Morningstar Advisor Workstation Training Guide
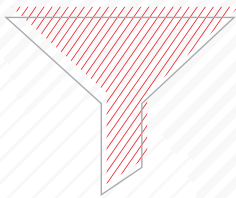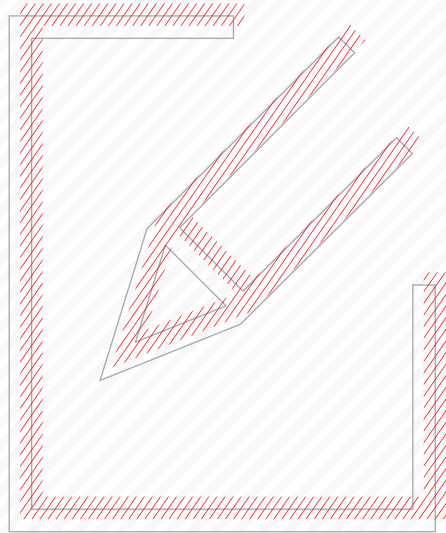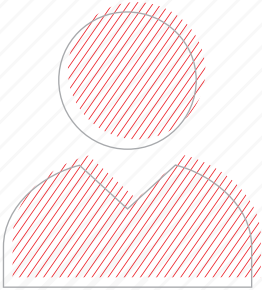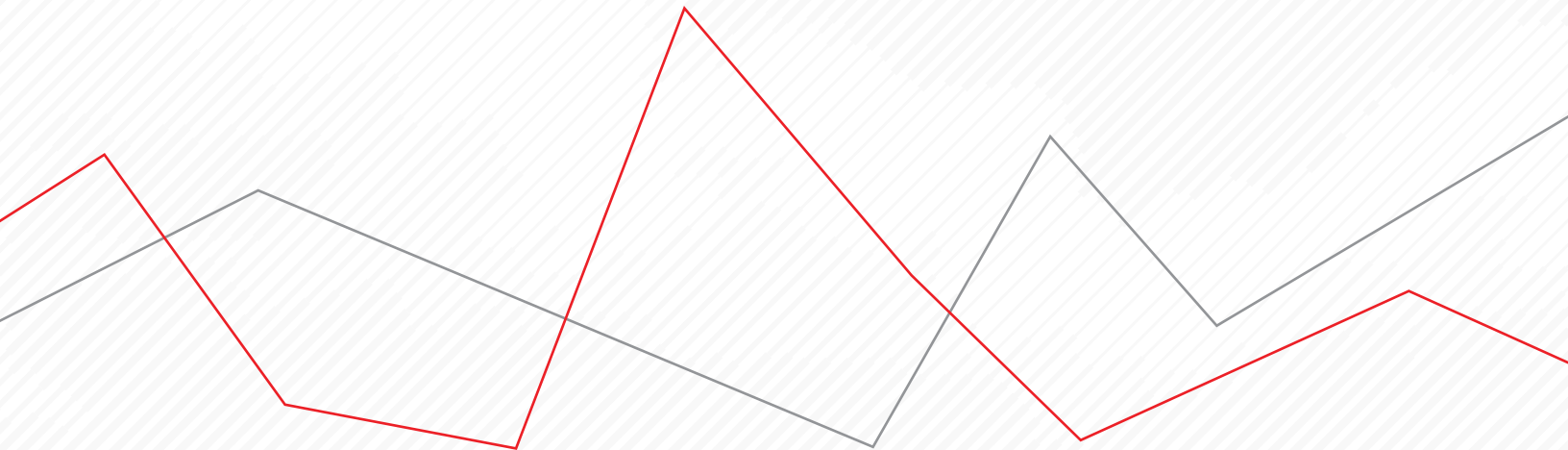
Creating Searches in Morningstar Advisor Workstation

MORNINGSTAR Advisor Workstation

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Contents

Morningstar Advisor Workstation July 2017

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Creating Searches in
Morningstar Advisor Workstation^{SM}

Overview

What do you do in Morningstar Advisor Workstation^{SM} when you need to create a set of securities with certain characteristics, such as funds belonging to a specific Morningstar category, or those with an expense ratio below a particular threshold, or stocks in an industry that also have a P/E ratio below a certain number?

The Screener and Advanced Search tools in Advisor Workstation are the solution to this problem. Both tools return a set of investments currently matching whatever criteria you define.

☞ Note: Prior to using this training guide, you should be familiar with the content in the Overview to Morningstar Advisor Workstation. Also, this guide builds on the exercises offered in Working with Research Lists in Morningstar Advisor Workstation.

Both the Screener and Advanced Search help you narrow down an investment universe by selecting criteria

Both the Screener and the Advanced Search tools allow you to narrow down a research universe according to criteria. There are a few important differences between the two tools. Please note the following:

▶ While the Screener panel displays only a handful of data points, you can access all available data points in a given universe from the Advanced Search window.
▶ Screener searches display matching securities automatically as you add criteria; you have to click the Run Search button to preview the results of an Advanced Search.
▶ The Advanced Search tool requires you to select a data point, an operator (greater than, less than, equals, etc.), and a value.

What is the difference between the Screener and Advanced Search tools?

If a search returns a set of investments, and a list is also a set of investments in Advisor Workstation, then what is the difference between the two approaches?

A search, whether it is created in Screener or Advanced Search, offers dynamic results each time it is run. For example, if you search for five-star, open-end funds in the Large Value category, you might find 145 funds today, but the specific funds you see could (and likely will) change from month to month (because the Morningstar Rating is updated monthly).

An investment list, however, is static and the items on a list do not change unless you manually add or remove members to/from the list. In other words, you could save the 145 five-star Large Value funds from your search results to a list, and that list will not change unless you add items to it, or remove items from it. To learn more about creating lists, see Working with Research Lists in Morningstar Advisor Workstation.

What is the difference between a search and a list?

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Working with the Screener Tool

The Screener tool is available from the Research module for all security types (mutual funds, stocks, etc.). The Screener is a modified search by criteria tool. In the Screener panel, you have access to some of the most popular search criteria for a particular universe. If you can't find a criterion you are looking for in the Screener tool, you can use the Advanced Search tool.

Overview

Working with the Screener tool saves you the time of having to define criteria yourself. You simply need to choose the value(s) for each one. These searches can be saved and later retrieved from either the Screener tool, or the Advanced Search tool (in case you want to add more criteria there, which are not available in the Screener tool).

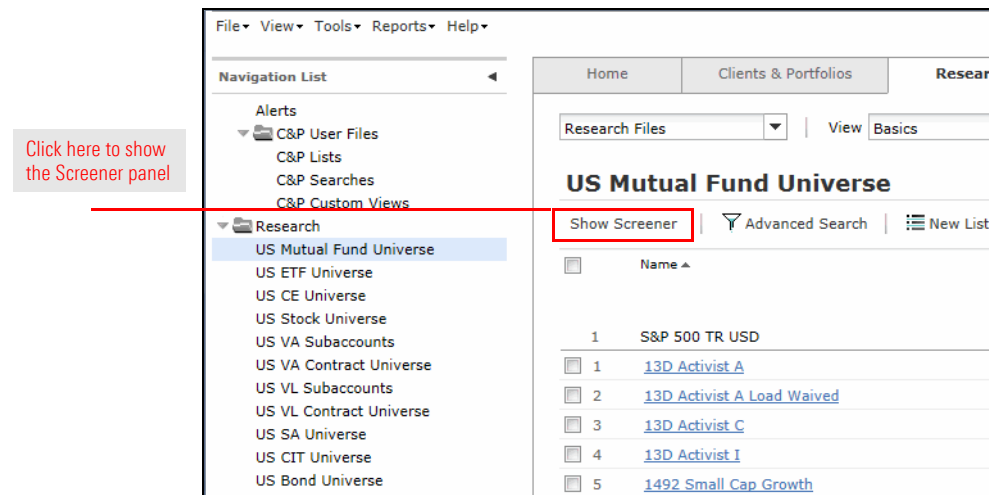☞ Note: A search you save in the Advanced Search tool cannot be opened in the Screener tool.

To use the Screener tool, do the following:

Exercise 1: Create a Screener search

1. In the left-hand navigation pane under Research, go to the **US Mutual Fund Universe**.
2. Click the **Show Screener** button above the grid area. The Screener panel appears on the left.

