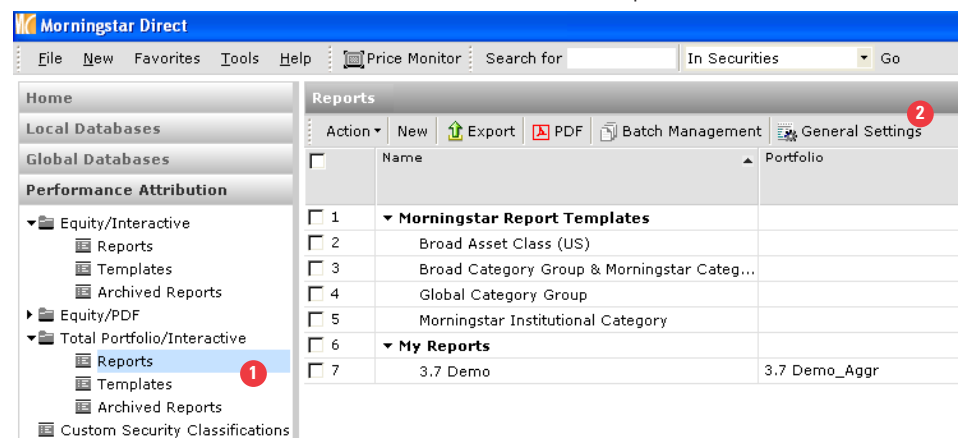


Total Portfolio Attribution

Total portfolio attribution allows users to analyze the portfolio decision maker's contribution to performance in the selection of investment managers and the allocation of assets to each manager driven by the strategic asset allocation policy. Since there are two sets of decision makers (Plan Sponsor/Consultant and the investment managers), it is important to analyze their contributions separately.

