

Custom Reports Catalog

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Why Custom Reports?

Most firms have some special reporting requirements, whether internal or client facing. Our engineers have worked with hundreds of firms tailoring reports to our client's specification. Experience gives us a distinctive advantage when helping firms craft their vision into a finished product.

Custom reports can help you with investment management operations, evaluate your performance and present results to your clients.

Maximize Operational Efficiency

Custom reports or utilities can be created to fill gaps in vendor recommended workflows.

Management Reporting

Key personnel need to have information presented for review in a format consistent with their usage. Compiling data in external repositories and manipulated through manual effort is inefficient and unreliable. Custom reports ensure data is highly available, accurate and formatted for immediate use.

Client Reporting

You want to present the results of your firm to your clients in the most professional manner possible. A custom designed reporting package creates a concise visual representation of what differentiates your organization's approach.

Custom Report Writing Specifications

MD Solutions provides a complete range of custom reporting solutions including, Axys, APX, Moxy, and Revenue Center. We work with your staff to develop precise custom report specifications. Accurate specifications generate solutions that solve problems and scale with your practice.

The following sections will help you understand and prepare for the development process. If you need assistance, help is just a phone call away.

The Development Process

- ❖ MD Solutions' development process begins once we receive a request for custom engineering.
- All new report requests are placed into our queue on a first come first serve basis and assigned an engineer.
- Our engineers will review your request and contact you with follow up questions to clarify any areas of concern and make suggestions.
- Once we have assimilated all the requirements and an estimate is produced we will contact you via email for tentative approval.
- ❖ When the estimate is agreeable we will provide a written proposal.
- Upon receipt of your completed contract, your project is moved into the development queue.
- ❖ Your dedicated engineer(s) will develop the solution to the specification.
- User Acceptance Testing (UAT) will begin upon the completion of development and last for two weeks. Your feedback is critical to the success of the project and we can provide additional resources when needed to assist with testing.
- Upon client acceptance of the final product we will submit for code check-in and maintain it for future upgrades.

The Specification

Your specification should consist of two parts:

- The first part is a written description of what you want the report to do. Please indicate if a standard report is being used as a template and if there are any custom calculations.
- The second part is a mockup of how you would like the report to look.

Part I: Written Description

Include the following details:

- a) Selection Criteria for Report Data -
- b) Sorting and Totaling Data -
- c) Dates to Run Reports -
- d) Running Reports -
- e) Reports Sensitivity -
- f) Multi-currency -

Part II: Mock-up Report

- a) **Real Data** the mock-up should contain at least one example of every security that may appear differently on the report.
- b) Sorting Data Indicate the columns where sorting is applied and how.
- c) Totaling mark where sub-totaling should occur and if a grand total is required.
- d) **Headers** Typical headers include firm, title of report, portfolio name and date.
- e) Date(s) to Run Reports Where date(s) are to appear.
- f) Date Format
- g) Column Titles Provide the name of each column and indicate alignment and case.
- h) Column Widths
- i) Miscellaneous:
 - Underlining, Decimal accuracy, Spacing

Example Specification

Custom Report Description

This report will one-page portfolio overview comprised of four quadrants.

- 1. Changes in Value (Current Year)
 - a. Beginning Market Value From Date parameter
 - **b.** Contributions made during From and To Dates
 - c. Withdrawals made during From and To Dates
 - d. Gain/Loss(\$) Unrealized made during From and To Dates
 - e. Ending Market Value To Date parameter
 - f. Management Fees made during From and To Dates
 - g. Gain/Loss(%) Unrealized Date to Date percentage gain/loss
 - h. Realized Gains/Losses Date to Date gain/loss
- 2. **Annualized Performance Summary –** reporting the portfolio's consolidated performance all annualized.
 - a. Perf Periods on columns YTD, 1 Yr, 3 Yr, 5 Yr, 10 Yr, Since Incep. This are to be Time-Weighted returns linked for the various periods displayed and chosen as a parameter.
 - **b.** Below the portfolios would be the accounts associated benchmarks provided at the account level.
 - **c.** Section below Performance "Since Inception" data; Inception Date, Net Contributions/Withdrawals, Gains/Losses, and cumulative return. All this data is pulled directly from the performance data at the portfolio or portfolio group level.
- Asset Allocation By asset class pie chart with percentages displayed outside of pie.
 Legend justified top right of chart.
- 4. Sector Allocation
 - a. Grouped by Asset Class than Security Type.
 - b. Columns are Market Value, %Assets (Security Type only) and Est. Annual Inc.
 - c. Grand Total line at the bottom. Shaded line.

