Onboarding Guide





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Contents

Overview	
Preparing for Rebalancing in Morningstar tRx	
Logging into Morningstar tRx	
Overview	
How do I log into Morningstar tRx?	
Scheduling Automatic Uploads	
Overview	
Importing Data into tRx	
Overview	
Householding in Morningstar tRx	
Overview	
How do I create a new Client in tRx?	
Creating Asset Class Categories	
Overview	
How do I create Asset Categories at the class level in How do I create Asset Classifications at the subclass	n tRx?
Assigning Securities in Asset Classes	
Overview	
How do I assign securities to subclasses individually	?20
How do I assign securities to subclasses in bulk? How do I upload my subclass assignment spreadshe	
Creating Models	
Overview	25
How do I create a model?	
How do I assign a household to a model?	
Creating Buy Sets	
Overview	
How do I create a buy set	
Troubleshooting Data Errors after Import	
Overview	
What errors might I encounter in tRx?	

Morningstar tRx Onboarding Guide

Welcome to Morningstar Total Rebalance Expert (tRx). This platform helps you streamline your business with efficient rebalancing and portfolio management. A sample of tRx's core capabilities are described in the table below.

Overview

Feature	Description
Analysis Expert	Instantly analyze and view results, allowing you to identify which clients require action – at a glance.
Rebalancing	tRx calculates trades while considering your parameters, maximizing tax savings, minimizing transaction costs, and avoiding redemption fees. Additionally, tRx allows you to compare and choose trades with or without location optimization, based on costs vs. tax savings.
Cash Management	tRx automatically considers cash requirements at the model, account, and client levels.
Tax Loss Harvesting	With tRx, you can harvest tax losses opportunistically, creating ongoing tax savings and avoiding the crunch at year end.
Savings Reports	Quantify the tax savings you generate for your clients with client-friendly benefit reports.

This manual provides step-by-step instructions to set up the platform in preparation for rebalancing. The following topics are covered:

- Preparing for Rebalancing in Morningstar tRx (page 5)
- Logging into Morningstar tRx (page 7)
- Scheduling Automatic Uploads (page 10)
- ► Importing Data into tRx (page 12)
- ► Householding in Morningstar tRx (page 14)
- Creating Asset Class Categories (page 17)
- Assigning Securities in Asset Classes (page 20)
- Creating Models (page 25)
- Creating Buy Sets (page 29)
- Troubleshooting Data Errors after Import (page 32)

Preparing for Rebalancing in Morningstar tRx

Before you rebalance your clients portfolios, you must first complete a series of steps to prepare the platform. Some of these steps only need to be completed once, while others must be completed on an on-going basis. The table below describes each of these initial steps:

This step	Requires this action
Set up automatic exports from Morningstar Office to tRx	After a one-time set up, data will automatically be pulled from Morningstar Office into Morningstar tRx. This export extracts the following data:
	 household (client) data, account data, models, positions, realized gain loss information, trade lots, and transaction data for all transactional accounts that are included in the client aggregate within Morningstar Office. Note: The export will not include any quick (positional) accounts or accounts that are excluded from the client aggregate.
Import data into tRx	This step requires you to import your daily data extract from Morningstar Office into Morningstar tRx. Importing daily ensures that you are using the most recent data during rebalancing.
Create Households in tRx	This step requires you to combine all the accounts belonging to a single client into one complete client record. By default, accounts are imported using the same grouping as in Morningstar Office. This step is only necessary if you want to change these groupings and rebalance using a different strategy.
Create Asset Class Categories	Creating Asset Class Categories is a one-time step competed during your initial import from Morningstar Office into tRx. This step is only necessary if you choose to classify securities differently than how Morningstar Office classifies securities. This step is commonly completed if you choose to rebalance at the security level rather than the asset class level.
Assign Securities to Asset Classes	This step requires you to assign securities to each asset class. Securities will come through assigned to asset classes during the initial import from Morningstar Office, however, they may need to be reassigned to different asset classes, depending on how asset classes are set up in tRx
	Security classification determines the asset allocation for each account. During the rebalancing process, accounts are compared to model portfolios to determine whether the account is out of balance.
	From there, tRx will determine what trades tRx will propose.

This step	Requires this action
Create Model Portfolios	Model portfolios are also imported during the initial import from Morningstar Office into tRx. Morningstar Office model portfolios are comprised of securities.
	However, you may wish to create new models within tRx to reflect the asset class set up within tRx. If you rebalance using subclasses rather than securities, you must create subclass level models within tRx.
Create Buy Sets	The buy set holds the preferred buys that will be purchased in the event that a subclass is under weighted in the account when compared to the model. The preferred buys have to be specified before the client will be able to rebalance in tRx. The client can also create additional buy sets if they want to have different preferred buys for different clients or groups of clients.

Logging into Morningstar tRx

Locate your login credentials in the secure onboarding email sent to you from our service team. If you have not received your email or have trouble logging in, please contact your Customer Success Manager.

Overview

In this section the following topics are covered:

- ► How to log in to Morningstar tRx,(page 7) and
- ► How to reset your password. (page 8).

To access Morningstar tRx, type trx.morningstar.com into your browser. Bookmark this page to easily return to it later. From here, log in using the Morningstar tRx credentials provided to you.

How do I log into Morningstar tRx?

M RNINGSTAR Total Rebalance Expert	t
models.demo	Enter your user name and
•••••	password here.
Forgot your password? Sign In	

Overview

To change your password in tRx, do the following:

1. From the Log in screen, click Forgot your password?. A box opens.

M RNINGSTAR Total Rebalance Expert	
models.demo	
•••••	
Forgot your password? Sign In	Click here to start.

2. In the User Name text field, type your user name.

Please enter your us on how to reset your address associated y	ername below. An email with instructions r password will be sent to the email with your user account.	
For assistance, pleas	se contact Support at (619) 294-4879	
User Name	Cancel Submit	Enter your User Name here.

How do I reset my password?

3. Click **Submit.** A box alerting you to check your email opens.



- 4. Click **OK.** Check your email account that is associated with your Morningstar tRx account. Click on the link inside the email. The Manage Password box appear.
- 5. In the **Text** fields, enter your **User Name** and **New Password**. Then **confirm** your new Password.

age Password	
For assistance, please contact Support at (619) 294-4879	
User Name: *	
New Password: *	Enter your User Name and New Password here.
Confirm New Password: *	
Reset Password	
Must not match previous password	
Minimum 8 characters	
At least one alpha (A-Z, a-z) character At least one number or symbol	
 At least one number of symbol Must not contain 5 or more sequential or repeating characters (e.g. AAAAA or 12345 would be invalid) 	
bolindala	

6. Click Reset Password.

Scheduling Automatic Uploads

After your Client Success Manager syncs Morningstar Office with tRx, you can set up a schedule so that your exported positions by lot files are automatically uploaded to the tRx platform daily or weekly, saving time by avoiding a manual upload process. This section describes how to set up a schedule to automatically upload data.