3. Click the **Share Class Type** drop-down field and check the **A** box.

☞ Note: Each time you make a selection, the spreadsheet area updates in real time.
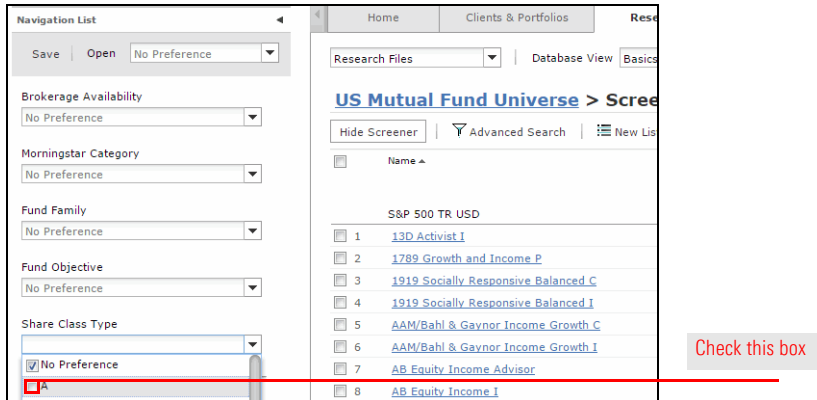
4. Scroll down to the Morningstar Rating area and click the **third star**.
5. In the Morningstar Sustainability Rating area and click the **fourth globe**.
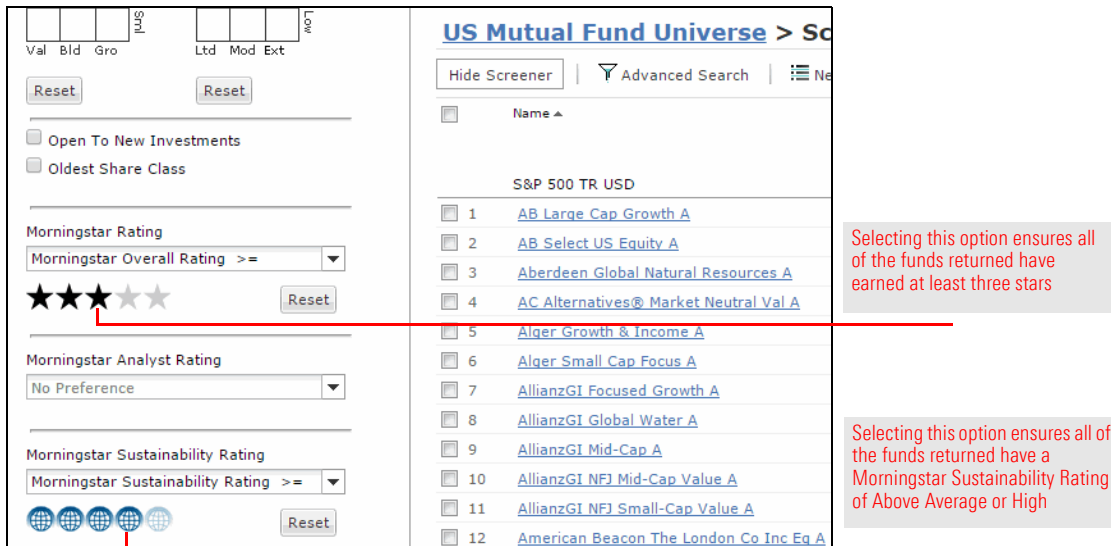
6. Click the Morningstar Analyst Rating drop-down field and check the **Gold**, **Silver** and **Bronze** boxes.
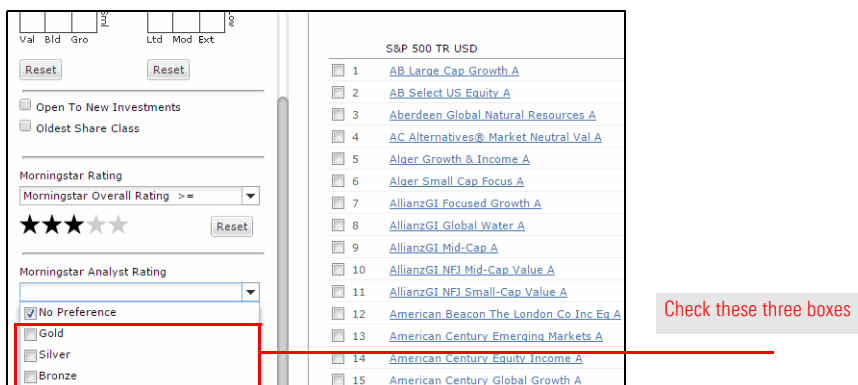
How many funds did you find? _____

7.   Check the **Open to New Investments** box.

How many funds are now displayed? _____

8.   At the top of the Screener panel, click **Save**. The Existing Searches dialog box opens.

Click in the **Search Name** field, type **Sustainability**, then click **OK**. You are returned to the Screener panel.

If you want to add a data point to your search but you do not see it in the Screener panel, you can use the Advanced Search to continue building your search. To open a Screener search in the Advanced Search window, do the following:

Exercise 2: Open a Screener search from the Advanced Search tool

1.   With your Screener search from Exercise 1 still open, from the toolbar above the grid view, click the **Advanced Search** icon.

☞   Note: The Advanced Search dialog box should display the selections you made in the Screener tool. If it does not, click the **Open** icon at the top of the Advanced Search window, select the **name** of your saved search, then click **OK**.

2.   In the View Field Name area, click the **Alphabetically** option button.
3.   In the first empty row, click in the **Field Name** column.
4.   Press **<P>** on your keyboard to jump down in the list.
5.   Scroll down the alphabetical list and select **Prospectus Net Expense Ratio.**
6.   Click in the **Operator** column and select **<**.
7.   Click in the **Value** column and type **1.25**.

Your search should look like this
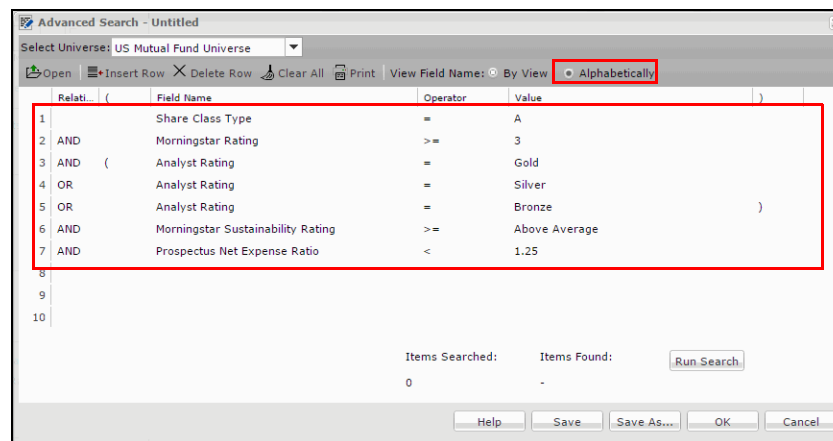
8.   Click **Run Search** to preview the number of results.

Now how many results do you have?____

9.   Click **Save**.
10.   In the Existing Searches dialog box, enter **Sustainable Low Expense**, then click **OK**.

☞   Note: You can access this saved search later from the Advanced Search dialog box, the Research Searches page or the Saved Lists and Searches drop-down field.

1.   Click **OK** to view the results.

Working with the Advanced Search Tool

In a sense, all searches are created equal. No matter how many criteria you select or how they are ordered in the Advanced Search window, each search requires you to do the following:

Overview

- ▶ Select a **field name** (i.e., a data point) to evaluate
- ▶ Choose an **operator** (=, <, >, etc.) for the field's value, and
- ▶ Assign a **value** to the field; this could be a number or a text label.

For example, a very basic search to find funds in the Large Value category would use the following criteria:

Field Name	Operator	Value
Morningstar Category	=	Large Value

A search to find funds whose annual net expense ratio is less than or equal to 1.25% would look use the following criteria:

Field Name	Operator	Value
Annual Net Expense Ratio	<=	1.25

In this section, you will practice creating some relatively simple searches, and learn how to save and retrieve the searches you create as well.

In a word, no. While you can use the Advanced Search window to look for items by name or ticker symbol when you know those values, this action takes an extraordinarily long time to complete. The number of clicks involved is not worth the effort.

Should I create a search to look for investments by name or ticker symbol?

Instead, create a list of known investments. For details on how to create lists, please see the Working with Research Lists in Morningstar Advisor Workstation document.

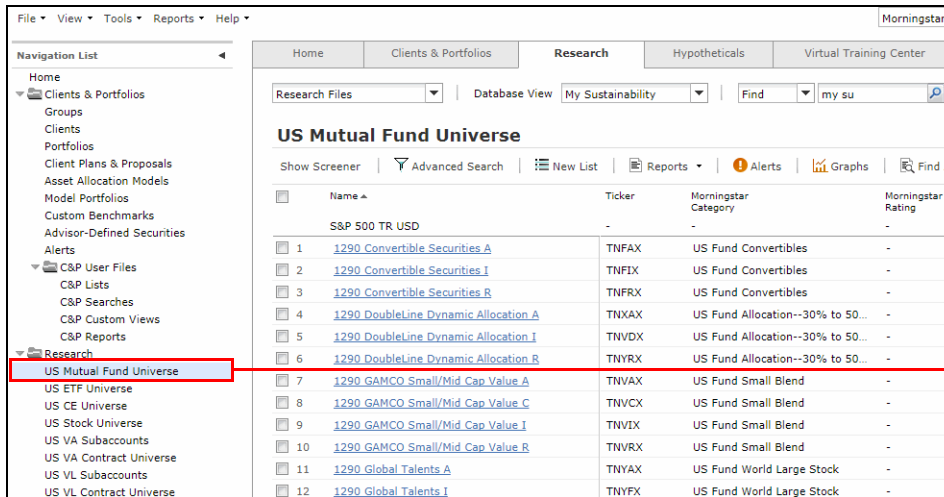**MORNINGSTAR**

In this first exercise, you will look for Large Value U.S. funds. Do the following:
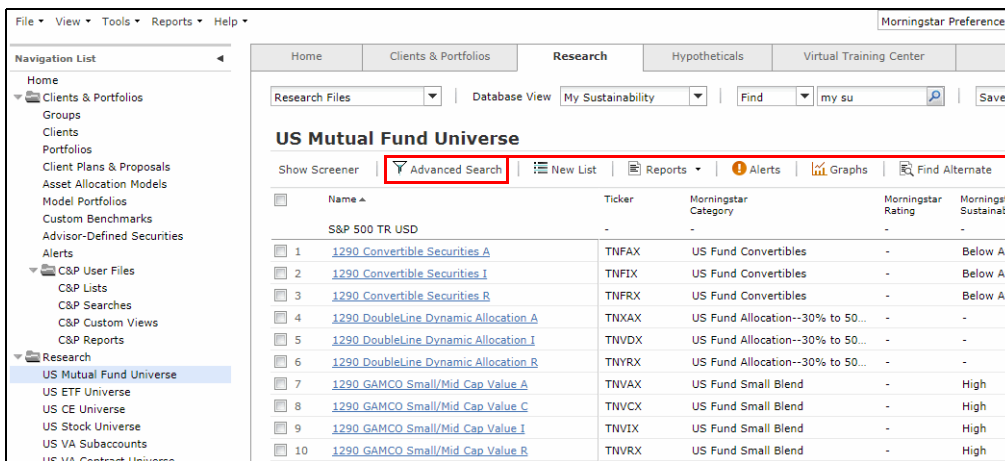
Exercise 3: Create an Advanced Search from the Research Module

1. From the left-hand navigation pane under Research, select the **US Mutual Fund** universe.
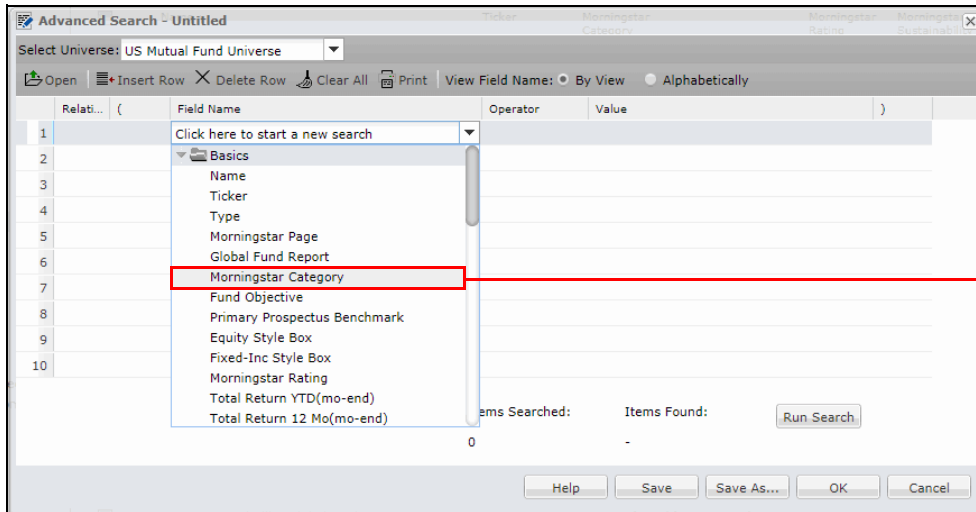

