Portfolio Management is a workspace to create, analyze, and manage Model Portfolios, Custom Benchmarks, and Accounts. You can create account groups as a structured organization of accounts for easier account management as well as view your full list of securities in these accounts. Model Portfolios, Custom Benchmarks, and Accounts are commonly known as object types and they can be applied to the various product areas of Morningstar Direct. Once these object types have been created, you can also attach your Account to a Model Portfolio, and then attach your Model Portfolio to a Strategy — all in Portfolio Management.

You will notice the workflow logic is the same for each object type. The only difference is the section on Importing an Account using a Custodian Template. This chapter is broken down by the following sections:

Outline

- Portfolio Management Definitions
- User Preferences
- Manually Create a Model Portfolio, Custom Benchmark, or Account
- Import a Model Portfolio, Custom Benchmark, or an Account with Morningstar Templates
- Import an Account with Custodian Template
- Edit your Model Portfolio, Custom Benchmark, or Account
- Produce Portfolio Aggregation Report for a Model Portfolio, Custom Benchmark, or Account
- Apply Model Portfolios, Custom Benchmarks, and Accounts to Product Areas of Direct
- Utilize Additional Portfolio Management Features
### Portfolio Management Definitions

<table>
<thead>
<tr>
<th>Selection</th>
<th>Purpose</th>
<th>Import Returns</th>
<th>Import Holdings</th>
<th>Rebalancing Frequency</th>
<th>How are Returns Generated?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Strategies</td>
<td>An investment strategy is a set of rules and benchmarks, mandatory or investment policy, designed to guide the selection of investment portfolio for an investor. In Portfolio Management, “Strategies” allow users to create a strategy with data from Morningstar’s database, custom benchmarks or accounts. After these strategies are created, users can attach them to Model Portfolios in the “Model Portfolio Basics” window.</td>
<td>No</td>
<td>No</td>
<td>Yes</td>
<td>Selected Holdings</td>
</tr>
<tr>
<td>Model Portfolios</td>
<td>A model portfolio is a pre-constructed portfolio of investable securities that helps investors achieve their goals/targets, specific index profile and/or specific mandates dictated in an investment strategy. Formerly labeled “Aggregate.”</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Imported Returns CR Investments selected/imported (Morningstar Database)</td>
</tr>
<tr>
<td>Custom Benchmarks</td>
<td>A custom benchmark is a portfolio constructed of predefined indexes or market averages that appropriately compares and measures investment performance and risks of an account. Formerly labeled “Aggregate.”</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Imported Returns CR Investments selected/imported (Morningstar Database)</td>
</tr>
<tr>
<td>Accounts</td>
<td>An account is an investment account where an investor holds the securities. An account is associated with a model portfolio then that account is subject to the computed and maintained model portfolio under the strategy the model portfolio is trying to achieve. Accounts will retain the “X-Ray” feature. Formerly labeled “Portfolio Account.”</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Imported Returns CR Investments selected/imported (Morningstar Database)</td>
</tr>
<tr>
<td>Account Group</td>
<td>An account group is the grouping of accounts with similar attributes for analysis as a whole. It could be accounts that are associated with the same model portfolio, accounts grouped together with the same investment strategy, or accounts that belong to the same household or entity. In Portfolio Management, “Account Groups” allow users to create custom groups for Strategies, Model Portfolios and Accounts.</td>
<td>No</td>
<td>No</td>
<td>Yes</td>
<td>Returns are NOT Calculated for Account Groups</td>
</tr>
<tr>
<td>Securities Invested</td>
<td>Full list of securities included in all Accounts, Custom Benchmarks and Model Portfolios.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Saved Reports</td>
<td>List of all reports saved within Morningstar Direct. Same functionality as the “Saved Reports” feature in workspace.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
User Preferences

Before you begin to use Portfolio Management, set your user preferences for importing components and calculating performance.

1. Go to File and select Set User Preferences.

2. Go to the Portfolio Management tab and click on the Missing Security drop down. Go to “Performance calculation Default Return Types” section and let’s turn our attention to Missing Security. There are four options regarding the treatment of securities with missing returns:

   **Missing Returns**: the default setting; the performance for the entire import will not be calculated.

   **Based on Security’s Prices**: performance will be calculated based on the imported price.

   **Rescale Weights**: the security is removed from the performance calculation and the weights for the remaining securities are rescaled.