Note: schedule your export after you complete all necessary import and reconcilation tasks within Morningstar Office.

To schedule automatic uploads of positional data, do the following:

- Image: Sector of a sector of a
- 1. Login to Morningstar Office using your Morningstar Office credentials:

Overview

How do I schedule automatic uploads of positional data? 2. From the toolbar at the top of the window, click **Tools...Export...Account Positions by Lots.** The Export Account Positions by Lot dialog box opens.

Morningstar Office					
<u>File New Favorites</u>	Tools Reports Help 🛃 Import 👔	🗐 Pri	ice Monitor 🔲 QuoteSpeed	Sea	
Home	Edit Definition Master Hypothetical Illustration				
Client Management	Efficient Frontier		Search 🔹 🔍 Smart Search 🗅	W M	
Clients	Suitability Manager	3	🔺 Birthday Date	te	
Prospects	Settings	•			
E Contacts	Find	- F			
Billing	Market Barometer				
Activities	Calculators	3			
I Mail Merges	Trade Blotter				
Task Manager	Batch Document Upload	1			
Note Manager	Launch Web Portal		12/15/1975		
🕨 🔤 Workflow	Launch Corporate Action Warehouse	- 1	12/15/1975		
Saved Reports	Global Transaction Wizard	•			
Rebalancing	Advisor-Client Questionnaire	F		12	You only need to set up your
	Export	+	Account Positions		automatic export once
	🔽 11 John Cena		Account Positions by Lot		automatic export once
	T 12 Miles Family				

- 3. From the Schedule Export area, check Create Export Schedule.
- 4. Select Frequency. Then select a Start time.
 - Note: This export includes transactional accounts only. The start time should occur after daily import and reconciliation.
- 5. From the Rebalance Tool drop down, select Total Rebalance Expert (TRX)
- 6. Enter the email address where you want to be notified that your export is complete.



7. Click Save + Close.

Importing Data into tRx

 Now that you've scheduled automatic uploads from Morningstar Office into
 Overview

 Morningstar tRx, your ready to import your extracted data into tRx in preparation
 for rebalancing.

 Image: The state includes: households, securities, prices, and transactions. Open proposals will need to be canceled or completed (sent to DISMISS or TRADES status).
 Overview

Import your extracted data daily to ensure that the most up-to-date data is used during the rebalancing process.

To import your automatically uploaded extract from Morningstar Office into tRx, do the following:

1. From the Menu, select Workflow. Then click Import. The Import page opens.

- ☞ Note: Click the pin icon to keep the Menu open.
- 2. Click the Upload Extract button. The Import Extract box opens.

How do I import data

into tRx?

₩enu	MC SHNINGSIAH Total Rebalance Expert	
lome >		
Workflow		
Trade Proposals	//////////////////////////////////////	Click here to sta
Import	Clients	
Recalculate		
► Trade Management	AUM \$	
► Client Management	51,150,761.93	
► Investment Modeling	You have 10 of 12 clients that	
► Settings	require review.	
+ Help	Requiring Review	
ian Out	Out of Balance	
	Cash	
	Tax Loss Harvesting	

3. From the Import Extract box, click Import.

≡ Menu			MORN	IINGSTAR T	otal Rebalance E	xpert	
	Import Upload Extract						
	Import Settings		A newer data	extract is read	dy for import.		
	Configuration		Import Extract	Extract	Created	Imported	Click this button to import data.
	Import Method	PortfolioCenterImportService	(Import)	Extract	6/12/2017 3:38:18 PM	_	
		Yes	(miperi	Exclude	0/12/2017, 0.00.101111		<u> </u>
	Nidel Type	Sector					
	Rebalance Levels	Class/Sector					
	Security Class Maintained In TRX	Yes					
	Identify Cash Symbol	CASH					
	Identify Cash Security Class	MMM					

4. Upon successful import, the Active Data section reflects the new data.

MORNINGST	R Total R	lebalar	nce Expert				
	Cancel Pro	oposals			Data Settings		
					Active Data		
ortServiceCSV	Import Extract	Extract	Created	Imported	Import Status	Completed - 1/25/2019, 4:31:01 PM	
Yes		Eutrapt	5/7/2010 A-51-44 DM	Ves	As Of Date	05/02/2018	
Security		EXITACI	3/7/2010, 4.31.44 PW	Tes	Prices	05/03/2018	
Class/Security					Transactions	04/01/2018 - 05/01/2018	View the
Yes					Realized Gains	04/01/2018 - 05/01/2018	status of your
					Sum YTD Gains	01/01/2018 - 05/01/2018	data here.
MMM							
MMM							

Now that you've extracted your data, review each client record to ensure that the accounts comprised within each household are grouped in the in the strategy you want to use to rebalance.

Note: Accounts are imported using the same grouping as in Morningstar Office. If you want to rebalance by individual account rather than by household, you must create individual households in tRx which contain individual accounts.

In this section, the following topics are covered:

- ► Creating new Clients in tRx, (page 14) and
- Moving accounts into different Clients. (page 15)

To create clients in tRx, do the following:

≣Menu

Clients Accounts

Positions

Securities

Reports

▶ Settings
 ▶ Help

Sign Out

Home > ► Workflow

Trade Management
 Client Management

Investment Modeling

1. From the **Menu**, select **Client Management**. Then select **Clients**. The Clients page opens.

How do I create a new Client in tRx?

Click here to start

Overview

View Analysis >
MARTINICATION

M RNINGSTAR Total Rebalance Expert

Clients

AUM \$

51,150,761.93

require review.

