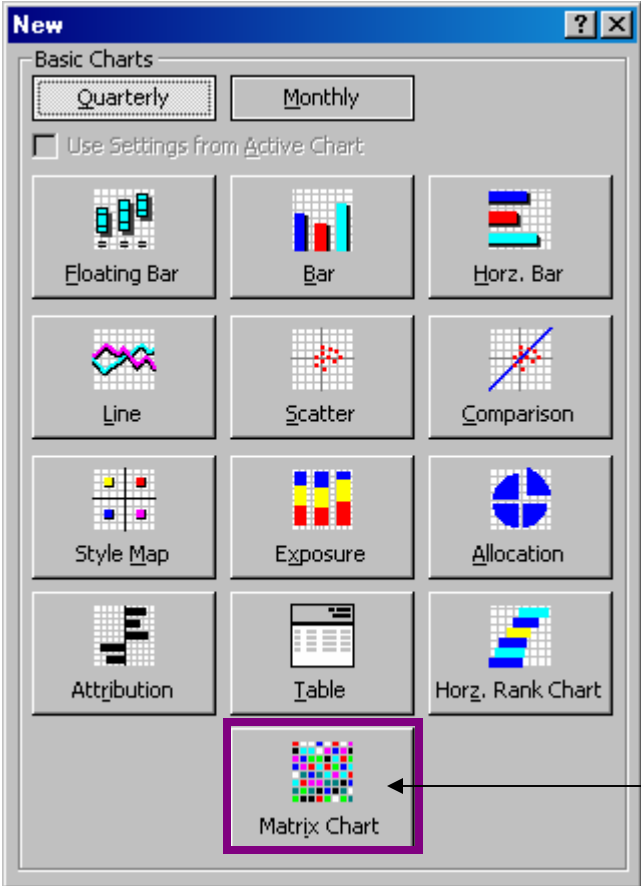


PEP Version 9.0

New Features

1. New Chart Type – Matrix Chart
2. Fixed Income Style Map
3. Increased Asset Information
4. One click access to all data types in the database
5. SearchBook Upgrades
6. New Database Column - Mutual Fund Share Class
7. New Database Icons
8. Ability to use Preliminary Returns
9. Background Computations
10. New Gradient Fills
11. New Holdings based Exposure Types
12. Database Filter

Matrix Chart



Matrix Chart
New chart type icon

Matrix Chart

The Matrix chart analyzes the investment style of a portfolio using a detailed holdings-based style analysis to determine actual exposures to various market capitalization and style segments of the domestic equity market. The market is segmented quarterly by capitalization and style. The capitalization segments are dictated by capitalization decile breakpoints. The style segments are determined using the Combined Z Score, based on the eight fundamental factors used in the MSCI stock scoring system. The style matrix displays the portfolio and index weights and stock counts (in parentheses) in each capitalization/style segment of the market.

Style Exposure Matrix
for Quarter Ended September 30, 2007
Top: Vangrd: Vanguard 500 Index
Middle: S&P
Bottom: S&P:500 Growth

Large	30.0% (83)	27.8% (79)	31.3% (113)	89.1% (275)
	30.0% (83)	27.7% (79)	31.3% (111)	89.1% (273)
	11.4% (20)	34.2% (52)	43.7% (99)	89.2% (171)
Mid	4.1% (84)	4.0% (82)	2.5% (44)	10.6% (210)
	4.1% (84)	4.0% (81)	2.5% (44)	10.6% (209)
	1.5% (25)	5.5% (69)	3.6% (41)	10.6% (135)
Small	0.1% (8)	0.2% (11)	0.0% (3)	0.3% (22)
	0.1% (8)	0.1% (8)	0.0% (3)	0.3% (19)
	0.0% (2)	0.1% (6)	0.0% (0)	0.2% (8)
Micro	0.0% (0)	0.0% (1)	0.0% (0)	0.0% (1)
	0.0% (0)	0.0% (0)	0.0% (0)	0.0% (0)
	0.0% (0)	0.0% (0)	0.0% (0)	0.0% (0)
Total	34.3% (175)	31.9% (173)	33.8% (160)	100.0% (508)
	34.2% (175)	31.9% (168)	33.9% (158)	100.0% (501)
	12.9% (47)	39.8% (127)	47.3% (140)	100.0% (314)
	Value	Core	Growth	Total

Matrix Chart

Other Matrix Chart options include the Periodic Table and Correlation Table.

Periodic Table of Investment Returns
for 5 Years Ended December 31, 2007

2003	2004	2005	2006	2007
Russell 2000 Growth 48.5%	Russell 2000 Value 22.2%	MSCI:EAFE US\$ 13.5%	MSCI:EAFE US\$ 26.3%	MSCI:EAFE US\$ 11.2%
Russell 2000 Index 47.3%	MSCI:EAFE US\$ 20.2%	S&P:500 Value 5.8%	Russell 2000 Value 23.5%	S&P:500 Growth 9.1%
Russell 2000 Value 46.0%	Russell 2000 Index 18.3%	S&P:500 4.9%	S&P:500 Value 20.8%	Russell 2000 Growth 7.0%
MSCI:EAFE US\$ 38.6%	S&P:500 Value 15.7%	Russell 2000 Value 4.7%	Russell 2000 Index 16.4%	LB:Aggr Bond 7.0%
S&P:500 Value 31.8%	Russell 2000 Growth 14.3%	Russell 2000 Index 4.6%	S&P:500 15.8%	S&P:500 5.5%
S&P:500 28.7%	S&P:500 10.9%	Russell 2000 Growth 4.2%	Russell 2000 Growth 13.3%	S&P:500 Value 2.0%
S&P:500 Growth 25.7%	S&P:500 Growth 6.1%	S&P:500 Growth 4.0%	S&P:500 Growth 11.0%	Russell 2000 Index (1.6%)
LB:Aggr Bond 4.1%	LB:Aggr Bond 4.3%	LB:Aggr Bond 2.4%	LB:Aggr Bond 4.3%	Russell 2000 Value (9.8%)

