

PortfolioAnalyst User Guide

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Getting Started

Welcome to PortfolioAnalyst, our online performance analysis and reporting tool. Use PortfolioAnalyst to evaluate the performance of your portfolio by creating and saving reports based on a set of measurement criteria and optionally comparing their data to selected industry benchmarks. You can also view the performance of your accounts held at any financial institution, including Interactive Brokers (if you have an IBKR account), and investment and non-investment accounts. Then drill down to see accounts, asset classes, positions and transactions.

PortfolioAnalyst	80
Home Reports Portfolio Checkup Fund Parser ESG Education Center	
Account Net Asset Value (NAV)	ର ଡ
70 MTD 1M YTD 1Y INCEPTION CUSTOM	View by: Financial Instrument
	Account Financial Instrument

Navigate Between Screens

PortfolioAnalyst provides breadcrumb links above the account performance chart to help you navigate between screens.

You can return to the previous screen at any time by clicking the screen name displayed in the breadcrumbs.

For example, the following screen shows transactions for a specific options contract. The circled portion of the screen below shows the breadcrumbs, which depicts the path taken to get to this screen. In this example, we started at the PortfolioAnalyst Summary screen (Summary), then viewed Brokers (by Account), which showed consolidated performance of all brokerage accounts, then viewed performance of a single IBKR account, and then drilled down to view the transactions for a specific options contract.

Custom Reports and Add-Ons				
Summary / Custom Reports and Add-Ons				
Custom Repor	ts			
	YTD Detailed			

Account Selector

After you log in to PortfolioAnalyst, you will be prompted to select one or more accounts if you have one of the following:

- » Multiple linked accounts
- Account partitions
- » Multiple, managed accounts

Select accounts in the Account Selector, which displays the account ID and customer type of all of your IBKR accounts. On a desktop, the Account Selector slides in from the right side of the screen.

To view account balances and Net Asset Value for all of your IBKR accounts on one screen, select those accounts in the Account Selector.

ACCOUNT \$	ALIAS				
		- COSTOWER TIPE	ACCOUNT TITLE	E	STATUS
		Individual		ACCOUNT	Open
		Individual		ACCOUNT	Open
		Individual		Account	Open
		Individual		Account	Open
		Joint			Open
÷ 🗆 👘		Organization	Sec. Sec. 1	And and the other	Open
		Account Individual			Open
		Organization	Sec. No. 1	and the second second	Open
		Account Individual			Open
		Individual		Account	Open

Select an Account

1. To select an account, click on the Account Selector button to the right of PortfolioAnalyst.



Note: If the Account Selector button is disabled, then you do not have multiple accounts or partitions.

The Account Selector opens.

search account	s × Q			Ţ
ACCOU	NT ¢ ALIAS	CUSTOMER TYPE ACC	OUNT TITLE	STATUS
		Individual	ACCOUNT	Open
		Individual	ACCOUNT	Open
		Individual	Account	Open
		Individual	Account	Open
~		Joint		Open
1. D		Organization	These Decision (Rev.) The	Open
		Account Individual		Open
		Organization	The Distance Real Test	Open
		Account Individual		Open
		Individual	Account	Open

- 2. Click the check box that corresponds to the account(s) you want to use in PortfolioAnalyst. To choose a different account, click **Reset** to clear your selections.
- 3. Click Continue.

The PortfolioAnalyst Summary screen opens and displays data for the selected account(s).

Select a Different Account

If you have multiple accounts and have already logged in with one account, you can switch accounts easily using the Account Selector.

- 1. Click the Account Selector button to the right of PortfolioAnalyst.
- 2. Click the check box that corresponds to the account(s) you want to use in PortfolioAnalyst. To choose a different account, click **Reset** to clear your selections.
- 3. Click CONTINUE.

The PortfolioAnalyst Summary screen reloads and displays data for the selected account(s).

Search for Accounts

- 1. In the Account Selector, type part of the account title or customer type in the *search accounts* field, and then click the magnifying glass icon.
- 2. Click the X to clear the search field and the search results.

e (Q

Filter Accounts

1. In the Account Selector, click the filter icon located on the right, above the list of accounts.

Accounts		×
search accounts	×Q	Filter

2. Select one of the options to filter by:

a. Customer Type

		Ţ	\$
		FILTER RESULTS	
LE	~	Customer Type	•
ers		IRA	
-		Organization	
		Trust	
		Individual	
	>	Account Status	
		Reset Apply	

b. Account Status

	Ţ	\$
	FILTER RESULTS	
E	> Customer Type	•
S	✓ Account Status	
	Closed	
	Open 🗸	
	Reset Apply	

3. Click Apply.

The list of accounts updates to display your accounts that match the selected filter type.

Display Additional Account Information

By default, the Account Selector displays the account ID and customer type of all of your IBKR accounts, but you can display additional information such as account alias or account status.

- 1. In the Account Selector, click the gear icon located above the list of accounts (this is the last icon on the right).
- 2. Select the desired information you want to add to the list of accounts. For example, you might want to display your account title and account alias (if you have one).

		T
	COLUMNS	
s	Alias	~
	Customer Type	×
	Account Title	~
	Status	×
	Apply	

3. Click Apply.

The list of accounts updates and resizes to display the additional information that you selected.

Summary Screen Functions

Access the following functions from the top bar of any screen in PortfolioAnalyst:

- Home: The Home tab is a summary view of your account's Net Asset Value, Return percentage, Deposits/Withdrawals and much more. Search by symbol, asset description, etc. View by account type or asset class. Filter and customize your view.
- Reports: Create reports that evaluate the performance of your portfolio based on a set of measurement criteria and optionally compare their data to selected industry benchmarks.
- Portfolio Checkup: Get the health of your whole portfolio with a deep dive analysis of your holdings. Once populated with data about your brokers and financial institutions, the Portfolio Checkup tool will automatically break down positive and negative assets.
- Fund Parser: Analyze your ETF and mutual fund holdings with the Fund Parser.
- ESG: View your consolidated Environmental, Social and Governance (ESG) ratings of your portfolio.
- External Accounts: External accounts are accounts held at any financial institution. If you have an Interactive Brokers account, these are accounts held at institutions outside of IBKR.
- Education Center: The Education Center page provides quick links and access to help and documentation resources. The resources include the FAQ, Users' Guide, White Papers, Traders' Academy and Release Notes.

Manage Multiple Accounts

If you have or manage multiple accounts, you must first select one or more accounts in the Account Selector, which opens automatically when you first access PortfolioAnalyst. Open the Account Selector at any time to change your account selection by selecting the List icon in the upper right corner of the screen (next to your user name).

	 ALIAS 	CUSTOMER TYPE		
			ACCOUNT TITLE	STATUS
		Individual	ACCOUNT	Open
		Individual	ACCOUNT	Open
		Individual	Account	Open
	and the	Individual	Account	Open
 Image: A second s		Joint		Open
÷ 🗆 👘		Organization	But has been but he	Open
		Account Individual		Open
		Organization	Real Year Donate Real Year	Open
		Account Individual		Open
	1000	Individual	Account	Open

Portfolio Checkup

Get the real-time health of your entire portfolio with an in-depth analysis of your holdings. Portfolio Checkup provides a detailed snapshot of your assets by the following return, risk, and allocation sections:

- Return & Risk: Compare money-weighted or time-weighted return & risk measures to up to three benchmarks. over time. Time periods include: 7 days, month to date, 1 month, year to date, 1 year, inception, and custom. This section is complimented by a distribution of returns bar chart.
- Asset Class Distribution: View amount (NAV) and % (Weight) by asset class with long and short breakout. Expand to see the composition of each asset class by position.
- Geographic Distribution: View amount (NAV) and % (Weight) by region with long and short breakout. Expand to see the composition of each region by position.
- Sector Distribution: View amount (NAV) and % (Weight) by sector with long and short breakout. Expand to see the composition of each sector by position.

Changing your view

Quickly toggle between Time-Weighted Return (TWR) or Monthly-Weighted Return (MWR), view or hide the Benchmark chart and table of accounts.

View Time-Weighted Return (TWR) - TWR measures the percent return produced over time independent of contributions or withdrawals. TWR eliminates the impact of the timing of inflows and outflows and isolates the portion of a portfolio's return that is attributable solely to the account's actions.



View Money Weighted Return (MWR) - MWR is used to measure performance during the specified report period. MWR is influenced by the time of decisions to contribute or to withdraw funds, as well as the decisions made by the portfolio manager of the fund.



>> View / Hide Chart - Click the "View/Hide Chart" icon to toggle between views.



>> View / Hide Table - Click the "View/Hide Table icon to toggle between views.



>> Configure layout - Click on the gear icon to configure the layout.