Requiring Review

Out of Balance Cash

Tax Loss Harvesting

You have 10 of 12 clients that

2. From the Clients page, click Assign Clients. The Assign Clients page opens.

			M)RNINGS	TAR Total	Rebalanc	e Expert				
Clients Assign (lients Inactive Clients									
🖒 Refresh	⊥ Download CSV		Display:	100 🗸	≪	ge: <u>1 ∨</u> of 1	> >		Displaying Rec	cords: 1 - 37 of 37
Client	Description	Model	Advisor Set	Rebal. Set	Preferred Buy	Managed Value	Unmanaged Value	Last Action	Action	Last Transaction Date
8187	Allen, Philip and Irma	Income	SR	-	Standard	\$1,741,260	\$0	10/30/2018	Trade	11/24/2014
8186	Anderson, Ursula	Income	SR	-	Standard	\$1,159,988	\$0	09/18/2018	Rebalance	-
8211	Banner, Elizabeth	Aggressive Growth		-	Standard	\$886,028	\$0	01/04/2019	Rebalance	-
3208	Barker, Sandra and Larry	Growth and Income	AA	-	Standard	\$2,124,240	\$0	01/09/2019	Rebalance	12/23/2014
2038	Barnes, D and K	Aggressive Growth		-	Standard	\$1,846,495	\$0	12/17/2018	TLH	-

- 3. In the drop-down menu, select New Client.
- 4. From the grid, select the clients you want to combine.
- 5. In the text box next to the drop-down menu, type a name for the new client.

				MORNINGS	TAR Total Rel	balance Expe	rt			
sign	Clients									
New Cl	ient V	Allen, Irma		Growth	V (Update))				After colocting
🖒 Refresh 🚽 Download CSV		Display: 100 V		< Page. 1 V	< Page. 1 V of 2 > >>		Displaying Records: 1 - 100 of 133			
•	New Client ID	New Client	Current Client	Current Client	Model	Account Number	Account Description	Account Type	Cat	client here.
	2	2	8187	Allen, Philip and Irma	Income	9999-0004	Allen, Irma	IRA	IRA	
2	14 () () () () () () () () () (2	8187	Allen, Philip and Irma	Income	9999-0005	Allen, Irma	Roth	ROTH	
	-		8187	Allen, Philip and Irma	Income	9999-0006	Allen, Philip	Roth	ROTH	
	_		8187	Allen, Philip and Irma	Income	9999-0007	Allen, Philip	IRA	IRA	

6. Click Update. Remain on the Assign Clients page.

To move accounts from one client to another, do the following:

- 1. From the **Assign Clients** grid, select the **account** you wish to move.
- 2. From the drop-down menu, select **Change Client**. The Select Client drop-down menu appears.

How do I move an account to a different client in tRx?

sign (Clients								×	
Change New Cl Change	e Client 🗸 lient e Client	Select Client	V	Display. 10	V «	< Page: 1 V	af 2 🗲 ≫	Displaying	Records: 1 - 10 of 12	Select the accour you want to move
•	New Client ID	New Client	Current Client ID	Current Client	Model	Account Number	Account Description	Account Type	Cat	select Change Client here.
	-	-	8	Banner Family	Aggresive Gro	44952882	Bruce Banner Individual Account	Taxable	TAX	
0		-	3	Barnes Bucky	Alt Growth	15481952	Bucky Barnes IRA	Traditional IRA	IRA	

3. Select the **Client** you want to move the account to.

Change Client 🗸	5 - Castle, Frank	Y CL	Jpdate)						
& Refresh ⊥ Do	Select Client 8 - Banner Family 3 - Barnes, Bucky		Display: 10	<u>v</u> «	< Page: 1 V	of 2 > >>	Displaying Rec	ords: 1 - 10 of 12	Select the clip you want to
New Client ID	5 - Castle, Frank 4 - Guardians of the Galax 11 - Parker, Peter	y lient	Current Client	Model	Account Number	Account Description	Account Type	Cat	move the account to he
-	6 - Rhodes, Jim 2 - Recerc Steve		Banner Family	Aggresive Gro	44952882	Bruce Banner Individual Account	Taxable	TAX	
0 -	10 - Romanoff Natasha		Barnes, Bucky	Alt. Growth	15481952	Bucky Barnes IRA	Traditional IRA	IRA	
□ -	12 - Stark, Tony		Castle, Frank	Funds Growth	86149184	Frank Castle IRA	Traditional IRA	IRA	
o –	9 - Strange, Stephen Vince	ent	Guardians of the Galaxy	Hefty Growth	13307206	Peter Quill IRA	Traditional Rollover	IRA	
0 -	7 - Wakanda Family		Parker, Peter	Funds Growth	50551655	Peter Parker Roth IRA	Roth IRA	ROTH	
0 -	1 Wilson, Sam	_	Rhodes, Jim	Hefty Growth	83680510	Jim Rhodes Individual Account	Taxable	TAX	
—	-	2	Rogers, Steve	Hefty Growth	98850906	Steve Rogers IRA	Traditional IRA	IRA	
—	-	10	Romanoff, Natasha	Blain LLC Tota	12194035	Natasha Romanoff Individual	Taxable	TAX	
	-	12	Stark, Tony	Alt. Growth	60016145	Tony Stark Individual Account	Taxable	TAX	
—	-	9	Strange, Stephen Vincent	Alt. Growth	57092174	Steven Vincent Strange SEP-IRA	SEP IRA	IRA	

4. Click Update.

Creating Asset Class Categories

Now that households are created or changed, the next step is to create asset classes for security categorization. Because tRx rebalances by asset allocation, all securities must be assigned to a class and a subclass.

In this section, the following topics are covered:

- Creating Asset Categories at the class level, and (page 17)
- Creating Asset Categories at the subclass level. (page 18)

To create Asset Categories at the class level, do the following:

1. From the **Menu**, select **Settings**. Then select **Classifications**. The Classifications page opens.

M RNINGSTAR Total Rebalance Expert **≣ Menu** 1 > Home ► Workflow Trade Management Client Management Clients Investment Modeling Settings AUM \$ **Global Settings** 51,150,761.93 Enterprise You have 10 of 12 clients that Click here to start. Location Optimization require review. Classifications Morningstar Registration **Requiring Review** Data Maintenance Out of Balance ► Help Cash Tax Loss Harvesting Sign Out View Analysis >

- 2. From the View drop-down menu, select Class.
- 3. Click Add Classifications. The Manage Classification box opens.

≣Menu	M Rotal Rebalance Expert									
	Classificat Add Class & Refresh	sification	Display: 100 V	Display: 100 v $ \langle \in Page; 1 v$ of $1 > > $			Select this option.			
	SubClass	Description	Display Order	Class	Description	Display Order				
	YHOO	Yahoo	0	US	US Stocks	0				
	WMT	Wal Mart	0	US	US Stocks	0				
	USCV	US Small Cap Value	0	UŜ	US Stocks	0				
	USCG	US Small Cap Growth	0	US	US Stocks	0				
	USCB	US Small Cap Blend	0	US	US Stocks	0				

How do I create Asset Categories at the class level in tRx? 4. In the Text fields, Type Class, Description and Display Order into the text boxes.

