Morningstar® Direct℠ Quick Start Guide

MORNINGSTAR®

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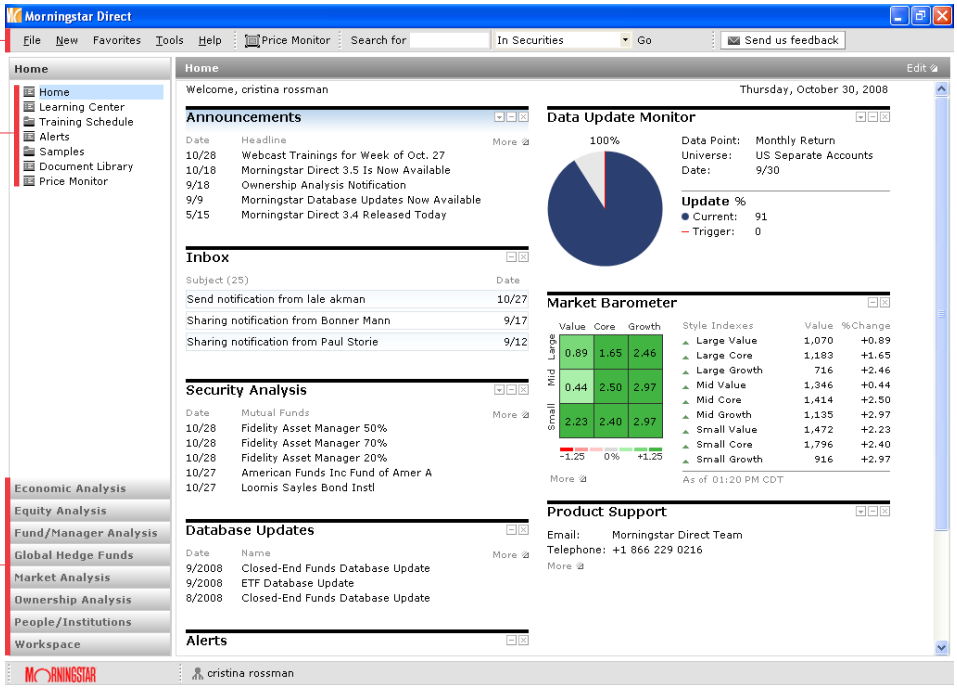
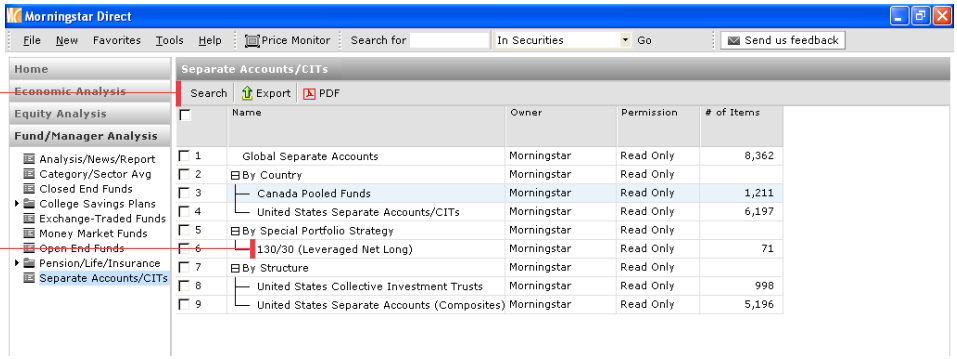
Getting Started

Product Layout

Morningstar Direct is organized in modules. When you login, you begin in *Home*. The left navigation for each module works in a similar fashion. Click on the module name to reveal its sub modules. Click on the sub module to see its contents and files on the right side. Click on the file to access its content in the grid view. The *Main Menu* bar at the very top does not change regardless of where you are in the application.



The menu bar changes to contain the applicable functionality for that module.



Module Definitions

Home

The *Home* folder contains file sharing notifications, announcements, product support information, and more. The *Learning Center* folder contains product highlights, tutorials and more. The *Training Schedule* folder allows users to register for upcoming training. The *Alerts* folders allows users to receive notification of various events including a Morningstar Rating™ change, fund manager change, etc. The *Samples* folder shows pre-created Morningstar output that may help jump start your analysis. The *Document Library* enables users to view company and investment public documents. The *Price Monitor* shows intraday pricing for ETFs, stocks and market indexes.

Economic Analysis

Economic Analysis provides access to economic series and exchange rates.

Equity Analysis

Equity Analysis provides access to stocks and ADRS.

Fund/Manager Analysis

Fund/Manager Analysis provides access to Morningatar's fund database including closed end funds, college savings plans, ETFs, mutual funds, separate accounts and more.

Global Hedge Funds

Global Hedge Funds provides access to Morningstar's hedge fund database.

Market Analysis

Market Analysis provides access to the market indices available in Morningstar Direct.

Ownership Analysis

Ownership Analysis identifies the owners of a given stock.

People/Institution

People/Instituions looks at the individuals and firms behind investment products.

Workspace

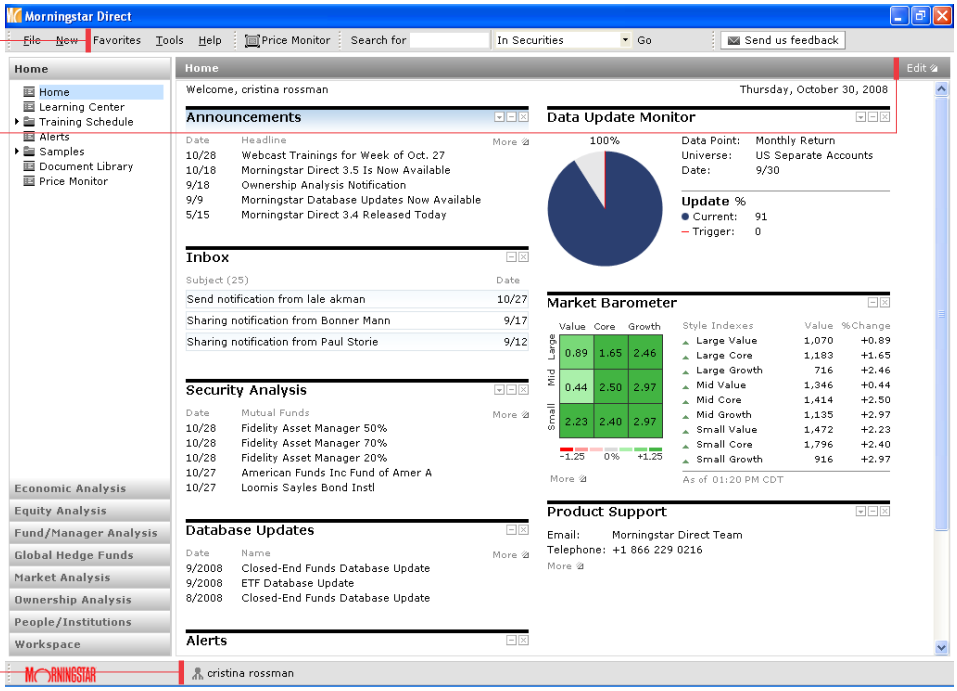
Workspace is the electronic file cabinet for Morningstar Direct. If you save another module it will be stored in Workspace. File management capabilities such as sharing and renaming files are available. You may also begin your work directly from this area.

Changing Password and Account Information

To change your password or update your profile, click on *your name* at the bottom of the screen.

Favorites Menu

Use *Edit* to customize the Home Page



Update your profile

User Preferences

By pressing *File/Set User Preferences* you can change the default data universe, page size, benchmarks, risk-free proxy, currency, and decimal points. Page size controls the number of rows you can see at one time in lists of items in windows and dialogs. Increasing the number of rows in a page may impact your browsing speed. You can also change the orientation of user-created PDFs (this doesn't apply to predefined PDF reports and chart PDFs). Choosing to display extended performance will set Direct to include extended performance in investment returns. Extended performance simulates performance prior to inception by using the gross returns of the oldest share class and modifying them with the expense ratio of the subject share class.

The *Export* tab is used to set defaults for summary statistics on exports. Summary statistics appear in Excel when you export the data or in the application when creating a PDF.

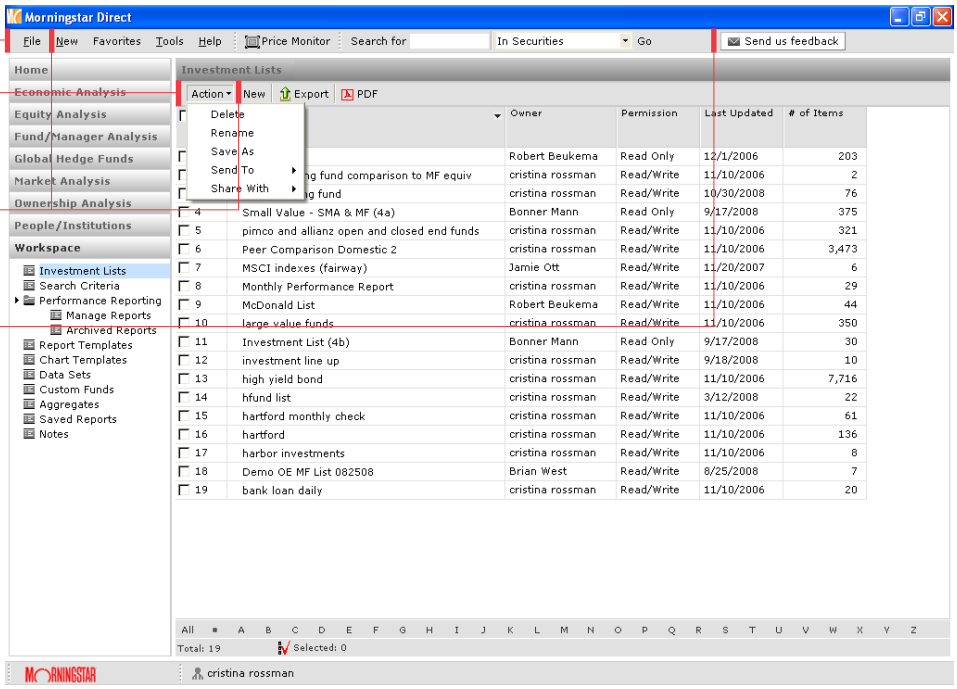
Pressing *New* inside the menu bar will let you create a new file of the type selected in the left-hand navigation pane. Pressing the *New* button in the Main Menu bar allows you to create new files of any type regardless of what module you are using.

Main Menu Bar

Menu Bar & Shortcut Icons

To Create a New File

Submit questions and suggestions



Sharing and Sending Files

In the file area of the Workspace you can use the *Action* button to share and send files. Sharing files allow you to give the recipient read-only access or read/write access, in which any changes they make to the file will be reflected in your original file. Sending a file gives the recipient their own version of the file, and any changes they make will not affect the original.

To share a file with another user, select *Share With* from the Menu bar of the corresponding data area. Choosing *'Within my firm'* lets you choose colleagues in your company by name; choosing *'Outside my Firm'* lets you choose other Morningstar Direct by email addresses. The shared or copied files will automatically appear in the users' file list.

Defining an Investment Lineup or Watch List

Investment Lists

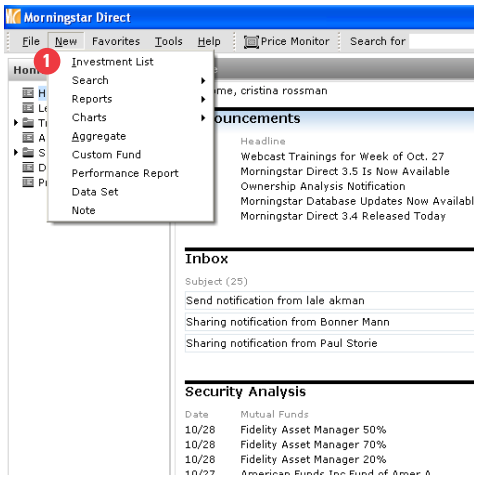
An Investment List is a saved set of investments whose members do not change unless you edit the list. Investment Lists are used for performance reporting, peer analysis, and other tasks requiring repeated analysis of the same investments.

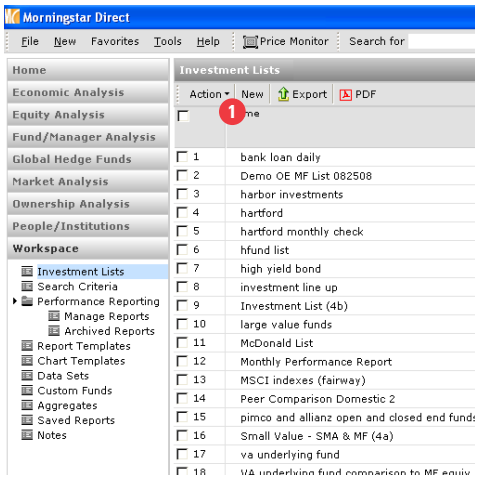
You can define membership in the list in one of four ways: by specifying name/ticker; by executing a search and saving the results; by importing your list from Excel; or by building on a previously created list (this can be your list, a list shared by a colleague, or a template created by Morningstar).

This document will address creating an Investment List using name/ticker or other identifier: SecID, CUSIP, or ISIN. See the document on Creating a Peer Group for details on creating an investment list using the results of a search.

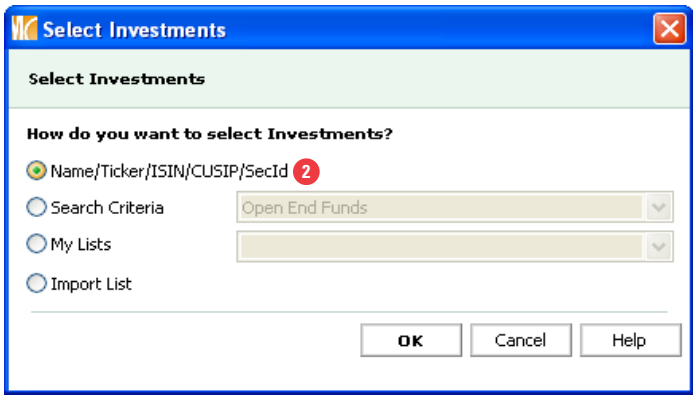
Creating a List Using Name/Ticker

1. Select *New* on the main menu bar, and choose *Investment List* from the drop down. Or from Workspace, Investment Lists, choose *New.*

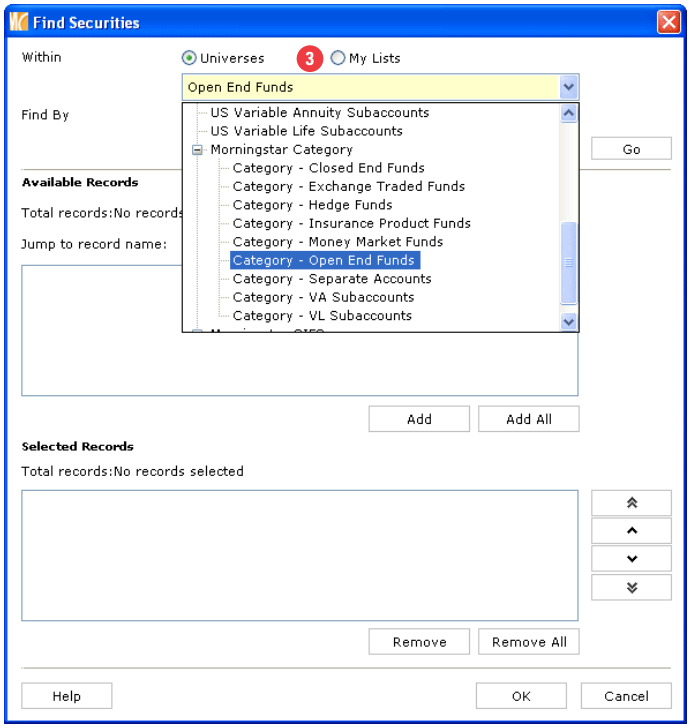




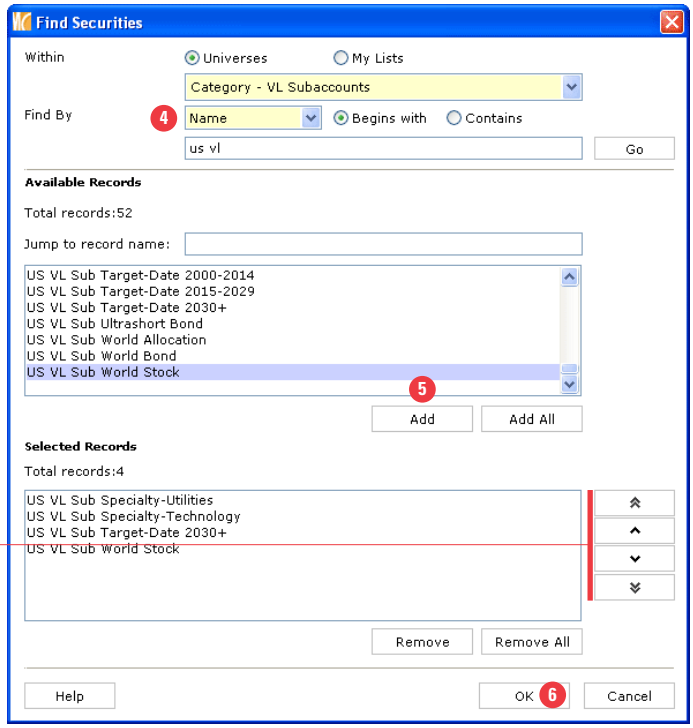
2. In the dialog box that opens, select *Name/Ticker* and click *OK*.



3. Select *Universes* to choose investments from a specific data universe, or *My lists* to add investments from a pre-saved investment list.



4. In the *Find by* drop down menu, select from the options listed (begins with or contains: name, ticker SecID CUSIP or ISIN). In the search bar, enter your search term and click *Go*. You can search for multiple identifiers by separating them with commas. If you leave the search bar blank, you will see an alphabetical list of all the items in the universe or list. To combine investments from different universes, simply repeat steps 3 and 4.



To reorder the investments, select the item(s) you wish to move and use the arrow keys.

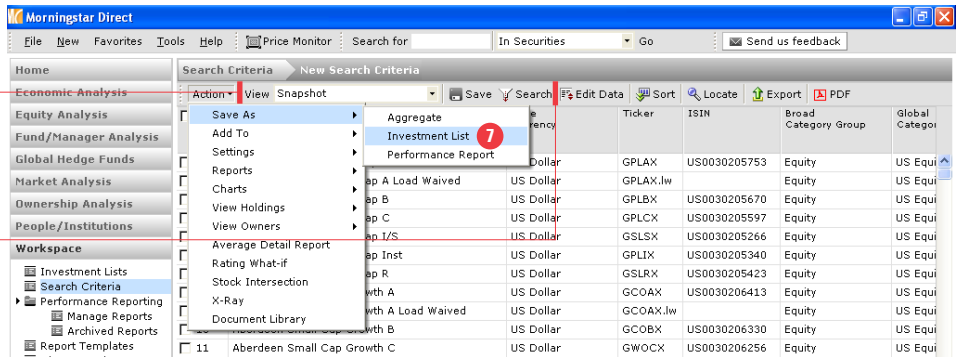
5. The results of your search will appear in the *Available Records* pane; select the subject investment(s) you wish, and click *Add.*

6. Click *OK* and a new window opens displaying your investments.

7. Click *Save* and enter the name of the investment list in the bar. Your saved investment lists will reside in the Workspace tab under Investment Lists.

Select a pre-defined or previously created data view.

Customize data view. See Customizing Data/ Statistics for information.

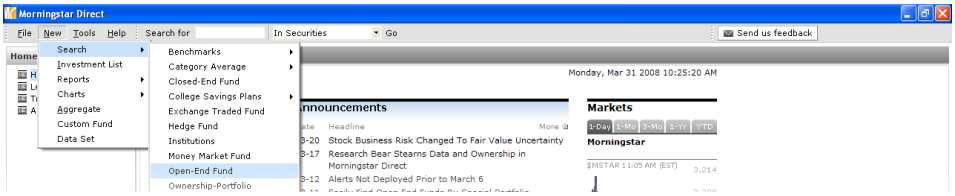


Generating a Peer Group Using Search Criteria

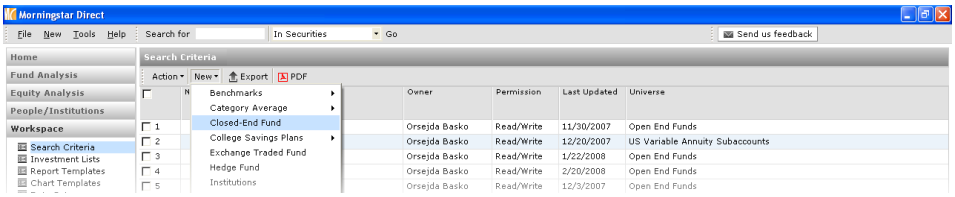
Search criteria generates a set of investments that currently match the criteria you have defined. Each time the file is retrieved, the members are redefined using current data. You can also save the members generated as an Investment List for future analysis. After saving, the search criteria and associated data will reside in the Workspace tab under search criteria.

To create a new search either:

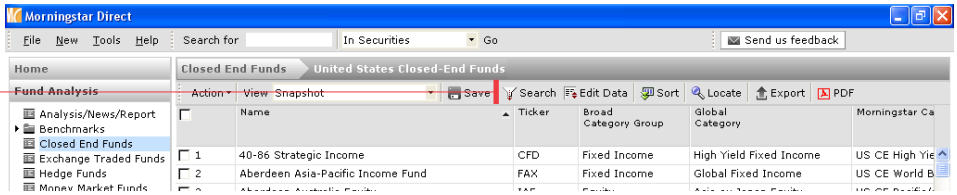
A. Press the *New* button in the Main Menu bar, and select Search, then choose your data universe. You will be searching through *global investments* (all geographic regions) in that universe.



B. Workspace is the file cabinet where all your saved work is stored. From Workspace, select *search criteria* and *New,* then choose your data universe. You will be searching through *global investments* (all geographic regions) in that universe.



C. If you prefer to begin your search within a specific geographic region, start in the *Fund Analysis* tab along the left navigation pane. Choose your universe such as closed-end funds and then click on one of the pre-defined searches such as U.S. closed-end funds. From there you can press the *Search* button and begin to define your criteria.

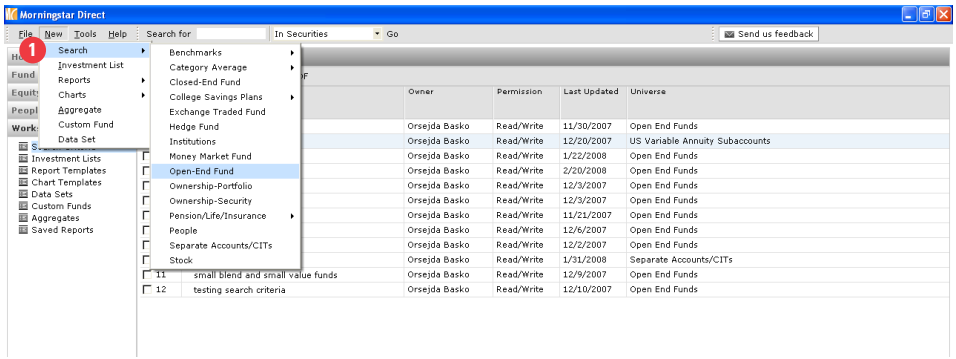


Search.

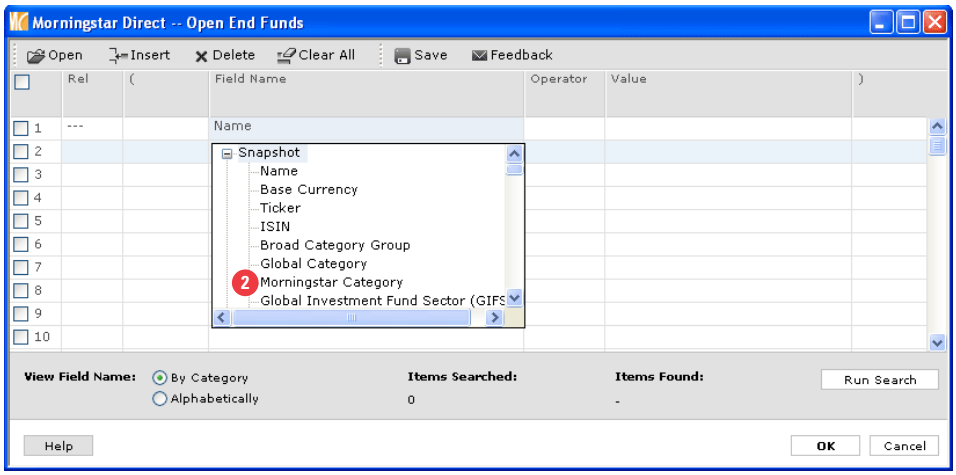
Defining Criteria

Once you have begun your search using any of these paths, you will see the same *search* dialog box. Click the first line to begin using the data universe you have chosen. Scroll through the drop down, expanding trees as needed, until you locate the data on which you plan to search. Following are the steps needed to create a list of open-end funds in the Small Growth Morningstar Category with a trailing 3-year total return in the top quartile of that category.

1. Press *New* in the top menu bar, select *Search,* and choose open-end fund.



2. Expand the Snapshot tree, and click *Morningstar Category.* Verify that the "operator" column shows an "=" sign.

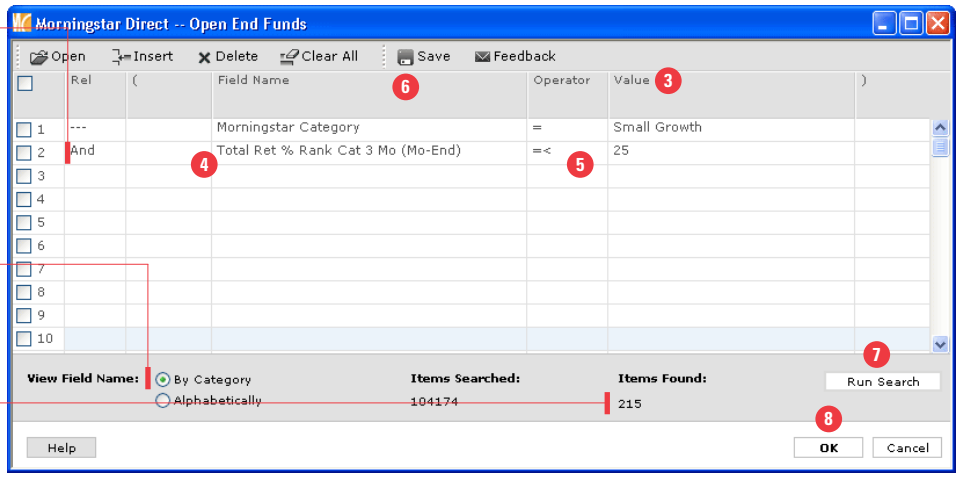


3. Click in the *Value* column, expand the U.S. tree, and scroll down and click on *Small Growth.*

Follow Boolean logic for relationships between criteria, including OR in appropriate instances instead of AND. You can use Repeat if appropriate.

Search data tree alphabetically or by category, i.e. Returns.

Preview number of investments meeting criteria.



4. Move to the second row to add an additional criterion. In the Field Name column, locate and expand the Returns (month-end) tree, and select *Total Ret % Rank Cat 3 Mo (Mo-end).* This abbreviation means: three-month total return percentile rank in category using month-end data.

5. In the operator column, choose "= <" and set the Value column to "25." This will return funds whose percentile rank is between 1 and 25, or funds in the top quartile.

6. Press *Save,* and choose a name. Your saved criteria will reside in workspace.

7. Press *Run Search* to execute; you can verify the search criteria are valid if you see results as an invalid search will return 0 items found.

8. Press *OK* to see the results.

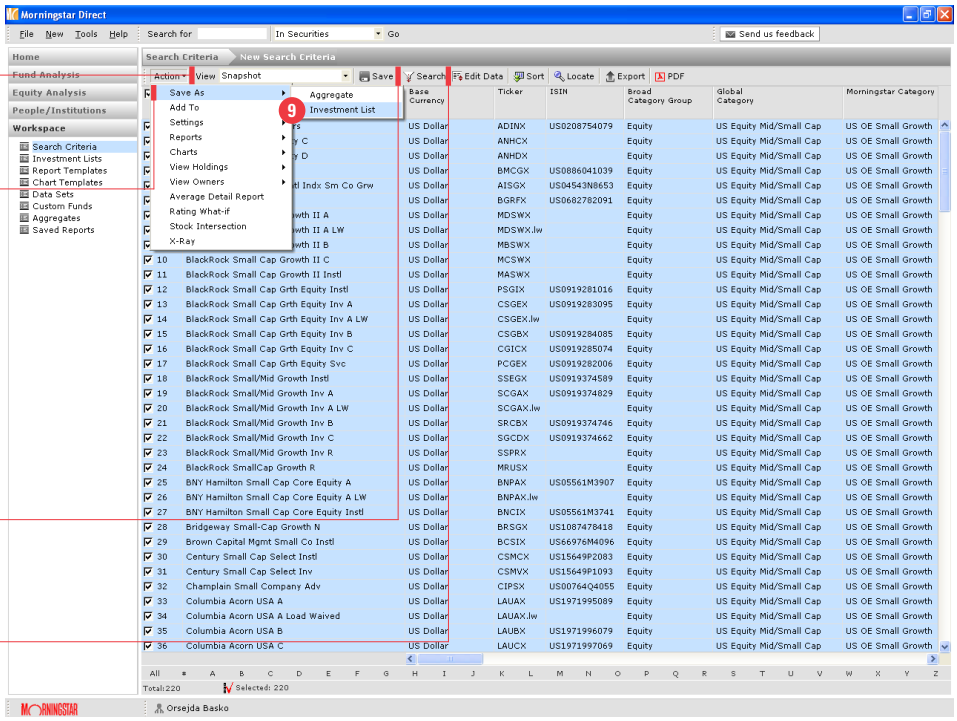
9. To save the results as a static (unchanging) investment list, select all members, press the *Action bar,* choose *Save as Investment List.* Otherwise to save as a dynamic search criteria, click *Save* icon.