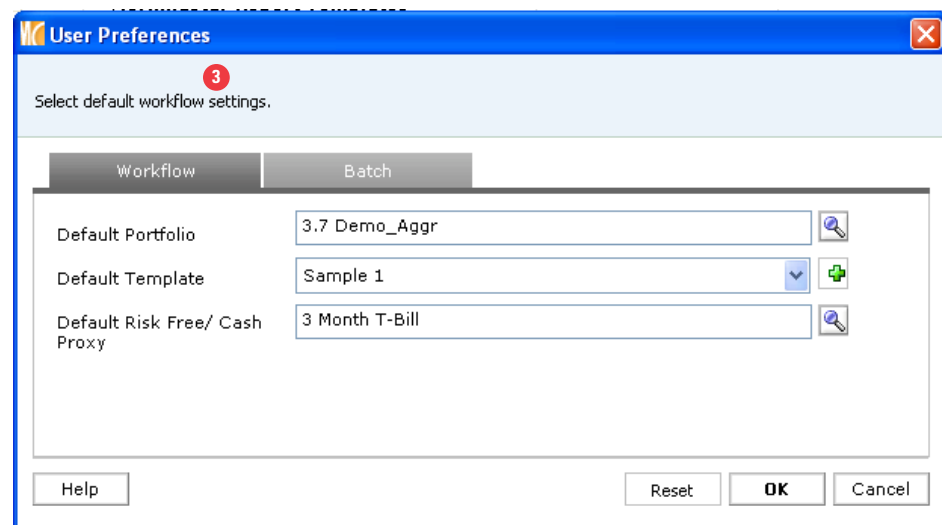
Set your Default Settings

1. Go to the Total Portfolio/Interactive folder and click on Reports.

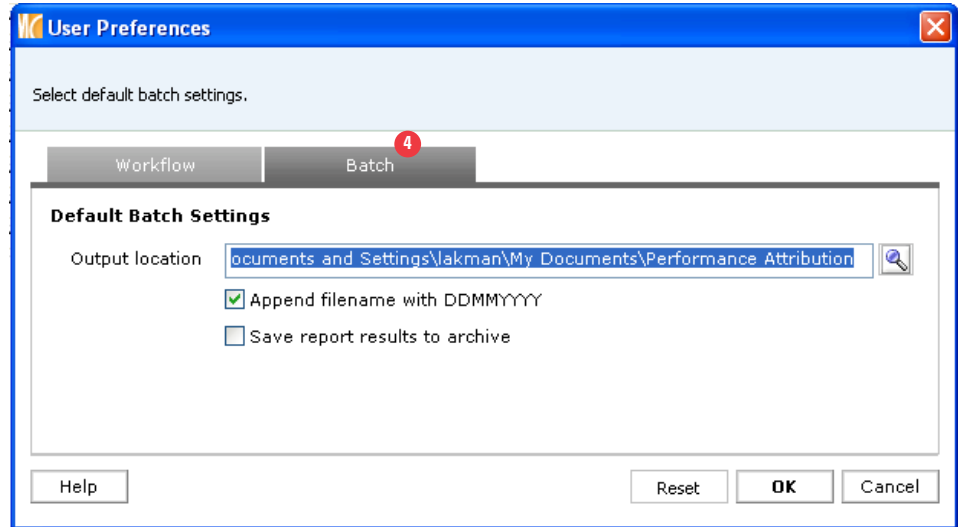


2. Click on the *General Settings* to set your Defaults.

3. In the Workflow tab, set your settings for One Portfolio or Two Portfolios (Comparison) .

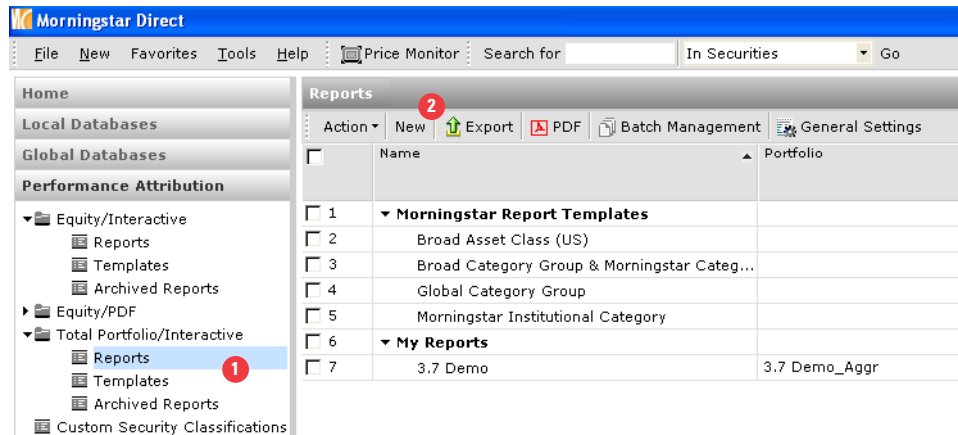


4. In the *Batch* tab, set your output locations.



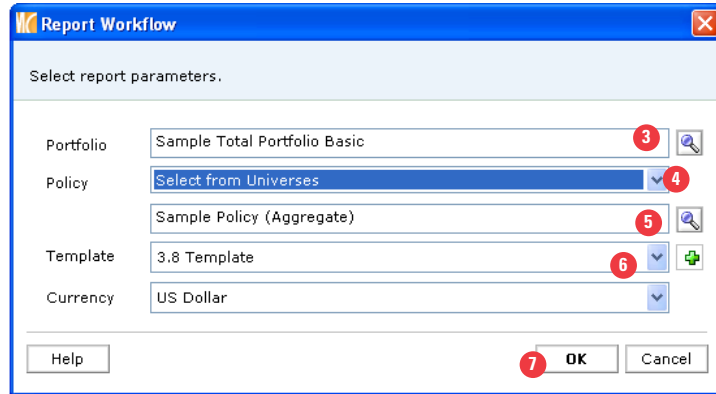
Automatically Assign Policy Weights

1. When you begin to create Total Portfolio Attribution, you have the ability to automatically assign your policy weights with an existing aggregate or you can manually assign the weights to your policy. In this exercise, we will retrieve the weights from an existing aggregate to automatically populate the policy weights. See Aggregate chapter for detail on how to create an Aggregate. Go to the Performance Attribution folder and click *Reports* under the Total Portfolio/Interactive folder.