Be sure to select the correct page

2. From the toolbar above the grid view, click the **Advanced Search** icon. The Advanced Search window opens.
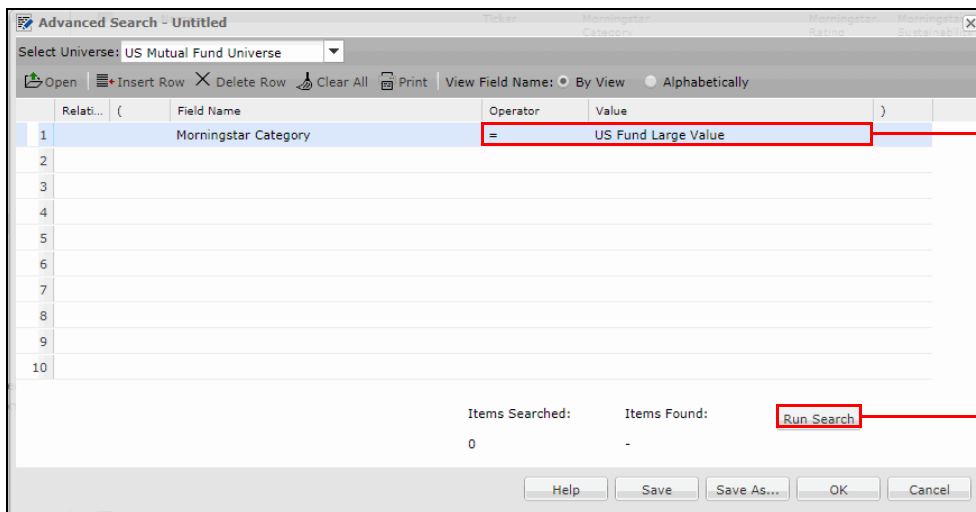

Click this icon to open the Advanced Search window

3. Click in the **Field Name** cell for row 1, expand the **Basics** folder, and select **Morningstar Category**.

4. Click the **Value** cell in the first row. The Operator cell in the first row defaults to =.
5. **Scroll** down and click **US Fund Large Value**.
6. To preview how many investments meet the criterion, click the **Run Search** button.

7. To view the results of the search in the grid view, click **OK**. In each row, take note of what is shown under the Morningstar Category column, and note the total number of investments showing in the bottom-right corner of the grid view.

All rows now show US Fund Large Value in this column

The number of funds matching the search parameters is shown here

Saving a search precludes you from having to re-enter the criteria again and again for those searches you use frequently. Once saved, a search is found under the Research Searches page, or you can open it from the Advanced Search window itself. To save a search, do the following:

Exercise 4: Save an Advanced Search

1. You should still be in the United States Mutual Fund universe. From the toolbar above the grid view, click the **Advanced Search** icon. The Advanced Search window opens, and the criterion you entered earlier should still be showing.

Click this icon to re-open the Advanced Search window

2. From the bottom of the Advanced Search window, click the **Save** icon. The Existing Searches dialog box opens.
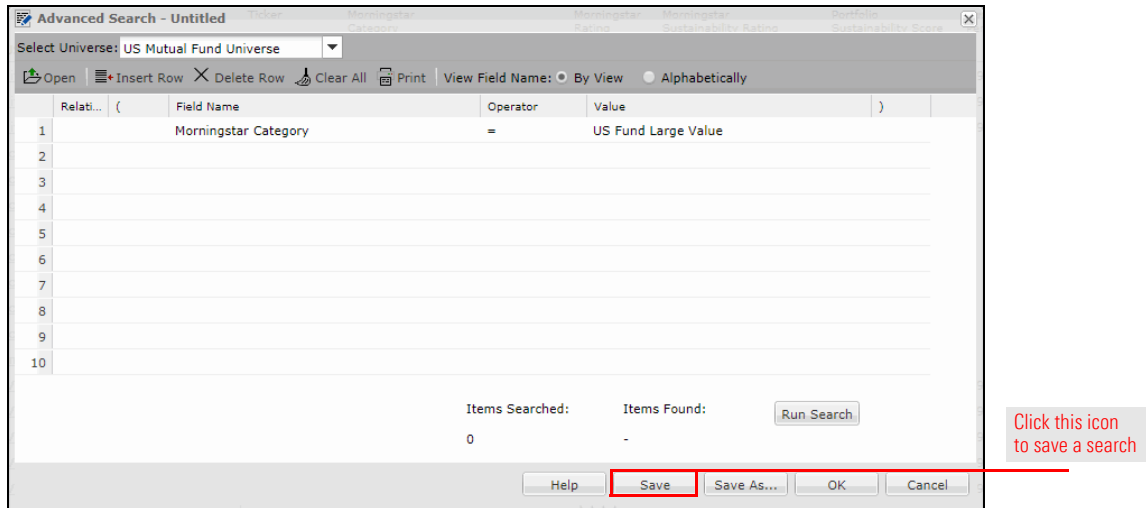
3. In the **Search Name** field, type **Large Value**.
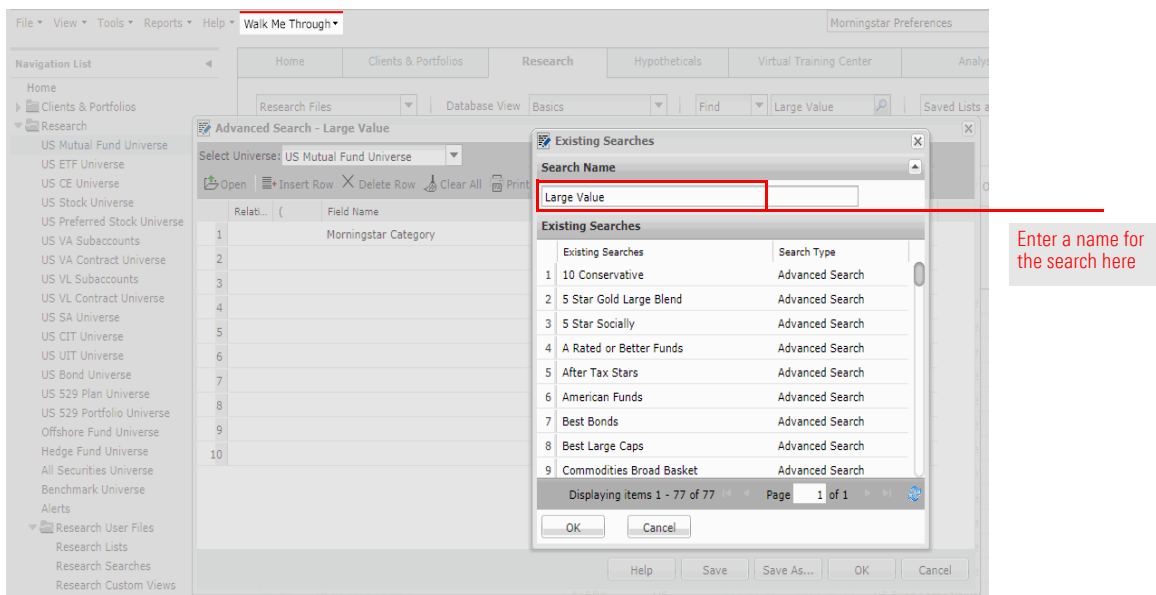
4. Click **OK** to close the dialog box.
5. Click **OK** to close the Advanced Search window. The search you saved can be opened from the Advanced Search window, or by going to the **Research Searches** page.

Creating the search in Exercise 3 narrowed down the amount of funds displayed on the screen. Now, instead of seeing all open end funds, you see only open end funds in the Large Value category. You can reset the universe and return to seeing all open end funds with one click.

Exercise 5: Reset a universe after conducting a search

From the breadcrumb trail above the toolbar, click the name of the universe, in this case: **US Mutual Fund Universe**.
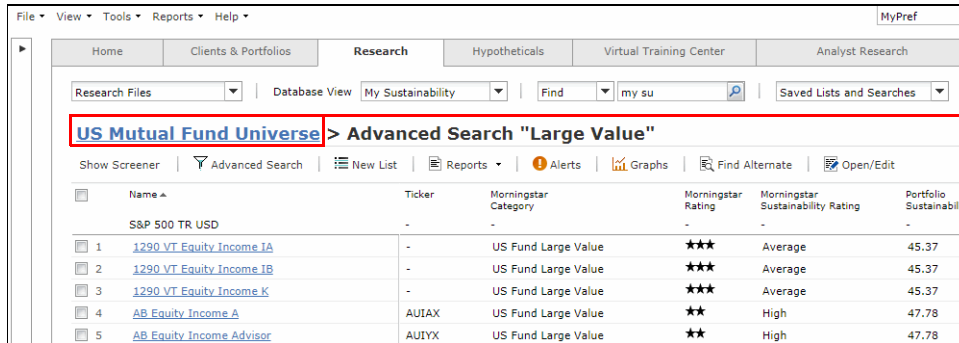
Once saved, a search is found on the Research Searches page. Alternatively, you can also open a saved search from the Advanced Search window itself from the universal Tools menu anywhere in Advisor Workstation.

