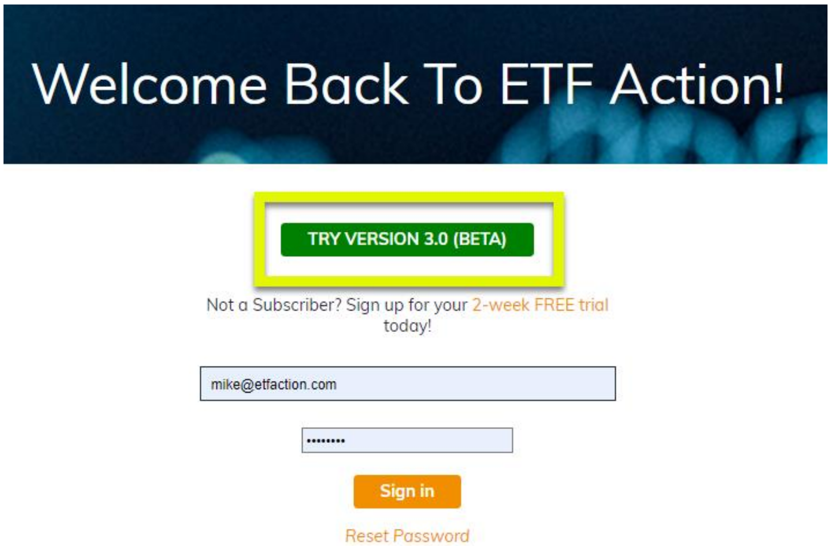
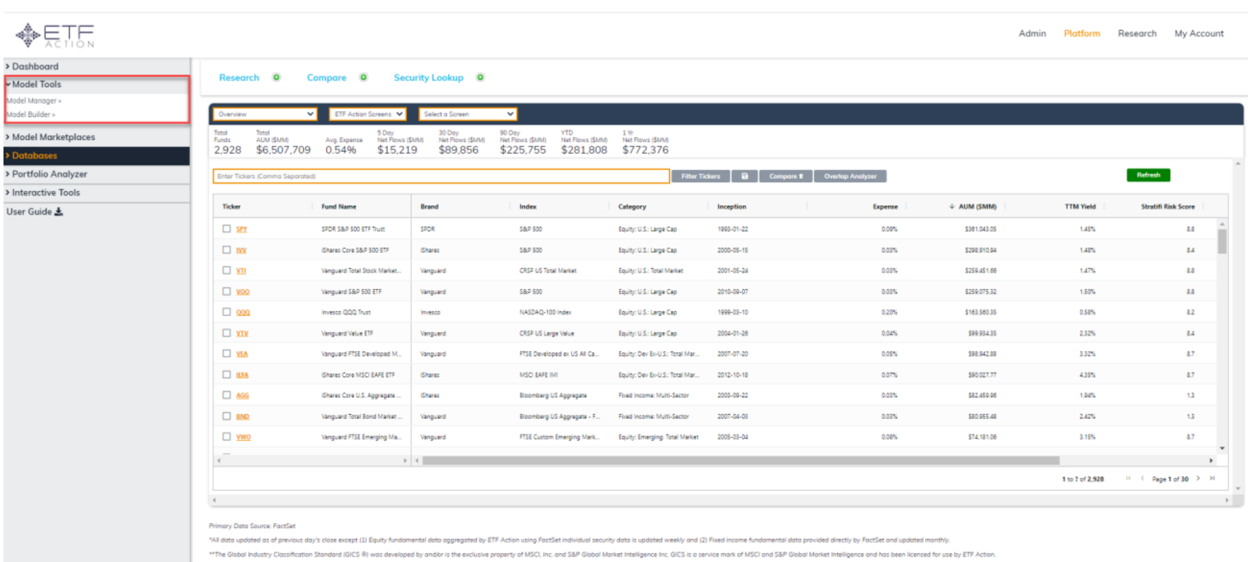
<u>**Model Builder – Model Upload Guide**</u>

Please see below for a step-by-step guide on the Model Building process:

To access the significant upgrades and functionality of the ETF Action platform, please login through the 3.0 Beta site on the login screen.