2. Click on *New* to be taken to the Report Workflow dialog.

3. Go to the *Portfolio* and click on the magnifying glass to retrieve your aggregate that populates the managers.

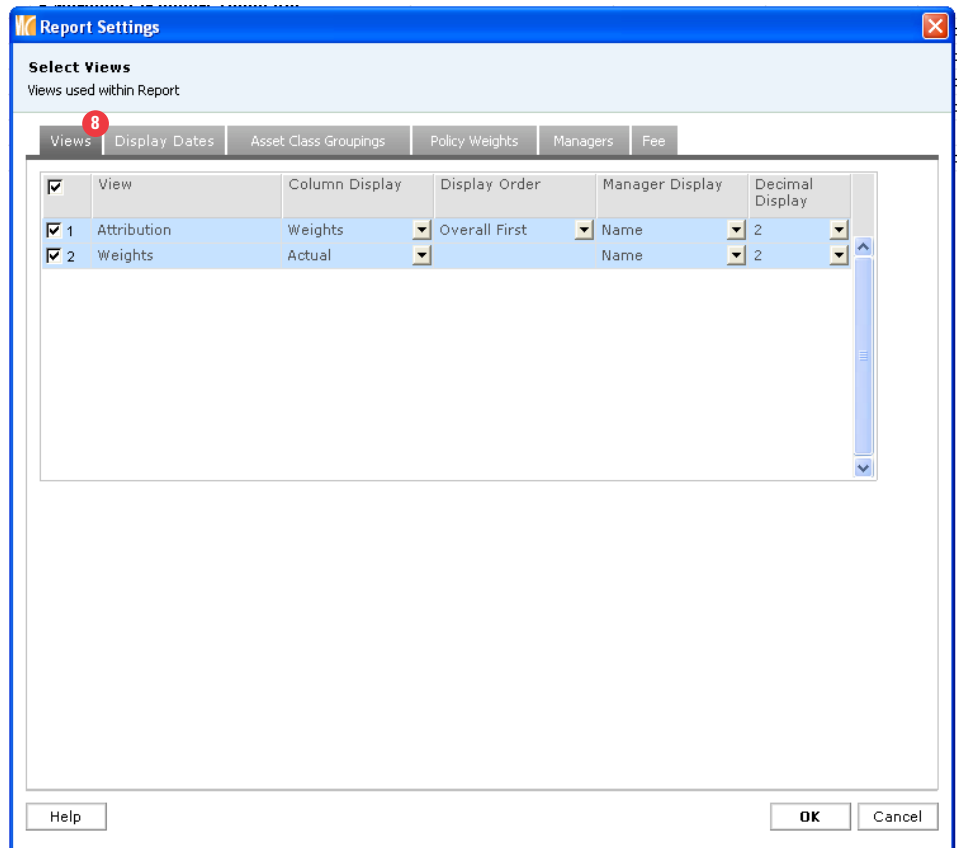


4. Go to the *Policy* drop-down and click on Select from Universes.

5. Click on the magnifying glass and locate an existing aggregate that you have assigned weights. These weights will automatically drive the Policy weights.

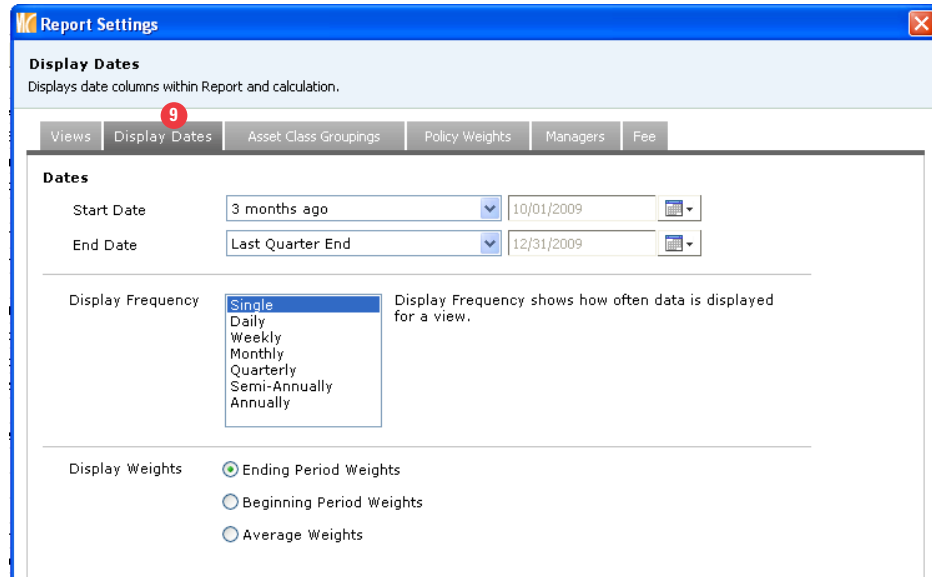
6. Next, locate the template you want to use.