Selecte	ed			
8 R	eturn & Risk			≡
8 A	sset Class Distribution			=
<mark>8</mark> G	eographic Distribution			=
🙁 s	ector Distribution			=
dding Beng	chmarks			Save
5				
		Benchmarks:	Add	

Once you have made your selection, click "Save" to add the data to your account.

the

SYMBOLDESCRIPTIONCURACWIiShares MSCI ACWI IndexUSDACWViShares MSCI Global Min Vol Factor ETFUSDACWXiShares MSCI ACWI Ex US ETFUSDAFKVaneck Vectors Africa ETFUSDAGGiShares Barclays Aggregate BondUSDAIAiShares S&P Asia 50 IndexUSDAMLPAlerian MLP ETFUSD	earch	×Q	
ACWIiShares MSCI ACWI IndexUSDACWViShares MSCI Global Min Vol Factor ETFUSDACWXiShares MSCI ACWI Ex US ETFUSDAFKVaneck Vectors Africa ETFUSDAGGiShares Barclays Aggregate BondUSDAIAiShares S&P Asia 50 IndexUSDAMLPAlerian MLP ETFUSD	SYMBOL .	DESCRIPTION	¢ CUR €
ACWViShares MSCI Global Min Vol Factor ETFUSDACWXiShares MSCI ACWI Ex US ETFUSDAFKVaneck Vectors Africa ETFUSDAGGiShares Barclays Aggregate BondUSDAIAiShares S&P Asia 50 IndexUSDAMLPAlerian MLP ETFUSD	ACWI	iShares MSCI ACWI Index	USD
ACWXiShares MSCI ACWI Ex US ETFUSDAFKVaneck Vectors Africa ETFUSDAGGiShares Barclays Aggregate BondUSDAIAiShares S&P Asia 50 IndexUSDAMLPAlerian MLP ETFUSDAOAiShares Core Aggregative AllocationUSD	ACWV	iShares MSCI Global Min Vol Factor ETF	USD
AFKVaneck Vectors Africa ETFUSDAGGiShares Barclays Aggregate BondUSDAIAiShares S&P Asia 50 IndexUSDAMLPAlerian MLP ETFUSDAOAiShares Core Aggregative AllocationUSD	ACWX	iShares MSCI ACWI Ex US ETF	USD
AGGiShares Barclays Aggregate BondUSDAIAiShares S&P Asia 50 IndexUSDAMLPAlerian MLP ETFUSDAOAiShares Core Aggregative AllocationUSD	AFK	Vaneck Vectors Africa ETF	USD
AIA iShares S&P Asia 50 Index USD AMLP Alerian MLP ETF USD AOA iShares Core Aggressive Allegation USD	AGG	iShares Barclays Aggregate Bond	USD
AMLP Alerian MLP ETF USD	AIA	iShares S&P Asia 50 Index	USD
AOA iSharos Coro Aggrossivo Allocation	AMLP	Alerian MLP ETF	USD
AGA IShales Core Aggressive Allocation USD	AOA	iShares Core Aggressive Allocation	USD
AOK iShares Core Conservative Allocation USD	AOK	iShares Core Conservative Allocation	USD
AOM iShares Core Moderate Allocation USD	AOM	iShares Core Moderate Allocation	USD









TWR MWR 🖿 🖽 🏟

View the Portfolio Checkup Tool

1. Select the Portfolio Checkup tab.

7D MTD 1M YTD 1Y CUSTOM (2021-06-02 to 2021-06-08)









2. View the Return and Risk Measures of your account.

Return			G
		Vie	ew by: MWR TWR
	30-Days	1-Year	Since Inception
Portfolio Return	0.00	0.00	0.00
+ Add Benchmark			
SPX Change	0.00	0.00	0.00
Risk			G
Risk	30-Days	1-Year	G Since Inception
Risk Max Drawdown	30-Days 0.00	1-Year 0.00	Since Inception
Risk Max Drawdown Peak-to-Valley	30-Days 0.00 0.00	1-Year 0.00 0.00	Since Inception 0.00 0.00
Risk Max Drawdown Peak-to-Valley Sharpe Ratio	30-Days 0.00 0.00 0.00	1-Year 0.00 0.00 0.00	Since Inception 0.00 0.00 0.00

3. View the performance of your portfolio's asset classes listed NAV and Weight, and broken out by long and short holdings.



4. View the geographic location of your portfolio's holdings listed by NAV and weight.

Geographic Distribution		0
NAV: 0.00 Weight: 0.00%	NAV: 0.00 Weight: 0.00%	
	*	
EUROPE	AFRICA	
ASIA	OCEANIA	
OTHER NAV: 0.00 Weight: 0.00%		
Total NAV: 0.00	tal Weight: 0.00%	

5. View the sectors of your portfolio by NAV and Weight, broken out by long and short assets.



	Lor	ng	Sho	ort
	NAV	Weight	NAV	Weight
Basic Materials	0.00	0.00%	0.00	0.00%
Consumer Cyclicals	0.00	0.00%	0.00	0.00%
Consumer Non-Cyclicals	0.00	0.00%	0.00	0.00%
Energy	0.00	0.00%	0.00	0.00%
Financials	0.00	0.00%	0.00	0.00%
Healthcare	0.00	0.00%	0.00	0.00%
Industrials	0.00	0.00%	0.00	0.00%
Real Estate	0.00	0.00%	0.00	0.00%
Technology	0.00	0.00%	0.00	0.00%
Telecommunications Services	0.00	0.00%	0.00	0.00%
Utilities	0.00	0.00%	0.00	0.00%
Other	0.00	0.00%	0.00	0.00%
Total	0.00	0.00%	0.00	0.00%

Fund Parser

Analyze your ETF and mutual fund holdings with the Fund Parser.

- 1. Click the Fund Parser tab.
- 2. In the Fund Parser text box, enter an ETF or Mutual Fund and then click the Search icon.

Home	Reports	Portfolio Checkup	Fund Parser	Education Center	
				Fund Parser Search OVER 8,000 ETFs and Mutual Funds.	
				ETF or Mutual Fund 🗶 🔍	

The Fund Parser page opens.

3. View the Top 10 Holdings in your account (sorted by weight) or click **View All** to view all holdings in your account (displayed by weight in descending order).

Symbol	Description	Weight
IEX	IDEX CORP	0.68%
ZBRA	ZEBRA TECHNOLOGIES CORP-CL A	0.65%
STE	STERIS PLC	0.64%
DPZ	DOMINO'S PIZZA INC	0.64%
LDOS	LEIDOS HOLDINGS INC	0.61%
NVR	NVR INC	0.61%
FDS	FACTSET RESEARCH SYSTEMS INC	0.60%
МКТХ	MARKETAXESS HOLDINGS INC	0.60%
ULTI	ULTIMATE SOFTWARE GROUP INC	0.59%
TRMB	TRIMBLE INC	0.59%

- Region Allocation
 Image: Constraint of the second seco
- 4. View Region Allocation, which is based on percentage weight of your ETF and mutual funds.

 View sector allocation, which shows the sector breakdown of your ETF and mutual fund holdings. There are 13 available sectors.

Sector Allocation	0
	Weight
Financials	12.56%
Healthcare	14.04%
Technology	20.69%
Telecommunications Services	10.12%
Utilities	3.26%
Unclassified	0.35%
Energy	5.38%
Basic Materials	2.50%
Industrials	10.22%
Consumer Cyclicals	10.93%
Consumer Non-Cyclicals	6.94%
Real Estate	3.02%

6. View country allocation, the country breakout by percentage weight of your ETF and mutual funds. This is based on the position's currency.

Country Allocation	6
	Weight
Other	Weight 0.29%
OtherSwitzerland	Weight 0.29% 0.43%
 Other Switzerland United Kingdom 	Weight 0.29% 0.43% 0.88%
 Other Switzerland United Kingdom Bermuda 	Weight 0.29% 0.43% 0.88% 0.04%
 Other Switzerland United Kingdom Bermuda Ireland 	Weight 0.29% 0.43% 0.88% 0.04% 1.12%
 Other Switzerland United Kingdom Bermuda Ireland France 	Weight 0.29% 0.43% 0.43% 0.88% 0.04% 1.12% 0.15%
 Other Switzerland United Kingdom Bermuda Ireland France United States 	Weight 0.29% 0.29% 0.43% 0.43% 0.88% 0.04% 1.12% 0.15% 97.10%

7. View Financial Instrument Allocation by percentage weight of your ETF or Mutual Fund.

	0
	Weight
 Stocks 	Weight 99.96%
 Stocks Fund Cash 	Weight 99.96% 0.04%

Education Center

The Education Center page provides quick links and access to help and documentation resources. The resources include the FAQ, Users' Guide, White Papers, Traders' Academy and Release Notes.

- 1. Click the **Education Center** tab.
- 2. Click any of the documentation links to open documentation resources pertaining to Port-

folioAnalyst.



pa_externalaccounts

Delete this text and replace it with your own content.

External Accounts

The External Accounts tab lets you add accounts held at any financial institution to PortfolioAnalyst. You can add brokerage, bank and credit card accounts as well as other assets and liabilities and real estate values. Once you have added an account to PortfolioAnalyst, you can view the beginning and ending value of the account and drill down to see positions (in brokerage firms) and transactions. If you have added multiple brokerage accounts, you can drill down to a consolidated view of assets held at all of the accounts.

- 1. In PortfolioAnalyst, click the External Accounts tab.
- 2. To get started, choose from one of the popular institutions listed or search by typing the name of the institution you would like to add.
- 3. You will be required to read an *External Accounts Disclosure* for any of the options listed. Read the disclosure and click **CONTINUE**.
- **Note:** External accounts must be added at the client level then authorization can be provided for your Advisor or Broker to view. Click <u>here</u> for instructions granting client authorizations.

You can see your external account data on the PortfolioAnalyst Home tab. External account data is added real-time.



View, Edit and Delete External Accounts

The External Accounts screen shows all of the external accounts that you have added to PortfolioAnalyst. In addition to using this screen to <u>add new external accounts</u>, you can also edit an

existing external account and log in to the financial institution website for an existing account.

To add an additional External Account

- Click the ADD (+) icon in the upper right hand corner of the menu bar.
- The Add External Account panel will appear.
- Click the account type you would like to add and click CONTINUE.

To view and edit External Accounts

- Click the INFO (i) icon to the left of the external account to view account information and to add additional accounts of that type by clicking ADD MORE ACCOUNTS. Click the (x) icon to close the window.
- To the right of the external account, click UPLOAD HISTORICAL DATA (up arrow) icon to either upload historical data via CSV file or to enter data manually.
- Click the CONFIGURE(gear) icon to edit the account information or edit the account data.

To delete an individual account

Click the DELETE (x) icon to delete an individual external account. You will be presented with a warning message. Click YES to delete the account or NO to return to keep the account and return to the main page.

To delete ALL existing External Accounts

- Click the DELETE ALL (X) icon in the upper right hand corner of the menu bar.
- You will be presented with a warning message. Click YES to delete ALL linked external accounts, or CANCEL to keep all the accounts and go back to the main page.

To refresh Fiserv accounts

If you have an account under Fiserv click the REFRESH icon on the right side of the account of your choice to refresh the connection to Fiserv.