Select a pre-defined or previously created data view.

Save as and *Add* allow you to save investments to an aggregate or investment list. This is particularly useful when you need to combine search results across investment universes.

Edit/Access Search Criteria.

Customize data view. See Customizing Data/ Statistics for information.



Customizing Data and Statistics

Data Sets

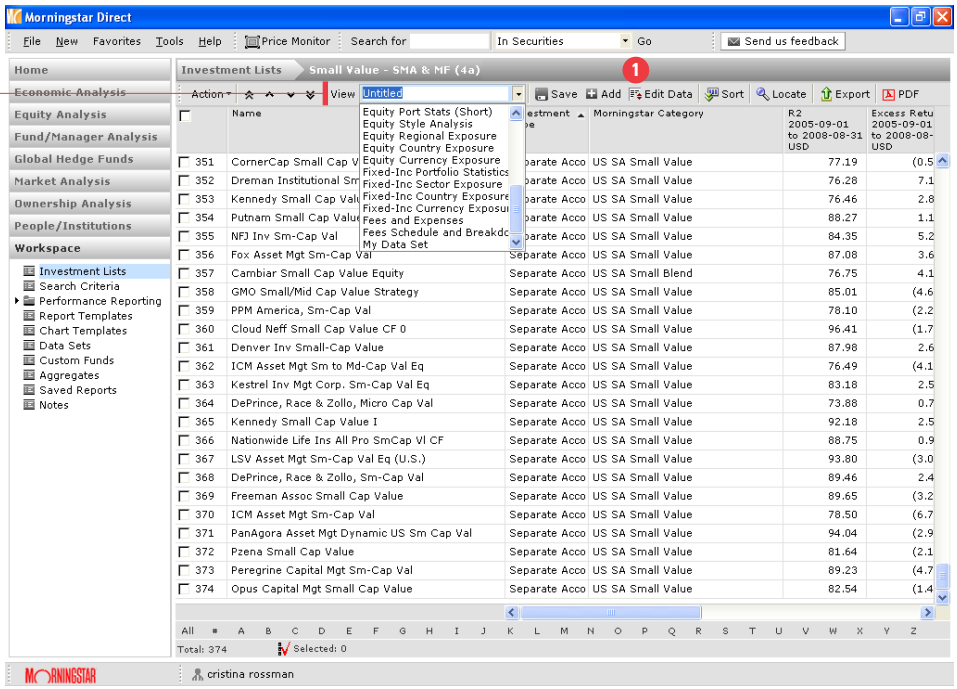
A data set lets you assemble only those data points of relevance to your analysis and set the order for their display. Data sets can be married to search results and investment lists. Once saved, they reside in the Workspace tab under Data Sets, and can also be accessed from the Edit Data drop down menu.

Creating a Data Set

Press the *New* button in the Main Menu bar, and select Data Set. Or, you can create a Data Set from within an Investment List or Search Criteria by selecting *Edit Data.* In each case you will see the Select Data Points dialog box.

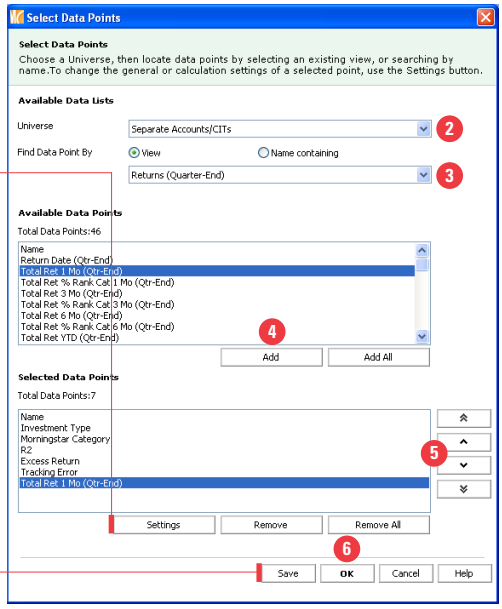
1. For this example, let's start with an Investment List. Click *Edit Data.*

Allows you to quickly access pre-defined and user created views.



2. Select a *data universe.* Universes include investment types, categories, indexes, stocks, custom funds, and user defined data sets.

Allows you to customize data as described in the next exercise.



Saves the data template so it can be applied to other investment views without having to recreate.

3. Use the drop down to choose from the groups of data points.

4. You can *Add All* data points in that group, or choose among them individually. Select the data and click *Add,* or simply double click on a single data point.

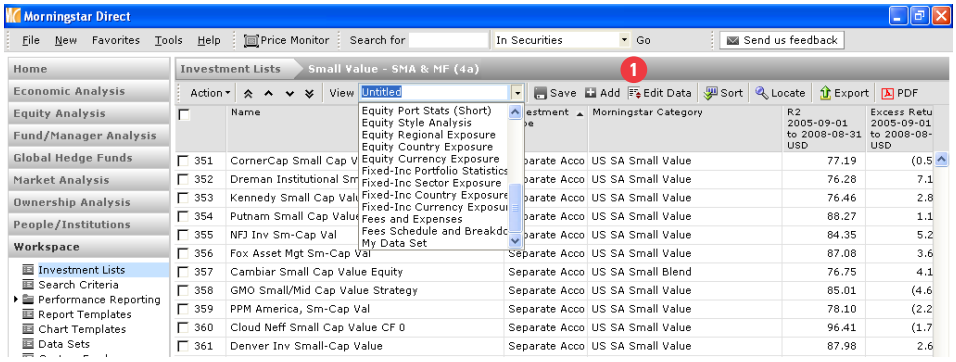
5. To change the display order, highlight data point and use the arrow buttons.

6. Click *OK* to populate grid view.

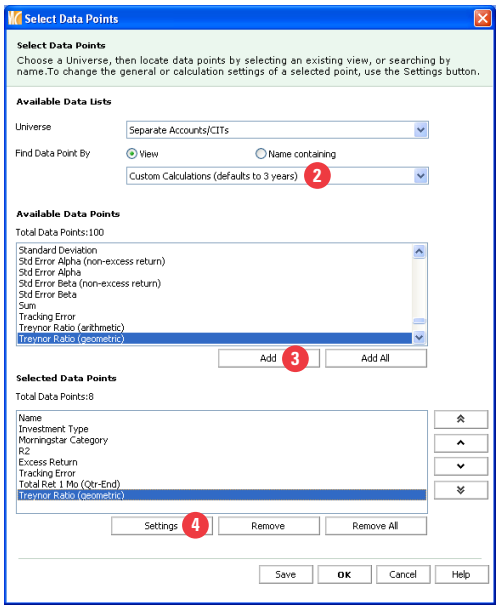
Customizing Data Points

Customizing data allows you to add greater precision to your analysis. In this example, we will create 1-, 2-, 3-, 4-, and 5-year trailing Treynor Ratios as of 12-31-2005 and display results as a percentile rank.

1. From an Investment List or Search Criteria, click *Edit Data*.



2. From any data universe displayed, select Custom Calculations (last item in list).



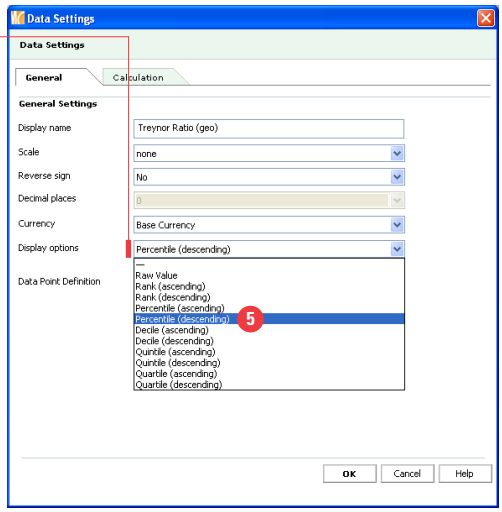
3. Choose *Treynor Ratio* (geometric) by highlighting it and pressing *Add,* or double clicking.

4. Highlight the data point, then choose *Settings,* which will open the options dialog box.

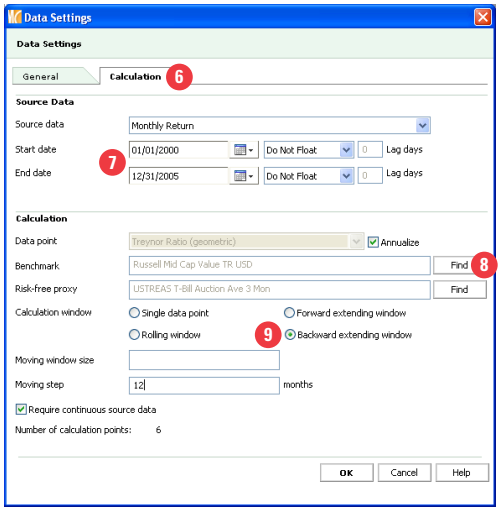
5. In the general tab under display options, choose *Percentile* (descending). This will assign the largest value to the lowest percentile. The options under the general tab are available for any numerical data point regardless of the data list chosen.

Calculation is based on the investments in your window. This is useful for custom peer groups and non-return data.

Pre-defined ranks based on Morningstar Category are available for limited return data points.



6. Click on the *Calculation* tab.

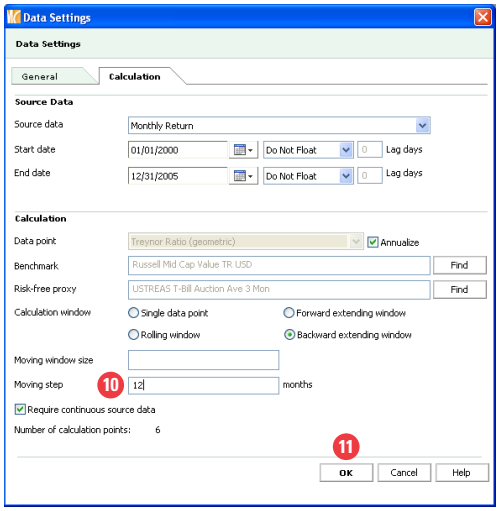


7. Type in *01-01-2000* in the Start Date box and *12-31-2005* in the End Date box. Or you can use the calendar to choose dates graphically.

8. Click *Find* next to the Benchmark box. Type *Russell Midcap Value* (or Russ for a list) and press *Go*. When you've located your benchmark, highlight it and press *OK*.

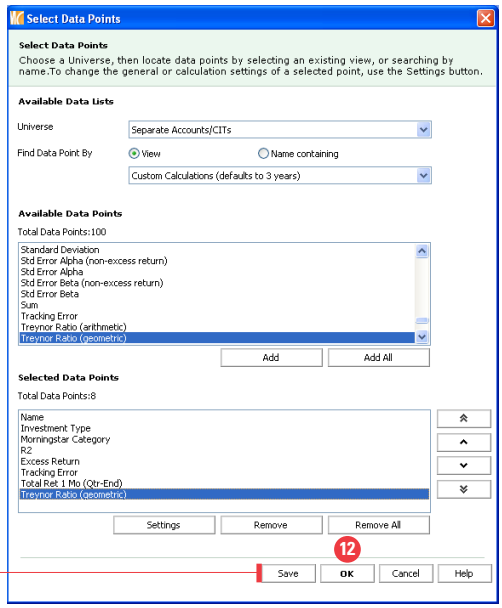
9. Select Backward Extending Window (see Calculation Window for description of these options).

10. Type *"12"* in the Moving Step box.



11. Click *OK* in the Settings dialog box.

12. Click *OK* in the Select Data Points dialog box.



Saves the data template so it can be applied to other investment views without having to recreate.

13. A new window will open with your trailing time series defined.

14. Click *Save*.

How Does the Calculation Window Work?

For all examples the start date is 1 January 2000, and the end date is 31 December 2004.

Single Data Point gives you one data point as output based on your start and end date. The following illustration is a single trailing 5 year calculation.

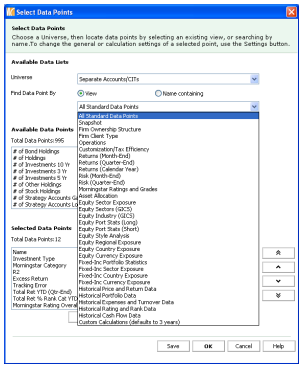
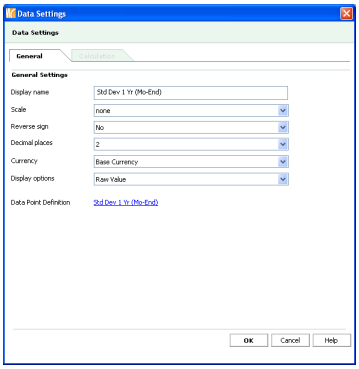
Rolling Window allows you to calculate rolling statistics, where the start date and end date both move forward together. Rolling windows are typically used to measure consistency of data. Use Moving Window Size to set the time period for each calculation and Moving Step to set how often each calculation is performed. The following illustration has a moving window size of 4 years and a moving step of three months, so you would get five data points as output.

Forward Extending Window allows you to fix the start date for each calculation. One application of this calculation would be to calculate cumulative performance (data point is total return and annualized is not checked). The following illustration has a moving step of 12 months, so you would get five data points as output.

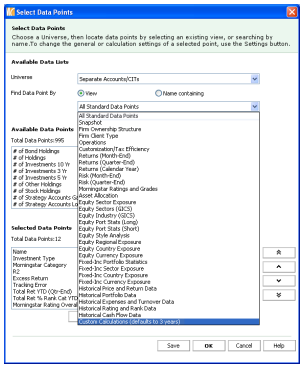
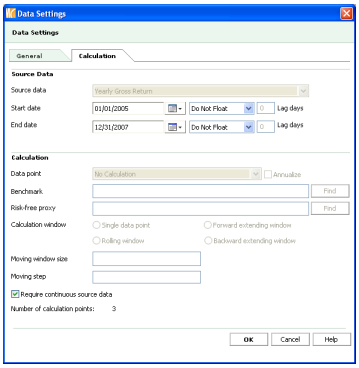
Backward Extending Window calculation fixes the end date for the calculation. It is typically used to calculate trailing statistics. The following illustration has a moving step of 12 months, so you would get five data points as output.

How is the data organized?

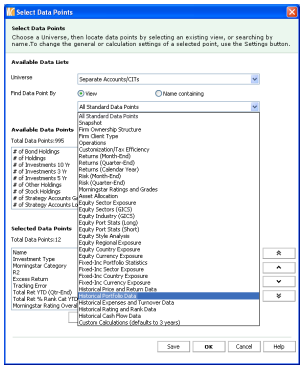
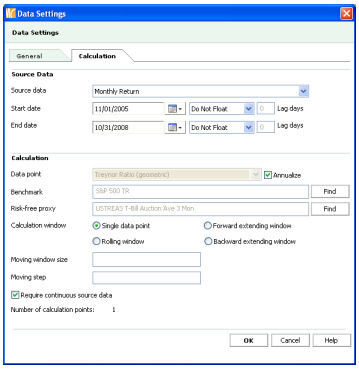
Standard Data Points are pre-defined groups of data points found in the view drop-down or in *Edit Data*. Basic modifications to data settings can be made in the *general* tab.

Historical Data Points are used to evaluate the consistency and trend of historical data. These can be found in *Edit Data*. Basic modifications to data settings can be made in the general tab and date changes (start and end dates) can be made in the *Calculation* Tab. The default setting is three years. Consider these some pre-created custom calculations for your benefit.

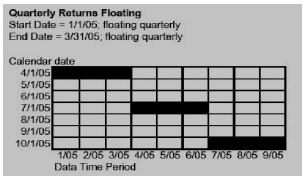



Custom Calculations allow you to generate calculations using your own benchmarks, data sources, and specific time frame calculations. Offering the most flexibility, these data points can be found in *Edit Data*. Basic modifications to data settings can be made in the *general* tab while in-depth custom calculations are made in the *calculation* tab.

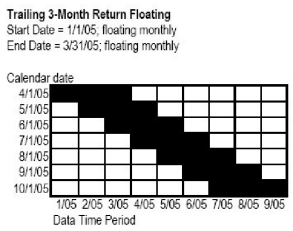



Understanding Floating and Lag Options

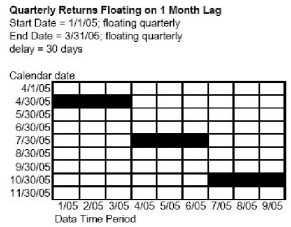
You can use Floating Methods to float start and end dates for your custom calculations. You can also build a lag time into your process. Below are examples of the actual calculations.



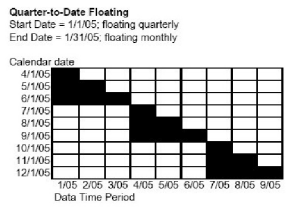
Based on your "float quarterly" settings for the start date and end date, you are updating quarterly *even though the data maybe available monthly.*



Based on your "float monthly" settings given the start date and end date of a 3-month time period, you are asking the data to be updated every month, moving one month forward with no lag.



Based on your "float quarterly" settings, you are asking the data to be updated every quarter *even though the data maybe available monthly.* However, the difference in this example is that this update will not appear in your settings until one month later. This can be useful for hedge funds and separate accounts where reporting occurs toward the end of the month.



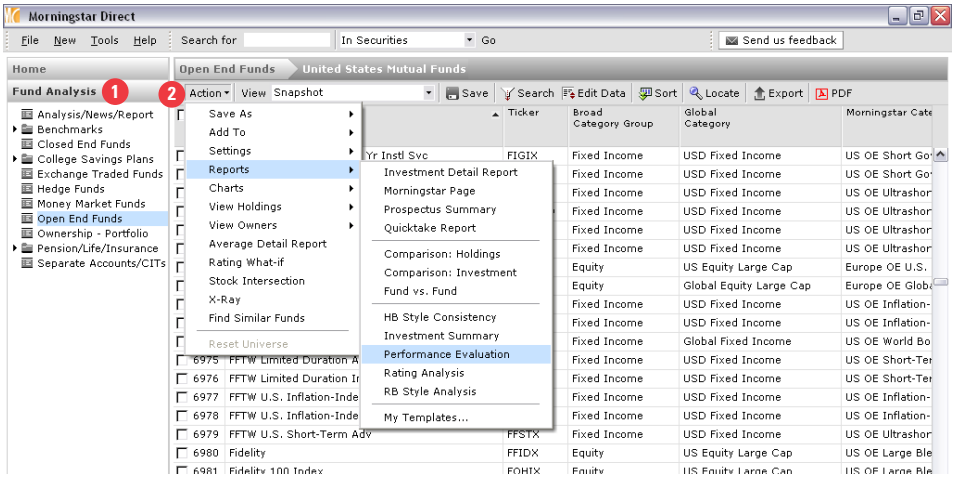
Based on your "float quarterly" settings for the start date and the "float monthly" settings for the end date, you are asking the data to be updated every month while maintaining the start date as of the beginning of the quarter. Therefore, the start date will not move until the next quarter. Hence, this is the calculation for the Quarter-to-Date returns, with no lag.

Introduction to Reports and Charts

Pre-Formatted Reports

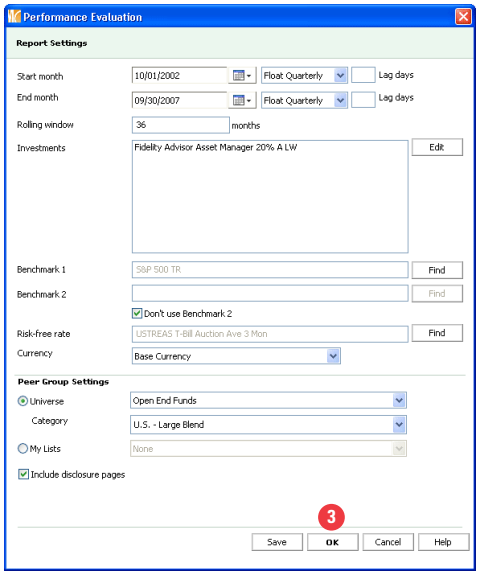
Reports can be executed from anywhere in the platform. For example, you can select an investment, or investment list first, then use the *Action* bar to select Report. Or you can begin from the top navigation bar by selecting *New,* then Report. A Quicktake report can be executed by simply double clicking the investment; a Quicktake is a comprehensive quantitative overview that also contains Morningstar Analysts' qualitative commentary.

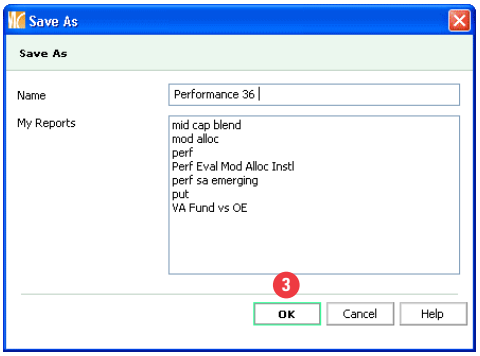
1. For this example, we'll begin with an investment. From the *Fund Analysis* tab, use the left navigation to select your investment universe, and click on the sub-universe you require. To navigate to your specific investment, you can use the letters at the bottom to move through the alphabet, or use the *Locate* button in the *Action* bar.



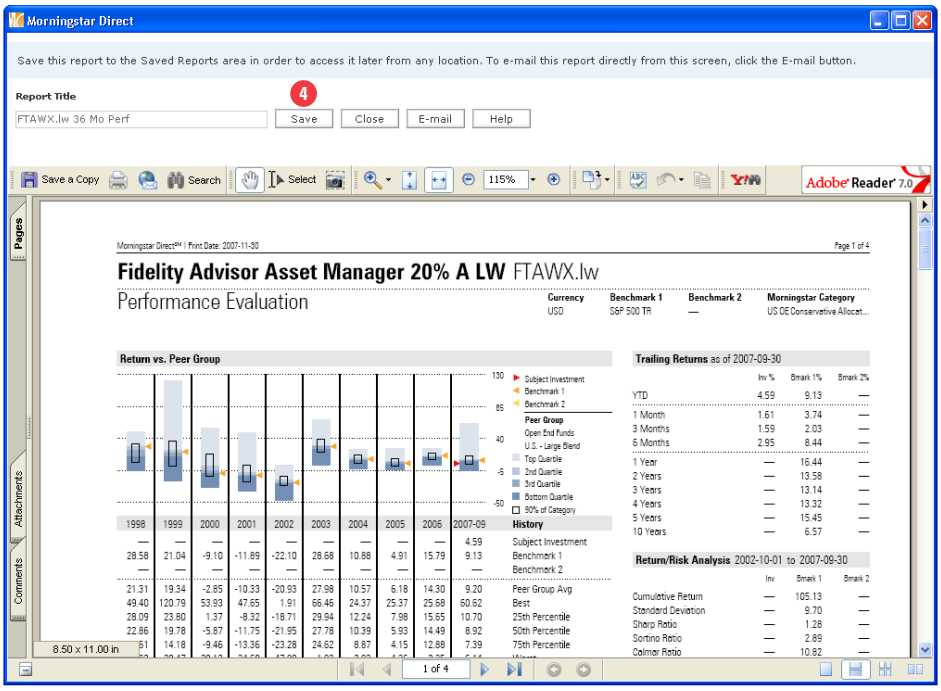
2. Select the investment by clicking the box to its left, then press the *Action* bar, select Report, and choose the report you need.

3. A dialog box may open, offering customization options. These options vary according to the report you select, but include items such as time periods, benchmarks, and peer groups. You can also opt to include disclosure pages. When you are satisfied with your selections, click *OK*. You will be asked if you wish to save your changes in your report templates for later use. Name the template and click *OK*.





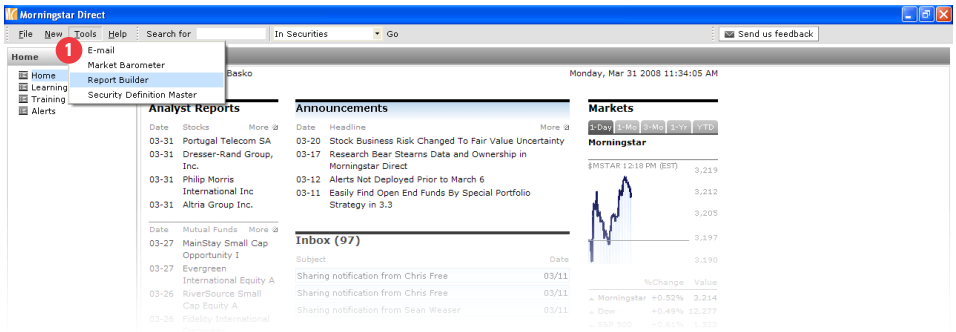
4. Your report will open in a new window. From here you can save the report to your *Saved Reports* or e-mail it using Morningstar Direct's email program.



The Report Builder

Many clients elect to create fully customized reports showing only those elements germane to their analysis, and to personalize them with a company logo and text box for individual disclosure language. To do this, you will first create and save the template, then execute the report. Report components include performance, ratings and risk, portfolio, operations, and style components. The templates you design can have multiple pages and be used for any investment.

1. From the top navigation anywhere in the product, click *Tools,* Report Builder.

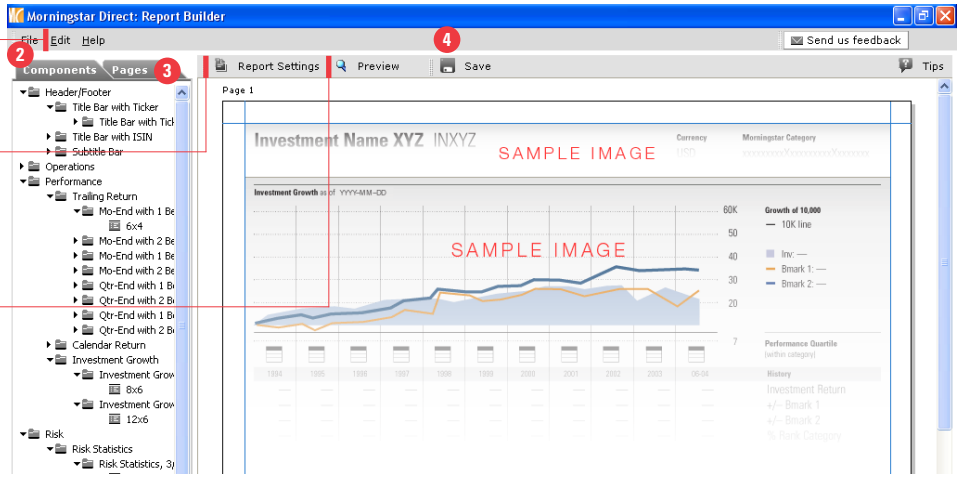


2. The Report Builder dialog box displays report components and a mock-up of the report on a grid. Expand the trees, and simply drag and drop the components onto the grid.

Use *Edit* to insert and delete pages of your report.

Click *Report Setting* to set report title, benchmarks and more.

Click *Preview* to view your sample report in single or multiple-page format.



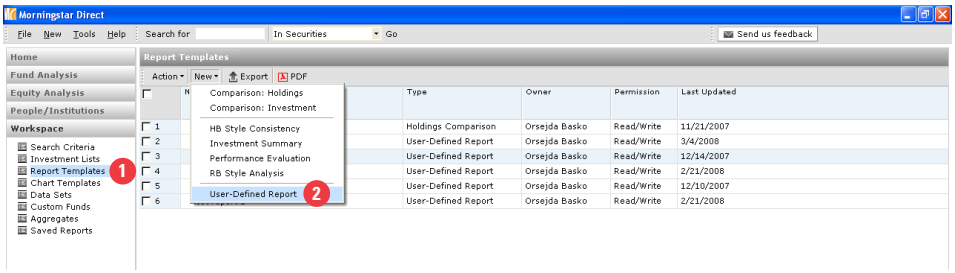
3. Navigate between pages using the Pages tab on the upper left, and add new pages by selecting *Edit/Add Page.*

4. Save your report template.

Running Your Custom Report

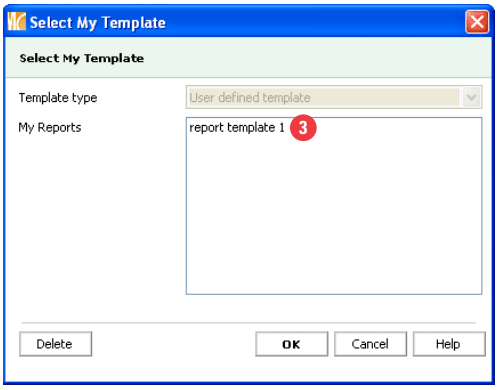
Your custom report templates are accessible in all action bars that contain reports, including the main menu and Workspace.