Exercise 6: Open a saved search

To open a saved search from the Research Searches page, do the following:

1. In the left-hand navigation pane under Research User Files, click the **Research Searches** page.
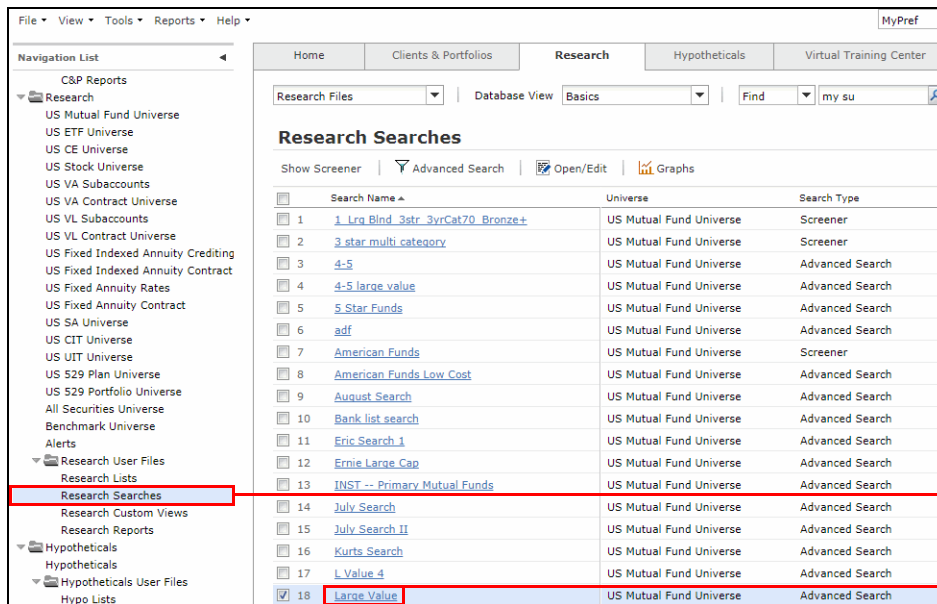
2. Click the **name** of the **Large Value** search to execute the search.

   ☞ Note: If you want to edit the search, **double-click** on its **row** to open it in the Advanced Search window.

To open a saved search using the Tools menu, do the following:

1. From the **Tools** menu at the top of the Advisor Workstation window, select **Advanced Search**. The Advanced Search window opens.
2. From the toolbar, click Open.
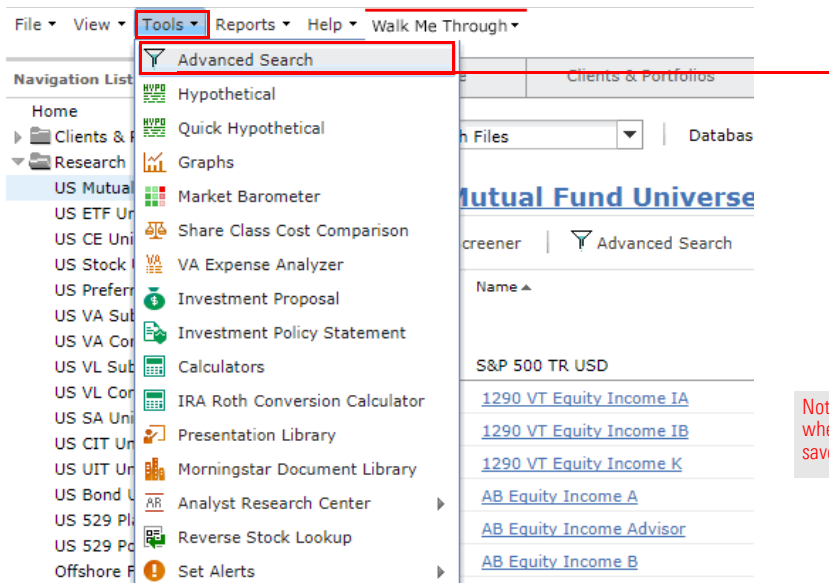
3. **Double-click** the **Large Value** item to open it. Note that the spreadsheet view opens with the results, without first showing the Search window.

So far, the exercises you have completed have dealt with a search that looked for one criterion only: Large Value funds. In practice, your searches will almost always contain multiple criteria, so let's explore adding criteria to a search.

When you ran the search for Large Value funds in the Exercise 1, you may have noticed that multiple instances of funds appeared in the results, rather than just a single instance of each fund. To see only one instance of a fund, you have a few options. For instance, you could ask to see only a certain share class of a fund, such as the A share.

However, not all funds have an A share, and using this as an additional criterion could potentially eliminate several funds from the search that you didn't intend to. Instead, you can use a criterion called Oldest Share Class. This finds only the original share class for each fund included in a search. You will open the search you saved in Exercise 2, and build on it.

Do the following:

1. Select the **Research** module, which will automatically open the **Mutual Funds** universe. From the toolbar above the grid area, click the **Advanced Search** icon. The Search window opens.
2. Click the **Open** icon. The Open Existing Searches dialog box opens.
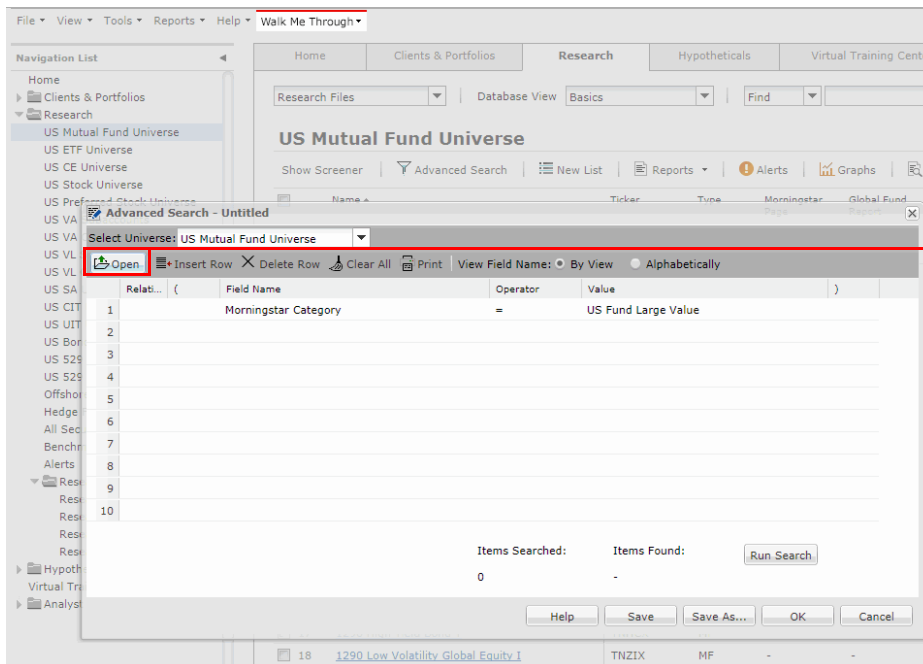
Exercise 7: Create a simple search with multiple criteria

Use this icon to recall a saved search

3. Click **Large Value**, then click **OK** to close the Open Existing Searches dialog box.

Be sure to select the correct search from this dialog box
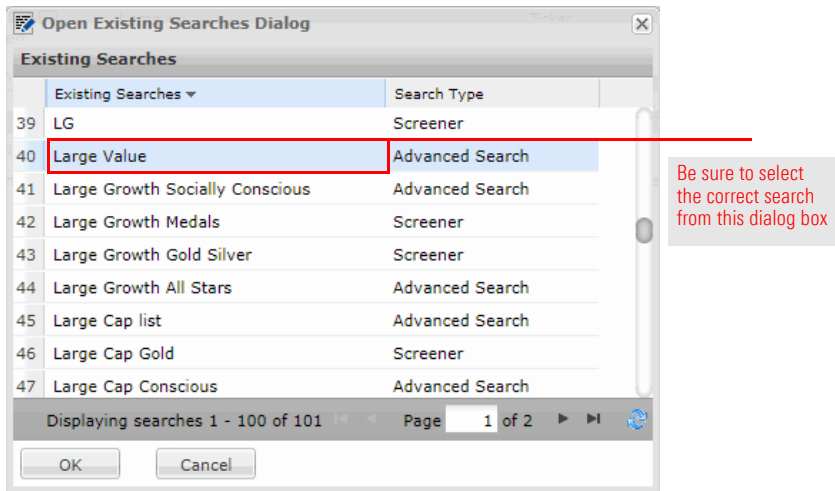
4. In the Advanced Search - Large Value window, click **Run Search**, and take note of the number of items found.
5. Hover over the **View Field Name** option, and select **Alphabetically**.
6. Click in the **Field Name** cell for the second row, and **scroll** down until you can select **Oldest Share Class**. The Operator cell in the second row defaults to =.

☞ Note: As soon as you clicked in the Field Name cell for row 2, the word "And" appeared in the Rel(ationship) column. This means both of these criteria (in rows 1 and 2) must be true in order for a fund to be returned by the search. Also, rather than scrolling down to find a criterion, you could also have typed the word **Old**, and the cursor would jump to find Oldest Share Class.

7. Click in the **Value** cell for row 2 and select **Yes**.

Note the values in these fields
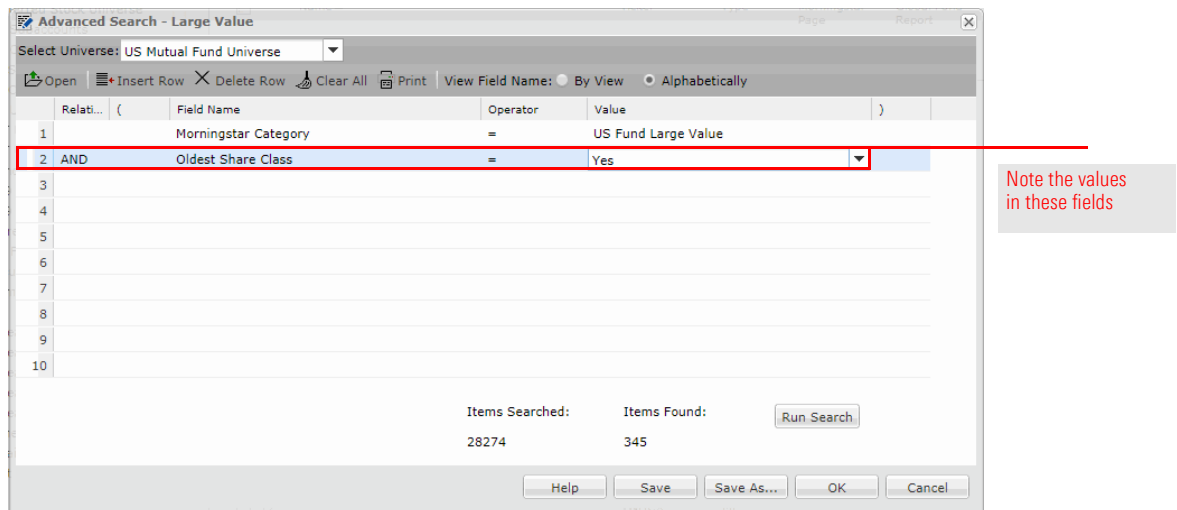
8. Click **Run Search** again, and note the number of funds that are now found.
9. You now have two criteria in your search for Large Value funds. You can re-save the search to reflect this change. Click the **Save** icon.
10. When the overwrite confirmation message opens, click **OK**. Keep the Advanced Search window open for the next exercise.