Logo Top left – standard logo.jpg

Report Title - Upper Left (Justified Left) -

Report Title - parameter

Reporting Heading 1

"To Date" - Modified to say "Consolidated Assets Month Day, Year"

Report Title – Upper Right (Justified Right)

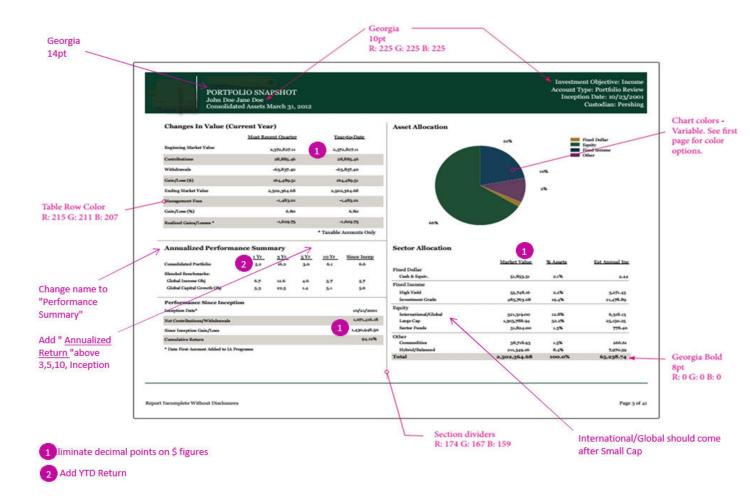
"Investment Objective:" Custom label in portfolio - \$invtob

"Account Type:" Custom label in portfolio - \$acctype

"Inception Date:" Standard label in portfolio - \$stdate

"Custodian:" Custom label in portfolio - \$cust

Example Mock-up



How to Work with MD Solutions

When you are ready to begin the process of designing and building your custom report please contact MD Solutions either via phone, (239) 337-9288 or email info@mdsolutionsllc.com. A dedicated professional will be glad to assist you in evaluating your custom report needs. We look forward to helping you gain a competitive edge in the investment industry.

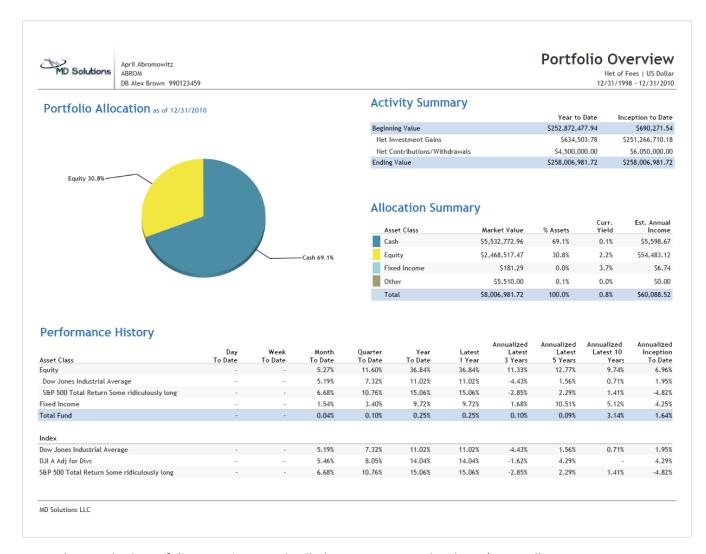
Sample Custom Reports

MD Solutions engineers custom reports using both REPLANG and SSRS. For Axys customers, we are limited to the use of REPLANG, but APX customers can utilize either option.