1. In the *Workspace* tab, click *Report Templates*.

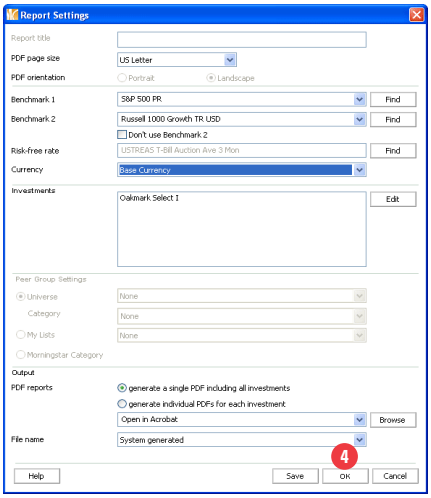


2. Click *New* in the *Action* bar and choose User Defined Report.

3. Choose your report template. A dialog box appears where you can select your investment.



4. Report settings allows you to choose Benchmarks, set the currency, and select *output options*. Press *OK* to generate the report.



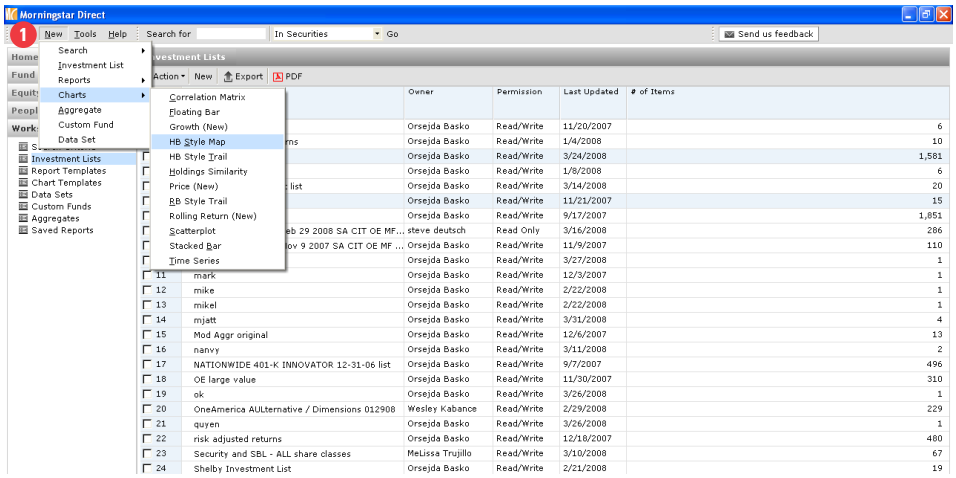
Charts

Relationships and trends are often best examined graphically. Morningstar Direct has many chart options to support your research. Charts can be exported into PowerPoint, saved as PDF files for easy printing and emailing, and copied to the clipboard for insertion into other reports and documents.

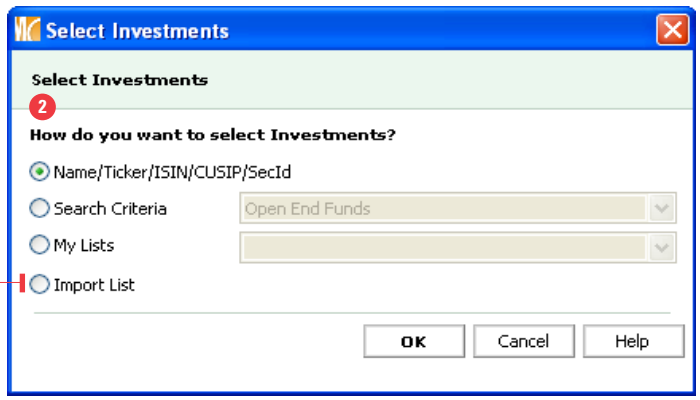
Creating Charts

As with reports above, charts can be executed from anywhere in the platform. You can begin with an investment or investment list, or you can begin from the top navigation bar by selecting *New,* then *Chart.*

1. For this example, we will begin from the top main menu. Select *New, Chart,* and choose the chart you wish to run.

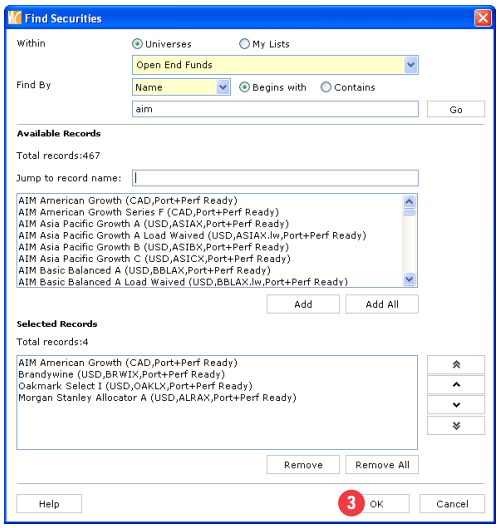


2. A dialog box will open so you can select your investment. In this example we will select the first option.



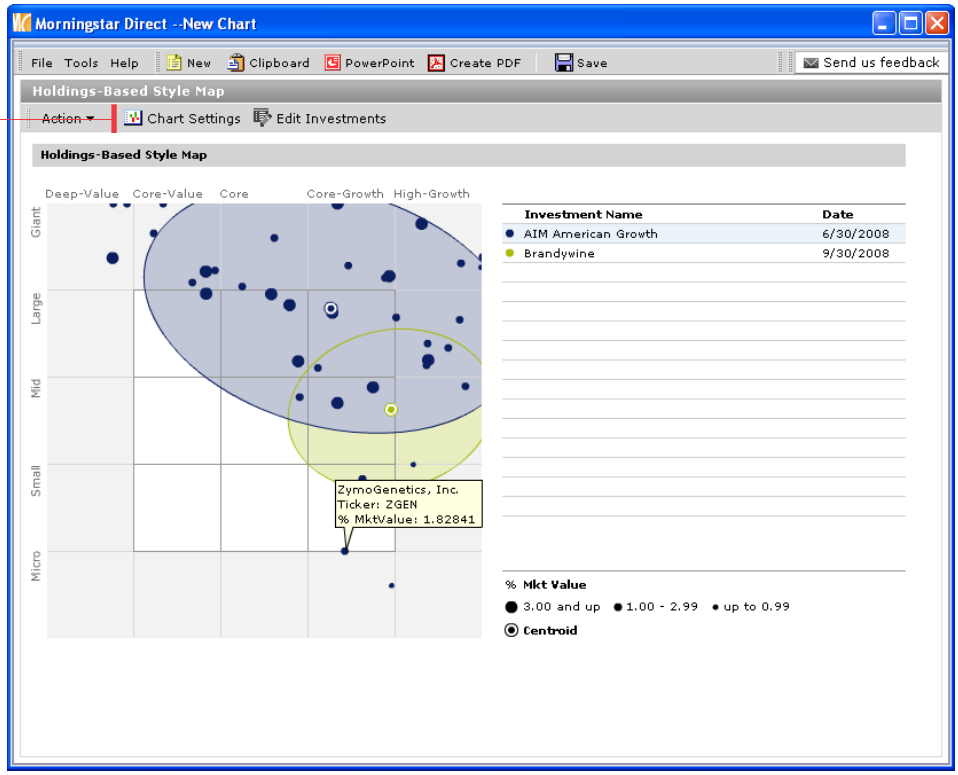
See section *Importing an Investment Lineup* for help.

3. Click *OK* to generate the chart.



To edit chart preferences or change the investment on the chart, click *Chart Settings*.

Chart Settings



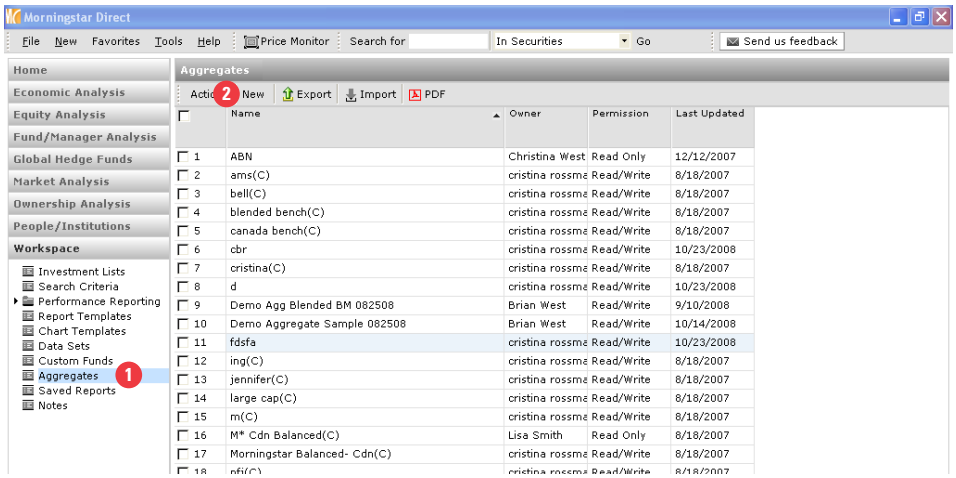
Building Portfolios and Aggregates

Creating and Editing Aggregates

This functionality is used to create an aggregate, or blend of investments. Examples include a fund lineup, peer group, model fund-of-fund, or blended benchmark.

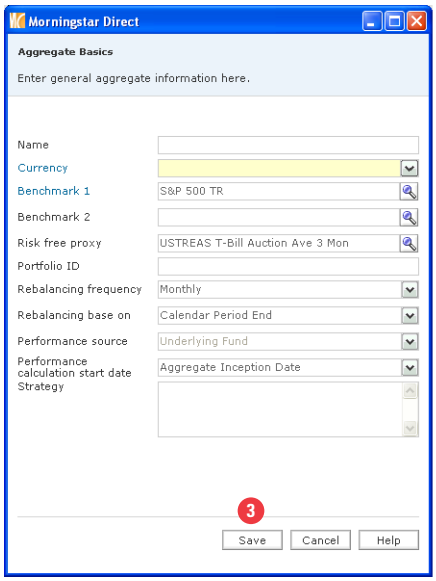
You can begin from the main menu or from the Workspace.

1. To create an aggregate, go to *Workspace,* and then click *Aggregates*.

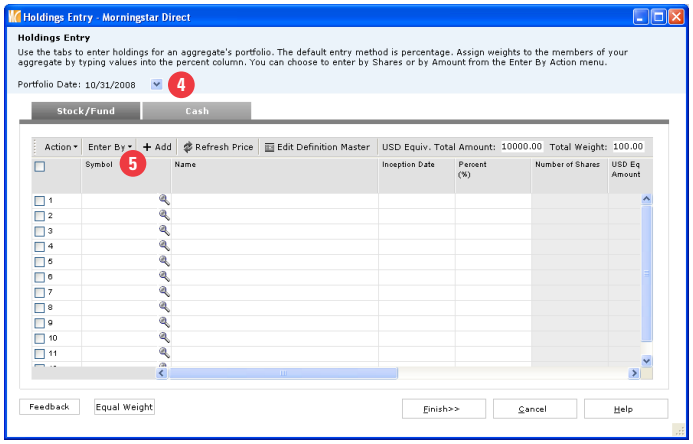


2. On the Action bar, click *New.*

3. Select a *name, currency, rebalance frequency, performance calculation,* and click *Save.*

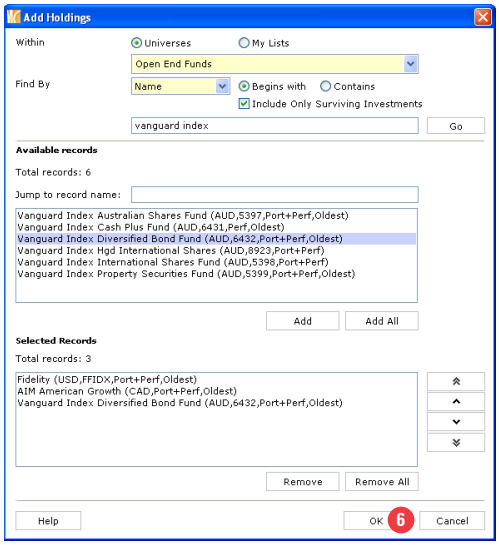


4. Choose the portfolio date for the aggregate and click *OK.* This date determines when the data derived from holdings begins.

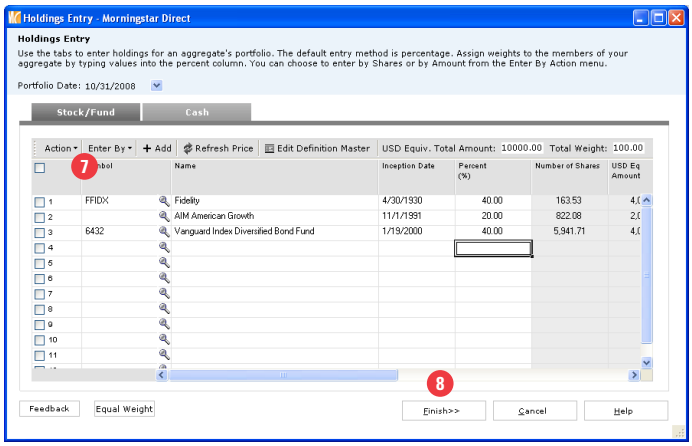


5. Enter investments by clicking *Add.*

6. Search for the investments by name, ticker, CUSIP, ISIN, or SecID. Click *OK* once you have chosen all the investments.



7. Once the investments appear on the aggregate grid, you can allocate the number of shares, market value, or percentage of net assets by clicking *Enter By*. You can also give equal weighting to the funds by clicking on *Apply All* and choosing *Equal Weighting*.



8. Click Finish to complete.

If you are not already in the *Aggregate* dialog box go to *Workspace,* click *Aggregates,* and then click on the aggregate name. Click *Holdings Summary* to edit the portfolio. Once completed portfolio additions are automatically saved.

Adding a Portfolio

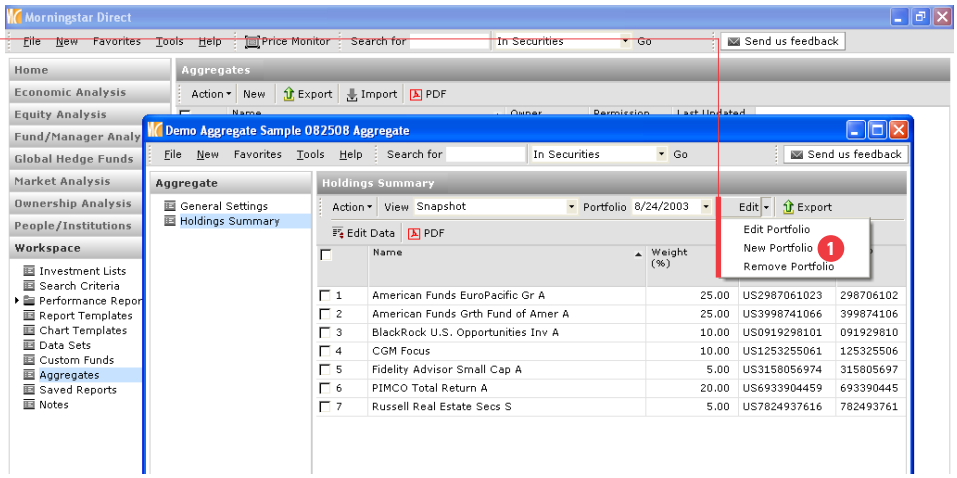
Adding a portfolio allows the allocation of the aggregate to change over time.

1. To create a new portfolio, click *New Portfolio*.

To edit an existing portfolio click *Edit Portfolio* and select a portfolio date.

To remove a portfolio, click *Remove Portfolio.*

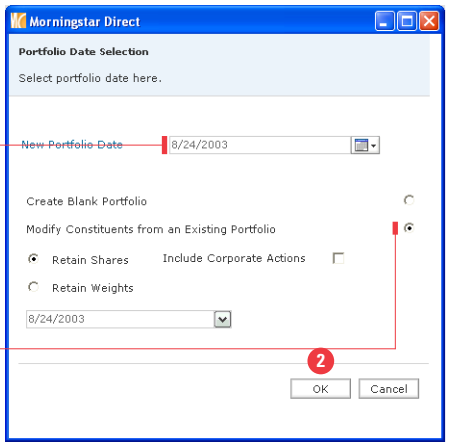
To create a new portfolio, click *New Portfolio* and see instructions below.



2. Input the date of the new allocation and click *OK.*

Toggle from one portfolio allocation to another.

This option may save a few keystrokes in entering the new portfolio.



3. Repeat steps 4–8 of *Creating an Aggregate.*

Aggregates can be added to your output throughout the application in the same way as other investment universes. When you are in the *add investment* dialog box using the drop down select the *aggregate universe.* In addition the Portfolio Aggregation report is available exclusively for aggregates. To access put your mouse over the aggregate name and *right-click.* Or if you are in the aggregate sub module you may access it via the *action* menu.

Importing Custom Funds

Import a private strategy, or any portfolio that is not in the Morningstar databases. You can analyze your custom funds throughout the platform, just like any other investment. Custom funds are available only to you and those with whom you chose to share them.

Multiple portfolios and portfolio dates can be imported in the same file. Import files must contain the following columns, in this order: Portfolio Date, Portfolio Identifier, Portfolio Name, Holding Identifier, Security Description, Shares/Par Value, Market Value, Coupon Rate (if applicable), and Maturity Date (if applicable). The Portfolio Identifier can be any user defined combination of characters. Each unique portfolio identifier indicates a unique custom fund. To add various allocations over time within the same custom fund use the same Portfolio Identifier and a new Portfolio Date. The Holding Identifier must be a CUSIP, Ticker, ISIN, or SEDOL. Because ticker symbols are duplicated across global markets, we highly suggest that you use an alternative identifier. Supported file types are Excel, or comma-, tab-, pipe, or semicolon-delimited text.

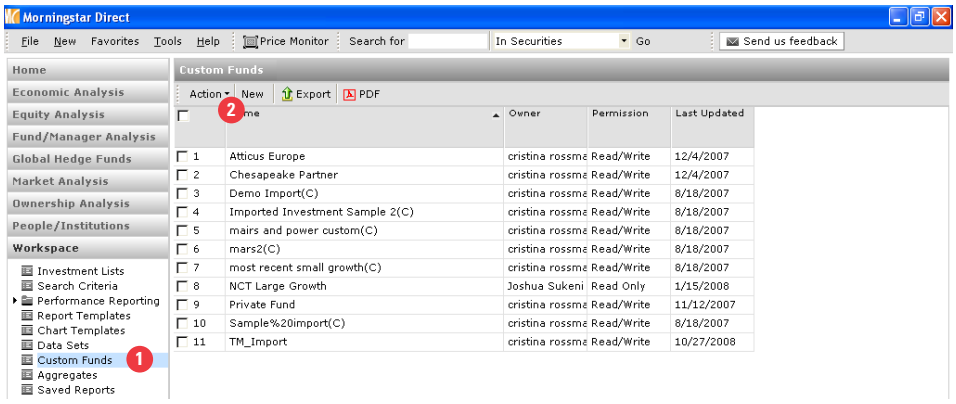
A portfolio must meet these two business rules in order to pass Morningstar's security identification process:

A. All of the top 25 holdings must have an asset type assigned.

B. At least 90% of the total market value must be identified.

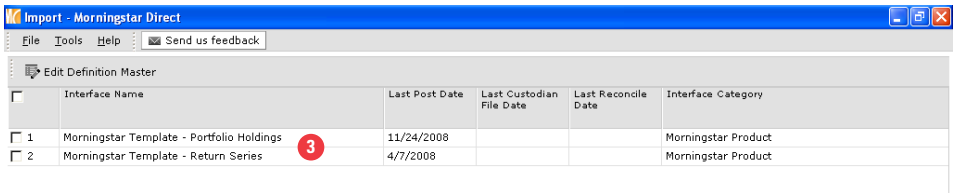
Importing Portfolio Details

1. To begin the import process, go to the *Workspace* tab and then click *Custom Funds*.

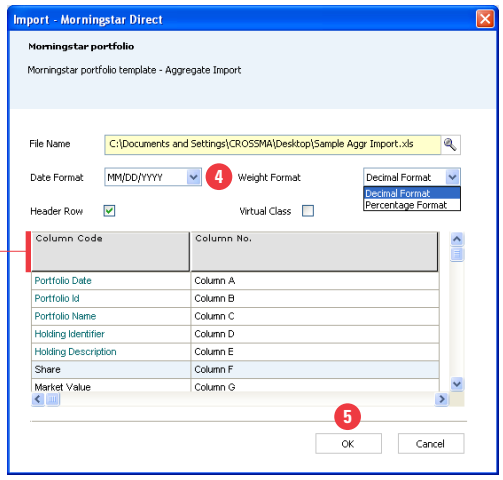


2. On the *action* bar, click *New*.

3. Double click on *Morningstar Template* (Portfolio Holdings or Return Series). For this example we will begin with *Portfolio Holdings.*



4. Browse to the file, select the appropriate date format, and click *OK.*



If the order of the data in the import file does not correspond to default adjust by clicking on column. It may be easier to edit the file being imported to match default. Required fields are highlighted in the dialog box.

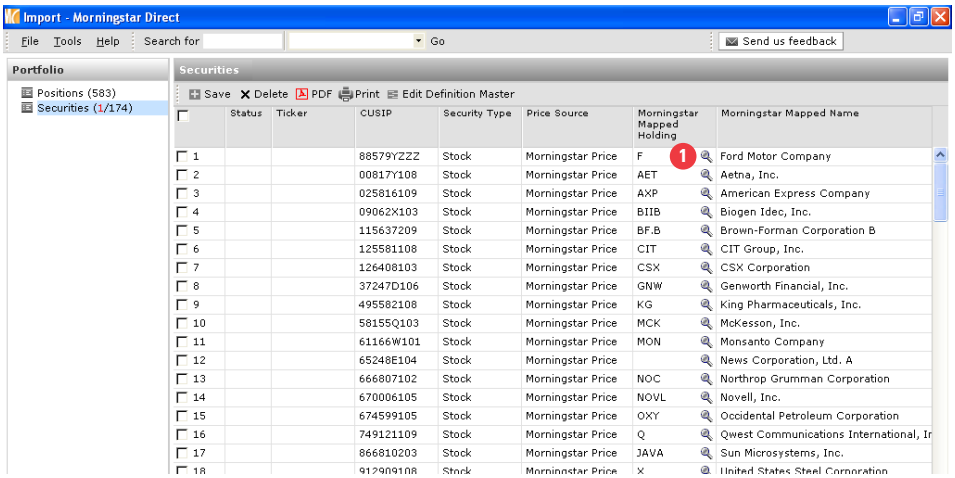
5. Once the file has uploaded, switch to *Securities* to verify that the securities were correctly matched. The holdings that display a red icon have not been matched to securities in our database. For such holdings, you are able to map them to a security in the database. Follow instructions for *Matching unidentified securities* that follows.

6. Click *Save.* You will be taken back to the *Import Sources* window.

These imported investments are stored in the *Custom Fund Universe.* This investment can be added to your files in the same manner as any other investment. Simply ensure that you select *Custom Fund* in the Universe dropdown of the *Add funds* dialog.

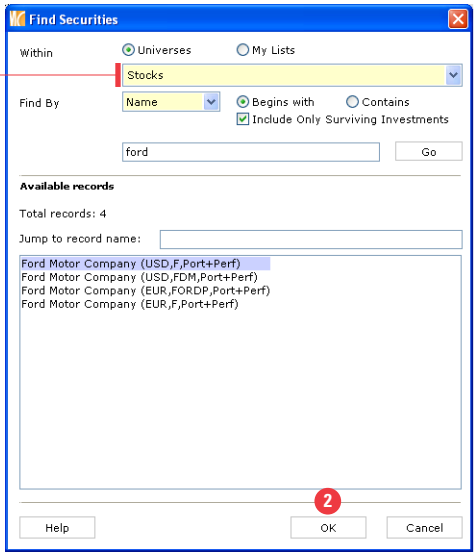
Matching Unidentified Securites

1. Select *security type* and click on the *Morningstar Mapped Holdings* icon.

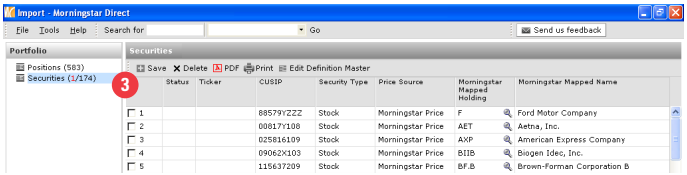


2. Locate a comparable security and click *OK*.

Select appropriate universe when finding a comparable security



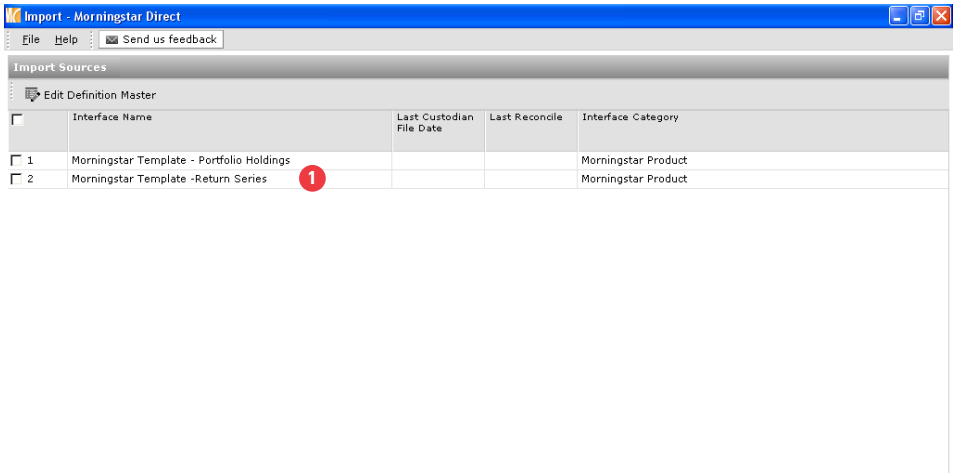
3. Click on *Save* and you will get a pop-up saying "The blotter was saved successfully." You will now be taken back to the *Import Sources* window.



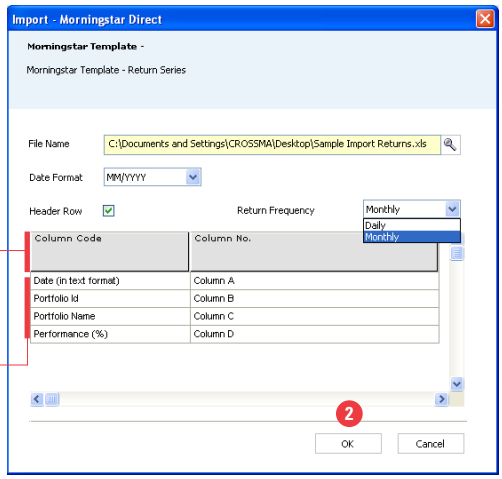
Importing Returns

Importing Return files must contain the following columns: *date (in text format), portfolio id, portfolio name, performance.* In order to link the *imported holdings* to the *imported return series, portfolio id* and *name* have to be the same in both files. Importing holdings is not a requirement for a custom funds and vice-versa.

1. Select *Morningstar Template Return series.*



2. Browse to file, select the appropriate *date format* and *return frequency,* and click *OK.*



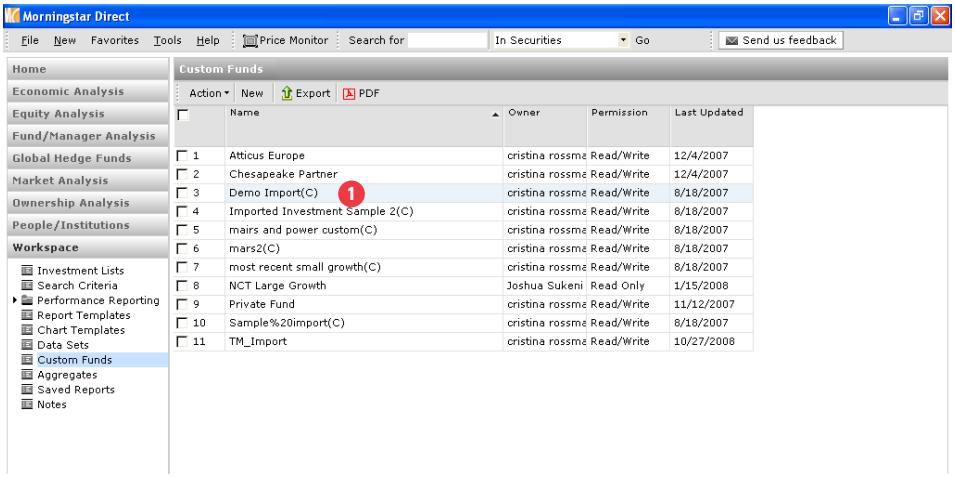
The date must be in text format in your file.

Should match order of date in input file.