Correlation Table
for 5 Years Ended December 31, 2007

Correlation	1.00%							
Russell 2000 Growth	0.98%	1.00%						
Russell 2000 Value	0.98%	0.91%	1.00%					
MSCI:EAFE US\$	0.90%	0.88%	0.88%	1.00%				
LB:Aggr Bond	(0.08%)	(0.10%)	(0.06%)	(0.14%)	1.00%			
S&P:500	0.89%	0.86%	0.87%	0.92%	(0.03%)	1.00%		
S&P:500 Value	0.90%	0.84%	0.92%	0.92%	0.00%	0.97%	1.00%	
S&P:500 Growth	0.79%	0.81%	0.73%	0.83%	(0.07%)	0.95%	0.85%	1.00%
Correlation	Russell 2000 Growth	Russell 2000 Value	MSCI:EAFE US\$	LB:Aggr Bond	S&P:500	S&P:500 Value	S&P:500 Growth	

Fixed Income Style Map

The Domestic Fixed Income Style Map quality pivot points are represented by the quality rating of the following:

High Yield: LB:HY Credit

Credit: LB:Credit

Govt/Credit: LB:Govt/Credit

CCC, AAA, Treasury: These pivot points are constant values.

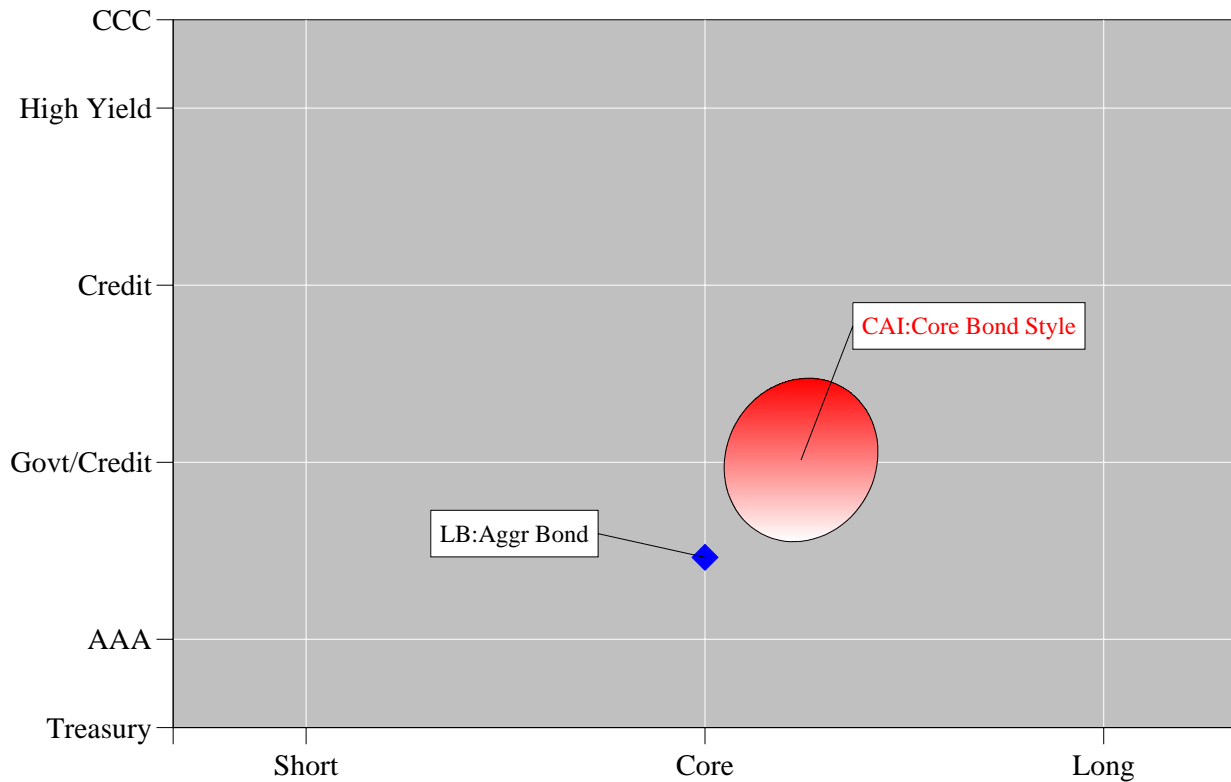
The Domestic Fixed Income Style Map duration pivot points are represented by the duration of the following indices:

Short: LB:Gov/Credit 1-3

Core: LB:Aggregate

Long: LB:Gov/Credit Long

Fixed Income Style Map
for 5 Years Ended December 31, 2007

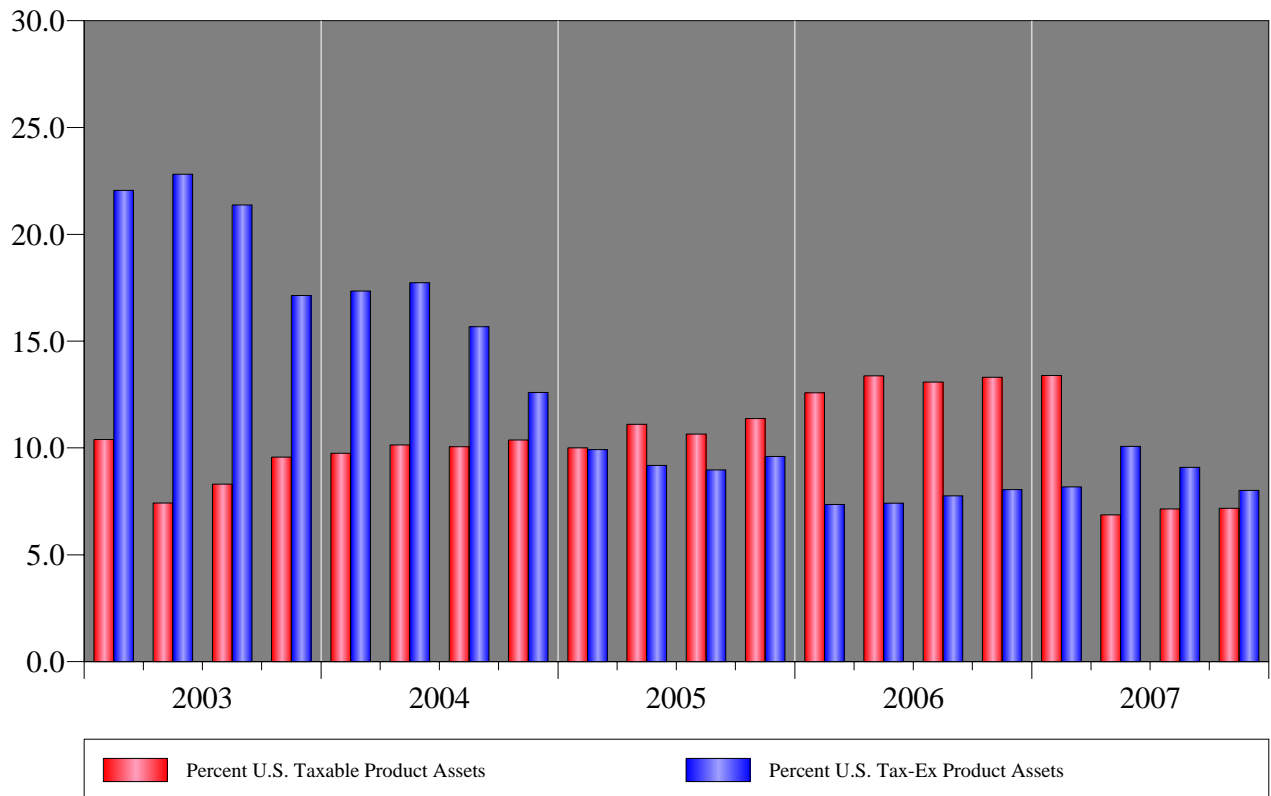


More Asset Information

There is much more Org and Product asset information in PEP.
The following information can now be viewed for a fund in the database on the **Org/Product Assets** tab.

- US Tax-Ex Sep Acct/Commingled Product Assets
- US Taxable Product Assets
- Non-US Product Assets
- Mutual Fund Product Assets
- General Partner Product Assets
- Wrap Fund Product Assets
- US Tax-Ex Org Assets (annual)
- US Taxable Org Assets (annual)
- Non-US Org Assets (annual)
- Mutual Fund Org Assets (annual)

Statistics
for 5 Years Ended December 31, 2007
Portfolio: LordA:Sm Cap Growth



One Click Data Access

PEP now enables one-click access to all portfolio data in the database. Double click on any database item to see Monthly and Quarterly tabs for Returns and Contributions/Withdrawals. Also, as seen below, choose Quarterly or Monthly views within the Holdings-based tabs.

The screenshot shows the PEPWin - S&P:500 application window. On the left, a menu is open with 'Monthly' and 'Quarterly' options highlighted in a purple box. An arrow points from this menu to the main data table. The table displays financial metrics for the S&P 500 index from 2005 to 2007. The 'Quarterly Returns' tab is selected at the bottom.

		Cash Flow/Sales <read only>	Debt/Equity <read only>	Dividend Yield <read only>	Earnings Yield <read only>	Earnings/Sales <read only>
2005	6	20.9535	1.0045	1.8575	5.7512	13.8744
	9	21.7520	0.9953	1.8472	5.7634	14.1521
	12	21.2530	1.0118	1.8543	5.5656	13.5176
2006	3	21.1200	0.9831	1.8712	5.7916	13.3496
	6	21.4560	0.9916	1.9440	5.9244	13.3536
	9	21.7679	1.0058	1.8751	5.9671	13.5545
2007	12	21.6520	0.9465	1.8238	5.7680	13.6368
	3	21.6272	0.9839	1.8955	5.9699	13.6615
	6					

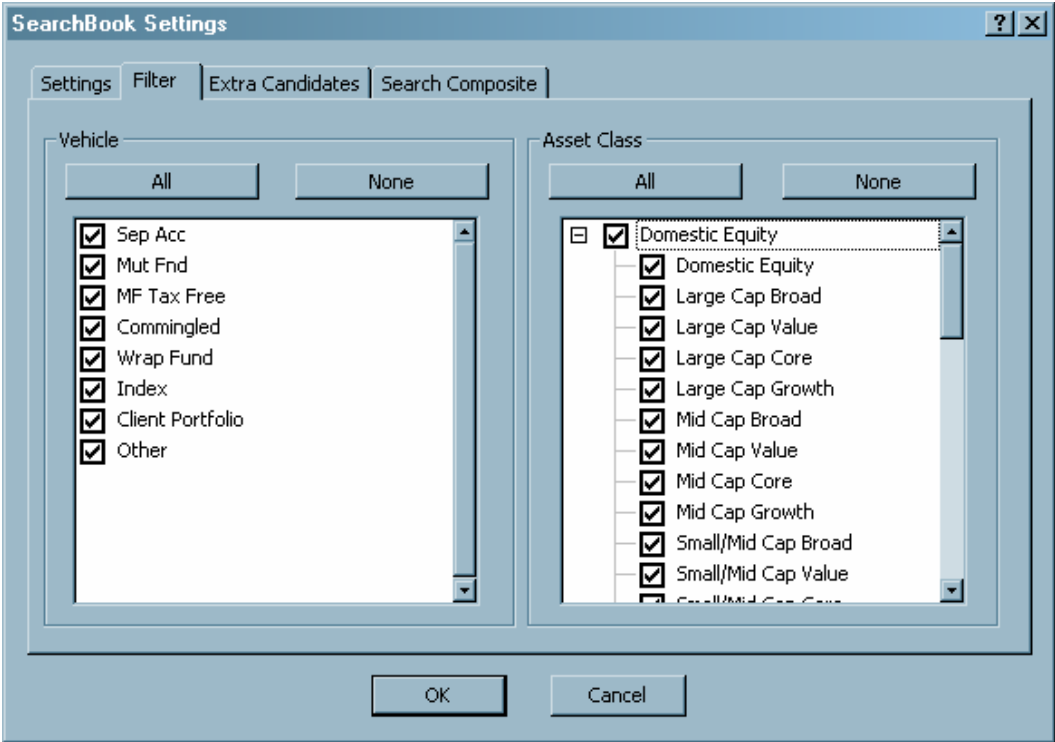
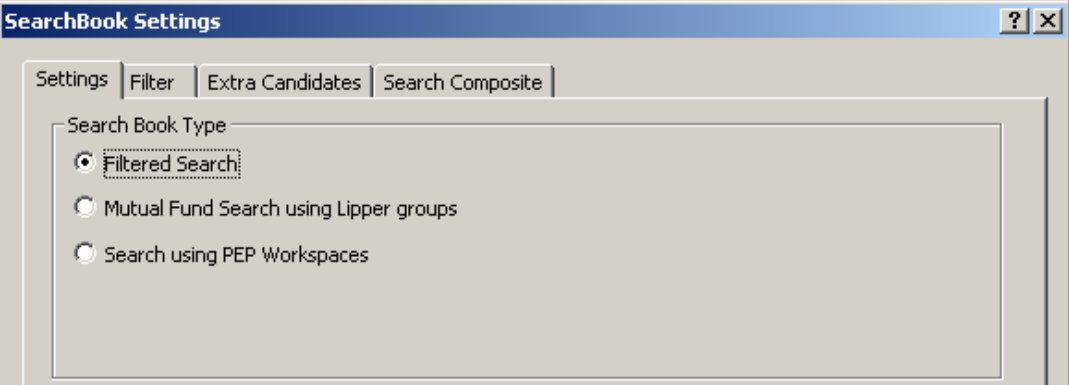
The screenshot shows the PEPWin - S&P:500 application window. On the left, a menu is open with 'Monthly' and 'Quarterly' options highlighted in a purple box. An arrow points from this menu to the main data table. The table displays financial metrics for the S&P 500 index for the year 2007. The 'Monthly Returns' tab is selected at the bottom.