7. Click *OK* to be taken to the Report Settings dialog Box.

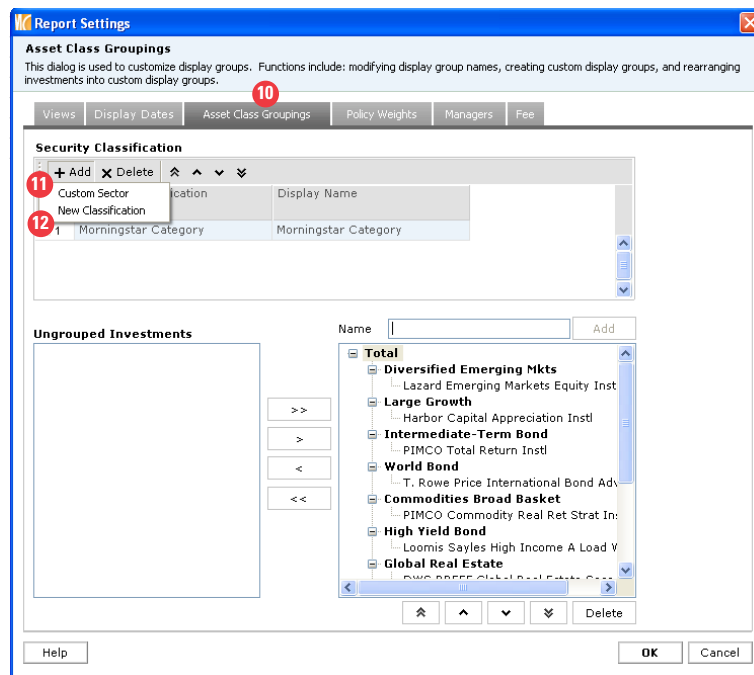


8. Click on the *View* tab to customize your output display. Here, customize your settings for the Attribution and Weights views.

9. Click on the *Display Dates* tab to set your date and frequency settings. Here, you can also select Ending Period Weights, Beginning Period Weights, or Average Weights to display in your output.



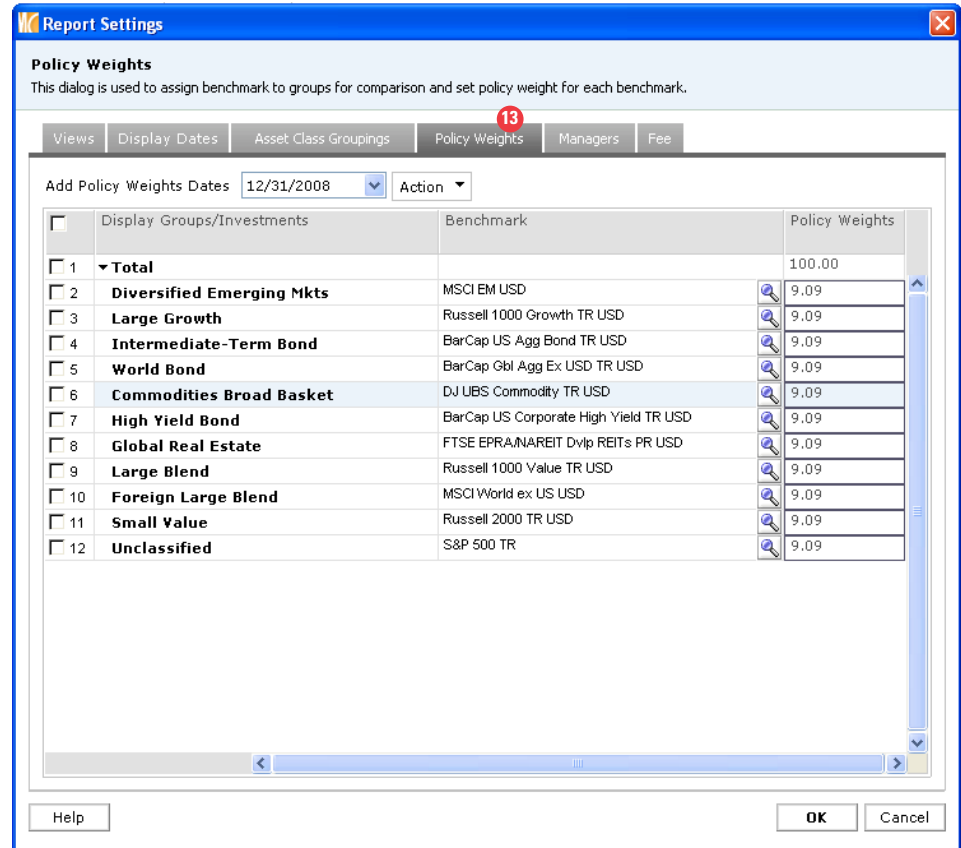
10. Click on the *Asset Class Groupings* tab to set your groupings.