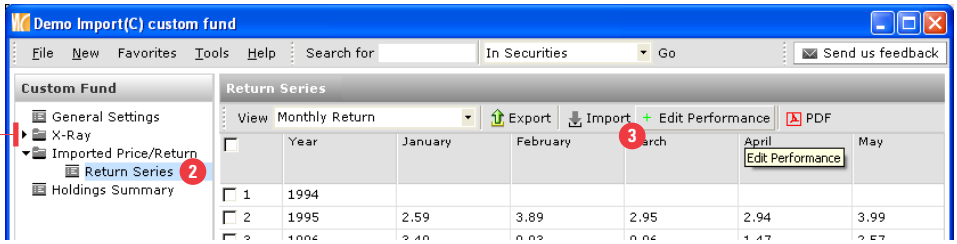
Editing your Import

To edit your return series

1. Go to *Workspace, Custom Fund* and select the fund name.



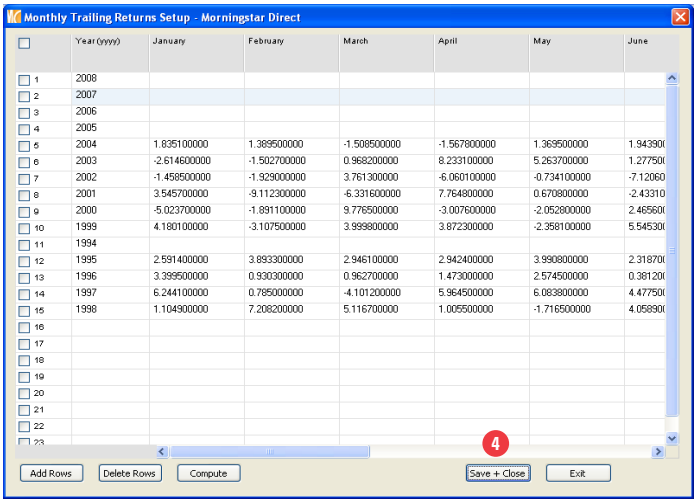
2. Then select *Imported Price/Return, Return Series.*



The X-Ray report is immediately accessible.

3. Then select *Edit Performance* or *import.*

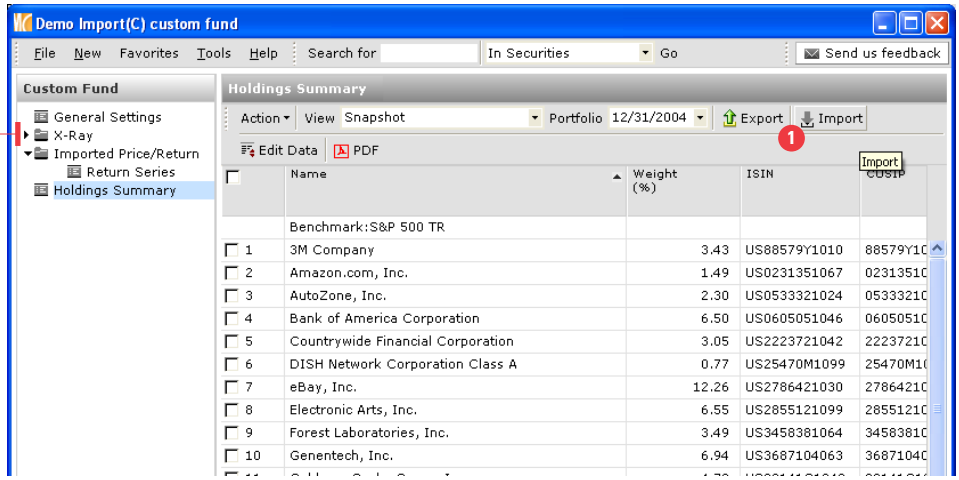
4. If editing on screen, Edit and select *Save and close.*



To edit a portfolio

1. Click on *Holdings Summary,* then click *Import*. You will be taken to the *Import Sources* screen where you can edit through importing.

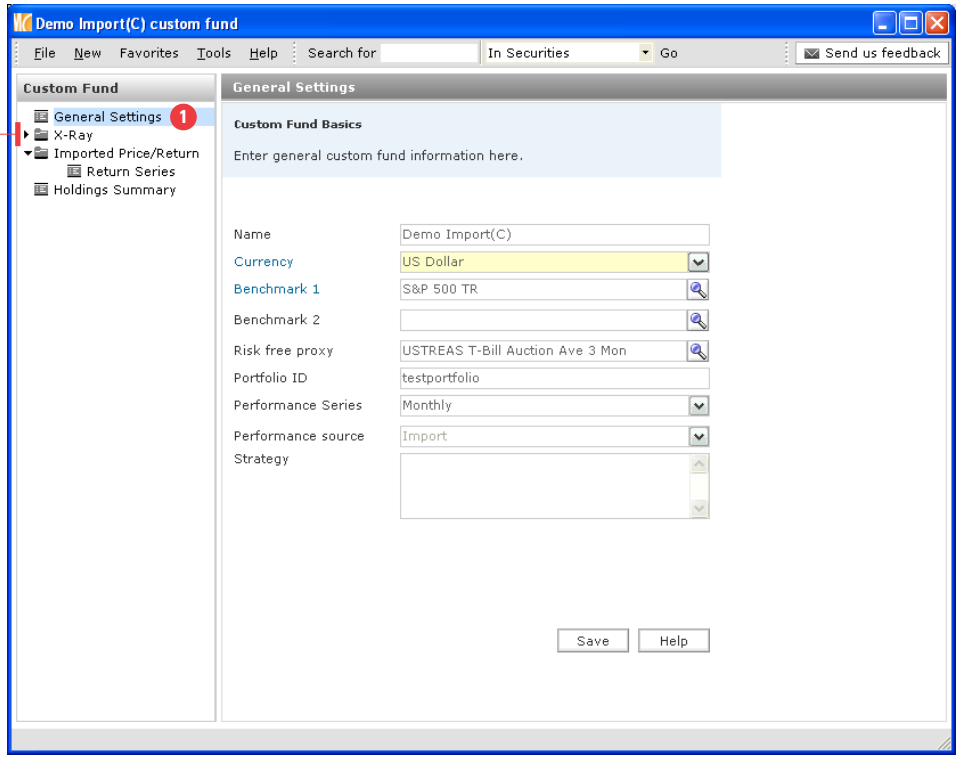
The X-Ray report is immediately accessible.



To edit operational information

1. Click on *General Settings* tab.

The X-Ray report is immediately accessible.

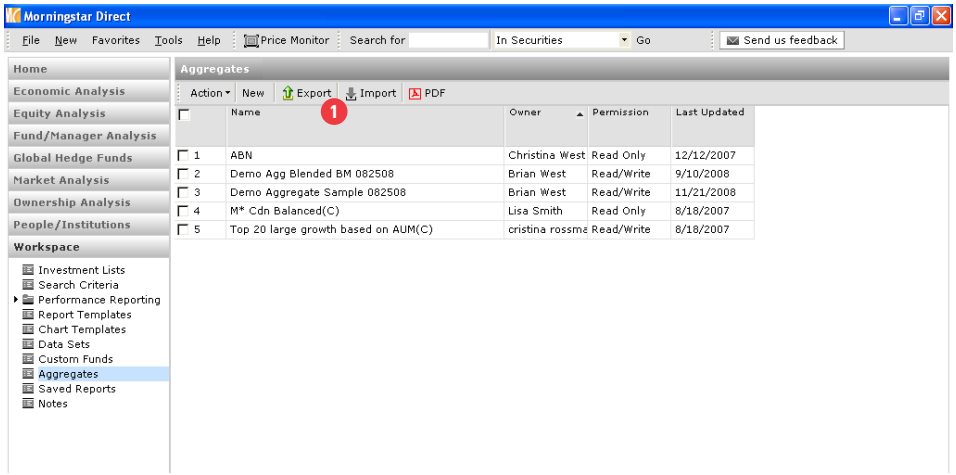


Importing Aggregates

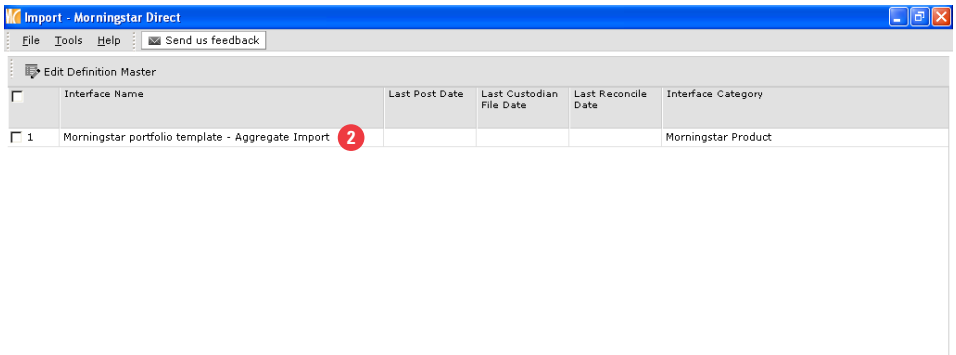
An aggregate is a blend of investments to represent a portfolio, blended benchmark or equivalent. Multiple aggregates can be imported in the same file. Import files must contain the following columns in this order: Portfolio Date, Portfolio ID, Portfolio Name and Holding Identifier, Weight. The Holding Identifier must be a CUSIP, Ticker, ISIN or SEDOL. Because ticker symbols are duplicated across global markets, we highly suggest that you use an alternative identifier. If you have shares and market value available you do not need to specify weights. The same rule applies in reverse.

To Import Aggregates

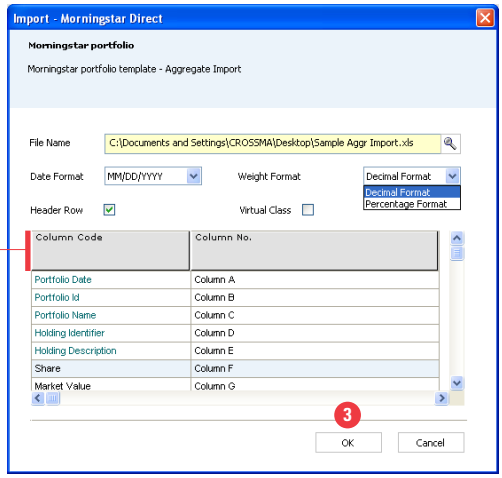
1. To begin the import process, go to *Workspace* tab and then click *Aggregates.* On the Action bar click *Import.*



2. Double click on *Morningstar Portfolio Template – Aggregate Import*



3. Browse to the file, select the *appropriate date* and weight format, and click *OK.*



If the order of the data in the import file does not correspond to default adjust by clicking on column. It may be easier to edit the file being imported to match default. Required fields are highlighted in the dialog box.

4. Click *Save.* Your new imported aggregate is now stored in your *Aggregates* universe.

This investment can be added to your files in the same manner as any other investment. Simply ensure that you select *Aggregates* in the Universe dropdown of the *Add funds* dialog.

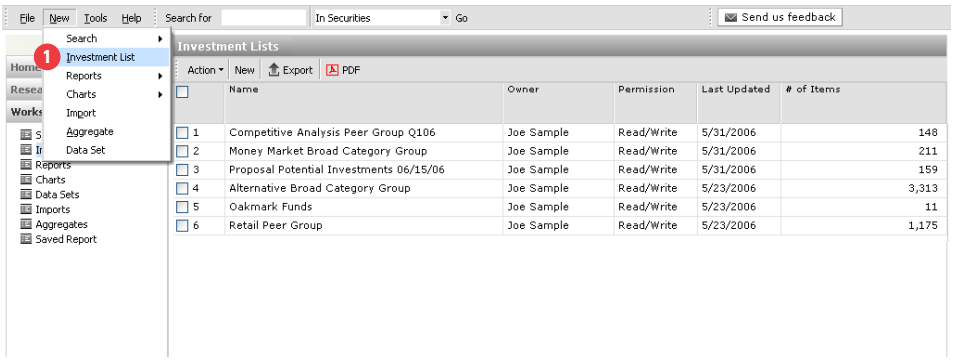
You can alter and/or add new weights to your aggregate allocation over time by re-importing or by following the process described in the *Aggregate* section.

Importing an Investment Lineup or Watch List

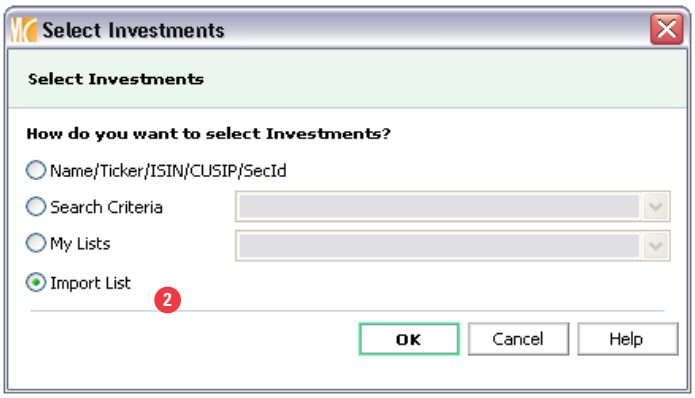
Creating a List Through Importing

Import files must contain a single column with the selected identifier. Supported file types are text and Excel.

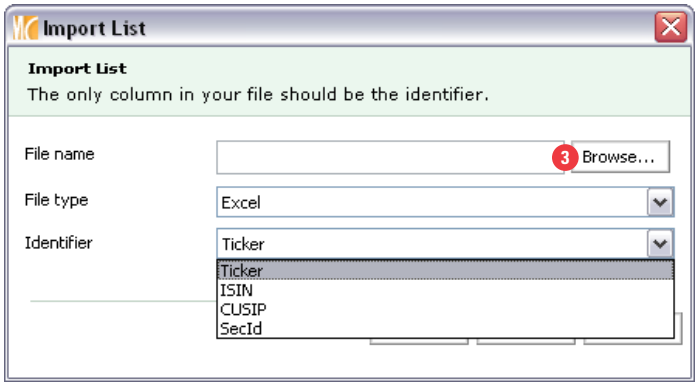
1. Begin by pressing the *New* button in the menu bar of any file area and choosing Investment List, or by pressing the *New* button in the action bar of the Workspace/ Investment Lists data area.



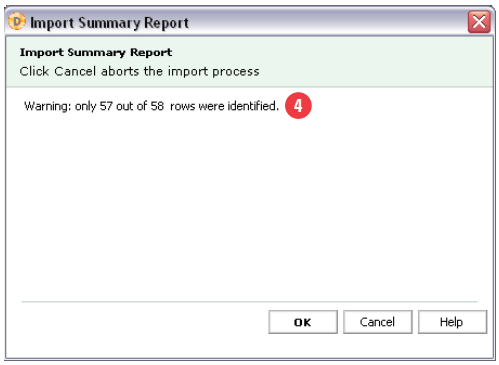
2. In the window that asks you how you would like to create the search, choose *Import List.*



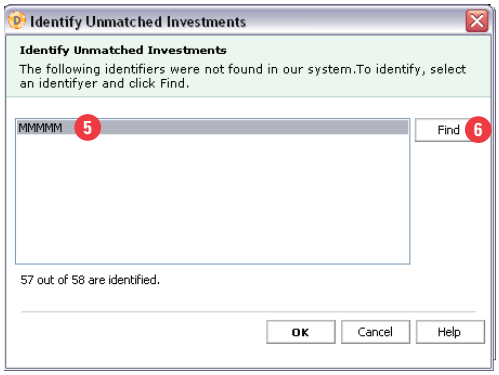
3. To locate your import file, click *Browse.* From the File type list, choose the type of file. Select the Identifier for the investments; this can be ticker, CUSIP, ISIN, or SecID. Click *OK.*



4. If the import process encounters a problem with the provided data, an import summary report will open. Read the warning(s), then click *OK* to continue the import process or Cancel to abort it.

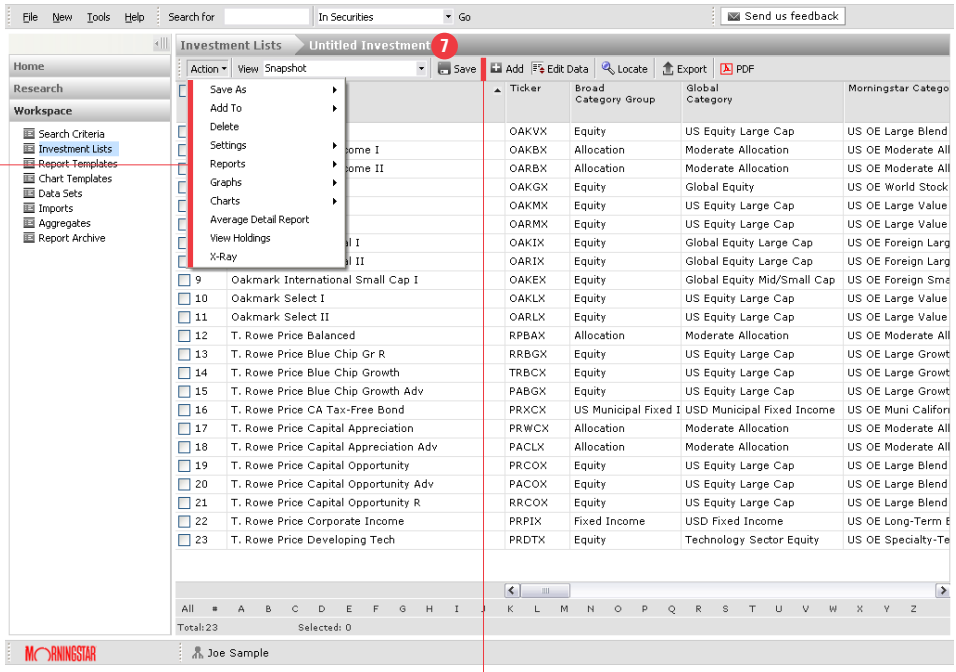


5. Clicking *OK* will open a dialog to identify unmatched investments.



6. Select an identifier and click *Find* to match the investment. Repeat for all identifiers shown, and click *OK* to complete the import process. Clicking *OK* without using Find to match all investments will import only those tickers which are identified.

7. The imported list will open in the data area. To save the investment list, click *Save*.



To move or delete investments, and generate reports/charts, check the box next to an investment and select an option from the Action bar. *Save As* allows you to create another investment list from an existing list or aggregate. *Add To* allows you to add investment to another already existing list or existing aggregate.

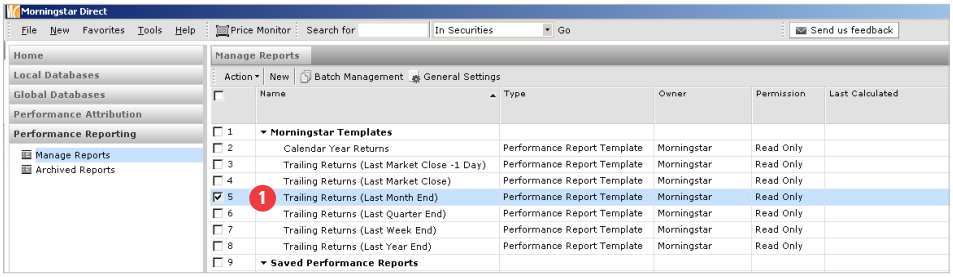
Add to an investment list.

Performance Reporting

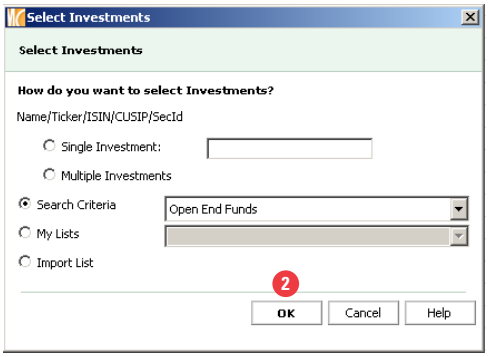
Performance reporting functionality is designed specifically to monitor performance and other characteristics of a group of investments. It includes extensive flexibility in grouping investments, assigning benchmark(s) and defining data. You can either begin the process from the Performance Reporting module by selecting New in the Manage Report subfolder or from the global menu bar by selecting New and then Performance Report. The performance report can be also created from any of the following sub modules in Workspace: Search Criteria (select Save As in action bar) or Investment List (select Save As in action bar). Once saved, performance reports reside under Saved Performance Reports within the Manage Reports subfolder.

Creating a Quick Performance Report with Morningstar Template(s)

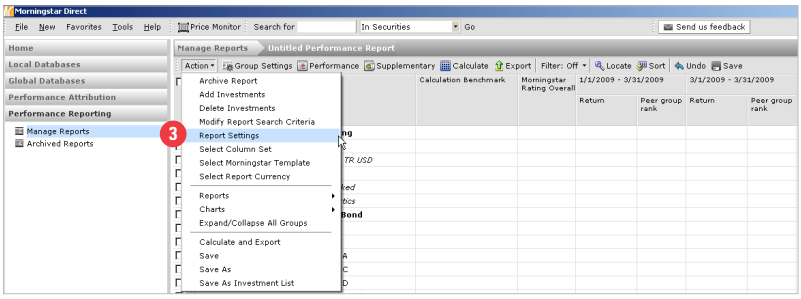
1. For this example, we will begin in the *Manage Reports* Sub module of the *Performance Reporting* module using a predefined Morningstar Template. Select *Trailing Returns* (Last Month-End) from the Morningstar Template list. If you prefer to start from scratch, select *New* in the action bar.



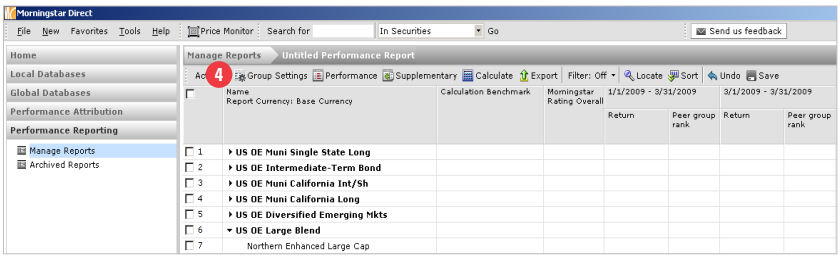
2. Select the desired source of investments for your report. Click *OK*.



3. Click *Report Settings* in *Action* drop-down to customize display and Excel output options.



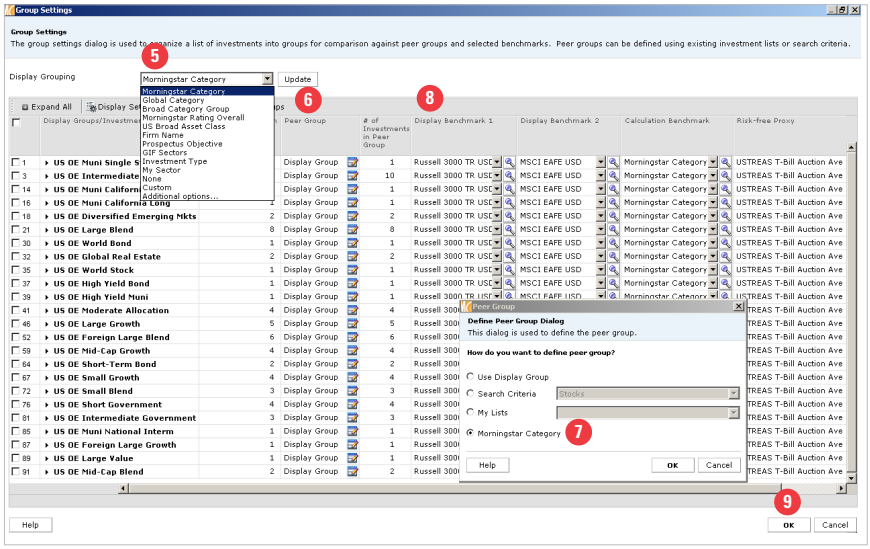
4. By default, investments are organized by *Morningstar Category* and peer groups are based on the investments in the report. *Group Settings* enables you to reorganize investments and configure peer groups. Click on *Group Settings*.



5. Keep Display *Grouping Morningstar Category*. Selecting other options from the drop down menu will reorder the investments in our report.

6. Click on icon in the *Peer Group column*.

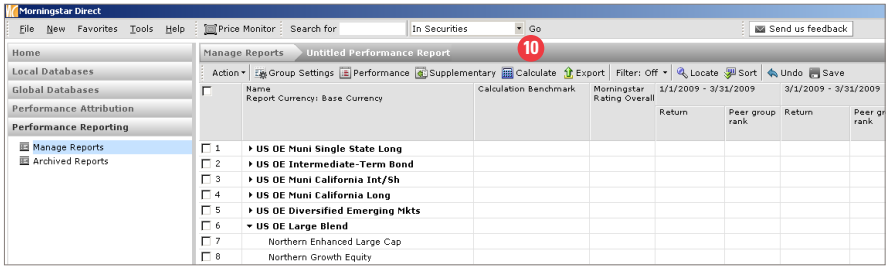
7. Select *Morningstar Category* or desired option. Selecting *Morningstar Category* will allow the ranks to be calculated based on all investments in the *Morningstar Category* not just the investments in the report. If you select all boxes to the corresponding groups, by checking the top left box, the peer group selection will apply to all groups. If you want a different option, per group, repeat Step 6 for each row.



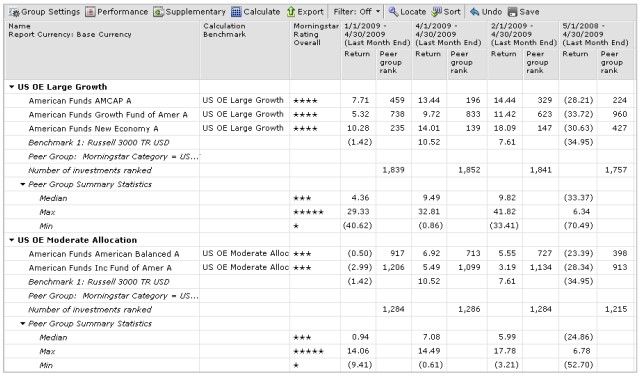
8. If desired, select *Display Benchmark 1* drop-down or icon to change benchmark per display group. *Display Benchmark 2* is also provided as an additional benchmark. These benchmarks appear as a separate row in the report. You can also customize the calculation benchmark, used in calculations that require a benchmark, and risk free proxy, used in calculations that require a risk-free rate, both in a similar manner.

9. Click *OK*.

10. Click *Calculate* to generate the report. *Calculate* can be selected at anytime after Step 2 for *Morningstar templates*. You will be prompted to save report. After the calculation is completed, the report will reside under *Saved Performance Reports* in the Manage Reports Sub module.



Sample Output

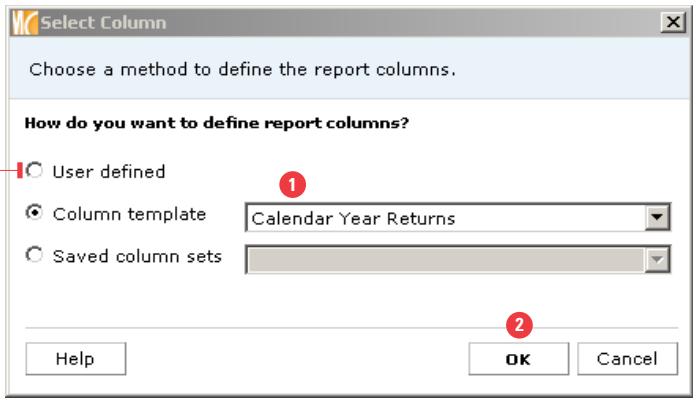


Name Report Currency: Base Currency	Calculation Benchmark	Morningstar Rating Overall	1/1/2009 - 4/30/2009 (Last Month End)		4/1/2009 - 4/30/2009 (Last Month End)		2/1/2009 - 4/30/2009 (Last Month End)		5/1/2008 - 4/30/2009 (Last Month End)	
			Return	Peer group rank	Return	Peer group rank	Return	Peer group rank	Return	Peer group rank
US OE Large Growth										
American Funds AMCAP A	US OE Large Growth	★★★★	7.71	459	13.44	196	14.44	329	(28.21)	224
American Funds Growth Fund of Amer A	US OE Large Growth	★★★★	5.32	738	9.72	833	11.42	623	(33.72)	960
American Funds New Economy A	US OE Large Growth	★★★★	10.28	235	14.01	139	18.09	147	(30.63)	427
Benchmark 1: Russell 3000 TR USD			(1.42)		10.52		7.61		(34.95)	
Peer Group: Morningstar Category - US...										
Number of investments ranked				1,839		1,852		1,841		1,757
Peer Group Summary Statistics										
Median		★★★	4.36		9.49		9.82		(33.37)	
Max		★★★★★	29.33		32.81		41.82		6.34	
Min		★	(40.62)		(0.86)		(33.41)		(70.49)	
US OE Moderate Allocation										
American Funds American Balanced A	US OE Moderate Alloc	★★★	(0.50)	917	6.92	713	5.55	727	(23.39)	398
American Funds Inc Fund of Amer A	US OE Moderate Alloc	★★★	(2.99)	1,206	5.49	1,099	3.19	1,134	(28.34)	913
Benchmark 1: Russell 3000 TR USD			(1.42)		10.52		7.61		(34.95)	
Peer Group: Morningstar Category - US...										
Number of investments ranked				1,284		1,286		1,284		1,215
Peer Group Summary Statistics										
Median		★★★	0.94		7.08		5.99		(24.86)	
Max		★★★★★	14.06		14.49		17.78		6.78	
Min		★	(9.41)		(0.61)		(3.21)		(52.70)	

Creating a Custom Performance Report with Specific Data Points

If you do not begin with a Morningstar Template, you will need to define the data in your report. You can either start with the Morningstar template, adding or removing certain data points or you can start from scratch by clicking New under Manage Reports.