Morningstar Advisor Workstation July 2017
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By default, the Advanced Search window shows you available search criteria by grouping fields into categories. These categories are identical to the pre-built views available in the **By View** option of **View Field Name.** If you know which category (or view) a field appears in, it is easy to find that field when you want to include it in a search. Some fields, such as Ticker or Morningstar Rating, appear in more than one search category (and pre-built view).

So far, the two criteria (Morningstar Category and Oldest Share Class) you have used in creating searches have appeared in the Operations category and the default Basics category, which is expanded by default when you open the Advanced Search window. In fact, you might not have even realized the fields were grouped by category in the Advanced Search window. Seeing fields by category is the default setting when working with the Advanced Search window.

Exercise 8: Expand your search to another category
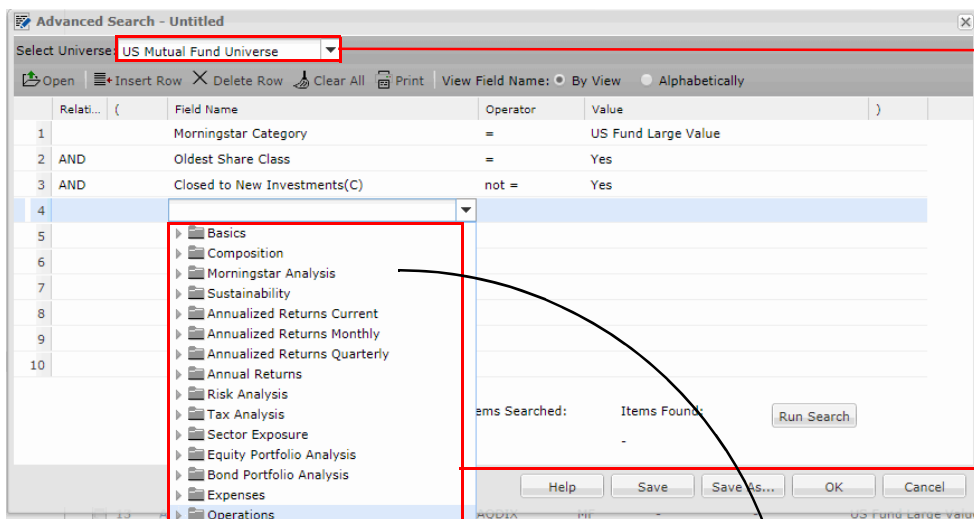
Note the default display by which you find criteria

The categories here correspond to the views in a universe
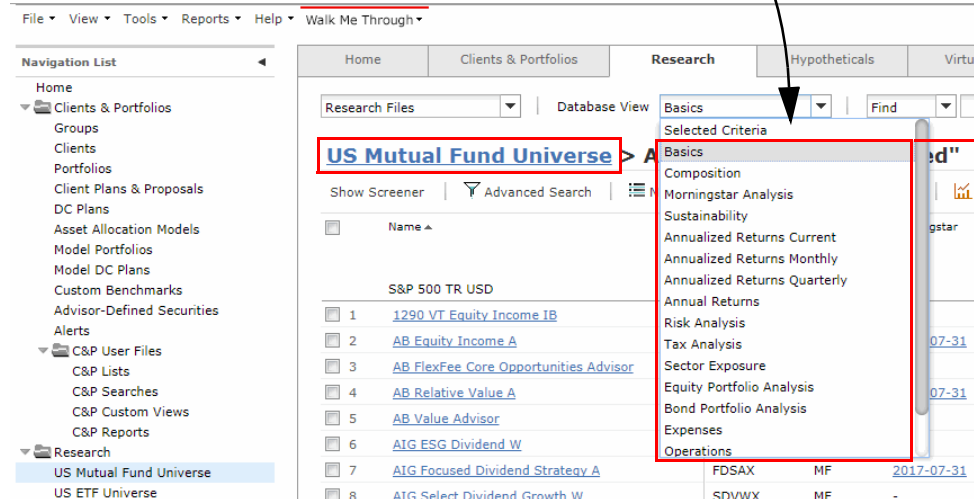
The views here are reflected in the category groupings in the Advanced Search window

While seeing the Basics category expanded by default is convenient for selecting the most popular fields you may be looking for (which is the intent of the Basics view/category), this category does not allow you to access all of the criteria you might need for every search. For example, what if you want to eliminate any funds from your search that are not open to new investors? No criterion exists for "Open to New Investors." Instead, an alternative approach needs to be taken in order to see these funds. Specifically, you need to look for those instances where funds have not been closed to new investors.

To find funds still open to new investors, do the following:

1. You should have the Advanced Search window open, with the criteria from the Large Value search still displayed. (If not, open the saved search now.)
2. In row 3, click in the **View Field Name** cell.

   ☞ Note: Again, the word "And" appears in the Rel column for row 3.

3. Click the **icon** to the left of the **Operations** category to expand it.
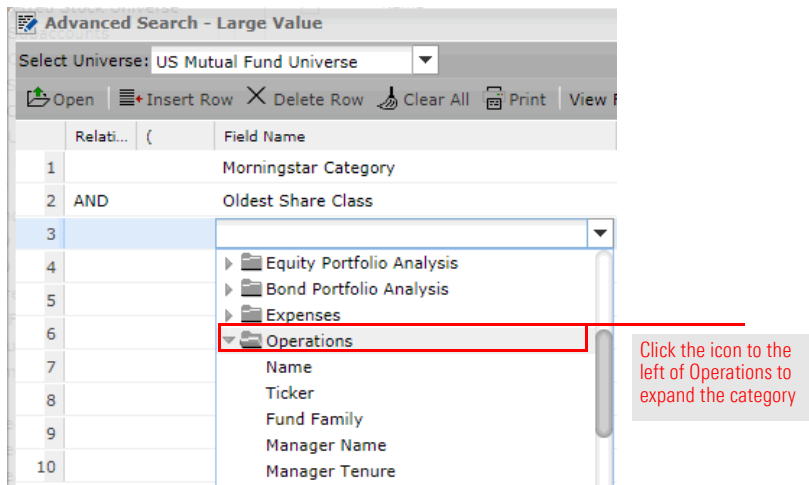
4. **Scroll down** in the Operations category and click **Closed to New Investments**.
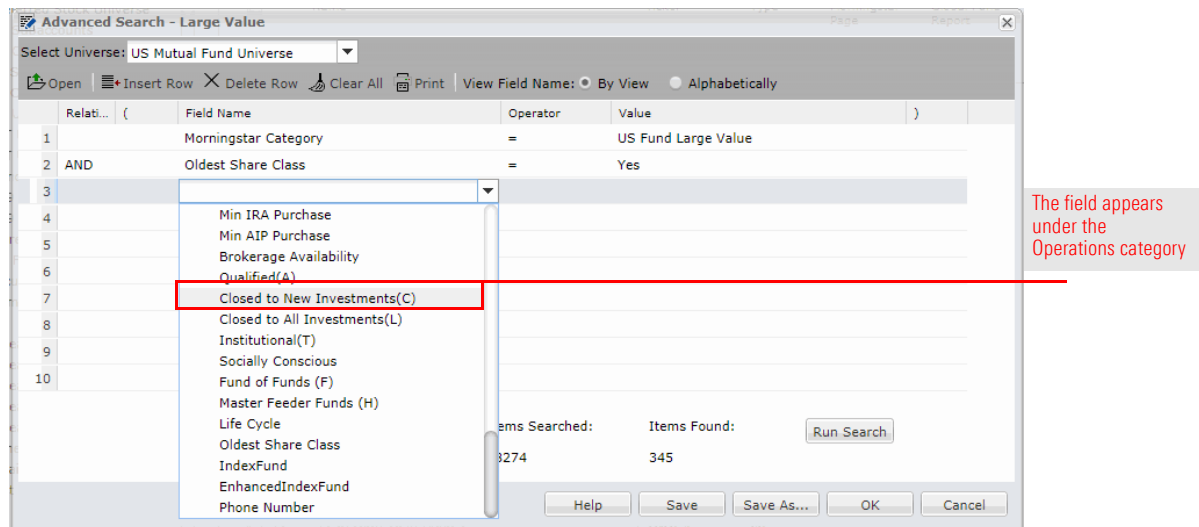
5. In the **Operator** cell for row 3, select **Not =**.
6. In the **Value** cell for row 3, select **Yes**.

7. Click **Run Search**. The number of items found now reflects the inclusion of this additional criterion. Because the Rel(ationship) column for all three rows is "And," all three criteria must be true for a fund in order for it to be found by the search.
8. Re-save the search again to include this latest change. Click the **Save As** icon. The Save As dialog box opens.
9. Under the Existing Searches area, **double-click Large Value**; this populates its value in the Name field.
10. Click **OK** to close the Save As dialog box.
11. When the overwrite confirmation message opens, click **OK**. Keep the Advanced Search window open for the next exercise.

By default, the Advanced Search window allows you to select criteria based on the category each one is assigned to. This works out fine as long as you know under which category each criterion can be found. What happens when you aren't sure which category to look in for a criterion? Rather than waste a lot of time expanding, scrolling, and collapsing categories as you look for a field, you can instead see all criteria listed alphabetically, regardless of category.