View, Edit and Delete External Accounts

The External Accounts screen shows all of the external accounts that you have added to PortfolioAnalyst. In addition to using this screen to <u>add new external accounts</u>, you can also edit an existing external account and log in to the financial institution website for an existing account.

To add an additional External Account

- Click the ADD (+) icon in the upper right hand corner of the menu bar.
- >>> The Add External Account panel will appear.
- Click the account type you would like to add and click CONTINUE.

To view and edit External Accounts

- Click the INFO (i) icon to the left of the external account to view account information and to add additional accounts of that type by clicking ADD MORE ACCOUNTS. Click the (x) icon to close the window.
- To the right of the external account, click UPLOAD HISTORICAL DATA (up arrow) icon to either upload historical data via CSV file or to enter data manually.
- Click the CONFIGURE(gear) icon to edit the account information or edit the account data.

To delete an individual account

Click the DELETE (x) icon to delete an individual external account. You will be presented with a warning message. Click YES to delete the account or NO to return to keep the account and return to the main page.

To delete ALL existing External Accounts

- Click the DELETE ALL (X) icon in the upper right hand corner of the menu bar.
- You will be presented with a warning message. Click YES to delete ALL linked external accounts, or CANCEL to keep all the accounts and go back to the main page.
Delete External Accounts

You can easily delete external accounts from PortfolioAnalyst. For example, you may no longer maintain an external account that you previously added.

To delete an individual account under an existing institution:

- In the Account Net Asset Value panel, click the External Accounts tab. The External Accounts screen opens.
- 2. Click the minus sign (–) on the row for the specific account you want to delete (not the financial institution row). This does not delete all accounts under that financial institution, only the one account.

To delete all accounts under an existing institution:

- In the Account Net Asset Value panel, click the External Accounts tab. The External Accounts screen opens.
- 2. Click the minus sign (–) on the financial institution row. ALL accounts under that institution will be removed from PortfolioAnalyst.

To delete all external accounts:

- In the Account Net Asset Value panel, click the External Accounts tab. The External Accounts screen opens.
- 2. Click the **Delete Accounts** button.
- Click **Yes** in the confirmation popup.
 Click **Cancel** if you change your mind.

Historical Data

The External Accounts screen lets you add accounts held at any financial institution to PortfolioAnalyst. You can also add historical data for those accounts by uploading data using a CSV file or by manually entering past data for information pertaining to balances and transactions.

Upload Historical Data using CSV

1. In the PortfolioAnalyst panel, click the External Accounts tab.

					-
lome	Reports	Portfolio Checkup	Fund Parser	External Accounts	Education Center

The External Accounts screen opens.

2. Click the upload icon (+) on the right side of the account of your choice and select *Upload via CSV File*.

Upload Historical Data
UPLOAD HISTORICAL DATA
Upload via CSV File
Enter Manually

- 3. Add information about the historical date and starting balance, then click Choose a File.
 - The date is the date of the oldest line of historical data included in the CSV file.
 - » The Cash Balance is the account balance as of the date you entered.
 - Click ADD ANOTHER BALANCE to for additional cash balances.
- 4. From the File Manager, navigate to the .csv file that contains historical data for the selected account and click *Open*.
- 5. Confirm that the correct file appears in the Choose a File box, then click **Upload**.

Historical Data - Enter Starting Bala	nces and Positions	
Use this page to upload historical data for choose a file to upload.	r your external accounts to PortfolioAnalyst using a .csv file. Select an account, com	olete the fields below a
Account		
The USD balance on record as of start o	day 2020-01-07 is 50,000.00.	
Date	2019-12-31	
Cash Balance (Start of Day)	1000 USD -	
+ Add another balance		
Browse For File	1 Choose a CSV File	
	sample_bank_format.csv	
	Upload	

6. If the uploaded file is valid you will receive a "File was uploaded successfully" message.

Date	Required	
Cash Balance	Required	USD
Browse For File	1 CHOOSE A FILE	
usv.	sample_bank_format.csv	
	UPLOAD	
	File was uploaded succes	ssfully.

7. Click **Continue** to upload data for another account or complete a new task.

Valid Currencies

- 1. AUD (Australian Dollar)
- 2. BRL (Brazilian Real)
- 3. CAD (Canadian Dollar)

- 4. CHF (Swiss Franc)
- 5. CNH (Chinese Renminbi Offshore)
- 6. CNY (Chinese Renminbi)
- 7. CZK (Czech Republic Koruna)
- 8. DKK (Danish Krone)
- 9. EUR (Euro)
- 10. GBP (Great British Pound)
- 11. HKD (Hong Kong Dollar)
- 12. HUF (Hungarian Forint)
- 13. ILS (Israeli New Sheqel)
- 14. INR (Indian Rupee)
- 15. JPY (Japanese Yen)
- 16. KRW (South Korean Won)
- 17. MXN (Mexican Peso)
- 18. NOK (Norwegian Krone)
- 19. NZD (New Zealand Dollar)
- 20. PLN (Polish Zloty)
- 21. RMB (Renminbi)
- 22. RUB (Russian Ruble)
- 23. SEK (Swedish Krona)
- 24. SGD (Singapore Dollar)
- 25. TRY (Turkish Lira)

26. USD (United States Dollar)

27. ZAR (South African Rand)

Valid Brokerage Asset Transaction Types (8)

- 1. BUY
- 2. BUYTOCOVER
- 3. SELL
- 4. SELLSHORT
- 5. INCOME
- 6. INCOME_DIV
- 7. TRANSFER_IN
- 8. TRANSFER_OUT

Valid Brokerage Cash Transaction Types (9)

- 1. ADJUSTMENT
- 2. CREDIT
- 3. DEBIT
- 4. DEPOSIT
- 5. FEE
- 6. INCOME_INTEREST
- 7. INTEREST_EXPENSE
- 8. MARGININTEREST
- 9. WITHDRAWAL

Valid Asset Types (21)

- 1. BILL U.S. Treasury Bills
- 2. BOND Bonds
- 3. CASH Forex
- 4. CFD Contract for Differences
- 5. CMDTY Commodities
- 6. FUND Mutual Funds
- 7. FUT Futures
- 8. FOP Futures Options
- 9. FSFOP Future-Style Options
- 10. FSOPT Future-Style Future Options
- 11. IBGNOTE IBG Notes
- 12. OPT Options
- 13. STK Stocks
- 14. ETF Exchange Traded Funds
- 15. IOTP Structured Products
- 16. WAR Warrants
- 17. UN Unclassified
- 18. OT Other
- 19. CORPSECT- Corporate and Agency Debt Securities
- 20. GOVSEC Government Securities
- 21. MUNISEC Municipal Securities

Valid Bank Transaction Types

- 1. CREDIT
- 2. DEBIT
- 3. FEE
- 4. INCOME_INTEREST
- 5. INTEREST_EXPENSE

Valid Credit Card and Other Asset and Liability Transaction Types

- 1. CREDIT
- 2. DEBIT

Accepted Date Formats

- 1. YYYY-MM-DD
- 2. YY-MM-DD
- 3. MM/DD/YYYY
- 4. MM/DD/YY

Security ID:

- 1. Must be ISIN (12 alphanumeric characters)
- 2. CUSIP (9 alphanumeric characters)

Add Historical Data Manually

1. In the PortfolioAnalyst panel, click the **External Accounts** tab.

The External Accounts screen opens.

2. Click the upload icon (+) on the right side of the account of your choice and select Enter Manually.

Upload Historical Data
UPLOAD HISTORICAL DATA
Upload via CSV File
Enter Manually

3. Add information about the historical date and starting balance.

>> Click ADD ANOTHER BALANCE to for additional cash balances.

Historical Data - Enter Starting Balances and P Use this page to enter historical data. Complete the fi	ositions elds below to add the starti	ng balances and positi		
Account				
The USD balance on record as of start of day 2020-01-07 is 50,000.00.				
Date	Required			
Cash Balance (Start of Day)	Required	USD -		
+ Add another balance				

4. Add information about the historical transaction history, then click Continue.

YMBOL	SECURITY ID	DESCRIPTION	CURRENCY	TYPE		QUANTITY	+
TSLA 210115C015	Optional	Tesla Call	USD 🗸	Options	~	5	×
KODK	Optional	KODK	USD 🗸	Stocks	~	100	×

5. Review and verify your information, then click Submit.

Transaction Codes

Use this table as a syntax reference when creating CSV files to upload historical data for transactions.

Brokera	ge (Asset)
Trans- action Type	Accepted Fields or Other Title
Adjust- ment	ADJUSTME- NT
Buy	BUY
Buy to Cover	BUYTOCOV- ER
Assign- ment	CLOSUREO- PT_ASSIGN
Expired	CLOSUREO- PT_EXPIRE
Fee	FEE
Income	INCOME
Dividend	INCOME_ DIV
Interest Paid	INTEREST_ EXPENSE
Interest Received	INCOME_ INTEREST
Rein- vestment	REINVEST
Dividend	REINVEST_

Brokera	ge (Asset)
Trans- action Type	Accepted Fields or Other Title
Rein- vestment	DIV
Sell	SELL
Bond Call	SELLDEBT_ CALL
Bond Maturity	SELLDEBT_ MATURITY
Sell Short	SELLSHOR- T
Split	SPLIT
Тах	TAX
Transfer In	TRANSFE- R_IN
Transfer Out	TRANSFE- R_OUT
Brokera	ige (Cash)
Trans- action Type	Accepted Fields or Other Title
Adjust-	ADJUSTME-

Brokera	ge (Asset)
Trans- action Type	Accepted Fields or Other Title
ment	NT
Credit	CREDIT
Debit	DEBIT
Deposit	DEPOSIT
Fee	FEE
Interest Paid	INTEREST_ EXPENSE
Interest Received	INCOME_ INTEREST
Margin Interest	MARGIN_ INTEREST
With- drawal	WITHDRAW- AL
Ba	ank
Trans- action Type	Accepted Fields or Other Title
Credit	CREDIT
Debit	DEBIT

Brokerage (Asset)				
Trans-	Accepted			
action	Fields or			
Type	Other Title			
Fee	FEE			
Interest	INTEREST_			
Paid	EXPENSE			
Interest	INCOME_			
Received	INTEREST			

Historical Data Upload File Formats

File formats for Brokerage and Bank account historical data are different. Please be sure to use the correct format for the selected account type upload.