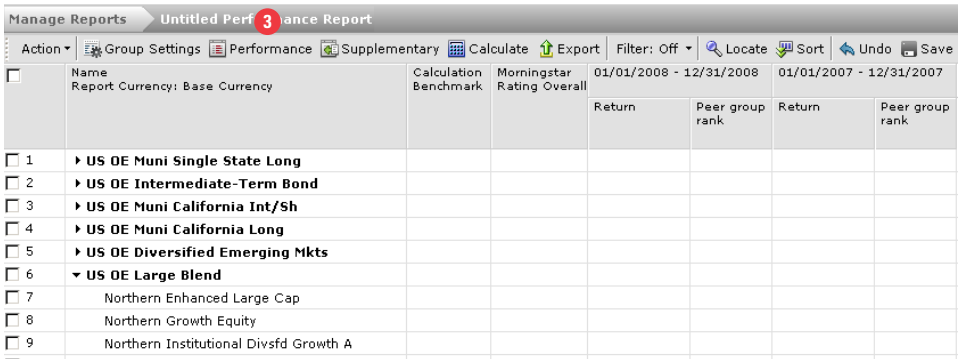
1. For this example, we will begin with a new report. Once you have clicked *New* and selected the investments, you will automatically be taken to *Group Settings* to determine your specific peer group, benchmark, and calculation settings as shown in *Step 6* in the previous section. You will then be taken directly to the Select Column window to define your report columns. Here, you can decide to either create *User* defined columns or select from predefined columns, *Morningstar Column templates* or *Saved column* sets. Click on *Column template* and select *Calendar Year Returns.*



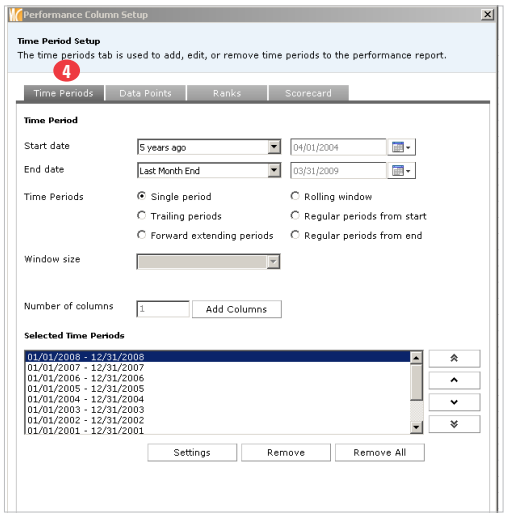
Click on User defined columns, then you are automatically taken to the performance and supplementary windows.

2. Click *OK.*

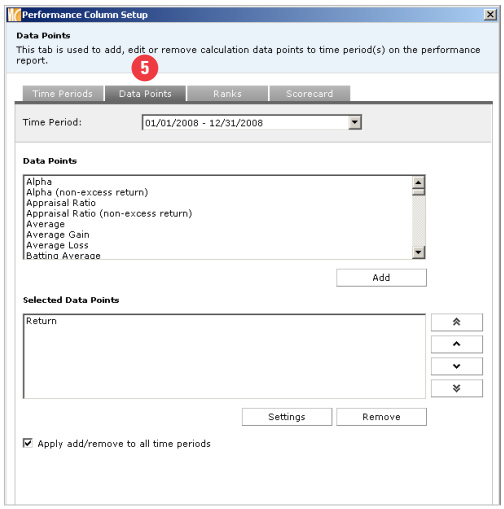
3. Click *Performance* icon to get to the *Performance Column Setup* dialog.



4. On the *Time Period tab*, define date ranges for your data points. Refer to creating custom calculation section of the tutorial for further understanding of time period options.

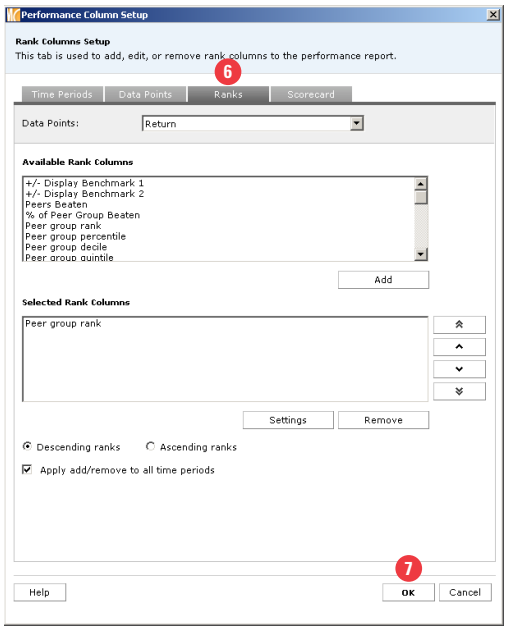


5. Click on the *Data Points tab* to choose desired performance data for the selected time periods.



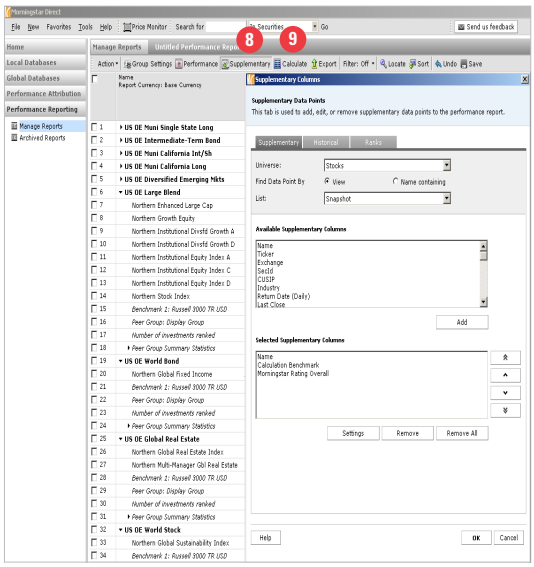
6. Select *Ranks* tab to add rank columns to the selected performance data.

7. Click *OK*.

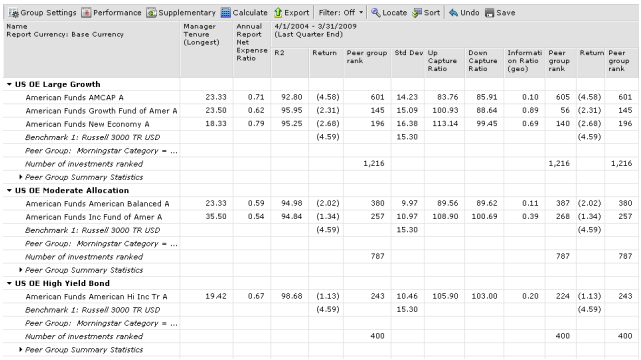


8. To add non-custom calculation performance data, click *Supplementary* tab icon. Otherwise, the application will take you directly to the dialog box. Select any desired data. You may also rank this data as done in *Step 6*.

9. Click Calculate to generate report.



Sample Output



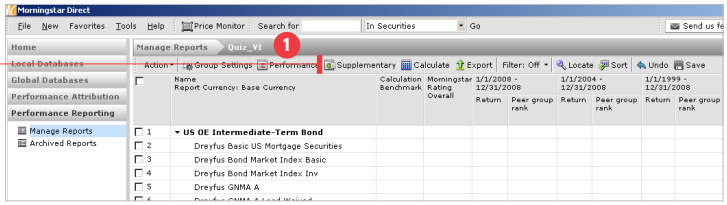
Name Report Currency: Base Currency	Manager Tenure (Longest)	Annual Report Net Expense Ratio	R2	4/1/2004 - 3/31/2009 (Last Quarter End) Return	Peer group rank	Std Dev	Up Capture Ratio	Down Capture Ratio	Information Ratio (geo)	Peer group rank	Return	Peer group rank
US OE Large Growth												
American Funds AMCAP A	23.33	0.71	92.80	(4.58)	601	14.23	83.76	85.91	0.10	605	(4.58)	601
American Funds Growth Fund of Amer A	23.50	0.62	95.95	(2.31)	145	15.09	100.93	88.64	0.89	56	(2.31)	145
American Funds New Economy A	18.33	0.79	95.25	(2.68)	196	16.38	113.14	99.45	0.69	140	(2.68)	196
Benchmark 1: Russell 3000 TR USD				(4.59)		15.30					(4.59)	
Peer Group: Morningstar Category = ...												
Number of investments ranked					1,216					1,216		1,216
Peer Group Summary Statistics												
US OE Moderate Allocation												
American Funds American Balanced A	23.33	0.59	94.98	(2.02)	380	9.97	89.56	89.62	0.11	387	(2.02)	380
American Funds Inc Fund of Amer A	35.50	0.54	94.84	(1.34)	257	10.97	108.90	100.69	0.39	268	(1.34)	257
Benchmark 1: Russell 3000 TR USD				(4.59)		15.30					(4.59)	
Peer Group: Morningstar Category = ...												
Number of investments ranked					787					787		787
Peer Group Summary Statistics												
US OE High Yield Bond												
American Funds American Hi Inc Tr A	19.42	0.67	98.68	(1.13)	243	10.46	105.90	103.00	0.20	224	(1.13)	243
Benchmark 1: Russell 3000 TR USD				(4.59)		15.30					(4.59)	
Peer Group: Morningstar Category = ...												
Number of investments ranked					400					400		400
Peer Group Summary Statistics												

Creating an Investment Scorecard with Standardized Values

Adding a scorecard to your report enables you to create a scoring metric based on a weighted combination of any set of numerical data. This functionality can be used for creating and monitoring select lists. Users can score funds based on either standardized values or their own custom criteria.

In this example, we will be adding a scorecard to an existing performance report, using standardized values. From Performance Reporting Module, open an existing performance report located under Manage Reports Sub module. If you are building a new performance report, you should first follow the previous instructions for creating a performance report and adding data.

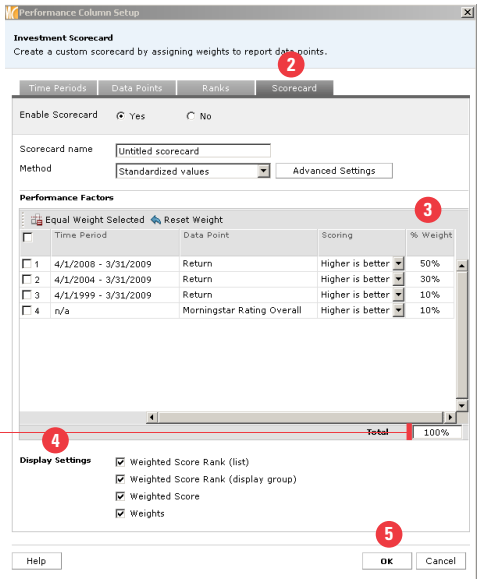
1. Click *Performance* icon if you are not already in the *Performance Column Setup*.



Select *Supplementary Icon* before *Performance* icon to include non-performance data in *Scorecard Methodology.*

2. Select *Scorecard tab* and Enable the Scorecard by clicking *Yes*. Standardized values using *Percentile Rankings* in *Advanced Settings* is the default. Z-score calculations are also available in *Advanced Settings*.

3. Assign weights to *data points*. If a data point is not to be used in the scorecard column, it can be kept at 0% weighting.

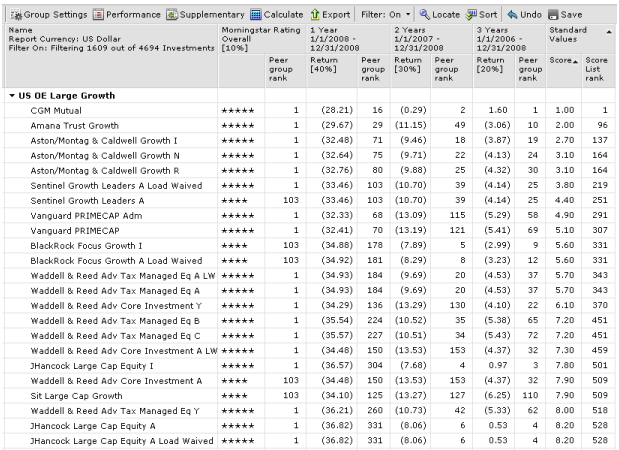


Weights must sum to 100%.

4. Select preferred options for Display Settings.

5. Click *OK*. Results can be easily interpreted in Direct with clearly labeled column headings that show *Scorecard* inputs and weights.

Sample Output



Group Settings | Performance | Supplementary | Calculate | Export | Filter: On | Locate | Sort | Undo | Save

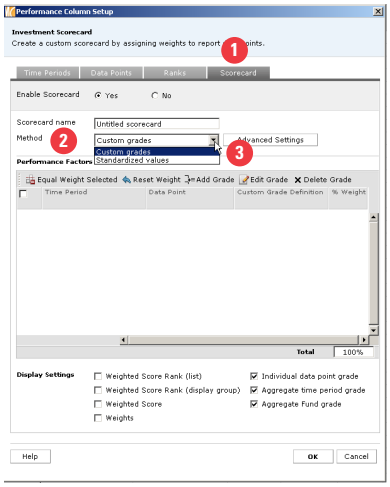
Name Report Currency: US Dollar Filter On: Filtering 1609 out of 4694 Investments	Morningstar Rating Overall [10%]		1 Year 1/1/2008 - 12/31/2008		2 Years 1/1/2007 - 12/31/2008		3 Years 1/1/2006 - 12/31/2008		Standard Values	
		Peer group rank	Return [40%]	Peer group rank	Return [30%]	Peer group rank	Return [20%]	Peer group rank	Score	Score List rank
US OE Large Growth										
CGM Mutual	★★★★★	1	(28.21)	16	(0.29)	2	1.60	1	1.00	1
Amana Trust Growth	★★★★★	1	(29.67)	29	(11.15)	49	(3.06)	10	2.00	96
Aston/Montag & Caldwell Growth I	★★★★★	1	(32.48)	71	(9.46)	18	(3.87)	19	2.70	137
Aston/Montag & Caldwell Growth N	★★★★★	1	(32.64)	75	(9.71)	22	(4.13)	24	3.10	164
Aston/Montag & Caldwell Growth R	★★★★★	1	(32.76)	80	(9.88)	25	(4.32)	30	3.10	164
Sentinel Growth Leaders A Load Waived	★★★★★	1	(33.46)	103	(10.70)	39	(4.14)	25	3.80	219
Sentinel Growth Leaders A	★★★★	103	(33.46)	103	(10.70)	39	(4.14)	25	4.40	251
Vanguard PRIMECAP Adm	★★★★★	1	(32.33)	68	(13.09)	115	(5.29)	58	4.90	291
Vanguard PRIMECAP	★★★★★	1	(32.41)	70	(13.19)	121	(5.41)	69	5.10	307
BlackRock Focus Growth I	★★★★	103	(34.88)	178	(7.89)	5	(2.99)	9	5.60	331
BlackRock Focus Growth A Load Waived	★★★★	103	(34.92)	181	(8.29)	8	(3.23)	12	5.60	331
Waddell & Reed Adv Tax Managed Eq A LW	★★★★★	1	(34.93)	184	(9.69)	20	(4.53)	37	5.70	343
Waddell & Reed Adv Tax Managed Eq A	★★★★★	1	(34.93)	184	(9.69)	20	(4.53)	37	5.70	343
Waddell & Reed Adv Core Investment Y	★★★★★	1	(34.29)	136	(13.29)	130	(4.10)	22	6.10	370
Waddell & Reed Adv Tax Managed Eq B	★★★★★	1	(35.54)	224	(10.52)	35	(5.38)	65	7.20	451
Waddell & Reed Adv Tax Managed Eq C	★★★★★	1	(35.57)	227	(10.51)	34	(5.43)	72	7.20	451
Waddell & Reed Adv Core Investment A LW	★★★★★	1	(34.48)	150	(13.53)	153	(4.37)	32	7.30	459
JHancock Large Cap Equity I	★★★★★	1	(36.57)	304	(7.68)	4	0.97	3	7.80	501
Waddell & Reed Adv Core Investment A	★★★★	103	(34.48)	150	(13.53)	153	(4.37)	32	7.90	509
Sit Large Cap Growth	★★★★	103	(34.10)	125	(13.27)	127	(6.25)	110	7.90	509
Waddell & Reed Adv Tax Managed Eq Y	★★★★★	1	(36.21)	260	(10.73)	42	(5.33)	62	8.00	518
JHancock Large Cap Equity A	★★★★★	1	(36.82)	331	(8.06)	6	0.53	4	8.20	528
JHancock Large Cap Equity A Load Waived	★★★★★	1	(36.82)	331	(8.06)	6	0.53	4	8.20	528

Creating an Investment Scorecard with Custom Grades

This scorecard method allows you to define rules for data points (such as return > 0) and assign a numeric grades based on that criteria. Grade columns can then be added to the report for an individually graded data point, an aggregated grade for a time period, or an aggregated grade for an entire fund.

1. Return to the *Scorecard tab*.

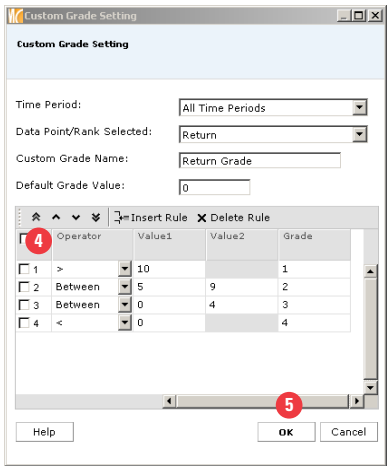
2. Choose *Custom* grades under the *Method* drop down.



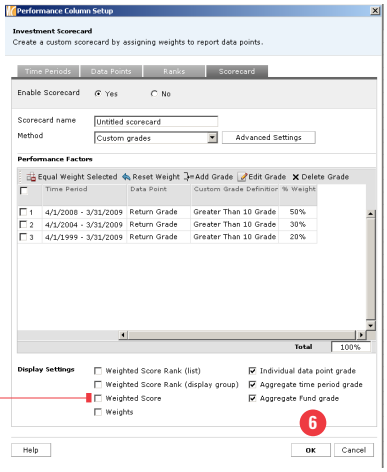
3. Select *Add Grade*. The *Custom Grade Setting* dialog will be displayed

4. Choose an operator, value, and a grade for the grading rule. The default is for *All Time Periods* but you can select specific time periods.

5. Press *OK* and the newly grading rules will appear. You can also proceed to Weights % column to apply specific weights to each rule.



6. Press *OK*



View weighted score based on custom grade.

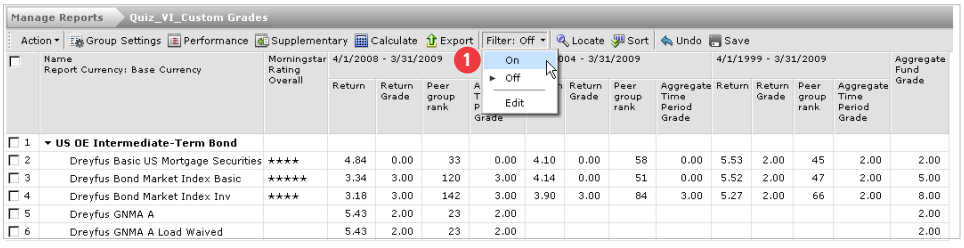
Sample Output

Name Report Currency: US Dollar	Overall	1 Year 1/1/2008 - 12/31/2008				2 Years 1/1/2007 - 12/31/2008				3 Years 1/1/2006 - 12/31/2008				Aggregate Fund Grade	Custom Grades
	Peer group rank	Return	Return Grade	Peer group rank	Aggregate Time Period Grade	Return	Return Grade	Peer group rank	Aggregate Time Period Grade	Return	Return Grade	Peer group rank	Aggregate Time Period Grade		Score
US OE Large Growth															
CGM Mutual	1	(28.21)	0.00	16	0.00	(0.29)	0.00	2	0.00	1.60	1.00	1	1.00	1.00	0.20
JHancock Large Cap Equity I	1	(36.57)	0.00	304	0.00	(7.68)	0.00	4	0.00	0.97	1.00	3	1.00	1.00	0.20
JHancock Large Cap Equity A	1	(36.82)	0.00	331	0.00	(8.06)	0.00	6	0.00	0.53	1.00	4	1.00	1.00	0.20
JHancock Large Cap Equity A L...	1	(36.82)	0.00	331	0.00	(8.06)	0.00	6	0.00	0.53	1.00	4	1.00	1.00	0.20
JHancock Large Cap Equity B	1	(37.25)	0.00	394	0.00	(8.72)	0.00	10	0.00	(0.20)	0.00	6	0.00	0.00	0.00
JHancock Large Cap Equity C	1	(37.29)	0.00	402	0.00	(8.75)	0.00	11	0.00	(0.22)	0.00	7	0.00	0.00	0.00
BlackRock Focus Growth I	110	(34.88)	0.00	178	0.00	(7.89)	0.00	5	0.00	(2.99)	0.00	9	0.00	0.00	0.00
Amana Trust Growth	1	(29.67)	0.00	29	0.00	(11.15	0.00	49	0.00	(3.06)	0.00	10	0.00	0.00	0.00
Natixis CGM Advisor Targeted ...	1	(38.29)	0.00	574	0.00	(8.81)	0.00	12	0.00	(3.23)	0.00	11	0.00	0.00	0.00
BlackRock Focus Growth A	483	(34.92)	0.00	181	0.00	(8.29)	0.00	8	0.00	(3.23)	0.00	12	0.00	0.00	0.00
BlackRock Focus Growth A Loa...	110	(34.92)	0.00	181	0.00	(8.29)	0.00	8	0.00	(3.23)	0.00	12	0.00	0.00	0.00
Alger Spectra A	110	(43.19)	0.00	1,275	0.00	(13.53	0.00	151	0.00	(3.40)	0.00	15	0.00	0.00	0.00
Natixis CGM Advisor Targeted ...	1	(38.37)	0.00	588	0.00	(8.98)	0.00	13	0.00	(3.49)	0.00	17	0.00	0.00	0.00
Natixis CGM Advisor Targeted ...	110	(38.37)	0.00	588	0.00	(8.98)	0.00	13	0.00	(3.49)	0.00	17	0.00	0.00	0.00
Aston/Montag & Caldwell Grow...	1	(32.48)	0.00	71	0.00	(9.46)	0.00	18	0.00	(3.87)	0.00	19	0.00	0.00	0.00
Janus Twenty	110	(41.97)	0.00	1,121	0.00	(11.18	0.00	50	0.00	(3.96)	0.00	20	0.00	0.00	0.00
BlackRock Focus Growth B	483	(35.59)	0.00	228	0.00	(9.11)	0.00	16	0.00	(4.04)	0.00	21	0.00	0.00	0.00
Waddell & Reed Adv Core Inve...	1	(34.29)	0.00	136	0.00	(13.29	0.00	130	0.00	(4.10)	0.00	22	0.00	0.00	0.00

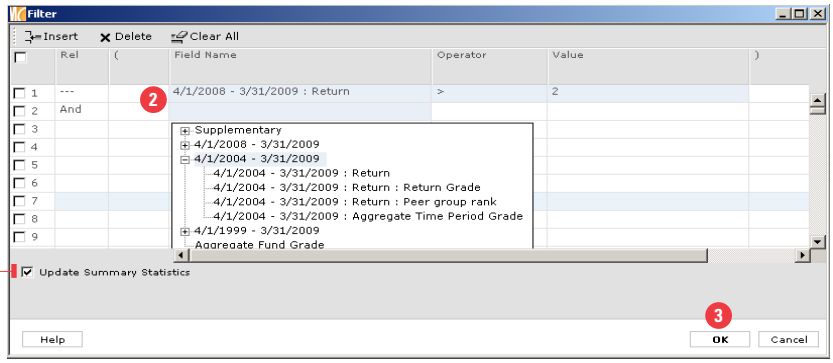
Utilizing the Filter Feature to Match Specific Criteria

The Filter function gives you the ability to further identify investments in their performance report that match specific criteria. The user can define rules and investments in their report. The report must be calculated before using the Filter.

1. From your calculated view, press the *Filter* button and select *On*.



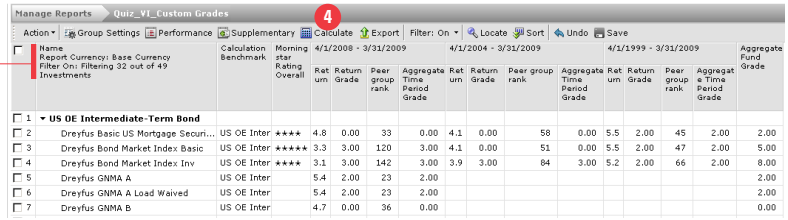
2. A Filter dialogue appears. Enter your Filter criteria.



If checked, reports needs to calculate. If unchecked, Filter is applied immediately.

3. Click OK and your Filter will automatically apply to your view.

4. Recalculate report to view filtered results.



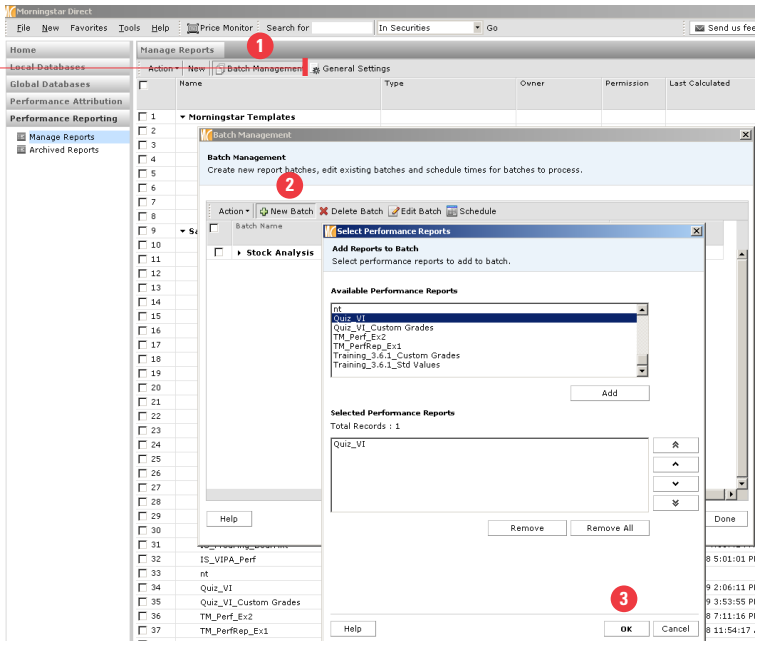
View Filter results.

Automatically Running Reports using Batch Scheduling

Once you create your report, you can schedule a batch to run the report automatically.

1. From the *Manage Report* sub-module, click on *Batch Management.*

Use to control default settings such as output location, grouping, and display.

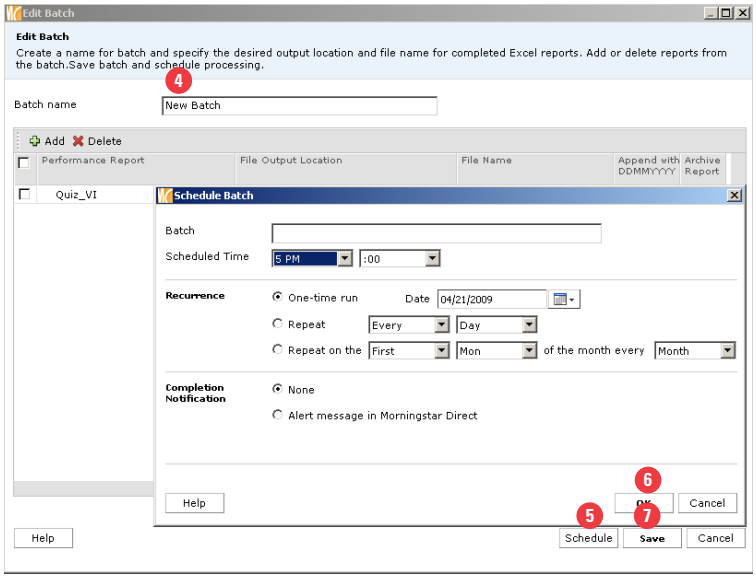


2. Select *New Batch.*

3. Select the desired report(s) and click *OK.*

4. Create a name for your batch.

5. To schedule a time for report generation, click *Schedule*.

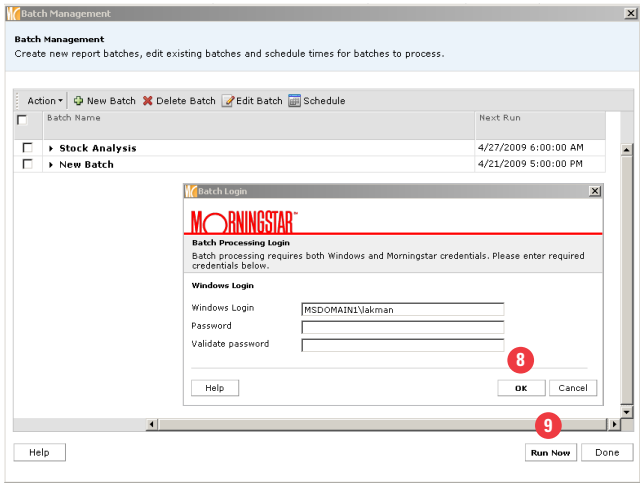


6. Select your preferences and Click *OK*. You can click on the *Alert Message* in Morningstar Direct if you prefer to be notified.