Exercise 9: Look for a field by name

To look for a field by name, do the following:

1. The Advanced Search window should still be open, with the criteria from the Large Value search still displayed. (If not, open the saved search now.)
2. In the bottom-left corner of the Advanced Search window, select the option for **Alphabetically**.
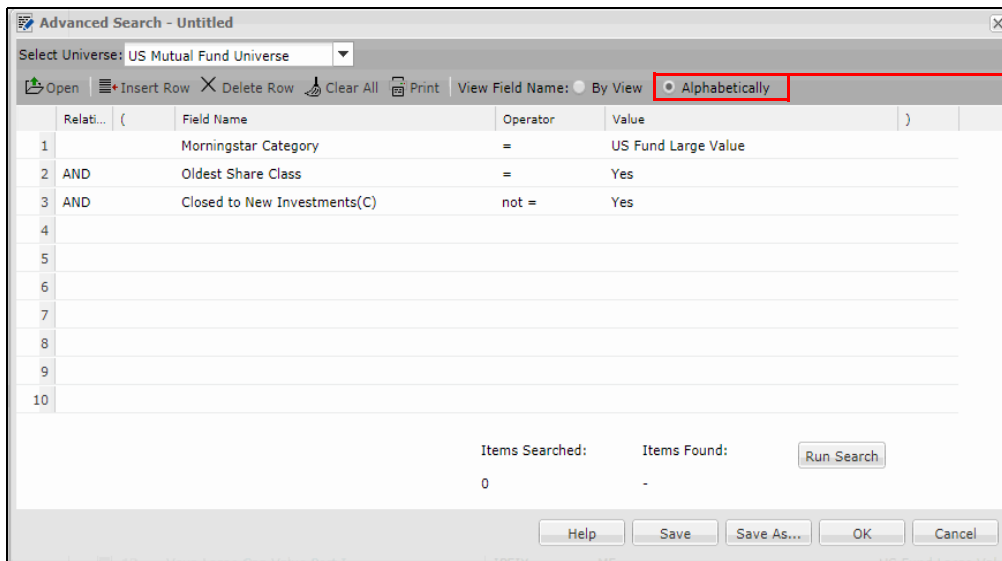
Select this option to see all criteria at once

3. In row 4, click in the **Field Name** cell. All criteria are now listed alphabetically.

☞ Note: Again, the word "And" appears in the Rel column for row 4.
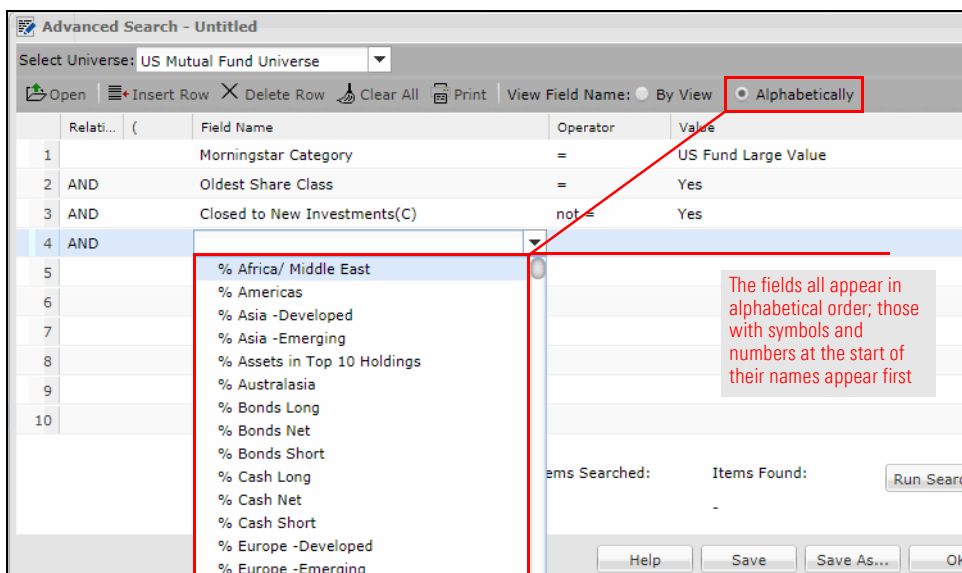
The fields all appear in alphabetical order; those with symbols and numbers at the start of their names appear first

4. Type **Up**. You are moved down in the list of criteria and land on
Upside Capture Ratio 1 Yr (Mo-End). Click **Upside Capture Ratio 1 Yr**.

As you type the name of a criterion, you are moved to that location in the list of criteria

5. In the **Operator** cell for row 4, select **>=**.
6. In the **Value** field for row 4, enter **100**. This line now looks for only those funds achieving at least 100% of the upside of the market over the past year.

Note the values for this row

7. Click **Run Search**.
8. Click the **Save As** icon. The Save As dialog box opens.
9. Under the Existing Searches area, **double-click Large Value**; this populates its value in the Name field.
10. Click **OK** to close the Save As dialog box.
11. When the overwrite confirmation message opens, click **OK**. Keep the Advanced Search window open for the next exercise.

A simple search uses the same relationship (namely, "And") between all rows, no matter how many criteria are included in the search. The following are some additional notes to reflect on when creating simple searches:

Final lessons on creating simple searches

- ► Searches can be created in Morningstar Advisor Workstation from the Screener tool or the Advanced Search tool, depending on your needs.
- ► You can select search criteria fields within a pre-built category, or by seeing them listed alphabetically.
- ► When looking for a field alphabetically, you can type the beginning of its name to jump to that spot in the list.
- ► For fields that take a numeric value, such as Annual Report Net Expense Ratio, you can often enter either a number or opt to compare results to the category average.
- ► Each time you add a criterion to a search, click the Run Search button to ensure you do not end up with 0 results found. If this happens, it indicates a parameter of the search needs to be changed.
- ► Searches can be saved, to keep you from having to re-enter the same criteria over and over, but remember that the results you see each time you run a saved search could change.
- ► Saved searches are found in **Research Searches** under the Research User Files menu (on the Navigation List), and these saved search files can be shared with or sent to other Morningstar Advisor Workstation users, just as you can with lists.

Morningstar Advisor Workstation July 2017

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Creating Complex Searches

Thus far, the searches you have created have been fairly simple. Although you have looked for multiple criteria, all of the rows are linked by the "And" relationship. At times, you may need to create a more sophisticated search where the relationship between rows is more complicated and you need to leverage additional capabilities of the Advanced Search window.

Overview

This section covers the following topics:

► using parentheses within the Advanced Search window to create
complex searches
► inserting additional rows into an existing search, and
► monitoring the relationship between rows as you build a complex search.

The search you have created so far searches the Large Value category for the oldest share class of open-end funds still open to new investors and have a 1-year upside capture ratio of at least 100%. What if you want to see funds matching these criteria, not just in the Large Value category, but also in the Large Blend and Large Growth categories? You can do this by building on the search you have saved, rather than creating three separate searches. Do the following:

**Exercise 10: Create a
search across multiple
Morningstar categories**

1. From the left-hand navigation pane, select the **Research Searches** option,
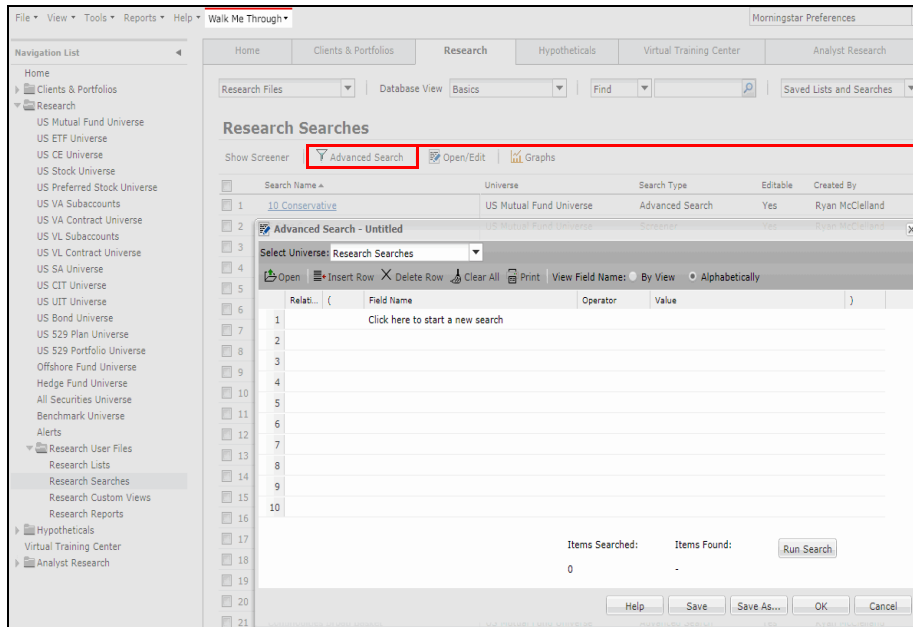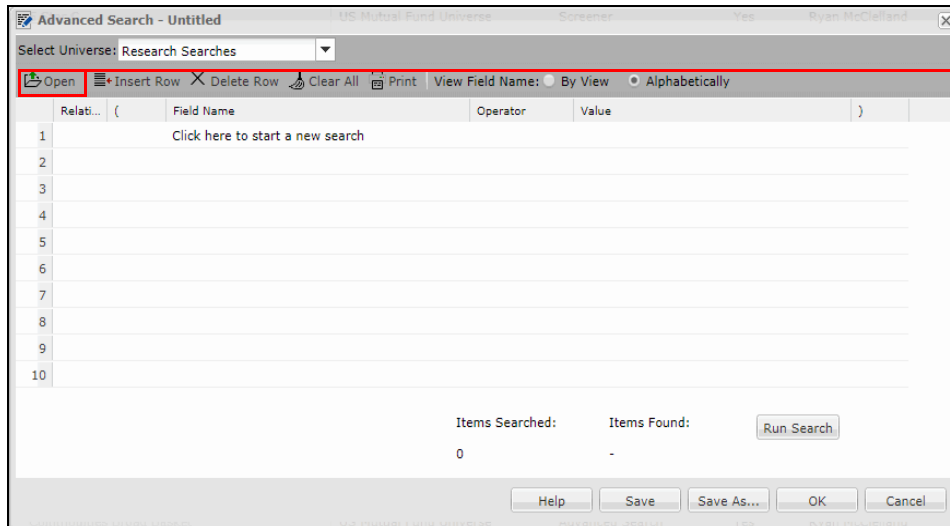   under Research User Files in the Navigation List.
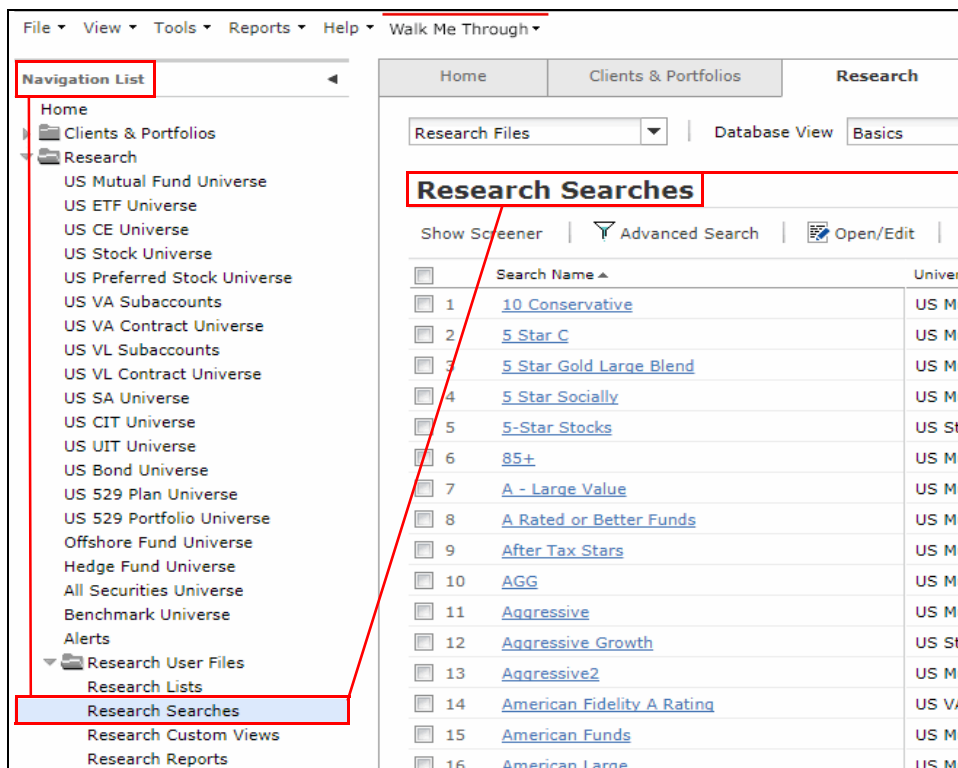
2. From the toolbar above the spreadsheet view, click the **Search** icon. The Advanced Search window opens.
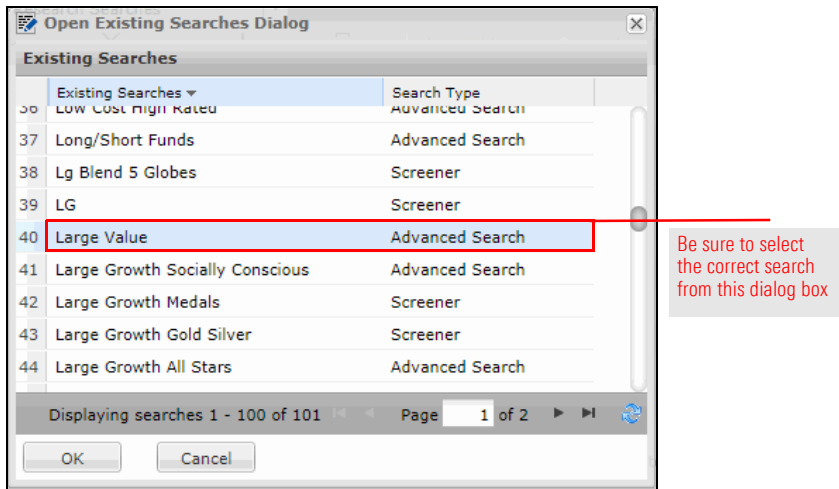