Upload File Format for Brokerage Data

The brokerage upload file can contain three types of records: Position, Asset Transaction and Cash Transaction. You can include multiple record types in the same upload file.

Open the sample file for brokerage upload data.

Brokerage - Position Record Layout

Field Name	Sample	Required	Format
Record Type	Р	Y	CHAR(1); Must be "P"
Symbol	VZ	Y	CHAR(30)
Security ID	92343V104	N	CHAR(12)
Description	Verizon Communications Inc.	Y	CHAR(255)
Currency	USD	Y	CHAR(3)
Asset Type	STK	Y	CHAR(8); Must be one of the allowed asset types
Quantity	4	Y	NUMBER(22,6)

Field Name	Sample	Required	Format	
Record Type	А	Y	CHAR(1); Must be "A"	
Symbol	VZ	Y	CHAR(30)	
Security ID	92343V104	N	CHAR(12)	
Currency	USD	Y	CHAR(3)	
Date	07/10/19	Y	CHAR(10); Format: MM/DD/YYYY	
Transaction Type	SELL	Y	CHAR(30); Must be one of the allowed asset transaction types	
Description	Sell 2 Shares	Y	CHAR(255)	
Asset Type	STK	Y	CHAR(8); Must be one of the allowed asset types	
Quantity	2	N*	NUMBER(22,6); Required for trades	
Price	125.00	N*	NUMBER(22,6); Required for trades	
Commission/Fees	2.00	N*	NUMBER(22,6); Required for trades	

Brokerage - Asset Transaction Record Layout

Brokerage - Cash Transaction Record Layout

Field Name	Sample	Required	Format	
Record Type	С	Y	CHAR(1); Must be "C"	
Date	07/10/19	Υ	CHAR(10); Format: MM/DD/YYYY	
Transaction Type	CREDIT	Y	CHAR(30); Must be one of the allowed cash transaction types	
Description	Credit 1	Y	CHAR(255)	
Amount	56.75	Y	NUMBER(22,6)	
Currency	USD	Υ	CHAR(3)	

Upload File Format for Bank Data

The bank upload file has only one record type called Transaction. Open the <u>sample file</u> for bank transaction upload data.

Field Name	Sample	Required	Format	
Record Type	Т	Y	CHAR(1); Must be "T"	
Date	07/10/19	Y	CHAR(10); Format: MM/DD/YYYY	
Transaction Type	DEBIT	Y	CHAR(30); Must be one of the allowed cash transaction types	
Description	Debit 1	Y	CHAR(255)	
Amount	120	Y	NUMBER(22,6)	
Currency	USD	Y	CHAR(3)	

Upload File Format for Credit Card Data

Field Name	Required	Format
Record Type	Υ	CHAR(1): Must be "T"
Date	Υ	CHAR(10)
Transaction Type	Υ	CHAR(5)
Description	Υ	CHAR(255)
Amount	Y	NUMBER(22,6)
Currency	Y	CHAR(3)

Open the sample file for credit card data.

Upload File Format for Other Asset and Liability

Field Name	Required	Format
Record Type	Y	CHAR(1): Must be "T"
Date	Υ	CHAR(10)
Transaction Type	Y	CHAR(5)
Description	Y	CHAR(255)
Amount	Y	NUMBER(22,6)
Currency	Y	CHAR(3)

Note: Applies for Fiserv accounts only.

Client Authorization

The Client Authorizations panel lets you authorize your Advisor or Broker to view your external accounts.

For each external account listed, click YES if you want your Advisor or Broker to view that account.

Note: External accounts must be added at the client level then authorization can be provided for your Advisor or Broker to view. Click <u>here</u> for instructions on adding external accounts.

Client Authorizations

0

Click YES to authorize your Advisor/Braker to view your external accounts.	
INVEST	
Alliance Bernstein Private Wealth Management	YES
Alliance Bernstein Private Wealth Management	YES
Alliance Bernstein Private Wealth Management	YES
Alliance Bernstein Private Wealth Management	NO
Alliance Bernstein Private Wealth Management	NO
Alliance Bernstein Private Wealth Management	NO
Alliance Bernstein Private Wealth Management	NO
Fidelity 401k	YES
Fidelity 401k	YES
Fidelity 401k	NO
Edulor 401k	NO

Reports

In PortfolioAnalyst, you create reports that evaluate the performance of your portfolio based on a set of measurement criteria and optionally compare their data to selected industry benchmarks.

Portfolio/	Analyst Carled Carled			
Home	Reports Portfolio Checkup Fund Parser Education Center			
Default	Reports	0	Reports Delivery	¢ 0
0	Previous Month		You do not have any deliver	ed reports.
0	Previous Quarter		Click the Configure icon to configure	reports for delivery.
0	Previous Year			
0	Month to Date		Benchmarks	+ 0
0	Year to Date		Dencimarka	
0	Since Inception		You do not have any custom b	enchmarks.
Custom	Reports	+ 0		
		Search 🗶 Q	Synopses	+ 0
0	Clients 2012 YTD	∂ × ⊙	You do not have any syn	opses.
0	YTD	∕ × O		
0	divgro reporting	∕ × O		
0	one off	∕ × O		
0	time weighted	∕ × O		

Snapshot and Detailed Reports

PortfolioAnalyst reports can be one of these report types:

Report Type	Output Type	Description
Snapshot	PDF	A one-page summary of your account's return, NAV, asset allocation and distribution of returns.
Detailed	PDF	A multiple-page report that includes any com- bination of specialized individual report pages, including comparisons to industry benchmarks, for a variety of performance analyses.

Report Type	Output Type	Description
Detailed	CSV	A Detailed report in a comma-separated values (.CSV) file suitable for export into Microsoft Excel or a similar program.

Report Layout Types

PortfolioAnalyst custom reports can be one of these layout types:

Layout Type	Description
Non-consolidated	A separate set of data for each account that you have selected in the Account Selector.
Consolidate Selected	A single set of data from all of the accounts that you have selected in the Account Selector.
Consolidate All	A consolidated report which includes a single set of data from all accounts.

Default Reports

PortfolioAnalyst includes several default reports that you can easily run from the Reports panel on the PortfolioAnalyst Summary screen.

What default reports are included?

- Previous Month
- » Previous Quarter
- » Previous Calendar Year
- » Month to Date

- Year to Date
- Since Inception

Limitations

- You cannot edit default reports. If you want a report that you can edit or delete, create a <u>customized</u> report.
- >> The default performance measure is a time weighted return (TWR) and cannot be changed.

Run a Default Report

- 1. Select the **Reports** tab.
- 2. In the Default Reports panel, select one of the following options for the report you want to run.
 - » Snapshot (PDF)
 - Detailed (PDF)
 - » Detailed (CSV)

Default	Reports	0
6	Previous Month	L = X
6	Previous Quarter	요 = 요
6	Previous Calendar Year	요 = 요
6	Month to Date	요 = 요
6	Year to Date	요 = 요
6	Since Inception	

- 3. Choose one of the following:
 - Select Consolidate Selected Accounts into Single Report: Creates one report that contains all accounts.
 - Generate an Individual Report for Each Selected Account: Creates one report for each account selected in the account picker formatted into a .zip file. Extract all files to view all the reports.



4. Open the report or save it to your computer.

Delete a Preconfigured Report

You can delete preconfigured reports if you no longer want them to appear in the Reports panel on the PortfolioAnalyst Summary screen.

1. Click the Configure (gear) icon in the Reports panel title bar.

Rep	orts	Configure 🔅 ?
A	Month to Date Snapshot	Ø
A	Month to Date Detailed	9
A	Year to Date Snapshot	٢
A	Year to Date Detailed	٩
R	Since Inception Snapshot	٥
R	Since Inception Detailed	Ð

2. The Reports screen lists all preconfigured reports in their own section. Click the **X** for the preconfigured report you want to delete.

The preconfigured report will no longer appear in the Reports panel on the Summary screen.

3. If at some time in the future you decide that you want to access the preconfigured report(s) that you previously deleted, you can restore them by clicking the **Restore** icon on the Reports screen.



Custom Reports

Custom reports let you evaluate the performance of your portfolio based on a set of measurement criteria and optionally compare the data to selected industry benchmarks.

The Reports panel shows all custom reports that you have created and saved. From this panel, you can run, edit and download any of your saved custom reports.

Run a Custom Report

- 1. Click the **Reports** tab at the top of the screen.
- 2. Scroll to the Custom Reports section.
- 3. Click the Run (arrow) icon for the saved custom report that you want to run.



4. Details for your custom report open. You have the option to modify report details at this time.

test		×
Time Period	Previous Quarter	~
Frequency	Monthly	~
Format	PDF	~
Consolidate	Choose One	~
Cancel		Run

5. Click Run.

View Custom Reports

- 1. Click the **Reports** tab at the top of the screen.
- 2. Scroll to the Custom Reports Section
- 3. Click the "i" Information icon next to a custom report.



- 4. A page opens with the details for that report.
- 5. Click Close.

Search for Custom Reports

1. In the Custom Reports section, enter a search term into the Search field.

Custom Reports		+ 0
	Search	x Q

2. All reports that match your search criteria are listed.

Create a New Custom Report

- 1. Click the **Reports** tab at the top of the screen.
- 2. Scroll to the Custom Reports section.
- 3. Click the Create (+) icon.

The Create Custom Report screen opens.