7. Click *Save* and you will be taken to the *Batch Login* where you will be required to confirm your *Windows Login*.

8. Once you've inputted your password, click *OK* and the *Reports* will be saved to the location specified in *General Settings*.

9. If you prefer to run your report immediately, click *Run Now*.



Ownership analysis

Understanding investment ownership can add insight in several ways. There are two ways to begin your analysis:

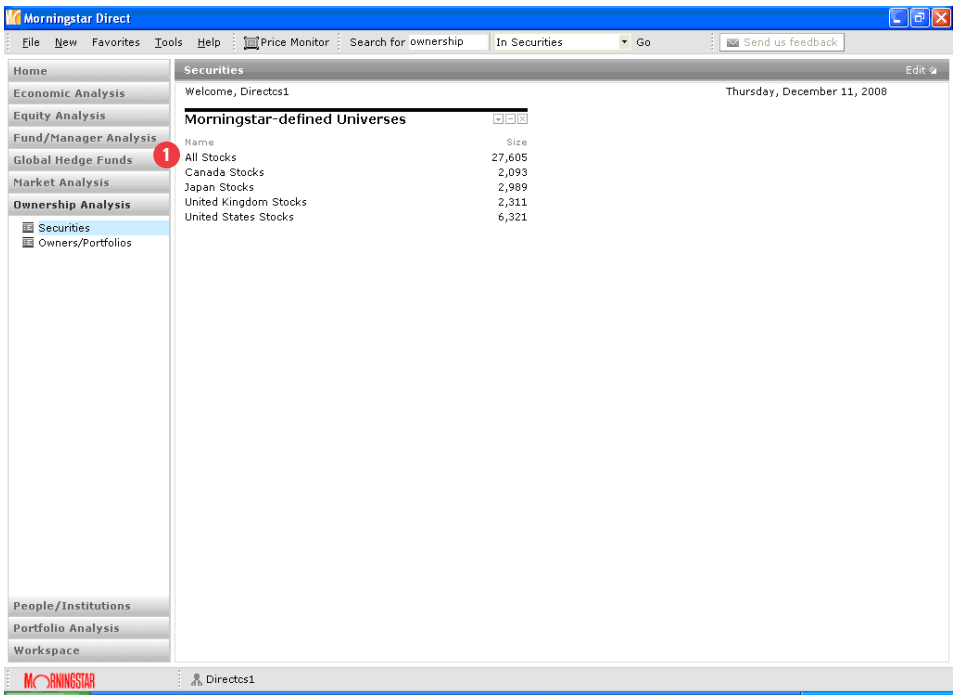
A. Starting at the stock level and identifying the owners of a stock. This is often used to discover exposure to a troubled stock, detect investor concentration that may explain price fluctuations, or identify prospective investor for investor relations professionals. To do so select the *Securities* sub module in the *Ownership analysis* module or right click on an investment in any sub module.

B. Starting at the owner level and identifying the positions of that owner. This is often used by risk management departments. To do so select the *Owners/Portfolio* sub module in the *Ownership analysis* module or right click on an investment in any sub module.

A. Identifying Owners of a Stock

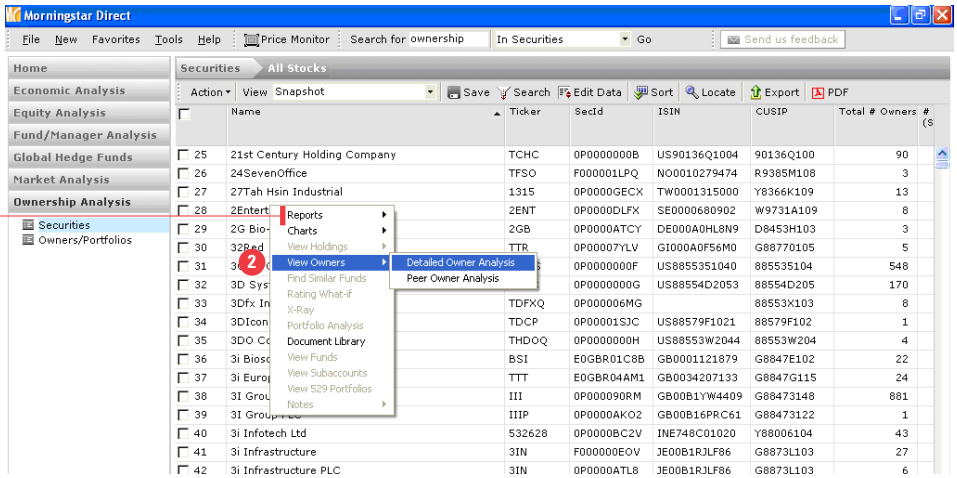
In this example we will begin at the stock level.

1. From the Securities sub module in the Ownership Analysis module, click *All Stocks*.



2. Right click on the stock of interest, select *View Owners, Detailed Owner Analysis* or *Peer Owners Analysis.* The former allows you to analyze a single security and the latter allows you to compare the ownership of multiple securities in a single grid view.

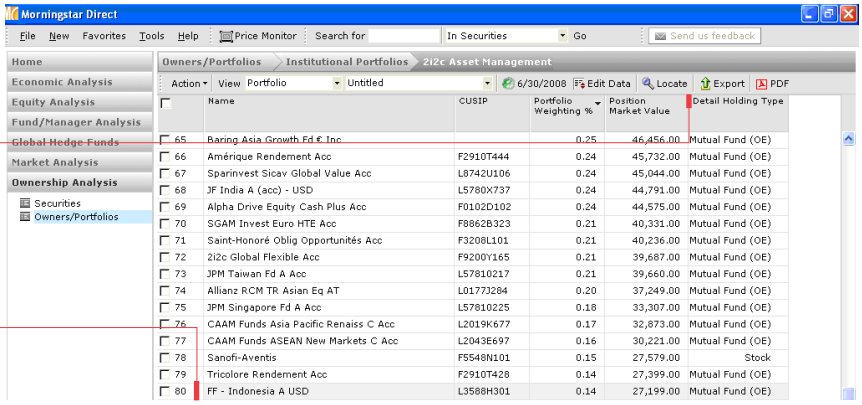
Access to *Ownership Report* by Right Clicking on the stock, select *Report, Ownership PDF or HTML.*



Detailed Owner Analysis View

Distinguishes between firm and investment level ownership.

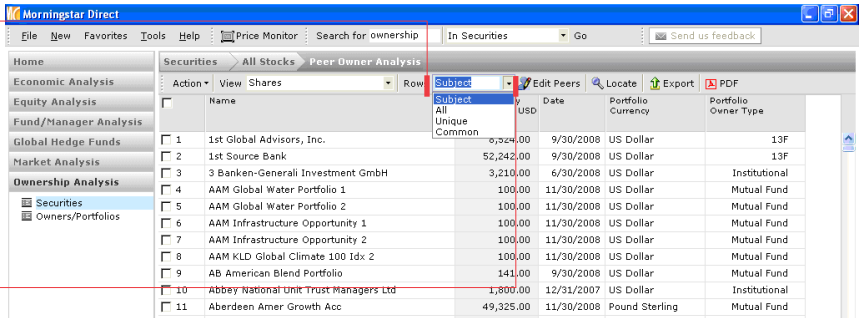
Double click an investor to identify other holdings it owns.



Peer Owner Analysis View

Chose to view holdings of subject investment or the options to compare the holdings with those of the peers either by unique, common or all.

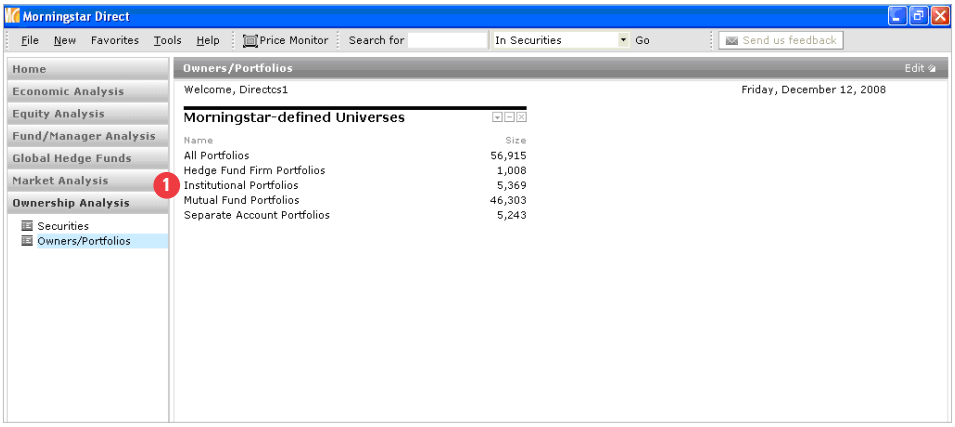
Select *peers* and change subject investment



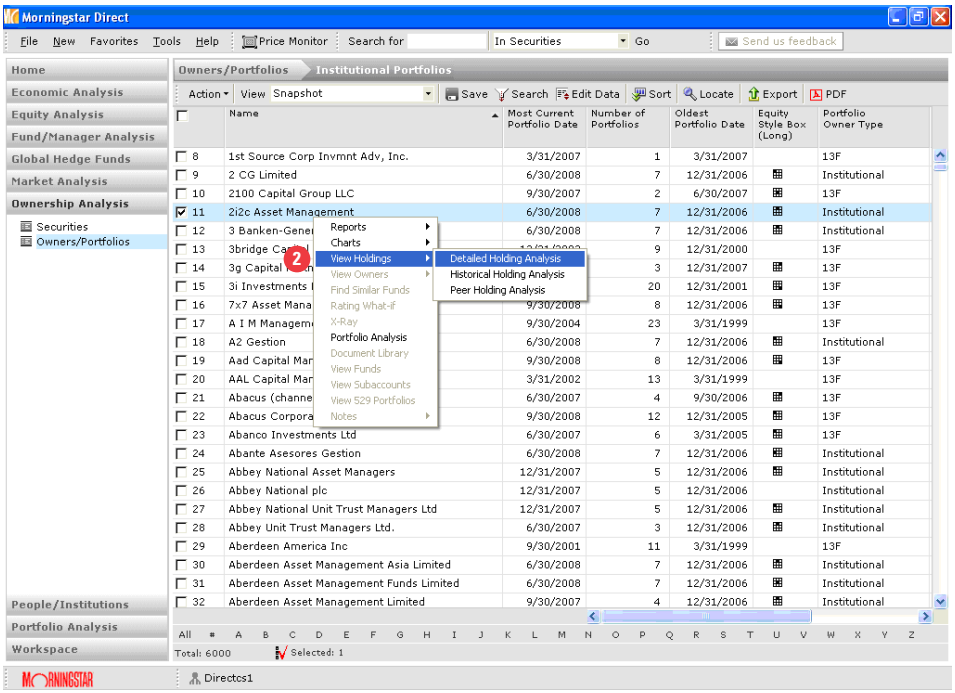
B. Identifying the Holdings of Owners/Portfolio

In this Example, we will begin at the portfolio level.

1. From *Owners/Portfolios* sub module in the Ownership Analysis, click *Institutional Portfolios*.

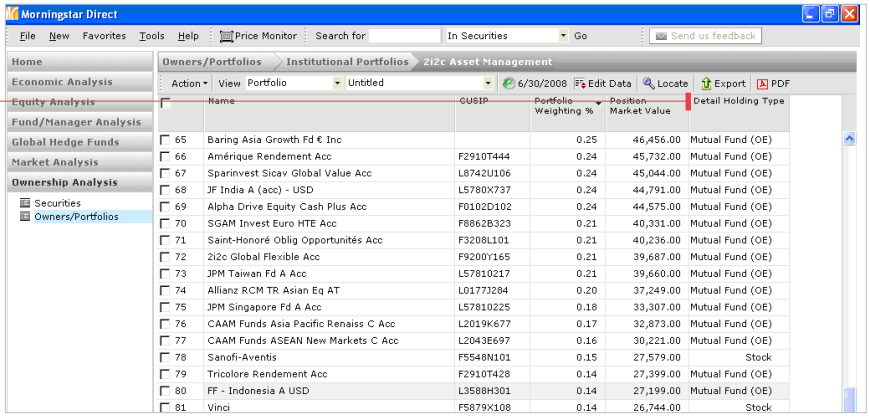


2. Right click on *the portfolio of interest,* select *View Holdings – Detailed Holding Analysis, Historical Holding Analysis or Peer Holdings Analysis.* The first allows you to analyze a single portfolio, the second allows you to analyze a single portfolio overtime, and the last allows you to compare the holdings of multiple portfolios in a single grid view.



Detailed Holding Analysis View

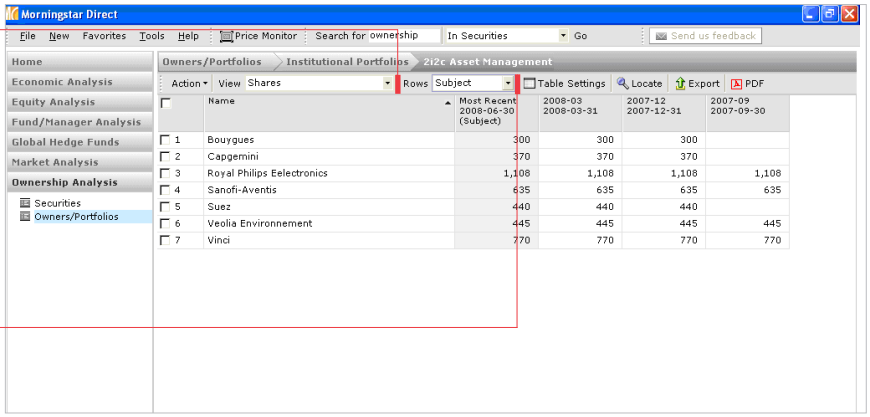
Detailed Holding Type distinguishes different security types (e.g. Stocks, Mutual Funds, Bonds, Cash, etc)



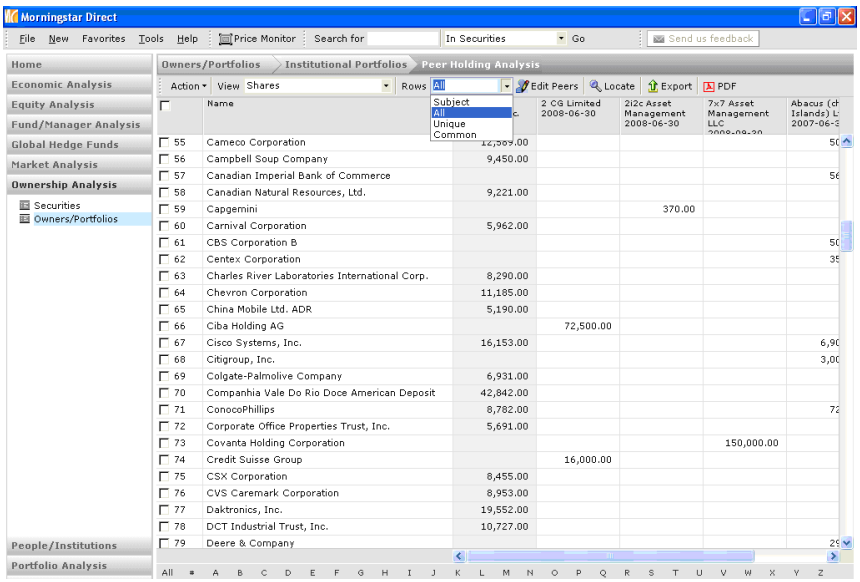
Historical Analysis View

View of holdings of all portfolio dates, portfolio date selected as subject, holdings unique to subject portfolio date of holdings held throughout all dates (common).

Allows you to pick the time range, frequency and which time period (subject) appear first.



Peer Holding Analysis View



Performance Attribution

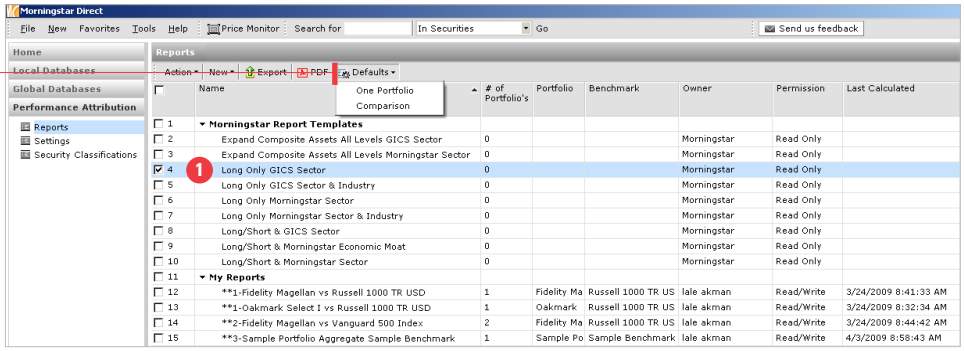
The Performance Attribution functionality allows users to perform attribution analysis on the equity portion of their imported portfolios or on any of the more than 30,000 portfolios in the Morningstar database. This holdings-based approach compares portfolio performance to a benchmark and lets users analyze the effects of portfolio management decisions. Essential to performance measurement, competitive research, and due diligence, attribution analysis offers a variety of approaches for users to tailor their analysis.

You can begin the process from the Performance Attribution module by selecting New in the Reports subfolder or from the global menu bar by selecting Performance Attribution. Performance attribution can be also created from any of the following Sub modules in Workspace when using the Action drop down: Search Criteria or Investment List. Once saved, performance attribution reports reside under My Reports within the Reports subfolder.

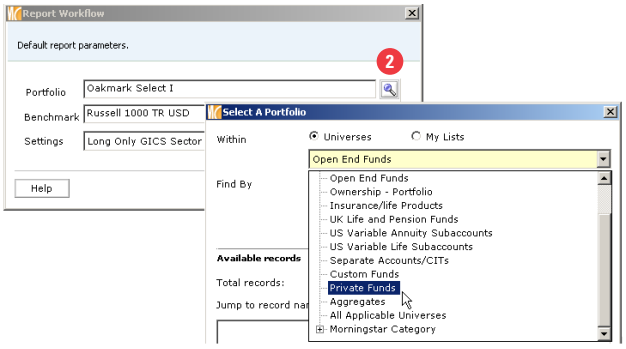
Creating Performance Attribution Reports using Predefined Templates

1. For this example, we will begin in the *Reports* sub module starting with a predefined template. Select *Long Only GICS Sector* from the *Morningstar Report* template list. If you prefer to start from scratch, select *New* from the *Action Bar.*

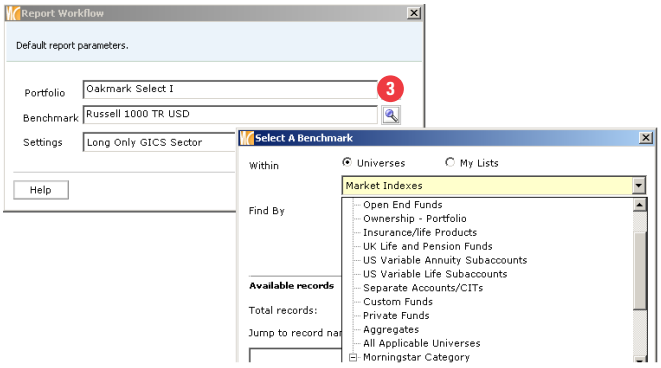
Set your default portfolios, benchmarks, and settings.



2. Your default report parameters will appear on the screen. If you decide to select a different portfolio, click on the *magnifying glass* to search for your portfolio.

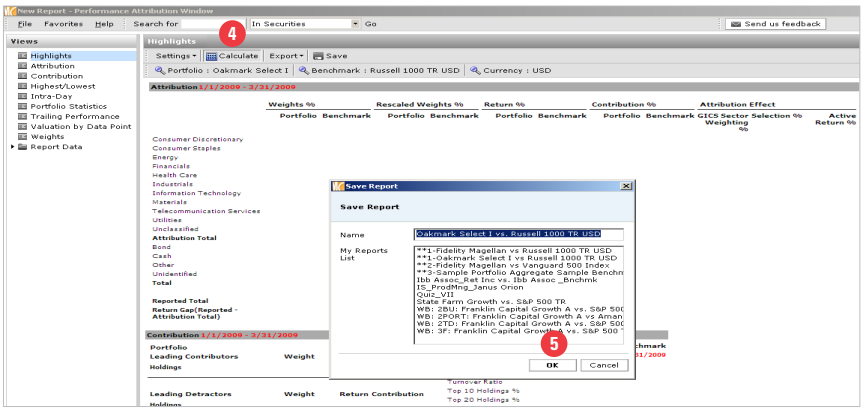


3. If you decide on a different benchmark from your default report parameters, follow *Step 2* to search for the benchmark. Click *OK*.

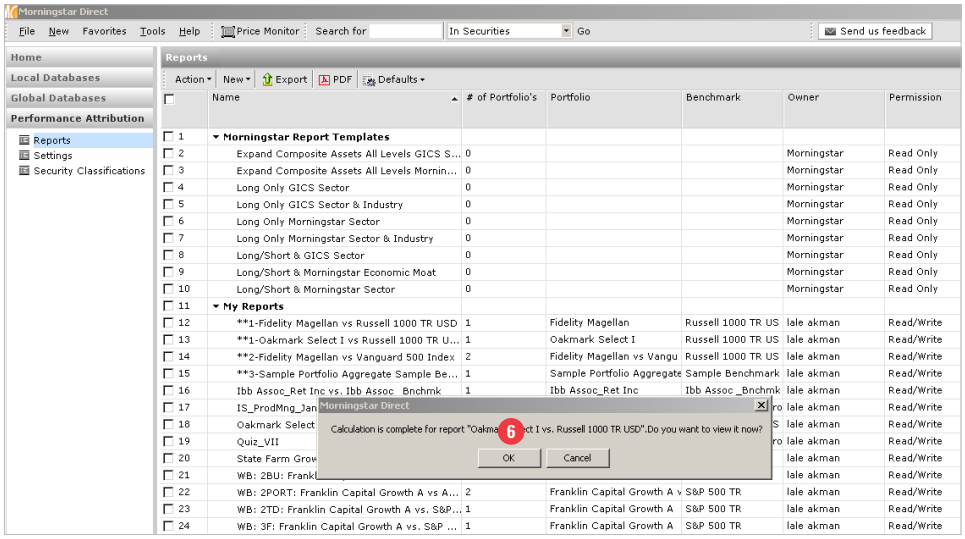


4. The default time period will be the previous quarter. When you click *Calculate*, you will be first asked to select a *name* and save the *report*.

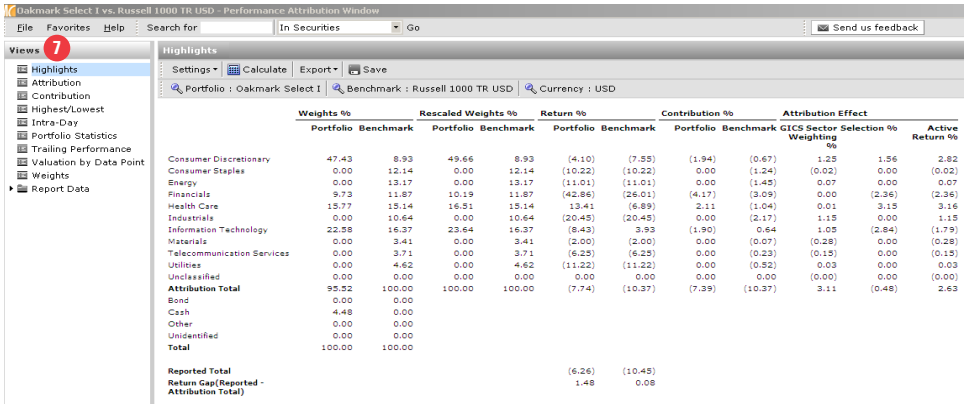
5. Press *OK* to calculate the report. You can explore other areas of *Direct* while the report is calculating.



6. Once the calculation is complete, click *OK* to view the output.

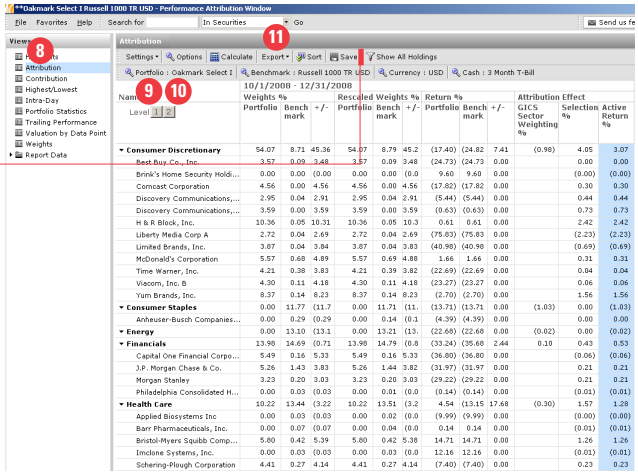


7. The default view is the *Highlights* page.



8. Go to the *Attribution View* and you will see two levels based on your *Settings* in *The Default* report parameters.

9. *Level 1* allows you to view the attribution results broken down by the *GICS* sector.



The image is displaying the *Portfolio Holdings* only. Click on *Show All Holdings* to view both the Portfolio and Benchmark holdings.

10. *Level 2* allows you to expand the view to the security level within each sector.

11. Click on *Export* to export your view into *Excel.* All *Views* allow you to export all the views on the left panel. *Current View* allows you to export the current view displayed.

Various Views of Performance Attribution

Highlights provides an executive summary of the results pertaining to Attribution, Contribution, Performance, and Portfolio Characteristics.

Attribution compares a portfolio's performance to that of a benchmark and decomposes the active (excess) return to explain the impact of various portfolio management decisions.

Contribution displays the contribution to return on the absolute level of the portfolio, benchmark, and relative performance.

Highest/Lowest displays the highest and lowest data point values for the equity portion of the portfolio holdings.

Intra-Day Performance displays most recent portfolio holdings constituents and refreshes their price and performance data throughout the day.

Portfolio Statistics displays fundamental data such as market cap, dividend yield, P/E at the total portfolio level.

Trailing Performance displays performance for any number of predefined periods in a single view.

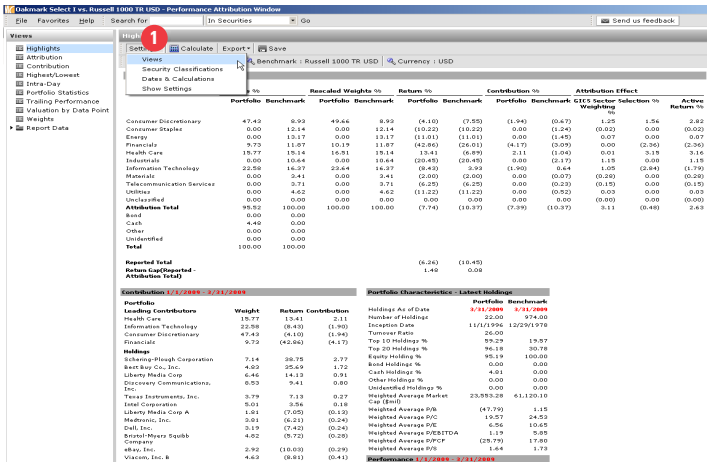
Valuation by Data Point and Time Period displays fundamental data such as market cap, dividend yield, P/E, or any other data item you wish to add for the portfolio and selected benchmark.

Weights display the group and constituent level weights of the portfolio, benchmark, and relative weights to quickly identify where the portfolio is over or under-weighted relative to its benchmark.

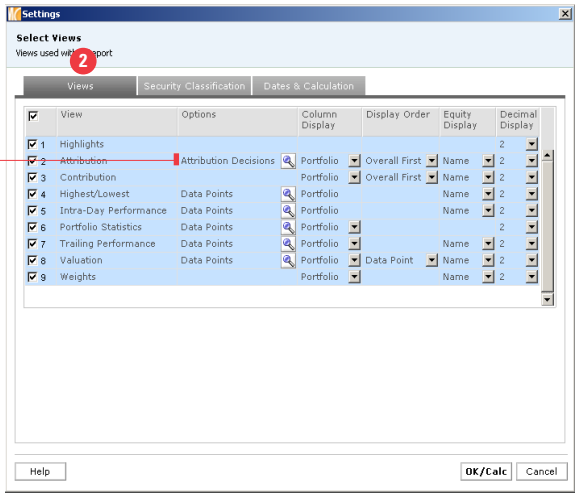
Report Data displays detail on Attribution Holding Data, Excluded Equities, Missing Performance, and Unidentified Holdings.

Customizing Performance Attribution Reports

1. The *Settings* drop down is a centralized location where you can customize your views, security classifications, as well as dates and calculations within the report. Go to the *Settings* drop down and click *Views*.



2. The *Views* tab allows you to choose which views you want displayed in the side bar of your report in addition to selecting specific settings for your data points.