		Cash Flow/Sales <read only>	Debt/Equity <read only>	Dividend Yield <read only>	Earnings Yield <read only>	Earnings/Sales <read only>
2007	11					
	12	21.6520	0.9465	1.8238	5.7680	13.6368
	1					
	2					
	3	21.6272	0.9839	1.8955	5.9699	13.6615
	4					
	5					
	6					
	7					
8						

SearchBook Changes



Filtered Search

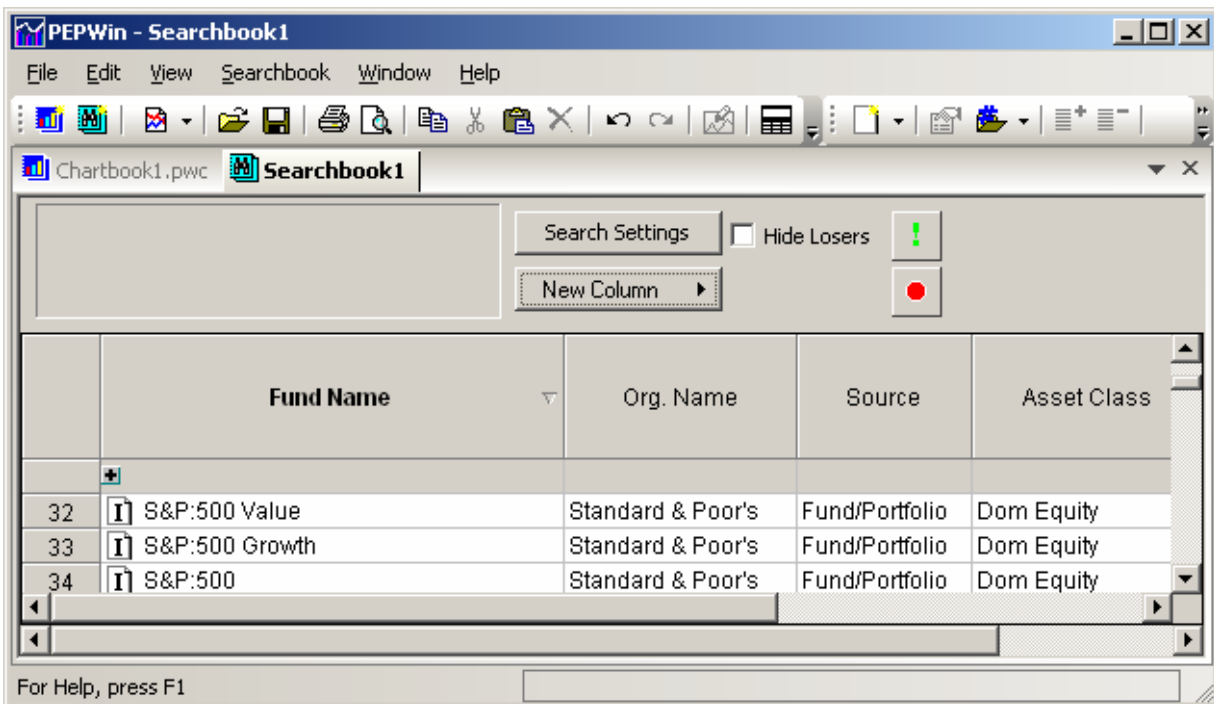
Search Groups have been removed from PEP (except for Mutual Fund searches using Lipper groups). Users can now use the filter to search specific asset classes in PEP. Asset classes are determined by managers directly upon filling out our questionnaire. The Filtered Search option works just like the new database filter.



SearchBook Changes

Stop & Go Buttons

Added Stop  and Go  buttons. If the computations are slowing you down and you want to edit something, hit the stop sign. To get them going again, hit the [!]. Computation will still start automatically any time you make changes that require them.



SearchBook Changes

Search Score

The Search Score is now much more flexible and easier to use and understand. Similar to Excel, users enters formulas in the search score editor such as " $= [A] - \text{MAX}([B], [C])$ " or " $= [A] * 2 - [B] * 1.5 + [C]$ ", where the [A] refers to the value in column A, which is a computed statistic. The editor makes it clear what A, B, C, etc refer to in the SearchBook. See example below.