- 4. Define settings in the Report Details section:
 - **Report Name**: Name the report.
 - Time Period: Select a time period for the report. Options are Custom, Calendar Year, Previous Month, Previous Quarter, Previous Month, Previous Quarter, Month to Date, Year to Date or Since Inception (this is the inception of your account).
 - Frequency: Select how often to receive the report. Note: The options for this field will change and are dependent on what you choose in Time Period.
 - Report Type: Choose Detailed (report with multiple report pages) or Snapshot (one-page summary).
 - Format: Choose PDF or CSV (comma-separated values file).
 - Performance Measure: Choose Time-Weighted Return or Money-Weighted Return. Time-Weighted Return lets you view the percent return produced over time independent of

contributions or withdrawals. Money-Weighted Return DOES include contributions and withdrawals.

Replace Account ID with Account Alias?: You can display the account number as an account alias if you have configured one.

Create Custom Report

Report Details	
Report Name	Required
Time Period	Choose One
Frequency	Choose One
Report Type	Detailed
Format	PDF
Performance Measure	Time Weighted Return
Replace Account ID with Account Alias?	Yes No

- 5. If you selected Detailed as the report type, add Optional Pages:
 - » Cover Page: Select Yes to include a cover page with the report.
 - **Table of Contents**: Select **Yes** to include a table of contents with the report.

Optional Pages

Include Cover Page?	Yes	No
Include Table of Contents?	Yes	No

6. If you selected Detailed as the report type, select report pages to include in the Report Pages section. These are individual reports that provide unique performance metrics of your portfolio.

Click each report page that you want to include.

Report Pages (Select Multiple)

Breakdown of Accounts	Account Overview
Historical Performance	Historical Performance Benchmark Comparison
Open Position Summary	Concentration
Allocation By Asset Class	Allocation By Financial Instrument
Allocation By Region	Allocation and Performance by Sector
Time Period Performance Statistics	Time Period Benchmark Comparison
Cumulative Performance Statistics	Cumulative Benchmark Statistics
Risk Measures	Risk Measures Benchmark Comparison
Performance Attribution vs. S&P 500	Performance By Asset Class
Performance by Financial Instrument	Performance by Symbol
Performance By Long & Short	Performance by Underlying
Fixed Income	Projected Income
Trade Summary	Deposits and Withdrawals
Corporate Actions	Dividends
Interest	Fees

- 7. Click Continue.
- 8. Review your custom report.
- 9. Click **Create** to create the report or click **Back** to change the settings.

Edit or Delete a Custom Report

- 1. Click the **Reports** tab at the top of the screen.
- 2. Scroll to the Custom Reports section.
- 3. Click the Edit (pencil) icon to open the custom report for editing.



- 4. The Edit Custom Report page opens.
- 5. Edit content in the following areas:

Edit Custom Report

Report Details		
Report ID	713821	
Report Name	test	
Time Period	Previous Quarter	~
Frequency	Monthly	~
Report Type	Detailed	~
Format	PDF	~
Performance Measure	Time Weighted Return	~
Replace Account ID with Account Alias?	Yes No	

- » Report Name: Name the report.
- **Time Period**: Select a time period for the report. Options are:
 - » Custom
 - » Calendar Year
 - Previous Month
 - Previous Quarter
 - Month to Date
 - » Year to Date or
 - » Since Inception (this is the inception date of your account).
- **Frequency**: Select how often to receive the report.

- NOTE: The options for this field will change and are dependent on what you choose in Time Period.
- **From Date**: Start date of the report.
 - NOTE: The options for this field will change and are dependent on what you choose in Time Period and Frequency.
- >> To Date: End date of the report.
 - NOTE: The options for this field will change and are dependent on what you choose in Time Period and Frequency.
- Report Type: Choose Detailed (report with multiple report pages) or Snapshot (one-page summary).
- Format: Choose PDF or CSV (comma-separated values file).
- Performance Measure: Choose Time-Weighted Return or Money-Weighted Return. Time-Weighted Return lets you view the percent return produced over time independent of contributions or withdrawals. Money-Weighted Return DOES include contributions and withdrawals.
- Replace Account ID with Account Alias?: You can display the account number as an account alias if you have configured one.

Optional Pages



- >> Include Cover Page?: Select Yes to include a cover page with the report.
- >> Include Table of Contents?: Select Yes to include a table of contents with the report.

Report Pages (Select Multiple)

Brackdown of Associate	
breakdown of Accounts	Account Overview
Historical Performance	Historical Performance Benchmark Comparison
Open Position Summary	Concentration
Allocation By Asset Class	Allocation By Financial Instrument
Allocation By Region	Allocation and Performance by Sector
Time Period Performance Statistics	Time Period Benchmark Comparison
Cumulative Performance Statistics	Cumulative Benchmark Statistics
Risk Measures	Risk Measures Benchmark Comparison
Performance Attribution vs. S&P 500	Performance By Asset Class
Performance by Financial Instrument	Performance by Symbol
Performance By Long & Short	Performance by Underlying
Fixed Income	Projected Income
Trade Summary	Deposits and Withdrawals
Corporate Actions	Dividends
Interest	Fees

Choose specific report pages to include. These are individual reports that provide different performance analysis of your portfolio. For more information about each report page, see

Bench	Imarks (Select up to 3)				
Sear	ch	× Q			
	SYMBOL	DESCRIPTION			¢ CUR ¢
	ACWI	iShares MSCI ACWI Index			USD
	ACWX	iShares MSCI ACWI Ex US ETF			USD
	AFK	Vaneck Vectors Africa ETF			USD
	AGG	iShares Barclays Aggregate Bond			USD
	AIA	iShares S&P Asia 50 Index			USD
	AMLP	Alerian MLP ETF			USD
	AOA	iShares Core Aggressive Allocation			USD
	AOK	iShares Core Conservative Allocation			USD
	AOM	iShares Core Moderate Allocation			USD
	AOR	iShares Core Growth Allocation			USD
10 Re	sults	~	Page 1	of 27	< >

6. After you edit or delete options, click Continue.

- 7. Review your changes and then click **Save Changes**.
- 8. To delete a saved custom report, click the Delete (X) icon for the report you want to delete.

•	test	✓ × €

Custom Benchmarks

PortfolioAnalyst provides a large number of standard industry benchmarks for you to choose in a Snapshot or Detailed custom report against which your portfolio's performance can be compared. However, there may be situations when a standard benchmark does not provide an adequate basis for comparison. In these situations, you can create and use your own custom benchmarks.

What is a Custom Benchmark?

Custom benchmarks allow you to combine existing benchmarks already available in PortfolioAnalyst, the combined weight of which must equal 100%. When you select benchmarks for a specific benchmark comparison report, you can choose up to three existing benchmarks including any of your own custom benchmarks.

The return formula for a custom benchmark is calculated as:

 Σ (Benchmark Weight X Benchmark Return)

Here is an example of a custom benchmark. In this example, a custom benchmark has been created by combining three existing standard benchmarks:

Index	Weight	Return
Russell 2000	40%	20.00%
S&P 500	40%	10.00%
S&P US High Yield Corporate Bond	20%	6.00%

Based on the weights and returns of each component benchmark, the return for this custom benchmark is 13.20%, calculated as:

(.40 x .20) + (.40 x .10) + (.20 x .06) = 13.20%

Observe the following guidelines when creating custom benchmarks:

- You cannot use an existing custom benchmark as part of a new custom benchmark. Only the standard benchmarks can be used when creating a custom benchmark.
- ^{>>} You must include at least two standard benchmarks when creating a custom benchmark.
- You can add any number of standard benchmarks to a custom benchmarks, as long as the total weight equals 100%.
- Each standard benchmark included in a custom benchmark must have a weight between 0 and 100. No standard benchmark in a custom benchmark can have a weight of either 0 or 100.
- ^{>>} You can add multiple standard benchmarks at a time to a custom benchmark.

Create Custom Benchmarks

- 1. Select the **Reports** tab.
- 2. Go to the **Benchmarks** section.
- 3. Click the Create (+) icon in the Custom Benchmarks panel.



4. In the Create New Benchmark window, enter the **Name** of the benchmark and an **Abbreviation**.

When you search for a benchmark to add to a custom report, use the abbreviation as a quick way to search for and find this custom benchmark.

enchmark Details		
ame	Required	
obreviation	Required	

- Type the first few characters of the benchmark you want to include in your custom benchmark. A list of matching benchmarks appears. For example, to add the S&P 500 index, you can type S&P 5 and a list of benchmarks that contain those characters appears.
- 6. Select one or more benchmarks to add.
- 7. Enter the weights of each benchmark that you added. For example, if you added the Russell 2000 Index and the S&P 500 Stock Index and wanted both to be of equal weight, you would type 50 for each benchmark to make sure the total adds up to 100%.

	Symbol 🔺	Description \$	Weight (%)
~	AIA	iShares S&P Asia 50 Index	50
	GAF	SPDR S&P Emerging Middle East & Africa	Weight
	GSG	iShares S&P GSCI Commodity-Indexed Trust	Weight
~	IEV	IShares S&P Europe 350 Index	50

8. Click **Save**. Your new custom benchmark is now available for you to select when creating or editing a custom report.

View and Edit Custom Benchmarks

- 1. Select the **Reports** tab.
- 2. Go to the Benchmarks panel.
- 3. Click the View (i) icon for the custom benchmark you want to view or edit.

Benchmarks	+	0
Custom 25	0	×

- 4. The custom benchmark opens in a popup. Click the **Edit** button to edit the custom benchmark name, abbreviation or component benchmarks.
- 5. Click Save when you are done editing.

To delete a custom benchmark:

In the Benchmarks panel, click the Delete (X) icon for the custom benchmark you want to delete.

Synopses

Multiple account holders and institutional account master users (Advisor Masters, Broker Masters, Fund Investment Managers and Proprietary Trading Group Masters) can create and save text-based cover letters called synopses, and then assign them to custom reports.

Note: There is no character limitation when creating a synopsis.

Create Synopses

- 1. Select the **Reports** tab.
- 2. Go to the Synopses panel.
- 3. Click the Create (+) icon in the Synopses panel title bar.