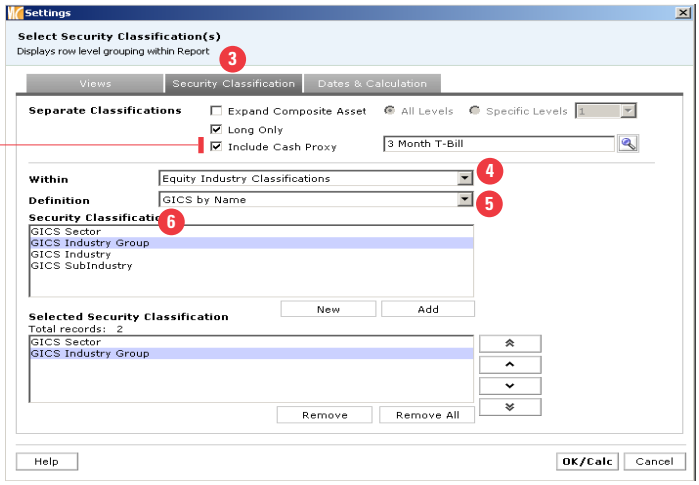
Select Investment process (Two-Factor Top Down, Two Factor Bottom up, and Three Factor) and Multi-Period linking methodology (arithmetic or geometric).

3. *Security Classification* allows you to select how to group and create hierarchy levels for the data that is generated in the *Attribution, Contribution, Trailing Performance, Valuation* by *Data Point,* and *Weights Views.*

4. To create the hierarchy levels, go to the Within dropdown to select *Equity Industry Classification.*

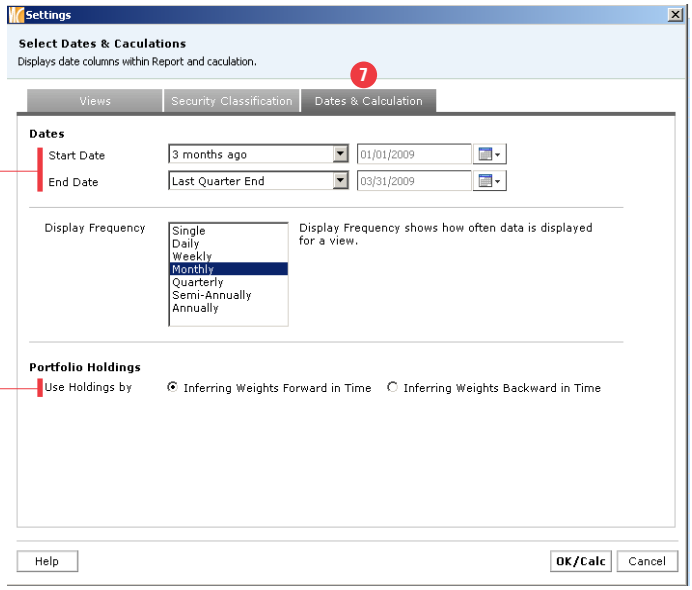
5. Go to the *Definition* drop down to select, *GICS* by *Name.*

6. Select *GICS Industry Group* and add to the *Selected Security Classification Box.*



Check *Include Cash Proxy* to calculate the portfolio's cash position return.

7. *Dates & Calculation* modifies the time periods and frequency of the report.

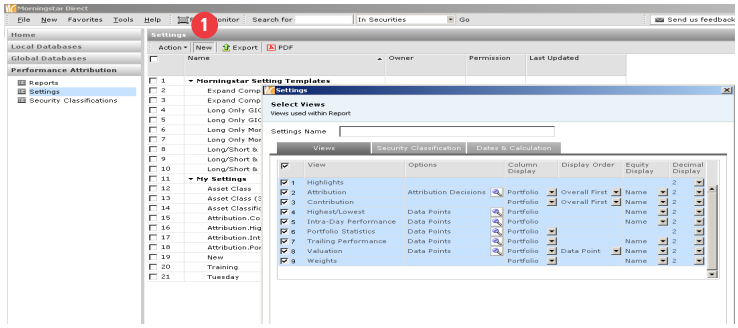


Select from various time periods or enter specific dates manually.

When portfolio holdings are not consecutive, select from *Inferring Weights Forward in Time* or *Backward in Time.*

Creating Performance Attribution Reports using Custom Templates

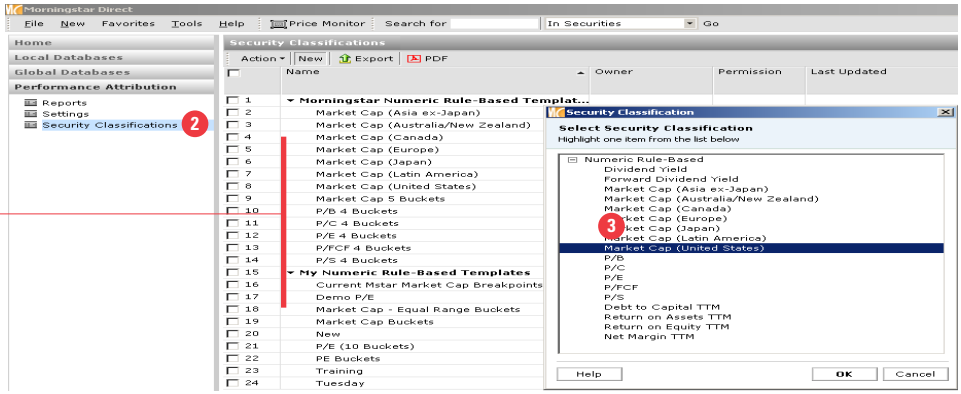
1. To create a custom template to apply to multiple reports, you can use the *Settings* and *Security Classification Modules.* Go to the *Settings* sub module and click *New*. You will be taken to the *Settings* window. Follow *Steps 2 to 6* from the previous section to set up your custom template.



2. To create your own user defined numeric rule-based security classifications, go to the *Security Classifications* sub module and click *New.*

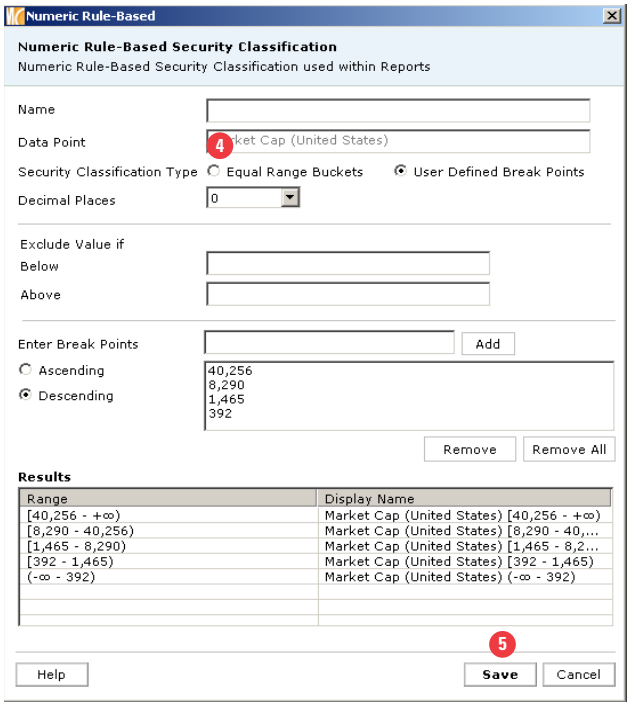
3. Select *Market Cap* (U.S.)

Morningstar Regional Market Cap Templates are updated every month.



4. Follow the options in the *Numeric Rule-Based* window to define your *Range Buckets* or *Break Points.*

5. Click on *Save* to apply your custom classification to your settings when creating a predefined or custom template.



Global Hypothetical Illustrator Tool

The global hypothetical illustration allows you to develop investment scenarios over past historical periods. The hypothetical illustration may involve individual securities or a portfolio of securities. Sections of the report include:

Distribution and Withdrawal Summary report shows you the dividends, capital gain distributions and withdrawals that were either taken from or reinvested back into investments over the hypothetical period.

Portfolio X-Ray report details a portfolio's holdings in terms of broad asset class exposure, style box breakdown by Equity and Fixed-Income holdings, and regional exposure.

Portfolio Snapshot report contains both holdings and performance information for a portfolio of investments.

Stock Intersection report shows you the overlap for the top 25 underlying holdings in a portfolio.

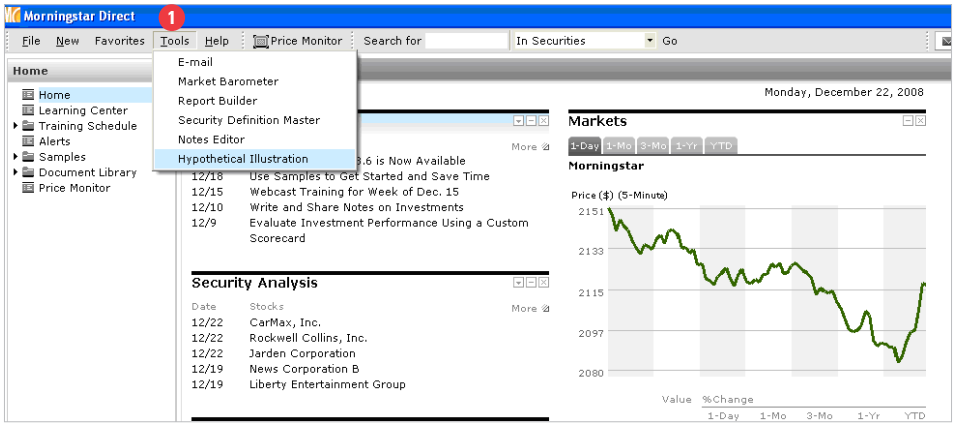
Correlation Matrix graphs the correlation of a set of securities. The graph is color-coded to indicate the degree of correlation, ranging from High to Highly Negative.

Investment Details one-report summarizes the information for each investment in the portfolio.

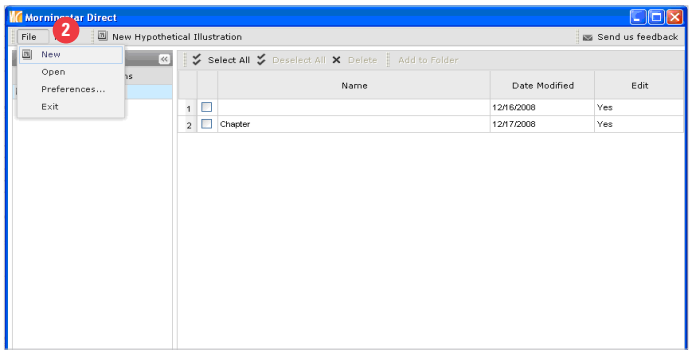
Price and Distribution report shows you the change in NAV for a fund going back to its inception date (or the earliest price available in Morningstar's database. You can also see the dividend and capital gain distributions for a fund on this report.

Disclosure Materials must be included in order for the hypothetical illustration NASD complaint.

1. Go to *Tools* and select *Hypothetical Illustration.*



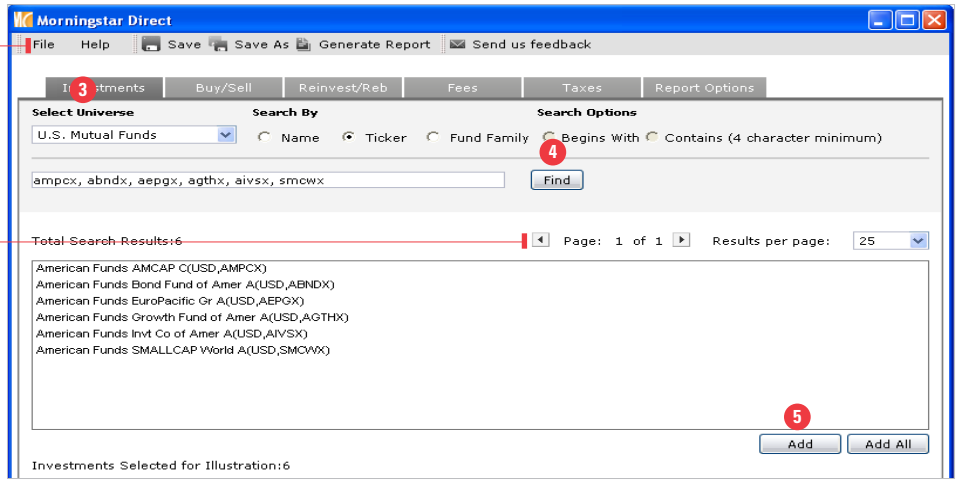
2. Go to File and select New.



3. Select *Universe* and your *Search By* and *Search Options* preferences.

Click on *File* and select *Preferences* to set your own default preferences.

Modify your number of Results per page.



4. Enter your investments in the *Find* search bar, and click *Find*.

5. Select investments and click Add, or click Add All.

6. Click the *Buy/Sell* tab.

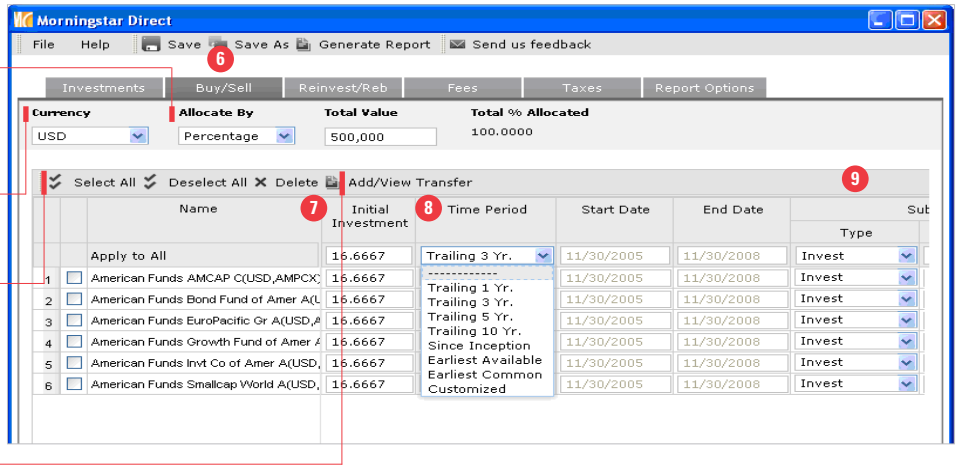
7. Enter your *Initial Investment* values.

Choose to *Allocate By* percentage, dollar, or shares.

Select your *Currency*.

Use the *Apply to All* row to make changes to all investments.

To transfer assets from one investment to another.

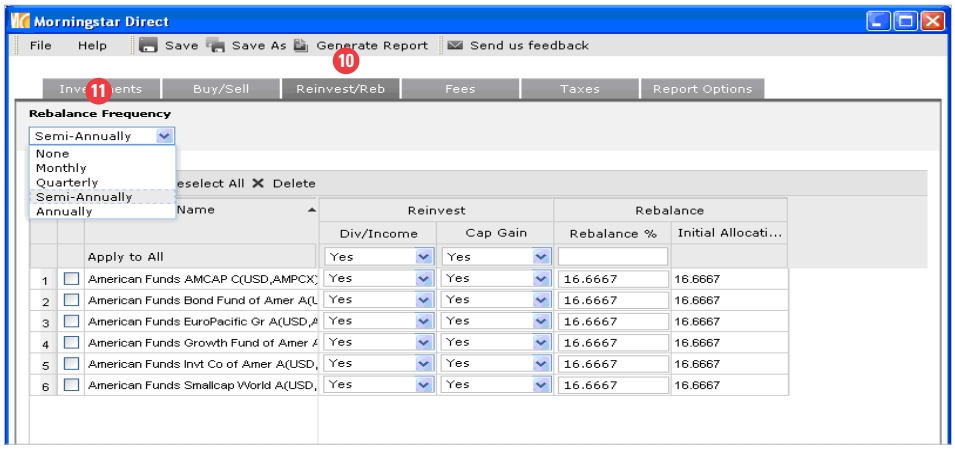


8. Select your preferred *Time Period*.

9. Scroll to the right to indicate any *subsequent investments or withdrawals*.

10. Click the *Reinvest/Reb* tab at the top of the window.

11. Choose your *Rebalance Frequency*.



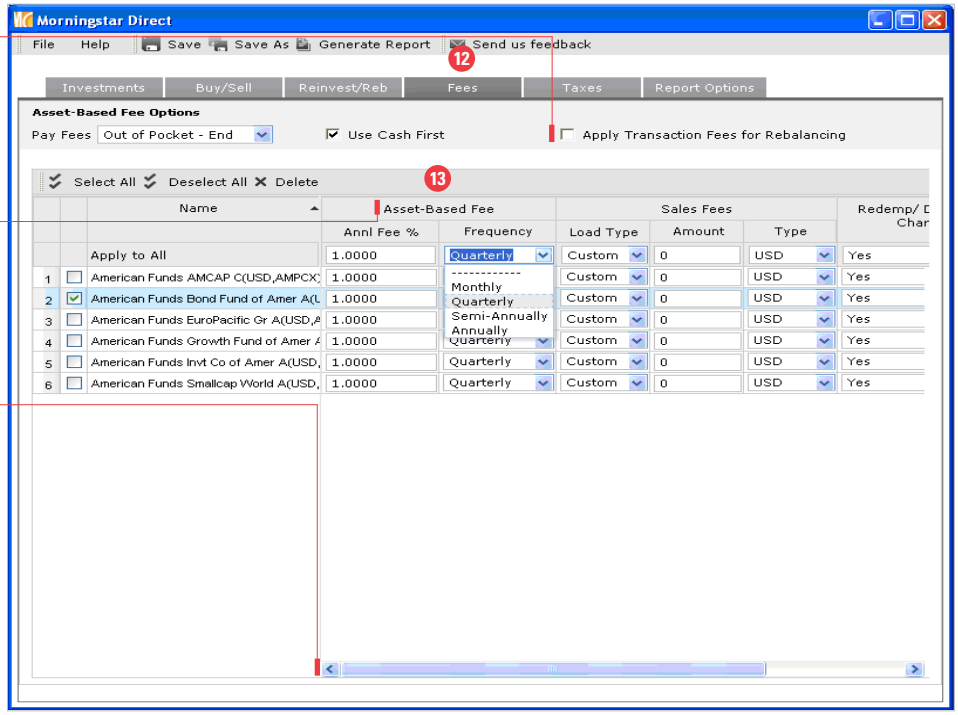
12. Click the *Fees* tab.

13. In the *Asset-Based Fee* area enter your *Annl Fee%* and your preferred *Frequency.*

Check the *Apply Transaction fees for Rebalancing* box to include these fees.

Use the *Asset-Based Fee* Options to select how you pay fees.

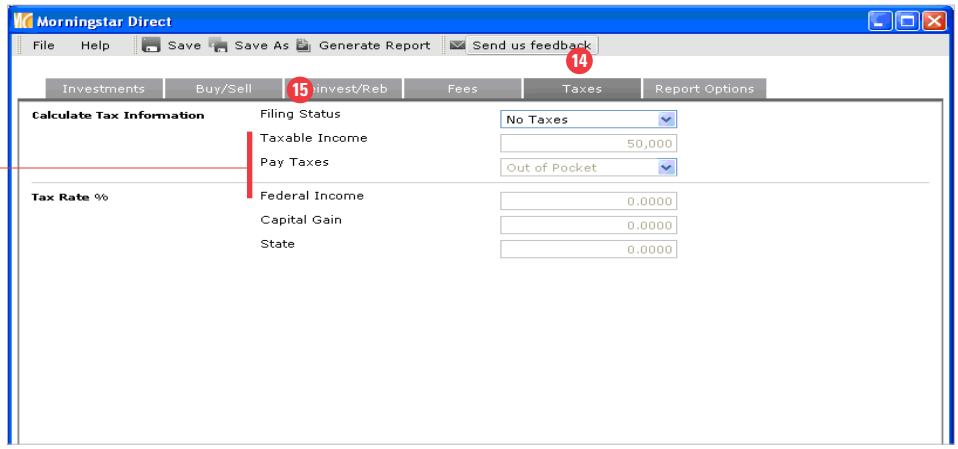
Scroll to the right and click the *View* link to view the *Standard Fee Schedule.*



14. Click the *Taxes* tab.

15. Select your *Filing Status* preference.

If you choose to apply *Taxes* to a *Taxable Income,* the *Federal Income* field automatically updates with the correct value. You can overwrite this value, or any of the other tax fields.



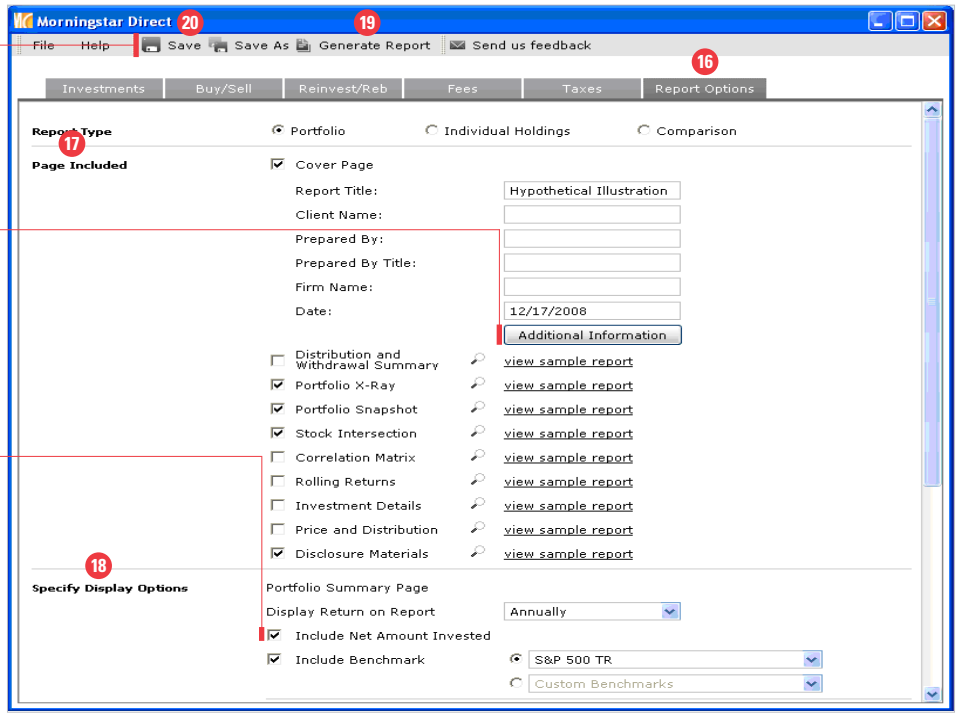
16. Click on the *Report* Options tab.

17. Customize your cover page and report options in the *Page Included* area. Each report option is briefly described below.

You can *Save* a hypothetical illustration at any point as you are creating it.

Click on the *Additional Information* button to add *Address and contact information.*

If you did not make any subsequent investments in the hypothetical, it is not necessary to check the *Net Amount Invested* box, because this will simply produce a flat line on the hypothetical return graph at the amount of the initial investment.



18. From the *Specify Display* Options area, select the time period you would like to see returns for and your benchmark.

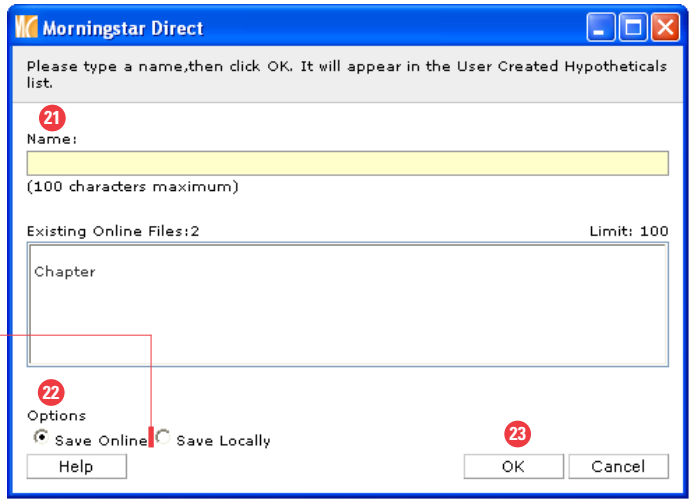
19. Click the *Generate Report* button.

20. Click the *Save* button.

21. Name the *Hypothetical Illustration.*

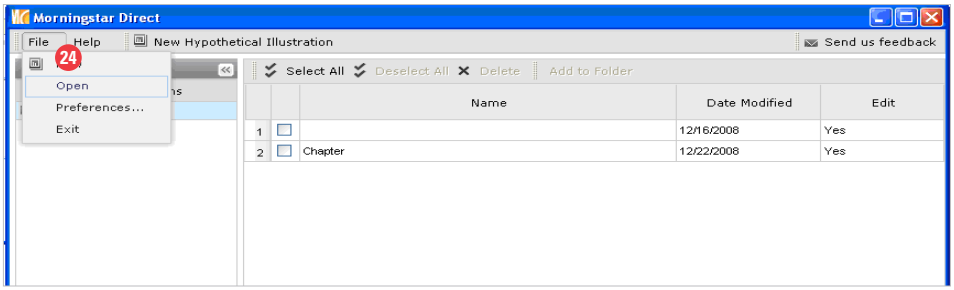
22. Choose if you want to save your illustration *Online* (archived in Morningstar Direct) or *Locally* (saved to your computer).

To share your hypothetical with a colleague, save it locally and send it as an attachment.



23. Click *OK.*

24. To open a hypothetical you saved locally, go to the *File* menu, select *Open*



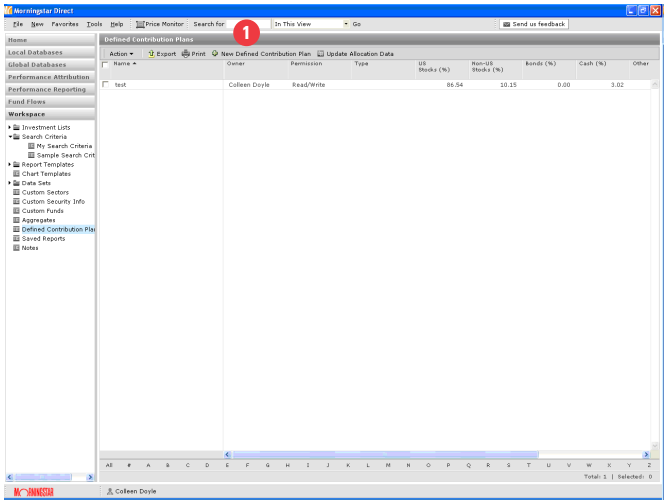
Defined Contribution Plans Tool

The Defined Contribution Plans Tool is designed to help retirement plan sponsors and advisors build strong, diverse fund lineups, and present them to clients in easy-to read reports. They're designed to showcase due diligence efforts, highlighting performance, fees, and style statistics. Use these reports to profile a single plan, or to produce a comparison report that makes the case for new offerings.

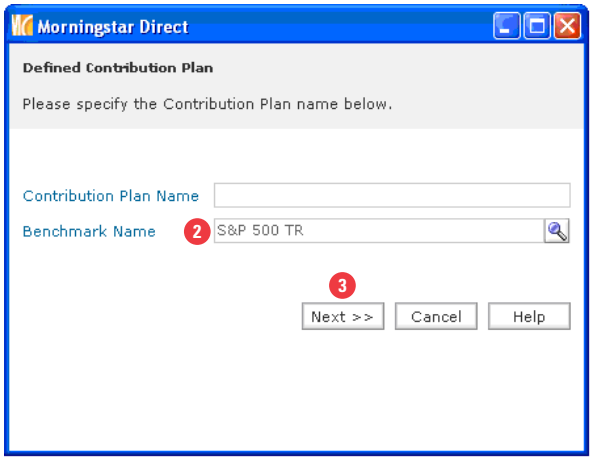
The investment universes currently available in the Defined Contribution Plans Tool are U.S. Open End Funds, U.S. Exchange Traded Funds, U.S. Variable Annuity Subaccounts, and U.S. Variable Life Subaccounts

Creating a New Defined Contribution Plan

1. Go to *Workspace* and click on *New Defined Contribution Plan*.



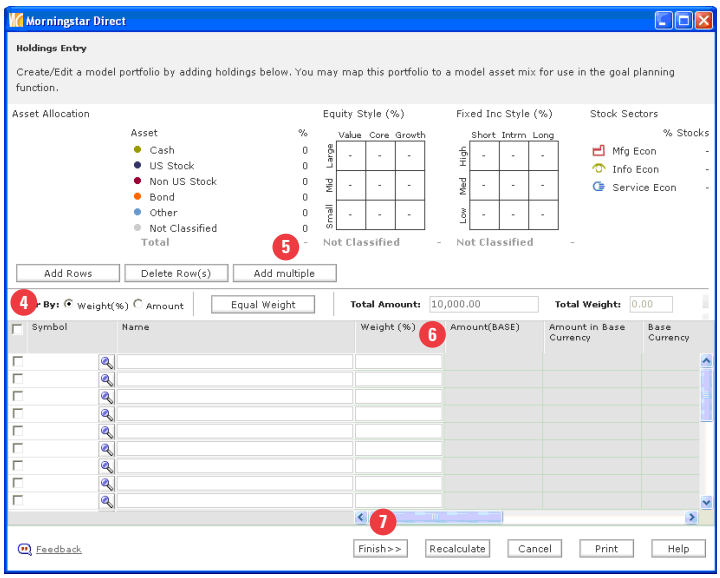
2. Give the *New Plan* a *Name* and select a *Benchmark.*



3. Click *Next* and you will be taken to the *Holdings Entry* window.

4. Create/Edit a model portfolio by adding holdings. Click on the *symbol icon* to search for one or more investments to add.