SSRS Reports

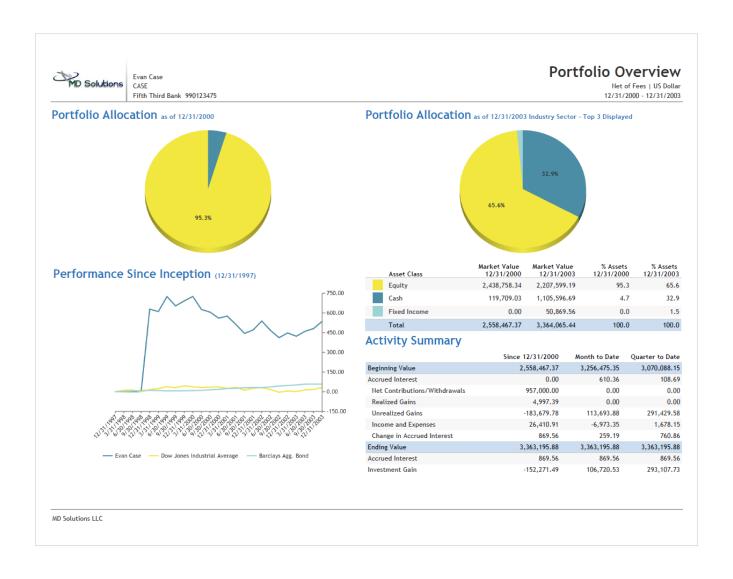
SSRS solutions bring the full capability of APX's underlying SQL architecture into the reporting project. The options available to customers when employing the full power of SSRS are limited only by the imagination.

Portfolio Overview



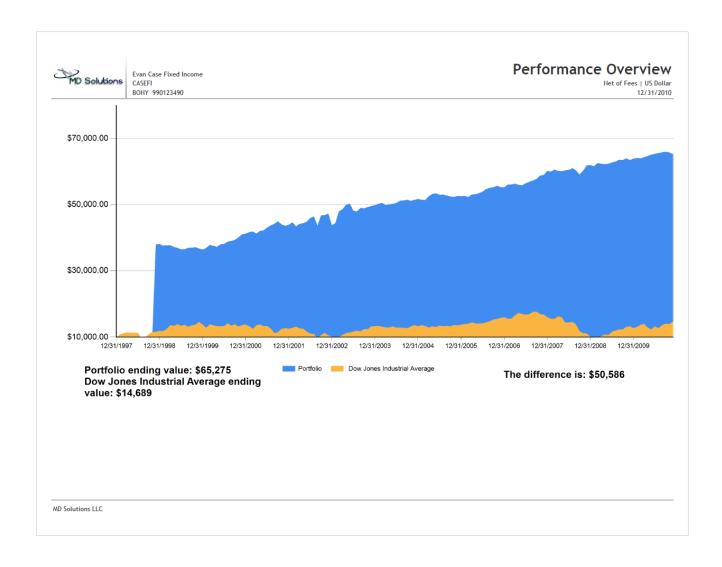
Using the standard *Portfolio Overview*, we distilled into one report the clients' asset allocation, activity and performance history. Normally, it would take 2 to 3 reports to capture this amount of information that one would want to convey to a client.

Portfolio Overview 2



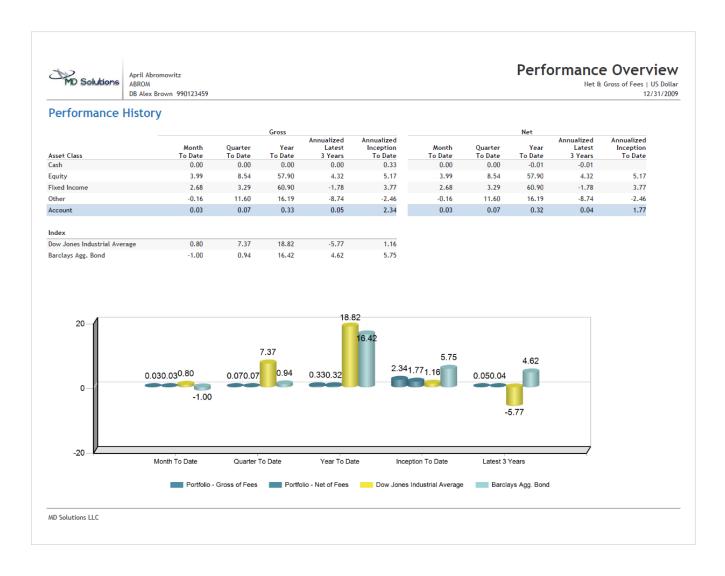
In this custom report we are able to show multiple levels of allocations over a date range, along with a graphical representation of performance.