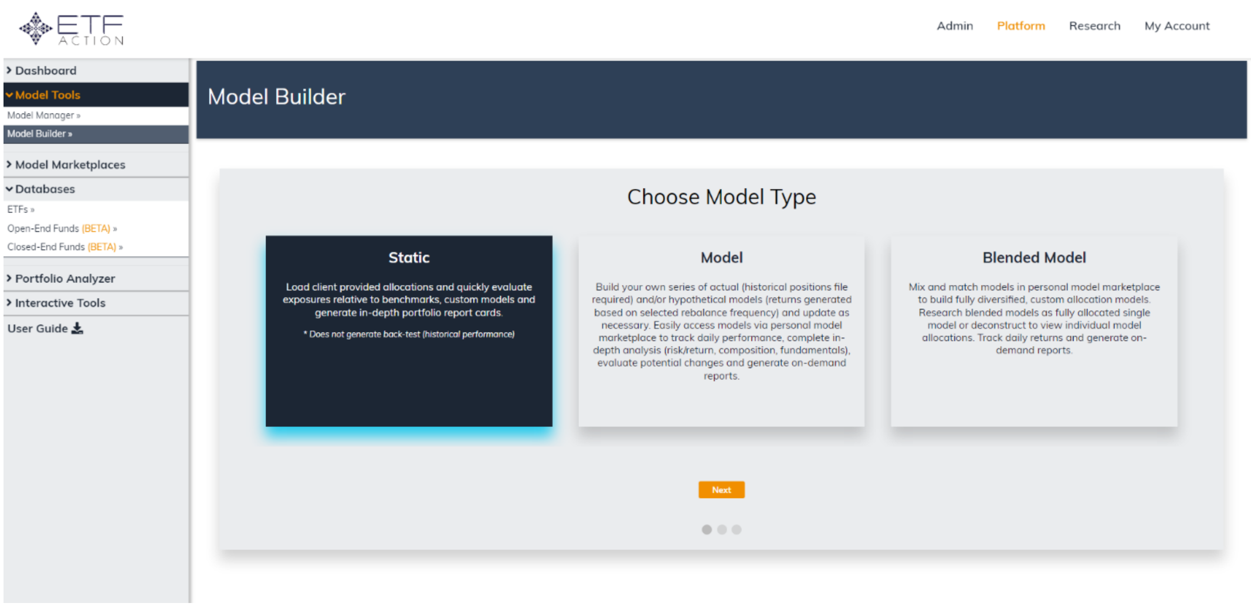


Once logged onto the Beta site, click the Model Tools drop down on the left side panel to access the Model Builder and Model Manager tools.

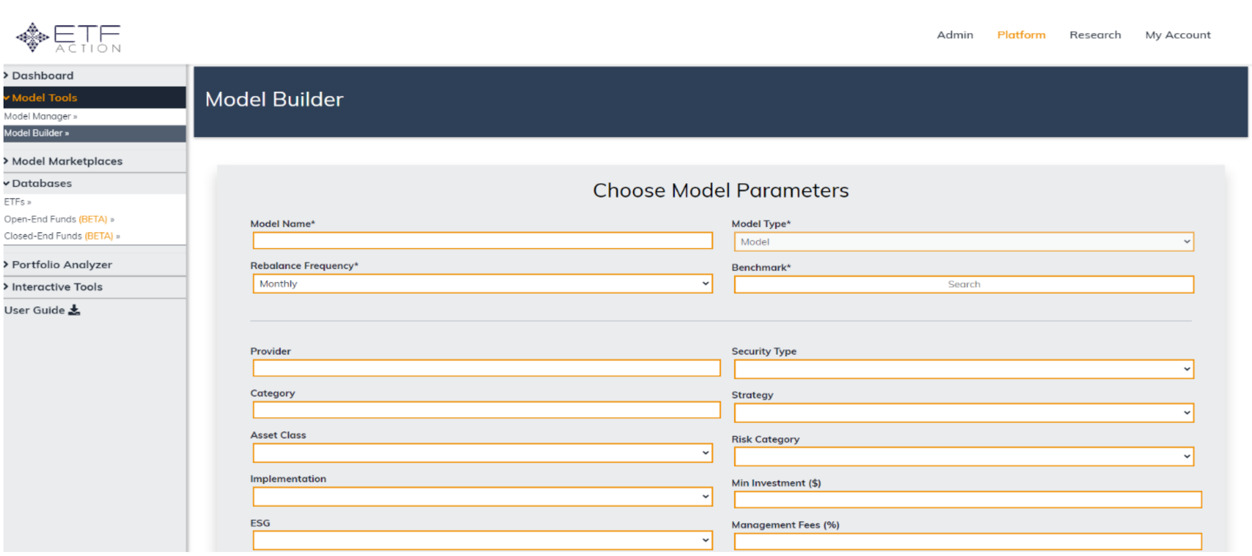


To build a new model, click Model Builder. There are three types of models you can build:

1) Static Models are used to evaluate exposures and composition relative to other models and benchmarks. Importantly, Static models do not generate performance/ risk metrics
2) Model is the most used type which can hold ETFs, mutual funds, stocks, or cash. This type of model can be backtested with custom baskets or on a set frequency (daily, monthly, quarterly, annually). You can track daily performance, complete in-depth analysis (risk/return, composition, fundamentals), evaluate potential changes, and generate on-demand reports
3) Blended Model can hold individual models and cash and currently supports constant rebalancing (daily)



After selecting your model type, you need to populate the model settings. Model Name, Model Type, Rebalance Frequency and Benchmark are all required fields. Benchmarks can be ETFs, Mutual Funds, or other models. Click Next after filling in your desired settings.



Next, you need to compile model data (As of Date, Ticker, and Weight of Security) and either enter in manually or upload in csv format with the below headers. Any warning or error messages will be displayed in the table for troubleshooting reference. Common errors include:

a. Ticker is incorrect or does not exist
b. For US domiciled individual equity securities, remove the “-US” from tickers. For example, use AAPL instead of AAPL-US
c. Weight should be formatted as a general number format. For example, 25% of the portfolio would be 25. Ensure the weights for a specific date add up to 100
d. File is not .csv format

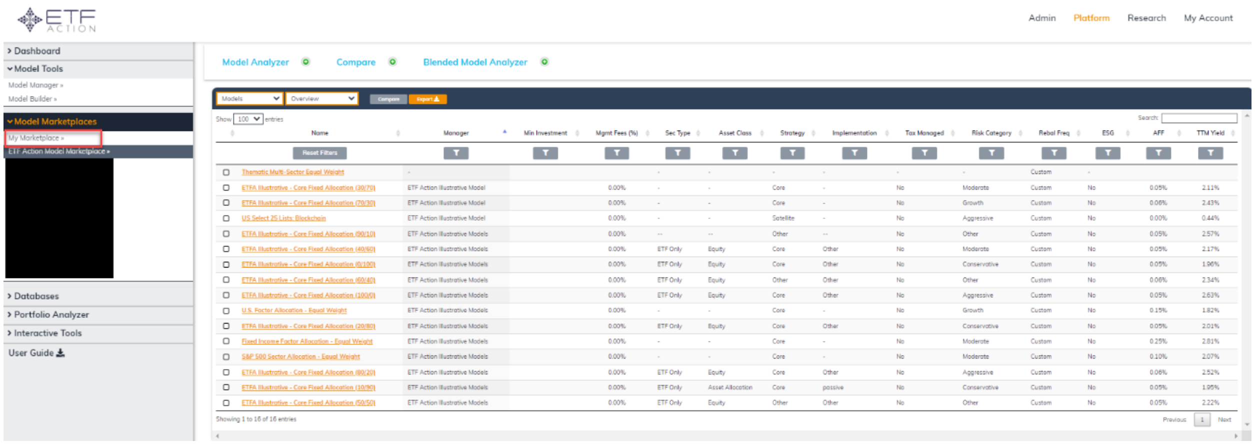
Please note: Money Market mutual funds must be replaced with our cash security at this time (CASH_X)

For Cash positions, please use CASH_X for the ticker.