Synopses	+	0
Synopsis1	0	×

4. In the Create New Synopsis popup, enter the name of the synopsis and then enter the text that you want to appear.

There is no character limitation when creating a synopsis.

Synopsis Details	5	
Name	Required	
Text	Type your mesage here	

5. Click Save.

Your new synopsis is added to list in the Synopses panel and you can now select it when creating a custom detailed report.

View, Edit and Delete Synopses

- 1. Select the **Reports** tab.
- 2. Go to the Synopses panel.
- 3. The Synopses panel shows all of your saved synopses. Click the View (i) icon for the synopsis you want to view or edit.
- 4. The synopsis opens in a popup. Click the **Edit** button to edit the synopsis name or text.
- 5. Click **Save** when you are done editing.

To delete a synopsis

In the Synopses panel, click the Delete (X) icon for the synopsis you want to delete.

Delete Synopses

- On the PortfolioAnalyst Summary screen, click the gear icon on the right side of the Custom Reports and Add-Ons panel title bar.
- 2. In the Synopses panel, click the Delete (X) icon for the synopsis you want to delete.

Assign a Synopsis to a Custom Report

When you are creating a new Detailed custom report or editing an existing Detailed custom report AND you have selected multiple client, sub or linked accounts in the Account Selector, you can attach a synopsis (cover letter) to the report.

- 1. Create a new custom report or edit an existing custom report.
- 2. If you selected Detailed as the report type, select a saved synopsis in the Optional Pages section.

Optional Pages

Include Cover Page?	Yes	No
Include Table of Contents?	Yes	No
Assign a Synopsis?	Yes	No
Select a Synopsis	Choose	One

3. CONTINUE creating or editing the custom report as required.

Report Pages in a Detailed Custom Report

When you create a Detailed custom report, you can select any of the following report pages to include in the final report:

Report	Description
Breakdown of Accounts	Available only to institution accounts and multiple linked accounts who have selected multiple accounts and the Con- solidate option, this report shows the Beginning and Ending NAV, Return, and the total amounts of Deposits, Withdrawals, Dividends, Interest and Fees for each selected account.
Account Overview	Displays general account information , including account name, number, alias, type, performance measure, base currency and analysis period. It also displays the performance of your portfolio for the specified time period, including beginning and ending Net Asset Value (NAV) and return percentage based on your selected time period and performance measurement (TWR or MWR). Key Statistics include top and bottom 5 contributors, 4 risk measures as well as allocation by asset class and financial instrument with long/short breakout. A combined cumulative return line chart and account NAV bar chart with option benchmark comparison plots performance and NAV over time. The distribution of returns chart plots the frequency of like returns performance.
Historical Performance	 Shows the history of your portfolio's performance in a variety of charts and tables on three pages: Report Page 1: Includes two charts, a History bar chart that shows the cumulative return percentage at different points in time in the history of your account (MTD, QTD, YTD, 1 year, 3 year, 5 year and since inception), a table that displays the same data as the History chart, and a line chart that shows the cumulative return percentages since the inception of your account. Report Page 2: Includes two tables. One table displays the monthly returns of your account for the past five years (or since

Report	Description
	 the inception of your account if it is less than five years old). The second table shows the quarterly returns of your account for the last five years (or since the inception of your account if it is less than five years old). Report Page 3: Includes a bar chart and a table. The bar chart displays the return percentage of your portfolio for the year-to-date and for each of the last five years, or fewer years if your account has been open for less than five years. The table displays the data from the chart.
	This report will only include 1 Year, 3 Year, 5 Year, Yearly, Quarterly and Monthly returns if there is data available for the account for the full period.
	The option to annualize returns is available when selecting this report page by checking Annualize Returns.
Historical Performance Benchmark Comparison	Select up to three global industry benchmarks against which you want to compare the history of your portfolio's performance. This report includes the same charts and tables as the Historical Performance Report described above.
	Returns for ETFs and indices selected as benchmarks include dividends.
	This report will only include 1 Year, 3 Year, 5 Year, Yearly, Quarterly and Monthly returns if there is data available for the account/benchmark for the full period.
	The option to annualize returns is available when selecting this report page by checking Annualize Returns.
Open Position Summary	Shows all current open positions in the selected account(s). The report output shows two pie charts: the five long open positions that have the highest market value, and the five short positions with the
Report	Description
---------------------------------------	---
	highest market value.
	The output also displays a table of all open positions sorted by product, then currency, then symbol. The table includes the quantity, closing price, current market value and the percent of your total Net Asset Value for that position.
	If you select this report but there are no open positions during the specified time period, the report will be omitted from your results.
Concentration	Shows the parsed features of a portfolio with fund positions including long/short breakout, top holdings, asset allocation, sector allocation, region allocation, country allocation, financial instrument allocation, and exposure.
Allocation by Asset Class	Displays a color-coded bar chart and table that illustrates the NAV of all assets in your portfolio for each day, month or quarter in the specified time period.
	If you select this report but there are no open positions during the specified time period, the report will be omitted from your results.
Allocation by Financial Instrument	Displays a color-coded bar chart and table that shows the percentage weight of all assets in your portfolio based on financial instrument for each day, month or quarter in the specified time period.
	If you select this report but there are no open positions during the specified time period, the report will be omitted from your results.
Allocation by Region	Displays color-coded pie charts and accompanying tables. One pair of pie charts shows the percentage and amount of the portfolio's long and short positions allocated to assets in those regions. The second pair of pie charts shows the countries with the highest percentage and amount of long and short position allocation to assets (Weight %). The tables display the same data. If there are more than five

Report	Description					
	countries to which positions are allocated, the additional countries appear in the Other category.					
Allocation and Per- formance by Sector	Shows the combined allocation and performance by sector. The allocation section offers amount and percent change over time. Δ represents change. The performance section offers MTM performance represented in amount and percent. Time periods displayed are dependent on the analysis period and data available. The report is applicable for both Time-Weighted Return (TWR)					
Time Period Performance Statistics	Shows the performance of your portfolio for a specified time period as a line chart and a text summary. The line chart plots the return percentage for the selected performance measure (TWR or MWR) over time. The text summary includes the beginning and ending NAV, the return percentage (TWR or MWR) for the time period, the one- and three-month return percentage (the three-month return only appears if the time period is at least six months), and the best and worst return percentage of the period.					
	Reports with a monthly time period display one- and three-month returns. Reports with a daily time period display five- and ten-day returns. Reports with a quarterly time period display one- and two- quarter returns. The line chart and text summary are identical to those in the Account Overview report.					
Time Period Benchmark Comparison	Select up to three global industry benchmarks against which you want to compare your performance results over a specified time period. The report output displays a color-coded line chart comparing the return percentage (TWR or MWR) of your portfolio over time with that of the selected benchmarks. The line chart plots the return					

Report	Description						
	percentage for each day, month or quarter over the specified time period, and also displays the average return percentage for the entire time period.						
	Returns for ETFs and indices selected as benchmarks include dividends.						
Cumulative Performance Statistics	Shows the cumulative performance of your portfolio over a specified time period as a line chart and a text summary. The line chart plots the return percentage for the selected performance measure (TWR or MWR) over time. The text summary includes the beginning and ending NAV, the return percentage (TWR or MWR) for the time period, the one- and three-month return percentage (the three-month return only appears if the time period is at least six months), and the best and worst return percentage of the period. Reports with a monthly time period display one- and three-month returns. Reports with a daily time period display five- and ten-day returns. Reports with a quarterly time period display one- and two- quarter returns. The line chart and text summary are identical to those in the Account Overview report.						
Cumulative Benchmark Statistics	Select up to three global industry benchmarks against which you want to compare cumulative performance results over a specified time period. The report output displays a color-coded line chart comparing the cumulative return percentage (TWR or MWR) of your portfolio over time with that of the selected benchmarks. The line chart plots the cumulative return percentage over the specified time period, aggregating the return percentage for each successive day, month or quarter in the time period.						
	Returns for ETFs and indices selected as benchmarks include						

Report	Description					
	dividends.					
Risk Measures	Shows the current risk of your portfolio in a line chart and text summary. The line chart plots Value-Added Monthly Index (VAMI) over the specified time period. VAMI is an index that tracks the monthly performance of your portfolio based on a hypothetical initial \$1000 investment. The text summary shows a variety of risk measures, including Max Drawdown, Peak-to-Valley Drawdown, Recovery, Sharpe Ratio, Sortino Ratio, Calmar Ratio, Standard Deviation, Downside Deviation, Tracking Error, Information Ratio, Mean Return, Positive Periods and Negative Periods. In addition, this report includes a Distribution of Returns bar chart showing the range of return percentage for each day, month or					
	quarter in the specified time period and the number of times the return performance fell within that range for the entire period.					
Risk Measures Benchmark Comparison	Select up to three global industry benchmarks against which you want to compare the current risk of your portfolio in a line chart and text summary.					
	The line chart plots Value-Added Monthly Index (VAMI) over the specified time period for your portfolio and for your selected benchmarks. VAMI is an index that tracks the monthly performance of your portfolio based on a hypothetical initial \$1000 investment.					
	The text summary shows a variety of risk measures for your portfolio and for your selected benchmarks, including Max Drawdown, Peak- to-Valley Drawdown, Recovery, Sharpe Ratio, Sortino Ratio, Calmar Ratio, Standard Deviation, Downside Deviation, Correlation, Beta, Alpha, Tracking Error, Information Ratio, Turnover, Mean Return, Positive Periods and Negative Periods.					