Edit Search Score

Name: Search Score

Formula: $= [A] - [B]$

Sample result: 26.1721

Existing Columns:

Column ID	Statistic Column	Sample Value
A	Returns for 20 Quarters Ended 9/30/07	72.2686
B	Standard Deviation for 20 Quarters Ended 9/30/07	46.0966

PEPWin - Searchbook1

File Edit View Searchbook Window Help

Chartbook1.pwc Searchbook1

Search Settings Hide Losers

New Column

	Fund Name	Returns for 20 Quarters Ended 9/30/07	Standard Deviation for 20 Quarters Ended 9/30/07	Search Score
		Edit Stat	Edit Stat	Edit Score
1	MSCI:Brazil Free	72.2686	46.0966	26.1720
2	MSCI:Argentina	57.5842	48.3138	9.2704
3	MSCI:EM Latin Amer Free	54.7550	28.4981	26.2569
4	MSCI:Norway	43.2048	29.3208	13.8840
5	MSCI:Emer Mkt Value	41.6533	23.3124	18.3409
6	IFC Investables Comp	40.1195	22.4741	17.6454
7	MSCI:Austria	39.5009	22.3741	17.1268
8	MSCI:Emer Markets	39.1133	22.4694	16.6439
9	MSCI:EM Eur & Mid East	38.9324	27.3887	11.5437
10	MSCI:EM Eur/Mid East	38.9324	27.3887	11.5437
11	IFC Global Composite	38.6981	20.9603	17.7378
12	MSCI:Sweden	37.1298	21.8054	15.3244
13	MSCI:Emer Mkt Growth	36.5679	21.9443	14.6236
14	MSCI:Denmark	35.3507	12.0721	23.2786
15	MSCI:Norway LC	34.5276	23.5289	10.9987
16	MSCI:Spa US\$	34.4816	23.6563	10.8253
17	MSCI:EM Asia US (Gr)	34.4010	22.2787	12.1223

For Help, press F1

New Database Column – Share Class

Share Class

Mutual fund share class has been added as a column option in PEP (see below)

The screenshot shows the PEPWin Database - Default window with a table of Vanguard funds. The 'Shr Class' column is circled in red. The table has the following columns: Graph Name, Organization, Product, Source, Asset, Vehicle, Shr Class, Ticker, and W. The 'Shr Class' column contains various values such as 'Inst. Load', 'No Load', and 'No Load'.

Graph Name	Organization	Product	Source	Asset	Vehicle	Shr Class	Ticker	W
Vanguard Mtrls Idx;ETF	VANGUARD GROUP INC	Vanguard Mtrls Idx;ETF	29611	Dom Equ	Mut Fnd	Inst. Load	VAV	
Vanguard SC Val I;ETF	VANGUARD GROUP INC	Vanguard SC Val I;ETF	29638	Dom Equ	Mut Fnd	Inst. Load	VBR	
Vanguard Finl Idx;Adm	VANGUARD GROUP INC	Vanguard Finl Idx;Adm	29643	Dom Equ	Mut Fnd	No Load	VFAIX	
Vanguard InfoTc Id;Adm	VANGUARD GROUP INC	Vanguard InfoTc Id;Adm	29656	Dom Equ	Mut Fnd	No Load	VTAX	
Vanguard Tgt R 05;Inv	VANGUARD GROUP INC	Vanguard Tgt R 05;Inv	29779	Lifecycle	Mut Fnd	No Load	VTOVX	
Vanguard Intl-Prot;Inst	VANGUARD GROUP INC	Vanguard Intl-Prot;Inst	29797	Dom Fixe	Mut Fnd	Inst. Load	VIPIX	
Vanguard Tgt R 15;Inv	VANGUARD GROUP INC	Vanguard Tgt R 15;Inv	29941	Lifecycle	Mut Fnd	No Load	VTXVX	
Vanguard Tgt R Inc;Inv	VANGUARD GROUP INC	Vanguard Tgt R Inc;Inv	30077	Lifecycle	Mut Fnd	No Load	VTINX	
Vanguard Tgt R 25;Inv	VANGUARD GROUP INC	Vanguard Tgt R 25;Inv	30093	Lifecycle	Mut Fnd	No Load	VTTVX	
Vanguard Tele Idx;Adm	VANGUARD GROUP INC	Vanguard Tele Idx;Adm	30727	Dom Equ	Mut Fnd	No Load	VTCAIX	
Vanguard Lg-Cp Idx;Inv	VANGUARD GROUP INC	Vanguard Lg-Cp Idx;Inv	30791	Dom Equ	Mut Fnd	Inst. Load	VLACX	
Vanguard Tele Idx;ETF	VANGUARD GROUP INC	Vanguard Tele Idx;ETF	30793	Dom Equ	Mut Fnd	Inst. Load	VOX	
Vanguard Indust Id;Adm	VANGUARD GROUP INC	Vanguard Indust Id;Adm	30833	Alternativ	Mut Fnd	No Load	VINAX	
Vanguard REIT Idx;ETF	VANGUARD GROUP INC	Vanguard REIT Idx;ETF	30909	Real Est	Mut Fnd	Inst. Load	VNQ	
Vanguard Energy Ix;Adm	VANGUARD GROUP INC	Vanguard Energy Ix;Adm	30950	Dom Equ	Mut Fnd	No Load	VENAX	
Vanguard Tgt R 35;Inv	VANGUARD GROUP INC	Vanguard Tgt R 35;Inv	30963	Lifecycle	Mut Fnd	No Load	VTTHX	
Vanguard Energy Ix;ETF	VANGUARD GROUP INC	Vanguard Energy Ix;ETF	31007	Dom Equ	Mut Fnd	Inst. Load	VDE	
Vanguard Indust Id;ETF	VANGUARD GROUP INC	Vanguard Indust Id;ETF	31035	Alternativ	Mut Fnd	Inst. Load	VIS	
Vanguard Lg-Cp Idx;Inst	VANGUARD GROUP INC	Vanguard Lg-Cp Idx;Inst	31060	Dom Equ	Mut Fnd	Inst. Load	VLIIX	
Vanguard Tgt R 45;Inv	VANGUARD GROUP INC	Vanguard Tgt R 45;Inv	31099	Lifecycle	Mut Fnd	No Load	VTIVX	
Vanguard PrmCp Cre;Inv	VANGUARD GROUP INC	Vanguard PrmCp Cre;Inv	31261	Large Ca	Mut Fnd	No Load	VPCCX	
Vanguard Euro Stk;ETF	VANGUARD GROUP INC	Vanguard Euro Stk;ETF	31336	Europear	Mut Fnd	Inst. Load	VGK	
Vanguard Pac Stk;ETF	VANGUARD GROUP INC	Vanguard Pac Stk;ETF	31337	Pacific Rl	Mut Fnd	Inst. Load	VPL	
Vanguard EM St Id;ETF	VANGUARD GROUP INC	Vanguard EM St Id;ETF	31338	Emerging	Mut Fnd	Inst. Load	VWO	
Vanguard Lg-Cp Idx;Adm	VANGUARD GROUP INC	Vanguard Lg-Cp Idx;Adm	31363	Dom Equ	Mut Fnd	Inst. Load	VLCAIX	
Vanguard PRIMECAP;Inv	VANGUARD GROUP INC	Vanguard PRIMECAP;Inv	3144	Dom Equ	Mut Fnd	No Load	VPMCIX	
Vanguard STAR;Inv	VANGUARD GROUP INC	Vanguard STAR;Inv	3183	Risk-Bas	Mut Fnd	No Load	VGSTX	
Vanguard Windsor II;Inv	VANGUARD GROUP INC	Vanguard Windsor II;Inv	3188	Large Ca	Mut Fnd	No Load	VWNFX	
Vanguard FTSE Soc;Inst	VANGUARD GROUP INC	Vanguard FTSE Soc;Inst	31980	Large Ca	Mut Fnd	Inst. Load	VFTNX	
Vanguard Intl Gro;Inv	VANGUARD GROUP INC	Vanguard Intl Gro;Inv	3236	Intl Grov	Mut Fnd	No Load	VWIGX	