   **Zero Return**: the missing period performance is set to zero.
3. Click on the Import tab. Go to Price Source to select your default price source for imported security performance calculations. Next, select your settings for Exchange and Currency Filter. These settings are applicable for imports using both Morningstar Templates and Custodian Templates.
4. Let’s continue and select your Account Automated Import Settings. This is only applicable to Custodian Templates. Once complete, click OK.
Manually Create a Model Portfolio, Custom Benchmark, or Account

In Portfolio Management, you can create Model Portfolios (hypothetical), Custom Benchmarks (hypothetical), or Accounts (actual portfolios). Examples include model fund-of-funds, blended benchmarks, private strategies or client accounts. You can create these object types by importing holdings/returns or by manually creating them either through an investment list or building your portfolio through the Holdings Entry window as we will demonstrate shortly. In this chapter, we use the Model Portfolio as our example to build a portfolio using the Holdings Entry window. The same workflow logic would apply to Custom Benchmarks and Accounts except that the workflow would take place in the Custom Benchmark or Accounts folders.

1. In the Portfolio Management folder, go to Model Portfolios and click New.
2. You will be taken to the Model Portfolio window to enter the general settings for the new model portfolio. Begin by entering a Name and work your way down the page.

Notice the Combined Series option. Here you can choose to add or subtract series, using the result as the performance figure.

3. If the portfolio is not a combined series, select No.
5. Click on the **Rebalancing Frequency** drop down where you can select from the various rebalancing choices. The default frequency is monthly. Based on your selection, you can also choose to rebalance based on the calendar period end or the rolling period end based on the portfolio date.

*The fee that is defined under Management fee % is applied evenly to each day within the frequency selected.*
6. Go to **Performance Calculation Start Date**. The default option is Earliest Common, meaning the portfolio begins its calculation on the earliest common date of the holdings.
7. Go to Attached Strategy if you would like to attach your model portfolio to a Strategy. See section “Utilize Additional Portfolio Management Features” for more detail. Click Save when complete.
8. You will be taken to the Holdings Entry view where you can enter stocks/funds, fixed income instruments, and cash—all must total to 100%. For this exercise, remain on the Stock/Fund tab. Go to row 1 and click on the magnifying glass. You can also enter investments by clicking +Add.
9. You will be taken to the Add Holdings window to search for investments or retrieve securities from an existing investment list. Go to My Lists and locate a list to populate the model portfolio. Once you have added the selected names to the Selected Records box, click OK.
10. Back in your Holdings Entry view, you will see that your investments have been added. You can choose to allocate the weight of the holdings based on the number of shares, market value, or % of assets by clicking the Enter By drop down. Select Equal Weight to distribute the percentage equally.

11. Notice that the Position as of date automatically changed from the previous month-end to the earliest common date. Click Finish to complete.
12. Your newly created Model Portfolio will be stored in the Model Portfolio folder under Portfolio Management.
Import a Model Portfolio, Custom Benchmark, or an Account with Morningstar Templates

In this section, you will learn how to import holdings and returns data into an Account using Morningstar Templates. The same workflow logic would apply to a Model Portfolios or a Custom Benchmark—the difference is that the import workflow would take place in the Model Portfolio folder or the Custom Benchmarks folder.

This section is broken into two parts:

(A) Import Portfolio Holdings
(B) Import Portfolio Returns (Import Account Level Performance)

(A) Import Portfolio Holdings

When using the Morningstar Template to import holdings, your files must contain the following columns: Portfolio Date, Portfolio Identifier, Portfolio Name, Holding Identifier, Holding Description, Market Value (alternatively shares, price, or weight), Coupon Rate (if applicable), and Maturity Date (if applicable). The supported file type is Excel. Unique portfolios and multiple portfolio dates can be imported in the same file.

1. To begin the import process, go to the Portfolio Management folder. Next, go to the Accounts folder and click Import.
2. You are taken to the first import window. Double-click *Account Holdings* in the first row to be taken to the second import window.

3. *Browse* for your import file. If necessary, modify the settings for the date format, security ID type, and weight format. If the sequence of the data in the import file does not correspond to the default set-ups, click on the *column drop down* to adjust the sequence. Required fields are highlighted in green. Once complete, click *OK*. 
4. In the Portfolio folder, there are 4 subfolders. When you import a series for the first time, it will fall in the New Portfolios subfolder within the Portfolios folder. “0/1” indicates that one portfolio was imported. When you update the imported data thereafter, you will see that your new portfolio will then be placed in the Existing Portfolio folder.