Report	Description
	In addition, this report includes a Distribution of Returns bar chart showing the range of return percentage for each day, month or quarter in the specified time period and the number of times the return performance fell within that range for the entire period. Returns for ETFs and indices selected as benchmarks include dividends.
Performance Attribution vs. S&P 500	Shows how your asset allocation and selection of securities affects your portfolio's performance when compared to the performance of the S&P 500 Index over a specified time period.
	This report includes a summary table that shows how you outperformed or underperformed the S&P 500, as well as two charts and a scatter plot. For more information about this report, see <u>Running a Performance Attribution Report</u> .
Performance by Asset Class	Displays a color-coded bar chart that illustrates the cumulative contribution to your portfolio's return by asset class for each day, month or quarter in the specified time period. Each color- coded bar in the chart represents the contribution of all asset classes to each day/month/quarter in the specified time period .The table shows the return for each asset class for each day/- month/quarter in the specified time period.
Performance by Financial Instrument	Displays a color-coded bar chart that illustrates the cumulative contribution to your portfolio's return by financial instrument for each day, month or quarter in the specified time period. The bars in the bar chart are color-coded by financial instrument. The table shows the values depicted in the chart.
Performance by Symbol	Displays four charts, a table and two heat maps representing the performance of the symbols in your portfolio:

Report	Description					
	 Top Five Contributors- This chart displays the five symbols with the highest contribution to your portfolio's return. Bottom Five Contributors- This chart displays the five symbols with the lowest contribution to your portfolio's return. Contribution by Sector- This bar chart displays the contribution of each sector to your portfolio's return. Contribution by Asset Class- This bar chart displays each the contribution of each asset class to your portfolio's return. Table- Shows data for all open or closed symbols grouped by asset class, including sector, Average Weight, Return, Contribution to Return, and Unrealized and Realized P&L in dollar amounts. Sector Composition Heat Map- This is a visual representation of each sector's contribution to return. Each sector block shows the contribution to return of each symbol in that sector. The larger the block, the larger the contribution to return. Portfolio Heat Map- This is a visual representation of the contribution to return of each symbol in your portfolio. Green indicates a positive return while red indicates a negative return. 					
Performance by Long & Short	Displays a color-coded bar chart and table that illustrate the contribution to your portfolio's return by long and short positions for each day, month or quarter in the specified time period. The bars in the bar chart are color-coded by long returns and short returns. The table shows the values depicted in the chart. The report is applicable for both Time-Weighted Return (TWR) performance and Money Weighted Return (MWR) measures.					
Performance by Underlying	Exemplifies corporate exposure by grouping performance of your portfolio's derivatives and underlying positions. Additional report details include top contributors by underlying exposure, bottom contributors by underlying exposure and a contribution by underlying					

Report	Description
	and derivative chart.
	The report is applicable for both Time-Weighted Return (TWR) performance and Money Weighted Return (MWR) measures.
Fixed Income	Exemplifies bond metrics for bond, treasury bill and treasury note portfolios. Report metrics include yield to maturity duration, maturity, credit quality, bond types with long/shortbreakout along with projected annual cash flows by month.
Projected Income	Shows the portfolio's annual projected income by asset class based on holdings from the previous business day. This report is only available for detailed reports.
Trade Summary	Shows a summary of trades sorted by asset class, then symbol. For each symbol, this section displays the quantity, average price and proceeds for buys and sells. Totals appear for Buy and Sell Proceeds at the bottom of each asset class section.
Deposits and Withdrawals	Shows the inbound and outbound cash and position transfers (including cash deposit and withdrawals) in your account for a specified time period. This report displays a table that includes the date, type, description and amount of each inbound and out- bound cash and position transfer in the time period of the report.
Corporate Actions	Lists all corporate actions that occurred in your account during the specified time period. Each line item includes the date, type, description and quantity. If you select this report and you have no corporate actions in the specified time period, this report will not appear in your Detailed Report.
Dividends	The Dividends report shows all dividends that occurred in your account during a specified time period, including dividend payments,

Report	Description
	 dividend cancellations, payments in lieu, short term and long term capital gains. The report includes a table and a bar chart. Each line item in the table includes the pay date, ex-date, symbol, note, quantity, dividend per share, estimated forward dividend yield %, estimated annual dividend and amount during the specified time period. The report also includes a color coded stacked bar chart illustrating the distributions of dividends during the time period.
Interest	Lists all interest that occurred in your account during the spe- cified time period. Each line item in the table includes the date, description and amount.
Fees	Lists all fees that were charged to your account in the specified time period. Each line item includes the date, description and amount of the fee. The amounts are totaled at the bottom of the list.

Performance Attribution Report

The Performance Attribution Report helps you determine how your asset allocation and selection of securities affects your portfolio's performance when compared to the performance of the S&P 500 Index.

To run a Detailed PDF Report with the Performance Attribution Report, set up your Detailed PDF Report as you normally would, and select **Performance Attribution** in the Select Report(s) section of the page.



Performance Attribution Report Table

The first part of the Performance Attribution Report contains two tables:

- Weighting by Sector
- Returns and Attribution Effects by Sector

Weighting by Sector

This table shows how your portfolio is allocated among ten different sectors, cash and unclassified (anything not included in one of the other sectors), and how that allocation compares to the S&P 500 Index. The table has three parts: Beginning Weight, Ending Weight and Average Weight.

These tables show the beginning, ending and average weight for each sector in your portfolio and the S&P 500, and the difference (positive or negative) between the two, represented by a percentage. You can use this table to see how under or overweighted your portfolio is in each sector compared to the S&P 500.

Returns and Attribution Effects by Sector

This table lets you compare your returns in each of the ten sectors, plus cash and unclassified, to those of the S&P 500, and view the attribution effects of your sector allocation and stock selection within each sector. Attribution effects let you see why your returns in a particular sector were better or worse than those of the S&P 500.

The Period Return part of the table shows the absolute return percentage for each sector in your portfolio and for the S&P 500, and the difference (positive or negative) between the two.

The Contribution to Return part of the table measures the contribution of each sector to the overall return. The table also illustrates the contribution of return for the account of each sector versus the S&P 500. The standard calculation used to derive the Contribution to Return is:

Period Return x Beginning Weight = Contribution to Return

The attribution effect part of the table shows the attribution effects of sector allocation (Allocation column), the attribution effects of security selection within each sector (Selection column), and the total attribution effects for the period of the report. The attribution effect dissects the return and illustrates the reason for your outperformance or underperformance.

The allocation effect determines whether the overweighting or underweighting of sectors relative to a benchmark contributes positively or negatively to the account's return. Positive allocation occurs when the portfolio is overweighted in a sector that outperforms the benchmark, and underweighted occurs in a sector that underperforms the benchmark.

The selection effect measures the account's ability to select securities within a sector relative to the benchmark. A positive selection will occur if the account made better stock selections within the sector compared to the benchmark.

Performance Attribution Report Charts

The second page of the Performance Attribution Report shows two charts:

- Cumulative Attribution Effect This line chart plots return percentage over time and covers the entire time period of the report.
- Attribution Effect This chart shows the allocation, selection and total attribution effect percentages for each period in the report.

Reports Delivery

You can set your preferred method of delivery for preconfigured (default) PortfolioAnalyst reports and your saved PortfolioAnalyst reports that have a time period of Month to Date, Previous Month, Previous Quarter, Previous Calendar Year, Since Inception and Year to Date.

- If you manage or maintain multiple accounts, you can also select accounts and additional report generation options.
- You can configure these reports to be delivered via email or FTP (by request only). You can also encrypt your reports for delivery (again, by request only).

Configure Reports for Delivery

- 1. Click the **Reports** tab at the top of the screen.
- 2. Go to the Reports Delivery section.

The Delivered Reports panel displays all of the reports that you have configured for delivery.



3. Click the Configure (gear) icon in the Reports Delivery title bar and the Reports Delivery screen opens.

FTP Delivery is available or Client Services to en	e by request only. Encryption able these options.	is available for both Email	and FTP delivery methods by re	quest on	ly. Contact your Sales Repre	sentativ
Delivery Method		Email	~			
Encryption		Yes No				
					Search	x Q
Reports		Accounts	Туре		Consolidate	
Month to	Date		Type (Choose One)	~	Default Account Only	~
Previous	Month		Type (Choose One)	~	Default Account Only	•
Previous	Quarter		Type (Choose One)	~	Default Account Only	~
Previous	Calendar Year		Type (Choose One)	~	Default Account Only	~
Since Inc	eption		Type (Choose One)	~	Default Account Only	~

- 4. Delivery Method: Select how you would like to receive the reports, either via Email or FTP.
 - Note: You must request FTP delivery to enable this option. Contact your Sales Representative or Client Services to make these requests.
- 5. Encryption: Select Yes to encrypt the report statements.

- Note: You must request Encryption to enable this option. Contact your Sales Representative or <u>Client Services</u> to make these requests.
- 6. Click the check box next to each default report and saved custom report that you want to configure for delivery.
- 7. In Type, select the output type for the report: Snapshot PDF, Detailed PDF, or Detailed CSV.
- 8. In Consolidate, select one of these report generation options:
 - Consolidate All into Single Report: If you have multiple accounts, a single consolidated report will be generated for all accounts.
 - Generate an Individual Report for Each Account: If you have multiple accounts, a separate report will be generated and delivered for each account.
- If you have multiple accounts, you can select which account or accounts will receive each custom report. For each custom report, click Add/Edit Accounts, then choose accounts in the Account Selector. This option is unavailable for preconfigured reports.
- 10. Click CONTINUE.
- 11. Review your delivery configuration, and then click **CONTINUE**.
- 12. Click Ok.

PortfolioAnalyst for non-IBKR Clients

PortfolioAnalyst can now be used by itself as a standalone tool. To try the PortfolioAnalyst client, navigate to **www.portfolioanalyst.com** and sign up for an account. This tool is designed for those that are not yet clients of Interactive Brokers but would still like to take advantage of the tool to consolidate their accounts and use the performance reporting features.

When you log in for the first time, you will be directed to the External Accounts screen.

The External Accounts screen lets you add accounts held at any financial institution to PortfolioAnalyst. You can add brokerage, bank and credit card accounts as well as other assets and liabilities. Once you have added an account to PortfolioAnalyst, you can view the beginning and ending value of the account and drill down to see positions (in brokerage firms) and transactions. If you have added multiple brokerage accounts, you can drill down to a consolidated view of assets held at all of the accounts.