11. You can also add your own *Custom Sector* that you've created in Workspace. See Custom Sector chapter.

12. You can also manually assign the custom sector for the first time by clicking on *New Classification*.

13. Click on the *Policy Weights* tab to input your weights where the default is equal-weighted. Here, you can also add Policy Weights dates.



14. Click on the *Managers* tab.

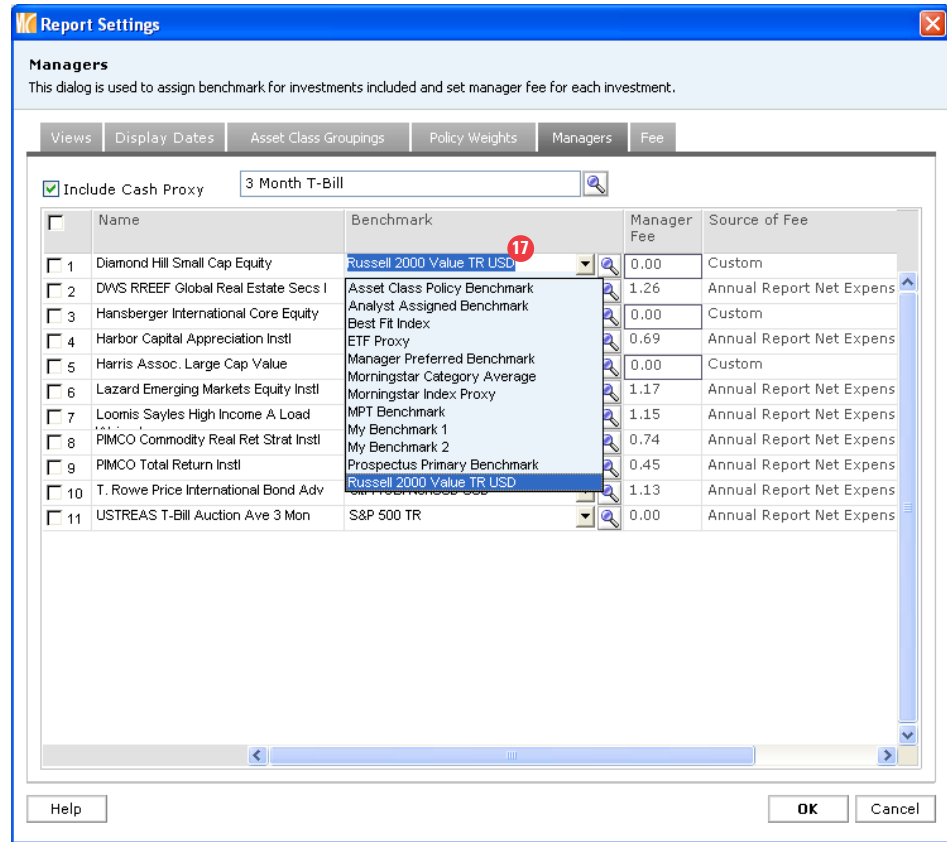
The screenshot shows the 'Report Settings' dialog box with the 'Managers' tab selected. The 'Include Cash Proxy' checkbox is checked, and the search box contains '3 Month T-Bill'. A table lists various investments with their benchmarks, manager fees, and sources of fees. A 'Select Cash Proxy' dialog box is open, showing search criteria for '3 Month T-Bill'.