Performance Overview



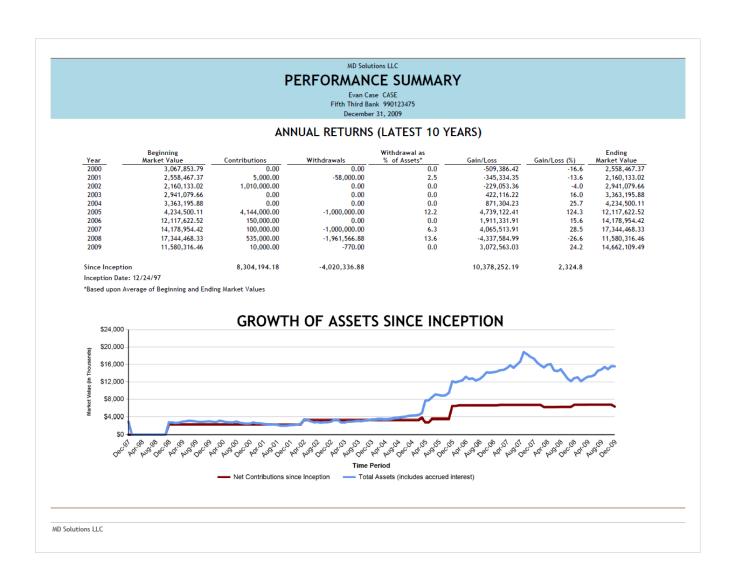
The concept demonstrated on this report is the difference between portfolio market value and the portfolio's benchmark over a date range. The report graphically depicts the performance difference in dollar terms from inception.

Performance Overview - Net & Gross



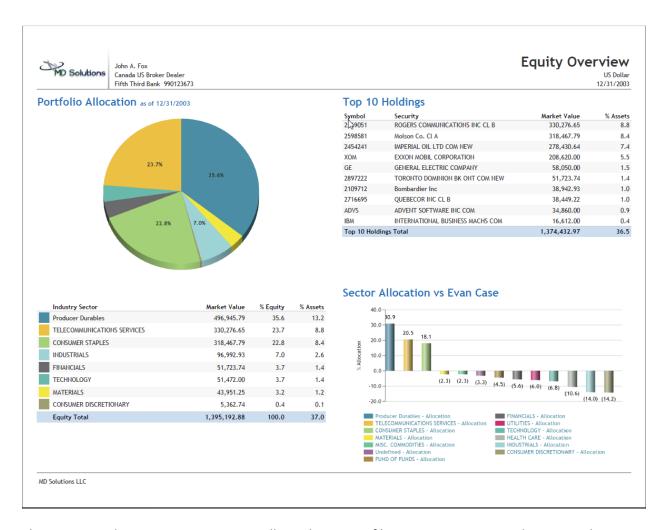
All performance reports force you to display either net or gross returns, however, this custom report allows you to present both.

Performance Summary



This **Performance Summary** displays the components of performance as well as a graphical representation since inception.

Equity Overview



This customized Equity Overview report allows the user to filter on security type and compare the portfolio to a model portfolio.

SSRS Dashboards

Dashboards allow for a succinct viewing of pertinent portfolio data in one area without having to run a report. Client service representatives have found our dashboards invaluable when speaking with clients on the phone.