Class *	USEQ	
Description *	US Equity	Type Class data in
Display Order *	0	these fields.

- ☞ Note: Display Orders can remain 0 until all classifications are completed.
- 5. Click **Add**. Remain on the Classifications page.

To create Asset Classifications at the subclass level, do the following:

- 1. From the View drop-down menu, select SubClass.
- 2. Click Add Classifications. The Manage Classification box opens.

How do I create Asset Classifications at the subclass level?

≡Menu			M cRNINGSTAR Tota	NINGSTAR Total Rebalance Expert					
	Classificat Add Class	sification			View: SubClass V	Select this option.			
	Ĉ Refresh ⊥ Download CSV		Display: 100 🗸	≪ < Page	1 V of 1 > >	Displaying 7 Subjects 2			
	SubClass	Description	Display Order	Class	Description	Display Order			
	YHOO	Yahoo	0	US	US Stocks	0			
	WMT	Wal Mart	0	US	US Stocks	0			
	USCV	US Small Cap Value	0	US	US Stocks	0			
	USCG	US Small Cap Growth	0	US	US Stocks	0			
	USCB	US Small Cap Blend	0	UŚ	US Stocks	0			

- 3. In the Text fields, type **Subclass**, **Description** and **Display Order** into the Text Boxes.
- 4. From the Class drop-down menu, select the **Class** you want your new **Subclass** to fall under.

/lanage Classific	cation	X	
SubClass *	LCV		
Description *	Large Cap Value		Type subclass data
Display Order *	0		in these fields.
Class *	USEQ V		
	Add		Select the class from this drop-down men

- Pote: Display Orders can remain 0 until all classifications are completed.
- 5. Click Add.

The following table includes examples of class/subclass designations.

Class Description	Class Code	SubClass Description	SubClass Code
US Equity	USEQ	 LC Value LC Growth MC Value MC Growth SC Value SC Growth 	 LCV LCG MCV MCG SCV SCG
Intl Equity	INLEQ	INLEQ Intl LC Intl SC Emerg Mkts	
Real Estate	REET	► US R/E► Intl R/E	► USRE► INTLRE
Natural Resources	NATRES	 Commodities Natural Resources 	► COMM► NATRES
Strategic	STRT	► Strategic	► STRT
US Fixed Income	come USFI		 STBD INTBD HY TIPS GOVTBD CDS INBD INTLBD
Intl Fixed Income	INTLFI	EM Bond	EMBD

Assigning Securities in Asset Classes

After creating asset categories, the next step is to assign securities to your asset categories. With this, you will assign securities to Subclasses, and tRx will link the correct class with the subclass you've chosen. Securities can be assigned one by one through the Security Maintenance page, or in bulk using the Data Maintenance page.

In this section, the following topics are covered:

- Assigning securities to subclasses for individual securities(page 20)
- ► Assigning securities to subclasses in bulk using Microsoft Excel (page 22), and
- Uploading subclass assignment spreadsheets back into tRx.(page 23)

To assign securities to subclasses individually, do the following:

1. From the **Menu**, select **Client Management**. Then select **Securities**. The Securities page opens.

Overview

How do I assign securities to subclasses individually?

≣ Menu	M RNINGSTAR Total Rebalance Expert	
Home > > Workflow > Trade Management		
Clients Accounts Positions Securities	Clients AUM \$ 51,150,761,93	Click here to start.
Reports Investment Modeling Settings	You have 10 of 12 clients that require review. Requiring Review	
► Help	Out of Balance Cash	
oign out	Tax Loss Harvesting View Analysis >	

2. From the **Securities** page, click on the **Security** you want to assign to a Subclass. The Securities Setting page opens.

			MC	ORNINGSTAR T	otal Rebala	ance Expe	rt			
Securities									ALLE L	
Add Secu	inity									
C Refresh	⊥ Download CSV		0	isplay: 100	v «	Page: 1 V	of 1 >	>		
а		<all> V</all>	<all> V</all>		<all> V</all>	<all> V</all>				
Symbol	Description	Counts As	Security Type	TotalMktValue	Sell Flag	Buy Flag	Demin Sell	Demin Buy	Min. Buy New Acct	Click on a security.
AAPL	APPLE COMPUTER INC	CSCO	Equity	-	Ok to Sell	Standard	\$1,000	\$1,000	\$0.	
ABCD	Real Estate	RE	Mutual	\$0	Ok to Sell	Standard	\$0	\$0	\$0	
ACBPX	American Century Diversified B	UTITB	OTHER	\$5,779,987	Ok to Sell	Standard	\$0	S0	\$0	
ACIIX	American Century Equity Income	ULCV	Mutual	\$3,828,624	Ok to Sell	Standard	\$0	\$0	S0	
ACINX	Columbia Acorn International F	NUDS	Mutual	\$72,864	Ok to Sell	Standard	\$0	\$0	\$0	
ACVIX	American Century Small Cap Va	USCV	Mutual	\$20,265	Ok to Sell	Standard	\$0	\$0_	\$0	
ACWI	iShares MSCI ACWI Index	BLEND	OTHER	\$47,027	Ok to Sell	Standard	\$0	\$0	\$0	

3. From the Summary area, click on the Counts As drop-down menu to select a SubClass.

		MORNINGSTAR Total Rebalance Expert			
Summary - AA	PL APPLE COMPUTER INC	Security Settings	Delete Security Account Override Notes Sa	ve	
Price Date 01/10/2019	Price \$153.10	Redemption Fee Penalty Interval Rever Interval Always Redemption Fee Penalty %-*	Badamatian Fas Panalty Nave-*		
CUSIP	Security Type Equity		0	Select a SubClass from	
Counte Ae ULCV V	Name US Large Cap Value	Buy Flag		this menu.	
		Sell Flag O Do not sell Must sell 🌘 O	k to sell 🔿 Priority sell		

- 4. Click Save.
- 5. Repeat steps **2 through 4** for each security you want to assign a Subclass to.

To assign securities to subclasses in bulk, you must first download an Excel spreadsheet. Once downloaded, assign your subclass classification within the spreadsheet. Once assigned, you must upload the spreadsheet back into tRx. To download the Excel spreadsheet, do the following:

How do I assign securities to subclasses in bulk?