New Database Icons

New database icons have been added to give a better description at a slight glance.

Icons have not changed for Groups (G), Targets (T) and Composites (C). Here are the new icon descriptions:



Fund – Including separate accounts, mutual funds and commingled funds



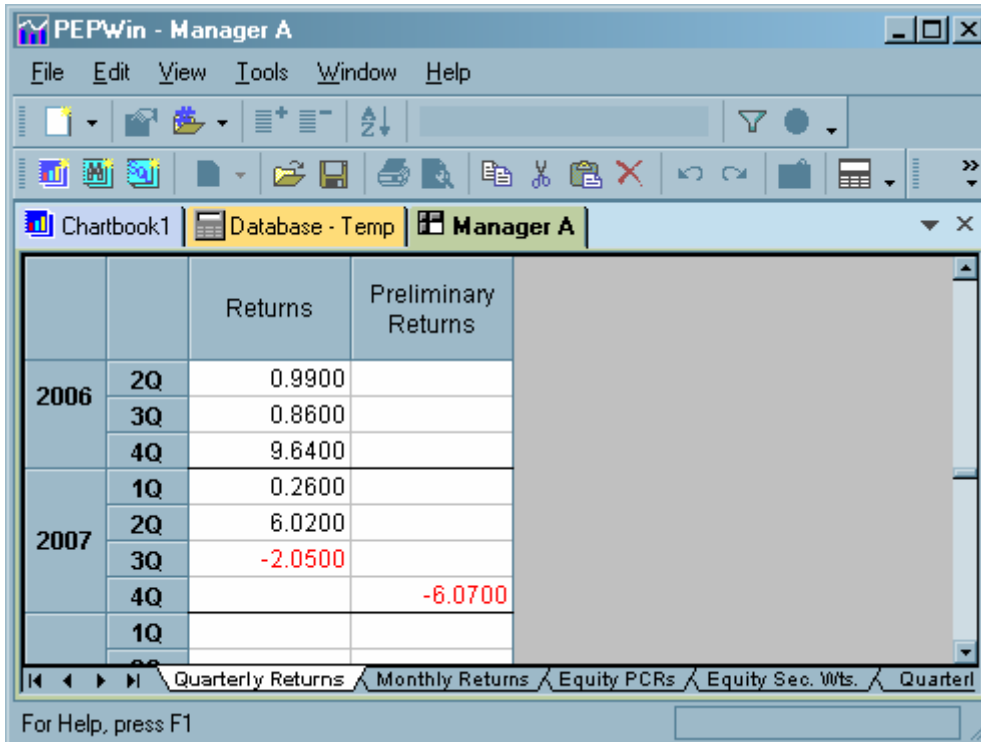
Portfolio – Client portfolios



Index – Including all indices for all asset classes

Preliminary Returns

We have added the option to use preliminary returns to PEP. They can be viewed on the Quarterly and Monthly Return tabs in the database. See below.



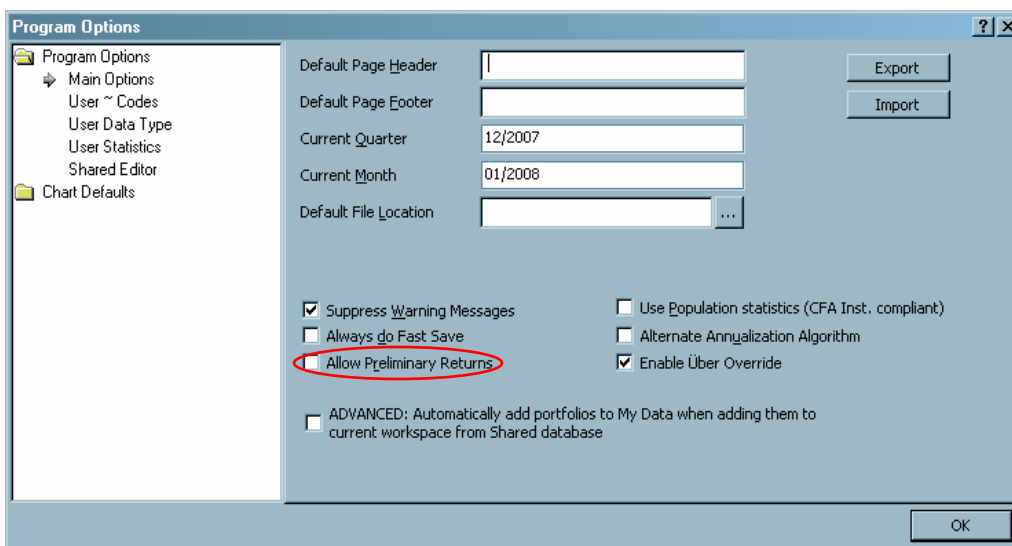
The screenshot shows the PEPWin - Manager A application window. The main data area displays a table with the following content:

		Returns	Preliminary Returns
2006	2Q	0.9900	
	3Q	0.8600	
	4Q	9.6400	
2007	1Q	0.2600	
	2Q	6.0200	
	3Q	-2.0500	
	4Q		-6.0700
	1Q		

The interface also shows a menu bar (File, Edit, View, Tools, Window, Help), a toolbar, and a status bar at the bottom with the text "For Help, press F1". The bottom navigation bar includes tabs for "Quarterly Returns", "Monthly Returns", "Equity PCRs", "Equity Sec. Wts.", and "Quarterl".

Allowing preliminary returns to be used in analysis is, by default, turned **OFF**.

To activate this feature, go to Program Options (**File>Options**) and check the **Allow Preliminary Returns** option. See below.



The screenshot shows the "Program Options" dialog box. The "Allow Preliminary Returns" checkbox is checked and circled in red. Other options include:

- Suppress Warning Messages
- Always do Fast Save
- Use Population statistics (CFA Inst. compliant)
- Alternate Annualization Algorithm
- Enable Über Override
- ADVANCED: Automatically add portfolios to My Data when adding them to current workspace from Shared database

The dialog also features fields for "Default Page Header", "Default Page Footer", "Current Quarter" (12/2007), "Current Month" (01/2008), and "Default File Location". Buttons for "Export", "Import", and "OK" are visible.

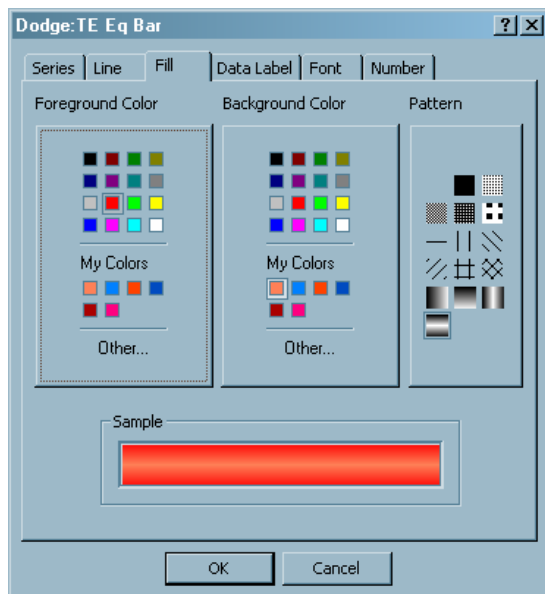
Background Computations

In version 9.0 PEP does more background computations. Otherwise known as the “end of the hourglass”, these background computations should improve PEP’s performance for all users. Here are a few examples of where we do things in the background:

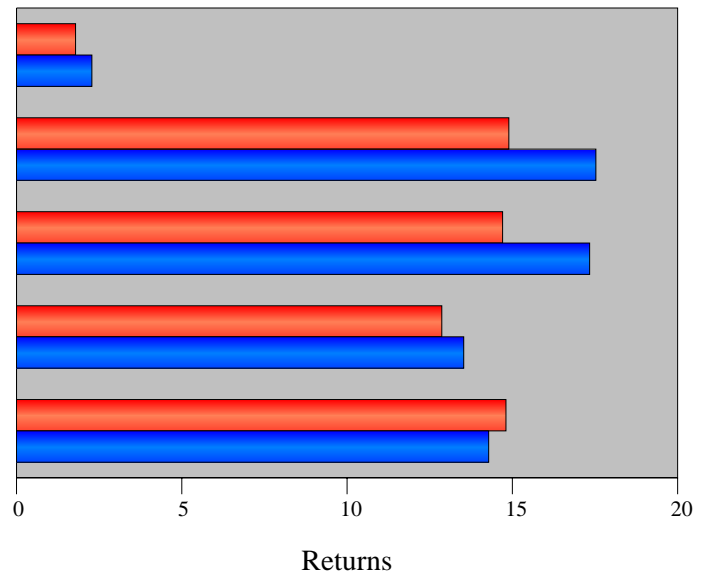
- PEP now allows a ChartBook to compute all of its charts while you view the first chart.
- PEP caches all group computations and saves the results on the local computer and on the network.
- SearchBooks compute in the background and will stop and start again as you make edits.
- Updating data from the shared database to your local database.

New Gradient Fills

We added two more gradient fill options. In addition to left to right, there is now left and right to center and top and bottom to center.