Summary Dashboard



Dr. Evan Case Summary Performance **Ending May 5, 2016**

Portfolio Summary

Account Name	Opening Date	Beginning Account Value*	Additions/ Withdrawals/ Fees	Realized Gains/Losses	Unrealized Gains/Losses	Interest/ Dividends	Accrued Interest	Ending Account Value*
Evan Case CASE	12/24/1997	\$ 0.00	\$ 3,495,959.73	\$ 8,482,988.36	\$ 1,353,058.81	\$ 954,270.24	\$ 1,724.79	\$ 14,524,905.10
Evan Case IRA CASEIRA	12/31/1997	\$ 0.00	\$ 1,975,437.54	\$ 27,094.90	\$ 929,171.32	\$ 154,545.42	\$ 0.00	\$ 3,153,449.46
TOTAL		\$ 0.00	\$ 5,471,397.27	\$ 8,510,083.26	\$ 2,282,230.13	\$ 1,108,815.66	\$ 1,724.79	\$ 17,678,354.56

^{*} Excludes Accrued Bond Interest

Performance Summary

Account Name	Performance Start Date	Inception Cumulative TWR NET**	YTD TWR NET**	Blended Benchmark Index***	Inception Cumulative Blended Benchmark***	YTD Blended Benchmark***	Inception S&P 500 Total Return Index	YTD S&P 500 Total Return Index
Evan Case CASE	12/31/1997	2,301.86 %	-0.95 %	20% r3000dv, 80% sp500to	70.00 %	12.00 %	80.00 %	5.00 %
Evan Case IRA CASEIRA	12/31/1997	440.19 %	0.32 %	20% r3000dv, 80% sp500to	70.00 %	12.00 %	80.00 %	5.00 %

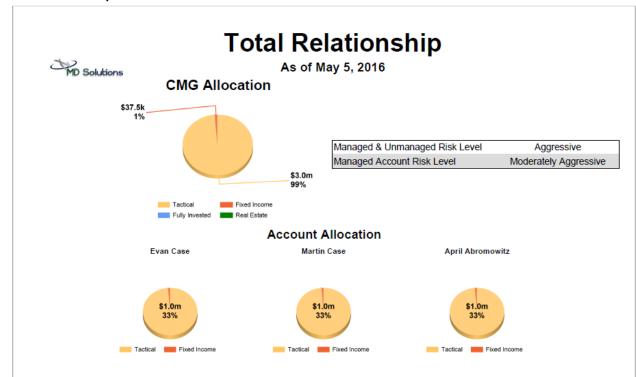
^{**} Net of fee performance is calculated using actual fees paid.

*** Benchmark is calculated based on the current goals and does not account for historical goal changes.

**** This dashboard EXCLUDES unsupervised securities.

Index Key***	
Russell 3000 Index	r3000dv
S&P 500 Index	sp500to
Dow Jones Select Index	Djsel
ML US CORPS A-AAA 1-10 YR	mlcoraa
LEHMAN MUNI BOND INDEX-5 YEAR	Ibmuni
CG 3 Month T-Bill	lbtr

Relationship Dashboard



Performance December 31, 1997 to May 5, 2016

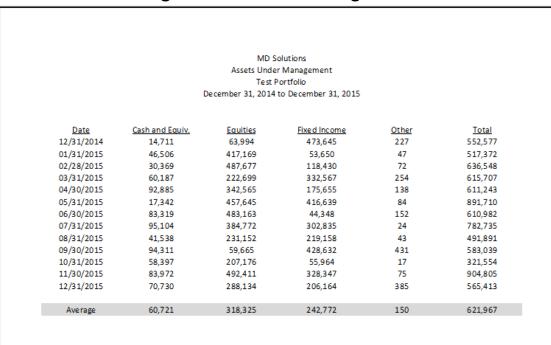
	Risk Level Index Description	Cumulative Net*	YTD Net*
Relationship Performance		-91.82 %	0.35 %
Aggressive Risk Level Index	16% Russell 3000/14% TBILLS/70% S&P 500	15.00 %	-3.00 %
Moderately Aggressive Risk Level Index	14% Russell 3000/11% TBILLS/60% S&P 500/15% BofA Bond Index	12.00 %	15.00 %
Moderate Risk Level Index	22% Russell 3000/18% TBILLS/40% S&P 500/20% BofA Bond Index	5.00 %	7.00 %
Moderately Conservative Risk Level Index	27% Russell 3000/23% TBILLS/20% S&P 500/30% BofA Bond Index	3.00 %	8.00 %
Conservative Risk Level Index	33% Russell 3000/27% TBILLS/40% BofA Bond Index	-1.00 %	12.00 %

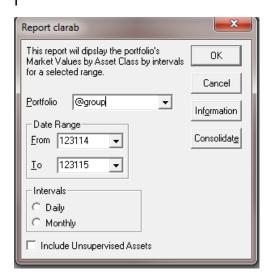
^{*} Net of fee performance is calculated using actual fees paid.