Click this icon to open the Advanced Search window

3. Click the **Open** icon. The Open Existing Searches dialog box opens.

Use this icon to recall a saved search

4.   Click **Large Value**, then click **OK** to close the Open Existing Searches dialog box.

Be sure to select
the correct search
from this dialog box

5.   You are going to insert a new row. An insertion always goes below the row you select.
     To insert a row between rows 1 and 2, select **Row 1**.

Check the box
above the row
where you want
to insert a row
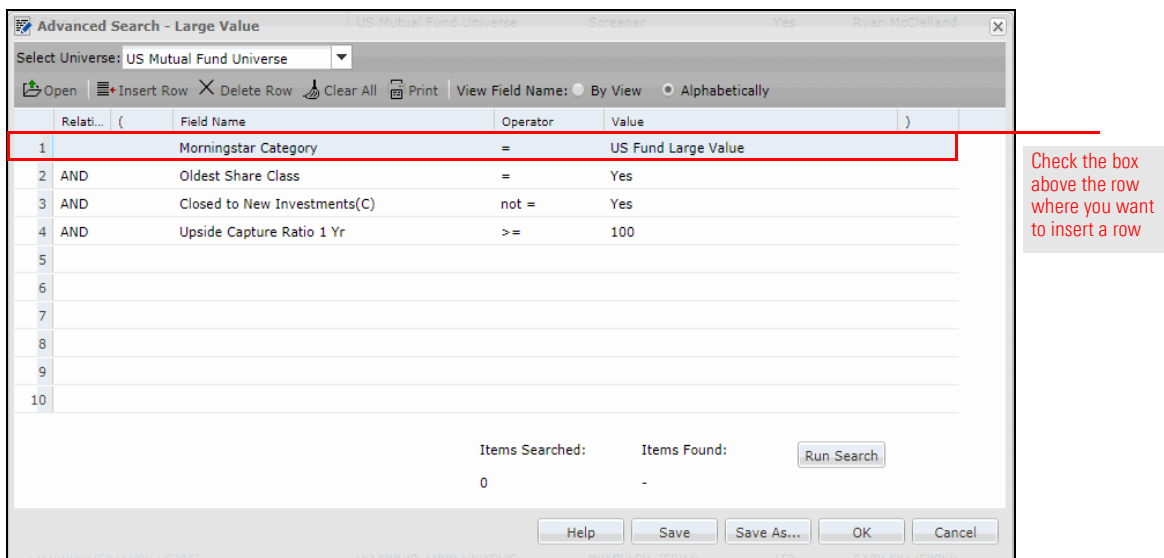
6. From the toolbar, click the **Insert** icon. A blank row is inserted between rows 1 and 2.

Click this icon to insert a new row above the highlighted row
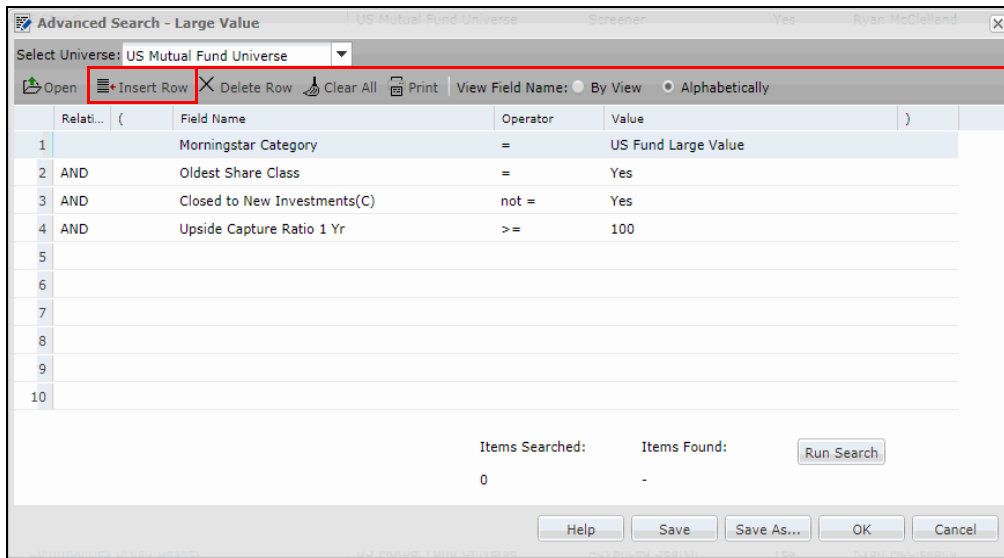
7. In new row (2), click the **Relation** column, then select **Repeat**. The data from the row above is copied into row 2.

Choosing Repeat copies the content from the row above

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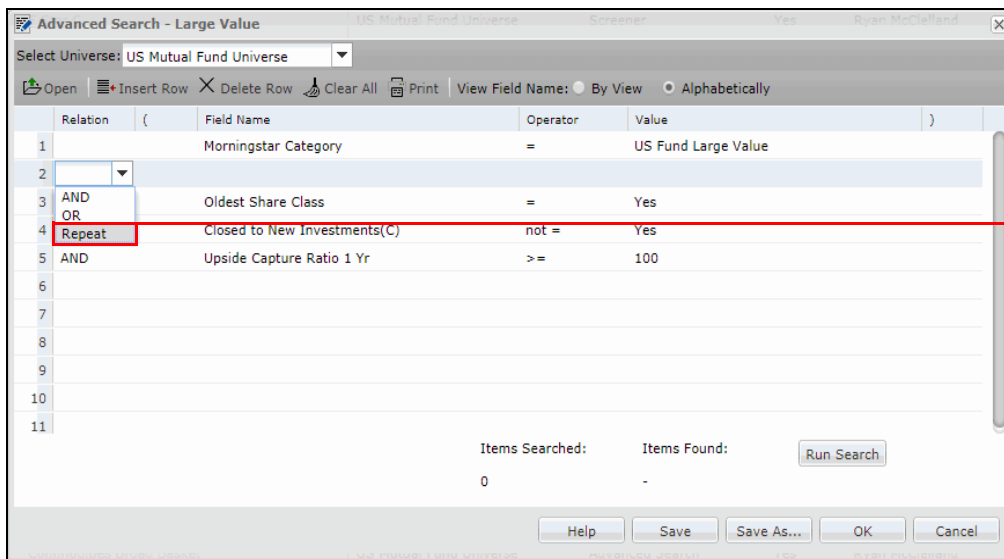
8. The Field Name and Operator cells for row 2 should stay the same. Click the **Value** cell
   for row 2, and select **Large Blend**.
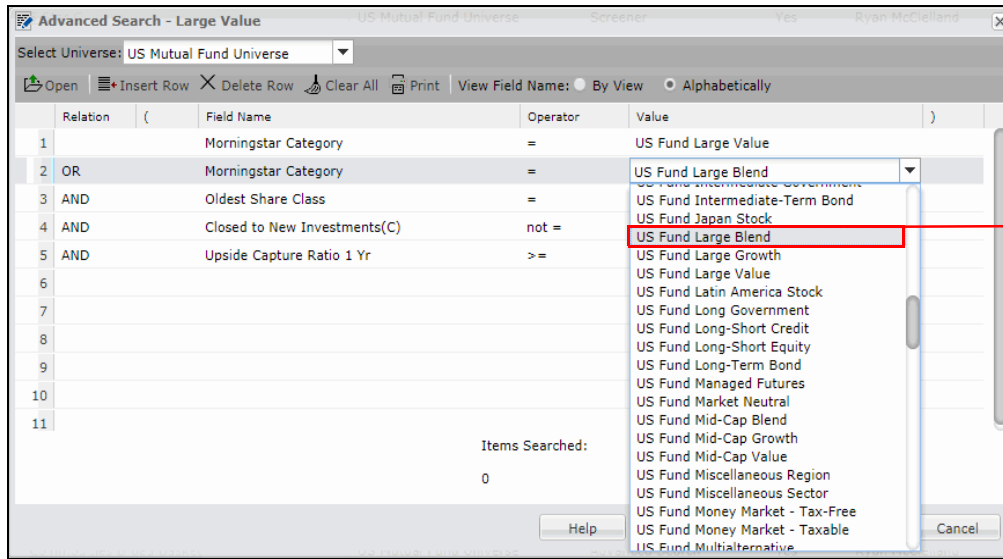
When a row is repeated, you need to change only the Value cell