5. The Positions folder will list all of your positions in your import. Go to the Price folder to identify if any security did not match the security map. 0/0 means all securities matched. 1/0, for example, would mean that one security did not match. If necessary, go to the Securities folder to match your unidentified securities to the security map. For example, should you see a red icon, certain securities did not map to the Morningstar or imported databases.
Morningstar® Direct™ Portfolio Management

6. Click Save. If you are ready to view your portfolio in Direct, click Post.

7. You will see the first import window. Close this view.

8. Your imported holdings will be maintained in the Accounts folder.
(B) Import Portfolio Returns (Import Account Level Performance)

When importing returns for Model Portfolios, Custom Benchmarks, and Accounts, you can either link them to your imported holdings or create a new unique custom security. In order to link the imported return series to the imported holdings, the portfolio ids of each must match one another. Also, the Import Return file must contain the following columns: date (in text format), portfolio id, portfolio name, and performance. Imported returns may be daily, monthly or quarterly returns.

In this section, you will learn how to import return data into an Account using Morningstar Templates. The same workflow logic would apply to a Model Portfolio or a Custom Benchmark—the difference is that the import workflow would take place in the Model Portfolio folder or the Custom Benchmarks folder.

1. To begin the import process, go to the Portfolio Management folder. Next, go to the Accounts folder and click Import.

2. Double-click Account Return Series to be taken to the second import window.
3. Browse for the file name. If necessary, modify the Date Format, Return Type, and Return Frequency.
4. Use the **Start Date** and **End Date** drop downs to set your dates.

![Image of the import window](image)

- **Start Date**: 04/01/2012
- **End Date**: 05/01/2012

Select the date format (MM/YY), return type (Net Return), and header row. Ensure the 'Positional' option is selected for portfolio data type and choose the return frequency (Monthly).

Available Templates:

<table>
<thead>
<tr>
<th>Column Code</th>
<th>Column No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Date</td>
<td>Column A (Date)</td>
</tr>
<tr>
<td>Portfolio Id</td>
<td>Column B (Portfolio ID)</td>
</tr>
<tr>
<td>Portfolio Name</td>
<td>Column C (Portfolio Name)</td>
</tr>
<tr>
<td>Performance (%)</td>
<td>Column D (Return)</td>
</tr>
</tbody>
</table>
5. Go to the *Column No.* to align the column code with those in your spreadsheet. Click OK.
6. When you import a series for the first time, it is placed in the New Portfolios folder. “0/1” indicates that one portfolio was imported. When you update the imported data thereafter, this portfolio will be placed in the Existing Portfolio folder. Click Save.

7. Click Post to save your returns as an Account.

8. Click OK.
9. You will be taken back to the first import window. Close this view.

10. To view your returns, go to the Accounts folder and double-click your file.

11. Go to Imported Price/Return folder and click on Return Series. Here, you will see your imported returns. Click on Edit Performance to update your returns or edit existing performance.
12. Once you have updated your data, click Save + Close.

Import an Account with Custodian Template

When using a Custodian Template, it is not necessary to follow the required format used in the Morningstar Template. Instead, Morningstar can create a Custodian Template specific to your custodian or accounting system format. Once complete, your imports can be automated by scheduling imports to retrieve your client data from the Morningstar FTP site or a 3rd party FTP site.

1. Once Morningstar has produced a custodian template, go to File, Set User Preferences.
2. Go to the *Import* tab to select the *Default Price Source* for imported security performance calculations. In this same location, you can also set default settings for rebalancing and performance calculation start date.

3. Set your security matching filters. Morningstar will attempt to map your imported securities to Morningstar-tracked securities but you can also configure the security and currency matching process. The logic is to first map the securities to the *Exchange Filter* and then use the *Currency Filter*. For example, select the order of the exchanges of which your securities trade. Apply the same rule to the currency filter.
4. Set your Account Automated Import Settings. Click OK to proceed with the import process.

5. Next, go back to the Portfolio Management folder, select the Accounts folder, and click Import.
6. Double-click on Account Holdings (Custodian & Accounting Template).

7. Browse for the file name. This file needs to be in text format. Next, locate the Custodian Accounting Template and click OK to import your data.
8. You can save your imported data to make any modifications or you can post your imported data. Click Post and your imported holdings will now be maintained in the Accounts folder for further analysis.