1. From the **Menu**, select Settings. Then select **Data Maintenance**. The Data Maintenance screen opens.

≡Menu	MORNINGSTAR Total Rebalance Expert	
Home Workflow Trade Management Client Management Investment Modeling Settings	Clients	
Global Settings	51,150,761.93	
Enterprise Location Optimization Classifications	You have 8 of 12 clients that require review.	
Morningstar Registration	Requiring Review	Click here to start.
► Help	Out of Balance Cash	
Sign Out	Tax Loss Harvesting	

2. From the Data Maintenance drop-down menu, select Security Classification.

	M RNINGSTAR Total Rebalance Expert	
ata Maintenance		
Select File Type 🛛 🗸		
Select File Type		
Asset Class		
Asset Subclass	to export to Excel for editing. Once finished, make sure the same type of data is selected and upload the edited file. The	Select this option
Security Classification		Select this option
Security Settings		
Allocation Model		
Household		
Account		
Preferred Buys		
Location Optimization		
Restricted Plans		

3. Select **Download File**. The Security Classification Excel file appears at the bottom of the screen.

	M RNINGSTAR Total Rebalance Expert				
)ata M	laintenance				
Securit	ay Classification 🗸 🗸 🗠	Download File 🖉 🔶 🛨 Upload F	ile	Clic	k this buttor
				MARKA PART CARDINAL PART CONTRACT VALUES	
elect the	e type of data you wish to export to Ex for that type	cel for editing. Once finished, make sure	the same type of data is selected ar	nd upload the edited file. Th	
elect the xported f	e type of data you wish to export to Ex for that type.	ccel for editing. Once finished, make sure	the same type of data is selected ar	nd upload the edited file. Th	
elect the ported f	e type of data you wish to export to Ex for that type. Field	cel for editing. Once finished, make sure Format	the same type of data is selected an	nd upload the edited file. Th	
elect the	e type of data you wish to export to Ex for that type. Field Symbol	cel for editing. Once finished, make sure Format	the same type of data is selected an Values	nd upload the edited file. Th	
elect the	e type of data you wish to export to Ex for that type. Field Symbol Description	cel for editing. Once finished, make sure Format —	the same type of data is selected an Values	nd upload the edited file. Th	
elect the ported t	e type of data you wish to export to Ex for that type. Field Symbol Description Security Type	cel for editing. Once finished, make sure Format — — — —	the same type of data is selected an Values — — —	nd upload the edited file. Th	

From here, enter the Security Classifications you want to use within tRx into the downloaded Microsoft Excel spreadsheet. Once complete, save your spreadsheet to your local drive.

Now that you've assigned subclasses within your Excel spreadsheet, you must upload your subclass assignment spreadsheet back into tRx.

How do I upload my subclass assignment spreadsheeet into tRx?

To upload your spreadsheet, do the following:

1. From the **Menu**, select Settings. Then select **Data Maintenance**. The Data Maintenance screen opens.

2. From the **Data Maintenance** drop-down menu, select **Security Classification**.

	M RNINGSTAR Total Rebalance Expert	
)ata Maintenance		
Select File Type 🛛 🗸		
Select File Type		
Asset Class		
Asset Subclass	to export to Excel for editing. Once finished, make sure the same type of data is selected and upload the edited file. The	Select this option
Security Classification		
Security Settings		
Allocation Model		
Household		
Account		
Preferred Buys		
Location Optimization		
Restricted Plans		

3. Select Upload.

ta maintenance						
ecurity Classification V 🖉 🛓	Download File 🔵 🏠 Upload	File) File Name: Sec	Classifications_01102019_0257_ryan_r	lemo.csv		Import
ect the type of data you wish to export to b orted for that type.	ixel for editing. Once finished, make sure	a the same type of data is selected and uploar	the edited file. The file name being uplos	aded must match t	he file name most rece	Click here to import subclas
			<a > V	<all> V</all>	<all> V</all>	
Field	Format	Values	Can Add?	Change?	Remove?	
Field Symbol	Format	Values	Can Add? No	Change? No	Remove? No	
Field Symbol Description	Format 	Values —	Can Add? No No	Change? No No	No No	
Field Symbol Description Security Type	Format 	Values — —	Can Add? No No	Change? No No No	No No No	

4. Once the file is uploaded, select Import.

Creating Models

Now that Asset Categories (classes and subclasses) are created, and assigned Subclasses are assigned to securities, the next step is to create models.

There are two types of Models available in tRx:

- ► Classification which can include all subclasses excluding blends, and
- ► Classification-Blend, which can include all subclasses including blends.

In this section, the following topics are covered:

- Creating a model, and (page 25)
- Assigning a model to household. (page 27).

To create a model in tRx, do the following:

1. From the **Menu**, select **Investment Modeling**. Then select **My Models**. The My Models page opens.

≡ Menu		
Home > > Workflow		
	Clients	
Model Marketplace My Models	AUM \$	Click here to start.
Buy Sets Restricted Plans Models of Models Sub Blends	You have 8 of 12 clients that require review.	
► Settings ► Help	Requiring Review Out of Balance Cash	
Sign Out	Tax Loss Harvesting	

2. From the My Models screen, click Add Model. The Add Model box opens.

M RINGSTAR Total Rebalance Expert	
My Models Select from the below list of created models and/or models subscribed to from the Model Marketplace for your clients.	
Add Model Assign Models Compare	Select this button

Overview

How do I create a model?

- 3. From the Model Type drop-down menu, select Classification.
- 4. In the Model Name text box, type a name for the model.
- 5. In the **Description Name** text box, type a **description** for the model.
- 6. To create a new model based on an existing model, from the **Copy From** drop-down menu, select a **model**.

Add Model		×
Model Type: * Model Name: *	Classification V	
Copy From (Optional):	Select Model	Complete these fields

- 7. 5.Click Add. The new model is added to the My Models grid
- 8. From the **My Models** grid, select the model you just added. The Model Maintenance screen opens.

		MORNINGSTAR Total Rebalance	Expert	
My Models				
Select from the below list of created model	is and/or models subscribed to from	the Model Marketplace for your clients.		
Add Model Assign Models				
Ċ Refresh ⊥ Download CSV		Display: 100 V 🔍 K V Page:	1 ∨ of1 > >	
			<all></all>	
Model	Description	Model Source	In-Use-Status	
Growth	Growth	Classification	In-Use	
Growth and Income	Growth and Income	Classification	In-Use	Select the new model here
Income	Income	Classification	In-Use	ocidet the new model here.