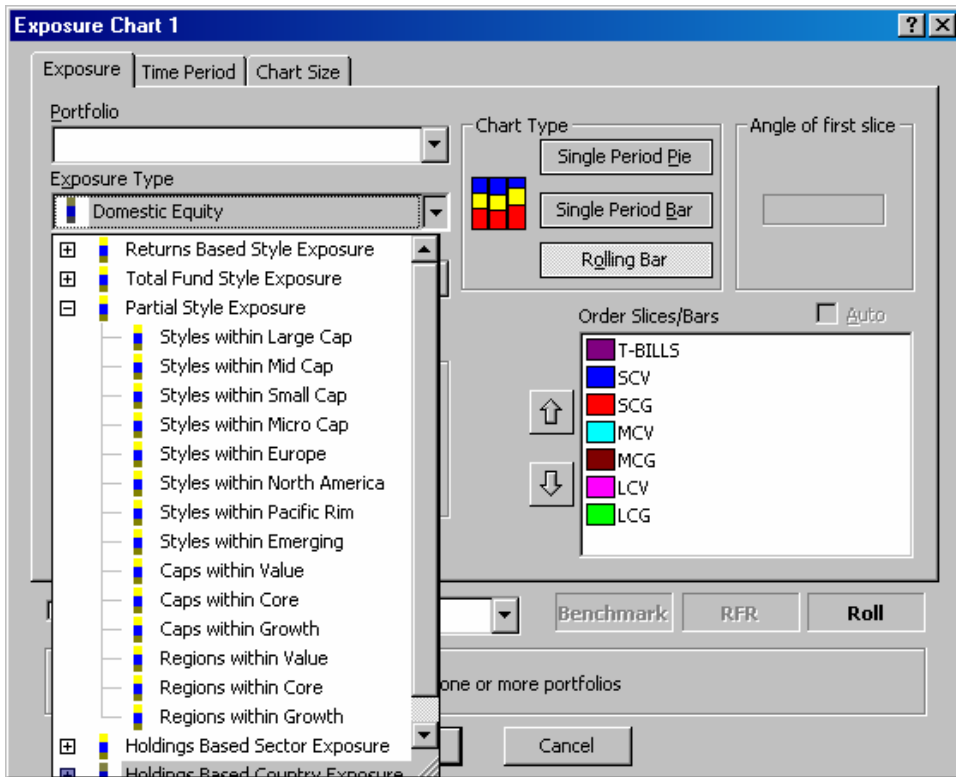
Returns
for Various Time Periods



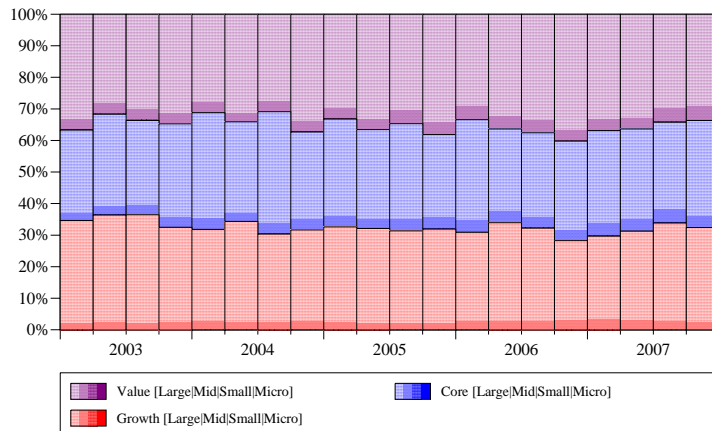
New Style Exposure Types

New Exposure Types and Categories have been added which leverage holdings-based data. The following list provides a brief explanation of the different categories:

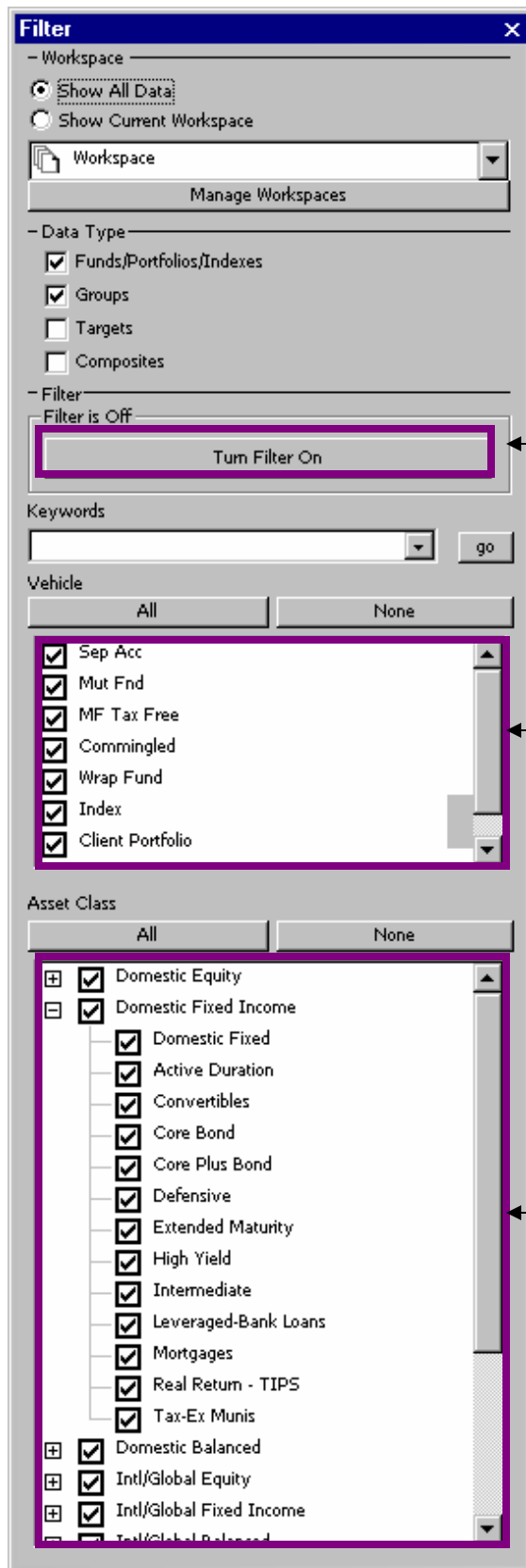
- Returns-based Style Exposure:** Overall portfolio return regressed against benchmark returns.
- Total Fund Style Exposure:** Overall portfolio analysis on how style interacts with regions and market caps.
- Partial Style Exposure:** Breakdown of a portfolio for a particular market cap, region or style.
- Holdings-based Sector Exposure:** Exposure of the overall portfolio based on economic sectors.
- Holdings-based Country Exposure:** Exposure of the overall portfolio based on particular countries or regions.



Caps within All Styles Chart
for 5 Years Ended December 31, 2007
Portfolio: S&P:500



Database Filter Changes



The look of the Database Filter has changed to accommodate more detailed Asset Class classification.

All Vehicles and Asset Classes are checked (shown in the database) by default. To remove one from view, uncheck it's corresponding checkbox.

To show/hide specific asset classes, click on the + next to the broader asset class and check/uncheck the desired specific asset class.

Filter Button

Vehicle Section

Asset Class Section