Custom REPLANG Reports

REPLANG has been the backbone of Advent reporting for over twenty years and remains a robust reporting solution for both Axys and APX. The report run dialog boxes contain a description of each report.

Assets Under Management for a Date Range

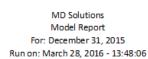




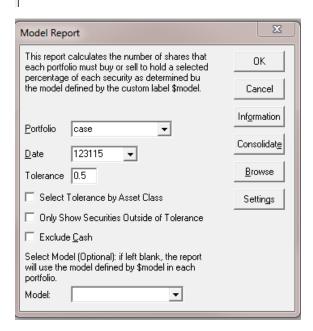
Model Report

All Assets not held by the model are flagged regardless if the percentage is within the tolerance.

User can use exclusion labels to ignore specific securities.



<u>Portfolio</u>	<u>Name</u>	Model	<u>Symbol</u>	<u>Price</u>	<u>Shares</u> <u>Owned</u>	<u>Target</u>	Current Pct	<u>Difference</u>	Shares to Buy/ (Sell)
case	Evan Case	gmad	aapl	125.45	1993	25	24.54	(0.46)	(1495)
case	Evan Case	gmad	advs	85.55	2922	25	24.53	(0.47)	(2192)
case	Evan Case	gmad	dow	58.67	4261	25	24.53	(0.47)	(3196)
case	Evan Case	gmad	ibm	77.63	3220	25	24.53	(0.47)	(2415)
case	Evan Case	gmad	t	152.62	125	0	1.87	1.87	(125)
abrom	April Abrom	usequ	aapl	125.45	1833	23	22.54	(0.46)	(1411)
abrom	April Abrom	usequ	ge	39.11	11000	41	42.17	1.17	(6490)
abrom	April Abrom	usequ	ibm	42.07	713	3	2.94	(0.06)	(692)
abrom	April Abrom	usequ	hmn	28.26	4954	14	13.72	(0.28)	(4260)
abrom	April Abrom	usequ	pcg	44.76	4245	19	18.63	(0.37)	(3438)



Only Showing Securities outside of Tolerance:

MD Solutions Model Report For: December 31, 2015 Run on: March 28, 2016 - 13:48:06

<u>Portfolio</u>	<u>Name</u>	Model	<u>Symbol</u>	Price	Shares Owned		Current Pct	<u>Difference</u>	Shares to Buy/ (Sell)
case	Evan Case	gmad	t	152.62	125	0	1.87	1.87	(125)
abrom	April Abrom	usequ	ge	39.11	11000	41	42.17	1.17	(6490)

Transactional Report

- New page for each/report for each currency
- Can display cash, income cash or both with or without running balances
- Beginning / Ending Balances
- Optional Summary at end of each currency section
- Can be sorted by Date or By Activity (transaction code)
- Optional to display Journal Entries (non-cash related transactions)

ACCOUNT TRANSACTIONS - DATE

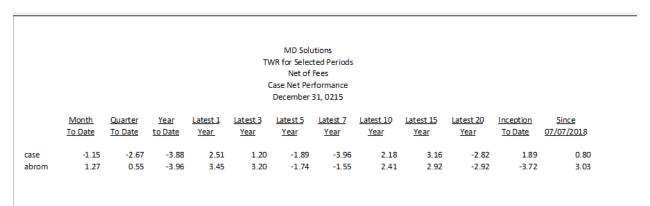
ACCOUNT NAME: Clara Murphy ACCOUNT NUMBER: test CUSTODY ACCOUNT: CURRENCY: Canadian Dollar