9. To assign allocations to your new model, click **Add to Model**. The Add to Model box opens.

	MC	CRNINGSTAR Total Reb	alance Expert			
Model Maintenance						
Model: Growth	Type: Classification	Target: 100.00%	Description: Growth	Save		
View: SubClass Class					Add to Model	Click this button.
♂ Refresh		Display: 100 V 《	< Page: 1 v of 1 > >		Displaying Records: 1 - 8 of 8	

- 10. From the Add to Model box, select your Subclass from the SubClass menu.
- 11. Type **Target%** and **Tolerance%** into the text boxes.

Add to M	lodel		×	
SubClass:	Select Sub(Class	v	
Target % ·	0	Tolerance %: 20 Save		Complete these fields

- 12. Click Save.
- 13. Repeat steps **9 through 12** for each Subclass until the Model is fully allocated to 100%.
- 14. From the Model Maintenance page, click Save.

To assign a model to a household, do the following:

How do I assign a household to a model?

1. From the **Menu,** select **Investment Modeling**. Then select **My Models**. The My Models page opens.

≡ Menu	MOKNINGSIAK Total Rebalance Expert	
Home > > Workflow > Trade Management		
Client Management Investment Modeling	Clients	
Model Marketplace My Models	AUM \$	lick here to start
Buy Sets Restricted Plans Models of Models Sub Blends	You have 8 of 12 clients that require review.	
► Settings	Out of Balance	
Sign Out	Cash Tax Loss Harvesting	

2. From the My Models screen, click Assign Models. The Assign Models box opens.

M RNINGSTAR Total Rebalance Expert	
My Models	
Select from the below list of created models and/or models subscribed to from the Model Marketplace for your clients.	
Add Model Assign Models Compare	Select this button.

- 3. From the **Assign Models** grid, select the **client** or **clients** you want to assign the model to.
- 4. From the **Assign Model** drop-down menu, select the **model** you want to assign.

Filter Assign I	Model List A	ssign Model: Aggresive Growth	∨ (Update)				
Clients with an o	pen proposal can't be selected. Plea	se cancel the trade proposal to update mor	del.				
b Refresh \parallel \pm	Download CSV	Display: 10	✓ ≪ < Page: 1	✓ of 2 > > >		Displaying Records	the clients you've s
=	Description	Current Model	New Model	Model Type	Advisor Set	Value	
	Banner Family	Aggresive Growth		Classification	Blain Hefty	\$1,902,393	
	Barnes, Bucky	Alt. Growth	12	Classification	Blain Hefty	\$251,869	
	Castle, Frank	Funds Growth	-	Classification	Blain Hefty	\$2,669,245	
	Guardians of the Galaxy	Hefty Growth Model (ETF/MF)	-	Classification	Blain Hefty	\$34,670,414	
	Parker, Peter	Funds Growth	-	Classification	Blain Hefty	\$2,251,363	
	Rhodes, Jim	Hefty Growth Model (ETF/MF)		Classification	Blain Hefty	\$697,037	
	Rogers, Steve	Hefty Growth Model (ETF/MF)	-	Classification	Test	\$1,223,999	
	Romanoff, Natasha	Blain LLC Total Beta 40/60	-	Classification	Blain Hefty	\$297,692	
	Stark, Tony	Alt. Growth	320	Classification	Test	\$5,908,328	
	Strange, Stephen Vincent	Opp C model	-	Classification	Blain Hefty	\$47,418	

5. Click Update.

Creating Buy Sets

After creating models select your preferred funds for each subclass represented in your models. The Buy Sets screen only populates with subclasses from models. This set of preferred funds is your Buy Set and signals tRx which trades to propose when subclass allocations are under weighted.

To create a buy set, do the following:

1. From the **Menu**, select **Investment Modeling**. Then select **Buy Sets**. My Models page opens.

≡Menu	MORNINGSTAR Total Rebalance Expert	
Home Workflow Trade Management Client Management Investment Modeling	Clients	
Model Marketplace My Models	AUM \$	Click here to start.
Buy Sets Restricted Plans Models of Models Sub Blends	You have 8 of 12 clients that require review.	
► Settings ► Help	Requiring Review Out of Balance Cash	
Sign Out	Tax Loss Harvesting	

2. From the **Buy Sets** page, click on a **SubClass** you want to apply your preferred securities to. The Buy Fund by Class and Custodian box opens.

M RINGSTAR Total Rebalance Expert								
Buy Sets Manage Sets	5)	Buy Set:	Select Preferred Br	uy Set 🗸	****	Type:	Classification	
🖒 Refresh 🛛 🛓	Download CSV	Display: 100 V Rage:	<u>1 ∨</u> of 1 >	>>		Dis	playing Records: 1 - 43 of 43	
	SubClass / Symbol	Description	TAX	ROTH	IRA	TLHA		
	INTL.GTH	International Growth	-				11 - C	
	USCB	US Small Cap Blend						
	AAPL	Apple						Click on the row
	UIGB	US Inv Grade Bonds	381426NL5	381426NL5	381426NL5			the subclass vo
	UTLTB	US Txbl Long Term Bonds	38375QGN3	38375QGN3	38375QGN3	GSG		want to assign
	UIPB	US Infl Protected Bonds	AIANX	AIANX	AIANX	AIAVX		want to assign.
	AMZN	Amazon	AMZN	AMZN	AMZN			
	UHYB	US High Yield Bonds	ANONX	ANONX	ANONX			

Overview

How do I create a buy set

- 3. There are four security types for each subclass:
 - ► IRA
 - ► ROTH
 - ► TAX
 - ► TLHA

Select each **security type** to assign a preferred security. Then use the **drop-down menu** to select a preferred security.

Buy Set	t <u>S</u>	tandard		SubClass / Sy	mbol: <u>INTL_GTH - Interna</u>	tional Growth						Î	
Change t	the Cust	odian to create a ne	w set or chang	te the Security to upd	late the current set.								Select preferre
Custodi	ian:	DEFAULT	V	Security:	Select Security			V					socuritios hore
					Select Security DEABY DEA Abr Broad Vel			_					Securities nere
	Туре	Duradia	Symbol	Description	Security Type	Sell Flag	Min. Sell	Min. Boy	Min. Buy New Acct	Alternate Security	Alternate Description		
	IRA	Default		-	1770	-	=0	-	-	-	-		
	ROTH	Default		-	-	-	-		-	-	-		
	TAX	Default		-	-	-	-	-	-	-	-		
	TLHA	Default		-	-	-	-	-	-	-	-	l	

Note: The fund selected for TLHA i.e. Tax Loss Harvesting Alternative cannot be the same as the fund selected as your favorite for the TAX category. This is because the TLHA fund becomes your replacement favorite fund when your preferred TAX fund has losses being harvested during Tax Loss Harvesting.