Note: Newly linked external accounts will populate with data immediately.

Add a New External Account

1. From the home screen, click the External Accounts tab.

The External Accounts screen opens.

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- 2. Click the **plus sign (+)** on the right side of the External Accounts title bar.
- 3. Read the disclosure and click **CONTINUE**.

The Add Accounts panel opens.

- 4. You can type the name of the institution in the search field. Once you start typing the name, matching institutions appear in the list below the field.
- 5. Type the username and password for the account at the selected financial institution. Type your password a second time, and then click **Next**.
- Click the check box next to each account that you want to add.
 For example, you may have several different accounts at another financial institution but you only want to add one of them to PortfolioAnalyst.
- 7. For each account that you want to add, select the type of account.
- 8. Click the down arrow to view the drop-down menu, and then make your selections. Each type has several additional types associated with it.

For example, you can select Retirement and then select IRA as the type of Retirement.

- 9. If the account is successfully added, a confirmation screen opens that lists the account(s) you just added, including the account ID and current balance.
- 10. Click Close to stop adding accounts or Add More Accounts to add more external accounts.

You can see your external account data on the PortfolioAnalyst Summary screen. Once you add an external account, it takes one business day for the data to be updated in PortfolioAnalyst. All of your external accounts are updated by the next business day.

Add an Account Under an Institution

- In the Account Net Asset Value panel, click the External Accounts tab. The External Accounts screen opens.
- 2. Click the plus sign (+) on the financial institution row, then follow the instructions on the screen to add another account under that institution.
- **Note:** You can add assets or liabilities that do not have online access, such as real estate, auto or other assets and liabilities by clicking the link on the first Add Account screen, and then following the instructions on the screen.

Reports for non-IBKR Client Accounts

The table below shows the types of reports available. For full reporting features, **upgrade** to an IBKR account.

For more information about reporting sections, see the <u>reference guide</u>.

PDF Report	Brokerage	Bank	Credit	Other	Other
			Card	Asset	Liability
Breakdown of Accounts	Х	Х	Х	Х	Х
Account Overview	Х	Х	Х	Х	Х
Historical Performance					
Historical Performance Benchmark					
Comparison					
Open Position Summary	Х	Х			
Concentration					
Allocation by Asset Class	Х	Х	Х	Х	Х
Allocation by Financial Instrument					
Allocation by Region					
Allocation and Performance by	Х	Х	Х	Х	Х
Sector					
Time Period Performance Statistics	Х	Х		Х	Х
Time Period Benchmark Com-					
parison					
Cumulative Performance Statistics	Х	Х		Х	Х
Cumulative Benchmark Statistics					
Risk Measures	Х				
Risk Measures Benchmark Com-					
parison					
Performance Attribution vs. S&P	Х				
500					
Performance by Asset Class	Х				

Performance by Financial Instru-	Х			
ment				
Performance by Symbol	Х			
Performance by Long & Short				
Performance by Underlying	Х			
Fixed Income				
Projected Income				
Trade Summary	Х			
Deposits and Withdrawals	Х	Х		
Corporate Actions				
Dividends	Х			
Interest	Х	Х	Х	
Fees				

Notes

- 1. The Net Asset Value (NAV) consists of all positions by financial instrument (stock, securities options, warrants, bonds, cash, etc.). All non-base currency amounts are converted to the base currency at the close of period rate.
- 2. The deposit/withdrawal amount displayed in the Account Overview report includes internal transfers along with cash and position transfers.
- 3. The gain or loss for future contracts settle into cash each night. The notional value is used when computing the contribution to return.
- 4. Dividend accruals, interest accruals and insured deposits are included in cash amounts throughout the report.
- 5. Price valuations are obtained from outside parties. Interactive Brokers shall have no responsibility for the accuracy or timeliness of any such price valuation.
- 6. The Allocation by Sector report includes only the following financial instruments; stocks (except ETFs) and options. All other financial instruments are included in Unclassified sector.
- Amounts are formatted to two decimal places. If amounts are greater than two decimal places, Interactive Brokers uses "half-even" rounding. This means that Interactive Brokers rounds such amounts up to the nearest even number.
- 8. As of December 31, 2018 the average historical annual return including dividends since inception of the S&P 500 was 7.51%. This rate is used to calculate the downside deviation and the Sortino ratio.
- 9. As of December 31, 2018 the US 3 Month Treasury Bill was 2.40%. This was the risk free rate used to calculate the Sharpe ratio.
- 10. The mean return is the average TWR for the period.
- 11. Historical SPX dividend data in the Performance Attribution report may be modeled from sector compositions that are subject to change.
- 12. Frongello is the method used for mathematical smoothing in the Performance Attribution report. It has been developed by Andrew Scott Bay Frongello.
- 13. The Performance Attribution vs. S&P 500 report is available from 2019 on.

- 14. For accounts opened and funded before 2009, reports with a time period of Since Inception will include data going back to January 1, 2009. This includes some default reports and both Historical Performance reports.
- 15. The Modified Dietz method is used to calculate MWR. This method only values the portfolio at the start and end of the period and weights the cash flows. When large flows occur, its accuracy can diminish.
- 16. The Estimated Annual Dividend in the Dividends report and Estimated Annual Income in the Projected Income report assume dividend and bond payments remain constant throughout the year. These positions and interest rates are based on the previous business day.
- 17. We use Thomson Reuters Business Classifications for our sector data.

Frequently Asked Questions

What are Snapshot and Detailed reports?

Snapshot reports are one-page summaries that display graphs and charts representing an account's return, Net Asset Value (NAV), asset allocation and distribution of returns. Detailed reports let you select any combination of individual reports, including benchmark comparisons, for a variety of performance analyses. Detailed reports are available to download as PDF or CVS files.

Sample Snapshot Report

Sample Detailed Report

Can I modify a default report?

No, you can only run a default report. If you want to create a report with specific details, specific individual reports for different performance analyses or benchmark comparisons, create and save a custom report.

What if I don't see any reports listed in the Custom Reports and Add-Ons panel?

The Custom Reports and Add-Ons panel displays a list of all of your saved custom reports. If the list is empty, which it will be the first time you use PortfolioAnalyst, then you have not yet created and saved any custom reports.

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Glossary

Allocation Effect - The percent effectiveness of an account's financial instrument allocation to various sectors. The allocation effect determines whether the overweighting or underweighting of sectors relative to a benchmark contributes negatively or positively to an account's overall return.

Alpha (α) - A ratio that represents riskadjusted excess returns of the portfolio in comparison to a benchmark.

Attribution Effect - The percent effectiveness of financial instrument allocation and selection of securities on the portfolio's performance when compared to the performance of a benchmark over a specified time period.

Benchmark - A standard against which the performance of your portfolio can be measured.

Beta (β) - A ratio that represents volatility or systematic risk of the portfolio in comparison to a benchmark.

Calmar Ratio - A ratio used to determine return versus drawdown risk.

Contribution To Return - The percent contribution of certain portfolio constituents

(symbols, sectors) to the account's overall return.

Correlation - A statistical figure that measures the interdependence between the range of returns for a specified benchmark(s) and your portfolio. A positive correlation exemplifies a strong relationship whereas a negative correlation exemplifies a weak relationship.

Cumulative Return - Geometric linking of single period returns. Cumulative return is presented as a percentage.

Downside Deviation - The standard deviation for all negative returns in your portfolio in the specific time period.

Financial Instrument - A category of investment products in your portfolio. Cash, stocks, options, futures, etc. are examples.

Information Ratio - The risk-adjusted returns of a portfolio relative to a benchmark.

Max Drawdown - The largest cumulative percentage decline in the Net Asset Value of your portfolio from the highest or peak value to the lowest or trough value after the peak.

Mean Return - The average time weighted return of your portfolio for a specified time period.

Money Weighted Return (MWR) - MWR is used to measure performance during the specified report period. MWR is influenced by the time of decisions to contribute or to withdraw funds, as well as the decisions made by the portfolio manager of the fund.

Negative Periods - The number of occurrences of negative performance returns. For example, if you select a monthly report with 12 months, each month with a negative return would be a negative occurrence.

Net Asset Value (NAV) - The total value of your account.

Peak-to-Valley - The time period during which the Max Drawdown (largest cumulative percentage decline in the NAV) occurred

Period Return - A performance measure that calculates the return you have received over a period of time.

Positive Periods - The number of occurrences of positive performance returns. For example, if you select a monthly report with 12 months, each month with a positive return would be a positive occurrence.

Recovery - The time it took for the NAV of your account to recover from the valley (lowest NAV) back to the peak (highest NAV).

Sector - A firm's general area of business. Financials, Communications and Energy are all examples of sectors. **Selection Effect -** A percentage that measures the ability to select securities within a sector relative to a benchmark.

Sharpe Ratio - A ratio that measures the excess return per unit of risk. The ratio is used to characterize how well the return compensates the account holder for the risk taken.

Sortino Ratio - The ratio measures the risk adjusted return of the account. The ratio penalizes only those returns that fall below the required rate of return.

Standard Deviation - Standard deviation is a statistical measurement of variability. It shows how much variation or dispersion there is from the average.

Time Period Return - The return your portfolio has gained or lost for the specific time period. Time period performance is presented as a percentage.

Time-Weighted Return (TWR) - TWR measures the percent return produced over time independent of contributions or withdrawals. TWR eliminates the impact of the timing of inflows and outflows and isolates the portion of a portfolio's return that is attributable solely to the account's actions.

Tracking Error - A percentage that represents the deviations of the difference between returns of the portfolio and returns of the benchmark.

Turnover - A percentage that represents the churn of the portfolio or the percent of the portfolio holdings that have changed over the analysis period.

Value-Added Monthly Index (VAMI) - A statistical figure that tracks the daily, monthly, quarterly performance of a hypothetical \$1000 investment.