5. Click *Add multiple* to add multiple investments.

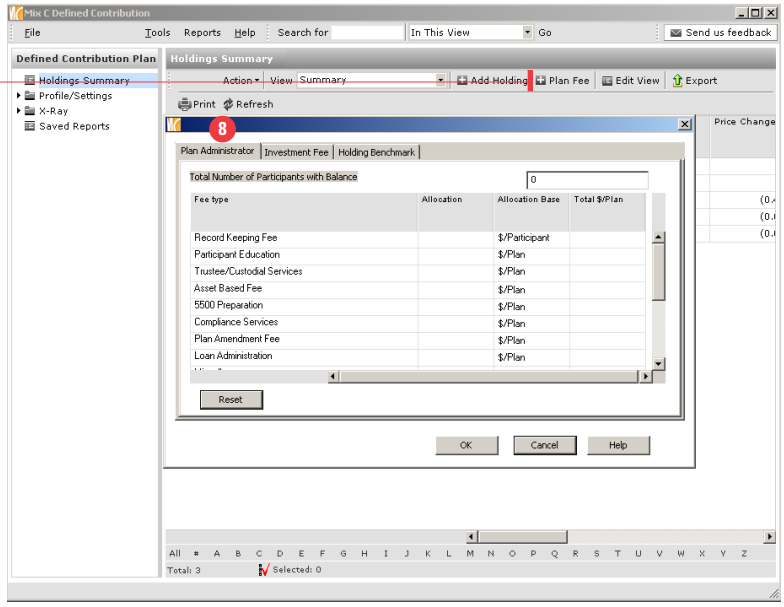


6. Create your asset mix by entering *Weights* or the *Dollar Amount.*

7. Click *Finish* and you will be taken to the *Defined Contribution Window.* A dialog box will appear.

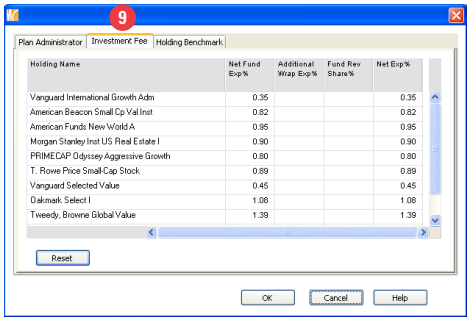
8. On the *Plans Administrator Tab*, you can enter fees in dollars or percentages.

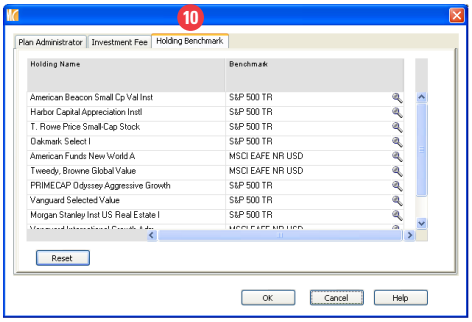
To edit fees, click *Plan Fee*



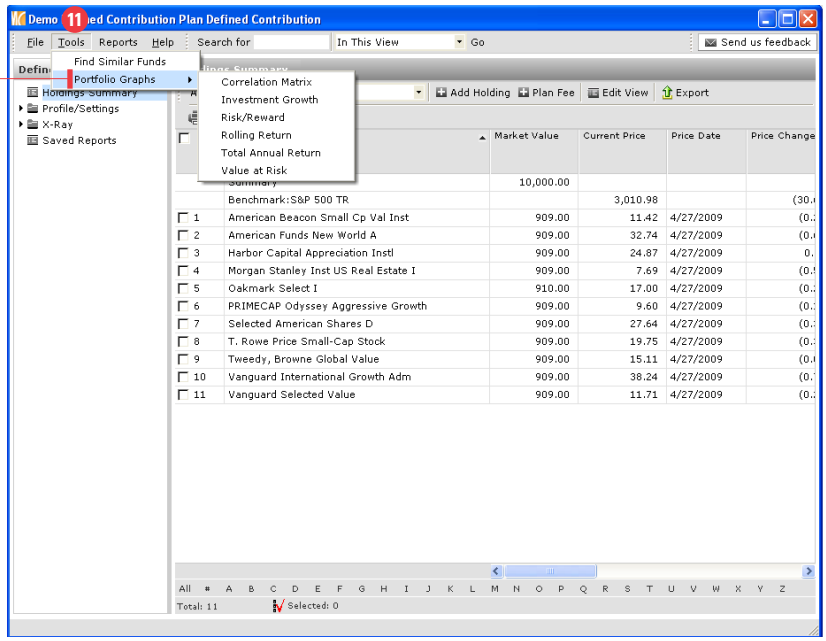
9. On the *Investment Fees Tab* you can view holding level fees. As Morningstar pulls *Gross* expenses from our databases, these are not editable. You can enter *Additional Wrap Expense %* fees and *Fund Revenue Share %* fees. Morningstar calculates the difference to get the net expenses, so this field is not editable.

10. To edit the benchmark for each holding, click on *Holding Benchmark*



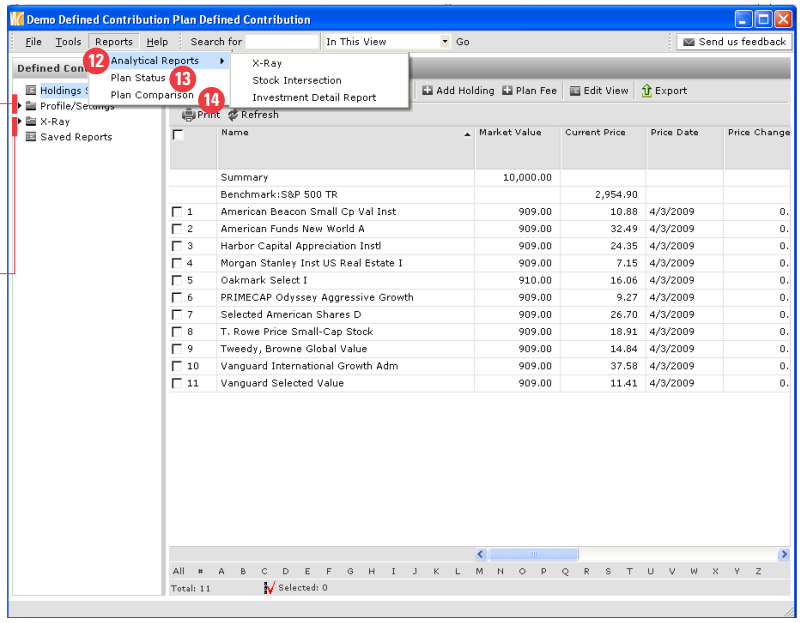


11. To generate a *Portfolio Graphs* on your *Defined Contribution Plan*, go to the *Tools* drop down and click on *Portfolio Graphs*.



Click on *Find Similar Funds* to locate other investments for possible use.

12. Go to *Reports* drop down and click on *Analytical Reports* to access the *X-Ray, Stock Intersection*, and *Investment Detail Reports.*



Change the Contribution name or benchmark in *Profile/ Settings*

Access asset allocation, stock sectors, world regions, and Top 10 holdings of the Plan by using *X-Ray.*

13. Click on *Plan Status* to generate a *Report* on for a single plan. You must have a plan open or checked to generate the report. Disclosure pages will always print for this report.

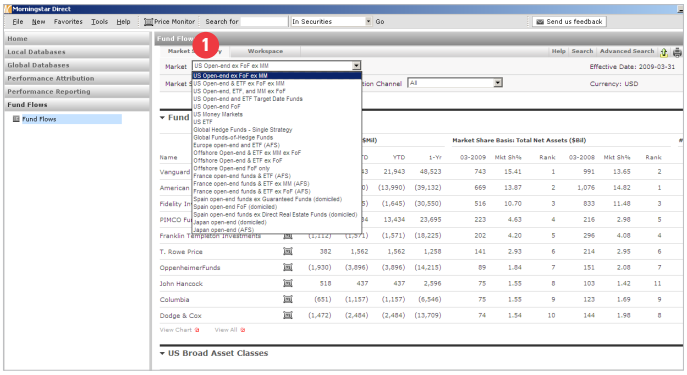
14. Click on *Plan Comparison* to produce a comparison report between two plans.

Fund Flows

The Fund Flows Tool enables users to stay current with market trends by providing a comprehensive and timely picture of total net assets and estimated net flows across various market places. Key audiences that would benefit from Fund Flows are competitive intelligence, product management and marketing, strategic planning, and performance measurement within fund management groups. Consultants and investment banks would also benefit.

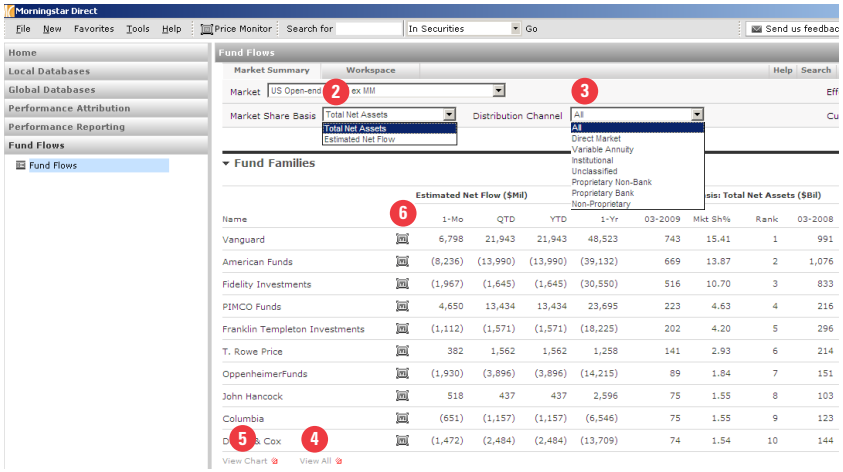
Using Market Summary to Quickly Access Information

1. When you click on the Fund Flows module, the Market Summary tab will automatically appear. This location gives you the ability to quickly view market level data from various perspectives. Click on the Market drop down to view all the available markets. When you select your market, this will drive the rest of the output in the Fund Flow Tool.



2. Click on the *Market Share Basis* drop down to view your choice of *Total Net Assets* or *Estimated Net Flow*.

3. Click on the *Distribution Channel* drop down to view your *Distribution Channel* choices.

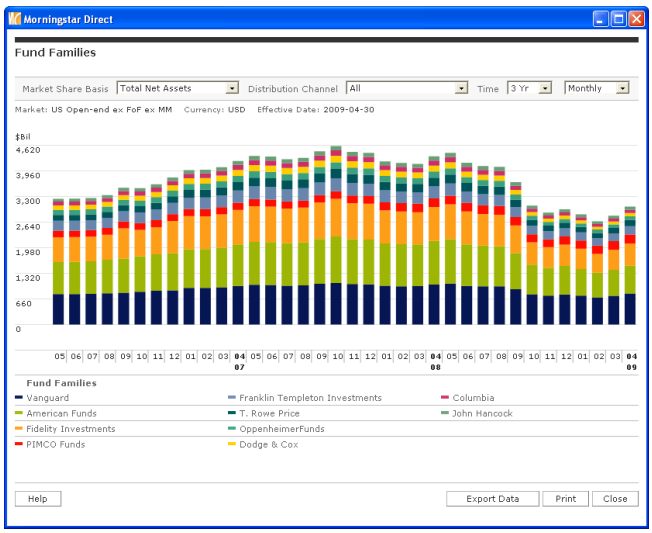


4. As you scroll down the *Market Summary* page, you will see market level data from various perspectives—*Fund families* (top 10 fund families are displayed based on their Market Share %), US Broad Asset Classes, Morningstar Categories, Funds, Share Classes, Distribution Channels, Morningstar Ratings, Stewardship Grades, Total Return Quartiles, and Volatility Quartiles. In the Fund Families section, click on *View All* to access all fund families in the given market.

5. Click on *View Chart* to access the historical display of the distribution channels on these top 10 fund families.

6. You can also produce this same chart for individual fund families by clicking on the chart icon next to fund family name in the summary view or within the *View All* icon.

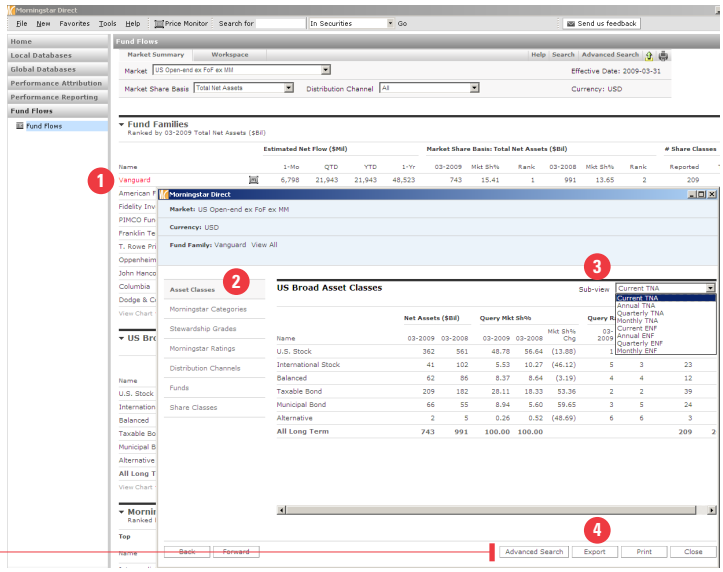
Sample Output



Using Drill-Down for Quick Access to Specific Views

1. There are three methods to drill-down your view. The first method focuses on a specific name and is accessible from the name column. Click on *Vanguard Fund Family.*

2. You can toggle between the various grouping variables on the left and analyze the components of each segment.



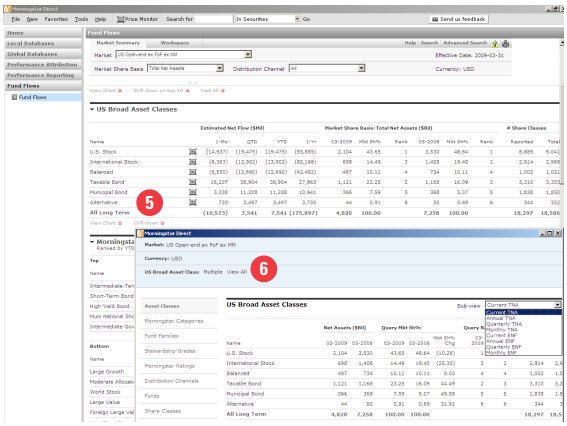
Modify your current view to create a set of criteria.

3. Within each variable, you have the option to view *Total Net Asset* or *Estimated Net Flow* with current, annual, quarterly and monthly frequency.

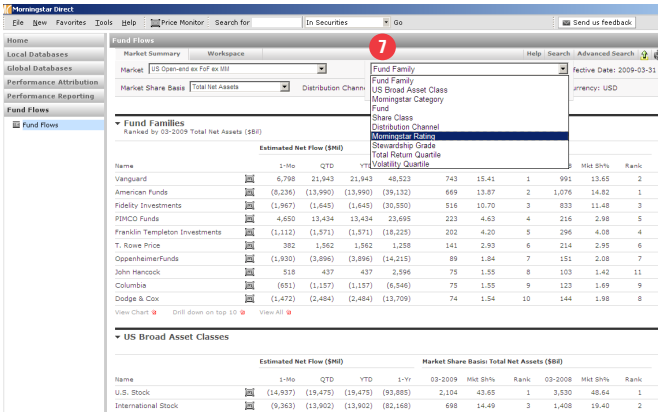
4. Click on *Export* to export the data into *Excel.*

5. The second drill-down method focuses on the given names within your perspective segments and is accessible from the Drill-down icon in the Name column. Go to *US Broad Asset Classes* and click on the *Drill-down* icon.

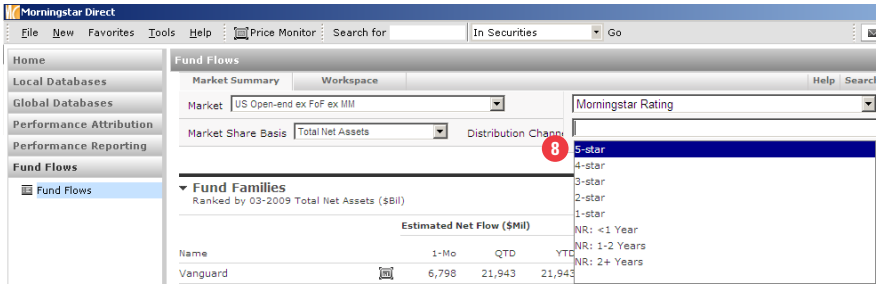
6. Follow Steps 2 to 4 to toggle, view, and export the results.



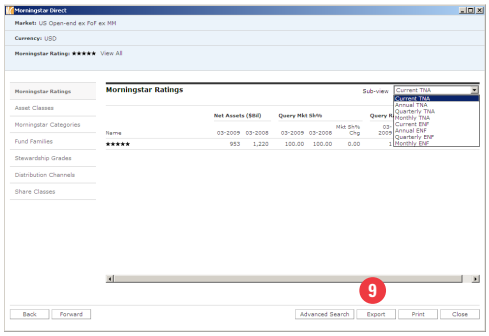
7. The third drill down method focuses on specific names and is accessible from the Search dropdown. Click on the *Search* drop down.



8. Locate *Morningstar Rating* and you will be asked to define your search. Select *5-star.*

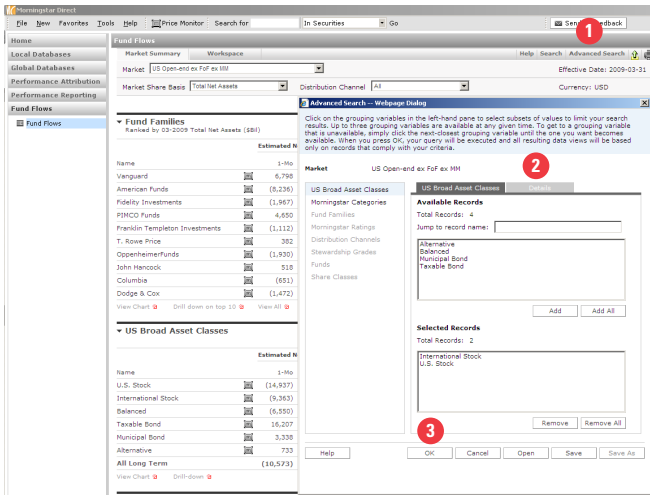


9. Follow Steps 2 to 4 to toggle, view, and export the results.



Using Advanced Search to Conduct Specific Searches

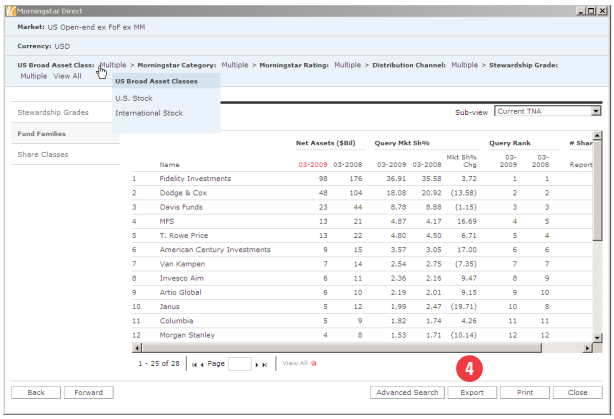
1. The *Advanced Search* functionality allows you to select single or multiple components to define a set of criteria that satisfies the need for further analysis. There are two methods to accomplish this task. The first method is accessible with the *Advanced Search* button. Click on the *Advanced Search* button.



2. In the *Advanced Search Webpage Dialog*, create your search by selecting your records. You can keep drilling down the components for each segment on the left until you have met all the parameters.

3. Click *OK* to see the results of your search.

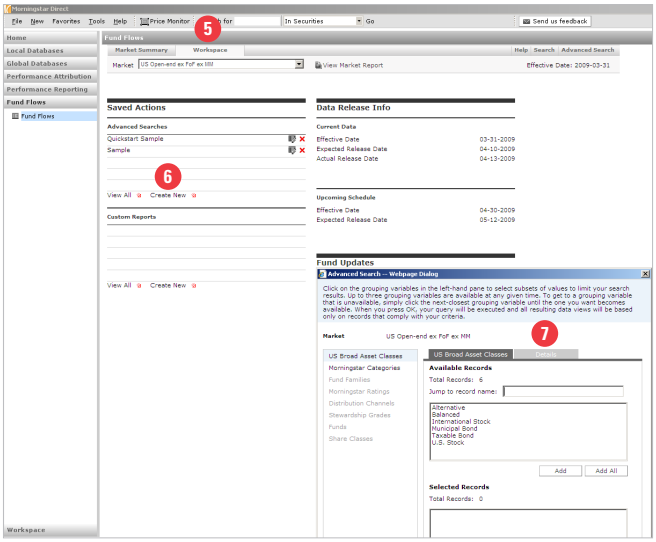
4. You can now toggle, view, or export your results.



5. The second method is accessible in the Workspace Tab. Click on the Workspace tab.

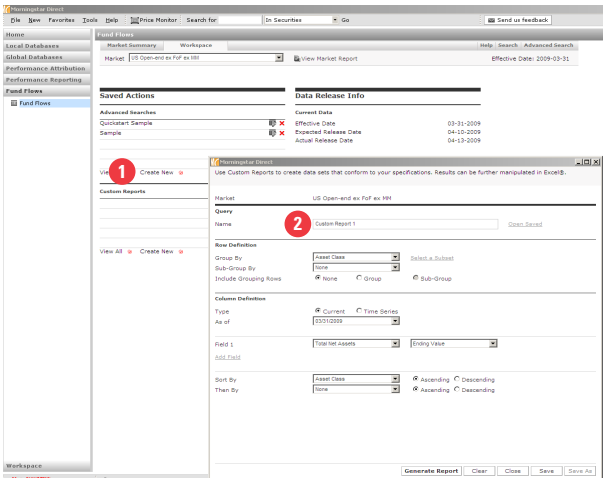
6. Click on Create New

7. Follow Steps 2 to 4 to create your search and view the results.



Creating Custom Reports to Identify Data to Meet your Specifications

1. By using the *Custom Report* feature, you can display the time series of a set date range (as early as 1998) or as of a certain date. In addition to having access to the same features in the *Market Summary* tab, you also have the ability to sort the data by your criteria and to generate the report in excel. Go to the *Workspace* tab and click on *Create New* under *Custom Reports.*

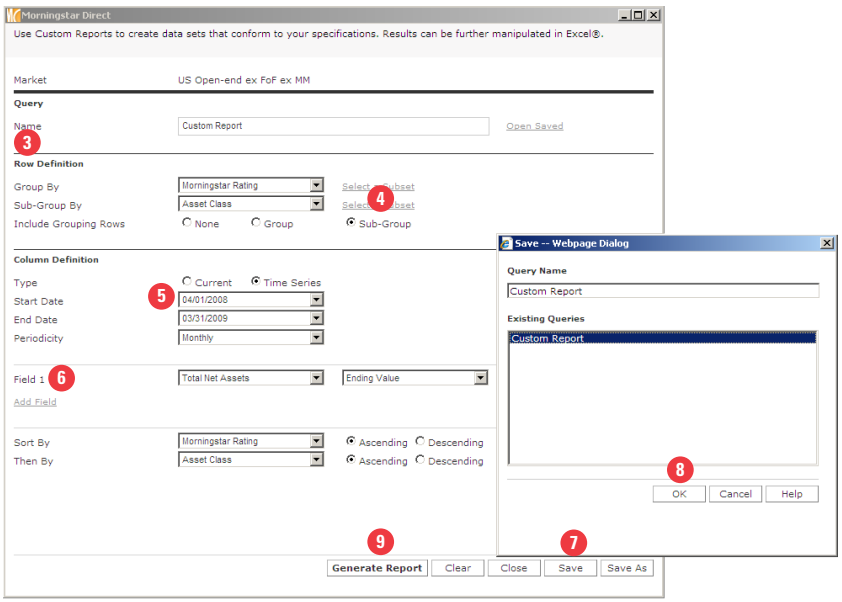


2. In the *Custom Report Dialog,* you can name your query or open a saved query to modify it.

3. In the *Row Definition*, group by *Morningstar Rating* and sub-group by *Asset Class.*

4. Click on *Sub-Group* to customize the rows in your output.

5. In the Column Definition, select *Time Series* and change the start date to 4/1/2008.



6. In Field 1, decide between *Total Net Assets/Estimated Net Flow* and *Ending Value/Market Share.*

7. Click *Save* to save your Custom Report in the *Workspace Tab.*

8. Click *OK.*

9. Click on *Generate Report* and it will export into *Excel.*

Sample Output

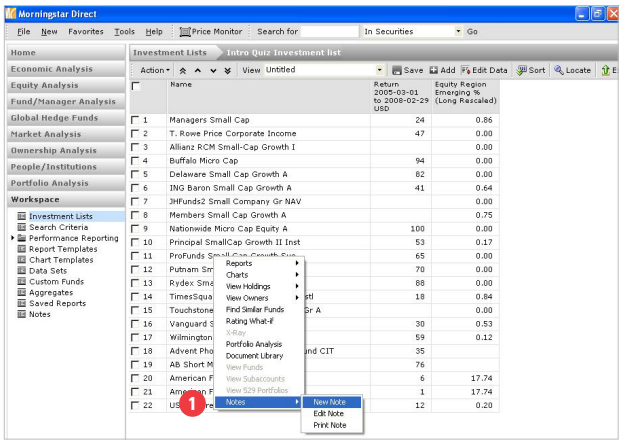
Fund Flows					
Effective Date: 2008-04-01 to 2009-03-31					
US Open-end ex FoF ex MM					
Currency: US Dollar					
Morningstar Rating	**US Broad Asset Class**	**Total Net Assets 2008-12**	**Total Net Assets 2009-01**	**Total Net Assets 2009-02**	**Total Net Assets 2009-03**
1-star	Alternative	398,865,217	362,423,576	304,447,581	316,882,288
2-star	Alternative	2,451,058,532	2,416,942,630	2,285,490,377	2,380,949,369
3-star	Alternative	18,802,588,285	18,605,029,122	18,236,806,513	19,950,409,958
4-star	Alternative	8,926,011,955	9,374,451,199	10,042,350,433	11,277,109,326
5-star	Alternative	997,420,949	1,072,128,798	1,178,847,993	1,346,673,896
NR: <1 Year	Alternative	590,284,931	664,688,398	767,093,701	944,841,571
NR: 1-2 Years	Alternative	1,174,915,654	1,168,982,022	1,134,440,768	1,178,648,737
NR: 2+ Years	Alternative	6,326,804,988	7,208,460,191	7,800,602,649	6,868,885,747
	SubTotal	39,667,950,511	40,873,105,936	41,750,080,015	44,264,400,892
1-star	Balanced	7,740,881,881	7,192,930,041	6,455,379,022	6,390,034,895
2-star	Balanced	43,272,734,362	40,871,417,472	37,374,229,438	38,763,395,396
3-star	Balanced	244,786,772,561	231,263,442,100	212,180,491,682	218,476,589,138
4-star	Balanced	144,967,107,828	137,542,622,232	127,556,070,497	132,715,825,591
5-star	Balanced	86,997,376,937	84,505,395,682	80,699,124,738	84,637,964,248
NR: <1 Year	Balanced	806,922,244	971,404,556	1,105,519,058	1,296,279,505
NR: 1-2 Years	Balanced	2,178,598,286	2,203,413,199	2,169,720,089	2,456,670,549
NR: 2+ Years	Balanced	3,235,064,011	3,078,429,667	2,741,363,125	2,701,913,770
	SubTotal	533,985,458,110	507,629,054,949	470,281,897,649	487,438,673,092

Notes

Users can create notes to keep a record of a manager interviews or personal opinions. Multiple notes may be created for the same security, by associating each note with a different effective date. User may view previous notes for the same security by selecting a different date from the Effective Date dropdown list. An individual note can be up to 6000 characters in length. Notes are saved at the fund level. Multiple share classes of the same fund share the same notes.

Notes can be created three different ways: under Workspace Notes, from the Main Menu, or through an Investment List. In this example we will create a note from an Investment list.

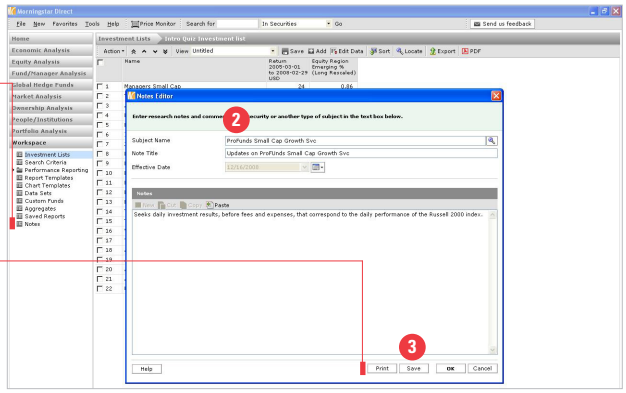
1. Right-click on the security name and click on *Notes*, *New Note* to open the Notes Editor.



2. Enter a title, effective date, and note content.

A list of all notes which have been created is available here.

Notes may also be printed by right-clicking on the security and selecting *Notes*, then *Print Note*.



3. Click Save.