In some cases, you may need to create additional buy sets to fulfill specific needs of a client. This can be accomplished by basing a new Buy Set off an existing Buy Set.

How do I base a buy set on an existing buy set?

To create additional Buy Sets, do the following:

1. 1. From the Buy Sets screen, click Manage Sets. The Manage Buy Sets box opens.

M RNINGSTAR Total Rebalance Expert									
Buy Sets									
(Manage Sets			Buy Set:	Select Preferred B	uy Set 🗸		Type:	Classification	
Ĉ Refresh ⊥ D	ownload CSV	Display: 100 🗸	« < Page	e: 1 v of 1 >	>		Disp	laying Records: 1 - 43 of 43	0.1
									Select
	SubClass / Symbol	Description		TAX	ROTH	IRA	TLHA	_	securities here.
	INTLIGTH	International Growth						1	
	USCB	US Small Cap Blend							
	AAPL	Apple							
	UIGB	US Inv Grade Bonds		381426NL5	381426NL5	381426NL5			
	UTLTB	US Txbl Long Term Bonds		383750GN3	383750GN3	383750GN3	GSG		
	UIPB	US Infl Protected Bonds		AIANX	AIANX	AIANX	AIAVX		
	AMZN	Amazon		AMZN	AMZN	AMZN			
	UHYB	US High Yield Bonds		ANONX	ANONX	ANONX			

- 2. From the drop-down menu, select the Buy Set you wish to copy, then click Copy.
- 3. In the **Enter a Name** text field, type a **unique name** for the Buy Set.

4. In the Enter a Description, type a description for your new Buy Set into the text boxes.

lanage Sets				×	
Standard	\vee	Сору	7		Entor datails hara
Enter a name		Enter a description	Save		Litter details here

5. .Click Save.

6. From How do I create a buy set on page 29 and follow **steps 3 though 5** to update your preferred investment selections for your new buy set.

Troubleshooting Data Errors after Import

After importing data from Morningstar Office into Morningstar tRx, you may encounter an error that must be corrected. This section explains how to fix common warnings you may encounter.

Within Morningstar tRx, there are two types of errors you may encounter:

- ► Critical errors, which will prevent a household from rebalancing, and
- Non-critical errors, which won't prevent rebalancing but could affect the accuracy of trades proposed or efficiency in your use of tRx.

Review errors after your daily import and resolve them using the table below:

Error number	Error Description	Tips for resolving the error
Cat 1	Funds without a Class/Subclass	tRx requires all held securities have a correct Class/Subclass designation to accurately rebalance portfolios. If securities are maintained in your Portfolio Accounting System (PAS), fix by giving the security missing a Class/Subclass an appropriate Class/Subclass assignment. If maintained in tRx, fix by updating from the Security Maintenance screen.
Cat 2	Accounts not Categorized as IRA/ ROTH/TAX	For tRx to efficiently identify what types of securities should be held in what account types, each account must have a category IRA/ROTH/TAX. Assign the correct account type in your PAS or go into the Account Maintenance screen in tRx and give the account the appropriate type.
Cat 3	Accounts without a Custodian (correctable)	Accounts must have a Custodian assignment in order to create Custodian specific trade files. Make sure the account is assigned a Custodian in your PAS. Held away accounts or other similar accounts that do not use trade files still require a "dummy" custodian as this critical error will prevent a rebalance.
Cat 4	Accounts without a Household	tRx rebalances portfolios at the household level; every account must therefore belong to a household. Go into your PAS and assign the account(s) a household.
Cat 5	Household without a Model	A Model must be assigned to each household in order to rebalance to your Model Subclass/Class allocations. If Models are maintained in your Portfolio Accounting System (PAS), fix by assigning the household a Model from your PAS. If maintained in tRx, fix by updating from the Models Maintenance screen.

What errors might I encounter in tRx?

Error number	Error Description	Tips for resolving the error
Cat 6	Household not in an Advisor Set	Advisor Sets can be used as a filter for multi-household functions in Analysis Expert involving TLH, Cash Needs or Rebalance. Fix in tRx from the Household Details screen by updating the household's Advisor Set under Group Settings.
Cat 7	Fund Subclass not in Model	The security in question has a Subclass that is not represented in the Model assigned to the household. tRx will attempt to liquidate unless marked as Do Not Sell or excluded from positions. Review fund Subclass or Model assignment and update as necessary.
Cat 9	Subclass without a Class	Each Subclass must be assigned a Class. Fix in your PAS by reviewing and updating missing Class.
Cat 10	Subclass not represented in Preferred Buys	Subclasses in Preferred Buy Sets are populated from the Subclass allocations in Models. If you do not see a Subclass listed, check that you are viewing the appropriate Buy Set and check Model Subclass allocations are correct from Models Maintenance screen.
Cat 11	Subclass without a Preferred Buy Fund	For tRx to propose trades of your preferred securities per Subclass, each account type must have a preferred buy fund. In the navigation menu select Buy Sets. Assign a preferred buy security to TAX, ROTH and IRA account types (TLHA - Tax Loss Harvesting Alternative is optional).
Cat 12	Household with no accounts	tRx rebalances portfolios at the household level. Each household must therefore contain at least one account. Assign an account(s) to the household(s) in error or remove from the PAS extract.
Cat 13	Funds with current price of \$0	All managed positions must have a current value in order to be traded. A trade file will not be generated unless missing price is updated. To fix, update price using override price in tRx and regenerate proposal or update price in PAS and run a new import to tRx. The position(s) could also be marked as unmanaged if necessary.
Cat 16	Subclass without a TLHA Preferred Buy Fund	Tax Loss Harvesting opportunities for a security in a Subclass without TLHA fund cannot be realized. Each Subclass requires a TLHA Preferred Buy Fund to generate TLH transactions. To fix, go to the appropriate Buy Set, select Subclass in error and update with fund alternative.