Name	Benchmark	Manager Fee	Source of Fee
1 Diamond Hill Small Cap Equity	Russell 2000 Value TR USD	0.00	Custom
2 DWS RREEF Global Real Estate Secs I	MSCI World/Real Estate NR USD	1.26	Annual Report Net Expens
3 Hansberger International Core Equity	MSCI AC World Ex USA NR USD	0.00	Custom
4 Harbor Capital Appreciation Instl	Russell 1000 Growth TR USD	0.69	Annual Report Net Expens
5 Harris Assoc. Large Cap Value	Russell 1000 TR USD	0.00	Custom
6 Lazard Emerging Markets Equity Instl	MSCI EM NR USD	1.17	Annual Report Net Expens
7 Loomis Sayles High Income A Load	ML US HY Master II TR USD	1.15	Annual Report Net Expens
8 PIMCO Commodity Real Ret Strat Instl	DJ UBS Commodity TR USD	0.74	Annual Report Net Expens
9 PIMCO Total Return Instl	BarCap US Govt/Credit 5-10 Yr TR	0.45	Annual Report Net Expens
10 T. Rowe Price International Bond Adv	Citi WGBI NonUSD USD	1.13	Annual Report Net Expens
11 USTREAS T-Bill Auction Ave 3 Mon	S&P 500 TR	0.00	Annual Report Net Expens

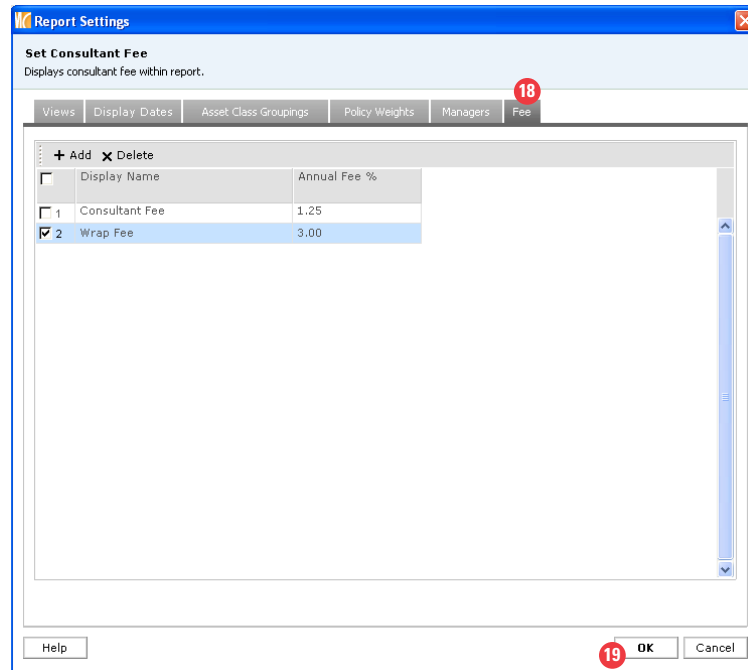
15. If you have Cash in your portfolio, you can check *Include Cash Proxy* and locate the proxy from the *Select Cash Proxy* dialog box.

16. Go to the *Manager Fee* and *Source of Fee* columns. If you have retail investments, then the annual report net expense ratio will be displayed. If you have a separate account or custom portfolio, then "Custom" will be displayed and you can alter the manager fees from 0.00 to another numeric value.

17. Go to the *Benchmark Column* if you want to alter the benchmark.



18. Click on the *Fee* tab where you have the ability to add multiple fees and customize fee names. For example, you can replace Consultant Fee with Wrap Fee.



19. Click *OK* to close the Report Workflow window.

20. Click *Calculate* to run the Total Attribution Report.

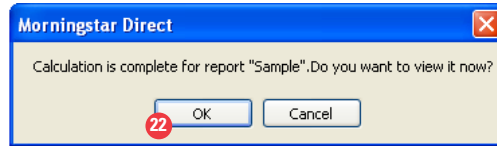
The screenshot shows the 'New Report - Performance Attribution Window' with the 'Calculate' button highlighted. The window displays a table of attribution data for the period 10/1/2009 - 12/31/2009. The table has columns for Name, Benchmark, Weights % (Actual, Policy, +/-), Gross Return(%) (Portfolio, Benchmark, +/-), and Net Return. The 'Calculate' button is circled in red with the number 20.