**Edit your Model Portfolio, Custom Benchmark, or Account**

In this exercise, we will begin with an existing Model Portfolio and learn to add a new asset mix to the existing portfolio. The same workflow logic would apply to an Account or a Custom Benchmark—the difference is that the import workflow would take place in the Model Portfolio folder or the Custom Benchmarks folder.

1. Double-click on an existing Model Portfolio. You will be taken to the Model Portfolio window where you can view your general settings, modify your holdings or return series, and add new portfolios. To add a new portfolio, click **Holdings Summary**.
2. In the Holdings Summary view, you will see one portfolio date listed based on our settings (Common Date). Go to Edit and click New Portfolio to add additional portfolios. Note that you can also edit or remove an existing portfolio.

3. Input the New Portfolio Date of your new allocation. Note that you can modify the constituents from an existing portfolio by retaining the shares or by retaining the weights. Click on Retain Shares.
4. If you have more than one allocation for your portfolio, then you will see additional date choices in the bottom date drop down when modifying constituents from an existing portfolio. Once complete, click OK.

5. Proceed by modifying the weights in your allocation to reflect the new portfolio date. You can also add additional investments to your portfolio by clicking on the magnifying glass. Once you have completed your new allocation, click Finish.
6. In your Model Portfolio view, you will now see two dates in the Portfolio drop down.

7. Close your view and you will be taken back to the Model Portfolio grid view. Once additions have been completed, portfolios are automatically saved and updated over time.
Produce a Portfolio Aggregation Report for a Model Portfolio, Account, or Custom Benchmark

Once you have created a Model Portfolio, Account or Custom Benchmark, you can produce a Portfolio Aggregation report to analyze your results. In this chapter, we use the Model Portfolio to demonstrate how to create this report. The same workflow logic would apply to an Account or a Custom Benchmark—the difference is that the import workflow would take place in the Accounts folder or the Custom Benchmarks folder.

1. Go to your model portfolio and right-click to activate report options. Click on Portfolio Aggregation.

2. You will be taken to the Report Settings window to modify your settings. Once complete, click OK.
3. You've successfully created a Portfolio Aggregation report. If you save this report, it will be stored in the Saved Reports folder in Workspace. You can also email it to a colleague.
Apply Model Portfolios, Custom Benchmarks, and Accounts to Product Areas of Direct

Once you have created a Model Portfolio, Custom Benchmark, or Account, you can apply it to the product areas of Direct – Equity Attribution, Total Portfolio Attribution, Performance Reporting, Presentation Studio, and Asset Allocation. For more details on the product areas, please refer to their individual chapters. Below are output examples:

Presentation Studio:
Equity Attribution:

**Model Portfolio**

**Portfolio Attribution Security Selection Effects 10/1/2010 to 12/31/2010**

<table>
<thead>
<tr>
<th>Sector</th>
<th>GICS Sector</th>
<th>Weight</th>
<th>Return</th>
<th>Effect</th>
</tr>
</thead>
<tbody>
<tr>
<td>Best Selections</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ford Motor Company</td>
<td>Consumer Discretionary</td>
<td>0.16</td>
<td>25.37</td>
<td>0.30</td>
</tr>
<tr>
<td>Franklin Natural Resources</td>
<td>Materials</td>
<td>0.15</td>
<td>22.18</td>
<td>0.22</td>
</tr>
<tr>
<td>Total Resources Ltd</td>
<td>Materials</td>
<td>0.07</td>
<td>22.37</td>
<td>0.21</td>
</tr>
<tr>
<td>Southern Copper Corporation</td>
<td>Materials</td>
<td>0.02</td>
<td>25.96</td>
<td>0.16</td>
</tr>
<tr>
<td>Becton Dickinson &amp; Co.</td>
<td>Consumer Discretionary</td>
<td>0.08</td>
<td>23.71</td>
<td>0.15</td>
</tr>
<tr>
<td>Moog Inc.</td>
<td>Consumer Discretionary</td>
<td>0.04</td>
<td>23.63</td>
<td>0.13</td>
</tr>
<tr>
<td>C.H. Robinson Worldwide Inc.</td>
<td>Transportation</td>
<td>0.03</td>
<td>23.59</td>
<td>0.13</td>
</tr>
<tr>
<td>Worst Selections</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hewlett-Packard Company</td>
<td>Information Technology</td>
<td>1.58</td>
<td>-11.40</td>
<td>-2.19</td>
</tr>
<tr>
<td>First Solar, Inc.</td>
<td>Consumer Discretionary</td>
<td>0.75</td>
<td>-23.29</td>
<td>-0.10</td>
</tr>
<tr>
<td>OSI Telecommunications Inc.</td>
<td>Information Technology</td>
<td>0.62</td>
<td>-17.61</td>
<td>-0.51</td>
</tr>
<tr>
<td>Comcast Corporation</td>
<td>Consumer Discretionary</td>
<td>1.13</td>
<td>8.37</td>
<td>0.00</td>
</tr>
<tr>
<td>Southwest Airlines Co.</td>
<td>Industrials</td>
<td>0.05</td>
<td>-14.30</td>
<td>-0.00</td>
</tr>
<tr>
<td>Bank of America Corporation</td>
<td>Financials</td>
<td>0.57</td>
<td>-14.61</td>
<td>-0.05</td>
</tr>
<tr>
<td>Coats Industries Inc.</td>
<td>Consumer Discretionary</td>
<td>0.31</td>
<td>-24.09</td>
<td>-0.00</td>
</tr>
<tr>
<td>Expeditors International Corp.</td>
<td>Consumer Discretionary</td>
<td>0.27</td>
<td>-24.68</td>
<td>-0.06</td>
</tr>
</tbody>
</table>