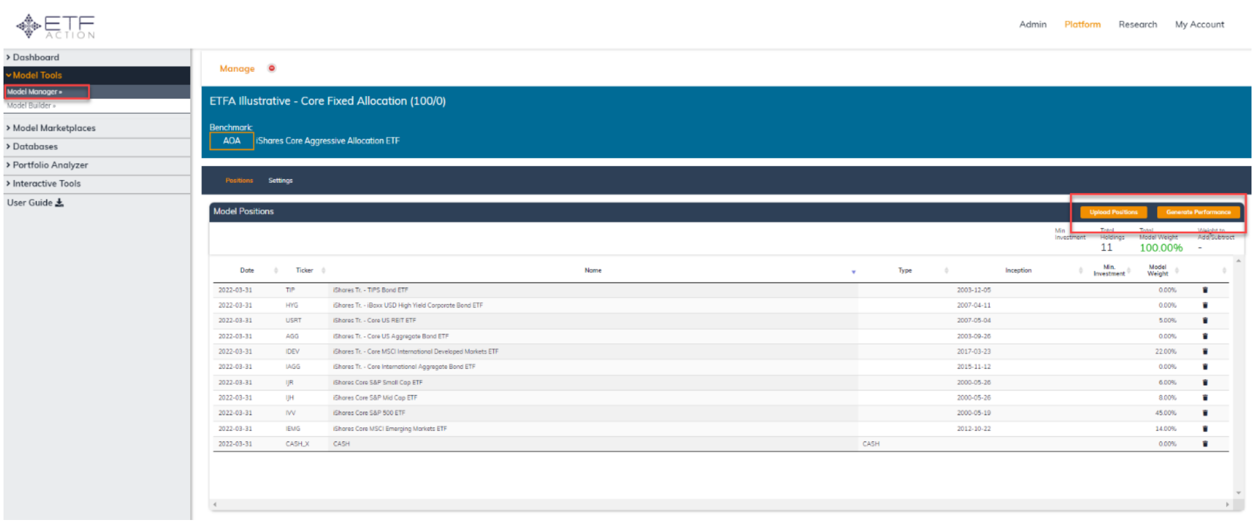
Please see below for the required format of the CSV file if you choose that route. A sample CSV file with the format for reference (Model_Holdings_Upload_Template Build.csv) is also available on the Model Builder page.

	A	B	C	D	E
1	ticker	as_date	weight		
2	AAPL	yyyy-mm-dd	50		
3	QQQ	yyyy-mm-dd	50		
4					
5					
6					
7					
8					

After your holdings have been uploaded press Submit and your model will be created, and performance will be run automatically. You will be able to view your Model by accessing My Marketplace under the Model Marketplaces dropdown.

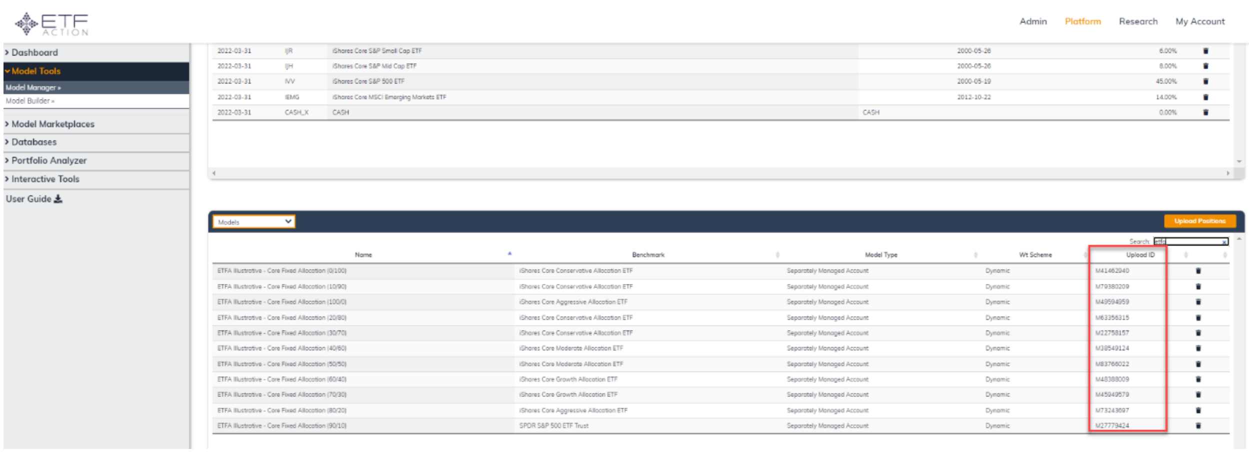


To edit your Model, click on the Model Manager under the Model Tools dropdown. Here, you can edit settings as well as update positions.



To update positions, upload a CSV file with the below format. A sample file with the format for reference (Model_Holdings_Upload_Template Update.csv) is also available on the Model Builder page. The only difference in the two formats is including the Model ID in the far-left column for each holding. The Model ID can be found on the right side of the Model Manager page.

	A	B	C	D
1	model_id	as_date	ticker	weight
2	<Your Model ID Here>	yyyy-mm-	AAPL	50
3	<Your Model ID Here>	yyyy-mm-	QQQ	50
4				
5				
6				



Once your CSV is ready, click the orange Upload Positions button on the top right side of the Model Manager page. Select your CSV file and press Upload. To view the updated holdings, please refresh your page. Importantly, performance will need to be run again for the updated positions to be reflected. To regenerate performance, click the orange Generate Performance button on the top right side of the Model Manager page. Once performance has been run (usually about 30 seconds), you will receive an email confirming it has run successfully.