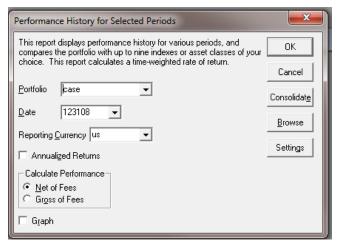
TRADE DATE	ACTIVITY	QUANTITY	SECURITY / DESCRIPTION	PRICE	GROSS AMOUNT	сомм	CAPITAL CASH	CAPITAL CASH BALANCE	REVENUE CASH	REVENUE CASH BALANCE
12-31-14			BEGINNING BALANCE					\$ 0.00		\$ 0.00
01-05-15	OPERATING EXP	ENSE	epcaexecutorfee		(50.00)		(50.00)	(50.00)		0.00
01-15-15	OTHER EXPENSE	1	excasaleschg		(300.00)		(300.00)	(350.00)		0.00
06-15-15	OPERATING EXP	ENSE	epcasaleschg		(500.00)		(500.00)	(850.00)		0.00
10-21-15	PURCHASE	6,830,000.000	FOREIGN CURRENCY - US DOLLAR	1.30	(8,865,340.00)		(8,865,340.00)	(8,866,190.00)		0.00
11-17-15	SALE	(6,830,000.000)	FOREIGN CURRENCY - US DOLLAR	1.30	8,867,184.10		8,867,184.10	994.10		0.00
12-15-15	WITHDRAWAL	(100.000)	WITHDRAWAL FROM PORTFOLIO		(100.00)			994.10	(100.00)	(100.00)
12-30-15	WITHDRAWAL	(1,000.000)	WITHDRAWAL FROM PORTFOLIO		(1,000.00)		(1,000.00)	(5.90)		(100.00)
JOURNAL	ENTRIES									
03-15-15	OTHER EXPENSE	1	excasaleschg		(600.00)		_	_	_	
06-15-15	OTHER EXPENSE	1	excaredeemchg		(300.00)		_	_	_	
07-15-15	DELIVER IN	100.000	Canadian, apple, with, commas		100.00		-	-		
07-15-15	OPERATING EXP	ENSE	epcasaleschg		(400.00)		-	-	-	
10-20-15	PURCHASE	6,830,000.000	cad Forward November 17, 2015		(8,867,184.10)		-	-		
12-31-15	•		CLOSING BALANCE					(\$ 5.90)		(\$ 100.00)

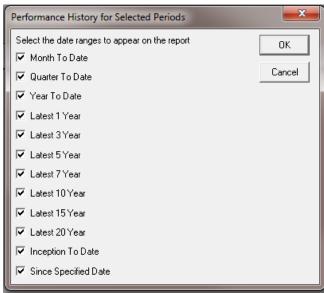
2

TWR with Extra Periods

Standard Performance History for Selected Periods with Week to Date and Since Date (IRR) Options removed with 7 year, 10 year, 15 year and 20 year options added.







Utilities

We create utilities that increase operational efficiencies in areas where you are failing to meet internal deadlines.

Billing Reports

While the stock billing reports allow you to bill on flat rate or tiers, we understand that more flexibility is needed. We have written management fees reports, invoices and extracts to every conceivable specification.