**Total Portfolio Attribution:**

**Model Portfolio (Custom Classifications)**

**Cumulative Attribution Effects 4/1/2010 to 12/31/2010**

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Utilize Additional Portfolio Management Features

Once you have created Model Portfolios, Custom Benchmarks, or Accounts, you can utilize the other functions in Portfolio Management. As this area continues to grow, you can utilize the available features. For example, attach your account to a model portfolio and/or attach your model portfolio to an investment strategy. Organize the object types affiliated with the same client or those which have similar characteristics by using the Account Group feature. Create additional analysis through charts, reports, and performance attribution. Let’s begin and first create a strategy.

1. Go to Strategies and click New.
2. Fill in the necessary fields such as Strategy Name, Benchmark, Description, Proxy, and Allocation. Once you have assigned a date to the portfolio, you can continue to add more dates by clicking Add Portfolio. When complete, click OK.
3. You have successfully created a strategy. To attach a model portfolio to the strategy, click **Tools**.

4. The Tools drop down includes many Direct functionalities, including **File Conversion** should you want to change the object type from one choice to another (i.e. Model Portfolio to Account or vice versa). Select **Object Attribute Assignments**.
5. On the left pane, Strategy and the three object types are listed. Click on Model Portfolio.

![Image of the left pane showing Strategy and object types]

6. After you select a Model Portfolio, scroll to the far right, and click on the magnifying glass.

![Image of the right pane with the magnifying glass highlighted]
7. You will be taken to the Strategy Window. Select a strategy and click OK.

<table>
<thead>
<tr>
<th>Strategy</th>
</tr>
</thead>
<tbody>
<tr>
<td>Within</td>
</tr>
<tr>
<td>Strategies</td>
</tr>
<tr>
<td>Find By</td>
</tr>
<tr>
<td>Name</td>
</tr>
<tr>
<td>Begins with</td>
</tr>
<tr>
<td>Contains</td>
</tr>
<tr>
<td>global</td>
</tr>
<tr>
<td>Go</td>
</tr>
</tbody>
</table>

**Available records**

Total records: 1

Jump to record name: global

<table>
<thead>
<tr>
<th>Global Strategy</th>
</tr>
</thead>
</table>

OK  Cancel
8. You have successfully attached a model portfolio to a strategy.

9. As a reminder, you can also attach your model portfolio to your strategy from the General Settings view.
10. Go back to Object Attribute Assignments pane. Click on Account and you will see that you can attach your accounts to model portfolios.

11. As a reminder, you can also attach your account to your model portfolio from the General Settings view.
12. Go back to *Object Attribute Assignments* pane and click on *Benchmark* to make any modifications.

13. Click on *Action* where you can easily edit your object type or make any other modifications. These options under *Action* are also available in the Account and Model Portfolio view.
14. Once you have applied the necessary object attributes, you can further analyze your data through the *Action* command in the main view. For example, select from the various choices such as Holdings, Reports, Charts, X-Ray, Performance Attribution (single and multiple portfolios), and Portfolio Analysis. You can also send or share your information with colleagues.
15. Let’s continue and discuss the other features. Go to Account Groups where you can organize those accounts and model portfolios that have the same characteristics or those belonging to the same client.
16. Go to *Securities Invested* to view all the securities in your model portfolios, accounts, and custom benchmarks.