9. Repeat steps 6–10 to insert another new row for **Large Growth** funds.
10. Click **Run Search**. The number of funds returned seems unexpectedly high. This
    indicates that you need to encapsulate the first three lines of the search in parentheses,
    to tell the system to consider them as one object. Otherwise, the system thinks you are
    looking for any Large Value fund, or any Large Growth fund, or the oldest share class of
    Large Blend funds still open to new investors with an upside capture ratio of at
   least 100%.
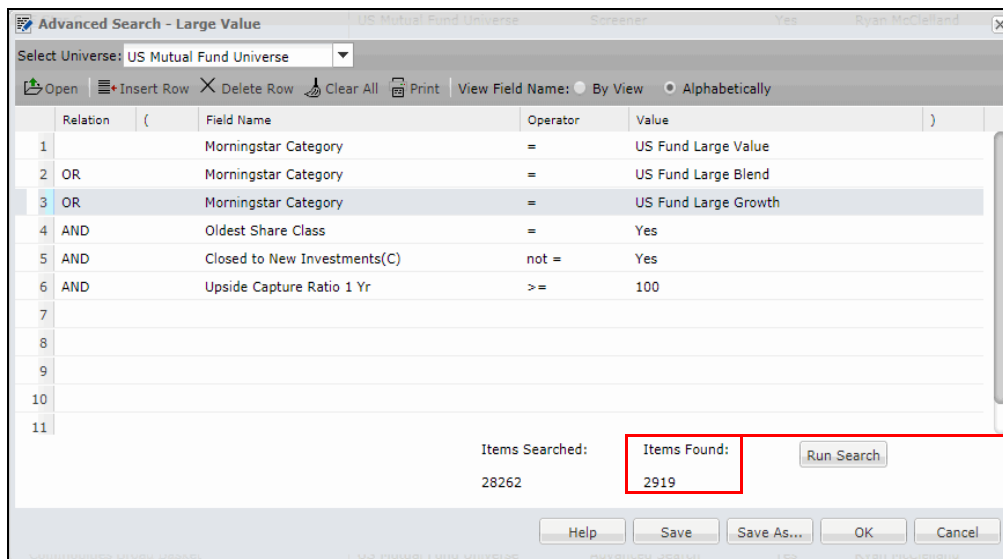
This number is far higher than what you should expect to see for what you are looking for

11. In the **(** cell of row 1, type **(**.
12. In the **)** cell of row 3, type **)**.

Note the inclusion of parentheses
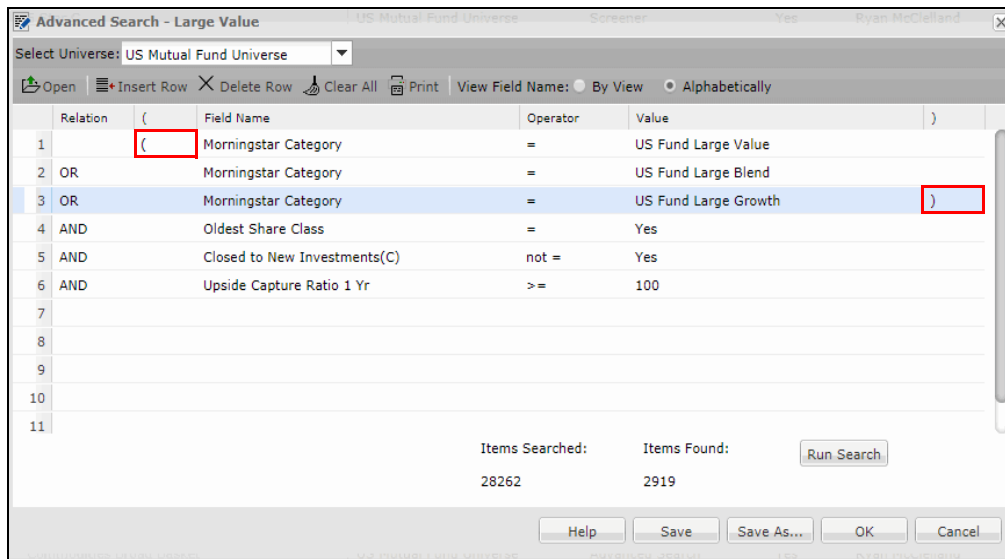
13. Click **Run Search**. Note the much lower number of funds returned.
14. Save this search as a new item. Click the **Save As** icon.
15. In the **Name** field, type **Open Large Cap Funds**.

Note the name for the new search
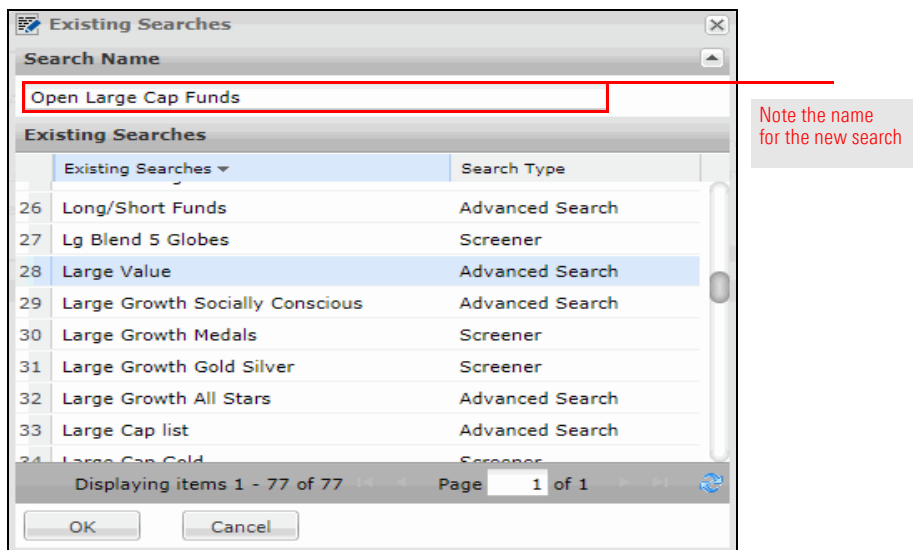
16. Click **OK** to close the Save As dialog box.
17. Click **OK** to close the Advanced Search window.

In the last exercise, you saw how to use a set of parentheses to encapsulate a single set of criteria. What if you need to look for two separate sets of data at once? For example, imagine you have been asked to find value-oriented funds with a P/E ratio of no more than 17, and growth-oriented funds that have a P/E ratio of at least 17? This type of search requires multiple instances of parentheses. To create two searches at once, do the following:

Exercise 11: Create two searches at once

1. From the left-hand navigation pane, click the **US Mutual Fund Universe** option under the **Research** folder.
2. Select Advanced Search, above the grid. The Advanced Search window opens.

3. **Create** a search with the following criteria:

☞ Note: Remember to use the **Repeat** option from the **Rel** column to avoid having to select the same field name multiple times. Selecting the **Alphabetically** button in the lower-left corner of the dialog box can help find the criteria more quickly.

Rel	(	Field Name	Operator	Value	)
--	(	Morningstar Category	=	U.S. -> Large Value	
Or		Morningstar Category	=	U.S. -> Mid-Cap Value	
Or		Morningstar Category	=	U.S. -> Small Value	)
And		P/E Ratio	<=	17	
Or	(	Morningstar Category	=	U.S. -> Large Growth	
Or		Morningstar Category	=	U.S. -> Mid-Cap Growth	
Or		Morningstar Category	=	U.S. -> Small Growth	)
And		P/E Ratio	>	17	
And		Oldest Share Class	=	Yes	
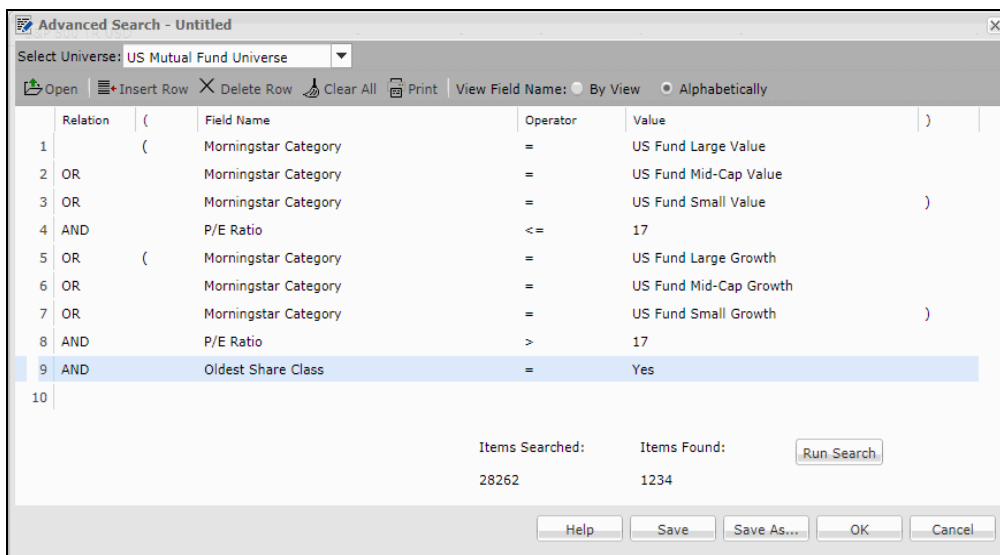
Your Advanced Search window should reflect this image

4. Click the **Run Search** button, to see how many funds match your search.
5. Click the **Save As** icon. The Save As dialog box opens.
6. In the **Name** field, type **Multiple Searches**.
7. Click **OK** to close the Save As dialog box.
8. Click **OK** to close the Advanced Search window.

☞ Note: In the search results (seen in the grid view), you can check your work by sorting on the Morningstar Category column (click once on a column's header to sort by that column), and also by examining the P/E Ratio statistic, which is available from the Equity Portfolio Analysis view.

An advanced search uses relationships (And, Or) between rows, and can also include the use of parentheses. When creating advanced searches, keep in mind the following additional notes:

► When you have the same Field Name for multiple consecutive rows, but a different Value, encapsulate the rows with parentheses, and use "Or" as the Rel(ationship) among them. In the row for the next criterion, remember to change the Rel column to "And."
► Selecting "Repeat" from the Relation column is an easy way to copy data from the row above, and saves you a few clicks from making a selection for every cell in a row.
► You can nest criteria in multiple levels through the proper use of both parentheses and the relationship between rows.
► You can insert rows in the Advanced Search window; remember that the inserted row appears above the row you have selected.

Final lessons on creating advanced searches

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