Summary of Management Fees with Extracts

MD Solutions LLC SUMMARY OF MANAGEMENT FEES

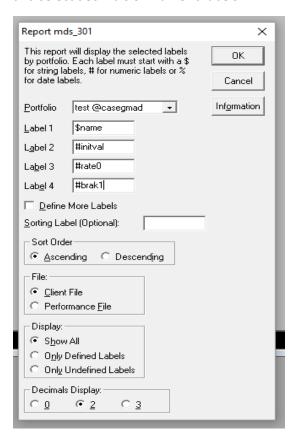
			Portfolio														
		Bill	Value on	Flat	Billing	Fi	irst	Se	cond	T	hird	Fo	urth	F	ifth	Sixth	Management
Portfolio Code	Portfolio Contact	Per.	12-31-08	Fee	Minimum	Rate	Bracket	Rate	Bracket	Rate	Bracket	Rate	Bracket	Rate	Bracket	Rate	Fee
@casetrade	Case	Qtr.	349,837,297.23		0	0.7500%	1,000,000	0.6500%	2,000,000	0.5500%	3,000,000	0.4500%	4,000,000	0.3500%	5,000,000	0.1000%	93,084.32
case	Evan Case		11,575,808.18														3,080.08
casec	Mr. Martin Case		2,215,071.37														589.38
caseira	Dr. Evan Case		2,537,637.80														675.21
casehf	Mr. John Abraham		330,873,614.49														88,038.49
casem	Mr. Martin Case		2,635,165.39														701.16
test	test	Qtr.	2,931,950.00		0	1.0000%	2,931,950										7,329.87
@FAMCASE	Case	Qtr.	349,837,297.23		0	0.7500%	1,000,000	0.6500%	2,000,000	0.5500%	3,000,000	0.4500%	4,000,000	0.3500%	5,000,000	0.1000%	93,084.32
case	Evan Case		11,575,808.18														3,080.08
casec	Mr. Martin Case		2,215,071.37														589.38
casehf	Mr. John Abraham		330,873,614.49														88,038.49
caseira	Dr. Evan Case		2,537,637.80														675.21
casem	Mr. Martin Case		2,635,165.39														701.16
@FIXED	inst	Qtr.	64,996,809.63		0	1.0000%	64,996,810										162,492.02
instfix	Ms. Paige Priddy	-	64,996,809.63														162,492.02
usfixl	zUSFIX1-Billing	Qtr.	8,571,513.89		0	1.0000%	8,571,514										21,428.78
usfix2	zUSFIX2-Billing	Qtr.	3,819,929.13		0	1.0000%	3,819,929										9,549.82
usfix3	Ms. Linda Stern	Qtr.	16,789,340.06		0		16,789,340										41,973.35
usfix4	zusfix4-Billing	Qtr.	29,591,571.78		0	1.0000%	29,591,572										73,978.93
TOTAL			826,375,708.95														502,921.43

Standard extract files can be created as follows:

- The report will create 4 extract files:
 - Fidelity<report run date>.txt
 - Schwab<report run date>.csv
 - o TD<report run date>.csv
 - Pershing<report urn date>.csv
- Each output file will have two columns: Portfolio Code, Management Fee amount
- Utilizing the custom label "\$custody" to determine the file destination for the portfolio. If \$custody is missing or defined as something other than Fidelity, Schwab, Pershing or TD, the account will not go in any of the extract files

List Label Values

The report will display up to 10 labels with options to sort, display only defined, undefined, or all labels and select decimals on numeric labels.



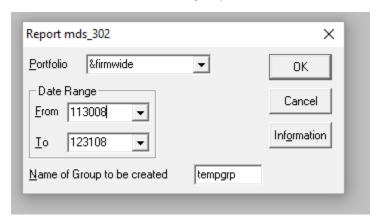
MDS LABEL LIST FROM PORTFOLIO

Portfolio	\$name	#initval	#rate0	#brakl
test	Clara Murphy	(Undefined)	1.25	1,000,000.00
case	Evan Case	871,859.10	1.60	250,000.00
gmad	G Ma D name 1	100,000.00	1.60	250,000.00

Composite Group Creator Report

The report will create a group of all portfolios held during a selected time period in a composite.

- Portfolio dropdown selection Limited to composite only selection
- Two Date selection: From/To for Composite Entry/Exit dates
- Edit box to name new group created





Reconciliation Maximizer (REX Customers Only)

The report creates a group that contains portfolios that have transactions in the Statement file (.rxx) that have not been match in REX.

Workflow Problem: The main group used for reconciliation contains thousands of portfolios for which only hundred contain transactions requiring review from custodians. The normal pre-market opening processing requires several iterations of REX matching which can take an hour each.

Resolution: Match on only those portfolios that contain transactions versus matching against all the portfolios in the group.

Workflow Problem: On those days when you've completed accepting Perfects, Tolerance and going through the near matches, you could be left with thousands of portfolios with Missing transactions, but only a handful of accounts that are missing matches in the Statement file.

Resolution: Instead of searching through all the accounts, wouldn't you like to only have to review portfolios that have transactions missing matches in the Statement files? This utility can provide a solution to both problems.