Error number	Error Description	Tips for resolving the error
Cat 17	Set sell method to "High cost" or "Beneficial tax."	The account in question likely has a matching method that is not set to "High cost" or "Beneficial Tax" in the PAS. This means tRx is not getting accurate lot information. Trades proposed by tRx assume specific lots are being sold. The assumptions tRx makes are most in line with "High cost" or "Beneficial Tax". The custodian ultimately determines which lots get sold.
Cat 18	Account without a Tax ID	tRx requires Tax IDs to correctly recognize wash sale violations. These do not have to be actual Tax IDs but could also be unique identifiers for accounts. To fix, update account with missing ID in your PAS.
Cat 19	Account Category of Tax not flagged Taxable	For tRx to efficiently identify what types of securities should be held in TAX vs TAX DEFERRED, each account must have an accurate taxable flag. Assign the correct taxable status in your PAS or if applicable go into the Account Maintenance screen in tRx and give the account the appropriate flag.
Cat 20	Taxable account not categorized TAX	For tRx to efficiently identify what types of securities should be held in TAX vs TAX DEFERRED, each account must have an accurate taxable flag. Assign the correct taxable status in your PAS or if applicable go into the Account Maintenance screen in tRx and give the account the appropriate flag.
Cat 21	Funds with inconsistent Class/ Sector/SubSector	Each Subsector must be assigned to a unique Sector; each Sector must be assigned to a unique Class. In your PAS make sure to assign the fund(s) a consistent class/Subclass structure. For example, if one fund has a Subclass of SVC with a class of SC, another fund cannot have SVC as its Subclass and MC as its class. Keep it consistent.
Cat 22	Model with Allocations that do not total 100%	Target allocations for the Subclasses in the Model do not add up to 100%. To fix, review your Model to ensure allocations total 100%. Update in your PAS or tRx as applicable.
Cat 23	Account Positions are Doubled in Rebalance Set (correctable)	This situation occurs when an account(s) is in more than one household. Fix in your PAS by reviewing and updating households to have unique accounts. Do a full extract and import into tRx after updating households in your PAS.
Cat 24	Blank or Duplicated account numbers have been omitted from Import	Blank or Duplicated account numbers have been omitted from Import. Fix in your PAS by reviewing and updating account numbers. Do a full extract and import into tRx after updating account numbers in your PAS.

Error number	Error Description	Tips for resolving the error
Cat 25	Classes without a Sort Order	Asset Classes are missing a display order. Fix in tRx from Global Settings > Classifications. Select Class and update display order as necessary.
Cat 26	Subclasses without a sort order	Asset Subclasses are missing a display order. Fix in tRx from Global Settings > Classifications. Select Subclass and update display order as necessary.
Cat 27	Household with Invalid Model Type	Models used in tRx must have a singular consistent Model Type. Models are either all of subsector type or of the sector type. To fix, update Model in question from your PAS to have same type as other Models.
Cat 28	Account Set Aside Cash exceeds account value	Set Aside Cash must fall below the account value to accommodate cash withdrawals based on Set Aside Cash settings. To fix, update Set Aside Cash for the account from the Account Maintenance screen in tRx.
Cat 29	Model not in use by any Household (delete from tRx)	If a Model is not in use/assigned to any households it can deleted from the Investment Models screen in tRx.
Cat 30	Account Cash below minimum Set Aside Cash	Set Aside Cash Minimum ensures that a minimum amount of cash is retained in the account upon Rebalance/Cash needs function. With an account's cash below Set Aside, tRx cannot reach the Set Aside Minimum. To fix, adjust accordingly the Set Aside minimum downward for the account from the Account Maintenance screen in tRx.
Cat 31	Restricted Plan Security has invalid Subclass	A Restricted Plan consists of securities to be traded in the associated Restricted Account. Changes to the Subclass of a security in a Restricted Plan after a Restricted Plan is created will cause this error. To fix, delete the security in error from the restricted plan in tRx and/or replace with another of consistent Subclass or change the Subclass for that security accordingly.
Cat 32	Restricted Plan-Invalid Security	The security in error is no longer part of the Restricted Plan. It is possible that it is no longer held by any accounts and was not brought down in the last import. To fix, delete the security in error from the restricted plan in tRx and/or replace with another security as needed.
Cat 33	Restricted Plan not in use by any Account (delete from tRx)	The Restricted Plan in error is no longer assigned or has yet to be assigned to an account. To fix, delete Restricted Plan if no longer in use or assign to a Restricted Account in tRx.

Error number	Error Description	Tips for resolving the error
Cat 34	CUSIP needed for securities traded as Mutual Funds	The security in question is missing a CUSIP. To fix, edit the security details in your PAS to include CUSIP and reimport to tRx or if applicable, delete and recreate in tRx with CUSIP from the Security Maintenance screen.
Cat 35	Funds with an Invalid Security Type	Security Types are assigned in your PAS and import into tRx accordingly. To fix, edit the security type in your PAS. Review Security Types from the Securities screen or Global Settings > Security Types.
Cat 36	Preferred Buy Funds where Alternate also has a Deminimus Buy Restriction	tRx cannot propose a trade for either the Preferred Buy security or the assigned alternate security because the minimum trade amount was not met. To fix, lower the minimum trade amount for the Preferred Buy security and/or alternate or pick another security with no or appropriate deminimus as the alternate.
Cat 37	Subclass tolerance range greater than Class tolerance range	This indicates that the Subclass in question is in balance while the associated Class is OOB. To fix, adjust the tolerance ranges accordingly from the Model Detail screen in tRx.
Cat 38	Sum of positions are not equal to account total value	This is due to importing data from your PAS that is not fully reconciled. For the account in question, the overall value of held positions has a value different from the account's value. To fix, review and reconcile positions in PAS as needed and reimport into tRx.
Cat 39	Sum of Cash Positions do not equal PAS Cash Account total	This is due to importing data from your PAS that is not fully reconciled. For the account in question, the overall value of Cash and Cash Equivalents has a value different from the account's stated Cash. To fix, review and reconcile cash positions in PAS as needed and reimport into tRx.
Cat 40	Account Numbers are duplicated in PAS extract .	There are multiple instances of the same account number importing into tRx from your PAS. To fix, verify and update your Rebalance Set used for import into tRx to have unique accounts for export.
Cat 41	Account Portfolio value does not equal sum of PAS Trade Lots	This is due to importing data from your PAS that is not fully reconciled. For the account in question, the combined value of all trade lots has a value different from the account's stated value. To fix, review and reconcile trade lots in PAS as needed and reimport into tRx.
Cat 42	Account portfolio has positions without a symbol/ticker/CUSIP	tRx requires all securities have a ticker symbol or CUSIP to propose trades. To fix, review and update position in question with correct symbol or CUSIP in PAS and reimport into tRx.