Name	Benchmark	Weights %			Gross Return(%)			Net Return
		Actual	Policy	+/-	Portfolio	Benchmark	+/-	
Large Cap								
Harbor Capital Appr...	Russell 1000 Growth TR USD							
Harris Assoc. Large ...	Russell 1000 Value TR USD							
Small/Mid Cap								
Diamond Hill Small ...	Russell 2000 TR USD							
International Equity								
Hansberger Internat...	MSCI EAFE NR USD							
Emerging Equity								
Lazard Emerging Ma...	MSCI EM NR USD							
Intl Fixed Inc								
T. Rowe Price Intern...	BarCap GBI Agg Ex USD TR USD							
Inv Grade Fixed Inc								
PIMCO Total Return ...	BarCap US Agg Bond TR USD							
High Yield Fixed Inc								
Loomis Sayles High ...	BarCap US Corporate High Yield TR							
Real Estate Sec								
DWS RREEF Global ...	FTSE EPRA/NAREIT Dvlp REITs PR U							
Commodities								
PIMCO Commodity ...	DJ UBS Commodity TR USD							
Cash								
USTREAS T-Bill Auct...	S&P 500 TR							
Total								
Fee								
Consultant Fee								
Net Return								

21. You will be asked to save the report. Once complete, click *OK*.

The screenshot shows a 'Save' dialog box with a text input field containing 'Sample'. Below the input field is a list box containing the following items: '3.8 Sample', 'Sample 1', and 'Sample 2'. 'Sample 1' is selected. At the bottom of the dialog are 'OK' and 'Cancel' buttons. A red circle with the number '21' is positioned over the 'OK' button.

22. Once the calculation is complete, you will be asked to view the report. Click *OK* to view the output.

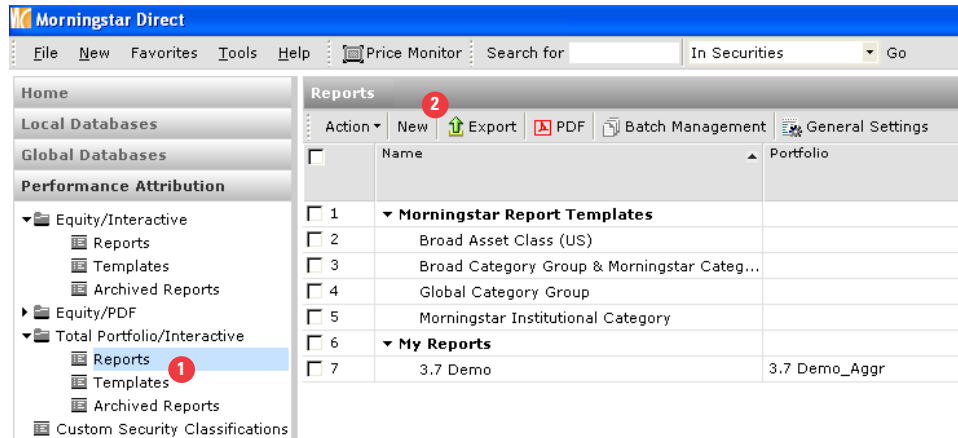


23. You've now successfully established a new Total Portfolio Attribution report.

Name	Benchmark	Net Return(%)			Attribution Effect(%)				
		Portfolio	Bench mark	+/-	Asset Class Weighting	Manager Selection	Manager Benchmark Misfit	Manager Fee	Active Return
Large Cap	S&P 500 TR	2.78	1.93	0.85	(0.06)	0.08	0.10	(0.01)	0.12
Harbor Capital Appreciatio...	Russell 1000 Growth TR USD	3.11	3.09	0.02	0.01	0.12	(0.01)	0.12	
Harris Assoc. Large Cap V...	Russell 1000 Value TR USD	2.45	1.77	0.68	0.07	(0.02)	0.00	0.05	
Small/Mid Cap	Russell 2000 TR USD	5.22	8.05	(2.83)	1.12	(0.57)	0.00	0.00	
Diamond Hill Small Cap Eq...	Russell 2000 TR USD	5.22	8.05	(2.83)	(0.57)	0.00	0.00	(0.57)	
International Equity	MSCI EAFE NR USD	1.92	1.44	0.48	0.00	0.04	0.01	0.00	
Hansberger International ...	MSCI World ex US USD	1.92	1.50	0.42	0.04	0.01	0.00	0.05	
Emerging Equity	MSCI EM NR USD	3.86	3.95	(0.09)	0.07	0.01	(0.01)	(0.01)	
Lazard Emerging Markets ...	MSCI EM USD	3.86	3.81	0.04	0.01	(0.01)	(0.01)	(0.00)	
Intl Fixed Inc	Citi WGBI NonUSD USD	(4.62)	(5.75)	1.13	0.32	0.03	0.03	(0.00)	
T. Rowe Price Internationa...	BarCap Gbl Agg Ex USD TR USD	(4.62)	(5.19)	0.57	0.03	0.03	(0.00)	0.06	
Inv Grade Fixed Inc	BarCap US Agg Bond TR USD	(0.86)	(1.56)	0.70	0.23	0.11	0.00	(0.01)	
PIMCO Total Return Instl	BarCap US Agg Bond TR USD	(0.86)	(1.56)	0.70	0.11	0.00	(0.01)	0.10	
High Yield Fixed Inc	ML US HY Master II TR USD	3.08	3.13	(0.05)	0.12	(0.01)	0.01	(0.01)	
Loomis Sayles High Incom...	BarCap US Corporate High Yield TR USD	3.08	3.28	(0.20)	(0.01)	0.01	(0.01)	(0.01)	
Real Estate Sec	MSCI World/Real Estate NR USD	2.71	3.17	(0.46)	0.08	(0.06)	0.04	(0.01)	
DWS RREEF Global Real Es...	FTSE EPRA/NAREIT Dvlp REITs PR USD	2.71	4.00	(1.29)	(0.06)	0.04	(0.01)	(0.02)	
Commodities	DJ UBS Commodity TR USD	0.65	1.98	(1.33)	(0.07)	(0.07)	0.00	(0.00)	
PIMCO Commodity Real R...	DJ UBS Commodity TR USD	0.65	1.98	(1.33)	(0.07)	0.00	(0.00)	(0.07)	
Cash	USTREAS T-Bill Auction Ave 3 Mon	0.01	0.01	0.00	0.00	(0.09)	0.09	0.00	
USTREAS T-Bill Auction Av...	S&P 500 TR	0.01	1.93	(1.93)	(0.09)	0.09	0.00	0.00	
Total		2.14	0.60	1.54	1.83	(0.52)	0.27	(0.04)	
Fee		(0.11)	0.00						
Consultant Fee		(0.11)	0.00						
Net Return		2.04	0.60						

Manually Assign Policy Weights

1. In addition to automatically assigning weights to your policy, you can also manually assign weights to your policy. Go to the Performance Attribution folder and click on *Reports* under the Total Portfolio/Interactive folder.



2. Click *New* to be taken to the Report Workflow dialog.

Report Workflow

Select report parameters.

Portfolio: Sample Total Portfolio Basic

Policy: Manually Assign

Template: Sample 1

Currency: US Dollar

Help OK Cancel

3. Go to the *Portfolio* and retrieve your aggregate that populates the managers.

4. Go to the *Policy* drop-down and click on *Manually Assign*.

5. Locate the template you want to use.

6. Click *OK* to be taken to the Report Setting dialog Box.

7. As explained in the previous section, you can customize your Views, Display Dates, Asset Class Groupings, Manager Benchmarks and related information, as well as Fees. To customize your policy weights by manually assigning the weights, go to the *Policy Weights* tab.

Report Settings

Policy Weights

This dialog is used to assign benchmark to groups for comparison and set policy weight for each benchmark.

Views Display Dates Asset Class Groupings Policy Weights Managers Fee

Add Policy Weights Dates: 12/31/2008 Action

	Display_Groups/Investments	Benchmark	Policy Weights
1	Total		100.00
2	Diversified Emerging Mkts	MSCI EM USD	9.09
3	Large Growth	Russell 1000 Growth TR USD	9.09
4	Intermediate-Term Bond	BarCap US Agg Bond TR USD	9.09
5	World Bond	BarCap Gbl Agg Ex USD TR USD	9.09
6	Commodities Broad Basket	DJ UBS Commodity TR USD	9.09
7	High Yield Bond	BarCap US Corporate High Yield TR USD	9.09
8	Global Real Estate	FTSE EPRA/NAREIT Divd REITs PR USD	9.09
9	Large Blend	Russell 1000 Value TR USD	9.09
10	Foreign Large Blend	MSCIWorld ex US USD	9.09
11	Small Value	Russell 2000 TR USD	9.09
12	Unclassified	S&P 500 TR	9.09

Help OK Cancel

You can also customize your benchmark for each group.

8. Begin to start typing the *Policy Weights*. To complete, the total must equal 100%
9. Click *OK* and follow steps 20 to 23 to complete the Total Portfolio attribution.